REPORT

Tonkin+Taylor

Dust Management Plan

Port Industry Area

Prepared for
Port of Tauranga Limited
Prepared by
Tonkin & Taylor Ltd
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Document control

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Rule AREA2-R1 Dust Management Plan requirements

Discharges to air from handling logs and bulk solid materials at the Port of Tauranga is a permitted activity under Rule AREA2-R1 (Interim Permitted Activity Rule (IPAR) for Existing Activities in the MMA) of the Bay of Plenty Regional Council Toi Moana Regional Natural Resource Plan (RNRP), subject to meeting permitted activity standards.

Rule AREA2-R1 (3) sets out the requirements for a Dust Management Plan (DMP) and refers to AIRSCHED2, which prescribes the contents (Part A) and requirements for Investigation and Reporting (Part B) in the event that PM_{10} monitoring trigger levels are exceeded.

The following tables reproduces the requirements of Rule AREA2-R1 (3) and AIRSCHED2 and where these can be found in the DMP.

Rule AREA2-R1 (3)			Location within this DMP
(3)	**Dust Management Plan**		
(a)	N/A		N/A
	(b)	For discharges associated with activities located within the Port Industry Area.	
	(i)	The port company must engage a SQEP who has visited the Port Industry Area to prepare a Dust Management Plan in accordance with the requirements of AIRSCHED2.	Document control
	(ii)	The discharge is identified and managed by the Dust Management Plan; and	Sections 1 to 10
	(iii)	The Dust Management Plan must specify procedures that must be followed and specify who must carry out those procedures, when handling bulk solid materials or handling of logs within the Port Industry Area.	Section 2, Appendix B, Appendix A, Appendix E, Appendix F, Appendix G, Appendix C
(c)	The Dust Management Plan required by (3)(a) or 3(b) must be:		
	(i)	Peer reviewed by another SQEP prior to submission to the Regional Council; and	Document control
	(ii)	Revised to address the peer review comments prior to submission to Regional Council, or where the comments are not addressed to the satisfaction of the peer reviewer, the reasons must be stated; and	Document control
	(iii)	Provided to the Regional Council within six months of this rule becoming operative, together with the peer review required by (3)(c)) (i); or for the Port Industry Area, provided to the Regional Council and Ngāi te Rangi within six months of this rule becoming operative, together with the peer review required by (3)(c)(i); and	Document control
	(iv)	Reviewed by a SQEP at least once every calendar year and any updated version of the Dust Management Plan provided to the Regional Council and to Ngāi te Rangi for the Port Industry Area, within one month of its review.	Document control
(d)	The Dust Management Plan required by (3)(a) or 3(b) must always remain on site, capital works required to minimise PM_{10} emissions must be completed as soon as practicable and the Dust Management Plan must be complied with at all times by all persons undertaking the bulk solid materials handling or handling of logs activity as soon as		N/A

Rule AREA2-R1 (3)			Location within this DMP
(3)	**Dust Management Plan**		
	practicable following the Dust Management Plan being finalised under (3)(c)(ii),(3)(c)(iv) or (3)(e).		
(e)	In the event of an exceedance of the trigger level in Part A Clause (7) of AIRSCHED2 and following an investigation as required by Part B Clause (11) of AIRSCHED2, the Dust Management Plan must be amended by a SQEP to include actions to avoid or minimise future exceedances of the trigger level and resubmitted to Regional Council, and to Ngāi te Rangi for the Port Industry Area, within one month of its amendment.		Document control
(f)	To demonstrate compliance with standards, the DMP must:		
	(i)	Set out the baseline in the 12-months ending on 28 November 2019 unless a different compliance date is set out above against which compliance with each standard is to be measured; and	Section 4
	(ii)	Demonstrate how each standard is or will be met; and	Compliance is met by adhering to the Dust Management Plan
	(iii)	Describe any additional measures that will be implemented during the term of the IPAR to reduce PM_{10} emissions from the subject site to the greatest extent reasonably practicable until objective AIR-O2 of PC13 is met and the annual guideline value in the Health-based Guideline Values of the Ambient Air Quality Guidelines 2002 (or its amendment or replacement) is met; and	Section 5, Section 6
	(iv)	Demonstrate that the proposal will minimise PM_{10} emissions to the greatest extent reasonably practicable until Objective AIR-O2 of PC13 is met and the annual guideline value in the Health-based Guideline Values of the Ambient Air Quality Guidelines 2002 (or its amendment or replacement) is met within the term of the IPAR, or within a defined period thereafter, after describing and evaluating all reasonably practical options that have been implemented or could be implemented to reduce PM_{10} emissions from the subject site, together with their estimated costs and the estimated likely and range of PM_{10} reductions they would achieve.	The DMP minimises PM_{10} emissions as far as reasonably practicable through dust source control measures and management of emissions from BSM and Logs and discussed in the following sections. Section 5, Section 6, Appendix B, Appendix C, Appendix A, Appendix E, Appendix F, Appendix G. Practicable option assessment will be undertaken during the DMP annual review.
(g)	The DMP must require that records are kept of:		
	(i)	The number and significance of complaints received; and	Section 8.4
	(ii)	Any exceedances of the PM_{10} Standard attributable to the subject site, abatement notices and enforcement action taken from [the date of the Environment Court decision].	Section 8.4

AIRSCHED2 Items			Location within this DMP
Part A: Contents			
(1)	Title		Title page
(2)	A purpose to ensure that the discharge of PM_{10} into the Mount Maunganui Airshed is minimised to the greatest extent reasonably practicable to contribute to meeting the objectives of PC13 without undue delay, to meet the general standards and to be consistent with Policy AQ P3 to achieve improvements in air quality.		Section 1.2
(3)	A map that includes a scale, a north point, the location of the subject site, distance to all sensitive areas, including any isolated dwellings within the industrial area and predominant wind directions at the subject site.		Figure 3.3
(4)	Process description and method of operation including:		
	(a)	A detailed description of the subject site, activity, and discharges to air;	Section 5, Section 6
	(b)	A description of the potential sources of dust emissions;	Section 5, Section 6
	(c)	Any locational or operating constraints relevant to the management of handling of bulk solid materials and/or logs; and	Section 5, Section 6
	(d)	The type(s), volume(s) and frequency of handling of bulk solid materials or logs at the subject site.	Section 4, Section 5, Section 6
(5)	Methods of mitigation and standard operating procedures for the subject site which must include details of dust emission reduction processes and practices including:		
	(a)	For all activities:	
		(i) Product movement paths, storage, and processing areas including conveyance systems, and whether these are indoors or outdoors;	Section 5, Section 6
		(ii) Use of dust suppression (e.g. sprinkler/fog/misting) systems;	Section 5, Section 6
		(iii) Use of wind speed limits relating to the subject site when operations must cease;	Section 5, Section 6
		(iv) Vehicle speed limits and vehicle unloading procedures to minimise dust;	Figure 5.3, Section 5.6
		(v) Site sweeping/vacuuming and containment protocols including hours of operation and sweeping frequency;	Section 5, Section 6, Appendix B, Appendix C
		(vi) Inventory of mitigation measures in place on or about 28 November 2019;	Section 5, Section 6
		(vii) Inventory of current mitigation measures, including equipment, materials and procedures;	Section 5, Section 6
		(viii) Proposed further mitigation measures, including equipment, materials and procedures;	No further mitigation measures proposed
		(ix) Frequency of equipment maintenance programmes; and	Section 5, Section 6
		(x) Contingency procedures.	Section 5, Section 6, Appendix B, Appendix C
	(b)	For bulk solid materials only:	

AIRSCHED2 Items			Location within this DMP
Part A: Contents			
		(i) Exclusion or buffer areas within the subject site where no outdoor storage is permitted;	Section 5.4
		(ii) Use of covers or containment systems for outdoor storage areas;	Section 5.4
		(iii) For enclosed operations, emission pathways and general containment provisions, the extent of air extraction and treatment systems installed and their performance specifications; and	Section 5
		(iv) Materials spill management response protocols.	Section 5.4
(6)	A monitoring programme which must:		
	(a)	Be designed by a SQEP to monitor ambient PM_{10} concentrations in accordance with relevant good practice;	Section 7.2
	(b)	Include a description of types and locations of devices for PM_{10} and meteorological conditions monitoring;	Table 7.2
	(c)	Provide data that allows for a technically robust comparison with the trigger values in Part A clause (7);	Section 7.2
	(d)	Be continuous monitoring with a minimum of ten-minute resolution;	Section 7.2
	(e)	Be telemetered with alarms;	Section 7.2
	(f)	Be installed, commissioned, operated, serviced, and maintained in accordance with the manufacturer's instructions and any appropriate standards;	Section 7.2
	(g)	Have as a minimum one monitor funded by the owner or occupier of the subject site;	Section 7.2
	(h)	Produce validated data in accordance with the Good Practice Guide for Air Quality Monitoring and Data Management, including the valid data requirements of 75 % for averaging and 95 % for data capture;	Section 7.2
	(i)	Specify monitors compliant with either NESAQ Schedule 2 or equivalency as demonstrated through AS 3580.9.17-2018 or EN 12341:2014;	Section 7.2
	(j)	Require that all monitoring data collected must be provided to the Regional Council as follows:	Section 7.2
		(i) Raw monthly data to be provided via electronic access to the Regional Council by the 5th day of the following month;	Section 9.3
		(ii) Validated quarterly data to be provided via electronic access to the Regional Council on 1 February, 1 May, 1 August, and 1 November of every year; and	Section 9.3
		(iii) Any exceedance of the trigger values set out in Part A clause (7) must be notified to the Regional Council in writing within 5 working days of the exceedance.	Section 9.3
	(k)	Requires records to be kept, including documentation of maintenance and control parameters.	Section 7.2
(7)	The following PM_{10} trigger values for use in Part B and IPAR standard(3)(e):		

AIRSCHED2 Items			Location within this DMP
Part A: Contents			
	(a)	150 micrograms per cubic metre (calculated as a rolling 1-hour average concentration under Schedule 1 NESAQ) recorded by the monitoring devices in the monitoring programme set out in clause 6;	Section 7.2
	OR		
	(b)	65 micrograms per cubic metre (calculated as a rolling 12-hour average) recorded by the monitoring devices in the monitoring programme set out in clause 6.	Section 7.2
(8)	Complaints procedures must include:		Section 8
	(a)	The name of the contact person and contact details for complaints from the community;	Section 8
	(b)	Complaints procedures for staff;	Section 8
	(c)	Maintenance of a complaints/incidents register that includes any actions undertaken to respond to the complaint, including further dust control measures;	Section 8
	(d)	A complaint response protocol, including methods for recording of any on-site activity, including type and approximate volume of material being handled, dust mitigation measures in place at the time, and wind conditions at the time of complaint; and procedures for investigating and remedying the cause of complaint and providing response to complainant;	Section 8
	(e)	A protocol for determining further mitigation measures that may be required on site;	Section 8
	(f)	Timeframes for communication to the Regional Council and complainant; and	Section 8
	(g)	Reporting requirements that include the complaints/incidents register which must be submitted to the Regional Council at least once per calendar year.	Section 8
(9)	Staff training procedures must include:		
	(a)	Components of the Dust Management Plan that staff are to be trained in;	Section 10
	(b)	Methods used to train staff;	Section 10
	(c)	Frequency of staff training; and	Section 10
	(d)	How and where staff training records are to be kept.	Section 10
(10)	System review and reporting procedures must include:		
	(a)	The process for reviewing the overall dust management system performance;	Section 11
	(b)	Types and frequency of reports not otherwise provided to the Regional Council such as site/process/equipment upgrades; and	N/A
	(c)	External audits and ISO certification (optional).	N/A

1 Introduction

1.1 Overview

This Dust Management Plan (DMP) is for the Port Industry Area (shown in Figure 3.1). The DMP for the Port Industry Area has been developed as a joint management plan with all parties undertaking handling of bulk solids and logs at the site and those carrying out post-handling clean-up having responsibilities under the plan.

Port of Tauranga Limited (POTL) oversees the DMP and is responsible for overall administration. The responsibilities held by POTL include:

- Oversight and administration of the DMP.
- Oversight and administration of the Log and Bulk Solid Materials Standard Operating Procedures (SOPs).
- Monitoring of dust trigger levels.
- Setting of reporting requirements.
- Response and investigations to triggers and breaches.
- Review of the DMP.

Responsibility for the monitoring of compliance with the DMP and SOPs is led by POTL. Specific responsibilities are also held by occupiers, operators, importers and exporters, principals of the stevedores, marshallers and yard cleaning services. These are set out in subsequent sections of the DMP.

This DMP meets the requirements of Rule AREA2-R1 (3) and AIRSCHED2 of the RNRP and, where appropriate, is consistent with the guidance in the Ministry for the Environment Good Practice Guide for Assessing and Managing Dust[1].

1.2 Purpose and scope

The purpose of this DMP is to ensure that the discharge of PM_{10} into the Mount Maunganui Airshed is minimised to the greatest extent reasonably practicable to:

a Contribute to meeting the objectives of the Air Chapter of the RNRP without undue delay.

b To meet the general standards of Rule AREA2-R1 standards (1)(a) to (1)(f).

c To be consistent with Policy AIR-P3 to achieve improvements in air quality.[2]

The DMP provides a framework for controls, maintenance, monitoring, management and operational procedures required to minimise discharges to air from handling logs and bulk solid materials on site so that potential adverse air quality effects are avoided or mitigated. To achieve this, the DMP includes the following:

- Site contextual information, including a description of sensitive areas near the site and local climatic conditions relevant in terms of generation and management of air quality effects.
- A description of site activities and the potential for discharges to air.
- Identification of air quality risks and controls.
- Maintenance and monitoring procedures.

[1] Ministry for the Environment. 2016. Good Practice Guide for Assessing and Managing Dust. Wellington: Ministry for the Environment.

[2] The purpose of the DMP is prescribed in ARISCHED2.

- Staff training and contact information.
- Complaint procedure.
- System review and reporting procedures.

1.3 Environmental policy

The POTL environmental policy is contained in Appendix A.

1.4 Integration with system documentation

The DMP is one of a suite of documents used by POTL to manage the environmental aspects and impacts of activities at the Port. Other documents relevant to discharges to air from handling logs and bulk solid materials are:

- Environmental Management System (EMS) – under development.
- Standard Operating Procedures (SOPs) for:
  - Bulk Solid Materials Standard Operating Procedures ("**BSM SOP**") (Appendix B).
  - Log Standard Operating Procedures ("**Log SOP**") (Appendix C).
- Log handling induction – Stevedores released 25 October 2024.
- Log handling induction – Marshallers released 25 October 2024.
- Bulk cargo handling induction released 13 November 2024.
- Yard Cleaning Services induction released 18 December 2024.
- Yard cleaning services contract(s).
- Reporting of environmental incidents – Learning Management System Module.
- Licence to occupy/operate agreements and lease agreements.

1.5 Responsible parties

The Port Industry Area DMP has been developed with involvement from various responsible parties. The DMP requires a coordinated response, Port of Tauranga hold the responsibility of overseeing and directing the coordinated response.

The monitoring of conformance with the operating procedures is undertaken by the operators, and POTL.

Where responsibilities lie at the Port is complex. This DMP identifies actions and then assigns responsibility for each action. The responsibility for actions in the event of a non-conformance of the DMP or adverse effect from operations is in Table 1.1.

Table 1.1: Responsibility as a result of non-conformance of the DMP or adverse effects

Event	Parties with actions to undertake	Action
The DMP is followed and adverse effects and/or non-compliance occurs (system failure of the DMP).	• POTL (for Port Operational Area). • Third-party Environmental Manager (for third party areas).	• Investigate incident. • Review and update DMP as appropriate.

Event	Parties with actions to undertake	Action
Failure to follow DMP resulting in an adverse effect and/or trigger exceedance and/or non-compliance and an investigation identifies that it was due to failure to follow the DMP by a certain party.	• Operator. • POTL.	• Operator and POTL to investigate the incident and identify corrective actions. • POTL to review and update DMP if appropriate to identify if systems could be improved to minimise future risk.

There are nuances to the DMP; some examples of responsibility are as follows:

- A single action may have one party responsible e.g. the creation and supply of an induction which explains key dust source control measures procedures for stevedores undertaking bulk material handling is the responsibility of POTL. The requirement to put all bulk material handling staff through the induction prior to them working without direct supervision is the sole responsibility of the company.
- A single action may have more than one responsible party e.g. undertaking of routine monitoring of the handling of bulk solids materials (BSM) and addressing any non-conformances, is the responsibility of both POTL and the operator undertaking the operation. If one of those parties completes their actions as per the DMP (say Party A) but, Party B does not, and if an adverse effect and/or trigger exceedance and/or non-conformance occurred and the failure to undertake the monitoring was material to the event, it may mean that accountability sits more with Party B. In this example the DMP may still need to be reviewed to identify any system failures or possible improvements, this is a POTL responsibility with POTL accountability.

The responsible parties to this DMP are listed as follows:

- Port of Tauranga Limited ("**POTL**" or "the Port").

Bulk Solid Materials (BSM) processing and storage sites

- Champion Flour Milling Limited (Bulk store facility owner/lessee/operator) ("**Champion**").
- Genesis Energy Limited (Bulk store facility lessee/operator) ("**Genesis**").
- Swap Stockfoods Limited (Bulk store facility lessee/operator) ("**Swap Stockfoods**").

Yard cleaning service providers

- Daltons Landscape Supplies Limited (yard cleaning services) ("**Daltons**" or "yard cleaning services").

Marshalling and stevedoring companies

- C3 Limited ("**C3**").
- QUBE Ports Limited ("**QUBE**").

Stevedoring companies

- 3 Islands Intermodal ("**3i**").
- Independent Stevedoring Limited ("**ISL**").

2 Key personnel and responsibilities

2.1 Overview

The DMP provides a framework for the management of discharges to air from activities in the Port Industry Area. POTL administers the DMP. Monitoring of compliance and operating procedures is required variously by the occupiers, operators, the stevedores and marshallers and POTL. Sections 2.2 to 2.5 sets the key responsibilities and the key personnel, their roles and contact details. A schedule of contact details is in Appendix D.

2.2 Port of Tauranga Limited

POTL Environmental Manager

The POTL Environmental Manager has overall responsibility for:

- Oversight and administration of the DMP.
- Monitoring of dust trigger levels.
- Responding and investigating triggers and breaches.
- Identifying potential dust source controls to address triggers and breaches that occur as a result of Port Operational Area activities and presenting these options to operators.
- Reporting triggers and breaches to parties operating inside the Port Industry Area, to enable their investigations and dust source control responses (if it is identified by POTL that their activities are potential contributors to the trigger or breaches).
- Responding to complaints associated with the Port Operational Area.
- Collating details of complaint response processes for areas outside of the Port Operational Area but within the Port Industry Area.
- Reviewing the DMP.
- Maintaining Standard Operating Procedure documents associated with the Port Operational Area.
- Review of additional dust source controls as applied through BSM SOP S.7.
- Review of additional dust source controls as applied through Log SOP S.10.
- Monitoring performance against BSM SOP and Log SOP and addressing non-conformances.
- Monitoring and reviewing CCTV footage.
- Leading reviews of reasonably practicable options to improve air quality (Rule AREA2-R1 (3) (f) (iv)).
- Reporting monitoring data to BOPRC.
- Producing reviewing and maintaining a BSM handling induction, log handling inductions and log yard cleaning induction, from 1 January 2025.
- Administrating the annual meetings with Ngāi te Rangi as required by AIRSCHED2 Part B (f).
- Providing and monitoring performance of log yard cleaning services as per Log SOP S.8.
- Engaging a SQEP for required reporting.

POTL Environmental Coordinator

The POTL Environmental Coordinator has overall responsibility for:

- Assisting the log yard cleaning providers responses to the log marshalling operations.

- Identifying priority sweeping areas (if not already identified by the log yard cleaning service providers).
- Liaison with Port operators on operating procedures.

POTL CCTV operator

The POTL CCTV operator will have overall responsibility for:

- Recording complaints and incidents.
- Directing information to the appropriate person.

2.3 Third party BSM handling and storage companies

Genesis Supervisor and/or Wholesale Logistics Manager

Swap Stockfoods Environmental Manager

Champion Environmental Manager

The Environmental Manager (refer to Appendix D for a schedule of contact details) has overall responsibility for:

- Responding to dust trigger exceedances and applying dust source control measures (when their activities have been identified as a potential contributor by POTL or by subsequent trigger exceedance investigation).
- Responding to complaints.
- Reporting of any complaints and responses to POTL.
- Maintaining the site-specific Environmental Management Plan / Dust Management Plan for their operation.
- Notifying POTL of any changes required to this DMP.
- Developing of standard operating procedures/DMP specific to their operation where not otherwise covered by POTL procedures.
- Record keeping of activities and materials onsite.
- Training of site staff.
- Assist POTL with their responsibilities when requested and appropriate with regard to compliance reporting.

2.4 Marshalling companies

QUBE Environmental Manager

C3 Mount Maunganui Manager

The Environmental Manager (refer to Appendix D for a schedule of contact details) has overall responsibility for:

- Responding to dust trigger exceedances and applying dust source control measures (when marshalling activities have been identified as a potential contributor by POTL or by subsequent trigger exceedance investigation).
- Notifying POTL of any changes required to this DMP.
- Developing standard operating procedures/DMP specific to their operation where not otherwise covered by POTL procedures.
- Record keeping of activities and materials onsite.

- Training of site staff.
- Assisting the yard cleaning service providers by allowing access into the marshalling areas, as per agreed procedures.
- Ensuring relevant staff are inducted as per the POTL log handling inductions.
- Monitoring performance against Log SOP and addressing non-conformances.
- Assisting POTL with their compliance reporting responsibilities when requested and appropriate.
- Reporting of any complaints and responses to POTL.

2.5 Stevedoring companies

QUBE Environmental Manager

C3 Mount Manganui Manager

3i Environmental Manager

ISL Environmental Manager

The Environmental Manager (refer to Appendix D for a schedule of contact details) has overall responsibility for the following:

- Responding to dust trigger exceedances and applying dust source control measures (when stevedoring activities have been identified as a potential contributor by POTL or by subsequent trigger exceedance investigation).
- Notifying POTL of any changes required to this DMP.
- Developing standard operating procedures/DMP specific to their operation where not otherwise covered by POTL procedures.
- Record keeping of activities and materials onsite.
- Training of site staff.
- Ensuring relevant staff are inducted as per the POTL bulk solids handling and log handling inductions.
- Monitoring performance against BSM SOP and Log SOP and addressing non-conformances.
- Assist POTL with their compliance reporting responsibilities when requested and appropriate.
- Reporting of any complaints and responses to POTL.

3 Site description

3.1 Port Industry Area

The Port Industry Area is shown at the end of this Section in Figure 3.1. According to the PC13 AIRSCHED3:

> *"The Port Industry Area (the red polygon in Figure 1.) forms one subject site.*
>
> *The rationale for the location of the proposed boundary is that effects on air quality, namely discharge of particulate to air, occurring in this area as a result of numerous bulk solids material handling and log handling activities would not be readily differentiated from one another, and therefore should be managed as a single subject site not numerous sites.*
>
> *There are some complexities and nuances with the ownership and control of certain areas encompassed* [within the Port Industry Area]*;*
>
> *At [date to complete] POTL does not regulate the handling of bulk solids materials or logs with its procedures in some areas within the Port Industry Area and does not currently maintain any operational control of activities within those areas."*

The Port Industry Area and third-party sites that operate within the Port Industry Area and are shown in Figure 3.2. The Port Industry areas is made up of:

- Land that is owned and/or operationally controlled by POTL.
- Land that is owned by POTL but is not under operational control of POTL.
- Land that is neither owned nor under the operational control of POTL.

3.2 Surrounding land use

The Port Industry Area is located within the Port Industry Zone within the Tauranga City Plan (Operative: 12 Aug 2022, Revision: 11 Oct 2022). Sensitive areas are defined in the RNRP as follows:

> ***Sensitive area*** *means an activity that is particularly sensitive to adverse effects associated with air contaminant discharges either due to the vulnerability of the population or area exposed to the contaminant, or due to the potential for people to be exposed for prolonged periods and may include:*
>
> a *residential buildings and areas (including marae).*
> b *childcare centres, schools, educational facilities.*
> c *hospitals, nursing homes, aged care facilities.*
> d *offices, consulting rooms, gymnasiums, community centres.*
> e *hotels, motels, caravan parks, camping areas, tourist accommodation.*
> f *correctional facilities.*
> g ***public amenity areas.***
> h *manufacturing or storage of food or beverages.*
> i *manufacturing or storage of electronics.*
> j *public water supply catchments and intakes.*
> k *incompatible crops or farming systems (e.g. organic farms, greenhouses).*
> l *household water supplies (including roofs from which a water supply is obtained).*

The location of the nearby sensitive areas, the surrounding Tauranga City Plan zoning and a wind rose showing the predominant wind direction as measured at Railyard North for 2019-2023 are shown in Figure 3.3. The nearest residential zones and sensitive areas to the Site are as follows:

- Residential area - 180 m to the east from a BSM handling or storage area (coal silo dispatch shed).
- Residential area - 350 m to the northeast from a log handling or storage area.
- Whareroa Marae and "Urban Marae Community" zone – 450 m to the south from a log handling or storage area.

The Sulphur Point Marina and Bridge Marina are located to the 1,200 m to the west and 560 m to the south of the nearest BSM or log storage or handling areas, respectively.

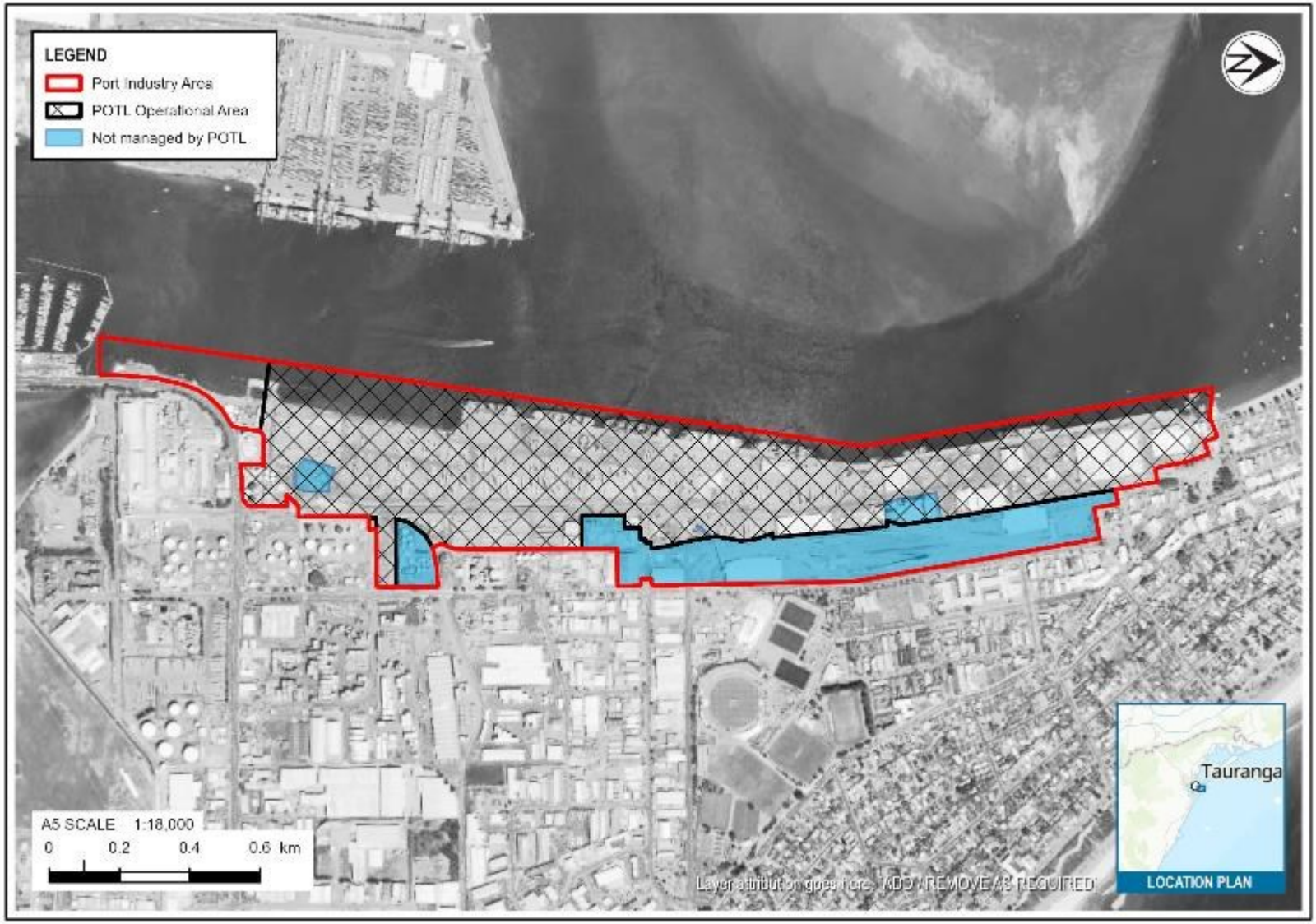


Figure 3.1: Site location of the Port Industry Area.

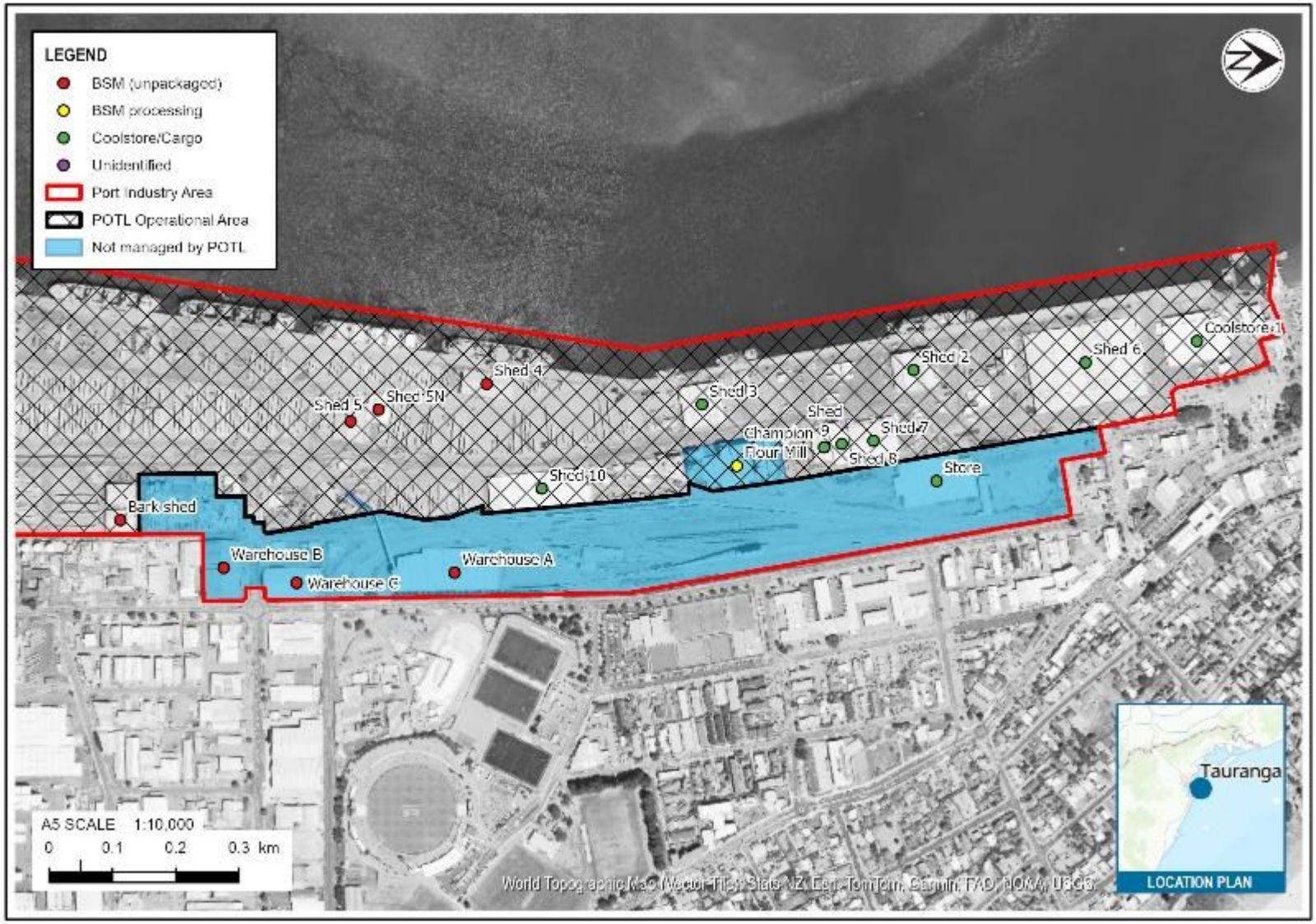


Figure 3.2: Warehouses and sheds within the Port Industry Area.

Figure 3.3: Sensitive areas according to TCC zoning in the area surrounding the Port Industry Area.

4 Baseline information

In broad terms, the IPAR restricts the location and scale of BSM and log handling to that which was occurring in the year prior to 31 July 2019.

If the Port considers bringing in a new BSM then the material will be assessed against the standard Rule AREA2-R1 (D) (1) (m) and Rule AREA2-R1 (D) (1) (u).

The intent of the following standards are achieved through the baseline volumes/tonnages, storage location restrictions, berth restrictions and dust control measures outlined throughout this DMP. Although the materials handled on the Site will change year-to-year, the cumulative PM_{10} discharges from the entire Site are of the same overall scale and intensity and the same or similar overall character and are managed through the controls in this DMP.

Rule AREA2-R1 (D) (1) (a)	*The discharge of PM_{10} must be the same or similar in character and the same or less in scale and intensity than that occurring in the 12 months ending on 28 November 2019, as estimated in accordance with all standards of this rule.*
Rule AREA2-R1 (D) (1) (b)	*The discharge of PM_{10} from the handling of logs or handling of bulk solid materials must be on the same subject site as the existing discharge as at 1 October 2020 and must have been occurring in the 12 months ending on 28 November 2019.*
Rule AREA2-R1 (D) (1) (d)	*The discharge does not cause any offensive or objectionable effect beyond the boundary of the subject site.*

Specific quantifiable "permitted activity" baselines for BSM and logs are shown in Table 4.1 and Table 4.2.

Storage locations and dust control measures including the dates are Section 5 and Section 6.

Table 4.1: Baseline product volumes and tonnages for BSM for year end 31 July 2019

Product	AREA2-R1 reference	Value
Total annual volume/tonnage (excluding salt)	Rule AREA2-R1 (D) (1) (e)[3] Rule AREA2-R1 (D) (1) (l)[4] Rule AREA2-R1 (D) (1) (s)[5] Rule AREA2-R1 (D) (1) (x)[6]	2,573,234 tonnes[7].
The number of hoppers used for unloading	Rule AREA2-R1 (D) (1) (n)[8]	10.
Loading berths and locations	Rule AREA2-R1 (D) (1) (r)[9]	Berths 3, 4, 6, 7, 8, 9, 10, 11 shown in Figure 5.4.
Annual volume/tonnage stored outside	Rule AREA2-R1 (D) (1) (t)[10]	All areas, unless otherwise specified, are excluded from open storage of BSM. Specific outdoor storage areas are; BSM sweeper stockpile area, Refuse pile area (located next to sweeper stockpile shown in Figure 5.2)[7].
Truck numbers	Rule AREA2-R1 (D) (1) (v)[11]	Truck numbers are limited by the amount of material over the wharf and therefore as the volume of BSM is limited to no more than the baseline year the truck numbers will also be restricted[7].

[3] General standards applying to all discharges of PM_{10}:
Subject to standard (1)(ka) and standard (2) (where relevant), the annual product volumes or tonnages of logs and bulk solid materials handled must be the same or less than in the 12 months ending on 31 July 2019.

[4] For PM_{10} emissions from the unloading of bulk solid materials and handling inside the Port Operational Area: The annual volume or tonnage of bulk solid materials unloaded and handled from vessels must be the same or less than the maximum annual volume or tonnage unloaded for the 12 months ending on 31 July 2019.

[5] For PM_{10} emissions from bulk solid materials handling or storage facilities outside the Port Operational Area:
The annual volume or tonnage of bulk solid materials handled or stored on the subject site must be the same or less than the maximum annual volume or tonnage handled or stored in the 12 months ending on 31 July 2019.

[6] For PM_{10} emissions from bulk solid materials handling or storage facilities outside the Port Operational Area:
The maximum processing capacity on the subject site must be the same or less than the maximum capacity available in the 12-months ending on 31 July 2019.

[7] For BSM warehouses under Rule AREA2-R1 (D) (1) (s), (t), (v) and (x), the subject site is specified in AIRSCHED3 and is included in the Port Industry Area and therefore is not managed as a separate site under the standards of the Rule

[8] For PM_{10} emissions from the unloading of bulk solid materials and handling inside the Port Operational Area:
The number of hoppers used for unloading bulk solid materials from vessels must be the same or less than those used in the 12-month period ending on 31 July 2019.

[9] For PM_{10} emissions from the unloading of bulk solid materials and handling inside the Port Operational Area:
There must be no change in the number and location of berths used for unloading bulk solid materials from vessels compared to the 12-months ending on 31 July 2019.

[10] For PM_{10} emissions from bulk solid materials handling or storage facilities outside the Port Operational Area:
The annual volume or tonnage of bulk solid materials handled or stored outside any building enclosure on the subject site must be the same or less than the maximum annual volume or tonnage handled or stored in the 12 months ending on 31 July 2019.

[11] For PM_{10} emissions from bulk solid materials handling or storage facilities outside the Port Operational Area:
The combined maximum daily truck numbers arriving at and departing from the subject site must be the same or less than the maximum daily number in the 12-months ending on 31 July 2019.

Table 4.2: Baseline product volumes and tonnages for logs for year end 31 July 2019

Product	AREA2-R1 reference	Value
Total volume/tonnage	Rule AREA2-R1 (D) (1) (e)[3]	6,933,208 tonnes
Loaded via trailer at the point of vessel loading	Rule AREA2-R1 (D) (1) (h)[12]	The total at the compliance base year was no greater than 56 % or 3,856,540 tonnes[13]
Fully debarked logs delivered to site	Rule AREA2-R1 (D) (1) (i)[14]	4.8 % or 330,882 tonnes
Fully debarked logs at the point of vessel loading	Rule AREA2-R1 (D) (1) (i)[14]	Estimated combined total 7.3 % or 505,882 tonnes
Storage and handling location	Rule AREA2-R1 (D) (1) (g)[15]	Figure 6.3
Log loading berths and locations	Rule AREA2-R1 (D) (1) (k)[16]	Berths 3, 4, 8, 9, 10 & 11 Figure 6.2

[12] The average volume/tonnage or average percentage of logs (whichever is higher) loaded via trailers at the point of vessel loading in any 12-month period must be the same or greater than the corresponding average volume or tonnage and average percentage in the 12 months ending on 31 July 2019.

[13] Based on commercially sensitive information, an estimate of 56 %, 3,856,540 tonnes loaded by trailer is made.

[14] The average volume/tonnage or average percentage (whichever is higher) of fully debarked logs delivered to site and at the point of loading onto vessels must be the same or greater than the corresponding average volume or tonnage and average percentage in the 12 months ending on 31 July 2019.

[15] The locations in which logs are stored and handled must be the same as they were in the 12 months ending on 31 July 2019 and the area must be the same or less than the area in which they were stored and handled in the 12 months ending on 31 July 2019.

[16] There must be no change in the number and location of berths used for loading logs onto vessels compared to the 12-months ending on 31 July 2019.

5 Bulk solid material storage and handling

5.1 Overview

The BSM operations involve the following activities, which are described in further detail in the following sections:

- Unloading of BSM from ships to hoppers using cranes with grabs.
- Discharge of BSM from hoppers to trucks.
- Transport of BSM in trucks to onsite and offsite storage facilities.
- Storage and conveyance of BSM in warehouses within the Port Industry Area.
- Loading and transport of BSM from warehouses within the Port Industry Area to offsite locations.
- Loading of BSM on to ships via conveying, excavator, cranes with grabs, or similar.
- Flour milling.
- Dust source control methods including vacuum sweeping.
- Any other operation associated with BSM operations.

5.2 Definitions relevant to bulk solid materials[17]

According to the RNRP, bulk solid material is defined as follows:

> *"Bulk solid material means materials consisting of, or including, fragments that could be discharged as dust or particulates. These materials include but are not limited to:*
>
> - *Gravel.*
> - *Quarried rock.*
> - *Fertiliser.*
> - *Coal.*
> - *Cement.*
> - *Flour.*
> - *Rock aggregate.*
> - *Grains.*
> - *Compost.*
> - *Palm kernel extract.*
> - *Tapioca.*
> - *Woodchip.*
>
> *BSM does not include logs, salt, or other materials not in bulk form, such as materials contained in a bag, container or similar."*

Other materials handled at the Port that are not specifically listed in the definition in the RNRP include but are not limited to aggregate, industrial rock, sand, clinker, gypsum, dried distillers' grain (DDG), canola meal, soya hull pellets, soya bean meal, kibbled maize, wood pellets and sulphur.

[17] The term bulk solid material is defined in the RNRP.

5.3 BSM dust risk classification

For the purposes of the DMP and the SOPs, certain BSM are identified as having a higher risk of dust generation during handling compared to other BSM. High dust risk BSM have been identified based on their physical properties, such as particle size distribution, moisture content, density and whether they are hygroscopic, as well as through monitoring of dust generation during handling over time. Increased dust control measures are specified for the handling of higher risk BSM.

The following BSM are identified as “high dust risk”:

- Agricultural animal protein feeds, including but not limited to:
  - Palm Kernel Extract (PKE).
  - Soya bean meal.
  - Tapioca.
  - Dried distillers’ grain.
  - Cotton seed.
  - Corn gluten.
  - Canola meal.
- Phosphate rock.
- Potash.
- Clinker.

5.4 Storage and conveyance

The locations of BSM storage and conveyance are:

- POTL and third-party BSM storage areas as shown in Figure 3.2.
- BSM conveyance and truck paths as shown in Figure 5.1.
- POTL BSM equipment storage and BSM piles as shown in Figure 5.2.
- Speed limits as shown in Figure 5.3.
- Berth locations and numbers as shown in Figure 5.4.

All areas, unless otherwise specified, are excluded from open storage of BSM. Specific outdoor storage areas are as follows:

- BSM sweeper stockpile area as shown in Figure 5.2.
- Refuse pile area (located next to sweeper stockpile as shown in Figure 5.2).

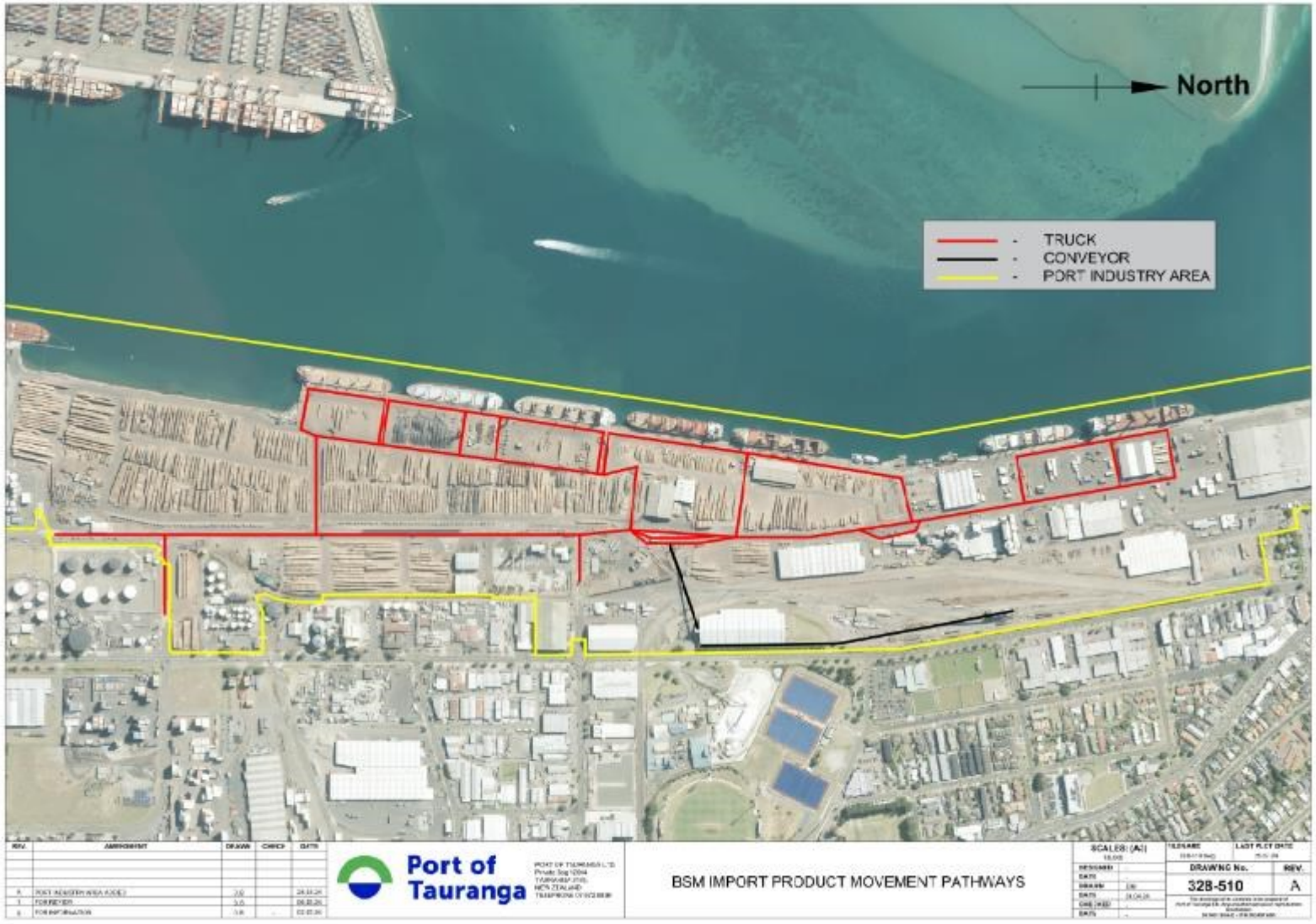


Figure 5.1: BSM import product movement paths.

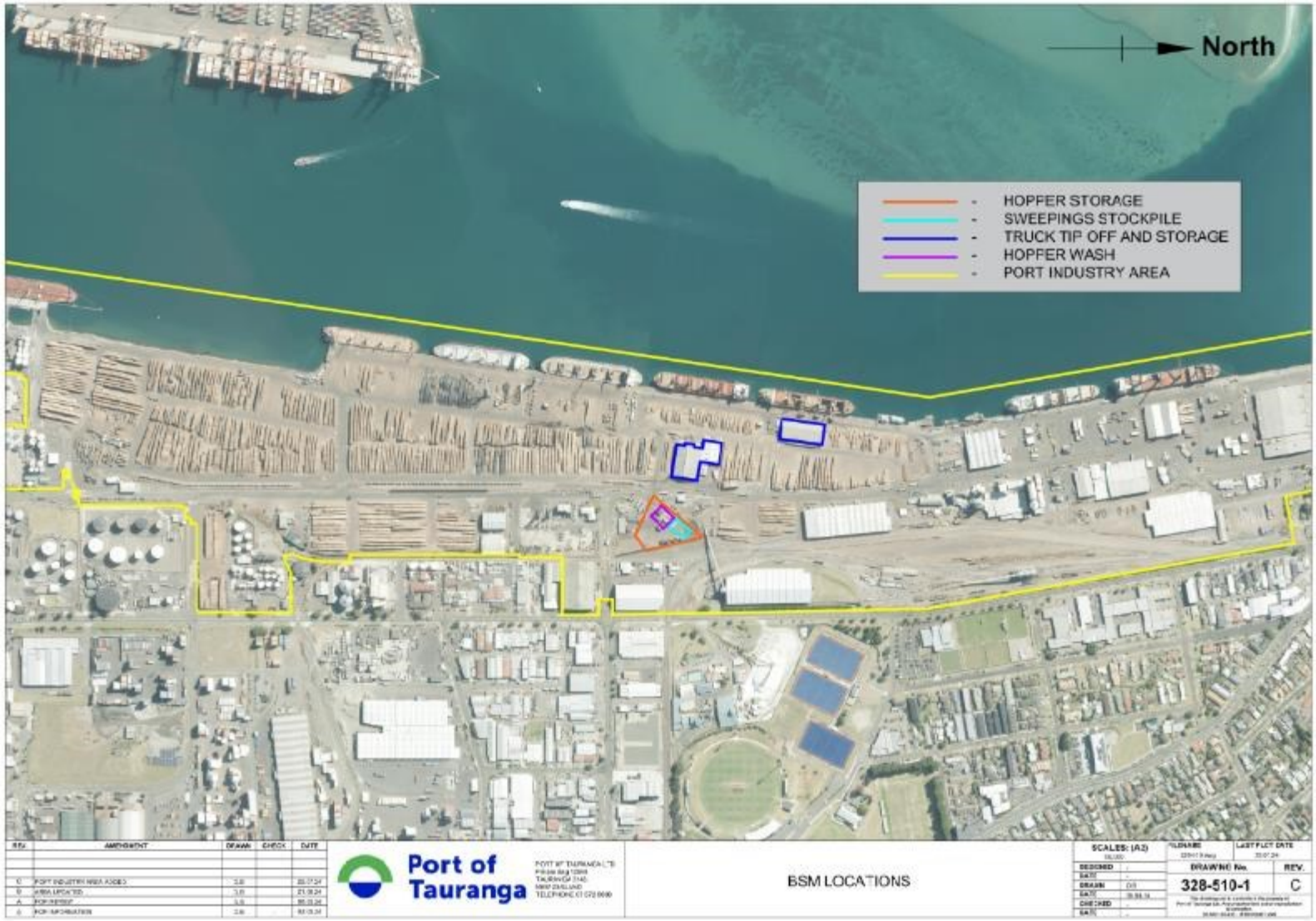


Figure 5.2: BSM locations.

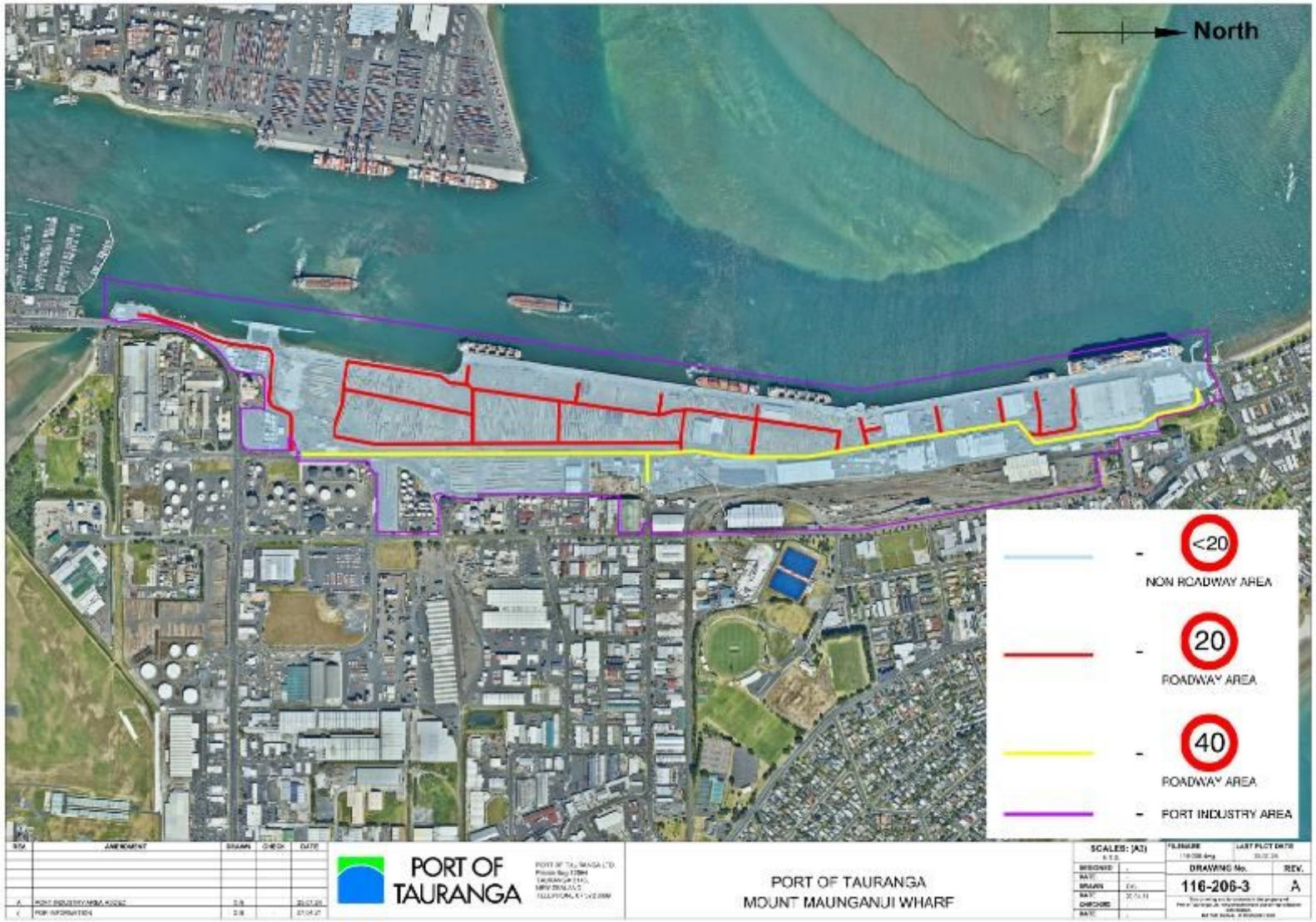


Figure 5.3: Speed limits.

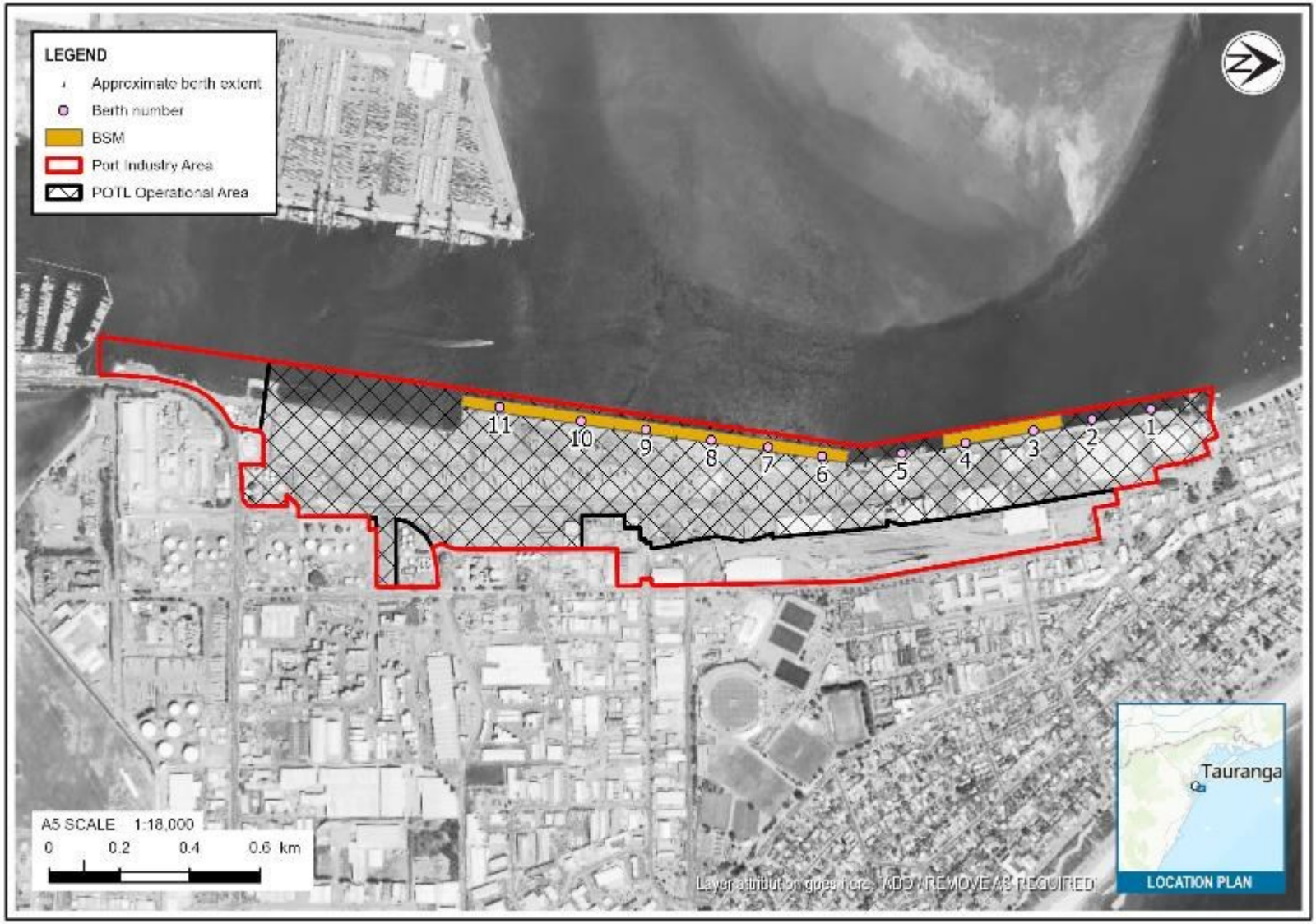


Figure 5.4: Berths used for BSM for the year ending 31 July 2019.

5.5 Unloading BSM from vessel (import)

5.5.1 Process description

BSM is unloaded from the vessel by a stevedore using a grab bucket (grab) attached to a vessels crane and loaded into a hopper. The grab is owned, leased or acquired by the stevedore, the hoppers are owned by POTL and provided to the stevedores or product importer.

From the hopper, BSM is loaded directly into a truck or trailer. Levelling of the truck and trailer cargo bins are undertaken shipside, covers are put in place and then the BSM transported offsite or to onsite storage facilities.

Standard operating procedures (SOP) detailing dust source control measures and management measures for handling of BSM within the Port Operational Area are included in BSM SOP in Appendix B.

The BSM SOP applies to all bulk cargo stevedoring and transporting activities/operations undertaken within the Port Industry Area, namely:

- Storage of bulk cargo in an open hold of a vessel.
- Collection and transfer of bulk cargo from a vessel's hold to a hopper or other receiving receptacle.
- Storage and holding of bulk cargo in a hopper or other receiving receptacle.
- Collection and transfer of bulk cargo into a truck or other means of transport.
- Movement and/or operation of trucks (including empty trucks) used to transport bulk cargo.
- Tip-off of excess product from overweight vehicles into a designated tip-off area.
- Management, cleaning and housekeeping of the stevedore's work area and any other area affected by the bulk cargo operation.

The BSM SOP does not contain information on the management of BSM within third-party lease areas inside the Port Industry Area such as BSM Warehouse A, B or C, the debarking facility or the Champion facility.

5.5.2 Dust control measures

The BSM SOPs include information on the following:

- Dust source controls.
- Wind speed limits.
- Vehicle speed limits.
- Site sweeping/vacuuming protocols.

An inventory of the dust source controls for BSM unloading from vessels, are detailed in Table 5.1.

In the event of a grab or hopper failure and/or generation of dust beyond what is deemed acceptable by the BSM SOP, equipment may be exchanged/replaced with other working equipment (given this equipment complies with all requirements of Rule AREA2-R1). This may include replacement of a hopper or grab more suited to certain BSM products, if available and deemed necessary.

Table 5.1: Inventory of bulk solid material dust source controls for unloading BSM from vessels

Activity	Controls (establishment date)	
	Structural	**Procedural**
Grab operation	• Slow-release grabs to be used for all cargo (Apr 2021). • Hydraulic controls on the grabs, which slow the opening of the grab and reduce the rate at which the material falls into the hopper.	• Grabs not to be overfilled or leaking. (Aug 2011). • Grabs to be placed as close to the hopper as possible before opening. (Aug 2011). • Grabs to be opened slowly. (Aug 2011). • Stopping vessel unloading under high winds (Sep 2015).
Grab operation – PKE specific		• BSM transfer from the vessels hold shall cease according to the wind speed limits and alarms specified in the BSM SOP S.5. (Sep 2015). • Stand-down process required when wind speed limit is exceeded. (Sep 2015). • Permission required from Port Customer Service Centre for operations to continue after wind shutdown. (Aug 2011).
Hopper operation	• Dust extraction hoppers used for clinker (2012).	• Hopper to be kept as full as possible to minimise product drop height. (Aug 2011)[Note exemptions]. • 250 tonne hoppers are not to be filled above the top-grid of the hopper. (June 2013) (Figure 5.5). • For hoppers with a grizzly, maintain the product 1-2 grabs worth of cargo above the height of the hopper grizzly to minimise drop distance (2022). (Figure 5.5). • Minimise drop heights into the hoppers by matching the rate of vessel unloading to the rate of truck loading (2011). • Avoid overloading of the hoppers or trucks to minimise spillage (2011). • Vacuum sweep regularly to ensure any spilled material is removed from the deck as soon as practicable (2011).
Housekeeping	• Save-alls required to be installed (Aug 2011).	• Vacuum sweeper trucks required throughout operations for “higher risk” dusty cargo as specified in Section 5.3. (Apr 2021)[Note exemptions]. • Operations required to cease if material is visibly landing in the harbour. (Sep 2015). • Manual cleaning required in key areas not accessible by vacuum sweeper truck. (Sep 2015).
Transport		• Dust source controls and POTL approval required to be implemented to manage dust risk from tipping off excess product. (Aug 2011). • Trucks are required to apply tarps before leaving the ship side. (Aug 2011)[Note exemptions]. • Truck covers are to be applied in all areas outside of stevedores working area. (2013)[Note exemptions].

Activity	Controls (establishment date)	
	Structural	Procedural
		• Speed limits on port roads. Refer to Figure 5.3 (prior to 2011). • Excess material from overweight vehicles is to be tipped off in a designated tip-off area as directed by POTL.
Transport – PKE specific		• Trucks are required to exit the operational wharf using only one exit way. (Aug 2011). • Levelling of cargo bins is required to be undertaken at the ship side. (Aug 2011).
General	• Visual alarms to indicate if the wind is above or below the set wind speed as per the BSM SOP S.5. Visual alarms are visible to the vessel crane operators. (Mar 2021)	• Classification of higher risk dusty BSM (as specified in Section 5.3) from lower risk dusty BSM to enable differing degrees of dust source controls. (Apr 2021). • Stevedores are responsible for conformance with procedures for all operators within the stevedore work area. (Apr 2021). • Wind speed limits are programmed into the berth-side visual alarms and the online system. (Mar 2021) Refer to BSM SOP S.5.5 for specific guidance. • Gust speed alarms were programmed into the automatic visual alarm system. (Feb 2022). • Visual monitoring of dust generated by vacuum sweeper. (Apr 2021) Refer to Section 7 for specific guidance.
Sweepings stockpile facility		• 4 m high solid barrier walls around three sides of the Sweepings stockpile to enclose the area where sweeper trucks store recovered BSM (which is taken off site by the product owner at the end of the operation). The open face is positioned on the opposite side to the prevailing westerly and south westerly winds which could cause product drift towards the eastern boundary. (Jul 2023). • A sprinkler system installed on the top of the walls and can be used to suppress dust if required. (Jul 2023).

Notes:

Trial Dust Source Controls:

- Trials began late 2018 for fine water misting systems. The systems were fitted to six of the POTL hoppers. Misting automatically turned on when the grabs were in position. Full implementation was attempted in July 2021, however system failures prevented mandatory adoption. Fine water misting systems on the hoppers were never progressed past the trial stage and are not considered to be a baseline dust source control.

Dust Source Controls Removed Prior to 31 July 2019:

- Wind break netting was previously installed on the seaward side of the open holds of the vessel to reduce windspeeds over the top of the open holds. However, this dust source control was removed as a dust source control due to health and safety concerns in 2021.
- Operational wharf to be kept wet to lessen the chance that particulate on the ground is resuspended. This was removed due to stormwater implications.
- Hoppers that have a grizzly on the top of the thimble are to be filled above the grizzly by one to two grabs. This has been found to reduce emissions due to the reduced fall height. The emission from windblown dust was observed to be lower than an increased drop height from maintaining the product height below the grizzly. (c. 2022).

Exemptions:

- Exemptions to the rule are given in Table 5.2.

Figure 5.5:
Left: Maximum fill height for hopper with grizzly. Note this picture shows a hopper with misting sprays. Misting spray are not mandatory.

Right: Maximum fill height for hopper without grizzly.

There are variations and limitations for handling of different BSM as shown in Table 5.2. These limitations are due to dedicated equipment or material properties. A live version of the exemption record is maintained by Port of Tauranga, M-Files ID 108155.

Table 5.2: Dust source control exemptions and limitations by BSM type

Material type	Rule exemption	Comment
Some phosphate rock	High density phosphate rock can be free flowed into truck via the hopper, hopper does not need to be maintained full.	• High density products can compress under their own weight in the hopper and cause blockages.
Gypsum	Product can be free flowed into the truck via the hopper, hopper does not need to be maintained full.	• High density product with high moisture content can easily block in the hopper when restricted. • Product is non-dusty.
Blast Furnace Slag	Product can be free flowed into the hopper; hopper does not need to be maintained full.	• Product is non dusty and can benefit from increased agitation occurring during free flow to help break product up.
Clinker	Vacuum sweeper truck not required *(bucket sweeper may be utilised).*	• Product is incompatible with vacuum sweeping.

5.5.3 Contingency measures

Contingency measures may be applied if:

- BSM unloading from vessels is identified as a potential cause of the trigger levels being exceeded as discussed in Section 7; and
- The control measures as detailed in Table 5.1 are unable to reduce the dust concentrations to below the trigger values.

POTL may instruct that contingency measures are undertaken. Potential contingency measures for BSM unloading from ships are as follows:

- Cease unloading BSM from the vessel.
- Reduce the BSM level to below the thimble.
- Further reduce drop heights from grab to hopper if possible.

- Reduce hopper unloading speeds.
- Increase sweeping.
- Reduce vehicle travel speeds.

5.6 Loading of BSM to vessel (export)

5.6.1 Process description

Loading of BSM to vessel for export will be undertaken using the following processes:

- Unloaded from trucks onto the wharf and:
  - Loaded to vessel using a crane grab bucket;
  - Loaded to vessel using an excavator bucket from the wharf; or
  - Loaded into a hopper from the truck and then conveyed into the vessel.

5.6.2 Dust control measures

An inventory of the dust source controls for BSM loading to vessel are detailed in Table 5.3.

Table 5.3: Inventory of bulk solid material dust source controls for loading of BSM to vessels

Activity	Controls (establishment date)	
	Structural	Procedural
General	• Visual alarms to indicate if the wind is above or below the set wind speed as per the BSM SOP S.5.5. (Mar 2021).	• BSM will be tipped onto the wharf from a tip truck into a defined area. (Jul 2024). • Trucks will slowly tip product onto wharf at a controlled rate to minimise drop height and dust generation. • No more than three truck and trailer bin loads will be allowed to be stockpiled on the wharf at any given time. (Jul 2024). • Product will be released from the excavator bucket or grab as close to the product present in the hold as practicable to minimise drop height and where possible, protect falling product from the wind. (Jul 2024). • In the event of a red visual wind alarm, product placement into the hold of the vessel will only continue with the approval of the POTL Environmental Manager (Dec 2024). • The loading activity will cease if visible airborne dust from the operation is detected greater than 100 m from the operation. (Jul 2024). • A sweeper truck will be available to periodically recover any tracking or product drift within the work area. (Jul 2024). • Loading by conveyor is subject to the operator creating an Environmental Management Plan for conveying to ship, which is approved by POTL

5.6.3 Contingency measures

Contingency measures may be applied if:

- BSM loading to vessels is identified as a potential cause of the trigger levels being exceeded as discussed in Section 7; and
- The control measures as detailed in Table 5.3 are unable to reduce the dust concentrations to below the trigger values.

POTL may instruct that contingency measures are undertaken. Potential contingency measures for BSM unloading from ships are as follows:

- Cease loading BSM to the vessel.
- Further reduce drop heights if possible.
- Reduce loading speeds.
- Increase sweeping.
- Reduce vehicle travel speeds.
- Cover piles of BSM.
- Surround pile and conveyor with mobile wind fence.
- Create temporary bunker from concrete blocks for BSM.

5.7 BSM Sheds 4, 5 and 5N

5.7.1 Process description

BSM Sheds 4, 5 and 5N are used for the handling and storage of unpackaged BSM including but not limited to wood pellets. The process description for Shed 5 and 5N are as follows:

- BSM is delivered to the warehouse.
- BSM is tipped onto the ground before being conveyed to the stacking system or pushed into piles.
- Prior to BSM being tipped on the ground the doors the doors are either:
  - All closed.
  - All but one closed (to prevent wind tunnelling effects).

The only fugitive emission points are from spinifex on the roof ridgeline and from the entry and exit doors.

5.7.2 Dust control measures

An inventory of dust source controls for the areas that are not operated or overseen by POTL are detailed in Table 5.4. POTL does not regulate the handling of bulk solids materials in this area and does not currently maintain any operational control of the activities.

Table 5.4: Inventory of bulk solid material dust source controls operated or overseen by Shed 4, 5 or 5N operators

Activity	Controls	
	Structural	Procedural
General	• Tipper trucks are used for delivery of BSM.	• Only bagged or containerised bulk solid material to be stored outdoors. • Site speed limit of 10 km/hour. • Delivery of BSM directly into the warehouse. • Trucks are cleaned prior to exiting the warehouse. • Trucks are covered prior to exiting the warehouse. • Sweeper trucks within the warehouse as required. • Close all or all but one door.

5.7.3 Contingency measures

Contingency measures may be applied if:

- BSM handling within Shed 4, 5 or 5N is identified as a potential cause of the trigger levels being exceeded as discussed in Section 7; and
- The control measures as detailed in Table 5.4 are unable to reduce the dust concentrations to below the trigger values.

POTL may instruct that contingency measures are undertaken. Potential contingency measures for BSM handling of storage within sheds are as follows:

- Cease operations within the relevant shed.
- Further reduce drop heights if possible.
- Reduce loading speeds.
- Increase sweeping.
- Reduce vehicle travel speeds.
- Close all doors.

5.8 Spill procedures

Spill procedures include the following, as detailed in the BSM SOP S.5.14:

- Cleaned up straight away by stevedores for spills from grabs/ hoppers.
- For spills from trucks, reported to POTL by any party or observed by POTL, POTL will contact the stevedore and/or product owner to clean.

5.9 Maintenance and equipment monitoring procedures

Table 5.5 identifies maintenance and monitoring procedures undertaken to minimise discharges to air and the frequency in which these activities are undertaken. The full details of the inspections and maintenance activities to take place are held by the responsible party.

Table 5.5: Maintenance programme for bulk solids material handling equipment

Equipment	Frequency	Responsible party	Maintenance	Record location
Slow-release grabs	Daily	Stevedore	• Grab operational performance is monitored as detailed in the BSM SOP S.5. When maintenance issues are identified, records of the maintenance are kept.	Completed by stevedore plant coordinators.
Clinker hoppers and baghouses	Prior to and after each shipment	Clinker importer	• Electrical pre-shipment checks on clinker hopper and baghouse. • Structural integrity check. • Mechanical pre-shipment checks on clinker hopper and baghouse. • Baghouse filter changes as required. Pressure drop sensors are to be installed on the sensors. • Wash and blow down and removal of solid buildup.	Clinker importer maintenance records.
Hoppers	During operation	Stevedore	• Hopper operational performance is monitored as detailed in the BSM SOP S.5. When maintenance issues are identified with a Hopper and raised with POTL.	Records of maintenance is kept by POTL.
	Between different product types	POTL	• Visual check of hopper integrity. • Check of hopper operational functionality (including for correct jaw function).	If issues identified and maintenance is required then records of maintenance are kept by POTL.
	Annual	Engineer contracted by POTL	• Structural integrity. • Operational function.	Records of maintenance is kept by POTL.
Sweeper truck	Daily	Daltons	• Complete pre-start inspection check list.	Daltons daily log.
Tractor/Moxy	Daily		• Complete pre-start inspection check list.	
BSM sheds (Sheds 4, 5 and 5N)	Regular during heavy rain	POTL	• Leak inspection of cargo shed roofs.	Asset management system (proposed).
	6 – 12 months	POTL	• Cargo shed gutter cleaning and roof inspection.	
	Annually	POTL	• Cargo shed doors inspected.	

Equipment	Frequency	Responsible party	Maintenance	Record location
General site	Daily	Stevedore	• Wharf aprons are swept as required by the BSM SOP S.5.	Records kept by stevedores.
		Yard cleaning services	• Outdoor surfaces (yard and accessways) are swept as required by the BSM SOP S.8.	Yard cleaning services - E road vehicle tracking system.
	Weekly	POTL Environmental Manager	• Inspect outdoor and yard surfaces for dust.	Survey 123.
	Annual	POTL Environmental Manager POTL Management team	• Review SOPs and DMP.	Environmental Management System.

5.10 BSM Warehouse A (Genesis)

5.10.1 Process description

BSM Warehouse A is used for handling and storage of BSM, including but not limited to the following:

- Coal.

The location of BSM Warehouse A is shown in Figure 3.2 and Figure 5.6. The layout of BSM Warehouse A is shown in Figure 5.7.

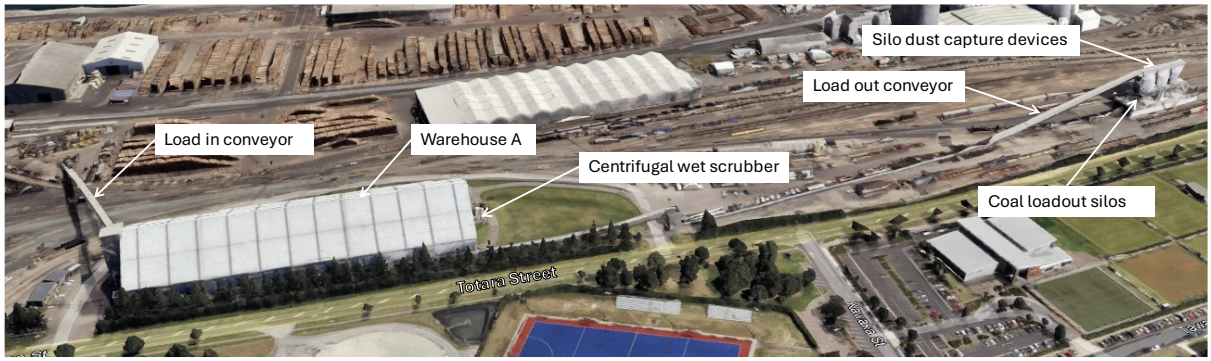


Figure 5.6: Location of Warehouse A – looking west (imagery sourced from Google Earth).

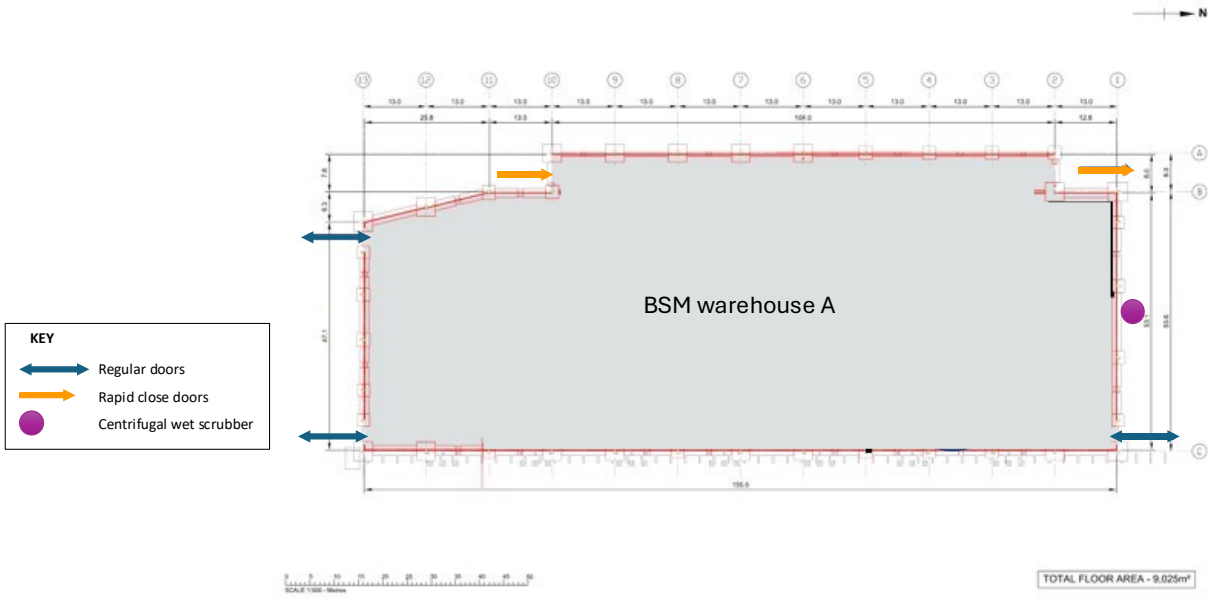


Figure 5.7: Warehouse A infrastructure.

The process for material handling for BSM Warehouse A is as follows:

1 BSM from vessels is loaded into trucks, as described in Section 5.5.1, and then delivered to the warehouse.

2 Loading BSM into the warehouse occurs using either of the following methods:

   a The truck is emptied into an inground hopper and then conveyed using covered conveyer into the warehouse; and/or

   b The truck is emptied inside of the warehouse onto the ground and pushed into piles. The rapid closing doors to the warehouse are closed during unloading of the BSM product.

3 Front end loaders are used within the warehouse to load BSM directly into trucks or into feed hoppers for the dispatch conveyor.

4 For truck loading:

   a Materials are loaded using front-end loaders into trucks.

   b Trucks drive over rumble bars/shake grates prior to exit from the warehouse.

   c Trucks are cleaned with air or water as required prior to exit from the warehouse.

   d Tarps or covers are applied to the trucks prior to exit from the warehouse.

5 Material loaded into the dispatch hoppers and onto the dispatch conveyor exits the warehouse in the enclosed conveyor and is transferred to enclosed silos A, B and C.

6 BSM is loaded into rail wagons from the enclosed silos.

5.10.2 Dust control measures

An inventory of dust source controls for the areas that are not operated or overseen by POTL are detailed in Table 5.6. POTL does not regulate the handling of bulk solids materials in this area and does not currently maintain any operational control of the activities. Activity specific information for third-party operators is appended as follows:

- Genesis activity specific information - Appendix E.

Table 5.6: Inventory of bulk solid material dust source controls operated or overseen by Warehouse A operators

Activity	Controls	
	Structural	Procedural
General	• Rapid close doors. • The inground hopper is fitted with dust suppression sprays. • Dust suppression sprays at various locations within the warehouse, conveyors and transfer points available for suitable BSM. • Enclosed conveyor systems into and out of the warehouse. • Enclosed transfer towers. • Bottom-emptying trucks with controlled unloading rates, or tipper trucks (coal only) are used for delivery of BSM. • No vents directly to ambient air from the warehouse. • Extraction from the building fitted with centrifugal wet scrubber. • Rumble bars inside the warehouse at the northwest truck lane exit. • Dispatch silos are maintained under negative pressure and have dust capture devices fitted. • Dispatch from the silos is within a semi enclosed building. • Dispatch silos have telescopic chute and automatically activated dust suppression sprays on the outlet chutes.	• Only bagged or containerised bulk solid material to be stored outdoors. • Site speed limit of 10 km/hour. • Delivery of BSM directly into the warehouse or the in-ground hopper. • Rapid close doors on the entrances and exits of the warehouse are to remain closed during loading and unloading processes. • In-ground load in hopper is maintained as near full during loading to minimise drop distances. • Product that falls onto the ground is swept into the hopper as required. • Dust suppression sprays can be used on suitable BSM. • Trucks are cleaned prior to exiting the warehouse. • Trucks are covered prior to exiting the warehouse. • Sweeper trucks within the warehouse. • Rail wagons are covered after loading.

There are variations and limitations for handling of different materials at Warehouse A as shown in Table 5.7. These limitations are due to dedicated equipment or material properties.

Table 5.7: Dust source control limitations and exemptions for Warehouse A by BSM type

Control / procedure	Material type
	Coal
Dust suppression sprays/misting	Yes
Dust extraction and scrubbing	Yes
Delivery via inground hopper	Yes
Direct delivery into shed	Yes
Dispatch via loadout conveyor and silos	Yes
Dispatch via truck	Yes

5.10.3 Contingency measures

Contingency measures may be applied if:

- BSM handling within Warehouse A is identified as a potential cause of the trigger levels being exceeded as discussed in Section 7; and
- The control measures as detailed in Table 5.7 are unable to reduce the dust concentrations to below the trigger values.

Potential contingency measures for BSM handling and storage within Warehouse A are as follows:

- Cease operations in the relevant warehouse.
- Reduce drop heights from front end loaders into trucks if possible.
- Reduce loading speeds or truck throughput.
- Increase sweeping.
- Reduce vehicle travel speeds.
- Close all doors.
- Mobile water sprays/ misting (product dependant).

5.10.4 Performance specifications

Performance specifications as specified in AIRSCHED2 Part A (5)(b)(iii) are required as follows:

> *"For enclosed operations, emission pathways and general containment provisions, the extent of air extraction and treatment systems installed and their performance specifications."*

Performance specifications for dust extraction and treatment equipment for various operations are summarised in Table 5.8. The centrifugal wet scrubber and dust suppression sprays on the coal silo discharge chute are shown in Figure 5.8.

Table 5.8: Performance specifications for dust extraction and treatment equipment

Equipment	Extraction rate	Specified removal efficiency or emission rate
Centrifugal wet scrubber	36,000 Am^3/h	90-99 % based on a design inlet concentration of 1 g/m^3
Silo dust capture devices	3,000 Am^3/h	50 mg/m^3

Figure 5.8:
Centrifugal wet scrubber on Warehouse A (Image sourced from https://www.luehrfilter.com.au/Products/Wet-Scrubbers).

Dust suppression sprays on the coal silo discharge chute.

5.11 BSM Warehouse B (Swap Stockfoods)

5.11.1 Process description

BSM Warehouse B is used for the handling and storage of BSM including but not limited to stockfood. The location of the Warehouse B is shown in Figure 3.2 and Figure 5.9.

Figure 5.9: Location of Warehouse B and Warehouse C – looking west (imagery sourced from Google Earth).

The warehouse operating hours are dependent on the unloading of the vessels. Vessels can arrive at the Port outside of conventional working hours and usually the vessels will be unloaded as soon as practicable to minimise the time vessels spend at berth. Under these circumstances, operations at Warehouse B can occur 24 hours per day, 7 days per week.

The process description for the Warehouse B as provided by Swap Stockfoods is as follows:

- The BSM is transported via trucks to the warehouse. Once the trucks are inside the warehouse, the trucks open the tarpaulin and deposit the BSM onto the warehouse floor.

- The empty trucks are “blown down” in the warehouse normally using a hand-held compressed air hose before exiting the warehouse. During this process, the storage warehouse doors remain open under current operating procedures.
- The BSM may need to be pushed into piles inside the storage facility, using specially adapted front-end loader buckets and pushers, to achieve maximum storage capacity.
- Certain products are screened and/or crushed within the storage warehouse in order to add value to the product. Processing occurs intermittently or continuously at all warehouses depending on operational requirements and load sharing between warehouses.
- Blending and mixing of product types occurs by the mixing of dry products on the floor of the facility by loader scooping up and blending into a specific stockpile mix. This can include blending of liquids and or liquids into dry products. For example, blending liquid molasses into dry Palm Kernel Extract to add nutrients and calorific intake. Blending occurs intermittently or continuously at all warehouses, depending on operational requirements and load sharing between warehouses.
- The BSM is loaded into trucks within the warehouse using front end loaders for transportation offsite.

5.11.2 Dust control measures

An inventory of dust source controls for the areas that are not operated or overseen by POTL are detailed in Table 5.9. POTL does not regulate the handling of bulk solids materials in this area and does not currently maintain any operational control of the activities. Activity specific information for third-party operators is appended as follows:

- Swap Stockfoods activity specific information - Appendix F.

Table 5.9: Inventory of bulk solid material dust source controls operated or overseen by Warehouse B operators

Activity	Controls	
	Structural	Procedural
Transportation		• Trucks are to be covered at all times, both full and empty, when travelling to and from the Site, as far as reasonably practicable. • Vehicle speeds limits of 15 km/hour.
Unloading within the warehouse		• Products are unloaded within the warehouses as far from the entranceway as practicable. • A hand-held compressed air hose or hand-held blower is used to sweep the floor of the warehouse and clean trucks of residual product prior to departing the warehouses.
Processing of materials		• Reducing drop heights for product into hoppers. • Cleaning and maintenance of processing equipment to ensure tracking and movement of product is limited to internal locations where product can be contained.
General		• Assess weather and ground conditions (dryness and wind) at the start of each day and ensure that applicable mitigation measures and methods are ready for use. If it is a dry day (i.e., there has been no rain in the last 24 hours and ground conditions are visibly dry) and wind speed is (or is forecast to be during that day) above 5 m/s: sweep the floor and entrance of the warehouse if tracking is anticipated.

Activity	Controls	
	Structural	Procedural
		• Regularly assess (at least twice daily) visible dust emissions and respond accordingly. • Where not in conflict with operational requirements such as truck movements, keep doors to facilities closed.

5.11.3 Contingency measures

Contingency measures are detailed in the activity specific information in Appendix F.

5.12 BSM Warehouse C (Champion)

5.12.1 Process description

BSM Warehouse C is used for the handling and storage of BSM including but not limited to wheat. The location of the Warehouse C is shown in Figure 3.2 and Figure 5.9.The process description for Warehouse C is as follows:

- Wheat is delivered to the warehouse.
- Wheat is tipped into ground floor boxes before being conveyed to the stacking system or pushed into piles.
- Prior to grain being tipped on the ground the doors the doors are either:
  - All closed.
  - All but one closed (to prevent wind tunnelling effects).
  - All but one closed with a compressed air curtain system operating on the remaining open door.

The only fugitive emission points are from spinifex on the roof ridgeline and from the doors.

5.12.2 Dust control measures

An inventory of dust source controls for the areas that are not operated or overseen by POTL are detailed in Table 5.10. POTL does not regulate the handling of bulk solids materials in this area and does not currently maintain any operational control of the activities. Activity specific information for third-party operators is appended as follows:

- Swap Stockfoods activity specific information - Appendix F.
- Champion activity specific information - Appendix G.

Table 5.10: Inventory of bulk solid material dust source controls operated or overseen by Warehouse C operators

Activity	Controls	
	Structural	Procedural
General	• Air curtain on the wheat shed.	• Sweeping of external yard. • Blow down of truck prior to exit. • Closing of the door as detailed in Section 5.12.1.

5.12.3 Contingency measures

Contingency measures may be applied if:

- BSM handling within Warehouse C is identified as a potential cause of the trigger levels being exceeded as discussed in Section 7; and
- The control measures as detailed in Table 5.10 are unable to reduce the dust concentrations to below the trigger values.

Potential contingency measures for BSM handling and storage within Warehouse C are as follows:

- Cease operations the relevant warehouse.
- Reduce loading speeds.
- Reduce the truck throughput.
- Increase sweeping.
- Reduce vehicle travel speeds.
- Close all the doors.

5.13 Champion flour mill

5.13.1 Process description

The Champion Flour Mill receives raw grain and processes it into flour. The process is described as follows:

1 Grain from vessels or from an offsite warehouse is loaded into tip trucks and then delivered to the flour mill site.

2 Loading grain into the mill occurs using either of the following methods:
   a The truck is emptied into an inground hopper at load-in area 1 and then conveyed using an enclosed conveyer into silos; or
   b The truck is emptied inside of the load-in 2 building into an inground hopper and then conveyed using an enclosed conveyor into silos.

3 Grain from silos is conveyed using enclosed augers to the gristing plant. The gristing plant includes separating impurities using pneumatic conveying over sieves, blending the wheat for the desired product type, and conditioning the grain by adding water to aid with separation of the grain parts. The gristing plant is enclosed and has emissions to air via a dust filter. There are explosion panels on the dust filters for safety purposes.

4 After the gristing plant, the grain is mechanically conveyed into the mill. Discharges to air from these buildings are via passive dust filters.

5 In the mill, grain is passed over sieves and grinders to produce flour and bran-based products. The flour milling process is an enclosed system and is operated using pneumatic transfer and operates with a negative pressure.

6 After milling the products are transferred into finished product silos. All flour is conveyed using positive presser blowers. Displaced air discharged through the explosion panels and through passive dust filters (refer to Figure 5.10).

7 Finished product is either:
   a Transferred into the packing facility silos where it is then packed. Packed material is transferred to the warehouse for distribution; or
   b Transferred to bulk load out silos.

The packing facility and bulk load out silos have explosion panels, breathing vents to allow for air to enter the silo during load out and dust filters at the top of the silos.

8 Bulk load out of flour and bran product occurs within the respective load out facilities.

Figure 5.10: Explosion panels and passive dust filters in explosion panel room above finished product silos.

5.13.2 Dust control measures

An inventory of dust source controls for the areas that are not operated or overseen by POTL are detailed in Table 5.11. POTL does not regulate the handling of bulk solids materials in this area and does not currently maintain any operational control of the activities. Activity specific information for third-party operators is appended as follows:

- Champion activity specific information - Appendix G.

Table 5.11: Inventory of bulk solid material dust source controls operated or overseen by Champion flour mill

Activity	Controls	
	Structural	Procedural
General		• Production is monitored using a continuous monitoring system. The primary responsibility for production monitoring is with the Miller.
Delivery of raw material into bulk store	• Dust extraction cyclone on load-in 2. • The inground hopper at load-in 2 is fitted with a dust extraction cyclone which vents to side of the load-in 2 building. • High-level sensor to prevent overfilling.	• One door of load-in 2 is closed to prevent wind tunnelling during delivery. • Load-in 2 building doors are closed on one end to reduce wind tunnelling through the building. Both doors are not closed at the same time due to health and safety protocols regarding explosion risk and visibility. • Sweeping of loose material into hopper prior immediately after delivery truck has departed. • Maintaining a full hopper as far as practicable to minimise drop height. • Blow down of truck prior to departure from load-in 2.

Activity	Controls	
	Structural	**Procedural**
Raw material conveyance and storage (grain silos)	• Material is transferred in enclosed augers or conveyors. • Inlet filters on raw material top-filling silos.	• Bulk solid materials are never stored outside.
Gristing plant	• Raw and ground materials conveyed in closed conveyors by mechanical or pneumatic means. • Dust filter on the building.	
Material transfer	• Enclosed material transfer systems.	• No dusty material to be handled or stored outside.
Flour silos (intermediate storage or retail packing)	• Silos are fitted with high level mechanical switch to detect over filling of the silos. • When the high level is reached there is an alarm and automatic filling of an overflow silo occurs. • If the high-level sensor fails then the silo vents through the explosion panels and out through the filter. • Filters on silo.	
Bulk bran dispatch silos	• Mechanical high-level switch on the silo. • Loading chutes are gravity feed with a blower to aerate the flour. This is a closed system. • Loading will only begin when the silo valve gate is opened by the truck driver. • The valve gate can only be accessed when on top to the truck. • In the event of power failure, the blower aeration will stop and discharge of material will stop.	• Visual assessment of trailer fullness. • Silo are filled with the order amount (maximum of one truck worth of material) to prevent overfilling. • The bran product truck drives under the silo and one end door is closed. • Bran product is fed by gravity into tip trucks with a feed sock to minimise product loss and drop distance to the truck bin. • Bran product truck bins are covered after loading and prior to driving off the site.
Finished product (flour) dispatch	• Mechanical high-level switch on the silo. • The flour truck is a dry bulk tanker. • Retractable socks are used for dispatch of flour from the silos to tankers. • Loading chutes are gravity feed with a blower to aerate the flour. This is a closed system.	• Silo are filled with the order amount (maximum of one truck worth of material) to prevent overfilling. • Tanker driver to check compartments are fully depressurised before opening tankers. • Check loading bellow is secure and inside the tanker prior to loading. • Filling is manually stopped when the displayed scale shows maximum truck weight.

Activity	Controls	
	Structural	**Procedural**
	• Loading will only begin when the silo valve is opened by the truck driver. • The valve gate can only be accessed when on top to the truck. • In the event of power failure, the blower aeration will stop and product ceases discharging. • Trucks are on a weighbridge to prevent overfilling.	• Emergency stop loading button to be used if loading becomes unsafe or causing too much dust. • Raise the loading bellow slowly to reduce spill. • Bulk tankers to inspect hatches and seals before leaving the dispatch area.
Fugitive dust on the site		• Site roads are swept three times per week to minimise dust during normal operations. • During ship unloading, regular daily sweeping is implemented.
Vehicle movements onsite	• All vehicle access roads are sealed.	• Site speed limit of 10 km/hour. • Minimise delivery and dispatch vehicles onsite.
Filters		• Spare parts are kept onsite to minimise equipment downtime. • Broken filters are replaced as soon as possible.

5.13.3 Contingency measures

Contingency measures may be applied if:

- Processes at the Champion flour Mill are identified as a potential cause of the trigger levels being exceeded as discussed in Section 7; and
- The control measures as detailed in Table 5.11 are unable to reduce the dust concentrations to below the trigger values.

Potential contingency measures for the Champion Flour Mill are as follows:

- Material transfer:
  - Weight alarms on the bulk bran product discharge silos.
  - Immediate stop and repair of transfer augers and conveyors in the event of a seal failure.
- Filling silos:
  - In the event of overfilling, finished product is discharged into overflow silos.
- Fugitive dust:
  - Increase sweeping.
  - Stop at Source: Take whatever actions are needed to stop the dust release at source. e.g., plant shutdown, isolate the area.
  - Prevent Spread: Cover any dust on ground to prevent it becoming airborne as fugitive dust and spreading (especially offsite).
  - Clean-up: Clean-up the dust as quickly as practical and dispose or reuse.

- Vehicle movements on site:
  - Reduce speed.

5.13.4 Performance specifications

Performance specifications for dust extraction and treatment equipment for various operations are summarised in Table 5.12.

Table 5.12: Performance specifications for dust extraction and treatment equipment

Equipment	Extraction rate	Specified removal efficiency or emission rate
Silo vent filters	Passive ventilation.	Filter fabric specification 250-280 g/m².

6 Log storage and handling

6.1 Overview

The log operations involve the following activities, which are described in further detail below:

- Transportation and receipt of logs via train or truck.
- Collection and transfer of logs from train or truck to storage or directly to the preload area.
- Log storage.
- On-port debarking.
- Log transfer from storage to preload or directly to the wharf apron in preparation for loading onto a vessel.
- Loading or unloading of logs onto a vessel.
- Dust source control methods:
  - Movement and operation of equipment used for log handling operations.
  - Cleaning of equipment used for log handling.
  - Management and cleaning of the log storage area.
- Any other operation associated with Log Operations.

The following sections describe the log storage handling activities.

6.2 Storage and conveyance

The locations of log storage and conveyance as follows:

- Log conveyance, truck paths and bark handling and storage areas are shown in Figure 6.1.
- Berth locations and numbers are shown in Figure 6.2.
- Log yard storage area extent is shown in Figure 6.3.

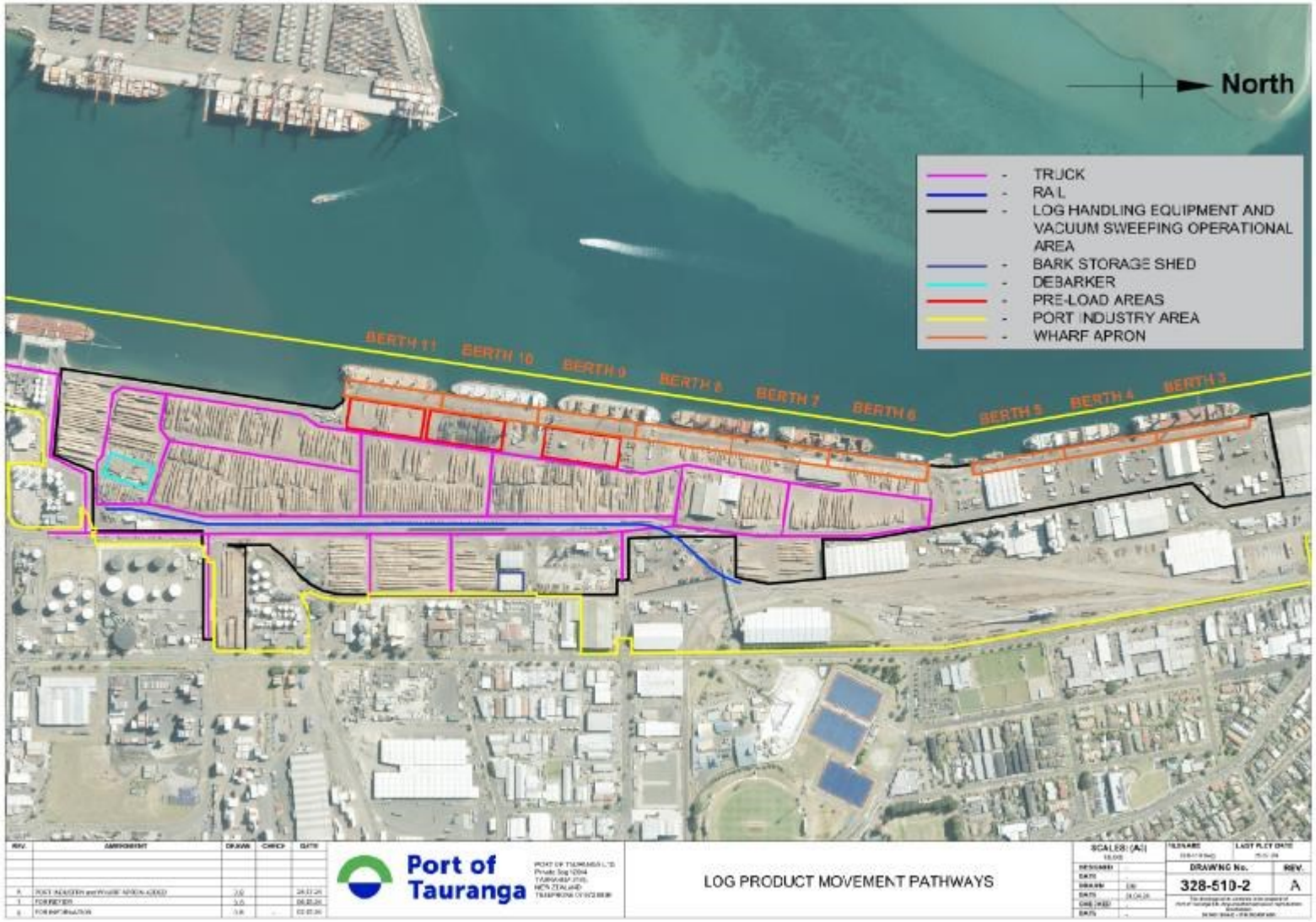


Figure 6.1: Log product movement pathways.

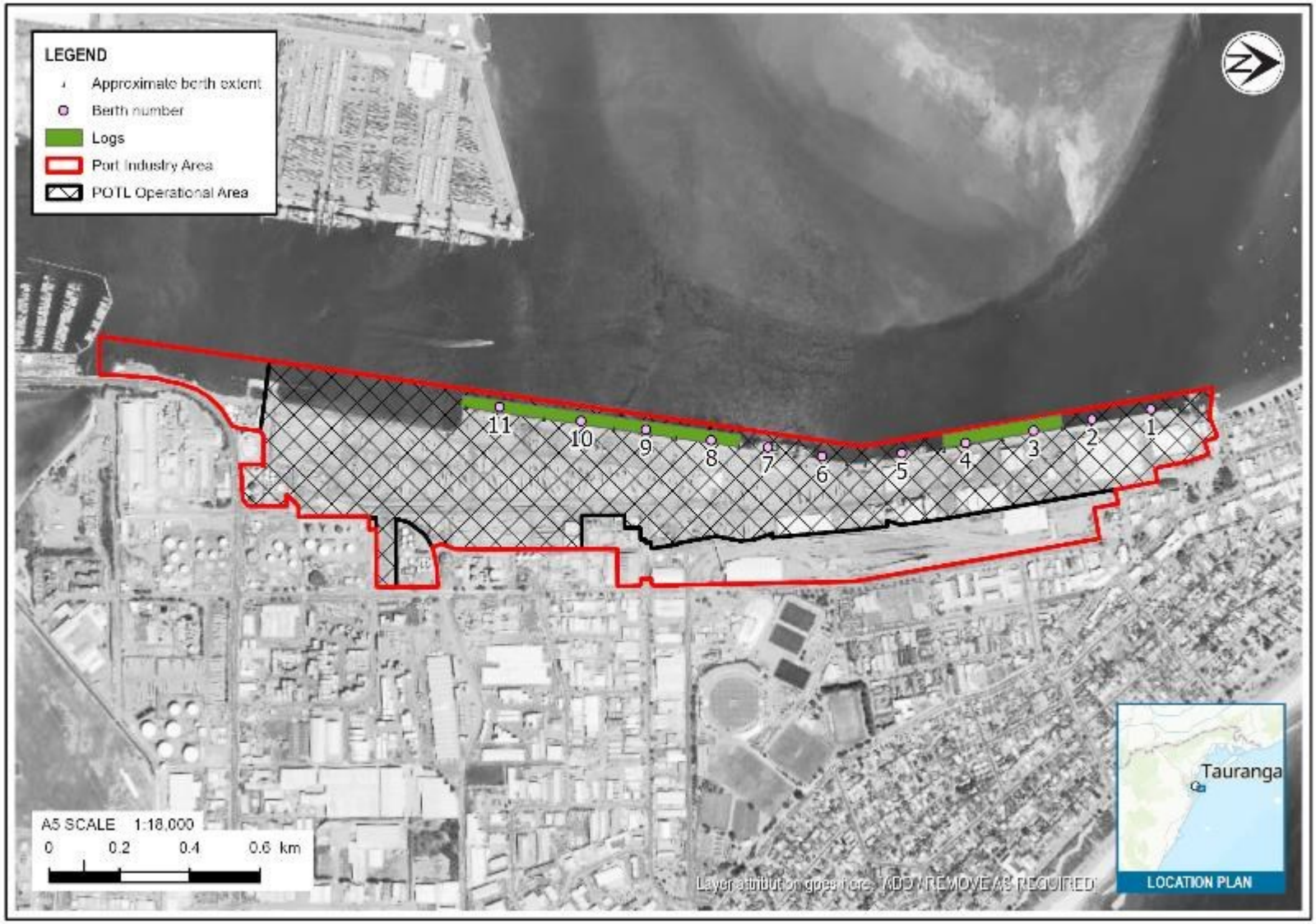


Figure 6.2: Berths used for Logs for the year ending 31 July 2019.

Figure 6.3: Log yard extent.

6.3 Debarking

The on-port debarking equipment is managed by QUBE.

Most log debarking occurs prior to logs arriving on site. A small proportion of bark-on logs that arrive onsite are debarked prior to export. Debarking occurs at the dedicated debarking facility as shown in Figure 6.1. The debarking process operates 24 hours per day, 7 days per week as necessary.

Debarking follows the below steps:

1 Bark on logs are delivered to the debarker by marshallers or directly by truck.
2 Logs are placed onto the moving bed log bench by loader.
3 One log at a time is rolled off the log bench and onto a conveyor.
4 The conveyor moves the log into the semi-enclosed single rotor debarking machine as shown in Figure 6.4.
5 Bark is collected underneath the debarker and transferred to a waste bark pile using a conveyor.
6 The debarked log is conveyed to a storage bed/bunk where it is then transferred to the yard.

Figure 6.4: Left: Debarking machine. *Right: Debarking machine building.*

6.4 Transportation, receipt and transfer to storage of logs

The movement of logs from delivery to storage is managed by the marshalling companies.

Logs are transported to the Port via logging trucks and via rail. The transportation corridors for logs are shown in Figure 6.1.

Logs are either scaled (sized and barcoded) on arrival or arrive scaled. Log ends may be cleaned at the designated checkpoint cleaning lane by water blaster or scraped by scalers during the ticketing and scaling process in the C3 checkpoint cleaning lane.

Log trucks arrive to the site and contact the relevant marshalling company. The marshaller informs the truck driver of which designated unchaining area to travel to and the log storage area to deliver the logs to after unchaining. The truck driver unchains the logs and then proceeds to the log storage area.

Marshallers remove the logs from the truck or train and transfer them to the storage areas as indicated in Figure 6.3. The marshallers use the following equipment to unload logs:

- Trucks: A front-end loader with grapple or mounted material handler (as shown in Figure 6.5) removes the logs from the truck and trailer unit; or
- Trains: A front-end loader with grapple or mounted material handler removes the logs from the train wagon.

Figure 6.5:
Left: Mounted material handler. *Right: Front-end loader with grapple (beaked loader).*

6.5 Movement of logs from storage to preload or wharf apron

The marshalling companies manage the movement of logs from:

- Storage to preload.
- Storage to the wharf apron.
- Preload to the wharf apron.

Logs are moved from the storage area to the preload or wharf apron area in preparation for transfer to vessel for export.

Processes for transferring logs from storage to the preload area or wharf apron include:

Trailer loading is as follows:

1 Transfer to trailer at the storage yard using front end loaders with a grapple attachment or stationary material handler. Trailers are then either:
   - Driven to the wharf apron for loading to vessel.
   - Driven to the preload area and transferred from the trailer to the preload area using either a material handler or a front-end loader with a grapple attachment.

Bunk loading is as follows:

1 Logs are transferred to a bunk on the wharf apron using a loader or via a truck where they are unloaded using a loader or material handler.

2 Transfer with a loader into a bunk on the wharf apron is either directly from storage or from the preload area.

3 The log packet in the bunk is squared up with a butting tractor, log butting station or similar.

6.6 Transfer from wharf apron to vessel

Loading onto vessels is managed by the stevedoring companies.

Cranes used for transferring logs from the wharf apron to vessel are either land-based or vessel-based cranes.

The ship or mobile harbour crane uses the following methods to transfer logs to the vessel:

- Grapple grabs or mechanical log grabs.
- Cranston and wires or strops.

6.7 Log handling dust control measures – sequence of operations

The transfer of logs from trucks or trains to the debarking facility, to the storage areas, from the storage area to the preload area, from the preload area to the wharf apron and finally from the wharf apron to the vessel results in some abrasion of the logs, which leads to bark and dirt (debris) being left on the yard areas of the port.

Debris removal from log yard areas is done by a third-party operator (unless specified otherwise) on behalf of the POTL, using a process called ploughing and sweeping. This is to minimise both tracking of debris and debris being crushed into smaller particles when driven over, which could then cause dust emissions as windblown dust or pick-up from vehicle travel.

Back up sweeping providers contractors are available to assist with the primary contractors should there be need for additional sweeping services. This may be due to a higher than normal visual dust presence in the yard at a given time (either airborne dust or particulate on the ground), resourcing issues being experienced by the primary contractor (possibly due to machine break down, servicing and/or staff sickness or other leave requirement).

There are several locations and phases of the log handling operation at which debris is collected and removed using ploughing and sweeping:

1 Initial log delivery – cleaning lane and trailer hoist area

After log end cleaning occurs in the C3 checkpoint cleaning lane, ground conditions are generally wet which minimises dust risk. Debris is swept by vacuum sweeper truck at least daily. Truck speeds in this area are limited to 10 km/hour.

After trucks are unloaded, they travel to the designated sweeping areas, where loose material is swept from the truck and trailer unit prior to the truck leaving the site.

2 Log storage area

Prior to logs arriving at a storage row, standard operating procedure is for debris from the previous load to be ploughed and swept from the storage row by the yard cleaning service providers. Details of this process are further specified in the Log SOP S.8.

The plough is a modified straight edge snow plough. Two ploughs have misting spray attachment to minimise dust generation during ploughing. The debris is removed using a plough and pushed into piles. The debris piles are picked up with a front-end loader with a bucket and deposited into an open topped truck bin. The truck bin is fitted with dust suppression sprays around the top of the bin which are used during loading (unless the bark is wet, following rainfall). The debris is transported to the bark shed for storage.

After ploughing and removal of the bark piles, the area is swept using a vacuum sweeper truck.

Up to two ploughs and three sweepers, operated by Daltons, are operating in the log yard and preload area between the hours of 0500 and 2300.

3 Log preload area

Ploughing and sweeping in the preload area follows the same method as for the storage area. Ploughing and sweeping occurs as follows:

- Prior to the logs arriving at the preload area, loose material is ploughed and swept from the location of the preload row.
- Preload area as required and as services are available.

4 At the wharf apron

Debris removal on the wharf apron is managed by the stevedores. Debris is removed at various periods throughout loading of the vessel as specified in the Log SOP.

5 Log yard roadways

Ploughing and sweeping in the preload area follows the same method as for the storage area.

- At the discretion of the yard cleaning service providers and POTL under an active management approach alongside other routine sweeping.

6 The debarker facility

The roadways and road areas of the debarking facility are swept once to twice per day. The areas underneath the load in moving bed and load out storage bed are cleaned once per week manually by debarker staff as these areas are not trafficable.

7 Bark storage shed and refuse pile

- Bark collected from yard cleaning services is stored in a bark storage shed as shown in Figure 6.1. A misting curtain around bark storage shed entrance is operated when bark loading or unloading activities are occurring in the shed.
- Dust from sweeper trucks is stored in the bark shed as shown in Figure 6.1. This product is unloaded in a wet state due to the dust suppression applied to the sweepings material in the vacuum system.
- Bark and dust that is not suitable for reuse, such as contaminated material or material expected to be contaminated with other products (oil, BSM etc.) is stored in the refuse pile as shown in Figure 5.2. This product is unloaded in a wet state due to the dust suppression applied to the sweepings material in the vacuum system.

8 Log yard speed controls

The marshaller's mobile log handling equipment is restricted to operate at 20 km/hour or less. Speed limits on the port roads shown in Figure 5.3 are:

- 40 km/hour on main port through roads Tasman Quay and Wharf Road.
- 20 km/hour on main log yard roadways.

- Less than 20 km/hour on all non-roadway areas, such as log storage areas[18].

9 Other dust control measures

Other dust source control measures processes that occur on site include the following:

- Placement of concrete blocks to define roadways.
- Restricting vehicles in empty log store areas to prevent travel through log storage areas.
- If other measures are assessed to be insufficient with dealing with acute dust incidents, POTL may utilise a contracted water cart for dust suppression purposes. Prior to any engagement of a water cart, an assessment would be undertaken by POTL to ensure that such a use will not result in non-compliant discharges to the stormwater network and/or the harbour.

6.8 Log handling dust control measures – SOP and inventory

Procedures for log storage and handling is detailed in the Log SOP included in Appendix C. The SOP details dust source controls and management measures for log handling within the Port Industry Area.

The Log SOP applies to all log marshalling, stevedoring, transporting and yard cleaning activities/operations undertaken within the Port Industry Area, namely:

- Transportation and receipt of logs via train or truck.
- Storage of logs.
- Debarking of logs.
- Loading and unloading of logs onto a vessel.
- Cleaning, movement and operation of equipment used for log handling operations.
- Management and cleaning of land.
- Any other operation associated with Log Operations.
- Berth preload vacuum sweeping times.
- Yard Cleaning Services operation hours.
- Vehicle speed limits and travel restrictions.
- Site sweeping/vacuuming protocols.

An inventory of the dust source controls for log handling and storage that occur in the Port Industry Area are detailed in Table 6.1.

Different loading systems and vehicles have differing potential for dust generation. Operations that require more handling of logs increases the potential for abrasion of dirt, bark and wood off the logs. Dust generation from vehicle movements can be affected by the following factors:

- Contact area of wheels on the ground (footprint of wheels, number of wheels on the vehicle). Large footprint creates more fine debris than small (loaders v trailers).
- Weight of vehicle and number of wheels. Heavier vehicles have a higher potential for dust generation, through a greater ability to pulverise the material and entrain on the wheels. More wheels create larger surface contact with the ground.
- Speed of vehicles. Faster vehicles have a greater potential to entrain dust.

[18] The distinction between a 20 km/hour speed limit on main log yard roadways and '*less than* 20 km/hour' on all non-roadway areas is to recognise the need for marshalling operators to actively monitor the dust generation occurring from their machines when operating in these areas and identifying when they need to reduce their speed to reduce dust generation.

- Frequency of vehicle movement. A higher number of vehicle movements can result greater breakdown of debris on the surface.
- Moisture content of dust.
- Physical properties of the dust and how that affects efficacy of ploughing and sweeping.
- The quantum of dust/particulate adhering to the logs. Factors affecting the amount of bark and debris on logs arriving at the port include:
  - Harvesting method - Manual methods may have more dust/particulate adhering to the log surface than a mechanical harvesting due to more ground contact.
  - Log making method - mechanically delimbed or manually delimbed (mechanical delimbing will also remove some bark and dirt adhering to bark).
  - Condition of skid/landing – a muddy skid will transfer more debris to the logs than a dry skid.
  - Weather during transport - Dry conditions may result with dust from transport on unsealed roads adhering to the logs.
  - Time of year – more bark can be removed during log making in spring.

Table 6.1: Inventory of log handling dust source controls and establishment date

Activity	Responsible party	Controls (establishment date)	
		Structural	Operational
Pre-arrival debarking	Forest owners/ managers	• Introduction of pre-arrival debarking (2019).	• A greater proportion of debarked logs arriving at and being handled through the port results in less particulate matter from log handling (2019).
Log handling	Marshallers	• Use of trailers instead of front-end loaders when appropriate (Ongoing - increasing frequency). • Use of material handlers to load rows and trailers when appropriate (Ongoing - increasing frequency).	• Increase of logs delivered to the preload area or wharf apron on a trailer rather than by loader to bunk. Trailer log loading requires considerably less handling than bunk loading. Less handling means less abrasion of the logs (log-on-log or log-on-equipment) and therefore less particulate being lost to ground. Trailer loading has fewer vehicle movements including less vehicle movements over dusty ground (which can cause the suspension of dust) (Ongoing – increasing frequency). • A greater proportion of logs being loaded into log rows and onto trailers by a stationary material handler rather than a loader results in less wheel travel over exposed log row areas and leads to less dust suspension from vehicles (ongoing increase in frequency).

Activity	Responsible party	Controls (establishment date)	
		Structural	Operational
Debris removal	Daltons (contracted by POTL)	**Ploughing** • Two ploughs. • Water suppression plough head on one bark plough (Nov 2020). • Water suppression plough on second bark plough (2024).	• Up to two ploughs and three sweepers in the log yard and preload area. • Sweeping rostered hours set at 244 hours per week (Jul 2019)[19]. • Minimum operating hours for sweeper trucks set at 180 hours per week[20] (April 2021). • Assess log preloading operations yard for sweeping and undertake when necessary (refer to Log SOP S.8) (Sep 2018-Feb 2020). – At least once every 4 hours for bunk loading. – As required for trailer loading. • Vacuum sweeping service to prioritise high risk areas such large areas which are more exposed to wind or areas visibly generating dust (Feb 2020). • Reference photos used to determine if sweeping is completed to the required standard. (Aug 2024). • Log rows should be swept prior to new logs being stacked in that row (Jul 2021). • Cease sweeping if visible dust is being generated beyond the distance stated in Section 7.1 (Jul 2021 updated Dec 2024).
	Daltons (contracted by POTL)	**Sweeping** • Three vacuum sweepers (Jul 2019).	
	Sweeper service (contracted by stevedores)	• Sweeper trucks at berth(s).	• Sweeper trucks operating in the wharf apron.
	Marshallers		• Wharf apron areas may be ploughed using log ploughing during night shift only to remove large debris prior to sweeping. (Pre 2019, updated Dec 2024).
General	POTL	• Entire Port log yard area is sealed, (progressively from 1963 to 2017). • 8 m high wind fences (refer to Figure *6*.6):	• Log SOP (previously named "Log Handling Procedure") document released (Jul 2021).

[19] Rostered hours may not be equal to operational hours due to machine breakdowns, maintenance, staff sickness etc.

[20] Operational hours include active sweeping, refueling, emptying, refilling water, travel time on port and wait times to enter log storage areas.

Activity	Responsible party	Controls (establishment date)	
		Structural	**Operational**
		– Mount wharves eastern boundary south of Hull Road (2010). – Tasman Quay adjacent to northern Rail siding (2015). – Adjacent to refuse pile and hopper cleaning facility. (Feb 2020 – Oct 2021). – Perpendicular to bulk liquids berth (Feb 2020 – Oct 2021). – Adjacent to southern log yard (Feb 2020 – Oct 2021). – Eastern boundary adjacent to berths 7 and 8. (Feb 2020 – Oct 2021). – Northern log yard (2024). • Berth 9 access road alignment changed from SW orientation to W orientation to reduce wind tunnel effect from prevailing SW wind. A SW wind direction wind tunnelling through this area could cause suspension of dust from a high use log preload area immediately upwind of the roadway. The westerly wind direction is better protected upwind due to common log stack and vessel hull presence. (Aug 2020).	• Dedicated POTL Environmental Coordinator position established (2018) to oversee: – Operations of log yard users. – Yard cleaning services. – Housekeeping and bark management.
Bark management	Daltons (contracted by POTL)	• Relocation of the open bark pile from near the corner of Totara Street and Maui Street to an enclosed shed (2013). • Misting curtain around bark storage shed entrance. (Oct 2020).	• Empty log truck and trailers swept of loose material in designated area prior to leaving site. (Pre 2018). • Bark storage shed misting is manually activated when activities are being undertaken in the shed. (Oct 2020). • Covering of vehicles transporting bark debris was superseded by a misting trailer. Dropping bark into the trailer is considered to be more dusty than windblown dust during transit from an open truck. (Jan 2023).
Refuse pile	POTL	• 4 m high solid barrier walls around three sides of the refuse pile to enclose the area where refuse materials and	

Activity	Responsible party	Controls (establishment date)	
		Structural	Operational
		waste bulk solids are stored and handled. The open face is positioned on the opposite side to the prevailing westerly and south westerly winds which could cause product drift towards the eastern boundary. (Jul 2023). • A sprinkler system installed on the top of the walls and can be used to suppress dust if required. (Jul 2023).	
Vehicle travel	POTL Marshallers	• Concrete barriers and cones installed along key yard boundaries (Jun 2020 – Sep 2020). • Where practicable, Port dedicated machines are physically restricted to 20 km/hour (through gearing or similar). (Pre 2018). • Radar feedback display units on Tasman Quay (Pre 2018).	• Marshallers to travel on Port roads rather than through empty storage yards unless the area has been designated as a 'temporary roadway'. (Feb 2020). • Port marshalling companies educating drivers about travelling on Port roads and the importance of dust minimisation. (Feb 2020). • Speed restrictions (refer to Figure 5.3) (Pre 2018).

Note:

Dust Source Controls Removed Prior to 31 July 2019:

- Previously, log loading operators were to undertake manual sweeping of areas not accessible to vacuum sweeper trucks. However, this dust source control was removed due to health and safety concerns.

6.9 Contingency measures

Contingency measures may be applied if:

- Log handling is identified as a potential cause of the trigger levels being exceeded as discussed in Section 7; and
- The control measures as detailed in Table 6.1 are unable to reduce the dust concentrations to below the trigger values.

Potential contingency measures for log handling and storage are as follows:

- Contracting additional ploughs and sweeper trucks.
- Cover refuse material bunker.
- Mist refuse material bunker.
- Reduce vehicle speed.

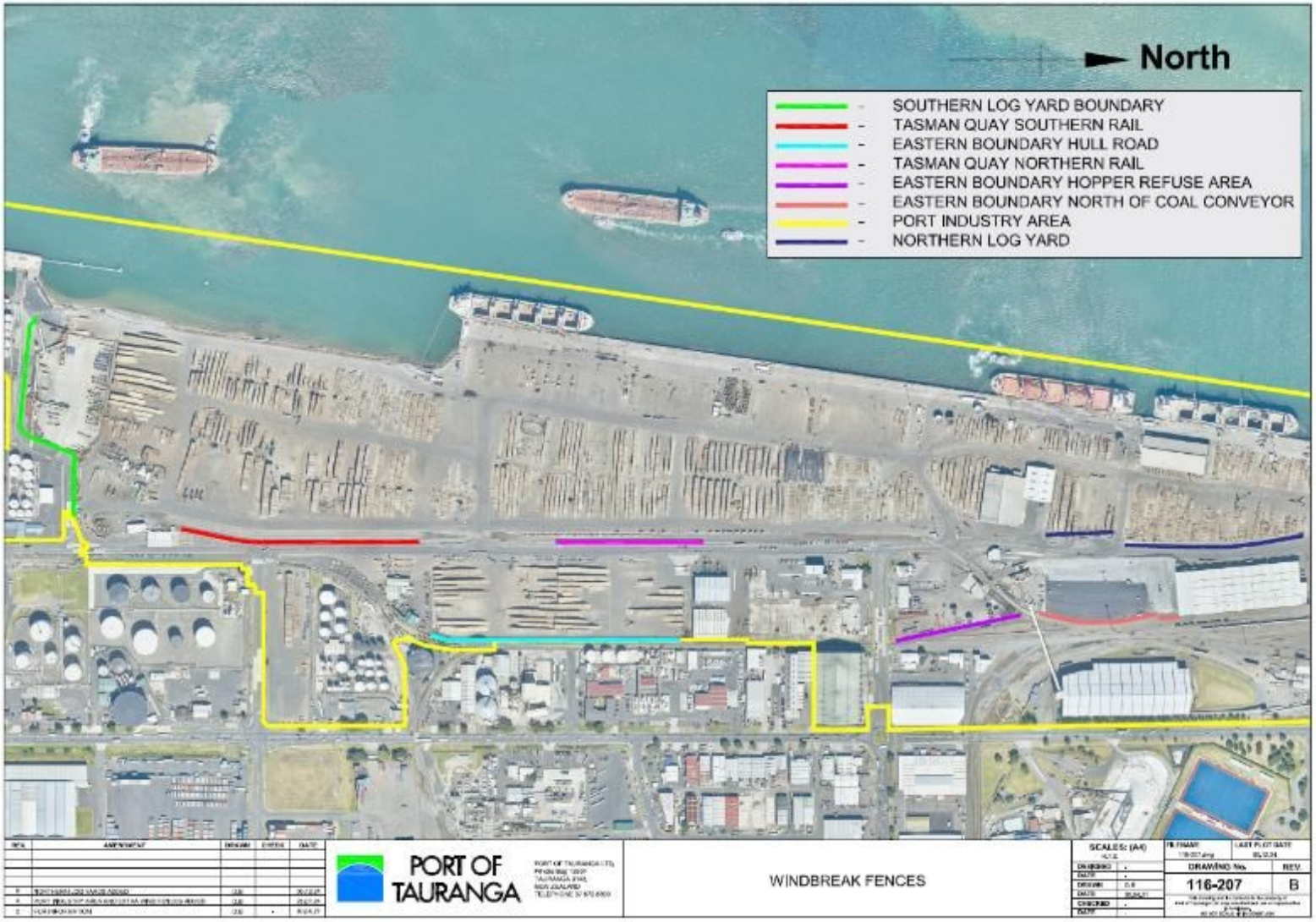


Figure 6.6: Wind break fences. The Port Industry Area is shown in yellow and all other annotations are wind break fences.

6.10 Maintenance and equipment monitoring procedures

Table 6.2 identifies maintenance and monitoring procedures undertaken to minimise discharges to air and the frequency in which these activities are undertaken. The full details of the inspections and maintenance activities to take place are in the following documents:

Table 6.2: Maintenance programme for log yard equipment

Equipment	Frequency	Responsible party	Maintenance or monitoring requirement	Record location
Plough vehicles	Daily	Plough vehicle operator	Misting systems working	Yard cleaning service prestart check form
Bark truck	Daily	Bark truck operator	Misting system working	Yard cleaning service prestart check form
Vacuum truck	Daily	Vacuum truck operator	Inspect filters	Yard cleaning service prestart check form
	6-monthly		Replace vacuum truck filters	Yard cleaning service prestart check form
Bark shed	Annually	POTL	Misting system working	Survey 123

7 Monitoring

7.1 Visible dust

Visual observations are used to assess the effectiveness of dust control measures. They also help identify dust emission events and investigating and responding to any received complaints. The procedure for undertaking visual site inspections is outlined below:

- Visible dust is to be monitored by the following parties:
  - POTL Environmental Manager or delegate.
  - POTL Environmental Co-ordinator.
  - Marshalling companies.
  - Stevedoring companies.
  - Daltons.
  - Genesis.
  - Champion.
  - Swap Stockfoods.
- Visible dust emissions that exceed standards identified by the BSM or Log SOP are to be rectified immediately (if identified by the party responsible for the emission) or reported to the POTL CCTV operator as soon as possible.
- Dust emissions are to be monitored for all operations undertaken by parties undertaking work under the BSM or Log SOPs. The BSM SOP and Log SOP places the following requirements for visible airborne dust generation:
  - Less than 15 m from the levelling of truck bins (BSM SOP S.5.15).
  - Less than 15 m from the source for truck cleaning in the stevedores work area (BSM SOP S.6.7).
  - Beyond the Port Industry Area boundary (Log SOP S.8.7).
  - Less than 100 m from the stevedores working area from hopper related dust sources (BSM SOP S.5.7).
- If visible dust emissions are observed reaching beyond the site boundary, the following details must be recorded:
  - Source of the visible dust emissions, if known.
- If visible dust is noted beyond the distances noted above, the Port CCTV operator (or delegated person) must be notified immediately, the following further actions must be taken and the following details recorded by POTL.
  - Date and time, and general weather conditions (wind speed/direction and temperature) at the time of the incident.
  - Detail the possible cause of the incident, and any preventative or corrective actions taken.
- Further action is to include investigating the cause of the dust emission and taking necessary actions to reduce dust emission from on-site activities.

Specific monitoring of the log yard is as follows:

Table 7.1: Monitoring programme for log yard debris levels

Location	Frequency	Responsible party	Maintenance or monitoring requirement	Record location
General site	Daily	Stevedores	Outdoor surfaces (wharf surface) are swept as per Log SOP S.7.1 requirements.	Recorded in stevedore shift logs
	Monthly	Environmental Manager	Monitor Yard cleaning services operational sweeping hours.	E-road vehicle monitoring system
	Weekly	Environmental Manager	Inspect outdoor and yard surfaces for dust and assess yard cleaning services performance.	Survey 123
	Daily	Marshallers Stevedores POTL Daltons	Advise driver immediately if dust coming out of the top of the vacuum truck.	No formal record
	Annual	POTL Environmental Manager POTL management team	Review SOPs and DMP.	Within SOP and DMP version control

7.2 Continuous dust monitoring and trigger levels

7.2.1 Current monitors

Continuous dust monitoring is carried out at four primary locations on and adjacent to the Port Industry Area as in Figure 7.1. Monitoring is undertaken using eBAM and BAM instruments.

The continuous dust monitors are compliant either the National Environmental Standards for Air Quality (NESAQ) Schedule 2 or equivalency as demonstrated through AS 3580.9.17-2018 or EN 12341:2014 as required by IPAR AIRSCHED2 Part A (6). Details of the dust monitors are in Table 7.2.

Table 7.2: Dust monitor details

Name	Station number as assigned by BOPRC for reporting purposes	Wind speed	Wind direction	Operator	PM_{10} concentration and resolution	Monitor type	NESAQ Schedule 2 or equivalency
Shed 6	AQ0002	Yes	Yes	POTL	Primary resolution is 10-minute average	Watercare eBAM plus	Yes
Rata Street (back-up monitor for Shed 6)	-	Yes	Yes	BOPRC	Primary resolution is 10-minute average	Watercare BAM	Yes
Rail Crossing	-	Yes	Yes	BOPRC	Primary resolution is 10-minute average	Watercare BAM	Yes
Totara Street south	AQ0013	Yes	Yes	POTL	Primary resolution is 10-minute average	Watercare BAM	Yes
Southern	AQ0012	Yes	Yes	POTL	Primary resolution is 10-minute average	Watercare eBAM plus	Yes

Data from the monitor is to be telemetered to a central database that is available in real time. The dust monitors are powered using mains power. The following information is recorded from the dust monitors:

- Live feed of PM_{10} concentrations from the BOPRC monitors at Rail Crossing and Rata Street (back up monitor).
- Live feed of PM_{10} concentrations and meteorological information from the POTL monitors Shed 6, Totara Street south and Southern.
- Live feed of meteorological information from the BOPRC monitors Rata Street and Rail Crossing.

The monitors are operated with an alarm system that alerts the POTL Environmental Manager and any other nominated persons (i.e., via text message alerts or similar) who have the responsibility of managing dust from the site. The POTL Environmental Manager or other nominated person will respond to alarm trigger events and take necessary measures to reduce dust emissions from the site where possible. Trigger levels and actions that are to be taken in response are outlined in Table 7.3.

Table 7.3: PM_{10} concentration trigger levels

Trigger level	PM_{10} concentration	Action
Alert	150 µg/m³ (calculated as a rolling 1-hour average concentration under Schedule 1 NESAQ).	• Record and investigate trigger alert.
Alert	65 µg/m³ (calculated as a rolling 12-hour average).	• Record and investigate trigger alert.

All continuous monitors operated by POTL are to be routinely checked to ensure that they are operating correctly, and calibration is maintained at a frequency and in accordance with manufacturer instructions.

7.2.2 Future monitors and contingency measures

Investigation into additional monitors may occur in the future. A monitor such as a DustTrak, nephelometer or similar could be deployed to collect data. Any additional monitors would be for POTL internal use only. The use of additional monitors may be considered by the following events:

- Regular dust nuisance complaints.
- Frequent exceedances of the PM_{10} concentration trigger limits at the current monitoring location.
- Investigation of future additional dust mitigation measures.
- Specific process investigations; or
- If there are any significant changes to processes that could result in increased PM_{10} emissions.

Establishment of a pre-alert level may occur in the future if the trigger levels in Table 7.3 are exceeded. Pre-alert levels could aid in applying control measures before the potential trigger of PM_{10} concentrations.

7.3 Meteorological

Wind speed and wind direction is measured at the four primary monitoring stations detailed in the previous section. The monitoring stations that are operated by POTL are to be operated, maintained and calibrated in accordance with the manufacturer specifications at least annually.

Separate anemometers are located on light towers adjacent berths 8 and 10 at elevations considered representative of hopper inlet wind exposure. The data from the wind monitoring stations is telemetered and recorded and connected to a visual alert system that triggers visual alarms at berths 7 and 8 and the equivalent online system. The visual alert system is monitored by the BSM stevedores during their operations. Dust source control measures are required to be implemented in response to certain wind trigger levels. Detailed actions for when the levels are triggered are in the BSM SOP in Appendix B.

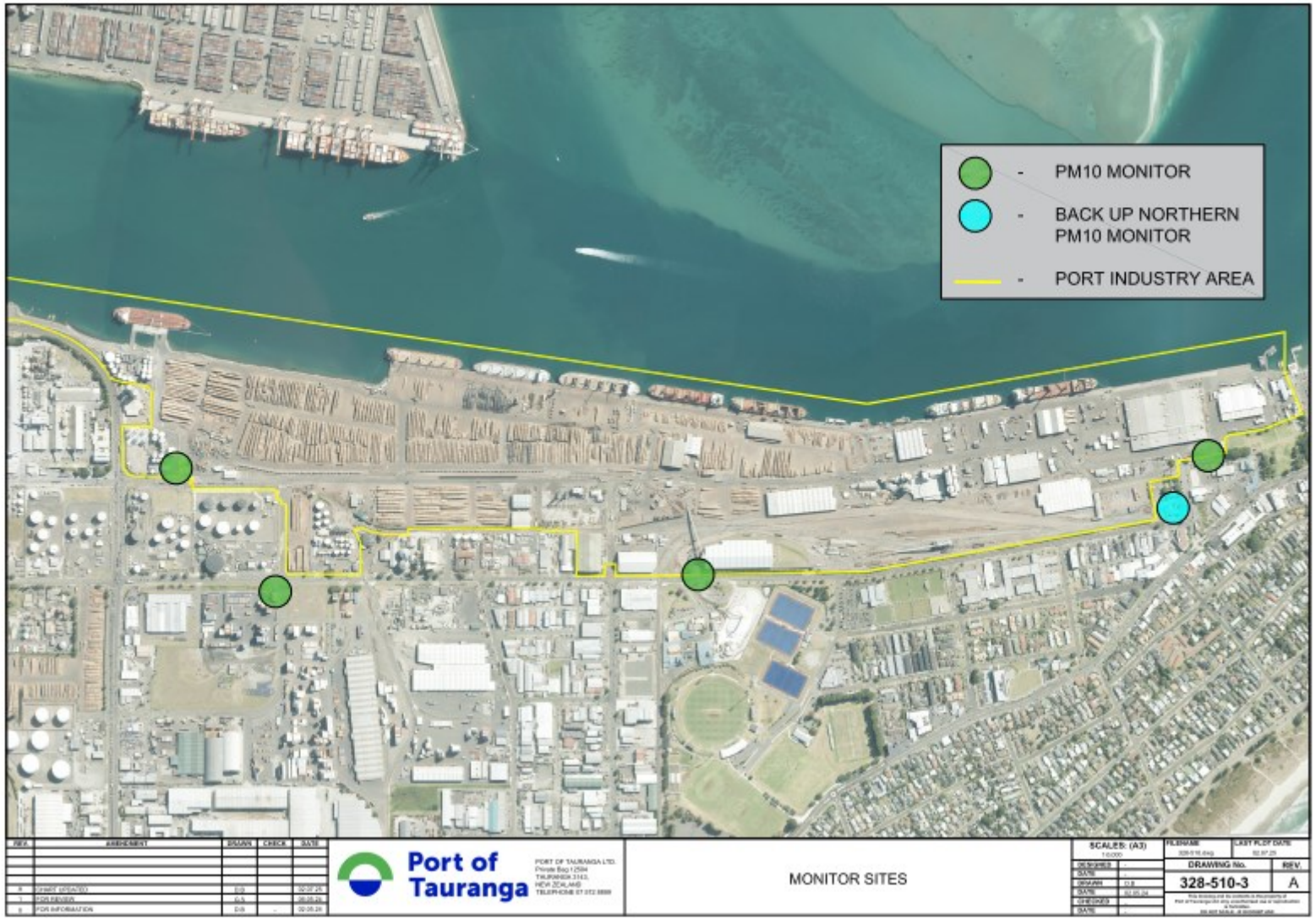


Figure 7.1: Monitor sites.

7.4 Response to PM_{10} triggers

The POTL response for trigger of the PM_{10} concentration is as follows:

1 Trigger exceeded and notification will be sent to the POTL Environmental Manager and any other nominated person, this notification will be sent via email and/or SMS.

2 PM_{10} concentration data and meteorological data will be reviewed by utilising the live feed data. This will include the data for the triggered site and other sites (to help identify extent of effect).

3 Investigations will be undertaken via CCTV (where possible) to attempt to identify potential contributing activities undertaken upwind of the monitor (this could include both current and past activities).

4 Where possible, an on ground investigation will also be undertaken (this will occur at the same time as the CCTV review where practicable).

5 When potential contributing activities are identified, contact will be made with the operators undertaking the identified activities. Information will be passed on from observations and dust source control measures will be discussed and implemented where practicable.

6 The situation will then be monitored via CCTV, monitoring data and on ground inspections where practicable. If PM_{10} concentrations do not reduce, this process will be reinitiated.

7 A review of the incident will be undertaken or lead by the POTL Environmental Manager (or delegate) and/or other environmental manager.

8 An assessment of if standard operating procedures were followed will be undertaken:

- If the SOPs/DMP were followed then a review the SOPs and/or DMP will be undertaken.
- If the SOPs/DMP were not followed then corrective actions will be identified and undertaken by the appropriate parties, the SOPs/DMP may also be reviewed.

9 Corrective actions will be identified with the operators. Once the corrective actions are confirmed, they will be documented and actioned.

10 Records of the incident are created (currently saved in ArcGIS software Survey123).

11 An Investigation Report will be filed as required by AIRSCHED2 Part B (Refer to DMP Section 9)

The response to a PM_{10} trigger for operators that are contacted by POTL is as follows:

1 Discuss immediate dust source control measures actions with POTL and identify course of action.

2 Assist POTL with their investigation and provide information.

3 Identify corrective actions with POTL.

4 Report back to POTL if further information is required.

8 Pollution incident and complaints procedure

8.1 Overview

Although the measures outlined in this DMP are aimed at preventing and reducing emissions to air from activities on the Port Industry Area and preventing air quality issues beyond the boundary of the Port Industry Area, there may be occasion where an incident occurs and a complaint from a member of the public is received. Any reported dust incident or complaint must:

- Be promptly investigated to resolve the source of the dust emissions, where possible (this may not be possible when dust incidents are reported after activities have been undertaken).
- Have appropriate actions implemented to mitigate the effects and reduce the likelihood of future occurrences.

The full details of the activities to take place in the event of a complaint are in ArcGIS Survey 123.

The following provides the procedures for receiving and keeping records of any incidents or complaints.

The correct information must be collected by the person receiving the incident or complaint to help investigate the cause and identify any corrective action that has been or needs to be undertaken.

A record is to be kept of all dust related complaints received relating to site activities. Those details shall be recorded in the above-mentioned forms and registers. The recorded complaints information and investigations must be available at the site office and made available to BOPRC staff when requested and as part of annual compliance reporting.

8.2 Contact person

The POTL Environmental Manager will be the nominated contact person for complaints received. Complaints received by parties operating under this DMP shall be forwarded to the POTL Environmental Manager in a timely manner. POTL and/or the operator shall be responsible for the investigation of complaints and subsequent contact with the complainant and BOPRC.

8.3 Receiving and responding to complaints

8.3.1 Who receives the complaint

A pollution incident or complaint can be received from a member of the public via the following methods:

- To a port employee or contractor.
- To a Port Industry Area operator.
- Direct call to POTL.
- Written email or letter correspondence.
- Complainant may attend the site in person.
- Complaint received via BOPRC and/or Tauranga City Council (TCC).

8.3.2 Recording of complaint

Upon the receipt of a complaint relating to discharges to air from the site (odour, dust or other contaminants), the following process will be followed:

- Be courteous.
- Immediately suspend contact with the complainant if there is a risk of injury or abuse.
- Advise the complainant that an investigation will be taken out to identify the likely cause of their concern, and that appropriate mitigating actions are being undertaken or will be undertaken promptly.

POTL will record the following information as supplied by the complainant or Port Industry Area operators into Survey 123:

1 Date and time of the incident report.
2 Details of who received the incident report (Port staff details).
3 Where the incident of dust beyond the boundary has been reported from:
   - Reported directly by a member of the public.
   - Reported via a regulator.
4 Name and contact details of the incident reporter (if available), and location/address of when the dust was detected. Personal details such as name, contact number and address are to be kept confidential unless permission is granted by the incident reporter to share these details.
5 A description of the incident, including details of the alleged incident (e.g. any effects noted, duration).
6 Whether the incident is still occurring.

8.3.3 Incident investigation

Following the receipt of the incident report, an investigation into the potential cause(s) is required.

The investigation should be carried out promptly following the receipt of the incident report and at least ideally within 30 minutes of the report being made (if the report is being made at the time of the incident/during the incident).

The details of the investigation are to be recorded in Survey 123. The investigation shall include:

1 Assessment of environmental conditions at the time of the incident from the monitoring site(s):
   - Wind direction.
   - Wind speed.
   - Rain.
   - Changes to wind direction.
2 Concentration of PM_{10} recorded at the monitoring site(s).
3 Identification of areas upwind and activities that are occurring in that area which could be a potential source.
4 Is the issue still happening:
   - If the issue is still occurring then undertake:
     - CCTV review.
     - Monitoring data review.
     - In-field investigation where practicable.

    - Record findings.
    - Undertake critical review of activities upwind to see if they are operating as per the SOPs/DMP requirements, including record of dust source controls in place at the time of the incident.
  - If the issue is not still occurring then undertake:
    - CCTV review.
    - Monitoring data review.
    - Review other records to try to identify the potential source.
    - Undertake critical review of activities upwind to see if they were operating as per the SOPs/DMP requirements, including record of dust source controls in place at the time of the incident.

5 Record details of potential on-site dust sources that may be responsible for the incident, including type and approximate volume or rate of material being handled.

6 Details of who to contact with issues and record that contact was made.

7 Details that the POTL Environmental Manager was notified of the incident.

8 Detail any corrective action taken at the time to resolve the incident and by who.

8.3.4 Corrective actions

Following the incident report and investigation the following steps are required:

1 Contact the incident reporter detailing the investigation findings and corrective actions taken.

2 Identification of if issue was a result of failure to follow the SOPs/DMP:
  - If the SOPs/DMP were followed, then complete a review the SOPs and/or other measures to remedy future occurrences.
  - If the SOPs/DMP were not followed then record and action measures taken to reiterate the SOPs/DMP to the relevant parties and identify if SOPs/DMP require review to reduce likelihood of future occurrences.

3 Report incident and investigation to BOPRC annually as required in AIRSCHED2 Part A (8) (g).

8.4 Records

Complaints are to be kept in a centralised register and include the following:

- Details of the complaint.
- Significance of the complaint.
- Any exceedances of the PM_{10} Standard attributable to the site, abatement notices; and enforcement action taken.

9 Reporting

9.1 PM_{10} monitoring data reporting

The following reporting is required as part of the PM_{10} monitoring onsite:

"Part A: Contents

6 A monitoring programme which must

j Require that all monitoring data collected must be provided to the Regional Council as follows:

i Raw monthly data to be provided via electronic access to the Regional Council by the 5th day of the following month;

ii Validated quarterly data to be provided via electronic access to the Regional Council on 1 February, 1 May, 1 August, and 1 November of every year; and

iii Any exceedance of the trigger values set out in Part A clause (7) must be notified to the Regional Council in writing within 5 working days of the exceedance."

An annual report is required to be prepared by a SQEP and provided to the Regional Council and Ngāi te Rangi on 30 June every year. According to AIRSCHED2 the following is required for investigation and reporting:

"Part B: Investigation and Reporting

e An annual report prepared by a SQEP must be provided to the Regional Council and to Ngāi te Rangi for the Port Industry Area, on 30 June of every year containing the following:

i A summary of the year's monitoring data;

ii Details of investigations into all exceedances of the trigger value;

iii Steps taken to implement corrective actions;

iv Ongoing actions to reduce discharges of contaminants from the site; and

v Changes/modifications to the air quality monitoring programme; and

f For the Port Industry Area, the port company must hold and must invite Ngāi te Rangi and operators identified within the Dust Management Plan to an annual meeting with Ngāi te Rangi to share the results of the annual report required by (e)."

9.2 PM_{10} trigger investigation reporting

9.3 Investigation and reporting

An investigation and report are required should the trigger values be exceeded. According to AIRSCHED2 the following is required for investigation and reporting:

"Part B: Investigation and Reporting

a *In the event that either of the trigger values set out in Part A Clause (7) are exceeded, then an investigation must be undertaken as soon as reasonably practicable by, or under the direction of, a SQEP to:*

i Determine the cause of and reasons for the trigger value being exceeded;

ii Identify corrective actions required to minimise the potential for the trigger value being exceeded in the future; and

iii Set out the timeframes for implementation of the identified corrective actions;

b *The investigation results and findings must be documented by the SQEP in an Investigation Report;*

c *The Investigation Report in (b) must be provided to the Regional Council within two months of the trigger value being exceeded;*

d *The owner of the subject site and/or the parties responsible for the activity/operation that caused the exceedance of the trigger values must implement the corrective actions within the timeframes identified by the SQEP in the Investigation Report and must provide written confirmation to the Regional Council within 5 working days of completion of the actions."*

9.4 Complaints reporting

In addition, as required by:

- AIRSCHED2 Part A (8) (g), a summary of the complaints/incidents register must be reported annually.

10 Training

POTL recognises the importance of staff and Port Users being aware of both the risks to air quality from activities on-site and what standard operating procedures should be employed to reduce those risks. Therefore, it is considered critical that these people are trained and competent to undertake their roles in the management of these risks.

It is the ultimate responsibility of the Stevedores, Marshallers, Yard Cleaning Service Providers and bulk store facility owner/operators to ensure that their staff and visitors to their work areas are adequately trained and/or inducted prior to undertaking works without direct supervision.

As a minimum, Yard Cleaning Providers, Stevedore and Marshalling staff undertaking log handling and bulk solid material handling activities identified by this DMP should have completed the relevant induction materials detailed below:

- Bulk Solid Material Handling Induction.
- Log Handling Induction – Stevedores.
- Log Handling Induction – Marshallers.
- Yard Cleaning Services Induction.

Key POTL staff, the Yard Cleaning Providers, Stevedores and Marshallers shall:

- Ensure that a list of all staff working in each area is provided to POTL on request.
- Ensure that all relevant staff working in each area have completed the induction by 31 December 2024.
- Ensure that all new staff working in these areas have completed the induction prior to undertaking any works without direct supervision.
- Ensure that all staff working in these areas undertake the induction annually between 1 August and 30 September.
- Ensure that all staff working in these areas undertake refreshers of these inductions if advised by POTL that the induction has been updated.

As a minimum, Yard Cleaning Providers, Stevedores and Marshallers will ensure that supervisors/forepersons/or other person who holds responsibility of overseeing operations of others in these work areas have received training that encompasses the full requirements of the relevant SOPs by 31December 2024, or prior to overseeing operations of others if engaged for this role after that date. Records of this training will be kept by those parties.

POTL will ensure that all key POTL staff have received training that encompasses the full requirements of all SOPs associated to activities in the Port Operational Area by 31 December 2024. Records of this training will be kept by POTL.

POTL will ensure that these induction materials are kept up to date and available to these Port Users at all times.

Key POTL staff detailed above includes:

- Port of Tauranga Environmental staff.
- Port of Tauranga Cargo Services Manager.

11 DMP review and reporting procedures

This Plan may require update or review to reflect material changes associated with:

- significant new or changed processes for handling bulk solid materials or log delivery, loading and debris management; or
- the risks, dust source control measures, responsibilities and management processes associated with such changes.

Any such change would be to support continuous improvement.

The DMP will be reviewed once per year as required by Rule AREA2-R1 (3) (c) (iv). The review will take into consideration:

- Site personnel comments.
- Audit findings and recommendations.
- Environmental monitoring records.
- Environmental incidents and emergencies.
- Details of corrective and preventative actions.
- Changes to organisational structure.
- Ongoing compliance with objectives, conditions and targets.
- Possible changes in legislation and standards.

The review process will assess whether the procedures are still appropriate. Reasons for making changes will be documented.

Standard document control procedures will be used, so a copy of the original DMP document and subsequent versions will be kept on file and each version of the DMP is issued with a version number, date and review date to ensure obsolete DMP documentation is not used.

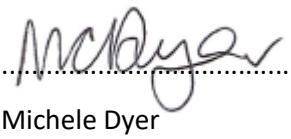
Any update will be supplied to the Regional Council and Ngāi te Rangi within one month of the amendment. POTL will ensure that BOPRC always has a copy of the most recent version of the DMP.

12 Applicability

This report has been prepared for the exclusive use of our client Port of Tauranga Limited, with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose, or by any person other than our client, without our prior written agreement.

Tonkin & Taylor Ltd
Environmental and Engineering Consultants

Report prepared by:



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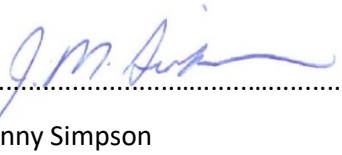
Michele Dyer
Senior Environmental Engineer

Authorised for Tonkin & Taylor Ltd by:



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Jenny Simpson
Project Director

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Appendix A Environmental policy

Port of Tauranga

Connecting New Zealand and the World

Environmental Policy

15 December 2023

Introduction

The Port of Tauranga Limited (the Port) is committed to demonstrating environmental leadership. This is reflected in its commitment to preserving and ensuring sustainability of the environment for future generations.

Purpose

This policy is designed to ensure the actions of the Port are environmentally sustainable.

The Port is committed to maintaining the life supporting capacity of our environment and positively managing environmental resources for the benefit of the Port, local communities and its future generations. Initiatives include:

- Setting standards for environmental performance that are consistent with the Port's environmental aspirations.
- Creating an attitude of responsible and positive environmental performance.
- Sustainably managing adverse environmental effects and environmental risks associated with port activities by setting, monitoring, and improving (where practicable) environmental operational standards.
- Seeking opportunities to improve resource use efficiencies and where possible, reduce our environmental impact.
- Recognising the role of local iwi and hapu in the moana and its surrounds.

Scope

This policy details the principles behind environmental management decisions and procedures undertaken at the port.

This policy applies to all activities undertaken within port operational areas by all port users.

Policy

The Port endeavours to act as stewards of the environment and to advocate responsible environmental practice as follows:

- Requiring all port users to consider and undertake diligent environmental performance at all times for all activities.
- Requiring that activities undertaken on the Port comply with all relevant environmental legislation and regulations.

- Working with relevant stakeholders to create and update environmental operational standards to reduce environmental risk. Particular emphasis is to be placed on ensuring air and stormwater quality standards are met.
- Educating port users on environmental issues associated with activities, sharing best practice, and advising how to achieve conformance with the Port's environmental operational standards.
- Undertaking audits of port users' activities to monitor conformance with the Port's environmental operational standards.
- Addressing non-conformance with Port environmental operational standards and taking appropriate action.
- Seeking and incorporating continuous improvement opportunities, including technological advances and innovations, to current environmental operational standards and practices to improve environmental outcomes.
- Investigating all environmental incidents occurring on the port that are reported to the Port.
- Considering environmental impacts when purchasing equipment.
- Recognising and acknowledging strong environmental leadership and best practice on the port.
- The Port is a Toitū carbon reduce programme member and is committed to a greenhouse gas emissions management and reduction programme.
- The Port is targeting Net Zero Emissions by 2050.

Approved: Board of Directors, 15 December 2023

Leonard Sampson
Chief Executive

Review

Approved:	Board
Policy Owner:	Chief Financial Officer
Effective Date:	15 December 2023
Next Review Date:	August 2024 (or earlier if required)
Approval:	The Chief Financial Officer or the Chief Executive has the authority to approve minor revisions or amendments.

Appendix B Bulk Solid Materials Standard Operating Procedures

Port of Tauranga
Connecting New Zealand and the World

Bulk Solid Materials Standard Operating Procedures

17 July 2025

Contents

Purpose and Responsibilities

1. Background

1.1. These Bulk Solid Material Standard Operating Procedures (**the Procedures**) stipulate the standard operating procedures that Port Users should follow when operating within the Port of Tauranga Operational Area. These procedures form part of the Port Industry Area Dust Management Plan (DMP), as required by Rule AREA2-R1 (Interim Permitted Activity Rule (IPAR) for Existing Activities in the Mount Maunganui Airshed) of the Bay of Plenty Regional Natural Resources Plan.

2. Scope

2.1. These Procedures cover the physical area of the Port of Tauranga Operational Area (as detailed in Schedule 1).

2.2. The Procedures apply to:
All Bulk Solid Material (BSM) stevedoring and transporting activities/operations associated with ship unloading undertaken within the Port of Tauranga Operational Area (**Bulk Cargo Operations**), namely:

- The collection and transfer of BSM from a ship's hold to a hopper or other receiving receptacle,
- The storage and holding of BSM in a hopper or other receiving receptacle,
- The collection and transfer of BSM into a truck or other means of transport,
- The movement and/or operation of trucks (including empty trucks) used to transport BSM,
- The management, cleaning and housekeeping of the stevedore's work area.

References in the Procedures to **Bulk Cargo Operators** means any party undertaking the activities identified above.

2.3. For the purposes of the Procedures, Bulk Solid Materials are granular cargo materials unloaded at the Port of Tauranga Operational Area, however, excludes materials loaded or unloaded in a way where the material is completely enclosed, such as packaged, bagged or containerised. Bulk Solid Materials include:

- Agricultural animal protein feeds
- Gravel

- Quarried rock
- Fertiliser
- Coal
- Cement
- Flour
- Rock aggregate
- Grains
- Compost
- Woodchip
- Clinker
- Wood pallets
- Gypsum
- and any other qualifying cargo handled, unloaded within the Port of Tauranga Facility in a process the same or similar to those materials listed above.

2.4. The Procedures detail the operational procedures that should be followed. Additional mitigation measures to those detailed in the procedures can be applied to Bulk Cargo Operations. These can be applied in addition to those required by the Procedures, however, can only replace the measures detailed in the Procedures if an exemption is provided by Port of Tauranga Limited (POTL) (as per Section 7).

2.5. POTL will monitor conformance with the Procedures, however, POTL is not responsible for the conformance of other Bulk Cargo Operators, this is the responsibility of the Bulk Cargo Operators.

3. Bulk Cargo Operator documentation

3.1. Stevedore companies undertaking Bulk Cargo Operations may also hold an Environmental Management Plan (EMP), or equivalent document, which details how their Bulk Cargo Operations will align with the Procedures as well as include any other additional mitigation measures that may be employed.

3.2. POTL may require a party undertaking Bulk Cargo Operations, or any other activities associated to Bulk Cargo Operations, to hold an EMP in respect to their activities.

4. Responsibilities of parties

4.1. POTL will maintain the Procedures and DMP and will provide access to the current versions at https://www.port-tauranga.co.nz/health-and-safety/procedures-and-compliance/

4.2. POTL will provide wind speed monitoring infrastructure within the Port Operational Area. POTL will also provide relevant wind speed information to parties undertaking Bulk Cargo Operations in order for these parties to manage operations in compliance with wind speed limits (as detailed in Section 5.5).

4.3. The provision of wind speed data shall be made available to Bulk Cargo Operators primarily via the visual wind speed display lights located at berths 7 and 8. In instances where these lights are not visually available to Bulk Cargo Operators, wind speed data will be made available via online web page https://www.port-tauranga.co.nz/operations/harbour-conditions/.

4.4. The stevedore undertaking the Bulk Cargo Operation shall monitor that activities undertaken within the stevedore's Work Area conform with the Procedures and undertake actions to correct non-conformances should they be identified.

4.5. All parties undertaking Bulk Cargo Operations must monitor their activities for conformance with the Procedures and any EMP required by Section 3.2, and undertake actions to correct non-conformances should they be identified,

4.6. All Bulk Cargo Operators and the Bulk Cargo Owners must train staff and contracted parties so that they are familiar with any applicable EMP required by Section 3.2 and the sections of the Procedures applicable to their activities.

4.7. POTL will undertake routine monitoring of Bulk Cargo Operations to check for non-conformances with the Procedures (in addition to the supervision of the parties undertaking the activities, detailed in Section 4.4). This may be achieved by in field observations (where possible) and via CCTV. If POTL identify non-conformance, actions should be taken by POTL to address the non-conformance.

Operating Procedures

5. Activities in the stevedore's working area

5.1. The Bulk Cargo Operations of stevedores and other parties operating in the stevedore's working area shall incorporate the following as standard operation (unless exemption has been granted as per Section 7).

5.2. The stevedore and other parties undertaking the Bulk Cargo Operation shall monitor that activities undertaken within the stevedore's work area conform with the Procedures and undertake actions to correct non-conformances should they be identified.

Prior to operations commencing

5.3. Prior to the Bulk Cargo Operation commencing:

a) The stevedore's work area should be of a 'clean state' and be free of any foreign particulate matter or other material, examples of what is considered a clean standard and free of foreign particulate matter as demonstrated in Figures 1 and 2 below.

Note: If the work area does not meet this standard, POTL Port Control shall be contacted on 07 572 7544 immediately so a cleaning programme can be arranged.

b) Save-alls should be correctly positioned against the hull of the vessel, where possible to reduce the volume of material which can accumulate around nib walls and other wharf infrastructure obstructions.

c) Grabs and hoppers should be tested and working correctly (i.e. grabs and hoppers are closing completely and not leaking BSM),

Note: If a hopper(s) is not operating correctly, contact POTL Port Control on 07 572 7544 to arrange repair. Do not use the hopper(s) if it is not operating correctly

d) For high risk/dusty BSM operations (as per Section 8), a suitable vacuum sweeper should be present on site and ready to commence operations,

e) Wind speed information should be available for monitoring for the stevedores. Wind speed should primarily be monitored via the visual wind speed display lights located at berths 7 and 8 where possible, if this is not possible, it can be monitored via online web page https://www.port-tauranga.co.nz/operations/harbour-conditions/

f) Wind speed conditions should be within the limits as detailed in Section 5.5.

FIGURE 1. EXAMPLE OF A WHARF APRON IN A 'CLEAN STATE'

FIGURE 2. EXAMPLE OF A WHARF EDGE IN A 'CLEAN STATE'

During operations - Wind conditions and airborne particulate/dust

5.4. The stevedore should visually monitor the extent of visible airborne particulate and wind speed throughout the Bulk Cargo Operation.

5.5. BSM shall only be transferred from the ship's hold to a hopper, or from a hopper to a truck when a green light or a green and orange light combination is displayed on the visual wind speed display lights located at berths 7 and 8 or on the online web page https://www.port-tauranga.co.nz/operations/harbour-conditions/. A description of the different light statuses is provided below.

Green light

1. 15-minute average wind speed is less than 12 knots at both berth 8 and berth 10 wind speed stations and no gust speed triggers (status 5-7) are being exceeded.

Green light and Orange light

2. 15-minute average wind speed is greater than 12 knots but less than 15 knots and no gust speed limits are being exceeded at either the berth 8 or 10 wind speed stations, or

3. A red light has been displayed within the last 15 minutes.

Red light

4. 15-minute average wind speed is greater than 15 knots or has been within the last 10 minutes at either the berth 8 or 10 wind monitoring stations, or

5. Three or more 5 second max gust measurements have exceeded 19.4 knots within a 60 second rolling period and there has not been a period of 15 minutes without gust triggers (status 5-7) being exceeded, or

6. Two or more 5 second max gust measurements have exceeded 20.4 knots within a 60 second rolling period and there has not been a period of 15 minutes without gust triggers (status 5-7) being exceeded, or

7. A 5 second max gust measurement has exceeded 21.4 knots and there has not been a period of 15 minutes without gust triggers (status 5-7) being exceeded.

5.6. When a red light is displayed on the visual wind speed display lights located at berths 7 and 8 or on the online web page https://www.port-tauranga.co.nz/operations/harbour-conditions/ the following should occur:

- No further BSM shall be transferred from the ship's hold to the hopper
- Product should only be transferred from a ship's hold with the approval of the POTL Environmental Manager or their delegate.
- No product should be emptied from hoppers unless:

- it is raining or it is considered likely to rain, or,
- if product levels need to be lowered below the top of the hopper to reduce windblown product coming off the pile, in this instance, the level should only be reduced the bare minimum to prevent windblown product coming off the hopper pile, or
- it is determined that a complete operation shut down should occur due to weather conditions. For avoidance of doubt, a complete operation shut down example would be the termination of a work shift.

5.7. Bulk Cargo Operations should not cause the generation of visible airborne particulate/dust that travels greater than 100 metres from the stevedore's work area (as detailed in Schedule 2), or into or above the harbour. If this occurs, the operation should stop until this standard can be achieved.

Grabs and hopper management

5.8. Grabs capable of gradual or slow release, such as hydraulic grabs or slow-release mechanical grabs, should be used and operated with slow/gradual release

5.9. Grabs should be positioned as close as possible to the BSM product level in a hopper prior to opening to reduce the falling distance of the product as much as is practicable.

5.10. Hoppers shall be kept as 'full' as is practicable throughout the Bulk Cargo Operation to reduce the falling distance of product that is released from a grab. More information on what is considered full is provided below.

250 tonne hoppers (Hopper A and B)

5.11. A full 250 tonne hopper, Hopper A and B, which do not have grizzlies (cross members or grids at the top of the hopper) are considered to be full when product levels reach 1 to 2 meters below the top of the hopper wall, as per Figure 3.

FIGURE 3. MAXIMUM FILL HEIGHT OF A HOPPER WITHOUT A GRIZZLY, HOPPERS A AND B

Other hoppers (Hoppers C to J)

5.12. All other hoppers which have grizzlies, Hoppers C to J, are considered to be full when 1 to 2 grabs worth of product extend above the top of the hopper walls and grizzly, as per Figure 4 below

FIGURE 4. MAXIMUM FILL HEIGHT OF A HOPPER WITH A GRIZZLY, HOPPERS C TO J

5.13. Hoppers should be, where practicable, returned to a 'full' state before product is emptied from the hopper into a truck. Efforts should be made to place product released from the grab onto the product pile in the hopper rather

than dropping the product from the grab at height onto the pile, wherever practicable.

5.14. Any equipment used to handle, store or transport BSM, including, but not limited to, grabs and hoppers, should be operated free of leaks of BSM.

5.15. Hopper operators should ensure that truck bins are not overfilled to prevent the excessive spillage of material from the truck bin, including when the truck levels the BSM.

5.16. If BSM is spilled on the ground in the stevedore's work area, the stevedore should undertake an appropriate action to recover the spill as soon as practically possible.

A spill of product does not include general fugitive dust deposition which occurs on the ground during an operation, rather it refers to losses of greater volumes of product such as accidental losses of products from hoppers, trucks or grabs.

Site housekeeping and cleaning

5.17. Levelling of cargo undertaken by trucks operating in the stevedore's work area should not result the generation of airborne particulate/dust that is visible and travels greater than 15 metres from the truck bin.

5.18. When undertaking a Bulk Cargo Operation for BSM with higher risk of airborne particulate/dust generation, as listed in Section 8, a vacuum sweeper truck suitable to collect the BSM should be operating throughout the entire Bulk Cargo Operation.

The vacuum sweeper truck should be operated to keep the ground in the stevedore's working area, and any affected and accessible adjacent ground areas, free of accumulations of BSM as much as is practicable.

5.19. Areas where BSM accumulate during the Bulk Cargo Operation that are not accessible to a vacuum sweeper truck, including, fenders, fender plates, bollards, save-alls, nib walls, areas immediately adjacent to building walls and the base of the hopper, should be manually cleaned at least once per shift. This cleaning should not result in the generation of airborne particulate/dust that is visible and travels greater than 15 metres from the cleaning site.

Note: This may entail moving the BSM from these areas into an area a sweeper truck can access for collection. This may be achieved by sweeping or careful use of a blower.

At the completion of operations

5.20. At the completion of the BSM unloading:

a) The stevedore's work area and any affected and accessible adjacent ground areas should be left in a 'clean standard' and be free of any foreign particulate matter of other material, examples of what is considered a clean standard and free of foreign particulate matter is demonstrated in Figure 1 and Figure 2 in Section 5.3.

b) Hoppers should be emptied as far as is practicable and with jaws left closed.

Note: A hopper may be considered empty for operational purposes when all free-flowing material has been discharged, even if minor residual amounts of material remain adhered to the internal walls or surfaces of the hopper. These residual traces do not constitute a filled or partially filled state

6. Bulk Solid Materials transport operators

6.1. Trucks undertaking Bulk Cargo Operations should adhere to the Port of Tauranga approved traffic management plan provided for the operation.

6.2. Trucks should travel at or below the designated speed limits. These are sign posted and detailed in Schedule 3.

6.3. Trucks operating in the stevedore's work area should travel at speeds of 10 kilometres per hour or less.

6.4. The levelling of cargo by trucks should be undertaken within the stevedore's work area adjacent to the ship's side and should not result the generation of airborne particulate/dust that is visible and travels greater than 15 metres from the truck bin.

6.5. Overweight trucks are to tip of material in an area as directed by POTL.

6.6. Bulk trucks should have their bins completely covered in all areas of the Port of Tauranga Facility, with the exception of the stevedore's working area. This includes when the bins are empty.

6.7. Trucks heavily coated with BSM should be cleaned as soon as practicable within the stevedore's working area or at an appropriate enclosed offsite facility, such as an appropriate BSM storage facility. If cleaning is undertaken within the stevedore's work area, it should not cause generation of airborne

particulate that is visible and travels greater than 15 metres from the cleaning site.

Administration

7. Exemptions to the Procedures and alternative handling equipment

7.1. An application for exemption from any part of the Procedures must state what paragraph/section the exemption is sought from, why, for how long and any additional or alternative dust control measures proposed instead. Applications are to be made to the POTL Environmental Manager prior to operations commencing. A list of approved exemptions will be maintained by the Port of Tauranga in M-Files, document ID 108155.

POTL reserves discretion to apply any reasonable conditions to a granted exemption, or to decline or revoke it.

7.2. A stevedore undertaking a Bulk Cargo Operations may verbally request from the POTL Environmental Manager (contactable via Port Control on 07 572 7544) approval to continue to operate at times when wind conditions exceed the limits stipulated by Section 5.5. Any approval granted will only be granted if the cargo being handled is not causing visible airborne particulate/dust generation beyond the stevedore's work area. This approval may be retracted by the POTL at any time and is valid only to that Bulk Cargo Operation. Request are recorded in a POTL record system.

7.3. POTL reserves discretion to approve or decline any request made as per Section 7.1.

7.4. Changes to equipment:

- Any party wishing to use new or alternative equipment (type or technology) for any Bulk Cargo Operation activity must seek prior approval from POTL. This includes any alternative to the standard equipment type and technology used on site as of in the 12-months ending on 12 February 2024.
- In assessing the proposal POTL will consider:
  a. The degree of mitigation of environmental effects and the reliability of the mitigation provided by the equipment compared to current equipment or future planned equipment;

b. Potential environmental effects both within and beyond the Port Industry area associated with the equipment or technology, including potential impacts on compliance with any relevant legislation or regulation;

c. Potential logistical issues associated with the equipment or technology that may directly affect POTL infrastructure, operation or procedure, or the operations and procedures of other port users, and

d. Any potential additional infrastructure requirements or constraints that may occur as a result of the new equipment or technology.

7.5. The assessment will be recorded in Vault (or similar)

7.6. POTL reserves the right to apply any reasonable conditions to such proposals or to decline the request for approval if it is considered that the effects/impacts outweigh the benefits for the matters listed above.

Note: Logistical aspects that are relevant are the effects on: site weight limits/wharf loadings, equipment transport, cleaning, operational and storage space requirements, space or timing effects on services to other Port Users

8. High risk/dusty bulk solid materials

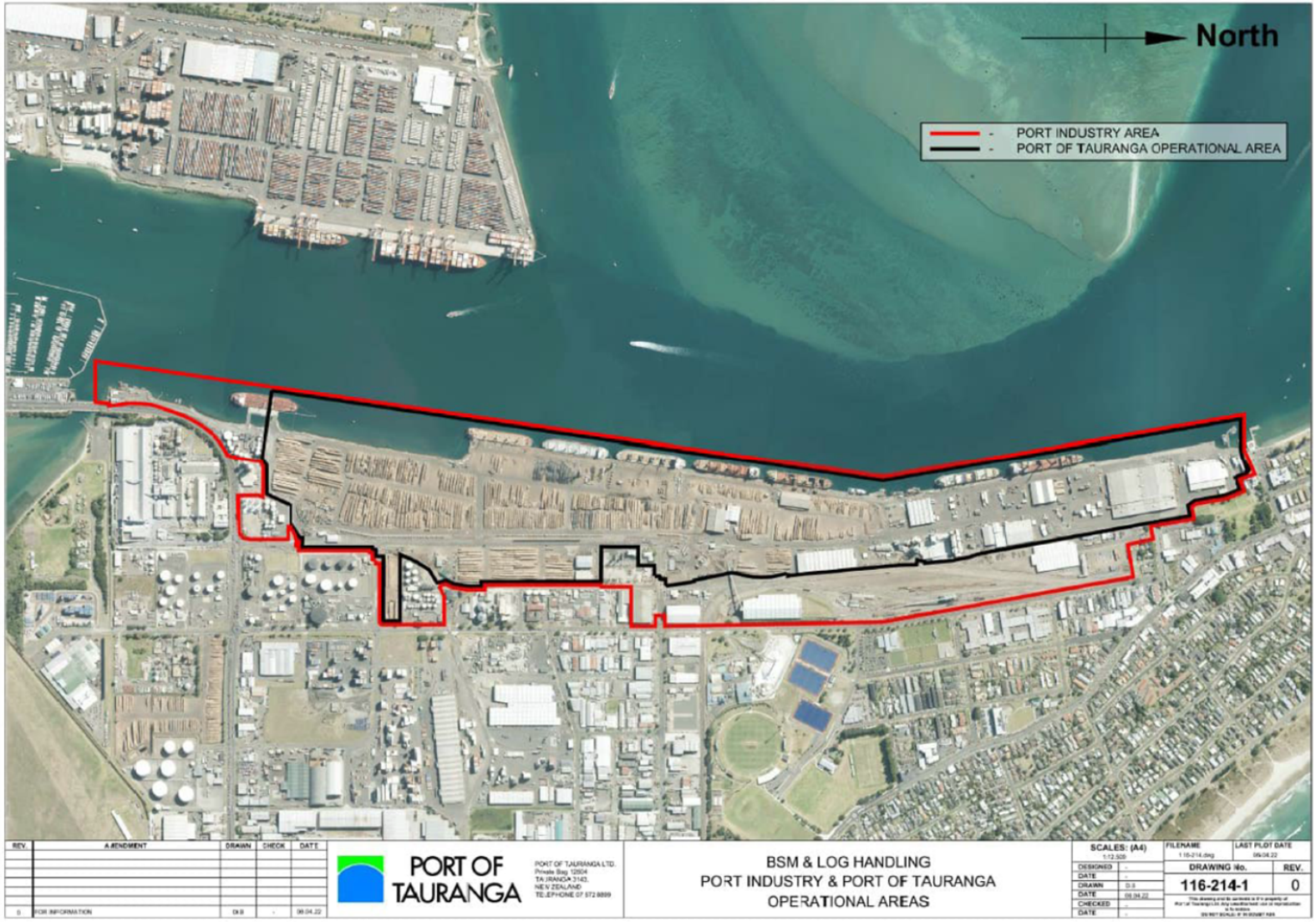
8.1. For the purposes of the Procedures, the following BSM are considered as likely to have higher risk of airborne particulate/dust generation during Bulk Cargo Operations:

- Agricultural animal protein feeds, including but not limited to, Palm Kernel Expeller, Soya Bean Meal, Tapioca, Dried Distillers Grain, Cotton Seed, Corn Gluten, Canola Meal
- Phosphate Rock,
- Clinker

8.2. POTL reserves the right to determine any other BSM as having a higher risk of airborne particulate/dust generation during Bulk Cargo Operation, and effectively be added to the list detailed in Section 8.1.

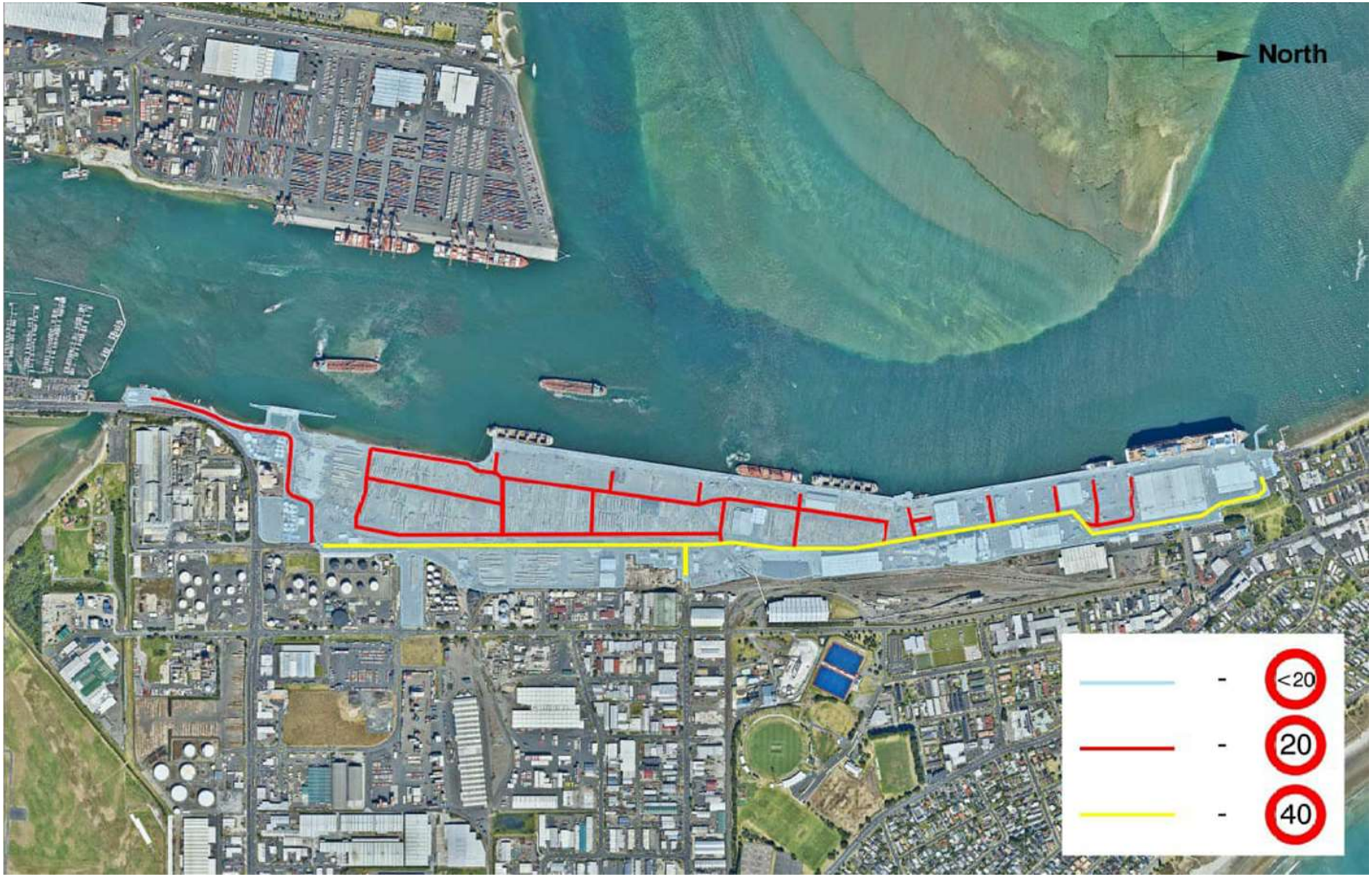
8.3. Exemptions may be granted for certain BSM listed in Section 8.1, applications for exemptions will be managed by the process detailed in Section 7.

Schedule 1 – Port of Tauranga Operational Area



Schedule 2 – Stevedore's Work Areas

Schedule 3 – Speed Limits within Port of Tauranga Facility



Appendix C Log Standard Operating Procedures

Port of Tauranga
Connecting New Zealand and the World

Log Standard Operating Procedures

17 July 2025

Contents

Port of Tauranga
Connecting New Zealand and the World

Purpose and Responsibilities

1. Background

1.1. This document (**the Procedures**) details the standard operating procedures for log handling that Port Users should follow while operating within the Port Operational Area. These procedures form part of the Port Industry Area Dust Management Plan (DMP), as required by Rule AREA2-R1 (Interim Permitted Activity Rule (IPAR) for Existing Activities in the Mount Maunganui Airshed) of the Bay of Plenty Regional Natural Resources Plan.

2. Scope

2.1. These Procedures cover the physical area of the Port Operational Area (as detailed in Schedule 1).

2.2. The Procedures apply to:

All activities associated with log storage and handling within the Port Operational Area (Log Operations) and Hewlett Road Log Yard.

2.3. References in the Procedures to Log Operators means any party undertaking the activities identified below:

- Transportation and receipt of logs via train or truck
- Collection and transfer of logs from train, truck or storage areas to storage, staging or berth areas
- Storage of logs
- Debarking of logs
- Loading or unloading of logs onto a vessel
- Cleaning, movement and operation of equipment used for log handling operations
- Management and cleaning of land associated to log handling on the berth area, and
- Any other operation associated with Log Operations.

2.4. References in the Procedures to Yard Cleaning (management and cleaning of land associated with log handling other than berth areas) means any Party undertaking the activities identified as Yard Cleaning.

2.5. The Procedures detail the Log Operators and Yard Cleaning standard operating procedures that should be followed. Dust Control measures applied in addition to those detailed in the Procedures can only replace the measures

detailed in the Procedures if an exemption is provided by the Port of Tauranga Limited (POTL) (as detailed in Section 10).

2.6. POTL will monitor conformance with the Procedures. POTL is not responsible for conformance with the procedures by other Log Operators, this is the responsibility of the Log Operator.

2.7. The procedures form part of the Port Industry Area Dust Management Plan (DMP), as required by Rule AREA2-R1 of the Bay of Plenty Regional Natural Resources Plan.

3. Log Operator additional documentation

3.1. Marshalling and stevedoring companies undertaking Log Operations may also have an Environmental Management Plan (EMP) or equivalent document which details how their Log Operations will align with the Procedures as well as include any other additional dust control measures that may be employed.

3.2. POTL may require a party undertaking Log Operations or associated activities to hold an EMP in respect to their activities.

4. Yard Cleaning - additional documentation

4.1. Yard cleaning service operators engaged by the POTL may also have an EMP or equivalent document which details how their operations will align with the procedures, as well as:

- How they will operate to minimise the generation of airborne particulate/dust when undertaking yard cleaning services
- How they will operate during times of elevated winds
- How they will operate during times when cleaning areas of high particulate load with high risk of dust generation, and
- How they will prioritise their services to minimise the risk of adverse environmental effects occurring beyond the boundary of the Port Industry Area, as far as is practicable.

Note: Section 4.1 does not constrain an EMP or equivalent document from including other environmental risk mitigation measures.

4.2. POTL may require Yard Cleaning Service operators to hold an EMP in respect to their activities

5. Responsibilities of Parties

5.1. POTL will maintain the Procedures and DMP and will provide access to the current version at https://www.port-tauranga.co.nz/health-and-safety/procedures-and-compliance/

5.2. POTL will provide bark and particulate removal services to recover bark and particulate material associated to general day to day log handling activities in the Port of Tauranga Log Yard. All materials recovered are the property and responsibility of the POTL or their authorised agent. This excludes:

- The Stevedores Work Area (See Schedule 2) which is the responsibility of the stevedore
- The excavator park lease areas (see Schedule 2) which is the responsibility of the lease holders.

5.3. Litter, dunnage, wood chip, spillages (hydrocarbons or other materials), spill response absorbent materials, are not considered to be associated with general day to day log handling activities. Recovery of these materials is the responsibility of the party whose activity they are associated.

5.4. All parties undertaking Log Operations including marshallers, stevedores, and transport providers must monitor their activities for conformance with the Procedures and any Environmental Management Plan required by Section 3.2 and undertake actions to correct non-conformances should they be identified.

5.5. All parties undertaking Yard Cleaning must monitor their activities for conformance with the Procedures and any Environmental Management Plan required by Section 4.2 and undertake actions to correct non-conformances should they be identified.

5.6. All parties undertaking Log Operations and Yard Cleaning must train their staff and contracted parties so that they are familiar with any EMP required by Section 3.2 and 4.2 and the sections of the Procedures applicable to their activities.

5.7. POTL will undertake routine monitoring of Log Operations and Yard Cleaning Services to check for non-conformances with the Procedures (in addition to the supervision of the parties undertaking the activities, detailed in Section 5.4). This may be achieved by in field observations (where possible) and via CCTV. If POTL identify non-conformances, actions should be taken by POTL to address the non-conformance.

Operating Procedures

6. Log Marshallers

6.1. Log Marshallers should at all times:

a) Travel at or below the designated speed limits. These are sign-posted on site and detailed in Schedule 3.

b) Adhere to the traffic management plan

c) Travel on designated roadway areas (as detailed in Schedule 3) as much as is practicable,

Note: The intent of Section 6.1 is to avoid travel in areas not designated as a roadway (such as berth pre-load/staging areas or storage areas) Marshallers required to travel off designated roadways should undertake this work as per Section 6.3.

6.2. When Marshallers must operate within an area that is not a designated roadway they should restrict their speed as per Schedule 3 to minimise the generation excessive visible airborne dust.

Note: When required to operate mobile plant in areas other than a designated roadway or a temporary roadway (as detailed in Section 6.3), Marshallers should identify and prioritise travel in areas with less particulate and dust accumulations where practicable. Heavy machinery travel through areas both swept and un- swept may result in airborne dust generation. Speed reductions should be applied when operations cause excessive quantities of airborne dust.

FIGURE 1. EXAMPLE OF EXCESSIVE VISIBLE AIRBORNE DUST

6.3. Marshallers may use a section of a storage area as a "temporary roadway" if:

a) The temporary roadway is swept to a standard that is visually comparable to a designated roadway prior to its use, and

b) Frequent sweeping occurs on the area to ensure it remains visually comparable to designated roadways for the time that it is used as a temporary roadway,

c) Speeds are reduced if travel in these areas is generating excessive visible airborne dust.

6.4. Water should not be used for dust suppression within the Port Operational Area unless prior approval from POTL has been given, using the Section 10 approval process. Water use by Yard Cleaning services (vacuum sweeper trucks, bark ploughs and bark collection trailers) to suppress dust generated by their operations is approved in its current form as of July 2024.

6.5. On request by POTL, Marshallers should temporarily cease operations (stand down), to allow for bark and particulate removal, vacuum sweeping, or other action. POTL may require stand-down in any area of the Port of Tauranga Operational Area or Hewletts Road Log Yard.

POTL may require a stand down of an area when there are reasonable grounds to believe that Log Operations or activities in that area might be:

a) Causing or risking non-compliance with regional rules, as assessed by POTL, or

b) Causing nuisance or adverse effect within or beyond the Port Industry Area or Hewletts Road Log Yard that POTL regards as requiring immediate mitigation action.

Note: Section 6.5 is in addition to Marshallers or other port operators responsibilities to monitor the effects of their activities and applying appropriate dust control measures to minimise environmental risk.

7. Stevedores

7.1. Prior to the commencement of a stevedoring Log Operation:

a) The Stevedore should ensure that the Stevedores Work Area is of a 'clean state' and free of any particulate matter/dust or other material. Examples of what is considered a 'clean state' and free of foreign particulate matter is demonstrated in Figures 2 and 3 below.

b) The Stevedore should have a sweeping plan in place that complies with Section 7.2.

FIGURE 2. EXAMPLE OF A 'CLEAN STATE' WHARF APRON AND FENDER AREA

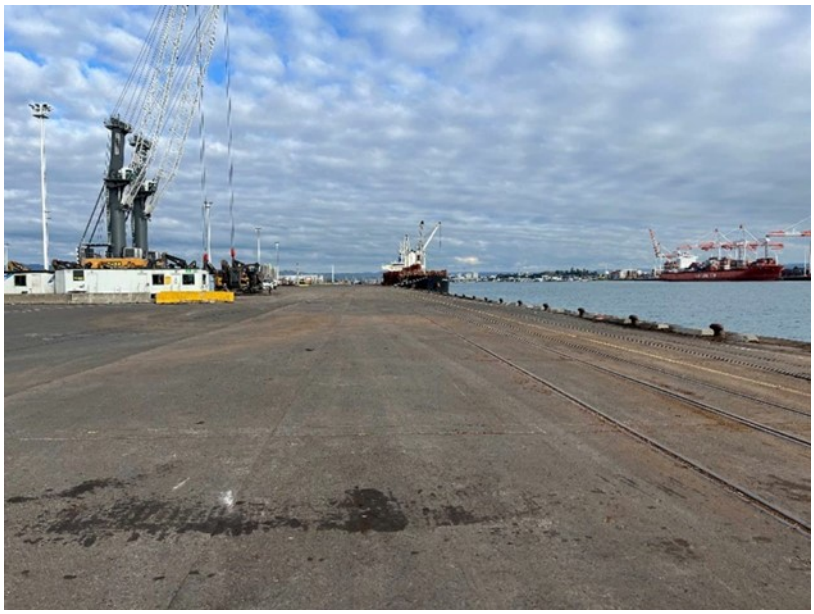


FIGURE 3. EXAMPLE OF A 'CLEAN STATE' WHARF APRON

7.2. The Stevedore should ensure bark and dirt is removed from the Stevedores Work Area that they are using (refer to Schedule 2) including via vacuum sweeping.

The minimum vacuum sweeping frequency should be:

- For 'trailer' operations, once every 12 hours, and
- For 'bunk' operations, once every four hours throughout an operation.

Bark, dirt and other particulate matter/dust from on and around bunk structures must also be removed.

7.3. Water should not be used for dust suppression in the Port Operational Area unless prior approval from the POTL has been given using the Section 10 approval process.

7.4. Once stevedoring of a Log Operation is complete the Stevedore should ensure that the Stevedores Work Area apron is of a 'clean state', as demonstrated above in figures 2 and 3.

7.5. Ploughing bark shall only be undertaken by the yard cleaning service providers unless:

- The ploughing is being undertaken on a log berth to enable sweeping to occur, and
- It is also outside of operational times for the yard cleaning service providers ploughing service.

Note: Ploughing bark using a log ("log ploughing") is not permitted in the log yard areas. The wharf apron may be ploughed using log ploughing during night shift only to remove large debris prior to sweeping. Log ploughing in all other areas is prohibited at all times.

8. Yard Cleaning Services

8.1. POTL engages Yard Cleaning Services that remove bark and particulate by bark ploughing, bark collection and vacuum sweeping in the Port of Tauranga Log Yard area affected by Log Operations.

8.2. The Stevedore's working area and excavator park lease area (as detailed in Schedule 2) are the responsibility of the Operators and/or leaseholders to vacuum sweep and maintain in a tidy condition.

8.3. Yard Cleaning Services operators should:

a) Travel at or below the designated speed limits. These are sign-posted on site and detailed in Schedule 3.

b) Travel on designated roadway areas (as defined in Schedule 3), as much as is practicable,

Note: *Yard Cleaning Service mobile plant operating in areas outside of designated roadways as a part of day-to-day operations should follow Section 8.4. The intent of Section 8.3 is to advise that other areas, such as berth pre-load/staging areas or storage areas are not used in the place or as an alternative to travel that could be undertaken on a designated roadway.*

8.4. Yard Cleaning Service Providers should restrict their speed to under 10 km/h for vacuum sweeper trucks and 15 km/h for bark ploughs when actively recovering bark and particulate materials.

8.5. Where bark piles are formed during cleaning operations, these piles should:

a) Be placed out of the way of log yard operations, where practicable.

b) Not be moved across roadways, where practicable.

8.6. Yard Cleaning Services should meet the below levels of service:

Minimum vacuum sweeper hours per week	180
Minimum bark recovery hours (plough/loader/truck) per week	80
Weekday sweeper presence	0500 – 2300 hrs
Saturday sweeper presence	0600 – 1800 hrs
Sunday sweeper presence	0600 – 1800 hrs

Note: *At times of reduced log handling, such as at Christmas to New Year, these levels may reduce.*

8.7. Yard Cleaning Service providers should cease operations if they are causing visible discharge of airborne dust beyond the boundary of the Port Industry Area, unless otherwise instructed by the POTL.

Note: *If airborne dust is visible beyond the Port Industry Area boundary (as per Section 8.7), operators may reduce speed, in order to reduce dust and continue operations. If speed reduction actions are not able to achieve compliance with Section 8.7, then the operation is to shut down until compliance can be achieved, unless otherwise instructed by POTL. Such instruction from POTL would be made if it was considered that failure to recover the bark and/or particulate/dust material would result in greater adverse environmental effects.*

9. Truck transport operators and all other parties

9.1. Whilst operating in the Port of Tauranga Facility, all other parties/Port Users undertaking Log Operations should:

a) Travel at or below the designated speed limits. These are detailed in Schedule 3 and sign posted on site.

b) Adhere to traffic management plans in place.

c) Travel on designated roadway areas (see Schedule 3), as far as is practicable, unless entry is required for the loading or unloading of logs or other legitimate purpose.

Note: The intent of Section 9.1 is to avoid unnecessary travel in areas not designated as roadway (such as berth preload/staging or storage areas). Some Log Operators are required to travel in areas outside of designated roadways as a part of day-to-day operations. In those instances, Log Operators shall comply with Section 9.2.

9.2. If a truck transport operator is required to operate within an area other than a designated roadway they should restrict their speed (as defined in Schedule 3) as required to prevent the generation of excessive visible airborne dust, as much as is practicable.

Note: When required to operate mobile plant in areas other than a designated roadway, Log Operator should also identify and prioritise travel in areas with less particulate and dust accumulations. Vehicle travel through areas that have been swept may still result in the generation of airborne dust in which case speed reduction is recommended to reduce dust generation.

9.3. Water should not be used for dust suppression in the Port of Tauranga Operational Area unless prior approval from the POTL has been given. Details on how to seek approval to undertake water dust suppression are in Section 10.

9.4. Truck transport providers should only sweep bark and particulate material off their trucks and trailers at the designated sweeping area of the trailer hoisting facility.

Administration

10. Exemptions and approvals (water suppression, alternative equipment)

10.1. An application for exemption from any part of the Procedures must state what paragraph/section the exemption is sought from, why, for how long and any additional or alternative dust control measures proposed instead. Applications are to be made to the POTL Environmental Manager prior to operations commencing.

POTL reserves discretion to apply any reasonable conditions to a granted exemption, or to decline it.

10.2. Water suppression

a) An application to use water suppression must state which section/paragraph the exemption is sought from, why, for how long and any additional or alternative mitigation measures proposed. Applications are to be made to the POTL Environmental Manager prior to operations commencing.

b) POTL reserves discretion to apply any reasonable conditions to a granted exemption, or to decline it.

10.3. Changes to equipment

a) Any party wishing to use new or alternative equipment (type or technology) for any Log Operation activity must seek prior approval from POTL. This includes any alternative to the standard equipment type and technology used on site as of in the 12-months ending on 12 February 2024.

b) In assessing the proposal POTL will consider:

- The degree of mitigation of environmental effects provided by the equipment compared to current equipment;
- Potential environmental effects both within and beyond the Port Industry area associated with the equipment or technology, including potential impacts on compliance with any relevant legislation or regulation;
- Potential logistical issues associated with the equipment or technology that may directly affect POTL infrastructure, operation or procedure, or the operations and procedures of other port users, and

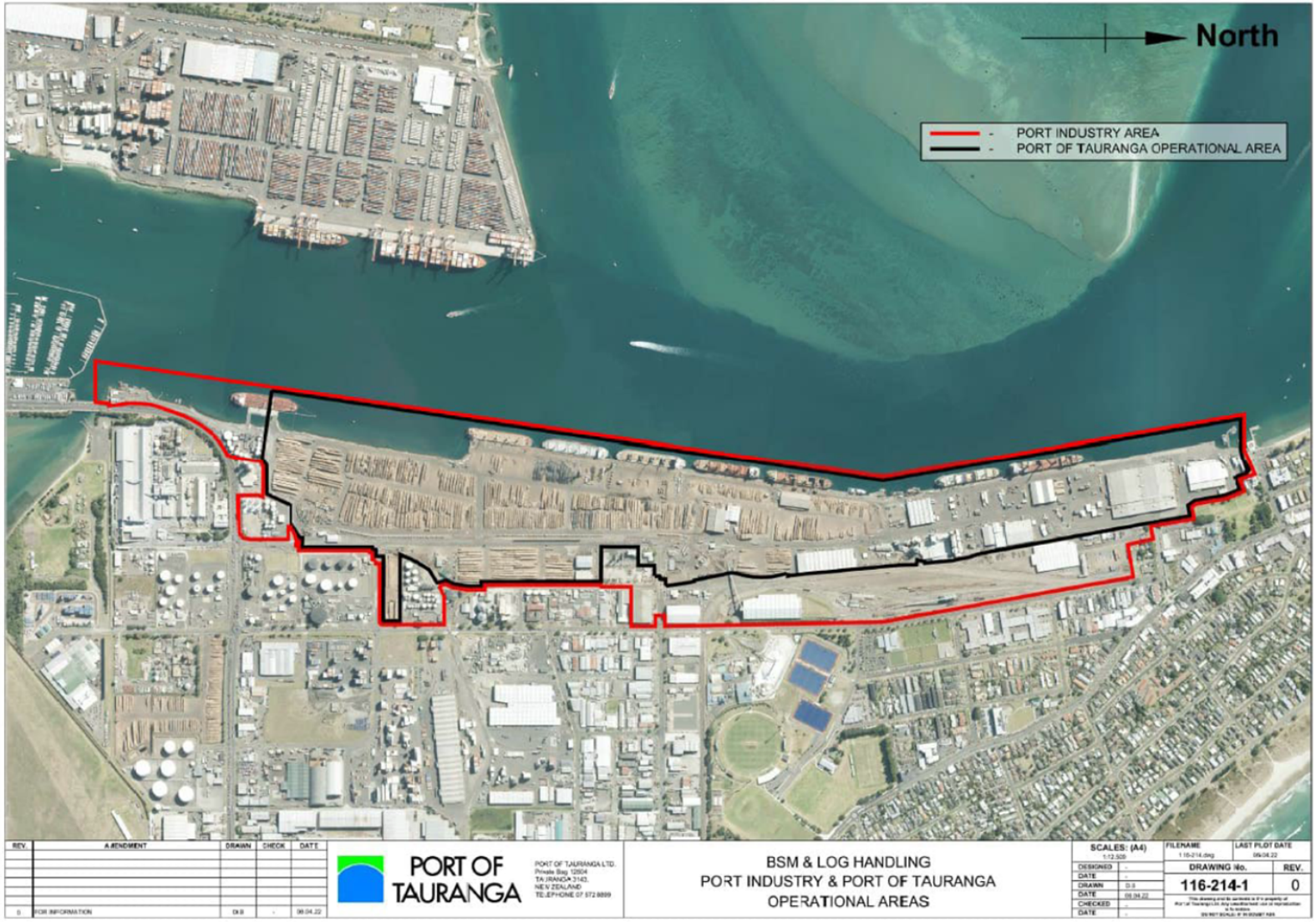
- Any potential additional infrastructure requirements or constraints that may occur as a result of the new equipment or technology.

10.4. The assessment will be recorded in Vault (or similar)

10.5. POTL reserves the right to apply any reasonable conditions to such proposals or to decline the request for approval if it is considered that the effects/impacts outweigh the benefits for the matters listed above.

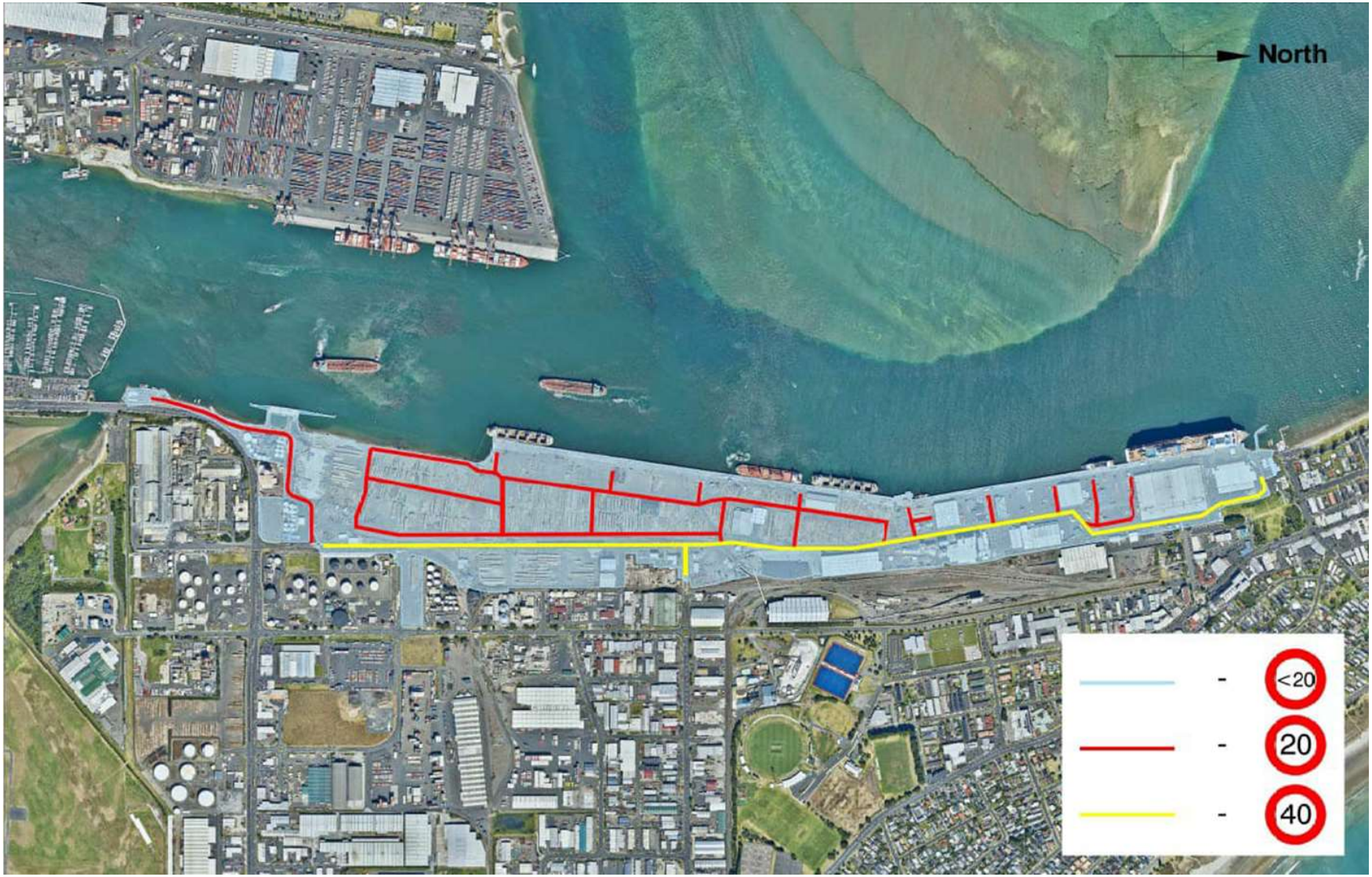
Note: Logistical aspects that are relevant are the effects on: site weight limits/ wharf loadings, equipment transport, cleaning, operational and storage space requirements, space or timing effects on services to other Port Users

Schedule 1 – Port of Tauranga Operational Area



Schedule 2 – Stevedore's Work Areas

Schedule 3 – Speed Limits within Port of Tauranga Facility

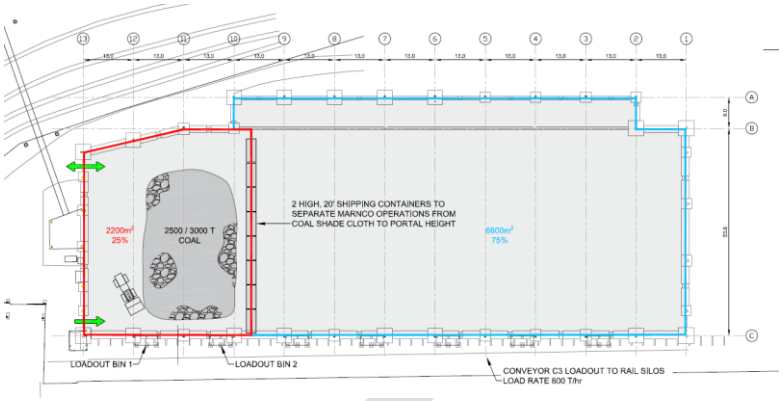


Appendix D Schedule of contact details

Company	Role	Contact details
POTL	Environmental Manager	Joey McKenzie 027 600 5901 joey.mckenzie@port-tauranga.co.nz
POTL	Environmental Coordinator	Charles Latu 027 241 8622 charles.latu@port-tauranga.co.nz
Genesis	Genesis Supervisor and/or Wholesale Logistics Manager	Sane-Mari Botha 021 581 422 sane-mari.botha@genesisenergy.co.nz
Swap Stockfoods	Environmental Manager	Dudley Clemens 021 192 3368 dudley.clemens@jswap.co.nz
Champion	Environmental Manager	Rebecca Cameron 027 532 3235 rebecca.cameron@championflour.co.nz
QUBE	Environmental Manager	Verne Taniwha 027 467 7023 verne.taniwha@qube.co.nz
C3	Mount Manganui Manager	Hamish McClean 021 354 587 hamish.mcclean@c3.co.nz
3i	Environmental Manager	Matt Clark 027 412 0160 matthew.clark@ssanzl.com Kevin Smylie 027 255 5910 kevin.smylie@ssanzl.com
ISL	Environmental Manager	Mike Danen 021 741 037 Incidents ISL duty supervisor 07 547 4544

Appendix E Genesis activity specific information

1. Title	
Company name, title of the document, date and revision number.	Genesis Energy Ltd PoT Dust Management Plan – Genesis Coal Handling Site Specific Dust Management Plan Revision: Revision 2
2. Purpose of the document	
Purpose is to manage and minimise the discharge of PM10 to the greatest extent reasonably practicable.	The purpose of this Dust Management Plan (DMP) is to manage and minimise the discharge of PM10 (specifically coal dust) associated with Genesis' supply chain operations at PoT. This DMP covers coal handling from the truck unloading area to the rail silos. Operations from the ship to the truck unloading area are described for completeness, but that section of the operation is managed by PoT under the overarching DMP. Key contacts for this DMP: • Genesis supervisor & primary contact: TBC • Genesis Wholesale Logistic Manager: Sane-Mari Botha, 021 581 422 • Coal monitoring contractor: TBC
3. Site location map	
Red: Genesis & KiwiRail controlled operations Green: Southern warehouse access point (Genesis/trucking contractor controlled) Blue: PoT controlled operations	

	Warehouse A layout in event of partial lease Red: Genesis controlled area, blue: Marnco controlled area 
4.	**Process description and method of operation**
a. A detailed description of the subject site, activity, and discharges to air	In 2004 a purpose-built facility was commissioned at the PoT for the importation of coal to supply Huntly power station for Genesis Energy. Genesis Energy lease the facility from PoT who built the facility on leased land owned by KiwiRail. The operational management of the site (from the truck unloading facility to the rail silo) is contracted out, contractor to be confirmed and the maintenance is managed by Genesis Energy. Shipments of coal between 27,000t – 38,500t each arrive from Indonesia. The ships are discharged using four ships cranes with motorised grabs, these full mobile hoppers with 50t – 300t capacity. The Stevedores who operate the hoppers then fill bottom dump trucks or tipper trucks with approximately 45t or 34t of coal per trip (tipper trucks are required if the truck in-load process below is to be used as the bottom dump trucks are not road legal). **Conveyor in-load process (transport via bottom dump trucks):** The trucks cart the coal to the truck unloading area which is the beginning of the Coal Receival system for the Coal Handling Facility. [Note: this aspect of the dust management process is managed by the overarching PoT Dust Management Plan] The trucks discharge the coal into one of two underground 45t hoppers which are equipped with dust suppression sprayers to reduce dust emissions. The hoppers are positioned above feeder conveyors (F1A & F1B) which are variable speed, and each can be set to supply between 400t – 1000t per hour to enclosed conveyor C1, this then transfers the coal from the feeder pit to enclosed Transfer Tower T1 at the entrance of the storage shed. C1 conveyor is equipped with a belt weigher which tracks the volume coming in. Transfer Tower T1 feeds coal to conveyor C2 inside the coal shed which stockpiles it evenly into the storage building via a movable plough. The plough can be programmed to stockpile the coal at a desired start and finish position and height in the shed. Two pile height detectors activate a winch to move the plough along the

	stockpile when the pre-determined height is reached. The system can stockpile in either direction, North to South or South to North and between 1 to 18 metres in height. **Truck in-load process (transport via road legal tipper trucks):** The trucks cart the coal from the hoppers directly to the warehouse or Shed 3/Shed. There is no available direct route to the south end of the warehouse, therefore; the full (covered) trucks will travel as follows: Out the Port site via Hull Road gate, turn left into Totara Street, turn left into the coal shed site, deliver coal inside, leave coal shed site by turning right into Totara Street, continue to the end of Totara Street, turn left into Rata street and turn left into port land again. There will not be any truck movement from the coal shed to Huntly (or elsewhere) unless the outload conveyor breaks down for a prolonged period of time or Kiwirail becomes unavailable for a prolonged period of time. Exit from the shed will follow the same route to enable truck going over Port weighbridge (on Port site) and then out Hull Road turning right into Totara Street. Truck movements from the Port site (directly from shipside hopper or shed 3 or shed 4 directly to Huntly will follow the same route as described in the previous paragraph. **Management in the warehouse:** The coal stockpile is managed and reclaimed using two Liebherr, L580 Front end loaders (FELs) fitted with 8 cubic metre buckets. The process varies depending on whether the coal is being transported by rail or truck. [Trucking dispatch is not anticipated at this stage] **Rail dispatch process executed by coal monitoring contractor:** The FELs load the coal onto enclosed conveyor C3 using seven feed hoppers fitted with motorised gates which can be set at 400t or 800t per hour which allows two FEL's to be used. Conveyor C3 transfers the coal to the top of enclosed Transfer Tower 2 which feeds enclosed conveyor C4, this conveyor transports the coal to the three enclosed silos (A, B & C). There are two fixed belt ploughs which redirect the coal into the first two silos. The third silo is loaded directly off the end of the conveyor. The three silos each have a capacity of 500t and are supported by 8 loadcells. Dust collectors are fitted to the silos which keep them under negative pressure to reduce the dust emissions while filling. The silos are also fitted with hydraulically actuated slide gates and telescopic chutes which have dust suppression sprayers that automatically activate when the gates are opened. **Rail dispatch process executed by Kiwirail:** Loading the coal into the rail wagons is done using remote control operated by Kiwi Rail employees. The rail wagons each hold 50t of coal and each train consists of between 28 – 30 wagons at a time. At

	present there are typically two trains a day available to supply coal to the Huntly Power Station. **Truck dispatch process (only if required):** Trucks enter the site from the Totara Street entry to the south of the shed. Trucks enter the south end of the shed, are loaded by the FELs, and continue to exit from the northern end of the shed. In the event of a partial lease of the warehouse, trucks will enter and exit from the southern end of the shed. Truck wheels are sprayed and any coal material on the bar between the truck and trailer is brushed off. Trucks then proceed to the PoT weighbridge before dispatching to Huntly. 
b. A description of the potential sources of dust emissions	The primary source of potential dust emissions is the handling of coal. Specific risk areas and the operating procedures in place to minimise dust emissions are outlined in section 5.
c. Locational or operational constraints relevant to the management of the material	Management of the coal is constrained by the location, form, and function of the Coal Handling Facility.

d.	The type, volume and frequency of handling of the material.	The frequency of coal shipments varies significantly depending on the need for imported coal and the availability of coal and ships. Genesis imports coal via both PoT and Port of Auckland. Shipments of coal are typically 27,000t to 38,500t. Ships can be unloaded to the shed at a rate of around 14,000t / day (i.e. 2 days per shipment). Two trains per day, each carrying 1,400 to 1,450t, supply coal to Huntly. It takes approximately 14 days to move a shipment from the shed to Huntly.
5.	**Standard operating procedures and mitigation methods for dust**	

5a.	For all activities:	The primary controls for minimising dust emissions from the coal handling facility are, as far as practicable, keeping the coal damp and enclosing processes.
		Standard operating procedures and mitigation measures for dust management include:
		[Where conveyer inload process used]
		• Ship to truck unloading area (grizzly):
		  ○ Managed by PoT
		• Truck unloading area (grizzly):
		  ○ Bottom dump trucks are used to minimise fall height
		  ○ The unloading area is fitted with dust suppression sprays
		  ○ Judder bars with concrete bins underneath capture loose material from trucks
		  ○ Excess or spilled coal material is swept into the grizzly as required
		  ○ Dust suppression sprays are fitted between the chute and conveyor C1 that add ~800t of water per shipment
		• Conveyor C1 to tower T1:
		  ○ Enclosed conveyor has low risk of dust emissions, especially as coal remains saturated from unloading area spray
		• Tower T1 to warehouse stockpile via conveyor C2:
		  ○ The warehouse is an enclosed space designed to retain coal dust and debris. Walls and flashings are inverted to keep contamination (including water) within the shed
		  ○ The warehouse is fitted with a luhr scrubber with recirculating pump – air is extracted from the building and dust is removed using a column / mist system
		  ○ Sprayers over the in-load conveyor (C2) are activated if incoming coal has dried out (but typically remains damp from C1 sprayers)
		  ○ Mist sprayers (attached to the overhead conveyor C2) are also available to re-dampen the stockpile as required
		[Where truck inload process used]
		• Tipper trucks are used

i	Product movement paths, storage, and processing areas including conveyance systems, and whether these are indoors or outdoors;	
ii	Use of dust suppression (e.g. sprinkler/ fog/ misting) systems;	
iii	Use of wind speed limits relating to the subject site when operations must cease;	
iv	Vehicle speed limits and vehicle unloading procedures to minimise dust;	
v	Site sweeping/vacuuming and containment protocols including hours of operation and sweeping frequency;	
vi	Inventory of mitigation measures in place on or about 28 November 2019;	
vii	Inventory of current mitigation measures, including equipment,	

materials and procedures; viii Proposed further mitigation measures, including equipment, materials and procedures ix Frequency of equipment maintenance programmes; and x Contingency procedures.	• The warehouse is an enclosed space designed to retain coal dust and debris. Walls and flashings are inverted to keep contamination (including water) within the shed • The warehouse is fitted with a luhr scrubber with recirculating pump – air is extracted from the building and dust is removed using a column / mist system • A floor water system is in place to reduce the risk of dust being mobilised from the floor as vehicles travel over it • A mobile sprayer will be used to keep the coal stockpile damp, if required [Where rail dispatch process used] • Warehouse to rail silos via conveyor C3 and transfer tower T2: o Dust suppression sprays fitted around load-out bin openings and in T2 o Enclosed conveyor has low risk of dust emissions • Rail silos o Silos are fitted with dust collectors (a luhr filter system) which keep them under negative pressure when being filled • Filling wagons from silos o Dust suppression sprays in the silo chutes automatically activate when the chutes are opened o Once filled, the wagons are covered to minimise dust during transport [Where truck dispatch process used] • Shed to trucks (only if required) o Spray wetting system in roof of truck load-out annex (only available if full warehouse is leased) o Wheels are washed by hose (connected to fire hydrant) on leaving the shed o Trucks are covered once full o Water cart available, if required • Other controls: o No wind speed limits are in place (as the majority of operations are enclosed) o No specific vehicle speed limits are in place beyond those already required by PoT o Sweeping is undertaken on an as-needed basis o Water carts are available to clean up tracking from trucks, if required The existing controls described in this DMP have been developed to appropriately manage and minimise the discharge of PM10 (specifically coal dust) associated with Genesis' supply chain operations at PoT. No further mitigation measures are proposed. A full condition maintenance survey was undertaken in February 2020. Routine maintenance of the dust management controls is undertaken as part of each shipment and any defects identified are remediated as soon as practical. Any spills, tracking or dust will be responded to by sweeping, water cart, or additional spraying, as appropriate.
5b. For bulk solid materials only: i Exclusion or buffer areas within the subject site where no outdoor storage is permitted; ii Use of covers or containment systems for outdoor storage areas; iii For enclosed operations, emission pathways and general containment provisions, the extent of air extraction and treatment systems installed and their performance specifications; and iv Materials spill management response protocols.	

6 & 7. Dust monitoring programme and trigger level response procedures	
Monitoring requirements and trigger levels will be covered in the overarching Port Industry Area DMP. The site-specific DMP should outline the procedures that will be followed in the event the operator is notified of a dust trigger level exceedance.	PoT will be responsible for the dust monitoring programme. If Genesis or the coal monitoring contractor is notified of a dust trigger exceedance related to the Coal Handling Facility, the Genesis supervisor will be responsible for implementing the following general procedure: • Locate and verify source of dust • Identify cause of dust (eg incorrect procedure being followed, sprayer not working, high winds) • Investigate and put in place immediate/short-term measures that can be put in place to manage dust (eg dampen coal, provide alternative water source, temporarily cease operations) • Review and put in place permanent measures to improve dust management, if required (eg replace sprayers) • Record the investigation and outcomes in Genesis' Maximo system and provide a summary to PoT on request. If the source of a dust trigger exceedance is specifically identified as the loading of the coal into the rail wagons, KiwiRail will be responsible for implementing a similar procedure to that stated above.
8. Complaints Procedures	
a. The name of the contact person and contact details for complaints from the community. b. Complaints procedures for staff. c. Maintenance of a complaints/incidents register that includes any actions undertaken to respond to the complaint, including further dust control measures. d. A complaint response protocol, including methods for recording of any on-site activity, including type and approximate volume of material being handled, dust mitigation measures in place at the time,	PoT will maintain a complaints procedure and register. If Genesis or coal monitoring contractor is notified of a complaint related to the Coal Handling Facility, the Genesis supervisor will be responsible for implementing the following general procedure: • Record, in Maximo (the Genesis Event Management System), the activity being undertaken at the Coal Handling Facility, the mitigation measures in place (including any standard mitigation measures not in place), the weather conditions (including wind) • Locate and verify the source of dust, if any • Identify cause of dust, if any (eg incorrect procedure being followed, sprayer not working, high winds) • Investigate and put in place immediate/short-term measures that can be put in place to manage dust (eg dampen coal, provide alternative water source, temporarily cease operations) • Review and put in place permanent measures to improve dust management, if required (eg replace sprayers) • Record the investigation and outcomes in Genesis' Maximo system • Provide a summary of the above to PoT within 2 working days of the complaint to allow PoT to respond to the complainant and/or BOPRC as required. If the complaint is specifically related to the loading of the coal into the rail wagons, KiwiRail will be responsible for implementing a similar procedure to that stated above.

and wind conditions at the time of complaint; and procedures for investigating and remedying the cause of complaint and providing response to complainant. e. A protocol for determining further mitigation measures that may be required on site.	
9. Staff training procedures must include:	
a. Components of the dust management plan that staff are to be trained in. b. Methods used to train staff. c. Frequency of staff training. d. How and where staff training records are to be kept.	All Genesis and coal monitoring contractor site staff will be advised of their obligations detailed within this DMP through the onboarding process prior to each shipment and forms part of the contractual engagement. Prior to each shipment a pre-commencement toolbox is held with the relevant personnel. The Genesis supervisor will be responsible for the day-to-day implementation of this DMP. A copy of this DMP is retained on site at all times. If the coal is dispatched via truck, the truck driver induction includes training on washing truck wheels and cleaning off the bar between truck and trailer.
10. System review and reporting procedures	
a. The process for reviewing the overall dust management system performance; b. Types and frequency of reports not otherwise provided to the Regional Council such as site/ process/ equipment upgrades; and c. External audits and ISO certification (optional)	The overall dust management system is reviewed on an as required basis. If at any time there is a need to review the system and/or reporting procedure, the Genesis Wholesale Logistic Manager along with the Genesis supervisor will meet with the PoT. At which time, a review will be undertaken of the handling, identify any dust emission events, and discuss potential additional measures that may be required. There are no relevant reports, external audits, or ISO certifications.

Appendix F Swap Stockfoods activity specific information

SWAP STOCKFOODS LIMITED

132 Totara Street and 114 Totara Street

Updated: 12 August 2024

Table of Contents

Tables

Figures

Glossary of Abbreviations

AQCNZ	Air Quality Consulting NZ Limited
NESAQ	National Environmental Standards for Air Quality
BoPRC	Bay of Plenty Regional Council
DMP	Dust Management Plan
E	East
GPG	Good Practice Guide
GPG Dust	Good Practice Guide for Assessing and Managing Dust
IPAR	Rule AREA2-R1 (AQ 22A) Interim Permitted Activity Rule (IPAR) for Existing Activities in the MMA
MMA	Mount Maunganui Airshed
N	North
NZTM	New Zealand Transverse Mercator
PM_{10}	Particulate matter with an aerodynamic diameter of less than 10 µm
RMA	Resource Management Act
S	South
W	West

Glossary of Abbreviations for Unit of Measurement

km	Unit of Distance: kilometre
km/h	Unit of Speed: kilometre per hour
knots	Unit of Speed
µm	Unit of Length: micrometre or microns
µg/m³	Unit of Concentration: micrograms per cubic metre
%	Percentage
m	Unit of Distance: metre
m/s	Unit of Speed: metre per second

Dust Management Plan

This Dust Management Plan is for managing dust discharges to air from two Bulk Solid Materials (BSM) handling and storage facilities located within the Port Industry Area of the Mount Maunganui Airshed (MMA). This plan is prepared to comply with the Interim Permitted Activity Rule AREA2-R1 (AQ 22A) (the "IPAR" or "Rule AREA2-R1") until the objectives of Plan Change 13 are met.

Document Control Statement

To ensure this Dust Management Plan (DMP) is kept up-to-date and that the most recent version is used by staff and contractors, its distribution and revision will be controlled. The Site Foreman for the three SSL sites will:

- Manage the master copy and any other paper or electronic copies of the DMP
- Keep a summary of updates, versions and dates and distribution lists
- Ensure DMP updates are distributed to all relevant staff as controlled copies
- Ensure any uncontrolled copies are marked as uncontrolled copies
- Ensure any out-of-date copies are discarded when updates are distributed

Authors - Statement of Qualifications and Experience

This DMP has been prepared by Peter Stacey. Peter is a Technical Director with 20 years' experience and specialist knowledge in the field of Air Quality. Peter has been accredited by the Clean Air Society of Australia and New Zealand (CASANZ) as a Certified Air Quality Professional (CAQP). As per (AREA2-R1(3)(a)) of PC13 a site visit was undertaken to each site 26 March 2024 to observe the current operations and mitigation measures in place.

Date: 12 August 2024

Independent Peer Reviewer's - Statement of Qualifications and Experience

As per the requirements of the IPAR, this document has been independently peer-reviewed by Paul Crimmins, Service Leader – Air Quality, Pattle Delamore Partners Ltd. Paul is a technical expert in air quality management with more than 15 years' experience. Paul has visited Warehouse B on 24 July 2024 as part of the peer-review process. Comments and suggestions provided by the reviewer have been incorporated into the final version of this DMP.

Date: 12 August 2024

1 Introduction

Swap Stockfoods Limited (SSL) engaged Air Quality Consulting NZ Limited (AQCNZ) to prepare a Dust Management Plan (DMP) for its two sites at 132 Totara Street and 114 Totara Street (commonly known as the Champion Shed) are located within the Mount Maunganui Airshed (MMA) and within the designated port area. Given that these sites are within designated port area, the Port Industry Area DMP which is overseen by the Port of Tauranga Limited (POTL) is the overarching document for managing dust discharges from this location. While this DMP forms part of the Port Industry Area DMP, the primary purpose of this DMP is for the management of dust discharges from the SSL site in a way that complies with the IPAR Rule AREA2-R1. The locations of the two sites are shown in Figure 1 as Warehouse B and Warehouse C along with the boundary of the Port Industry Area.

The two sites fall under the IPAR rule as the handling of bulk solid material exceeds 50 tonnes per hour and the sites were operating for a continuous period of more than 6 months since 28 November 2019.

This DMP is prepared to comply with the IPAR Rule AREA2-R1, which is intended to minimise dust emissions to the greatest extent reasonably practicable until the objectives of Plan Change 13 (**PC13**) are met. While this document has been prepared to meet the requirements of the IPAR it may not be a practicable document for on-site staff that will be managing dust effects on a day-to-day basis. Therefore, a simplified document that outlines key dust mitigation measures and contingency measures has been developed and appended to Appendix G.

Warehouse B: 132 Totara Street

The site located at 132 Totara Street (NZTM 1,881,101 mE, 5,827,628 mS) is on land legally described as Section 77 and Section 86 Block VII Tauranga Survey Districtheld with Record of Title SA49D/924.

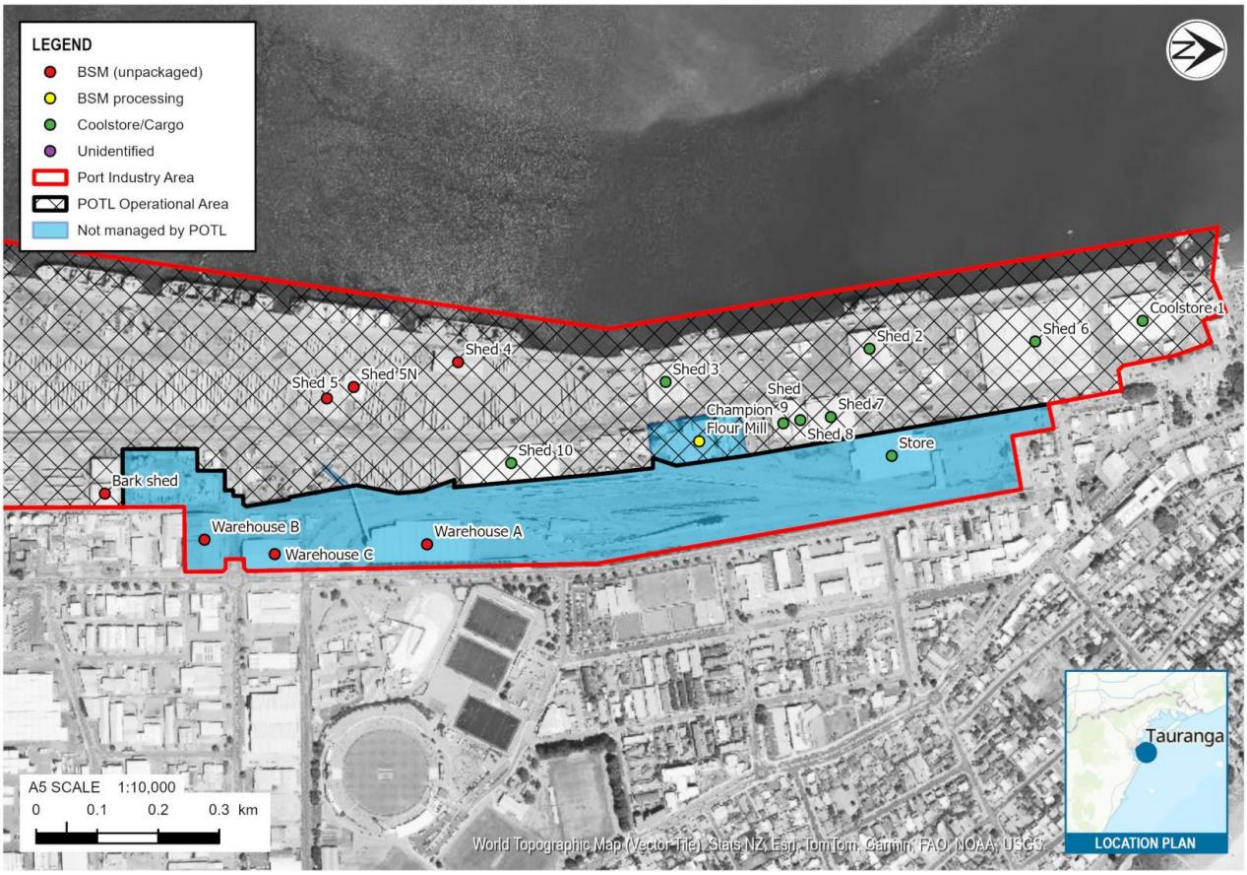
The total land area is 6,417 m^2 and is owned by Portside Properties Limited. Under the Tauranga City Plan, 132 Totara Street is located within the Industry Zone.

The existing warehouse which occupies the majority of the site and has a total ground floor area of approximately 5,100 m^2.

There is no formed access to the site from Totara Street. The 132 Totara Street site has legal frontage and a 60 m wide vehicle crossing onto to the internal access Port Access Road on to Hull Rd.

The surrounding environment comprises of large and small scale industrial activities in the immediate and wider area. The site neighbours the Port of Tauranga to the west of the site.

Figure 1 Locations of SSL's Two Storage Warehouse (Warehouse B – 132 Totara St and Warehouse C – 114 Totara St "Champion Shed")



Warehouse C / Champion Shed: 114 Totara Street

The Champion Shed site is located at 114 Totara Street (NZTM 1,881,123 mE, 5,827,740 mS) and is on land legally described as Section 99 Block VII Tauranga Survey District held with Record of Title SA48C/527.

The total land area is 8,458 m^2 and is owned by Port of Tauranga. Under the Tauranga City Plan, the site is located within the Industry Zone.

There is an existing warehouse that occupies approximately half the site and has a total ground floor area of approximately 4,300 m^2. There is no formed access to the Champion Shed site from Totara Street, with access to the shed coming via the internal access Port Access Road on to Hull Rd.

1.1 Interim Permitted Activity Rule (IPAR) for Existing Activities in the MMA

The IPAR standards were developed to ensure, as far as possible, that a comparison of the "before" and "after" IPAR circumstances can be measured and compared. The list of applicable standards is sourced from the PC13 – Final version of provisions following Third Interim Decision (amended for NPStds)[1] and is presented in **Appendix A** as a reference.

It will be necessary for the operators of SSL to satisfy the Bay of Plenty Regional Council (BoPRC) that:

1. Site activities and the discharge of PM_{10} must be the same or similar in character and the same or less in scale and intensity than that occurring in the 12 months ending on 28 November 2019, as estimated in accordance with all standards of this rule;

2. The discharge of PM_{10} from the handling bulk solid materials must be on the same subject site as the existing discharge as at 1 October 2020 and must have been occurring in the 12 months ending on 28 November 2019;

3. The discharge does not cause any offensive or objectionable effect beyond the boundary of the subject site;

4. The various limits required by conditions Rule AREA2-R11(s) to (y) are not exceeded.

5. PM_{10} mitigation measures in place on the subject site must be no less effective than the mitigation measures in place and operating efficiently (and not on a trial basis) at any date prior to or on 12 February 2024.

[1] https://atlas.boprc.govt.nz/api/v1/edms/document/A4611036/content

SSL must demonstrate compliance with the IPAR standards to continue to operate and to be able to apply for a restricted discretionary consent[2] under rule AQ 22B within three years of the IPAR becoming operative. In the event that SSL cannot demonstrate compliance with the IPAR standards, SSL will require consent as a discretionary activity[3].

1.2 Purpose

This DMP is prepared to in accordance with the Good Practice Guide for Assessing and Managing Dust[4] (GPG Dust) and based on the requirements set out in Rule AREA2-R1 and AIRSCHED2[1].

The purpose of this DMP is to ensure that the discharge of PM_{10} into the Mount Maunganui Airshed is minimised to the greatest extent reasonably practicable to contribute to meeting the objectives of AIR chapter without undue delay, to meet the general standards of Rule AREA2-R1 standards (1)(a) to (1)(f) and to be consistent with Policy AIR-P3 to achieve improvements in air quality.

This DMP aims to support the operators of the site in:

- Identifying main dust discharging activities occurring at the site.
- Determining an appropriate level of dust mitigation to reduce the potential for adverse effects.
- Ensuring dust control and mitigation measures in place must be no less effective than the most effective mitigation measures in place as of November 2019 and operating efficiently.
- Ensuring site activities are the same or similar in character and the same or less in scale and intensity than that occurring before 28 November 2019.
- Monitoring ambient PM_{10} at the site and take corrective actions if PM_{10} concentrations exceed alert or trigger values.
- Provide support to complainants and undertake immediate corrective actions to minimise dust discharges.

1.3 Staff Training on DMP

A training and induction programme on managing dust in accordance with this DMP shall be provided for all personnel working at the SSL sites at least once a year.

The purpose of the training and induction is to make all personnel aware of and understand the purpose of the DMP and the requirements of Rule AREA2-R1, as well as the ramifications of a failure to comply with the requirements.

[2] A restricted discretionary activity must comply with any requirements, conditions and permissions specified in the RMA, regulations or relevant plan and requires a resource consent before it can be carried out. Council can exercise discretion as to whether or not to grant consent, and to impose conditions, but only in respect of those matters over which it has restricted its discretion in the plan or over which discretion is restricted in national environmental standards or other regulations.
[3] A discretionary activity must comply with any requirements, conditions and permissions specified in the RMA, regulations or relevant plan and requires a resource consent before it can be carried out. The consent authority can exercise full discretion as to whether or not to grant consent and as to what conditions to impose on the consent if granted.
[4] Ministry for the Environment, Good Practice Guide for Assessing and Managing dust, 2016

The training for required personnel onsite will include at least the following aspects:

- Information about the activities at the SSL sites;
- To ensure that all required contractors and staff are properly trained and understand the requirements of the DMP;
- To ensure that the control, mitigation measures and procedures outlined in the DMP are implemented effectively;
- The corrective actions to be taken if an unusual air discharge event takes place; and
- All training documentation shall be appropriately filed by SSL for auditing and review purposes. Records are held in the wider SSL management system. The SSL risk management system is a server based centralised induction and training platform, where inductee training is held and monitored. Training is customised to suit various business needs.

2 Staff Responsibilities

SSL has the responsibility to ensure that all standards set out in the IPAR are complied with and site activities are carried out in accordance with this DMP.

Table 1 outlines the activities required to be implemented in accordance with this DMP, along with the nominated person responsible for the activity. For tasks 4, 5 and 8, collaboration between the nominated staff members will be required. For example, if a complaint is received, the various parties will work together to establish the likely cause of the complaint and follow the specified complaint procedure.

Table 1 Staff Responsibilities

Tasks	Role Classification
1. Daily Site Inspection	Site Foreman
2. Implementation of Dust Mitigation Measures	Site Foreman, Onsite Staff, Contractors
3. Review and Development of Dust Mitigation Measures	Site Foreman, Environmental Manager, SQEP
4. Response to Continuous Particulate Monitoring Alerts	Site Foreman, Environmental Manager
5. Managing Complaints	Site Foreman, Environmental Manager
6. Record Keeping	Site Foreman, Environmental Manager
7. Staff Training	Environmental Manager, Staff Training Facilitator
8. Annual Review of DMP	Environmental Manager, SQEP

2.1 Responsibilities

SSL operates the site and has the ultimate responsibility of ensuring that all site activities are carried out consistently with this DMP and in a way that does not result in off-site effects.

Site Foreman

The **Site Foreman** will have overall responsibility for the following:

- Overall responsibility at the site for ensuring that the dust control and mitigation measures and procedures outlined in this DMP are implemented effectively.
- Assisting with developing dust management measures, together with the Environmental Manager and SQEP.
- Responsibility to ensure that complaints are received and investigated as per the requirements of this DMP.
- Inform Environmental Manager of any complaints received
- Responsibility for ensuring all staff and contractors on site are adequately trained regarding the dust control methods used on site and are aware of the requirements of the DMP.
- Investigation of dust alerts/triggers and implementation of further control when required.
- Overall operational responsibility to ensure that dust emissions are avoided and investigated as far as is practicable.
- Where Tier 2 and Tier 3 controls are required, implementation of these measures.
- The Site Foreman may delegate responsibility for implementing dust mitigation measures.

Environmental Manager

The **Environmental Manager** will have the overall responsibility for the following:

- Assisting with the development of dust management measures.
- Preparation and Annual review of the DMP (shared role with SQEP).
- Responsibility for ensuring all staff on site are adequately trained regarding the requirements of this DMP (shared role with Staff Training Facilitator).
- Responsibility to ensure dust alerts/triggers that are passed on from POTL are investigated and are managed as per the requirements of this DMP (shared role with Site Foreman)
- Conduct Site Activities Audit to assess compliance with the DMP.
- Responsibility to ensure Complaints are managed as per the requirements of this DMP (shared role with Site Foreman)
- Maintaining accurate records and submissions to POTL and the BoPRC.

Onsite Staff and Contractors

All contractors and staff working on-site are to ensure that their activities comply with the requirements of the DMP.

Onsite staff and contractors are responsible for ensuring that mitigation measures set out in this document are appropriately undertaken and that any incidents or events that could lead to dust nuisance effects are reported to the Site Foreman.

Suitability Qualified Environmental Practitioner

The SQEP is responsible for assisting with the development and annual review of the DMP.

Key Staff Contacts

Table 2 presents the contact details for each role.

Table 2 Contact Details of Nominated Roles

Roles	Contact details
Environmental Manager	**Dudley Clemens** Email: dudley.clemens@jswap.co.nz Mobile: 021 192 3368
Staff Training Facilitator	**Dudley Clemens** Email: dudley.clemens@jswap.co.nz Mobile: 021 192 3368
Site Foreman	**Quentin Edge** Email:quentin.edge@jswap.co.nz Mobile: 027 839 7210
SQEP	**Peter Stacey** Email: peter@airqualityconsulting.co.nz Mobile: 021 614 842

3 DMP Requirements under IPAR

This section outlines the requirements that apply to dust management plans prepared under Rule AREA2-R1. The list of requirements are sourced from the PC13 – Final version of provisions following Third Interim Decision (amended for NPStds)[5] under *AIRSCHED2 – Dust Management Plans for AREA2-R1*.

Further standards that the DMP must meet are detailed in Rule AREA2-R1(3). The list of standards for the DMP is presented in **Appendix B** as a reference.

3.1 Part A – Contents Required in this DMP

Table 3 outlines the contents required to be included in a DMP prepared under IPAR, and identifies section(s) which address these requirements.

Table 3 Contents required in a DMP to comply with Rule AREA2-R1 and Schedule 2

Item no.	DMP requirements under Rule AREA2-R1	Section(s) in this DMP which address the matters required
Schedule 2 Requirements		
1	Title	Swap Stockfoods Limited Dust Management Plan for 132 Totara Street and the Champion Shed
2	A purpose to ensure that the discharge of PM_{10} into the Mount Maunganui Airshed is minimised to the greatest extent reasonably practicable to contribute to meeting the objectives of the AIR chapter without undue delay, to meet the general standards of Rule AREA2-R1 standards (1)(a) to (1)(f) and to be consistent with Policy AIR-P3 to achieve improvements in air quality.	Section 1.2
3	A map that includes a scale, a north point, the location of the subject site, distance to all sensitive areas, including any isolated dwellings within the industrial area and predominant wind directions at the subject site.	Refer to Figure 1 for the map of the sites. Section 5 provides information on the predominant wind directions. Section 6 provides information on nearby sensitive areas.

[5] Decision Number [2023] NZEnvC 001, issued on 23 February 2024

Item no.	DMP requirements under Rule AREA2-R1	Section(s) in this DMP which address the matters required
4	Process description and method of operation including:	Section 4
4 (a)	A detailed description of the subject site, activity, and discharges to air;	Section 4.1
4 (b)	A description of the potential sources of dust emissions;	Section 4
4 (c)	Any locational or operating constraints relevant to the management of handling of bulk solid materials and/or logs; and	The BSM sites were selected by JSWAP's due to the close proximity to the Port of Tauranga where the BSM material is imported to. Locating the site close to the port ensure that transport related cost and emissions are minimised. All handling of BSM is undertaken within a warehouse.
4 (d)	The type(s), volume(s) and frequency of handling of bulk solid materials or logs at the subject site.	Section 4.1 and Section 4.2.
5	Methods of mitigation and standard operating procedures for the subject site which must include details of dust emission reduction processes and practices including:	Section 7.1– Table 7
5 (a)	for all activities: i. Product movement paths, storage, and processing areas including conveyance systems, and whether these are indoors or outdoors; ii. Use of dust suppression (e.g. sprinkler/fog/misting) systems; iii. Use of wind speed limits relating to the subject site when operations must cease; iv. Vehicle speed limits and vehicle unloading procedures to minimise dust; v. Site sweeping/vacuuming and containment protocols including hours of operation and sweeping frequency; vi. Inventory of mitigation measures in place on or about 28 November 2019; vii. Inventory of current mitigation measures, including equipment, materials and procedures;	Section 7.1 – Table 7 Section 7.2 – The measures in Table 8, will be implemented if the general measures in Table 7 are not able to control dust emissions to below the alert or trigger values as measured by the POTL dust monitors (and found to be caused by SSL operations) or if visual dust is observed leaving from the site. These measures are tiered in terms of their hierarchy for implementation. Tier 1 measures will be implemented at all times. If dust monitoring alert levels or triggers are exceeded, the activity identified

Item no.	DMP requirements under Rule AREA2-R1	Section(s) in this DMP which address the matters required
	viii. Proposed further mitigation measures, including equipment, materials and procedures ix. Frequency of equipment maintenance programmes; and x. Contingency procedures.	as causing the exceedance shall be suspended, and Tier 2 mitigation measures will be implemented. Level 3 measures have longer lead times to implement and would only be triggered if dust levels repeatedly exceeded triggers despite Tier 1 and 2 measures being implemented. Table 8
5 (b)	for bulk solid materials only: i. Exclusion or buffer areas within the subject site where no outdoor storage is permitted; ii. Use of covers or containment systems for outdoor storage areas; iii. For enclosed operations, emission pathways and general containment provisions , the extent of air extraction and treatment systems installed and their performance specifications; and iv. Materials spill management response protocols.	Some are Not Applicable – no outside storage Emission pathways (doors of warehouses) are described at section 4.1. Spill Response protocols are detailed in Table 7.
6	A monitoring programme which must:	Section 9.1
6 (a)	Be designed by a SQEP to monitor ambient PM_{10} concentrations in accordance with relevant good practice;	Not required to be undertaken by SSL. POTL are required to undertake this monitoring within the designated port area and therefore these are captured in Section 7 of the Port Industry Area DMP.
6 (b)	Include a description of types and locations of devices for PM_{10} and meteorological conditions monitoring;	
6 (c)	Provide data that allows for a technically robust comparison with the trigger values in Part A clause (7);	
6 (d)	Be continuous monitoring with a minimum of ten-minute resolution;	
6 (e)	Be telemetered with alarms;	
6 (f)	Be installed, commissioned, operated, serviced, and maintained in accordance with the manufacturer's instructions and any appropriate standards;	
6 (g)	Have as a minimum one monitor funded by the owner or occupier of the subject site;	
6 (h)	Produce validated data in accordance with the Good Practice Guide for Air Quality Monitoring	

Item no.	DMP requirements under Rule AREA2-R1	Section(s) in this DMP which address the matters required
	and Data Management, including the valid data requirements of 75% for averaging and 95% for data capture;	
6 (i)	Specify monitors compliant with either NESAQ Schedule 2 or equivalency as demonstrated through AS 3580.9.17-2018 or EN 12341:2014;	
6 (j)	Require that all monitoring data collected must be provided to the Regional Council as follows: i. Raw monthly data to be provided via electronic access to the Regional Council by the 5th day of the following month; ii. Validated quarterly data to be provided via electronic access to the Regional Council on 1 February, 1 May, 1 August, and 1 November of every year; and iii. Any exceedance of the trigger values set out in Part A clause (7) must be notified to the Regional Council in writing within 5 working days of the exceedance.	
6 (k)	Requires records to be kept, including documentation of maintenance and control parameters.	
7	The following PM_{10} trigger values for use in Part B and IPAR standard (3)(e): (a) 150 micrograms per cubic metre (calculated as a rolling 1-hour average concentration under Schedule 1 NESAQ) recorded by the monitoring devices in the monitoring programme set out in clause 6; OR (b) 65 micrograms per cubic metre (calculated as a rolling 12-hour average) recorded by the monitoring devices in the monitoring programme set out in clause 6.	
8	Complaints procedures must include:	Section 10
8 (a)	The name of the contact person and contact details for complaints from the community;	
8 (b)	Complaints procedures for staff;	
8 (c)	Maintenance of a complaints/incidents register that includes any actions undertaken to respond to the complaint, including further dust control measures;	
8 (d)	A complaint response protocol, including methods for recording of any onsite activity, including type	

Item no.	DMP requirements under Rule AREA2-R1	Section(s) in this DMP which address the matters required
	and approximate volume of material being handled, dust mitigation measures in place at the time, and wind conditions at the time of complaint; and procedures for investigating and remedying the cause of complaint and providing response to complainant;	
8 (e)	A protocol for determining further mitigation measures that may be required onsite;	
8 (f)	Time frames for communication to the Regional Council and complainant; and	
8 (g)	Reporting requirements that include the complaints/incidents register which must be submitted to the Regional Council at least once per calendar year.	Section 10.1
9	Staff training procedures must include:	Section 1.3
9 (a)	Components of the dust management plan that staff are to be trained in;	
9 (b)	Methods used to train staff;	
9 (c)	Frequency of staff training; and	
9 (d)	How and where staff training records are to be kept.	
10	System review and reporting procedures must include:	Section 12
10 (a)	The process for reviewing the overall dust management system performance;	Section 11
10 (b)	Types and frequency of reports not otherwise provided to the Regional Council such as site/process/equipment upgrades; and	Section 12
10 (c)	External audits and ISO certification (optional).	This is optional. Not currently undertaken.
Requirements of Rule AREA2-R1(3)(f & g)		
3 (f)	To demonstrate compliance with standards, the DMP must: i. Set out the baseline in the 12-months ending on 28 November 2019 unless a different compliance date is set out above against which compliance with each standard is to be measured; and ii. Demonstrate how each standard is or will be met; and iii. Describe any additional measures that will be implemented during the term of the IPAR to reduce **PM_{10}** emissions from the	Section 4, Section 7

Item no.	DMP requirements under Rule AREA2-R1	Section(s) in this DMP which address the matters required
	subject site to the greatest extent reasonably practicable until objective AIR-O2 of PC13 is met and the annual guideline value in the Health-based Guideline Values of the Ambient Air Quality Guidelines 2002 (or its amendment or replacement) is met; and iv. Demonstrate that the proposal will minimise PM_{10} emissions to the greatest extent reasonably practicable until Objective AIR-O2 of PC13 is met and the annual guideline value in the Health-based Guideline Values of the Ambient Air Quality Guidelines 2002 (or its amendment or replacement) is met within the term of the IPAR, or within a defined period thereafter, after describing and evaluating all reasonably practical options that have been implemented or could be implemented to reduce PM_{10} emissions from the subject site, together with their estimated costs and the estimated likely and range of PM_{10} reductions they would achieve.	
	The DMP must require that records are kept of: • The number and significance of complaints received; and. • Any exceedances of the PM_{10} Standard attributable to the subject site, abatement notices and enforcement action taken from 12 February 2024.	Section 9, 10, 12; Appendix E & F

3.2 Part B – Investigation and Reporting

In the event that either of the trigger values set out in Part A Clause (7) are exceeded, then an investigation shall be undertaken as soon as reasonably practicable by, or under the direction of, a SQEP to undertake an investigation on the incident(s).

As the site is within the Port Industry Area, any investigation and reporting of exceedances of trigger values falls under the authority of POTL. Section 9 of the Port Industry Area DMP outlines the investigation and reporting requirements that need to be undertaken in order to comply with the IPAR.

If a trigger level exceedance involves an SSL warehouse inside of the Port Industry Area, then SSL will assist by undertaking their own internal investigation as per the current SSL process. The purpose will be to assist the POTL in their investigations and for SSL to effectively manage their activities that are occurring within the Port Industry Area.

Table 4 outlines the investigation and reporting requirements that need to be undertaken by SSL in order to assist the POTL to comply with the IPAR and identifies the section of this DMP that addresses these requirements.

Table 4 Dust exceedance incidents response requirements

Item no.	DMP requirements under Rule AREA2-R1	Section(s) in DMP which address the matters required
(a)	In the event that SSL are notified by the POTL that a trigger level has been exceeded and that this exceedance is potentially attributable to SSL run warehouse(s), then an investigation shall be undertaken by SSL as soon as reasonably practicable by, or under the direction of, the SSL SQEP to: Determine the cause of and reasons for the trigger value being exceeded; Identify corrective actions required to minimise the potential for the trigger value being exceeded in the future; and Set out the timeframes for implementation of the identified corrective actions;	This is discussed further in Section 7 of the DMP for the Port Industry Area.
(b)	The investigation results and findings shall be documented by the SSL SQEP in an Investigation Report;	
(c)	The Investigation Report in (b) shall be provided to the POTL within two months of the trigger value being exceeded;	
(d)	The owner of the subject site and/or the parties responsible for the activity/operation that caused the exceedance of the trigger values must implement the corrective actions within the timeframes identified by the SSL SQEP in the Investigation Report and shall provide written confirmation to the POTL within 5 working days of completion of the actions.	

4 Description of Site Activities

SSL operates sites located within the MMA and the designated Port Industryort Area, but to the east of the main port operations (that occur within the 'Port Operational Area'). A range of products are unloaded from shipping vessels and transported from the Port by SSL to be stored and processed at the SSL sites. Subsequently, SSL distributes the products to its customers.

The warehouse operating hours are dependent on the unloading of the vessels. Vessels can arrive at the Port outside of conventional working hours and usually the vessels will be unloaded as soon as practicable to minimise the time vessels spend at berth. Under these circumstances, operations at the SSL sites can occur 24/7.

4.1 Dust Sources at SSL Sites

The bulk solid materials (BSM) transported from the Port to the SSL sites are listed below:

- Corn
- Wheat
- Dried Distillers Grains
- Soya Bean Meal
- Citrus pulp pellets
- High starch pellets
- Cotton Seed
- Soya Hulls
- Palm Kernel Extract
- Sunflower Pellets
- Barley
- High Fibre pellets
- Tapioca
- Corn Gluten
- And other products as the market dictates

All of the products listed above have the potential to generate particulate emissions while they are being handled, with emissions primarily related to the proportion of particles less than 100 µm in diameter.

Particulate discharges with diameter greater than 50 µm are generally associated with nuisance effects rather than health effects. It is the inhalable suspended particulate, generally, less than 10 µm in diameter (PM_{10}), which is associated with health effects as the particulate matter can penetrate deep into the lungs of humans and animals.

Specifically, Palm Kernel Extract, Soya Bean Meal, Tapioca, Dried Distillers Grain, Cotton Seed and Corn Gluten are considered as likely to have higher risk of generating particulate dust emissions. SSL has heightened awareness regarding these materials particularly when handling them. This ensures that appropriate measures can be taken to mitigate potential dust-related effects.

4.2 Baseline for operations to 31 July 2019

Rule AREA2-R1(3)(f) requires that the DMP must:

> *Set out the baseline in the 12-months ending on 28 November 2019 unless a different compliance date is set out above against which compliance with each standard is to be measured.*

For the two SSL sites that are within the Port Industry Area but outside the Port Operational Area, the tonnage of bulk solid materials handled and number of truck movements at the sites to the 12 months ending 31 July 2019 (the relevant date under Rule AREA-R1(1)(a, b, c, d, e, f, s, t, u, v, w, x & y)) is detailed in Table 5.

Table 5 Site Activities Audit to assess compliance with IPAR standards

IPAR Standard no.	IPAR standard requirements on Site Activities	Site Activities during the reference period	Site Compliance (12 Aug 2024 - 11 Aug 2025)	Site Compliance (12 Aug 2025 - 11 Aug 2026)	Site Compliance (12 Aug 2026 - 11 Aug 2027)
General standards applying to all discharges of PM_{10}					
1 (a)	The discharge of PM_{10} must be the same or similar in character and the same or less in scale and intensity than that occurring in the 12 months ending on 28 November 2019, as estimated in accordance with all standards of this rule; and	During the reference period, the following products were handled and processed: Corn, wheat, dried distillers grains soya bean meal, citrus pulp pellets, high fibre pellets, cotton seed, high starch pellets, soya hulls, palm kernel extract, sun flower pellets, barley, tapioca, corn gluten.	Similar products are handled as those during the reference period.		

IPAR Standard no.	IPAR standard requirements on Site Activities	Site Activities during the reference period	Site Compliance (12 Aug 2024 - 11 Aug 2025)	Site Compliance (12 Aug 2025 - 11 Aug 2026)	Site Compliance (12 Aug 2026 - 11 Aug 2027)
1 (b)	The discharge of PM_{10} from the handling of logs or handling of bulk solid materials must be on the same subject site as the existing discharge as at 1 October 2020 and must have been occurring in the 12 months ending on 28 November 2019; and	All activities undertaken at the two SSL sites are the same.	Complies. SSL operates at the same locations as they did during the reference period.		
1 (c)	The discharge must not have been discontinued for a continuous period of more than 6 months since 28 November 2019; and	-	Complies. Site activities have not been discontinued for more than 6 months since 28 November 2019.		
1 (d)	The discharge does not cause any offensive or objectionable *effect* beyond the boundary of the subject site, and	There is no information to suggest that discharges from the site caused any offensive or objectionable effects beyond the boundary	There have been no complaints in relation to dust discharges from the Site.		

IPAR Standard no.	IPAR standard requirements on Site Activities	Site Activities during the reference period	Site Compliance (12 Aug 2024 - 11 Aug 2025)	Site Compliance (12 Aug 2025 - 11 Aug 2026)	Site Compliance (12 Aug 2026 - 11 Aug 2027)
		of the subject site during the reference period.			
1 (e)	Subject to standard (1)(ka) and standard (2) (where relevant), the annual product volumes or tonnages of logs and bulk solid materials handled must be the same or less than in the 12 months ending on 31 July 2019; and	The total annual product volume handled for the Sites have been estimated to be the following: - 132 Totara Street 400,000 tonnes - Champion Shed 100,000 tonnes	It has been estimated that total annual volumes will not exceed following tonnes during 2024-2025: - 132 Totara Street 400,000 tonnes - Champion Shed 100,000 tonnes -		
1 (f)	In addition to mitigation measures required by standards (g) to (x) the PM_{10} mitigation measures in place on the subject site must be no less effective than the mitigation measures in place and operating efficiently (and not on a trial basis) at any date prior to or on [the	Refer to Table 7	Site mitigation measures are no less effective than those utilised during the reference period. Additional mitigation measures implemented since the reference period include dust and meteorological		

IPAR Standard no.	IPAR standard requirements on Site Activities	Site Activities during the reference period	Site Compliance (12 Aug 2024 - 11 Aug 2025)	Site Compliance (12 Aug 2025 - 11 Aug 2026)	Site Compliance (12 Aug 2026 - 11 Aug 2027)
	date of issue of the Environment Court decision]. In the event of any trial mitigation subsequently being shown to form part of the *best practicable option* to reduce emissions of PM_{10} to air in the Mount Maunganui Airshed, it must be included as an amendment to the Dust Management Plan; and		monitoring and daily site inspections.		
The following standards apply to PM_{10} emissions from bulk solid materials handling or storage facilities outside the Port Operational Area					
1 (s)	The annual volume or tonnage of bulk solid materials handled or stored on the subject site must be the same or less than the maximum annual volume or tonnage handled or stored in the 12 months ending on 31 July 2019; and	The total annual product volume handled for the Sites has been estimated to be follows: - 132 Totara Street 400,000 tonnes - Champion Shed 100,000 tonnes	It has been estimated that total annual volumes will not exceed following tonnes during 2024-2025: - 132 Totara Street 400,000 tonnes - Champion Shed 100,000 tonnes		

IPAR Standard no.	IPAR standard requirements on Site Activities	Site Activities during the reference period	Site Compliance (12 Aug 2024 - 11 Aug 2025)	Site Compliance (12 Aug 2025 - 11 Aug 2026)	Site Compliance (12 Aug 2026 - 11 Aug 2027)
1 (t)	The annual volume or tonnage of bulk solid materials handled or stored outside any building enclosure on the subject site must be the same or less than the maximum annual volume or tonnage handled or stored in the 12 months ending on 31 July 2019; and	Not applicable, material is stored and handled inside warehouses.	Not applicable, material is stored and handled inside warehouses.		
1 (u)	The nature and character of bulk solid materials handled or stored must be the same or similar to those handled or stored in the 12-months ending on 31 July 2019, taking into account density, free moisture content, hygroscopic nature and particle size distribution which could result in	Products handled onsite during the reference period included: Corn, wheat, dried distillers grains soya bean meal, citrus pulp pellets, high fibre pellets, cotton seed, high starch pellets, soya hulls, palm kernel extract, sun flower pellets, barley, tapioca, corn gluten.	The same products are handled onsite.		

IPAR Standard no.	IPAR standard requirements on Site Activities	Site Activities during the reference period	Site Compliance (12 Aug 2024 - 11 Aug 2025)	Site Compliance (12 Aug 2025 - 11 Aug 2026)	Site Compliance (12 Aug 2026 - 11 Aug 2027)
	increased emissions of PM_{10}; and				
1 (v)	The combined maximum daily truck numbers arriving at and departing from the subject site must be the same or less than the maximum daily number in the 12-months ending on 31 July 2019; and	It has been estimated, in 12 months ending 31 July 2019, that the combined maximum daily truck numbers arriving at and departing from the sites (on days when unloading a ship) to be as follows: - Portside Drive 250 truck loads - Newton Drive 250 truck loads - Triton Ave 250 truck loads	Complies, the physical constraints of each site, in terms of access and the time it takes to unload/load product, mean that the maximum daily truck movements are unlikely to exceed the following per day based on a ship unloading event: - Portside Drive 250 truck loads - Newton Drive 250 truck loads - Triton Ave 250 truck loads		
1 (w)	All trucks used for transporting bulk solid materials must be always covered, except when being loaded or unloaded, to avoid the escape of dust during transport	All trucks entering the Site were covered, and will only be uncovered during unloading of products.	Complies. This operation is still the same.		

IPAR Standard no.	IPAR standard requirements on Site Activities	Site Activities during the reference period	Site Compliance (12 Aug 2024 - 11 Aug 2025)	Site Compliance (12 Aug 2025 - 11 Aug 2026)	Site Compliance (12 Aug 2026 - 11 Aug 2027)
	as far as reasonably practicable; and				
1 (x)	The maximum processing capacity on the subject site must be the same or less than the maximum capacity available in the 12-months ending on 31 July 2019; and	1 x Hammermill and 1 x Screeners at each site were used during the reference period. Production of each individual mill and screen is up to 90 tonnes per hour throughput.	Similar equipment is used onsite with the same processing capacity.		
1 (y)	Dust containment measures in place on the subject site must be the same or better than those in place in the 12-months ending on 31 July 2019, including the extent to which sealing building openings and the installation of dust extraction and filtering equipment are incorporated, as examples.	Dust mitigation measures during the period 1 August 2018 to 31 July 2019 are outlined in Table 7.	Mitigation measures are no less effective than those used in the 12-months ending on 31 July 2019		

4.3 Dust Generating Activities

The dust generating activities at the SSL sites are associated with the transporting and handling of BSM. Table 6 presents a summary of the dust generating activities at the SSL sites. All the dust generating activities undertaken at the SSL sites are managed by mitigation measures discussed in Section 7 which were all in place prior to 31 July 2019 and cover.

Table 6 Dust generating activities at SSL Sites

Activities	Description
Transfer of products via trucks to storage warehouses	The BSM is transported via trucks to the storage facility building. Once the trucks are inside the warehouse, the trucks open the tarpaulin and deposit the BSM onto the warehouse floor. The empty trucks are “blown down” in the warehouse normally using a hand-held compressed air hose before exiting the warehouse. During this process, the storage warehouse doors remain open under current operating procedures. Figure 2 show a photograph of the main access doors to 132 Totara Street facility that dust has the potential to be discharged.
Handling of products within storage warehouses	The BSM may need to be pushed into piles inside the storage facility, using specially adapted front-end loader buckets and pushers, to achieve maximum storage capacity. Figure 3 shows a front-end loader in the warehouse used to load/unload BSM in the warehouse.
Processing of material	Certain products are screened and/or crushed within the storage warehouse in order to add value to the product. Processing occurs intermittently or continuously during normal business hours at all warehouses depending on operational requirements and load sharing between warehouses at a maximum capacity of 90 tonnes per hour. The processing equipment, when practicable, is located away from any shed openings.
Blending of Material	Blending and mixing of product types occurs by the mixing of dry products on the floor of the facility by loader scooping up and blending into a specific stockpile mix. Blending of liquids and or liquids into dry products occurs with a range of agricultural or other machinery, specific to that

Activities	Description
	product type. For example, blending liquid molasses into dry Palm Kernel Extract to add nutrients and calorific intake. Blending occurs intermittently or continuously at all warehouses, depending on operational requirements and load sharing between warehouses.
Distribution of products from storage to end users	The BSM is loaded into trucks within the warehouse using front end loaders for transportation to various sites at customer's request.

Figure 2 Main access doors onsite where discharges can occur (132 Totara Street)

Figure 3 Generic photograph of a front-end loader within a BSM facility

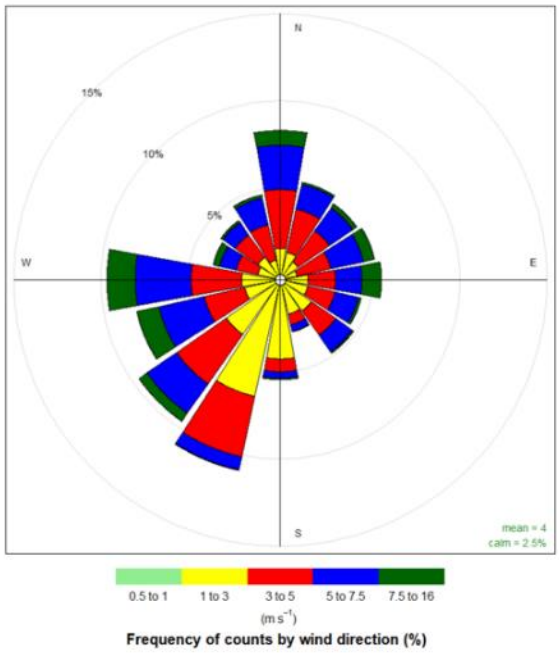
5 Site Meteorology

Figure 4 presents wind rose data collected from Tauranga airport meteorological station which provides information on the general patterns for the Mount Maunganui area.

The wind rose of a 1-hour average wind speed and wind direction data collected from the Tauranga airport weather station indicates the following:

- The winds at the sites are most frequently observed from the south-west.
- The average hourly wind speed was 2.1 m/s (Refer to **Appendix C** for a m/s to knots conversion table) for the period.
- High winds (> 5 m/s) are most common from the west.
- Wind speeds > 5 m/s are those most conducive to elevated levels of PM_{10} emissions, whereby the wind can pick up dusty material from paved surfaces.
- Light winds (< 3 m/s) are measured from most wind directions; however, they are most frequent from the south.

Figure 4 Tauranga Airport AWS wind data presented as a wind rose (1 January 2021 and 31 December 2022)



6 Surrounding Environment

The two SSL sites are located within the MMA, in the area zoned Industrial. In the Industrial area there are a number of sources that contributed to the dust in the area: BSM, log handling, open spaces, vehicles and cargo handling equipment.

Sensitive Areas refers to locations that may be particularly sensitive to adverse effects associated with air contaminant discharges either due to the vulnerability of the population or area exposed to the contaminant, or due to the potential for people to be exposed for prolonged periods and may include:

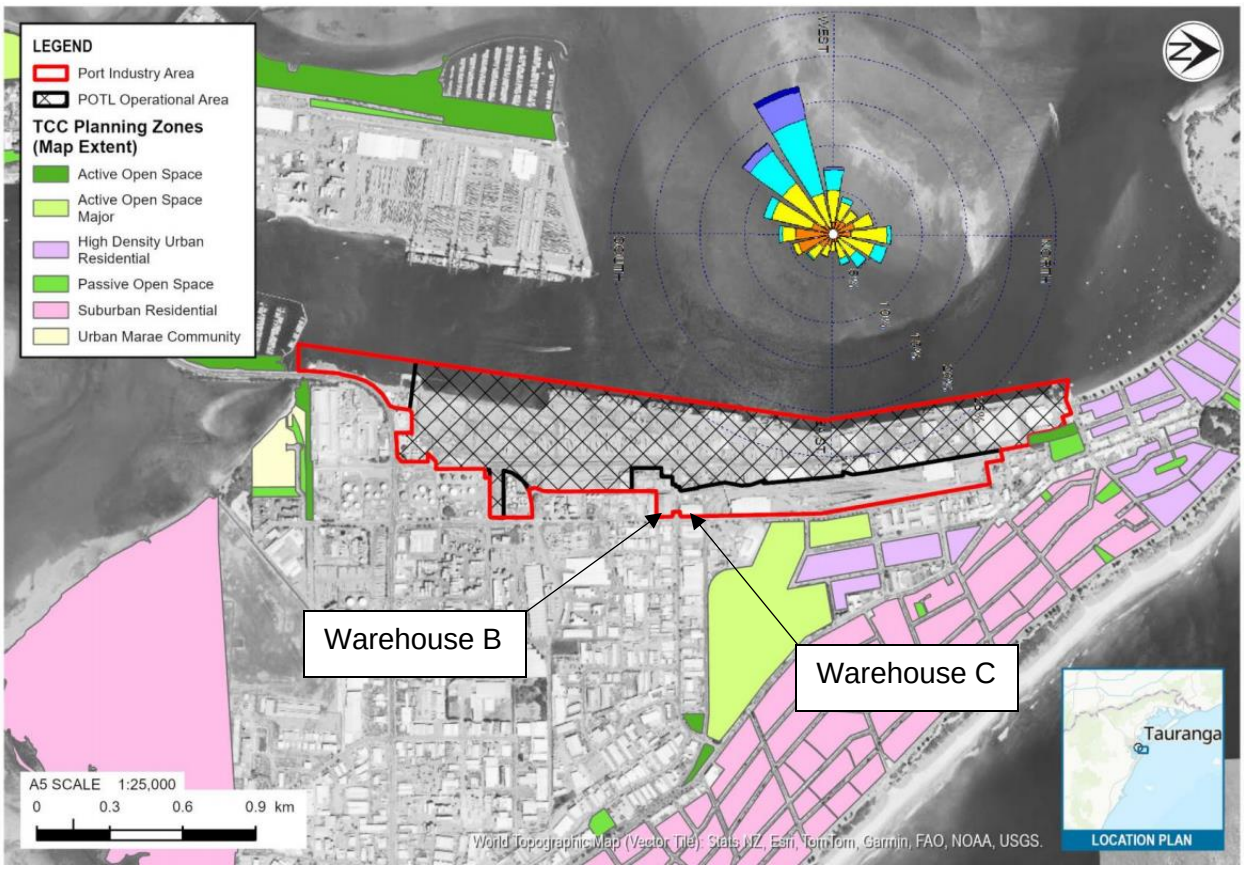
(a) residential buildings and areas (including marae)
(b) childcare centres, schools, educational facilities
(c) hospitals, nursing homes, aged care facilities
(d) offices, consulting rooms, gymnasiums, community centres
(e) hotels, motels, caravan parks, camping areas, tourist accommodation
(f) correctional facilities
(g) public amenity areas
(h) manufacturing or storage of food or beverages
(i) manufacturing or storage of electronics
(j) public water supply catchments and intakes
(K) Incompatible crops or farming systems (e.g. organic farms, greenhouses)
(L) household water supplies (including roofs from which a water supply is obtained).

The location of the nearby sensitive areas, the surrounding Tauranga City Plan zoning and a wind rose showing the predominant wind direction as measured at Railyard North for 2019-2023 are shown in Figure 5. The nearest residential zones and sensitive areas to the Site are as follows:

- Residential area - 700 m to the northeast from the closest warehouse.
- Active Open Space – Bay Oval and the Tauranga Hockey Association 300 m to the northeast from the closest warehouse.
- Whareroa Marae and “Urban Marae Community” zone – 1.4 km to the south from the closest warehouse.

The Bridge Marina are located to the 1.6 km to the south of the nearest SSL warehouse.

Figure 5 Sensitive Area Locations relative to the Port Industry Area



7 Dust Controls and Mitigation Measures

All staff and contractors are responsible for undertaking the dust control and mitigation measures provided in the following section.

7.1 General Dust Mitigation Measures (Tier 1 Measures)

Table 7 provides a summary of the key dust mitigation actions, which would be applied to various dust sources, as necessary to ensure ambient dust levels are low and well below trigger values.

Table 7 General Dust Control and Mitigation

Dust Source	Control and Management Methods	Mitigation measure implemented as of 31 July 2019 (Yes/No)
Transportation of BSM into and out of the warehouses via trucks	• Trucks are covered at all times, both full and empty, when travelling to and from the Site, as far as reasonably practicable. • Vehicle speeds limits of 15 km per hour • Regular sweeping/vacuuming of access ways and shed floors to minimize dust being tracked off-site.	Yes Yes Yes
Unloading of BSM in the warehouses for later distribution from storage to end users.	• Products are unloaded within the warehouses as far as practicable from the entranceway. • A hand-held compressed air hose or hand held blower is used to sweep the floor of the warehouse. • Trucks are blown down inside of the warehouse with compressed air before leaving the Site to remove any dust that might have accumulated on the outside of the vehicle. The air from the hose is directed in a way that blows dust back inside the warehouse.	Yes Yes Yes
Processing Materials and handling of products within storage warehouses	• Minimising drop heights for product onto floor and into hoppers. • Cleaning and maintenance of processing equipment to ensure tracking and movement of product is limited to internal locations where product can be contained.	Yes Yes
Spills of BSM either inside or outside of the storage shed	• In the event of the material being spilled inside the building the material will either be swept or scoped up and placed in the appropriate pile. During this time the doors will be closed to shed. • In the event material is spilled outside of the shed the material will be isolated to stop vehicles moving over	Yes Yes

Dust Source	Control and Management Methods	Mitigation measure implemented as of 31 July 2019 (Yes/No)
	the top of the material. The material will either be swept or vacuumed from the surface and if needed the material can be dampened down with water to avoid dust discharges.	
General Measures	• Assess weather and ground conditions (dryness and wind) at the start of each day and ensure that applicable mitigation measures and methods are ready for use. If it is a dry day (i.e., there has been no rain in the last 24 hours and ground conditions are visibly dry) and wind speed is (or is forecast to be during that day) above 5 m/s: a) sweep the floor and entrance of the warehouse if tracking is anticipated. • Regularly assess (at least twice daily) visible dust emissions and respond accordingly. • Only resume the activity(s) (other than dust suppression) once the appropriate mitigation measures are in place to prevent visible dust blowing beyond the site boundary. • Where not in conflict with operational requirements such as truck movements, keep doors to facilities closed. If a door needs to be open, as far as practicable all other doors within the shed will remain closed to reduce wind flow through the building. • Monitor wind meteorological conditions and particulate matter concentrations as discussed in Sections **Error! Reference source not found.**, and respond accordingly if the alert levels (80% of trigger limit) are exceeded. Ensure a 24-hour contact is available, with details posted in clear view at the site entrance.	Yes Yes Yes New measure introduced Yes
Compliance with the standards set out in AREA2-R1 (AQ 22A)	• The Environmental Manager will undertake a review every six months to ensure that the current and projected volume of BSM handled will not exceed the various standards set out in AREA2-R1 (AQ 22A).	No

7.2 Contingency Measures

The measures in Table 8, will be implemented if the general measures in Table 7 are not able to control dust emissions to below the alert or trigger values as measured by the POTL dust monitors (and found to be caused by SSL operations) or if visual dust is observed leaving from the site. These measures are tiered in terms of their hierarchy for implementation. Tier 1 measures will be implemented at all times. If dust monitoring alert levels or triggers are exceeded, the activity identified as causing the exceedance shall be suspended, and Tier 2 mitigation measures will be implemented.

Level 3 measures have longer lead times to implement and would only be triggered if dust levels repeatedly exceeded triggers despite Tier 1 and 2 measures being implemented.

Table 8 Contingency Measures

Tier Level	Control and Management Methods
1	In the event that visible dust is observed traveling beyond the boundary of the site-by-site staff and the dust monitor is measuring exceedances of PM_{10} dust trigger levels, where practicable the activity generating the emissions is to cease immediately.
	If the wind speed and/or the PM_{10} alert/trigger limit (refer to Section 9 of the Port Industry Area DMP) are exceeded as a result of SSL operations, then the following precautions must be taken: - The data logging system sends an alert to the Site Foreman or delegated staff member. - Identification of the cause of dust causing the alert/trigger and checks to ensure the mitigation measures set out in Table 7 are being undertaken. - Commencement of hourly visual monitoring for dust beyond the site boundary over the next 4 hours. If visible dust levels are attributable to SSL operations, and emissions cannot be controlled to an acceptable level, the contingency measures outlined in below, will be implemented in addition to the general measures in Table 7 are not able to control dust emissions to below acceptable levels. It is the responsibility of every employee and contractor on the site to immediately notify the Site Foreman so that Tier 2 dust mitigation measures can be implemented prior to the offending activity recommencing.
If ceasing the activity does not reduce the measured concentration to below the alert or trigger values Tier 2 controls are to be implemented within 3 hours. These may include any of the following contingency measures:	
2	• Temporarily cease activities in part or whole • Shut facility doors until weather conditions change (eg reduction in wind speeds) and or immediate issue(s) or new additional measures are deployed

Tier Level	Control and Management Methods
	• Immediate and more frequent sweeping of inside of warehouse and external areas before road entry • Increase frequency of vehicle blow down and cleaning within a controlled environment to ensure this action does not result in further dust emission off-site. • Deployment of a sweeper tractor broom(s) • To reduce tracking outside of the warehouse, deploy shaker bars on floors and or truck wheel water bath
If Tier 2 mitigation is still not sufficient to control dust emissions from this source, the following Tier 3 mitigation measures are to be investigated and implemented if practicable, noting that some of these have long lead-times for implementation and some require significant capital investment.	
3	• Misting sprays on warehouse doors • Installation of truck blow down curtain inside of warehouse • Installation of wind fences • Improved building ventilation (non-filtered) to remove heat from the building and reduce airflow via doorways. • Installation of a dust extraction system and Hi-speed doors • Construction of enclosed area outside warehouses to act as a chamber minimising the potential for fugitive emission from the door • Upgrade of shaker bars and truck wheel water bath on floors • Upgrade sweeping equipment • Installation of air extraction and filtration on processing equipment • Relocation of products and or activities that have high dust potential to other storage facilities. Noting that for dusty products, these would be reallocated once the warehouse is empty.

8 Visual Site Inspections for Dust Emission

8.1 Site Inspection

Site inspections of visible dust emissions will be carried out at least twice per day of operation and findings and mitigation actions logged in daily site inspection logs (Refer to **Appendix D**).

The inspections are to ensure that control measures are being implemented effectively. They also assist in the analysis of dust events and for investigating and responding to complaints. The specific procedures for carrying out daily site inspections are outlined below:

- Site staff will keep a routine watch for visible dust plumes.
- If visible dust plumes from the site are transgressing beyond the warehouse, the following details must be recorded using the incident response form outlined in **Appendix E:**
  - The source of the visible dust emissions
  - The level (extent) of the visible dust emissions based on the following:
    (1) minor visible emissions (<5 m beyond the warehouse building)
    (2) moderate visible emissions at the boundary)
    (3) major visible emissions (>30 m beyond the boundary);
  - The person responsible for investigation and response.
  - A brief description of the colour and opacity of the visible dust emissions (e.g., dim brown, Hazy grey, dense black etc.);
  - The date, time and general weather conditions (wind speed/direction, sunny etc.);
  - The possible causes of the incident, corrective and preventive actions taken;
- The control and mitigation measures listed in Table 7 apply at all times and are to be carried out as necessary to prevent or remedy any visible dust emissions beyond the site boundary. If the level of visible dust emissions extends beyond the boundary, the duty or Site Foreman must be notified for further action.
- When notified for further action, the Site Foreman, or delegate person will investigate the situation and take necessary measures, as described in Table 8, to ensure dust levels do not give rise to adverse off-site impacts. Such actions will also be recorded in the daily log for SSL site inspection.

9 Environmental Monitoring

9.1 Continuous Particulate Monitoring on Site

As the sites are located within the designated port area, continuous particulate monitoring falls within the obligations of POTL. This is discussed further in Section 7.2 of the DMP for the Port Industry Area. Given the POTL are the primary party responsible for management of the Port area, SSL will be relying on POTL to transmit any relevant data to SSL for any particular purpose.

9.2 Meteorological Monitoring

As the sites are located within the designated port area, meteorological monitoring falls within the obligations of POTL. This is discussed further in Section 7.3 of the DMP for the Port Industry Area.

9.3 Visual Monitoring

As the sites are located within the designated port area, some aspects of visual monitoring falls within the obligations of POTL. This is discussed further in Section 7.1 of the DMP for the Port Industry Area. This is in addition to the visual site inspections that SSL will undertake as discussed in Section 8. Dust Concentration Trigger and Responses

If SSL are notified by POTL of PM_{10} concentrations exceeding trigger levels specified in Section **Error! Reference source not found.**, the Site Foreman or other nominated person who has the responsibility for managing dust effects on the site must undertake the following:

- Immediately review the current mitigation measures to determine what further actions must be undertaken to reduce PM_{10} concentrations.
- Investigate as soon as reasonably practicable by, or under the direction of, a SQEP to:
    (i) Determine the cause of and reasons for the trigger value being exceeded;
    (ii) Identify corrective actions required to minimise the potential for the trigger value being exceeded in the future;
    (iii) Set out the timeframes for implementation of the identified corrective actions;
    (iv) The exceedance of trigger values must be notified to BoPRC in writing within 5 working days of the exceedance.
    (v) SSL must implement the corrective actions identified by the SQEP in the Investigation Report and shall provide written confirmation to the BoPRC within 5 working days of completion of the actions.
- The investigation results and findings shall be documented by the SQEP in an Environmental incident report (or investigation report) on the monitoring trigger event(s). The Investigation report shall be provided to BoPRC within two months of the trigger value being exceeded.

10 Complaints

Complaints may be referred by the POTL, one or more of the regulatory authorities, a member of the public or staff of SSL. It is the responsibility of the operation manager or appointed personnel from SSL to respond to and follow up all complaints regarding dust, odour or other contaminant.

Actions to be taken when a complaint is received:

1. Fill out a complaint log (Refer to Appendix F).
2. Note the time, date and type of complaint including details of the incident, for example duration, location and any effects noted.
3. Identity and contact details of complainant (if provided). Note if complaint has been referred from a consent authority.
4. Person recording complaint to record observed weather conditions including wind direction and strength at the time of incident. An estimate of wind direction and strength can be undertaken using a Beaufort wind speed description presented in Appendix C.
5. Record description of the dust emission from the complainant.
6. Undertake a site inspection. Note all dust or the contaminant of concern producing activities that have taken place at the time of incident, person responsible for the site and the mitigation methods used.
7. Order any remedial action necessary.
8. If complaint was related to an event in the recent past, (if possible) note any dust producing activities that were underway at that time.
9. (Preferably within two hours) visit the area from where the complaint originated to ascertain if dust /other contaminant is still a problem.
10. Immediately after the initial investigations have been completed, contact the complainant to explain any problems found and remedial actions taken.
11. If necessary, update any relevant procedures to prevent any recurrence of problems.
12. Complete complaint log and file on SSL complaint register and save all corresponding documents here.
13. Notify BoPRC as soon as practicable that a complaint has been received and what the findings of the investigation were and any remedial actions taken.

The complaint log shall be made available to the Council at all reasonable times and a copy shall be forwarded to the Council within two working days of the request.

10.1 Complaint Reporting

All complaints/incidents registered for the year must be submitted to BoPRC at least once per calendar year.

11 Dust Management Plan Review

This DMP shall be reviewed by the SSL SQEP annually or during a change in ownership or change in the use of the property/surrounding area, or a change to existing operations undertaken at SSL site. Consultation with BoPRC will be necessary and SSL will need to provide POTL and BoPRC with a copy of any subsequent revisions of or amendments.

The DMP may be reviewed at any time following consultation with the POTL and or BoPRC. Any amendments to the plan following review shall be lodged to the POTL BoPRC for certification under the POTL review process. The review process will include looking at the environmental controls and procedures to make sure they are still applicable to the activities being carried out. Reasons for making changes to the DMP will be documented.

A copy of the original DMP document and subsequent versions will be kept for records and marked as obsolete.

Table 9 presents the items needed to be taken into consideration during a DMP review:

Table 9 Checklist when reviewing the effectiveness of DMP

Item no.	Checklist	Site Compliance
1	If AREA2-R1 (AQ 22A) standards have been achieved	*Example-only* YES/NO. Any comments
3	Review environmental complaints, triggers, incidents and emergencies	*Example-only* YES/NO. Any comments
4	Review corrective and preventative actions	*Example-only* YES/NO. Any comments
5	Review any changes to organizational structure or activities	*Example-only* YES/NO. Any comments
6	Review any possible changes in legislation and standards	*Example-only* YES/NO. Any comments
7	Review any emerging or new technology that could be implemented to reduce emissions.	*Example-only* YES/NO. Any comments

12 Record Keeping and Document Maintenance

Record keeping of documents mentioned in this DMP are required. All records required by the IPAR to be documented as part of the DMP are outlined in Table 10.These records shall be kept by SSL and made available to the BoPRC on request.

Table 10 Record keeping requirements

Records	Person Responsible	Time Frame	Location
Staff training records (Section 1.3 of DMP)	Administration Staff	1 Month	SSL internal server
Daily site inspection log (Section 8.1 of DMP)	Site Foreman	Monthly	SSL internal server
Complaint register (Section 10.1 of DMP)	Site Foreman	Annually	SSL internal server
Investigation reports prepared by SQEP on the monitoring exceedance events (Section 7 of the Port Industry Area DMP)	Environmental Manager	Investigation report must be submitted to BoPRC two months after the monitoring trigger event.	SSL internal server
Annual meeting minutes (Section 3 of DMP)	Environmental Manager	To be kept for record purposes and send to BoPRC upon request	SSL internal server
Revisions to the DMP (Section 11 of DMP)	Environmental Manager	Annually	SSL internal server

13 Limitations

Air Quality Consulting NZ Limited has prepared this Dust Management Plan in accordance with the usual care and thoroughness of the consulting profession for the use of Swap Stockfoods Limited, and only those third parties including the POTL who have been authorised in writing by Air Quality Consulting NZ Limited to rely on this report.

It is based on generally accepted practices and standards at the time it was prepared. No other warranty, expressed or implied, is made as to the professional advice included in this Dust Management Plan.

Where this Dust Management Plan indicates that information has been provided to Air Quality Consulting NZ Limited by third parties, Air Quality Consulting NZ Limited has made no independent verification of this information except as expressly stated in the Dust Management Plan.

Air Quality Consulting NZ Limited assumes no liability for any inaccuracies in or omissions to that information.

This Dust Management Plan was prepared in July and August 2024 and is based on the conditions encountered and information reviewed at the time of preparation. Air Quality Consulting NZ Limited disclaims responsibility for any changes that may have occurred after this time.

This Dust Management Plan should be read in full. No responsibility is accepted for use of any part of this report in any other context or for any other purpose or by third parties. This Dust Management Plan does not purport to give legal advice. Legal advice can only be given by qualified legal practitioners.

Appendix A IPAR Standards

The following outlines the relevant parts of AREA2-R1 (AQ 22A) that apply to the SSL sites:

AREA2-R1 (AQ 22A) Interim Permitted Activity Rule (IPAR) for Existing Activities in the MMA

AREA2-R1 Handling of bulk solid materials and logs within the Mount Maunganui Airshed until 12 February 2027 – Permitted

Within the **Mount Maunganui Airshed**, unless otherwise permitted by AIR-R2, AIR-R15 or AIR-R10, or managed by AIR-FUME-R20, the discharge of *contaminants* to air from:

(A) the **handling of logs** on or within a **subject site** where:

(a) the area used for the **handling of logs** exceeds 1 hectare;

OR

(B) the **handling** of **bulk solid materials** on or within a **subject site** where:

(a) The rate of **bulk solid materials handling** exceeds 20 tonnes in any hour and the discharge occurs less than 100 metres from any **sensitive area**, or

(b) The rate of **bulk solid materials handling** exceeds 50 tonnes in any hour,

is a permitted activity until:

(C) 12 February 2027; or

(D) Where a resource consent application for the discharge proposed under Rule AIR-R16 or AREA2-R2 has been accepted by the Regional Council under s 88 of the Resource Management Act 1991 (or its replacement) prior to 12 February 2027, then the relevant date shall be:

(a) The date the resource consent commences under s116 of the Resource Management Act 1991 (or its replacement); or

(b) the date all appeals are determined, if the resource consent is declined.

Provided that the following standards are complied with:

(1) **General standards applying to all discharges of PM_{10}**

(a) The discharge of **PM_{10}** must be the same or similar in character and the same or less in scale and intensity than that occurring in the 12 months ending on 28 November 2019, as estimated in accordance with all standards of this rule; and

(b) The discharge of **PM_{10}** from the **handling of logs** or **handling** of **bulk solid materials** must be on the same **subject site** as the existing discharge as at 1 October 2020 and must have been occurring in the 12 months ending on 28 November 2019; and

(c) The discharge must not have been discontinued for a continuous period of more than 6 months since 28 November 2019; and

(d) The discharge does not cause any offensive or objectionable *effect* beyond the boundary of the **subject site**; and

(e) Subject to standard (1)(ka) and standard (2) (where relevant), the annual product volumes or tonnages of logs and **bulk solid materials** handled must be the same or less than in the 12 months ending on 31 July 2019; and

(f) In addition to mitigation measures required by standards (g) to (x) the **PM_{10}** mitigation measures in place on the **subject site** must be no less effective than the mitigation measures in place and operating efficiently (and not on a trial basis) at any date prior to or on 12 February 2024. In the event of any trial mitigation subsequently being shown to form part of the *best practicable option* to reduce emissions of **PM_{10}** to air in the **Mount Maunganui Airshed**, it must be included as an amendment to the Dust Management Plan; and

In addition to standards 1(a) to (f), the following standards apply to PM_{10} emissions from bulk solid materials handling or storage facilities outside the Port Operational Area, except as provided in (2)

(s) The annual volume or tonnage of **bulk solid materials** handled or stored on the **subject site** must be the same or less than the maximum annual volume or tonnage handled or stored in the12 months ending on 31 July 2019, and

(t) The annual volume or tonnage of **bulk solid materials** handled or stored outside any building enclosure on the **subject site** must be the same or less than the maximum annual volume or tonnage handled or stored in the 12 months ending on 31 July 2019; and

(u) The nature and character of **bulk solid materials** handled or stored must be the same or similar to those handled or stored in the 12-months ending on 31 July 2019, taking into account density, free moisture content, hygroscopic nature and particle size distribution which could result in increased emissions of **PM_{10}**; and

(v) The combined maximum daily truck numbers arriving at and departing from the **subject site** must be the same or less than the maximum daily number in the 12-months ending on 31 July 2019; and

(w) All trucks used for transporting **bulk solid materials** must be always covered, except when being loaded or unloaded, to avoid the escape of dust during transport as far as reasonably practicable; and

(x) The maximum processing capacity on the **subject site** must be the same or less than the maximum capacity available in the 12-months ending on 31 July 2019; and

(y) Dust containment measures in place on the **subject site** must be the same or better than those in place in the 12-months ending on 31 July 2019, including the extent to which sealing building openings and the installation of dust extraction and filtering equipment are incorporated, as examples.

(2) Circumstances in which standards (s), (t), (v) and (x) may not apply to bulk solid materials handling activities outside the Port Operational Area

Standards (s), (t), (v) and (x) may not apply if it can be demonstrated by robust, peer-reviewed methodology carried out by a **SQEP** that dust containment measures on the **subject site** are sufficient to avoid any adverse effects of **PM_{10}** emissions from the site on **sensitive areas**.

(3) Dust management plan

Appendix B Dust Management Plan Requirements

(3) Dust management plan

(a) For discharges associated with activities located outside the **Port Industry Area**, the owner or occupier of the **subject site** where the activity is carried out must engage a **SQEP** who has visited the subject site to prepare a dust management plan in accordance with the requirements of AIRSCHED2.

(b) For discharges associated with activities located within the **Port Industry Area**

(i) the port company must engage a **SQEP** who has visited the **Port Industry Area** to prepare a dust management plan in accordance with the requirements of AIRSCHED2.

(ii) The discharge is identified and managed by the dust management plan; and

(iii) The dust management plan must specify procedures that must be followed and specify who must carry out those procedures, when **handling bulk solid materials** or **handling of logs** within the **Port Industry Area.**

(c) The dust management plan required by (3)(a) or 3(b) must be:

(i) peer reviewed by another **SQEP** prior to submission to the Regional Council; and

(ii) revised to address the peer review comments prior to submission to Regional Council, or where the comments are not addressed to the satisfaction of the peer reviewer, the reasons must be stated; and

(iii) provided to the Regional Council within six months of this rule becoming operative, together with the peer review required by (3)(c)) (i); or for the **Port Industry Area**, provided to the Regional Council and Ngāi te Rangi within six months of this rule becoming operative, together with the peer review required by (3)(c)(i); and

(iv) reviewed by a **SQEP** at least once every calendar year and any updated version of the dust management plan provided to the Regional Council and to Ngāi te Rangi for the **Port Industry Area**, within one month of its review.

(d) The dust management plan required by (3)(a) or 3(b) must always remain on site, capital works required to minimise **PM_{10}** emissions must be completed as soon as practicable and the dust management plan must be

complied with at all times by all persons undertaking the **bulk solid materials handling** or **handling of logs** activity as soon as practicable following the dust management plan being finalised under (3)(c)(ii),(3)(c)(iv) or (3)(e).

(e) In the event of an exceedance of the trigger level in Part A Clause (7)of AIRSCHED2 and following an investigation as required by Part B Clause (11) of AIRSCHED2, the dust management plan must be amended by a **SQEP** to include actions to avoid or minimise future exceedances of the trigger level and resubmitted to Regional Council, and to Ngāi te Rangi for the **Port Industry Area**, within one month of its amendment.

(f) To demonstrate compliance with standards, the DMP must:

v. Set out the baseline in the 12-months ending on 28 November 2019 unless a different compliance date is set out above against which compliance with each standard is to be measured; and

vi. Demonstrate how each standard is or will be met; and

vii. Describe any additional measures that will be implemented during the term of the IPAR to reduce **PM_{10}** emissions from the subject site to the greatest extent reasonably practicable until objective AIR-O2 of PC13 is met and the annual guideline value in the Health-based Guideline Values of the Ambient Air Quality Guidelines 2002 (or its amendment or replacement) is met; and

viii. Demonstrate that the proposal will minimise **PM_{10}** emissions to the greatest extent reasonably practicable until Objective AIR-O2 of PC13 is met and the annual guideline value in the Health-based Guideline Values of the Ambient Air Quality Guidelines 2002 (or its amendment or replacement) is met within the term of the IPAR, or within a defined period thereafter, after describing and evaluating all reasonably practical options that have been implemented or could be implemented to reduce **PM_{10}** emissions from the **subject site**, together with their estimated costs and the estimated likely and range of **PM_{10}** reductions they would achieve.

(g) The DMP must require that records are kept of:

i. The number and significance of complaints received; and.

ii. Any exceedances of the **PM_{10}** Standard attributable to the **subject site**, abatement notices and enforcement action taken from 12 February 2024.

Advice note – If an activity does not comply with the standards of Rule AREA2-R1 the discharge is a discretionary activity under AIR-R16.

AIRSCHED2 – Dust Management Plan requirements for AREA2-R1

These requirements apply to dust management plans prepared under Rule AREA2-R1 and can be used as a guide for dust management plans prepared under Rule AREA2-R2.

Part A: Contents

*A dust management plan must be prepared for each **subject site** and contain:*

(1) Title

*(2) A purpose to ensure that the discharge of **PM_{10}** into the **Mount Maunganui Airshed** is minimised to the greatest extent reasonably practicable to contribute to meeting the objectives of PC13 without undue delay, to meet the general standards of Rule AQ R22A standards (1)(a) to (1)(f) and to be consistent with Policy AQ P3 to achieve improvements in air quality.*

*(3) A map that includes a scale, a north point, the location of the **subject site**, distance to all **sensitive areas,** including any isolated dwellings within the industrial area and predominant wind directions at the **subject site.***

(4) Process description and method of operation including:

(a) A detailed description of the subject site, activity, and discharges to air;

(b) A description of the potential sources of dust emissions;

*(c) Any locational or operating constraints relevant to the management of **handling** of **bulk solid materials** and/or **handling of logs**; and*

*(d) the type(s), volume(s) and frequency of **handling** of **bulk solid materials** or **handling of logs** at the **subject site.***

*(5) Methods of mitigation and standard operating procedures for the **subject site** which must include details of dust emission reduction processes and practices including:*

(a) for all activities:

(i) Product movement paths, storage, and processing areas including conveyance systems, and whether these are indoors or outdoors;

(ii) Use of dust suppression (e.g. sprinkler/fog/misting) systems;

(iii) Use of wind speed limits relating to the subject site when operations must cease;

(iv) Vehicle speed limits and vehicle unloading procedures to minimise dust;

(v) Site sweeping/vacuuming and containment protocols including hours of operation and sweeping frequency;

(vi) Inventory of mitigation measures in place on or about 28 November 2019;

(vii) Inventory of current mitigation measures, including equipment, materials and procedures;

(viii) Proposed further mitigation measures, including equipment, materials and procedures

(ix) Frequency of equipment maintenance programmes; and

(x) Contingency procedures.

*(b) for **bulk solid materials** only:*

(i) Exclusion or buffer areas within the subject site where no outdoor storage is permitted;

(ii) Use of covers or containment systems for outdoor storage areas;

(iii) For enclosed operations, emission pathways and general containment provisions , the extent of air extraction and treatment systems installed and their performance specifications; and

(iv) Materials spill management response protocols

(6) A monitoring programme which must shall:

(a) Be designed by a SQEP to monitor ambient PM10 concentrations in accordance with relevant good practice;

(b) Include a description of types and locations of devices for PM10 and meteorological conditions monitoring;

(c) Provide data that allows for a technically robust comparison with the trigger values in Part A clause (7);

(d) Be continuous monitoring with a minimum of ten-minute resolution;

(e) Be telemetered with alarms;

(f) Be installed, commissioned, operated, serviced, and maintained in accordance with the manufacturer's instructions and any appropriate standards;

(g) Have as a minimum one monitor funded by the owner or occupier of the subject site;

(h) Produce validated data in accordance with the Good Practice Guide for Air Quality Monitoring and Data Management, including the valid data requirements of 75% for averaging and 95% for data capture;

(i) Specify monitors compliant with either NESAQ Schedule 2 or equivalency as demonstrated through AS 3580.9.17-2018 or EN 12341:2014;

(j) Require that all monitoring data collected must be provided to the Regional Council as follows:

(i) Raw monthly data to be provided via electronic access to the Regional Council by the 5th day of the following month;

(ii) Validated quarterly data to be provided via electronic access to the Regional Council on 1 February, 1 May, 1 August, and 1 November of every year; and

(iii) Any exceedance of the trigger values set out in Part A clause(7) must be notified to the Regional Council in writing within 5 working days of the exceedance.

(k) Requires records to be kept, including documentation of maintenance and control parameters.

(7) The following PM_{10} trigger values for use in Part B and IPAR standard(3)(e):

(a) 150 micrograms per cubic metre (calculated as a rolling 1-hour average concentration under Schedule 1 NESAQ) recorded by the monitoring devices in the monitoring programme set out in clause 6;

OR

(b) 65 micrograms per cubic metre (calculated as a rolling 12-hour average) recorded by the monitoring devices in the monitoring programme set out in clause 6.

(8) Complaints procedures must include:

(a) The name of the contact person and contact details for complaints from the community;

(b) Complaints procedures for staff;

(c) Maintenance of a complaints/incidents register that includes any actions undertaken to respond to the complaint, including further dust control measures;

(d) A complaint response protocol, including methods for recording of any onsite activity, including type and approximate volume of material being handled, dust mitigation measures in place at the time, and wind conditions at the time of complaint; and procedures for investigating and remedying the cause of complaint and providing response to complainant;

(e) A protocol for determining further mitigation measures that may be required onsite;

(f) Timeframes for communication to the Regional Council and complainant; and

(g) Reporting requirements that include the complaints/incidents register which must be submitted to the Regional Council at least once per calendar year.

(9) Staff training procedures must include:

(a) Components of the dust management plan that staff are to be trained in;

(b) Methods used to train staff;

(c) Frequency of staff training; and

(d) How and where staff training records are to be kept.

(10) System review and reporting procedures must include:

(a) The process for reviewing the overall dust management system performance;

(b) Types and frequency of reports not otherwise provided to the Regional Council such as site/process/equipment upgrades; and

(c) External audits and ISO certification (optional).

Appendix C Beaufort Force Scale

Beaufort force	Description	Specification on land	Wind speed		
			Knots	km/h	m/s
0	Calm	Smoke rises vertically.	Less than 1	Less than 1	Less than 1
1	Very light	Direction of wind shown by smoke drift but not by wind vanes.	1 – 3	1 – 5	0.3 – 1.4
2	Light breeze	Wind felt on face, leaves rustle, ordinary wind vane moved by wind.	4 – 6	6 – 11	1.7 – 3
3	Gentle breeze	Leaves and small twigs in constant motion, wind extends light flag.	7 – 10	12 – 19	3.3 – 5.3
4	Moderate breeze	Wind raises dust and loose paper, small branches move.	11 – 16	20 – 29	5.6 – 8
5	Fresh breeze	Small trees in leaf start to sway, crested wavelets on inland waters.	17 – 21	30 – 39	8.3 – 10.8
6	Strong breeze	Large branches in motion, whistling in telegraph wires, umbrellas used with difficulty.	22 – 27	40 – 50	11.1 – 13.9
7	Near gale	Whole trees in motion, inconvenient to walk against wind.	28 – 33	51 – 61	14.2 – 16.9
8	Gale	Twigs break from trees, difficult to walk.	34 – 40	62 – 74	17.2 – 20.6
9	Strong gale	Slight structural damage occurs, chimney pots and slates removed.	41 – 47	75 – 87	20.8 – 24.2
10	Storm	Trees uprooted, considerable structural damage occurs.	48 – 55	88 – 101	24.4 – 28
11	Violent storm	Widespread damage.	56 – 63	102 – 118	28 – 32
12	Hurricane	Widespread damage.	>64	>119	>33

Appendix D Daily Log Form

Date:___/___/_____ □ Mon □ Tue □ Wed □ Thu □ Fri □ Sat □ Sun

PM_{10} Monitoring Exceedances*

Time	PM_{10} (µg/m³) *(spec. average period)*
___:___	_____
___:___	_____
___:___	_____
___:___	_____
___:___	_____
___:___	_____
___:___	_____
___:___	_____
___:___	_____
___:___	_____

*Criteria for exceedance defined by the DMP

Visible Dust Emissions

Source	Level*	Colour Opacity	Time	Weather Cond. *(e.g. dry, rainy, windy)*	Wind Speed/Direction *(e.g. 5m/s SW)*
_____	_____	_____	__:___	_____	_____
_____	_____	_____	__:___	_____	_____
_____	_____	_____	__:___	_____	_____
_____	_____	_____	__:___	_____	_____
_____	_____	_____	__:___	_____	_____
_____	_____	_____	__:___	_____	_____
_____	_____	_____	__:___	_____	_____
_____	_____	_____	__:___	_____	_____
_____	_____	_____	__:___	_____	_____
_____	_____	_____	__:___	_____	_____

**Levels/extent of visible dust emission*

1. *Minor visible emissions (<5m)*
2. *Moderate visible emissions (<30m)*
3. *Extreme visible emission (>30m)*

Investigation and Response

Date event was investigated: ___/___/_____. Person responsible for the investigation: _____.

Possible cause(s):

□
□ dust suppression failure
□ Exceedance of the speed limit
□ Materials poorly handled or stored
□ Incorrect loading/unloading procedure
□ Other_____
_____
_____
_____

Corrective actions:

Date:	Description:
___/___/_____	_____
___/___/_____	_____
___/___/_____	_____

Preventative actions:

Date:	Description:
___/___/_____	_____
___/___/_____	_____
___/___/_____	_____

Form filled in by:
Name: _____ Job Title: _____ Signature: _____ Date: ___/___/_____

Appendix E Incident Response Form

Date:___/___/_____ □ Mon □ Tue □ Wed □ Thu □ Fri □ Sat □ Sun	
Time	
Is the dust still occurring now?	Y/N
Person Responsible for the investigation	Name: _____ Contact Number: _____
Any visible dust deposits?	Y / N
If Yes, describe the appearance of the dust deposits	Description _____ Colour: Shape: Size: Water Soluble: Other:
Air Samples taken?	Y / N
Photos Taken?	Y / N
Plume Width (if known)?	_____
Possible cause(s)	□ Cause 1 □ Cause 2 □ Cause 3 □ Cause 4 □ Other_____ _____ _____ _____
Corrective Action(s)	Date: ___/___/_____ Description: _____ Date: ___/___/_____ Description: _____

	Date: ___/___/_____ Description: _____
Preventative Action(s)	Date: ___/___/_____ Description: _____ Date: ___/___/_____ Description: _____ Date: ___/___/_____ Description: _____

Form filled in by:
Name: _____ Job Title: _____ Signature: _____ Date: ___/___/_____

Appendix F Complaints Investigation Form

Complaint Investigation Form	
Date:	
Time:	
Name:	
Contact phone number:	
Possible source:	
Is the dust occurring now?	Y/N
Complaint details (incl. effects experienced by complainant):	
Complaint received by:	Name: Anonymous: Y/N
Address:	
Date:	
Time:	
Assessors name:	
Person spoken to at investigation :	
Reason for investigation:	COMPLAINT/PROACTIVE
Initial impressions:	
Any visible dust deposits:	Y/N
Time:	
Type of dust:	
Plume width (if known):	
Describe the appearance of the dust deposits	
Colour:	
Shape:	
Size:	
Any odour:	
Water soluble:	
Crystalline of powdery:	
Hard or Soft:	

Other:	
Weather data (see over):	
Wind direction:	
Wind speed (m/s):	
Cloud cover:	
Temperature:	
Rainfall in past 24 hrs:	
Photos taken:	Y/N
Samples taken:	Y/N
Diagram/Description of where photos were taken:	

Appendix G Simplified Dust Mitigation Measures

Tier 1 Measures

Vehicles Movements

- Trucks are to be covered at all times whether full or empty.
- Vehicle speeds are limited to 15 km/hr.
- Regular sweeping/vacuuming of access ways and shed floors to minimise dust tracking.
- Blowing down any vehicles including model processing equipment before leaving site to avoid tracking and movement of product from within the shed.

Unloading of trucks

- Product is to be unloading in the warehouse as far from the entrance as practicable.
- Trucks are to be blown down before leaving the site to remove accumulated products on the tailgate, wheel arcs etc. This will be done with compressed air or a handheld blowers inside the warehouse with the air being directed away from any open door.
- Sweep or blow product using compressed air or handheld blowers away from trafficked areas to avoid material being tracked off-site. If blowing the product directed away from any openings.

Processing and handling of Product

- Minimise drop heights of product onto the floor and hoppers.
- Locate the processing equipment as far as practicable from an entrance to the warehouse.
- When possible, keep all openings closed during the processing of material.

Spills

- Any spilt material is to be cleaned up in a timely manner and any material spilt outside of the warehouse or with heavy trafficked areas within the warehouse must be cleaned up immediately.
- Material spilt outside might need to be dampened down with water to avoid wind blowing the material.

General Measures

- Review weather conditions at the start of each day to ensure that the correct mitigation measures are in place. In the event of dry conditions and wind speeds above 5 m/s, sweep the floor and entrance of the warehouse if tracking is anticipated.
- Assess visible dust at least twice a day.
- When possible keep all doors closed. If doors need to be open, as far as practicable keep all other doors closed to reduce wind flow through the building.
- Monitor wind conditions and dust concentration measured on-site and respond to any alert or trigger warning immediately.

Tier 2 Measures

In the event that visible dust is observed traveling beyond the boundary of the site or the dust monitor is measuring exceedances of PM_{10} dust alert or trigger levels, all staff are responsible and must notify the Site Foreman immediately to ensure some or all of the following tier 2 measures are implemented:

- Temporarily cease activities in part or whole.
- Shut facility doors until weather conditions change (eg. reduction in wind speeds) and or immediate issue(s) or new additional measures are deployed.
- Immediate and more frequent sweeping of inside of warehouse and external areas before road entry.
- Increase frequency of vehicle blow down and cleaning within a controlled environment to ensure this action does not result in further dust emission off-site.
- Deployment of a sweeper tractor broom(s).
- To reduce tracking outside of the warehouse, deploy shaker bars on floors and or truck wheel water bath.

Tier 3 Measures

If Tier 2 mitigation is still not sufficient to control dust emissions from this source, the following Tier 3 mitigation measures are to be investigated and implemented if practicable, noting that some of these have long lead-times for implementation and some require significant capital investment.

- Misting sprays on warehouse doors
- Installation of truck blow down curtain inside of warehouse
- Installation of wind fences
- Improved building ventilation (non-filtered) to remove heat from the building and reduce airflow via doorways.
- Installation of a dust extraction system and Hi-speed doors
- Construction of enclosed area outside warehouses to act as a chamber minimising the potential for fugitive emission from the door
- Upgrade of shaker bars and truck wheel water bath on floors
- Upgrade sweeping equipment
- Installation of air extraction and filtration on processing equipment
- Relocation of products and or activities that have high dust potential to other storage facilities. Noting that for dusty products, these would be reallocated once the warehouse is empty.

Appendix G Champion activity specific information

Champion Flour Milling Limited
Mount Maunganui
Dust Management Plan
April 2024
Version 1

Contents

Purpose of the document

The purpose of the dust management plan is to manage and minimise the discharge of PM10 to the greatest extent reasonably practicable.

Site location map

Site 1

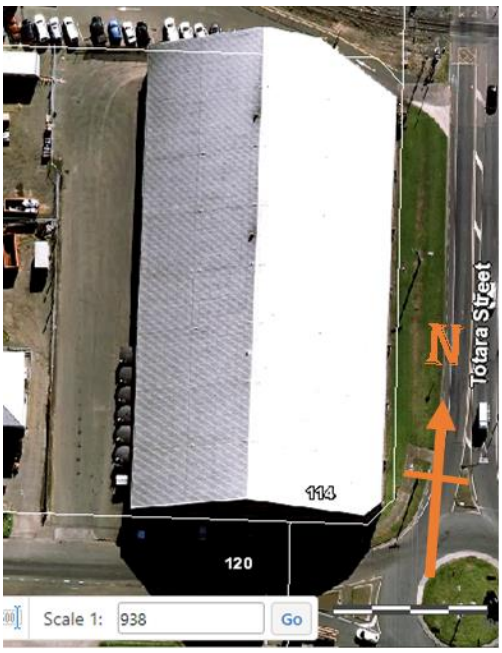
Champion Flour Mill

97-105 Tasman Quay, Port of Tauranga Wharf

Site 2

Champion Flour Mill – Wheat Shed

120 Hull Road, Mount Maunganui



Process description and method of operation including:

A detailed description of the site such as:

1. Site 1

Access to site at North end and heads South down the back of the site. Access to site can be found on traffic management plan. Buildings on site north to site are listed below.

- Admin office including Laboratory.
- Lunchroom.
- Workshop – Vent for welding fumes, grinding dust.
- Wheat intake 2 – extraction fan and breathing vent at top.
- Gristing (grain processing plant)
- Silo 26 – 4500 t silo – Explosion vent, breathing vent at top.
- Mill 2 building including:

- Storage capacity - 60t silos, 100t silos, 2x loading bay containing 8 hoses, 4 long socks for bulk flour load out and 4 for larger particle broll load out purposes -Explosion vents on silos, small amount of product loss/ dust discharge from the loading process.
- Mill complex – 5 stories of process machinery, flour air-controlled elevators, gravity feed pipes to feed grinders that are used to make the flour from wheat. – Explosion vent, grated window above Cl room (physical point of interested).
- Packing room – sealed room for packing flour into retail bags, contains 2 automated machines.
- Pallet loading robot – automated robot arms, pallet travel paths, automated plastic wrap machine.
- Pallet product warehouse. 1t pallets block stacked and racking packed flour and other consumables.
- Chlorine Room – Treating flour products in sealed silos. – Monitoring equipment and regular maintenance checks completed.
- Retipping station for reprocessing flour products.
- Warehouse loading tunnel and staging area. Includes logistics offices.

o Silo 1,2,3 - 2x concreate silo and 1x large Grain storge silos -Explosion vent, breathing vent at top.

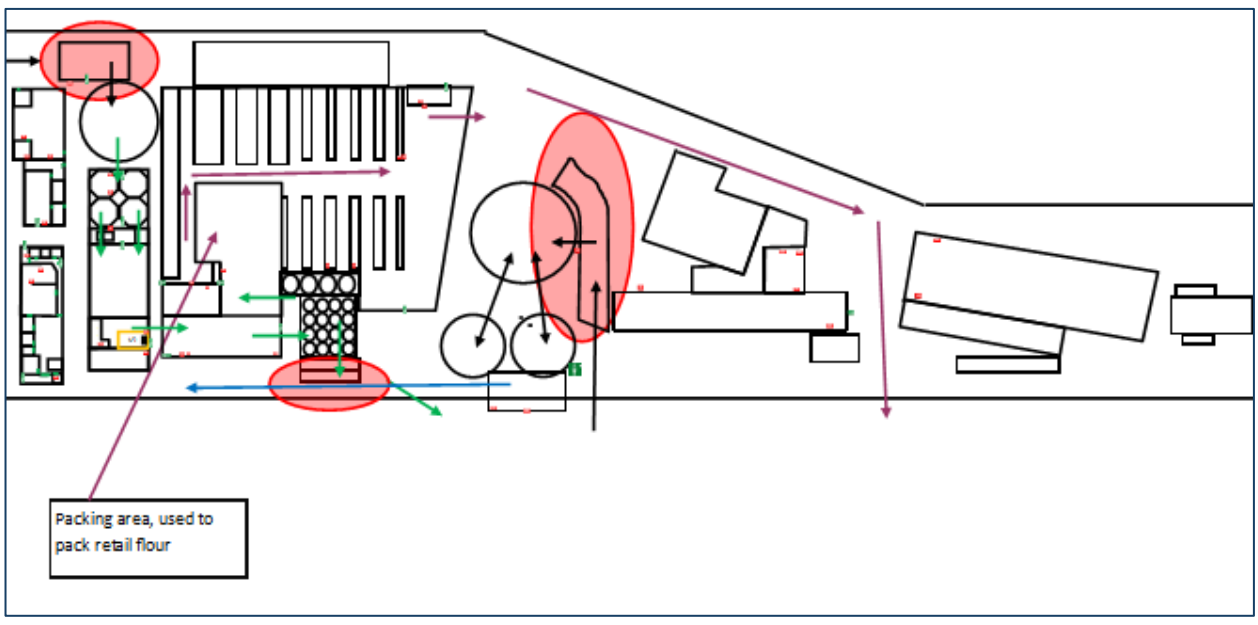
o Wheat intake 1 – open to air loading bulk grain tip trailer loading area. No dust management equipment at this point in time.

o Mill 1 building.

- Bulk flour load-out area – 4 silos
- Mill building – currently not used.
- Lunchroom
- Warehouse – used for racking and block stacked product.
- Retipping station for reprocessing flour products.

o Packaging warehouse used for racking and block stacked consumables.

o Process Diagram Site 1



Colour Codes			Raw grain movement
←	Underground Drag Chain	→	Processed Grain and Flour Movement
→	Packaged Retail Flour		High risk dust escape area

2. Site 2

- Large open concreate floor warehouse for bulk storage of Wheat grain. Grain is dumped into a ground floor boxes, to be conveyed through a grain loop system to stack wheat in 5000T piles.

A description of the potential sources of dust:

i. Wheat intake 1

Truck Tip Tailer Dumping station into a dump hopper conveyor system to move the grain to larger silo storage areas. Used during ship off loads once every 2 months, 24 hours a day for 2 or 3 days. Only used in dry conditions due to grain needing to stay dry.

ii. Wheat intake 2

Enclosed Truck Tip Tailer Dumping station into a dump hopper conveyor system to move the grain to larger silo storage areas. Used to load grain into silo storage. Is available for use 24/7.

iii. Bin 33/32

Bran product loading uses shorter socks that guide the flour to bulk tip trailers. Used as per loading schedule for the week. Loading can be completed 24/7.

iv. Bulk load out – Broil and Flour Mill 2

Enclosed gravity feed loading area or air elevators. Sock delivery system to trucks.

v. Flour Bulk loading uses socks that connect to the truck. Loading can be completed 24/7.

Broll bulk loading uses shorter socks that guide the flour to bulk tip trailers. Used as per loading schedule for the week. Loading can be completed 24/7.

vi. Retip stations

Enclosed in building with no ventilation. Used as per production schedule. Able to be used 24/7.

vii. Mill 2

Process of creating flour by grinding wheat to different grades of flour. Process involves air powered elevators sending the processing flour to the top level and gravity dropping to the processing equipment. Mill operates 24/7. More likely to be a negative pressure and not letting dust escape.

viii. Wheat Shed

Stores large amounts of grain in piles on a flat concreate floor. Grain is dumped into a ground floor boxes, to be conveyed through a grain loop system to stack wheat in 5000T piles. This is loaded during ship deliveries that cannot fit into our silos on site. Its is also used to 24/7.

A detailed description of the discharges to air such as:

i. Bulk Load out

Flour, wheat broll and shredded wheat are loaded into trucks, the flowing of the product into the trailers has a possibility of dust escaping the trailer. This dust is flour or larger broll airborne particles.

ii. Intakes

Dust is produced when wheat is tipped out of the trailer. This dust is caused by the movement of the grain as it is being unloaded into the dump hopper conveying system.

iii. Wheat Shed

When moving wheat around the wheat shed with a front-end loader, and when the truck and trailer units are being loaded with a front-end loader.

A description of the potential sources of dust:

i. Wheat shed.

Door can be open when truck and trailer units are being completed.

Movement of the wheat grain as we move it with a front-end loader.

ii. Intakes

Wheat intake 1 – Open to air Truck Tip Tailer Dumping station.

Wheat intake 2 – Door opens to the air as the truck is unable to fit into the intake while unloading.

i. Bulk Load out

Broll – 1 door is left open to fit he truck into the loading bay. This also prevents a wind tunnel to be formed.

Flour – Socks are fitted to the truck to help secure the flour to the tanker.

Locational or operational constraints relevant to the management of the material:

i. Grain – Can not be wetted for MPI security reasons as well as to stop the decomposition of the grain.

ii. Flour & other flour products – Can not be wetted as it would destroy usable product.

Details of the type, volume and frequency of handling of the BSM.

i. Grain – Australian Wheat Grain, 80 000 t per year

Grain – New Zealand Wheat Grain, 4 000 t per year

ii. Flour and flour products –

Flour – 67 200 t per year

Flour products – 16 800 t per year

Standard operating procedures and mitigation methods for dust including:

For all activities:

i. Product movement paths, storage, and processing areas including conveyance systems, and whether these are indoors or outdoors;

Product movement contained paths are controlled by:

- Air elevators, which are enclosed pipes that move the flour using air pressure.
- Gravity pipes, which allows the flour to fall from hight into the processing equipment.
- Drag chains, moving grain from silos to gristing building.
- Conveyors, lifting grain up site.
- Blow lines, to move flour to distribution mechanisms.

Storage

- Silo, for both flour and grain.

ii. Use of dust suppression (e.g. sprinkler/fog/misting) systems;

- Air curtain on the wheat shed, able to be used to control dust exiting the bulk shed.

iii. Use of wind speed limits relating to the subject site when operations must cease.

Unloading of ships and there for truck movements are limited to under 15 knots. This is measured by Port of Tauranga monitoring equipment and is displayed by the port using a lights system.

Wheat Intake operators monitor wind speed and direction on site before unloading trucks through both grain intakes to prevent dust.

iv. Vehicle speed limits and vehicle unloading procedures to minimise dust;

All trucks must stop to load or unload for both Safety and Environmental reasons.

General mobile plant speed on site is 10kph.

v. Site sweeping/vacuuming and containment protocols including hours of operation and sweeping frequency.

Bay sweep comes to site every day during wheat disembarkation from ship and site maintenance 2-3 a week or if there is a flour spill. They are on site any time during daylight hours.

vi. Inventory of mitigation measures in place on or about 28 November 2019;

Maintenance and cleaning records have been kept by Champion flour milling of all equipment used in the mitigation of dust.

vii. Inventory of current mitigation measures, including equipment, materials and procedures;

All equipment used in the mitigation measures is kept by Champion flour milling by its maintenance team.

viii. Proposed further mitigation measures, including equipment, materials and procedures;

Not confirmed actions at this time.

ix. Frequency of equipment maintenance programmes; and

Mex system for frequency of machinery maintenance

x. Contingency procedures.

Off additional side storage.

xi. For bulk solid materials only: Exclusion or buffer areas within the subject site where no outdoor storage is permitted;

No outdoor storage is permitted.

xii. Use of covers or containment systems for outdoor storage areas;

No outdoor storage is permitted.

xiii. For enclosed operations, emission pathways and general containment provisions, the extent of air extraction and treatment systems installed and their performance specifications; and

- Wheat intake

  Dust extraction system to contain excess dust in wheat intake 2 during the wheat dumping process.

- Wheat shed.

  Air curtain is used at the doorway to decrease the likelihood of dust going outside.

xiv. Materials spill management response protocols.

WHS-024 Environmental Management Plan including PIRMP MTM

Dust trigger level response procedures.

Monitoring requirements and trigger levels will be covered in the overarching Port Industry Area DMP. The site-specific DMP should outline the procedures that will be followed in the event the operator is notified of a dust trigger level exceedance.

Complaints Procedures

The name of the contact person and contact details for complaints from the community.

Site manager

Greg Tunstall

M +64 27 625 3400

E greg.tunstall@championflour.co.nz

Complaints procedures for staff.

Direct manager as Champion Policy

Maintenance of a complaints/incidents register that includes any actions undertaken to respond to the complaint, including further dust control measures.

Rapid Global, Rapid Incident records incidents and corrective actions from event.

A complaint response protocol, including methods for recording of any on-site activity, including type and approximate volume of material being handled, dust mitigation measures in place at the time, and wind conditions at the time of complaint; and procedures for investigating and remedying the cause of complaint and providing response to complainant.

As per PIRMP

A protocol for determining further mitigation measures that may be required on site.

Capex process or maintenance requests.

Critical spares on MEX computer system.

Fast action response team.

Staff training procedures must include:

Components of the dust management plan that staff are to be trained in.

SOP & Rapid training, MPI Transitional Facilities Managers training.

Methods used to train staff.

A mixture of internal and external training. For example, online learning, SOP, Buddy system, consultants, career planning for specialized roles in the mill.

Frequency of staff training.

Annually or as required.

How and where staff training records are to be kept.

Rapid global and on company Drives.

System review and reporting procedures must include:

The process for reviewing the overall dust management system performance.

Rapid Auditor and external parties (POT)

Types and frequency of reports not otherwise provided to the Regional Council such as site/process/equipment upgrades; and

Dust monitoring every 2 years.

External audits and ISO certification (optional).

No

www.tonkintaylor.co.nz