



Forest Products Centre, Cwmavon

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## Dust Management Plan

Doc Ref: 2167B/DMP

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## Notice

This report was produced by Land & Mineral Management for South West Wood Products Limited to provide a Dust Management Plan (DMP) for their wood operations at Forest Products Centre, Cwmavon.

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## Document Control

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LMM 041 01A	Site Layout

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Appendix A	Waste Types
Appendix B	Complaint Form

# 1 Introduction

## Dust and Emissions Management Plan

- 1.1 This document provides the Dust and Emissions Management Plan (DMP) focusing on particulate emissions (dust)<sup>1</sup> for the wood recycling operations at Forest Products Centre, Cwmavon to accompany an application by South West Woods Products Ltd (SWWP) for an environmental permit for wood recycling operations.
- 1.2 The DMP forms part of the wider environmental management control system at the site which ensures site operations meet legislative requirements and operates to high environmental standards. The DMP aims to identify sources of dust, pathways and receptors and the measures to minimise and control dust emissions including the actions to be taken if staff identify a dust issue, following a complaint by third parties or arising from comments from the NRW as a result of a site inspection.
- 1.3 The DMP is a living document subject to on-going review, with updating as appropriate.

## Site Operations

- 1.4 The site operations are to take wood wastes at Forest Products Centre, Cwmavon and process the wood material by sorting and sizing to customer specifications for a variety of uses including for board manufacture, biofuels and animal bedding. The primary site activities which have the potential to generate emission issues, with particulates that may generate dust in dry and windy weather, are the unloading, processing, transfer/movement and loading of wood waste.

## Site Location

- 1.5 The address for the site is:

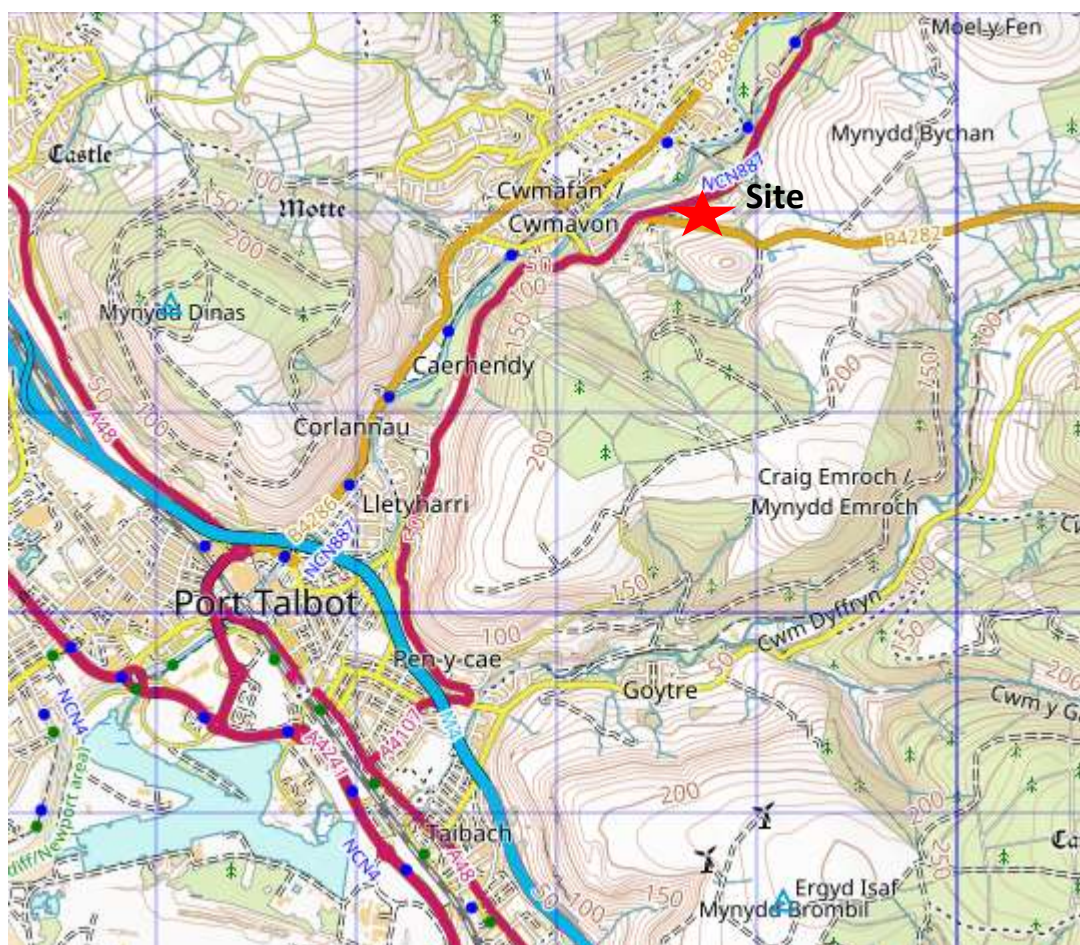
South West Wood Products Limited  
Forest Products Centre  
Cwmavon  
Port Talbot  
West Glamorgan  
SA12 9DN

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<sup>1</sup> The DMP does not provide for odour or NOx. In terms of odour the nature of the waste and operations do not give rise to issues of odour. Should an odour issue be identified at the site this DMP will be up-dated to include measures to address odours. Vehicle emissions are the primary emission source of NOx and noting the site's location and the surrounding land uses, the impact on NOx levels is considered to be negligible.

- 1.6 The OS Grid Reference for the site is: 278840 191999. The site covers an area of just under 3 hectares.
- 1.7 The Forest Products Centre site is located in a small commercial complex on the Afan Valley Road (A4107) at Cwmavon between the A4107 to the north and the B4282 to the south, see Figure 1. Forest Products Centre is found in the administrative local government area of Neath Port Talbot Council. The site is not located in an Air Quality Management Area (AQMA) nor has any other environmental designations over it.

**Figure 1: Site Location (nts)**



### **Dust - Pathway**

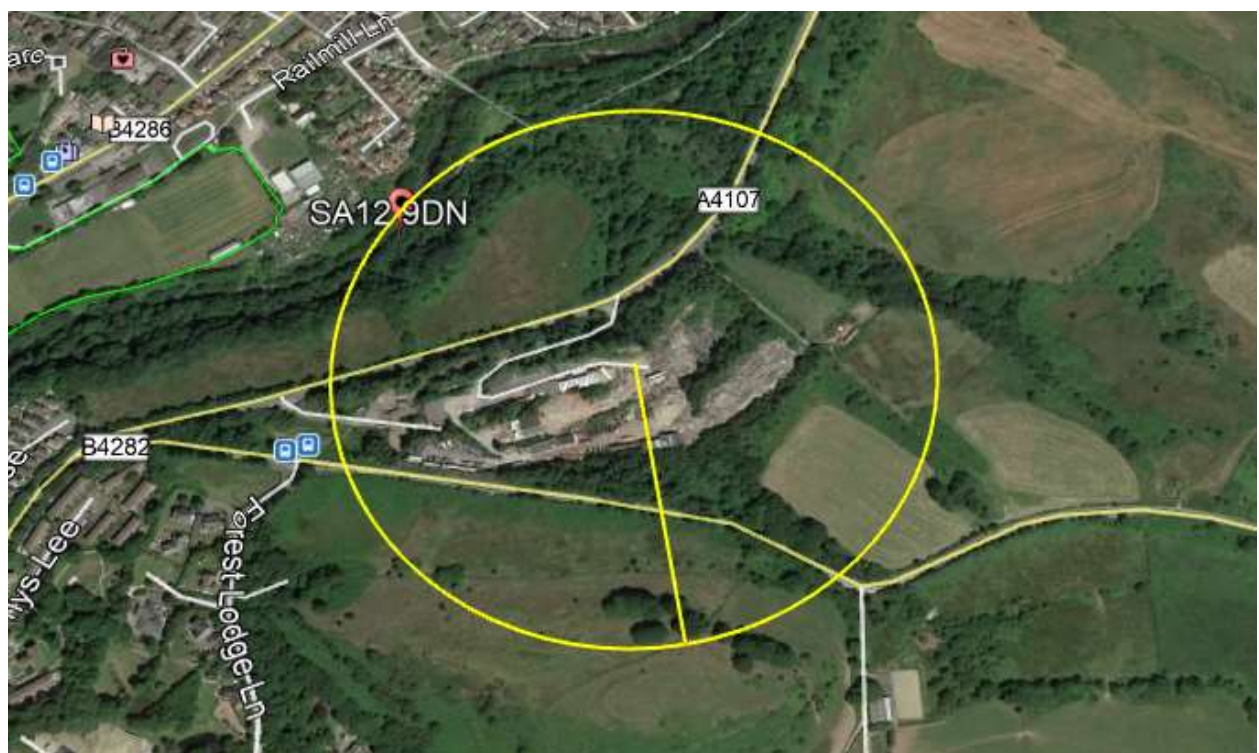
- 1.8 Dust is made of fine particles of solid matter. Dust emission is the process by which the dust becomes airborne. Once dust is created and becomes airborne this is the pathway for dust to be transmitted from its source to receptor. Potentially air currents can disperse it over a wide area and dust emissions can impact sensitive equipment, machinery, nearby land uses, soils, water systems, fauna and flora and give rise to the potential to cause complaints.

- 1.9 The significance of this pathway i.e. level of dispersal/dilution of dust emissions is dependent on atmospheric conditions the most significance of which is the wind, its speed and direction. The presence of physical barriers is also important in terms of the level of dust dispersal/dilution as these can to prevent/impede carriage.
- 1.10 The size and density of the dust particles can also influence the distance travelled from the source of emission. Typically deposition rates decrease significantly and approximately logarithmically with increasing distance from source.

### Receptors

- 1.11 External receptors for dust, bearing in mind the above (paras 1.8 to 1.10) are shown at distances of <250m and <1000m, figures 2A and 2B.

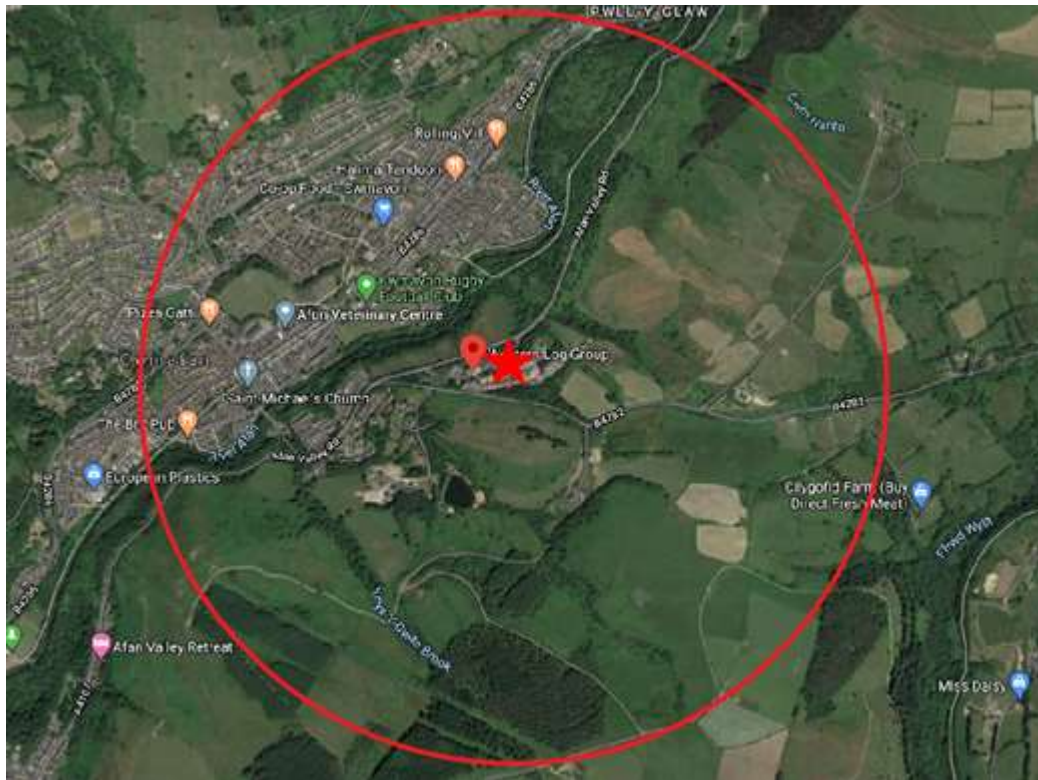
**Figure 2A: Location of Potential Dust Receptors (250m radius from processing area)**



- 1.12 The closest sensitive receptors, figure 2A, are primarily other workplaces located on the Forest Products Centre site (to the west of the site), road infrastructure (A4107 and B4282) and areas of open countryside which includes a local designated site, a Site of Importance for Nature Conservation (SINC) to the north.
- 1.13 The nearest residential property is found over 250m from the site to the south west on Forest Lodge Lane with further areas of residential development found to the north and west at

Cwmavon, see figure 2B. The town has the usual array of care homes, schools and other community amenities. No other activities in the immediate locality of the site have been identified with the potential for significant dust generation.

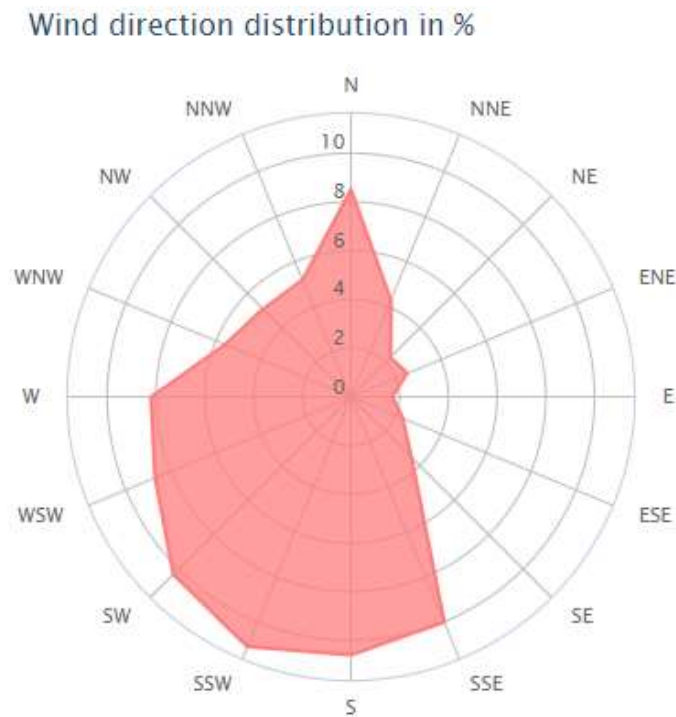
**Figure 2B: Location of Potential Dust Receptors (100m radius)**



## Wind Rose

- 1.14 As discussed in para 1.9 the realised severity of dust emissions for external receptors, without site management/mitigation practices, is dependent on prevailing meteorological conditions as determined by location, macroclimate and site specific micro-climate with wind speed and direction are of particular significance for dispersing dust. The wind rose for Port Talbot, 3km south west of the site (Figure 3), indicates that the greatest proportions of winds are from the south to west.
- 1.15 The closest residential properties are all upwind of the site i.e. the prevailing wind is blowing away from the properties. Additionally the site is located on the north side of a valley with the surrounding topography providing shelter from the prevailing winds. The site itself is also surrounded on all boundaries by established woodland which again provides shelter from wind to the site operations.

**Figure 3: Wind Rose Port Talbot (3km south west of site)**



## 2 Site Operations

### Waste Deliveries

- 2.1 All waste is delivered to the site by road typically in articulated trailers with walking floors. The EMS details the procedures for acceptance of loads onto the site.
- 2.2 Wastes delivered to the site come in the operators own or contracted transport vehicles. All incoming loads are delivered either sheeted or fully enclosed. All deliveries are for materials to pre-determined waste specifications.
- 2.3 Records are kept of vehicle movements bringing and removing waste from the site, including copies of waste transfer notes. Vehicles report to the site weighbridge office on arrival at site.

### Overview of Waste Activities

- 2.4 The specified waste management operations include:
- **R3** Recycling/reclamation of organic; and,
  - **R13** Storage pending operations under R1 to R12
- 2.5 Waste types accepted to the site are detailed in Appendix A. The waste types are considered high risk in terms of potential for dust generation.
- 2.6 The site operations involve the sorting, shredding and screening of pre-selected waste types to meet set specifications with onwards transportation of the final product.
- 2.7 The plan no. LMM 041 01A shows the site layout. Processing takes place in the centre of the site to the north of the quarantine area.

### Mobile Plant and Equipment

- 2.8 The plant and equipment used at the site is detailed in table 1. All plant is maintained, as a minimum, in accordance with manufacturer's specification.

**Table 1: Processing Plant and Equipment**

Item	Function
Shredders (Doppstadt 730 or similar)	Processing
Screeener	Processing

(Finlay 883 or similar)	
Hyundai Loading Shovels	Loading/unloading/movement
Weighbridge	Weighing of loads

**Table 2: Dust Suppression Equipment and Infrastructure**

Item	Application and Location of Use
Tractor and water bowser with rain gun attachment	Unloading of wastes Dampening down road surfaces across site
Remote Control Dust Mister	When unloading prior to processing Using shredder in processing area

### Water Supply

- 2.9 Two static water tanks, capacity 150,000 litres, provide a source of water for dust suppression. The tanks will be kept constantly topped up to ensure it is full and available for use.

### **3 Dust and Particulate Management**

3.1 Sources of dust and their management to minimise emissions are outlined below.

#### **Dust Controls: Vehicle Movements and Machinery**

3.2 Dust from the movement of machinery and vehicles on site will be reduced or controlled by:

- All haul roads and open yard areas being hardsurfaced;
- The roads and operational open yard areas being washed or dampened as necessary using a water spray;
- Roads and operational open yard surfaces will be kept free of accumulated dust/fibres;
- Spillages on roads will be cleared up immediately;
- Vehicle speeds will be reduced to 5 mph or below;
- Idling of vehicles and machinery prohibited;
- Reducing drop heights of conveyors;
- Plant will be kept clean to avoid a build-up of mud or dust on the machine which may be dropped on roads and, later, cause wind-blown dust; and,
- Prior to leaving site, any vehicles which have materials adhering to external surfaces which may have the potential to wind-blown dust, will be cleaned.

#### **Dust Controls: Processing**

3.3 Dust from the processing of material will be reduced or controlled by:

- Waste acceptance procedures to avoid accepting dusty loads or loads with high amounts of fines;
- Processing plant operated to minimise generation of fine material to comply with product specification;
- Reducing drop heights of conveyors;
- Use of water suppression equipment when processing;

- Processing plant site at low point of site to take advantage of shielding from topography and also adjacent buildings; and,
- Processing plant to be re-orientated as appropriate to site conditions to minimise potential for windblown dust from machinery;

### **Dust Controls: Movement of Material**

3.4 In addition to the general measures for vehicle movements the further measures will be operated for the movement of wood as follows:

- All loads arriving at site fully enclosed;
- Application of water as unloading waste with tanker and mister;
- Loading of vehicles in with mister operating in dry and high windy conditions;
- Material loaded into vehicles will not be placed higher than the vehicle sides;
- Any spillages during loading will be clean up as part of routine housekeeping measures; and,
- Full enclosure/sheeting of vehicles upon loading.

### **Dust Controls: Storage**

3.5 In addition to the above, measures to reduce dust emissions from storage is provided for as follows:

- Waste acceptance procedures to avoid accepting dusty loads or loads with high amounts of fines;
- Limiting processing to minimise stock of processed material on site at any one time; and,
- Application of water to stockpiles when conditions have the potential to general windblown dust from stockpiles surfaces.

### **Dust Control: General**

3.6 The following general measures will also be operated at the site as part of the DMP:

- Appropriate personal protective equipment will be used to minimise personal risk.

- Toolbox talks on use of dust suppression equipment and general management of dust.
- Operatives required to call water bowser to their location if dust is arising where they are working.
- Waste and product stockpiles will not exceed the optimum for effective site operation and dust management.
- A bowser/road sweeper will be used on all engineered surfaces.
- A policy of good housekeeping will be adopted such that all ground and relevant mechanical surfaces will be kept free of accumulated dust/fibres.
- Loads identified as potentially problematic (i.e. containing fine, loose materials) will not be accepted at the site or deposited on site.
- Should there be a failure in any site infrastructure, plant or equipment as detailed in this DMP that gives rise to an unacceptable risk of dust emissions off site, then the relevant operations will cease until either appropriate repairs or alternative contingency mitigation measures are undertaken to ensure effective control of dust emissions as determined by the TCM.
- If all dust control measures have been deployed but dust is still deemed problematic, then the relevant site operations causing the dust will cease until climatic conditions have ameliorated or additional controls become available.

## **4 Monitoring**

### **Responsibility**

- 4.1 Monitoring of dust at the site is the responsibility of the Technically Competent Manager (TCM) and any person(s) authorised by the TCM who have undertaken training in this procedure. One of these persons must be present on site at all times.

### **Visual Inspection**

- 4.2 The TCM will undertake visual monitoring inspections of the site boundaries to ensure no dust is escaping from the site. The visual monitoring inspections will take place twice daily or more frequently if conditions indicate this may be necessary. All observations and any subsequent actions will be recorded in the site diary.

### **Routine Monitoring**

- 4.3 The TCM will ensure dust management measures are undertaken as appropriate to the site operations and weather conditions. Weather conditions are continuously monitored and recorded in the site diary. Site operations are also continuously monitored and recorded with a comprehensive system of close circuit television cameras across the site. The TCM will review and amend accordingly dust management measures that are being operated at the time. Details of these will also be recorded in the site diary.

## 5 DMP Actions

### General

5.1 The day to day measures to manage dust will be carried out using the equipment and measures as detailed in sections 2 and 3. Where site monitoring identifies there is an incident with unacceptable dust emissions the following actions will be undertaken:

- Establish source:
  - Are there any unusual characteristics evident in the waste on-site (origin of waste, composition, age, condition, etc)?
  - Are/were waste reception processes occurring as per normal?
  - Is/was the dust suppression system working?
  - Are/were there any unusual activities taking place off-site e.g. neighbouring site operations?
  - Cease relevant operation
  - Recommence relevant operation only when actions have been taken to address dust emissions e.g. additional suppression measures, suitable weather conditions, etc

5.2 All incidents will fully investigated and recorded by the TCM including details of any amendments to plant/procedures, mitigation or remedial actions taken to avoid future incidents with details recorded in the site diary.

## 6 Reporting and Complaints Response

### Community Relations

- 6.1 SWWP's site management will liaison with any community stakeholders such as organisations as the local council in response to any issues raised by them in respect of emissions.

### Complaints

- 6.2 Any incidents of airborne dust off site or dust complaints will be fully investigated and recorded by the General Manager including details of any mitigation or remedial actions taken as per the procedures in the management system with the maintenance of the site diary, see Appendix B for a copy of the complaint form.
- 6.3 When a dust complaint is received the following actions will be taken by the General Manager or nominated substitute -

#### *Immediate Actions:*

- Establish if justified - if wind blowing in direction of property, dust seen leaving site (conditions such as rain or wind blowing in opposite direction would indicate not justified).
  - Where justified establish source
    - Are there any unusual characteristics evident in the waste on-site (origin of waste, composition, age, condition, etc)?
    - Are/were waste reception processes occurring as per normal?
    - Is/was the dust suppression system working?
    - Are/were there any unusual activities taking place off-site e.g. neighbouring site operations?
    - Cease relevant operation
    - Recommence relevant operation only when actions have been taken to address dust emissions e.g. additional suppression measures, suitable weather conditions, etc
- 6.4 When complaints are received a complaint form will be completed. Complaints will be fully investigated and recorded by the General Manager including details of any amendments to plant/procedures, mitigation or remedial actions taken with details recorded in the site diary. The General Manager as part of environmental permitting responsibilities will ensure that the NRW is informed of these, ideally as soon as possible practically possible and appropriate. The

original complainant will be informed of the outcome of the investigation of the complaint by the General Manager and any actions taken within 5 working days.

## **Review**

- 6.5 The General Manager will review the site diary<sup>2</sup> in relation to dust matters together with any complaints, NRW inspection records, any monitoring results and available weather station information. The results of review shall be used to assess the need for changes to the DMP including amending site procedures and further monitoring work if necessary.
- 6.6 Notwithstanding the above, the DMP will be reviewed annually by the site manager or otherwise in response to a request from a relevant statutory body e.g. NRW, changed circumstances such as the operation of new processing plant or substantiated dust complaints.

## **Management**

- 6.7 Management of dust at the site is the overall responsibility of the Technically Competent Manager (TCM) who is responsible for the day to day management of the site including the DMP, its implementation and review.
- 6.8 All site operatives will be informed of the contents of this DMP and receive appropriate training. Site operatives will be responsible for implementing measures in the DMP as relevant to their site duties.

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<sup>2</sup> The review of the site diary will assist with reviewing retrospective complaints to identify any circumstances which led to that complaint as a result of elements outside of the operator's control that would be able to be attributed (or, at least, in part) to the cause of the complaint.

## Appendices

## Appendix A – Waste Types

EWC Code	Description
02 01 03	Wood and bark
02 01 07	Wood and bark
03 01 01	Wood bark and cork
03 01 05	Sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04
03 03 01	waste bark and wood
15 01 03	wooden packaging
17 02 01	Wood
17 09 04	Mixed construction waste consisting of wood only
19 12 07	wood other than that mentioned in 19 12 06
20 01 38	Municipal wood waste
20 02 01	wood and bark only

Wastes which:

- Consist solely or mainly of dusts or powders or loose fibres; or,
- Have hazardous wastes; or
- Are in liquid form

Will not be accepted to site.

## Appendix B – Complaint Form

### Complaint Log:

Date of Incident		Time of Incident		Weather conditions at time of incident	
Date of Complaint		Time of complaint			
Name		Address		Contact details	
<b>Complaint</b>					

Signed:.....

Details of Investigation					
Action Taken					
Future Actions					
Reporting <sup>3</sup>	Complainant	Site Staff	Management	NRW	

Signed:.....

(Site manager)

<sup>3</sup> Confirm date, verbal or written.

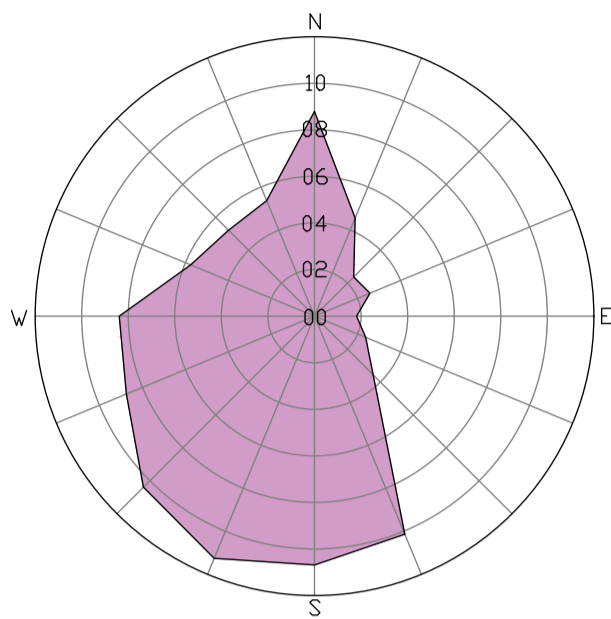
## Drawings

## Drawing No LMM 041 01A

© SWWP, Alan Wade Site Engineering Ltd.  
Notes:  
1.This drawing should only be used for its original intended purpose.  
2.Critical dimensions, levels, clearances etc. should be checked on site before construction work commences.  
3.Dimensions in metres unless otherwise stated.

Application boundary

Wind direction distribution in %



A4107

PROCESSING AREA

1. UNPROCESSED 97 x 20m  
1940m<sup>2</sup>

2. UNPROCESSED 94 x 20m  
1880m<sup>2</sup>

5. UNPROCESSED 81 x 10m  
810m<sup>2</sup>

4. UNPROCESSED 100 x 10m  
1000m<sup>2</sup>

3. UNPROCESSED 140 x 10m  
1400m<sup>2</sup>

6. PROCESSED 23 x 10m

1057m<sup>2</sup>  
QUARANTINE  
40 x 33m max.

ALTERNATIVE ACCESS POINT

MAIN SITE ACCESS POINT

EMERGENCY INFO. PACK

OFFICE

PARKING AREA

WEIGHBRIDGE

SMOKING AREA

MAINTENANCE SHED AND STORES

PLANT PARKING

HARDSTANDING

HARDSTANDING

HARDSTANDING

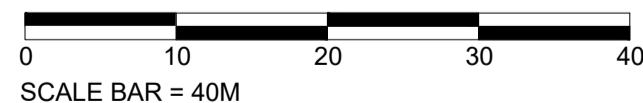
HARDSTANDING

HARDSTANDING

HARDSTANDING

HARDSTANDING

HARDSTANDING



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A	Layout changed	04 Dec 20
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