



memorandum

TO Taharoa Ironsands Limited FROM Andrew Curtis
DATE 3 September 2026
RE Air Quality Response to Panel RFIs for Taharoa Ironsands

1.0 Introduction

Following the Panel Facilitated Conference (PFC), the Panel issued a memo, and a Request for Information (RFI) dated 30 July 2026. RFI questions 9 and 10 relate to air quality, and are:

RFI 9: *The Panel considers that an air discharge permit is needed and requests the Applicant to draft air permit conditions utilising the air related conditions currently inserted to AUTH 01.01 (Conditions 8-16).*

Applicant also to consider the need for other air-related conditions in the consent suite (e.g. AUTH 08.01 and Schedule 1) to be transferred to the air permit.

As a general point, at the PFC the Panel expressed a preference for consent conditions to address the “what” (is required) with the “how” to be left to management plans to improve clarity, certainty and enforceability of consents. The air quality experts agreed to confer and advise on good practice consent conditions (as recommended by Mr Stacey for WRC) for dust management (with suggested updates for the dust management plan in chapter 6 of the Environmental Management Plan in Appendix T of the Substantive Application) (refer also next item).

RFI 10: *The Panel requests the air quality experts confer and advise on:*

- 1. Good practice conditions of consent for managing dust (as recommended by Mr Stacey refer previous point) in the new air permit.*
- 2. The Panel further requests draft consent conditions requiring an **action plan** with specific actions to be undertaken to reduce overall site PM10 emissions (e.g., xx ha of stabilisation/rehabilitation of existing exposed areas by insert date) if elevated annual PM10 concentrations are measured at Te Kura o Taharoa.*

Based on the information provided these RFI appear to be based on the Panel’s view that an air discharge consent is required for the site. This was a matter discussed at the PFC. Both TIL and the Waikato Regional Council are of the view that such a consent is not required.

Nevertheless, Pattle Delamore Partners Limited (PDP) has been engaged by TIL to consider and respond to RFI 9 and 10. PDP has also been asked to consider and address the 2 March 2026 video which was produced at a hui held at Aaruka Marae.

This memorandum should be read in conjunction with PDP’s other assessments and reporting provided in respect of TIL’s Fast-track application, including Appendix S – Air Quality Assessment appended to the

Substantive Application Report, PDP's Memorandum in response to comments on the Application dated 22 June 2026, PDP's response to the Panel's RFI dated 23 July 2026 (contained in Attachment 1 – Taharoa Ironsands Limited's response to the Panel's RFI dated 23 July 2026 to the Memorandum of Counsel on behalf of Taharoa Ironsands Limited dated 17 July 2026).

2.0 Summary

It is PDP's opinion that there is no need for a separate air discharge consent because the activities at the site already meet the requirements of the permitted activity rule 6.1.16.1 in the Waikato Regional Plan. Specifically:

- ✧ That while site activities occur within 1,000 m of a property boundary the site has appropriate mitigation measures in place to ensure that effects from its activity are minimised as far as practical. This includes the use of water sprays and extensive particulate monitoring to inform the implementation of mitigation.
- ✧ There are naturally occurring sources of particulate in the area which make significant contributions to ambient particulate concentrations particularly during strong winds. The Waikato Regional Plan explicitly acknowledges this natural source of particulates and that it will affect the amenity of the area.
- ✧ The 1-hour TSP monitoring data demonstrates that for the majority of the time TSP concentration are at Alert Level 1, with just 5% of the time when concentrations are Alert Level 2 or higher and just over 1% of the time when concentration are at Alert Level 4. The vast majority of these events occur when winds are stronger than 10 m/s (36 kph).
- ✧ There is no evidence that site activities are resulting in emissions of:
 - contaminants that are giving rise to off-site effects on human health or the health of flora or fauna; or
 - particulate matter that is objectionable to the extent it is giving rise to off-site adverse effects.
- ✧ Measured concentrations of TSP at the mine are similar to levels measured in other remote rural locations. If it is conservatively assumed that the TSP is primarily PM₁₀ then the concentrations on an annual basis are just over half the New Zealand Ambient Air Quality Guideline annual average for PM₁₀, which is not indicative of a chronic PM₁₀ effect.
- ✧ The site has a good record of compliance. An abatement notice was issued for a one-off event in 2024 during extreme weather conditions. There have been no other verified complaints that site activities have breached the permitted activity rule, including by giving rise to particulate emissions that have caused any impairment of visibility beyond the site boundary.
- ✧ The site does not give rise to hazardous substances that cause any form of off-site effects.

Further, conditions proposed by TIL as part of its Fast-track application will ensure that the permitted activity rules will continue to be met, and in many cases these conditions mirror key components of the permitted activity rule.

In relation to the video of 2 March 2026, it is PDP's opinion that there are areas of the site that generated dust during the extremely strong wind conditions that occurred at the time of the video generated dust. The dust returned to low levels once the wind had dropped. While additional onsite mitigation measures might have reduced dust to some extent, there would have been naturally occurring dust generated in any event under those conditions. It cannot be determined, based on the information to hand, that there were any off-site dust effects that breached the permitted activity rule on this day.

In relation to the consent conditions, it is PDP's opinion that those proposed by TIL represent good practice, and in many cases already achieve the best practice suggested by Mt Stacey.

There are some matters suggested by Mr Stacey that PDP considers do not fall within the purview of an air discharge consent or are covered by other conditions that TIL has proposed, therefore no additional conditions are proposed, apart from that proposed in relation to RFI 10.

3.0 Is an air discharge consent required for TIL

It is PDP's opinion that TIL does not require a resource consent for discharges to air as it is meeting the requirements of permitted activity Rule 6.1.16.1 of the Waikato Regional Plan (WRP). Specifically, the rule states:

6.1.16.1 Permitted Activity Rule – Mineral Extraction, Size Reduction, Screening and Storage

The discharge of contaminants to air from any mineral extraction, processing and storage operation is a permitted activity subject to the following conditions:

- a) Where the operation occurs within 1000 metres of a property boundary and there is a discharge of particulate matter beyond the property boundary the following measures shall be implemented:

 - i) the use of water sprays to suppress dust from crushing and screening plants, access ways, haul roads, stockpiles, load out areas and access roads*
 - ii) the sealing and maintenance of the access road, when it is within 150 metres of a neighbouring residential dwelling.**
- b) As specified in Section 6.1.8 a) to e) of this Plan.*
- c) Within seven working days of commencing works at a new site, the operator of the new quarrying site shall provide the Waikato Regional Council with written notification of the location of the site.*
- d) Should an emission of particulate matter occur that causes adverse effects of an objectionable nature beyond the property boundary as determined in accordance with the decision making guidelines set out in Section 6.4.2.2, the quarry operator shall provide a written report to the Waikato Regional Council within five days of the incident occurring, which specifies:

 - i) the cause or likely cause of the event and any factors that influenced its severity*
 - ii) the nature and timing of any measures implemented by the quarry operator to avoid, remedy, or mitigate any adverse effects*
 - iii) the steps to be taken to prevent recurrence of similar events.**
- e) There shall be no discharges of hazardous substances into the air.*

Section 6.1.8 sets out standard conditions for permitted activity rules and states:

- a. There shall be no discharge of contaminants beyond the boundary of the subject property that has adverse effects on human health, or the health of flora and fauna.*
- b. The discharge shall not result in odour that is objectionable to the extent that it causes an adverse effect at or beyond the boundary of the subject property.*
- c. There shall be no discharge of particulate matter that is objectionable to the extent that it causes an adverse effect at or beyond the boundary of the subject property.*

- d. *The discharge shall not significantly impair visibility beyond the boundary of the subject property.*
- e. *The discharge shall not cause accelerated corrosion or accelerated deterioration to structures beyond the boundary of the subject property.*

It is PDPs opinion that the consent conditions that have been proposed by TIL are appropriate to ensure that its activities will continue to meet the permitted activity standards and that requiring a specific consent will not achieve a greater level of certainty than is achieved by the conditions that have already been proposed.

In addition to the more specific conditions 9 -16 and 18 of AUTH142035.01.01, proposed condition 8 of consent AUTH142035.01.01, states that:

"The Consent Holder shall implement measures to manage dust to ensure that all activities in the Consent Area comply with the following:

- (1) *There shall be no discharge of contaminants beyond the boundary of the Consent Area that has adverse effects on human health, or the health of flora and fauna.*
- (2) *There shall be no discharge of particulate matter that is objectionable to the extent that it causes an adverse effect at or beyond the boundary of the Consent Area.*
- (3) *The discharge shall not significantly impair visibility beyond the boundary of the Consent Area."*

TIL's adherence to the specific sections of Rule 6.1.16.1, excluding c) and d) which are procedural matters relating to notification to WRC, are discussed in detail in the following sections.

3.1 WRP Rule 6.1.16.1 a

Section 6.1.16.1 a) of the rule requires the implementation of mitigation measures when activities are within 1,000 m of a property boundary.

This is the case at the site, and the Interim Dust Management Plan (IDPM) sets out in detail the mitigation measures that are already in place to ensure that site dust emissions are minimised as far as practicable. These mitigation measures have been included in Table 6-5 of the Draft Environmental Management Plan (EMP) (Appendix T) submitted with the Substantive Application Report, and are reproduced below in Table 1. TIL's proposed set of consent conditions provide that the consent holder must manage its consented activities in accordance with the EMP (Attachment O – Proposed Resource Consent Conditions – Comments Response Version, Schedule 1: General Conditions, conditions 1315 and 18).

Over and above the requirements of part 6.1.16.1 a, the site currently undertakes continuous Total Suspended Particulate Monitoring (TSP). The TSP monitoring allows TIL to understand in real time the emissions from its site, and implement as appropriate, additional mitigation measures to minimise emissions of dust as required.

Given the mitigation, it is PDP's opinion that the requirement of 6.1.16.1 i) are already met, both in real time, and in TIL's proposed consent conditions, and no further benefit would be achieved by requiring an air discharge consent.

Table 1: TIL Dust Control Measures

Trigger Level	Within 300 m of the Northern and Eastern Boundary of the Central Block	Remainder of Site
Level 1 – Normal	✧ Normal operations. ✧ Ensure water cart is available if needed. ✧ Track roll silt/clay stockpiles whilst winds are low.	✧ Normal operations.
Level 2 – Alert	✧ Limit vehicle speeds to <10 km/h. ✧ Minimise vehicle movements across exposed silt/clay. ✧ Apply water to exposed clay/silt surfaces that are trafficked. ✧ Limit drop heights when working with silts/clays. ✧ Track roll stockpiles and apply water if needed. ✧ Inspect every 2 hours to identify dust generation. ✧ Monitor SCADA system to allow early identification of a change in alert level.	✧ Minimise vehicle movements across exposed silt/clay. ✧ Ensure water cart is available if needed. ✧ Commence pre-wetting areas if the wind is forecast to rise.
Level 3 – High	✧ Only undertake work if absolutely necessary. ✧ Limit vehicle movements to the absolute minimum. ✧ Dampen, and keep damp, all areas being actively mined, or all areas with silts/clays exposed.	✧ Limit vehicle speeds to <10 km/h. ✧ Apply water to exposed clay/silt surfaces that are trafficked and stockpiles of silts/clays. ✧ Limit drop heights when working with silts/clays. ✧ Inspect every 2 hours to identify dust generation. ✧ Monitor SCADA system to allow early identification of change in alert level.
Level 4 – Extreme	✧ Cease work that has the potential to generate dust (aside from placement of tailings and application of water to keep areas wet).	✧ Limit vehicle speeds to <10 km/h and minimise vehicle movements. ✧ Dampen all areas within the active mining area and roads. ✧ Cease removing, transporting and stockpiling silt/clay overburden. ✧ Limit drop heights when working with silts/clays.

Table 1: TIL Dust Control Measures

Trigger Level	Within 300 m of the Northern and Eastern Boundary of the Central Block	Remainder of Site
		✧ Inspect every 2 hours to identify dust generation. ✧ Monitor SCADA system to allow early identification of change in alert level.

In terms of 6.16.1.6 a) ii, there are no residences within 150 m of the site access road and therefore there is no requirement to seal the access road. Notwithstanding this the initial portion of the site access road, which is the closest portion of the road to sensitive receptors, is sealed.

3.2 WRP Rule Part 6.1.16.1 b

This section requires that activities comply with the requirement of the general permitted activity standard condition set out in section 6.1.8. There are five standards, however standard b) relates to odour and is therefore not relevant to the potential discharges associated with the mining activity. Standard e) relates to potential discharges of compounds that could cause corrosion, which again is not relevant to potential discharges associated with the mining activity.

The remaining three standards are relevant to site operations and TIL has incorporated them into the consents as condition 8 of consent AUTH142035.01.01. The mitigation measures that have been set out in the IDMP (and EMP) are intended to ensure that the site complies with proposed condition 8.

The matters covered by the three relevant standards are discussed in the following sections.

3.2.1 Standard 6.1.8 a)

Standard 6.1.8 a) states:

There shall be no discharge of contaminants beyond the boundary of the subject property that has adverse effects on human health, or the health of flora and fauna

The WRP states that “A contaminant in this sense could be an aerosol discharged from the spraying of effluent or a gas or vapour formed from the combustion of materials”. In this context, the term contaminants relates to compounds such as nitrogen dioxide or carbon monoxide which are released from an industrial activity as part of its operation. The only sources of these types of compounds at the site are the combustion processes associated with engines in mobile and fixed plants. These are small in number, and due to the significant separation distances, and windy nature of the location the emission will be well disperse before they reach the site boundary and not result in any form of adverse effects on human health or affect the health of flora and fauna. Therefore, the site will comply with the standard condition.

It is also generally accepted that the standard condition covers the discharge of fine particulate matter (referred to as PM₁₀) that is also generated in combustion processes. In this case it is extremely unlikely that PM₁₀ generated by on site combustion processes has any potential to cause measurable changes in ambient PM₁₀ for the reasons mentioned above, and therefore it is PDP’s opinion that PM₁₀ from anthropogenic sources does not result in any form of adverse effects on human health or the health of flora and fauna and therefore complies with the standard condition.

However, there are also other sources of PM₁₀ in the Taharoa area which can have a significant impact on off-site concentrations of PM₁₀. This is discussed further below.

3.2.1.1 Natural Background

In coastal locations such as Taharoa, the contributions from marine aerosols to measured particulate can be significant. This is something that is acknowledged by WRC in Table 6-1 of the WRP, which sets out the 'Significant Characteristics of Air Quality within the Waikato Region' (see extract from the table below). Table 6-1 says in relation the West Coast of the Waikato there can be local amenity issues associated with natural sources such as sea spray and particulate matter.

Area	Features	Air Quality Issues	State of the Resource
West Coast Waikato	Exposed to strong winds off the Tasman Sea, hilly and wet. Diverse Topography. Very low population density. Pockets of development exist in areas sheltered from the prevailing westerly.	Micro-climates can be created in areas of development generating a build up of contaminants. Local amenity issues associated with: a. natural sources such as sea spray and particulate matter b. occasional smoke from open burning c. deposited particulate matters from unsealed roads d. agricultural spraydrift.	No monitoring undertaken in this area. The risks of adverse long term and cumulative effects on ambient air quality in these areas are regarded as low.

While WRC has not undertaken any monitoring in this area, there has been some monitoring in other parts of the country. For example, a 2010 study at Awatoto¹, a coastal location in Hawke's Bay, which did not consider wind directions or speed, determined that on average 31% of measured PM₁₀ was marine aerosols. A 2017 study² at Awatoto found that over a one-year period 58% of total PM₁₀ was marine aerosols, and on days with the highest PM₁₀ measurements the contribution from marine aerosols was 80%.

This significant contribution of marine aerosols to ambient particulate matter concentrations is likely to be a factor in any measurement of particulate at Taharoa, particularly as wind speeds increase. International research³ shows a direct correlation between increases in wind speed and increases in marine aerosols. For example, as shown in Figure 1, at 15 m/s (54 kph) marine aerosols (sea salt) could make an up to 200 µg/m³ contribution to the measured particulate, which is primarily in the PM₁₀ size fraction.

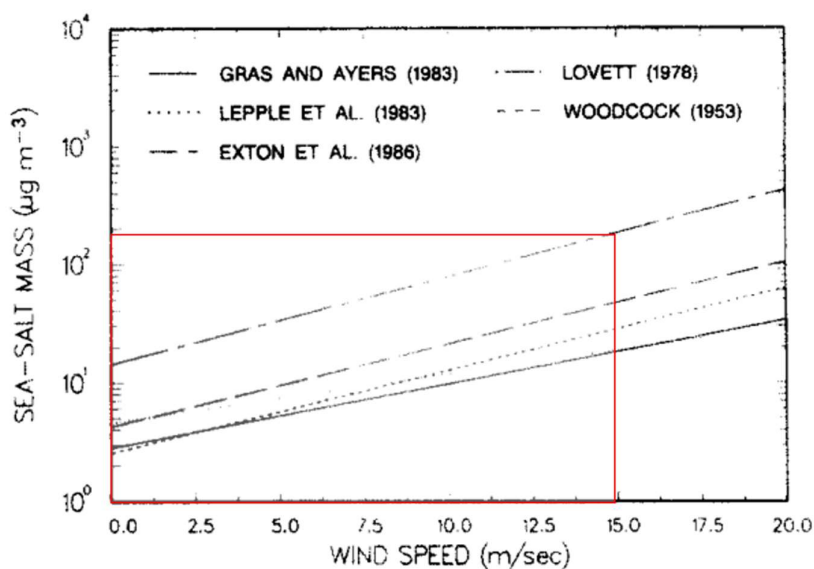


Figure 1: Estimates of Sea Salt versus Wind Speed

¹ Environet Limited, Natural Source Contribution to background PM₁₀ in Awatoto, 2010

² Davy, P.K. and Trompetter, W.J., 2017. Analysis of PM₁₀ composition and sources at Awatoto Hawke's Bay Region. HBRC Report No. RM18-06-4986 prepared by GNS Science.

³ Fitzgerald, JW, Marine aerosols: a review, Atmospheric Environment Part A General Topics 25(3) 533-545, 1991

In addition, in strong winds there is potential for particulate to be picked up from natural sand dunes in the area. Using information from USEPA, PDP has presented in Figure 2, a generic example⁴ of the change in PM₁₀ from erodible surfaces with wind speed. It is important to understand in Figure 2 that the x-axis is ground level wind speeds not those measured at an anemometer. Windspeeds reduce with height due to friction effects and in general for most surfaces, the measured wind speeds need to be greater than 10 m/s (36 kph) for dust to be picked up from surfaces. The dust pick up effect can clearly be seen in Section 4 of this memo, where PDP discusses the 2 March 2026 video.

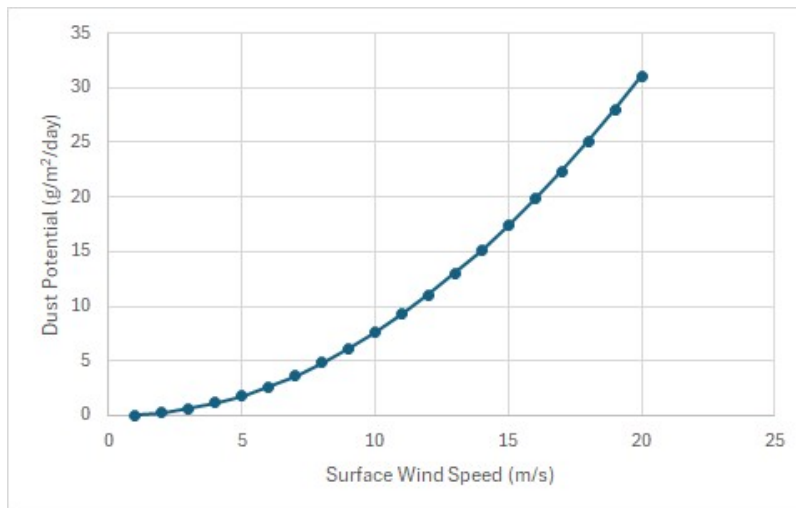


Figure 2: Generic example of the increases in PM₁₀ with Wind Speed

Given the importance of the windspeed to the potential for changes in background PM₁₀ concentrations (and dust in general) at Taharoa, PDP has presented in Figure 3 a five-year windrose for Taharoa. As can be seen, there are approximately 5% of winds that are greater than 10 m/s (36 kph) (primarily from the southwest), (which is a significant percentage compared to less coastal locations). However, the average wind speed is 4.8 m/s (17.3 kph). The potential for wind generated dust and sea spray will therefore be intermittent and associated with specific weather events. Figure 4 shows a monthly breakdown of the wind data measured at Port Taharoa and indicates that strong northeasterly winds predominantly occur in autumn and winter and strong southwesterly winds predominantly occur in spring and summer.

⁴ Calculated using equations taken from the US EPA publication AP42 Compilation of Emission Factors Chapter 13.2.5 (Industrial Wind Erosion)

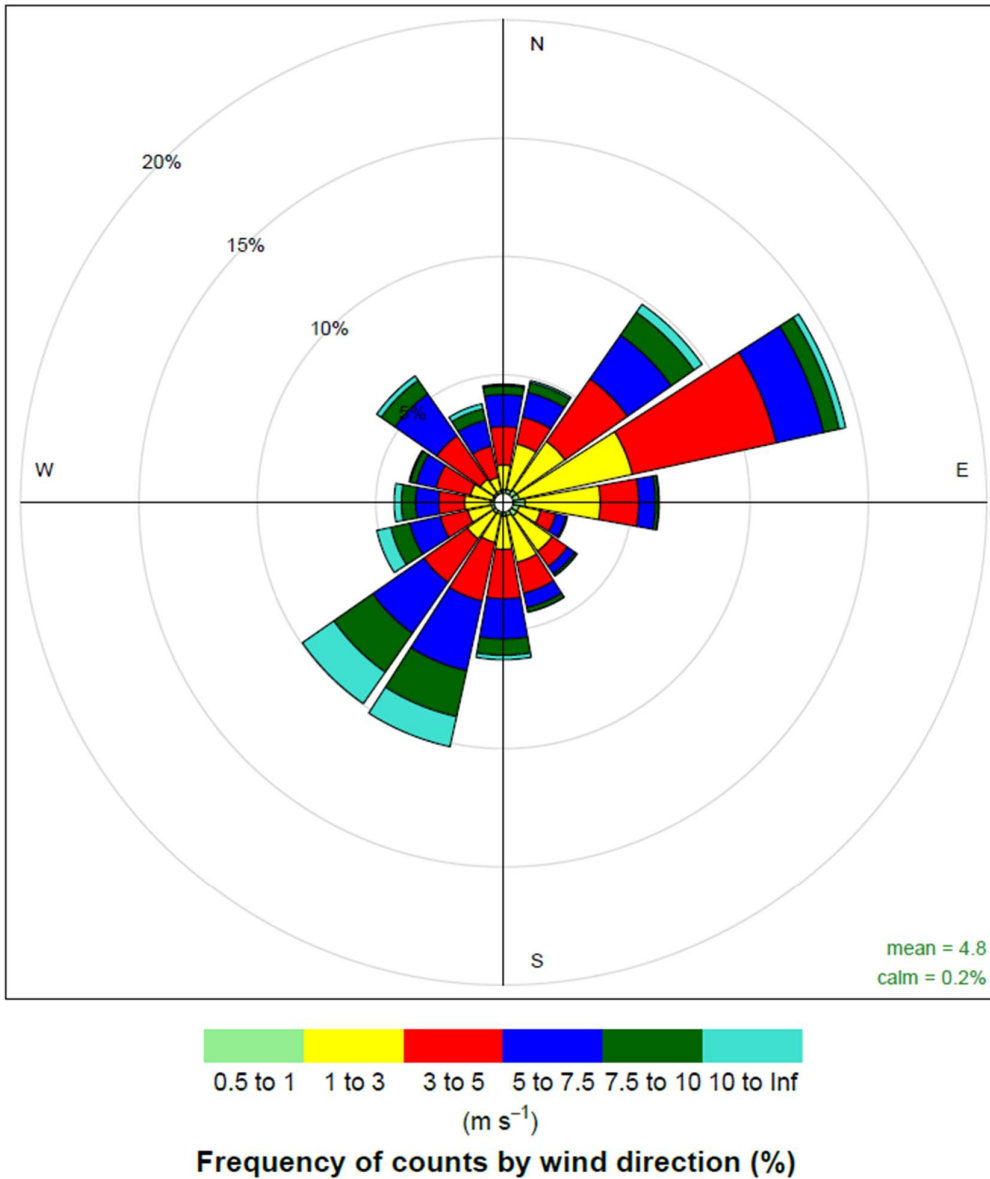


Figure 3: Windrose from Port Taharoa – 2022 to 2026

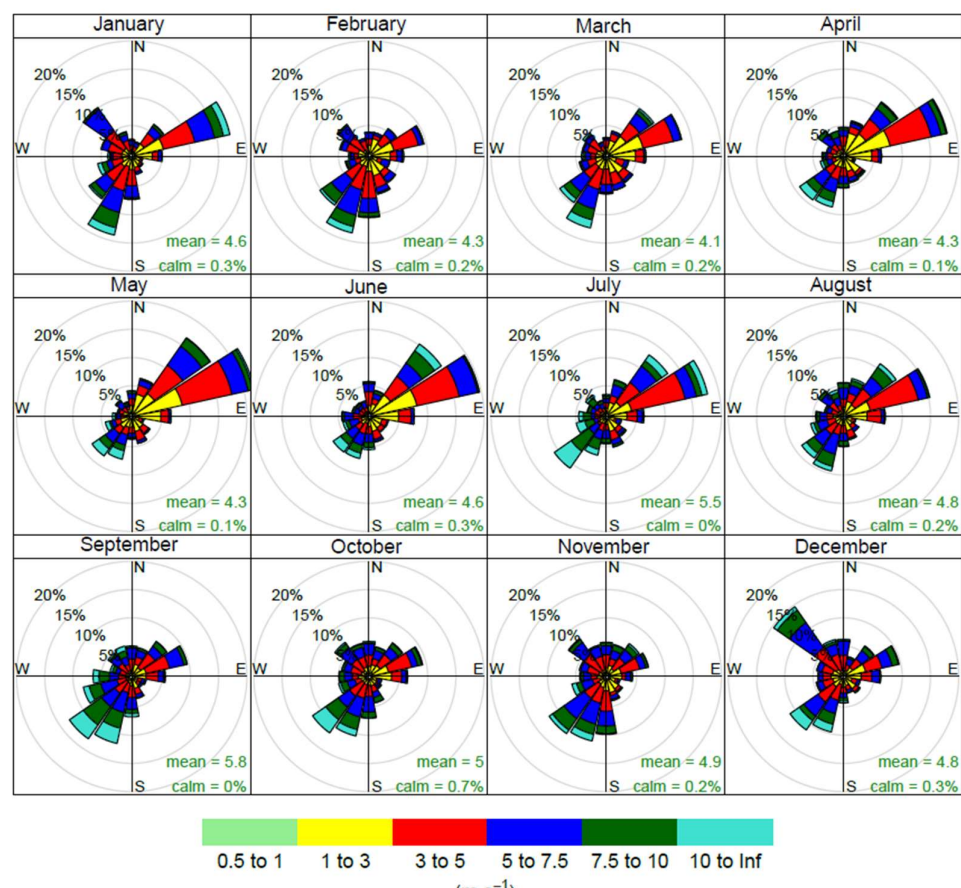


Figure 4: Monthly Windrose from Port Taharoa – 2022 to 2026

It is also important to understand that not all strong winds will generate dust as they are often associated with rain events. PDP has analysed rain data from Taharoa, and this shows that there is a high probability that strong winds (greater than 10 m/s (36 kph)) from the west will be associated with rainfall events and therefore not generate dust.

3.2.1.2 Fine Particulate in Sand Resource

The other potential source of PM₁₀ is from material that is within the sand resource. Therefore, PDP collected samples from five different areas of the site and had Particle Sized Distribution (PSD) analysis undertaken for each sample⁵. Figure 5 represents the locations where PDP collected samples during its site visit on 27 May 2026. A summary of the size distribution is presented in . Only two of the five samples ('Unprocessed DMU3' and 'Processed Stockpile') contained material that was less than 0.063 mm (63 µm) in the wet sieve PSD analysis⁶.

⁵ PSD is typically undertaken by two methods. Wet PSD for the <63 µm particles and hydrometer for the <63 µm particles, however at least 10% passing 63µm wet PSD analysis is required to undertake the hydrometer analysis.

⁶ Because of method limitations it was not possible to determine the size fractions for the material less than 63 µm in size.

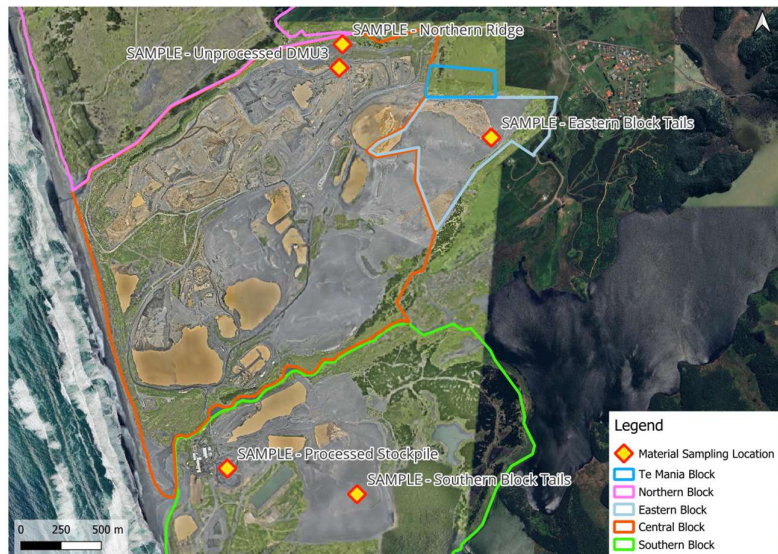


Figure 5: PSD Sample Locations

Given that there is a very low percentage of material less than 63 μm in size, there will also be a very low percentage of the material in those smaller size fractions.

Table 2: Particle Size Distribution								
Sample	Percentage of Sample (%)							
	< 4.75 mm	< 2 mm	< 0.6 mm	< 0.3 mm	< 0.15 mm	< 0.09 mm	< 0.075 mm	< 0.063 mm
Northern Ridge	-	-	100	92	14	1	-	-
Unprocessed DMU3	-	100	100	78	16	2	1	1
Eastern Block Tails	-	-	100	75	10	1	1	-
Southern Block Tails	-	100	100	87	14	1	1	-
Processed Stockpile	100	99	98	97	68	9	5	3

There is also an area of stockpile of clay in the northwest corner of the Central Block. While PDP did not sample the clay, such material is generally very fine and less than 63 μm in size.

Overall, it is not considered that there are significant quantities of material on site that would give rise to PM_{10} .

3.2.1.3 Monitoring Results

PDP's opinion in relation to PM_{10} is supported by monitoring that has been undertaken to date at the site. While the monitoring has been for Total Suspended Particulate (TSP) which includes particles up to about 30 μm in size, it has been occurring since 2019 and therefore provides a reasonable picture of off-site particulate emissions. In addition, because of the type of monitors use on site, the majority of the particulate measured will be closer to PM_{10} in size.

Because the monitors were originally installed around the Eastern Block, the data for some of the monitoring does not represent true background. At this stage only monitors MP5 and MP7 are representative of naturally occurring particulate. Figure 6 presents the current location of the monitors.

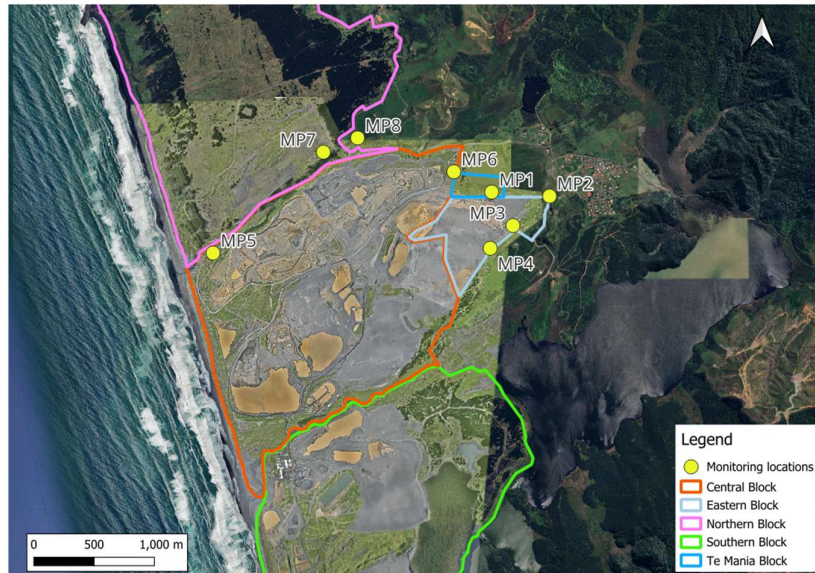


Figure 6: Taharoa Dust Monitors

Figure 7 presents a time series of the 1-hour average TSP concentrations for each of the monitoring locations. As can be seen, the values are generally very low with occasional peaks typically in late spring and summer which are associated with the stronger winds, discussed earlier. These data are not indicative of an issue, but rather are representative of the situation acknowledged by the WRP that on the west coast there can be a naturally occurring emission of sea spray and particulate matter, and some of that some of that will originate on the site.

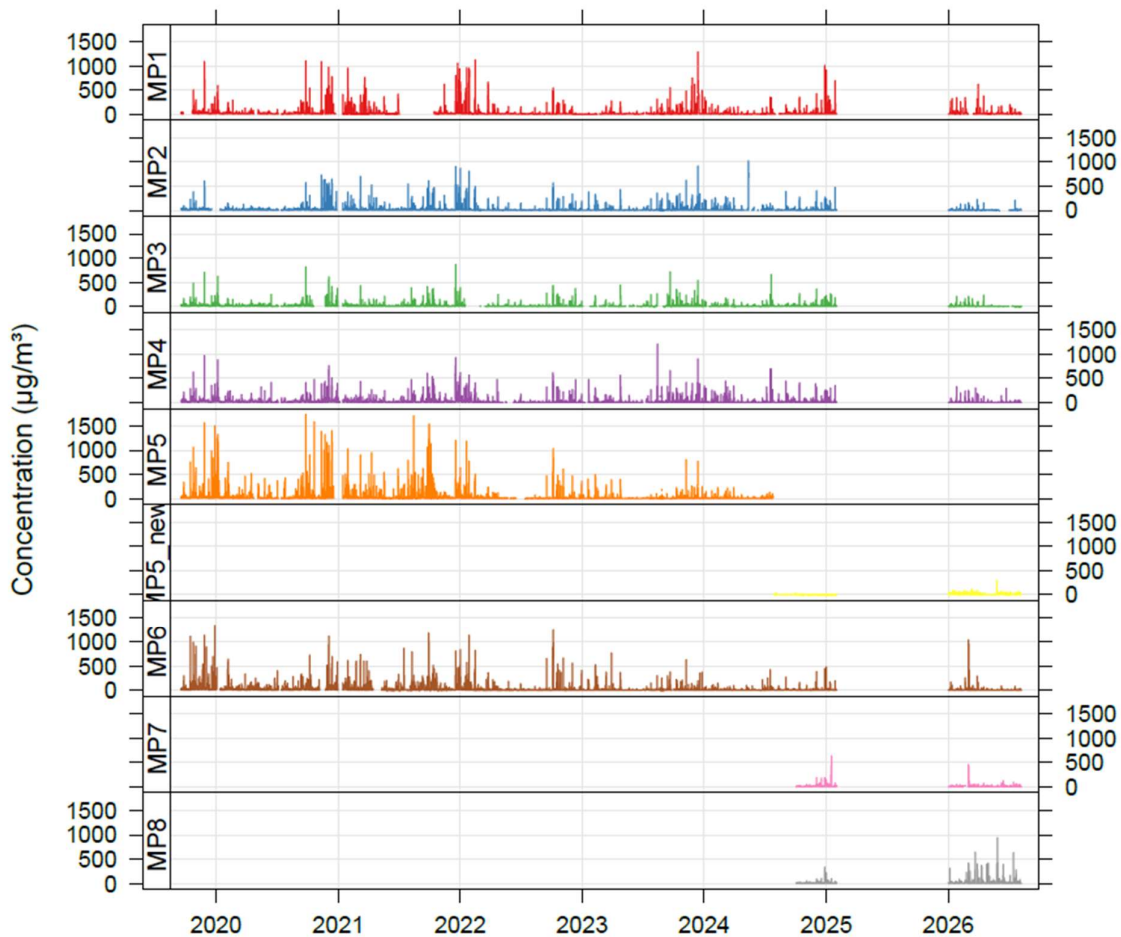
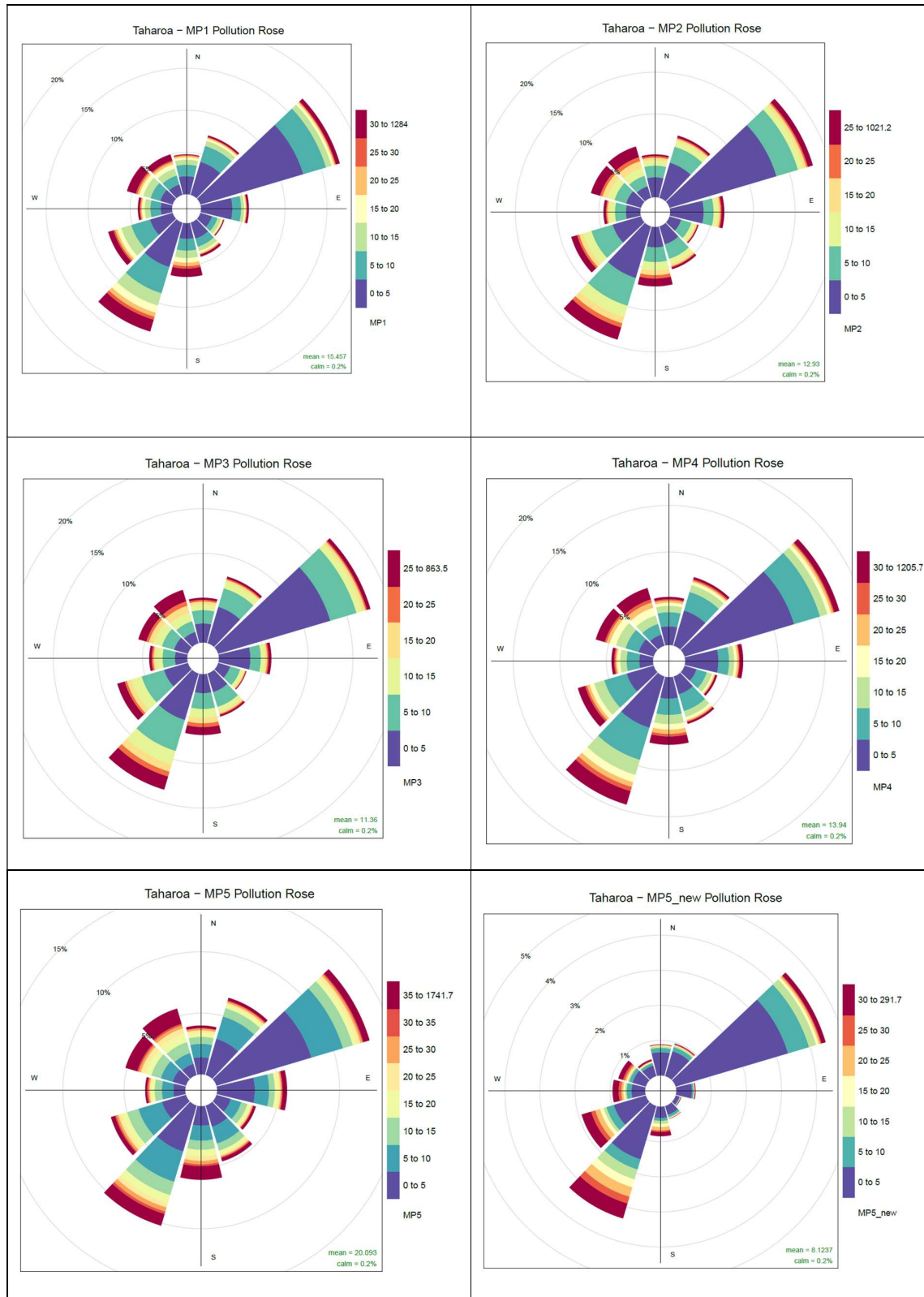


Figure 7 1-hour average TSP Concentrations

Figure 8 presents a series of dust roses which combine hourly wind speed and direction with measured hourly TSP concentrations. This data indicates that high dust concentrations can be associated with winds from all directions. Of particular note are the results for MP5 New and MP7, which are generally located upwind of the onsite activities. For these sites when the concentrations are high and occurring during winds in the western quadrant, they represent naturally occurring particulate.

There is a similar situation for monitors MP1, MP2, MP3, MP3 and MP6 when the wind is from the northeastern quarter as in those wind conditions the monitors are upwind of site activities. This again emphasises the essentially dusty nature of the area around Taharoa.

TAHAROA IRONSANDS LIMITED - AIR QUALITY RESPONSE TO PANEL RFIS FOR TAHAROA IRONSANDS



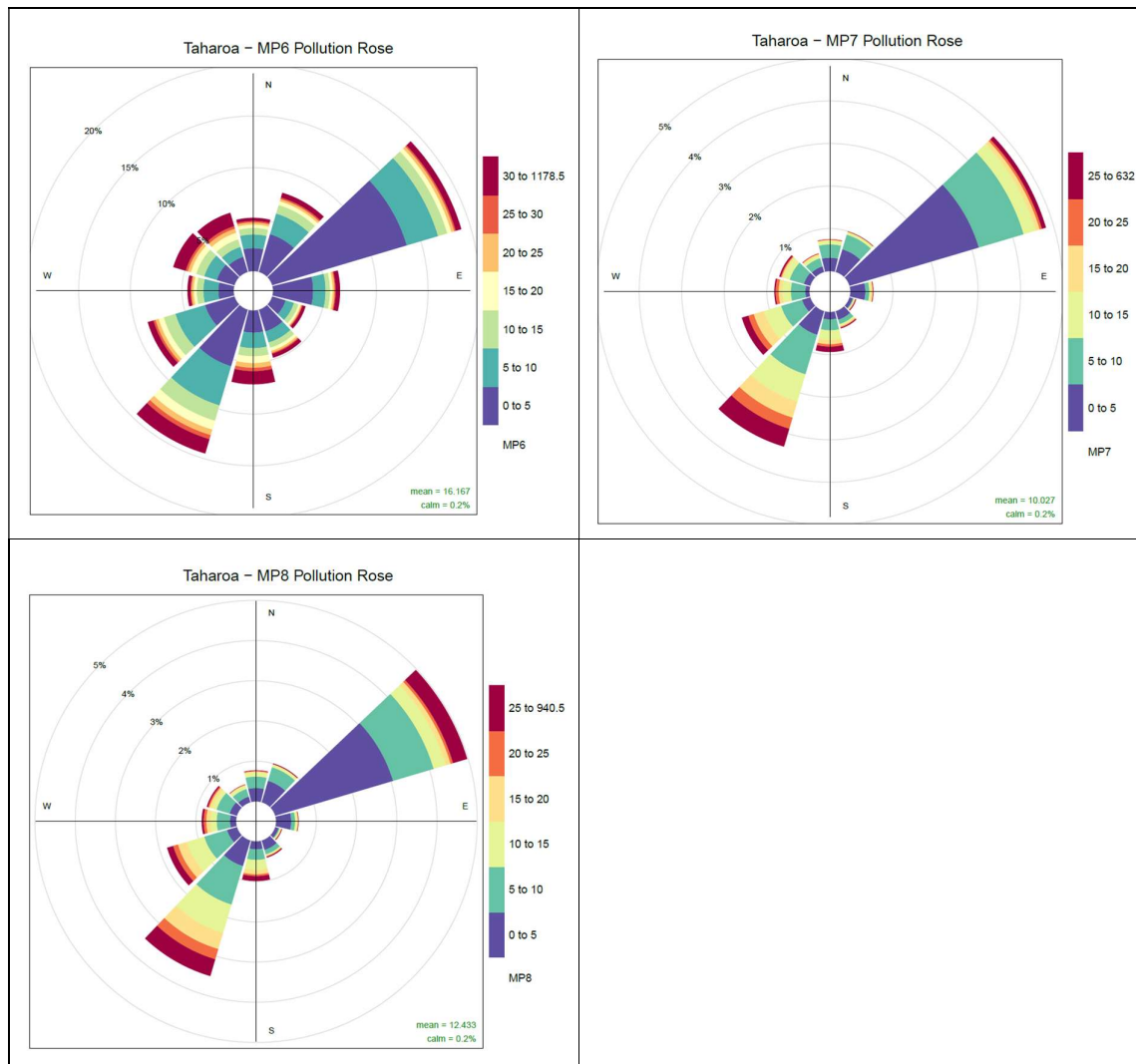


Figure 8: 1 hour TSP pollution Roses ($\mu\text{g}/\text{m}^3$)

Finally with respect to the 1-hour average data PDP has looked at how often the Alert levels 2, 3 and 4 described in Table 1 have been reached. Looking at all of the TSP monitoring⁷ since 2019, Alert level 2 has been reached at 1 or more monitor 3.4% of the time when the monitors were running, Alert level 3 has been reached at 1 or more monitors 0.6% of the time when the monitors were running, and Alert level 4 has been reached at 1 or more of the monitors 1.1% of the time when the monitors were running. The vast majority of these events occur when winds are stronger than 10 m/s (36 kph) and generally particularly for Alert Level 3 and 4 occur on the same day.

PDP does not consider that these percentages are high, given as shown in Figure 8 that higher concentrations can occur from all directions, not just when the site is upwind of the monitors.

⁷ Excluding MP5 and MP6 which were located in the middle of the Central Block, prior to the works being completed in the Eastern Block and therefore are not representative of effects that might be experienced off-site.

Table 3 summarises the annual TSP concentrations at each of the monitoring locations. As can be seen in the values, the average concentrations at MP1 to 6 generally reduce post 2022 when works were completed in the Eastern Block.

What the data shows is that the average annual TSP concentrations post 2022 are actually quite low and comparable with annual average TSP concentrations that PDP has measured in remote rural areas. This indicates that on an annual basis, the site is only generating low quantities of TSP.

The measured concentrations are also comparable with the low measured PM₁₀ concentrations for remote areas. There are very few true PM₁₀ background monitoring sites in New Zealand, however for many years Environment Bay of Plenty Regional Council ran a monitoring site at Pongakawa. The annual average PM₁₀ concentration measured at Pongakawa between 1997 and 2003 was 11.3 µg/m³.

Given that the average concentrations in Table 3 are for TSP rather than PM₁₀ and will therefore potentially be measuring particles up to approximately 30 µm in size, there is no indication that on an annual basis, that concentrations at Taharoa are unusual for a remote area. The measured concentrations are also almost half the New Zealand Ambient Air Quality Guideline annual average PM₁₀ value of 20 µg/m³. Again, this does not indicate on an annual basis, that particulate emissions from the site are resulting in adverse effects.

If it is assumed that MP5 is a “background site” the monitoring data indicates that while there is some increase in TSP due to TIL activities the increase is not significant. PDP considers the data does not indicate that there is a chronic issue associated with particulate emission from activities at the site

Table 3: Annual average TSP concentrations (µg/m ³)								
Year	MP1	MP2	MP3	MP4	MP5	MP6	MP7	MP8
2019	30.6	20.7	22.6	27.3	50.2	52.4	N/A	N/A
2020	22.5	17.8	17.8	20.7	38.6	25.9	N/A	N/A
2021	25.4	19.4	16.4	20.3	31.0	26.8	N/A	N/A
2022	12.3	10.8	7.7	12.0	13.2	13.9	N/A	N/A
2023	25.3	14.8	12.8	17.3	11.6	11.5	N/A	N/A
2024	9.7	10.7	8.0	11.0	5.9	6.9	11.2	9.4
2025	24.6	12.0	11.5	13.2	-	9.9	15.6	9.3
2026	11.5	4.6	5.4	4.8	13.2	7.3	8.6	14.0
Average all years	20.2	13.8	12.8	15.8	20.5	19.4	11.8	10.9
Average Post 2022	17.8	10.5	9.4	11.6	7.8	8.9	11.8	10.9

3.2.1.4 Conclusion for 6.1.8 a)

Overall, it is clear from PDP’s analysis that there are significant naturally occurring background sources of fine particulate at Taharoa which are making a significant contribution to ambient levels on occasions, primarily in the strong wind conditions which occur in the area.

Activities at the mine site are making contributions to the ambient particulate levels, but regardless of this, the ambient concentrations of TSP are at a level which is comparable to the low particulate concentrations measured in other remote rural areas, indicating that site activities are not a significant source of particulate. In addition, if it is conservatively assumed that the TSP is primarily PM₁₀ then the concentrations measured on an annual basis are comparable to those measured at Pongakawa, and just over half the New Zealand Ambient Air Quality Guideline annual average for PM₁₀, which is not indicative of a chronic PM₁₀ effect.

Consequently, it is PDP's overall opinion that the site is meeting the requirements under Section 6.1.8 of the rule and is not having adverse effects on human health, or the health of flora and fauna beyond its site boundary.

3.2.1 Standard 6.1.8 c)

Standard 6.1.8 c) states:

There shall be no discharge of particulate matter that is objectionable to the extent that it causes an adverse effect at or beyond the boundary of the subject property.

This condition is associated with minimising the potential for particulate matter or dust to cause nuisance effects. In general, this process is initiated by someone making a complaint about dust from an activity and WRC then using the procedure set out in Section 6.4.2.3 or 6.4.2.3 to assess compliance with the standard.

A summary of TIL's compliance history is set out in section 2.10 of the Substantive Application Report.

The only formal compliance action that has been taken by WRC in relation to dust discharges at the Mine is an abatement notice issued on 24 January 2024. PDP has previously investigated the meteorological conditions that were occurring leading up to issuing of the abatement notice. In summary the hourly wind speeds during the period 10 to 15 December were consistently greater than 10 m/s (36 kph) and more than 16 m/s (58 kph) on occasions, which is extremely strong and uncommon. This coupled with low measured humidity significantly increase the potential for dust to be generated from any exposed surfaces including coastal dunes. As discussed further in Section 4, in these conditions, even with all possible mitigation being implemented it is very difficult to reduce dust emissions and off-site dust effects would occur due to the exposed coastal nature of the site.

In response to the abatement notice, TIL prepared an interim dust management programme which it has implemented while the 2020 RMA Application and this application continue to be processed. The approach of the interim dust management programme has been integrated into the draft Environmental Management Plan proposed in TIL's proposed conditions of consent.

PDP notes that on 21 February 2024 TIL was issued two Formal Warnings by WRC in relation to dust discharges from the mine. However, as set out in the Memorandum of Counsel in response to comments dated 22 June 2026, the Formal Warnings were cancelled by WRC earlier this year following requests for reconsideration made by TIL and should be disregarded. This followed a request by TIL that the two Formal Warnings be reviewed by WRC and cancelled on the basis that the warnings lacked sufficient evidence to indicate that an offence had been committed and were based on an inaccurate assessment of information. PDP provided expert advice to TIL in relation to this matter and support WRC's decision to cancel the Formal Warnings.

PDP is aware that on occasion complaints are made to WRC about dust discharges from the site. TIL has advised that other than the abatement notice issued above, none of these complaints have been verified, and no formal enforcement action has been taken.

WRC stated in its comments on the Substantive Application, that it is currently investigating air discharge complains received in January / February 2026. TIL was notified of nine dust related complaints received by WRC on 15 February, 16 February and 2 March 2026. TIL investigated and responded to these complaints with two separate reports to WRC (dated 15 February 2026 and 2 March 2026) on 11 March 2026. TIL did not receive notice from WRC of four complaints made on 16 February 2026 or one made on 2 March 2026 (which are noted in Mr Stacey's report) but notes that its response to these complaints would have been the same as the response to the other complaints given, they relate to the same days. TIL's conclusion in respect of the complaints reported to it is that they are vexatious and are not supported by data. Since this response to comments was provided by TIL, WRC advised TIL that there was not sufficient information to support any formal enforcement action being taken.

Overall, this record of compliance is good based on PDP's experience with a range of quarry and other activities where a handful of complaints / year are very common.

Regardless of this, the mitigation measures that have been proposed by TIL including proposed condition 9 to have a 100 m priority stabilisation area at the northern end of the Central Block, mean that the potential for dust amenity effects are reduced as far as practical.

In saying this PDP notes, as shown in the monitoring, that regardless of TIL's activities there are high levels of ambient dust at times which TIL can do nothing to control, and are simply representative of the coastal environment.

3.2.2 Standard 6.1.8 d)

Standard 6.1.8 d) of the rule states:

The discharge shall not significantly impair visibility beyond the boundary of the subject property.

In regard to this standard the WRP states:

"The discharge of contaminants can affect the visual amenity values on adjoining properties. Part d) has therefore been included to ensure that significant adverse effects on visibility (i.e. the clarity and colour of the air) do not occur."

While there is anecdotal and photographic evidence (such as that discussed in Section 4 of this memo), of visible dust at Taharoa, there is no indication that PDP is aware of that the visible dust associated with TIL activities has been considered to not meet this standard, apart from the issue of the abatement notice in 2024 which TIL responded to.

In any case regardless of TIL's presence or activities, in a coastal environment such as Taharoa there will be visible emissions of sea spray and mist and wind generated visible dust from the sand dunes.

3.3 Clause 6.1.16.1 e)

This clause states:

"There shall be no discharges of hazardous substances into the air"

Hazardous substances is defined in the WRP as any substance: a) with one or more of the following intrinsic properties i) explosiveness ii) flammability iii) a capacity to oxidise iv) corrosiveness v) toxicity (including chronic toxicity) vi) ecotoxicity, with or without bioaccumulation; or b) which on contact with air or water (other than air or water where the temperature or pressure has been artificially increased or decreased) generates a substance with any one or more of the properties specified in paragraph a) of this definition.

At the Panel Facilitated Conference PDP staff confirmed to the Panel that PM₁₀ is a hazardous substance.

However, the question arises as to the specific location where the discharge of hazardous substances (including PM₁₀) under clause 6.1.16.1 e) is measured – on site or at the site boundary.

This clause is unusual in that it does not explicitly state any limitation on where the emissions occur or whether they cause effects. It contradicts 6.1.8 a) which allows for emission of “contaminants”⁸ which are generally “hazardous substances” to some extent or another, as long as they do not cause an effect beyond the site boundary.

It is PDP’s experience that this clause (6.1.16.1 e)) has been interpreted and applied by WRC as applying at the boundary of the site, and requires the hazardous substance to not have any effects. We support that approach because it is consistent with the way effects from discharges to air are assessed in all other jurisdiction in New Zealand. This matter is addressed further in MinterEllisonRuddWatts’ memorandum of counsel dated 8 September 2026.

Applying the rule at the site boundary, it is PDP’s opinion that the discharges from TIL meet the requirement of clause 6.1.16.1e). This is because, using the TSP monitoring as a surrogate for PM₁₀, the measured concentrations, on an annual basis, are well less than the New Zealand Ambient Air Quality Guideline value for PM₁₀.

3.4 Conclusion in relation to the Permitted Activity Rule

Based on PDP’s review of the data there is no evidence that activities at TIL are resulting in discharges which breach the requirement of the permitted activity rule for Mineral Extraction, Size Reduction, Screening and Storage, and therefore there is no reason why an air discharge consent is required for the activity. The conditions proposed by TIL are intended to reduce the potential for off-site dust discharges and ensure that the permitted activity conditions will continue to be met in the future.

4.0 Response to 2 March 2026 video

PDP has been asked to comment on what can be seen in the 2 March 2026 video which was presented to the Panel. This section of the memo deals specifically with that video.

4.1 Meteorological Conditions

In order to fully understand what can be seen in the video, PDP has analysed the weather and TSP data for 2 March 2026. The analysis is summarised in Figure 14. As shown in this figure the wind was predominantly blowing from a southerly direction and specifically between 4 and 5 pm (when the video was shot), the wind was from 193° or the south-southwest.

It is also clear from the data that it was extremely windy with average windspeeds for the day of 8.5 m/s (31 kph) and average wind gust speeds of 14.2 m/s (51 kph). The time the video was shot coincided with the windiest time of the day with an hourly average wind speed of 15.6 m/s (56 kph) and a gust wind speed of 21 m/s (76 m/s). In these wind conditions it is extremely difficult to control dust. Average wind speeds greater than 14 m/s (50 kph) occur less than 0.5% of the time.

⁸ Defined by WRC as “any substance (including gases, liquids, solids, and micro-organisms) or energy (excluding noise) or heat, that either by itself or in combination with the same, similar, or other substances, energy or heat: a) when discharged into water, changes or is likely to change the physical, chemical, or biological condition of water, or b) when discharged onto or into land or into air, changes or is likely to change the physical, chemical, or biological condition of the land or air onto or into which it is discharged.”

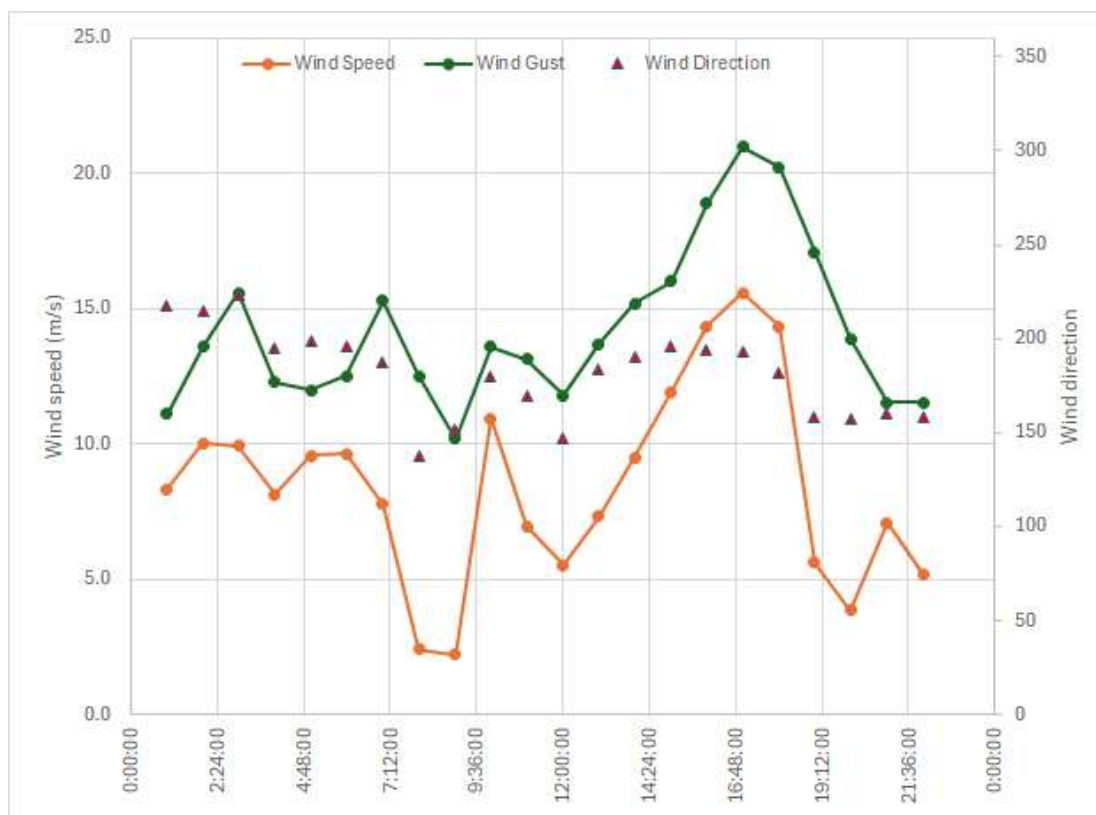


Figure 9: Wind speed and Direction for 2 March 2026

4.2 TSP Monitoring

As would be expected on a windy day there are higher hourly concentrations of dust measured (Figure 15) when the average windspeed exceeds 10 m/s (36 kph) which is the wind speed that corresponds to greater than 5 m/s (18 kph) at ground level. This is because 5 m/s (18 kph) at ground level is greater than the typical threshold speed for small particles to be lifted off a surface.

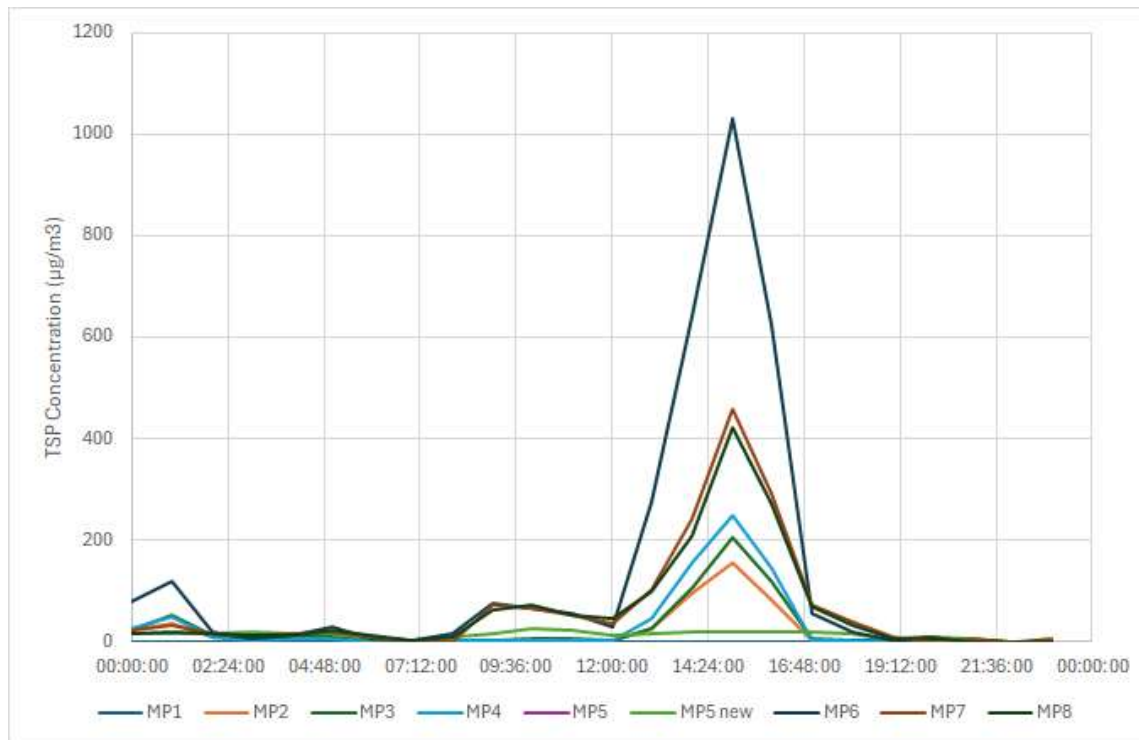


Figure 10: TSP Concentrations for 2 March 2026

4.3 Analysis of Video footage

Based on PDP's review of the video it is clear that there is dust being generated in a number of areas of the site. For example, there is dust being generated by a vehicle moving on the main site access road (Figure16).



Figure 11: Visible dust from site access road on 2 March 2026

There is also a source of dust from the area of clay overburden (Figure 17), which is potentially generating the majority of the dust seen in the foreground of the video. The dust visible in the video is consistent with the TSP monitoring data for MP6, MP7 and MP8 as shown in Figure 15. The material in the overburden area does not appear to be being disturbed by human activity and therefore this dust is generated by the extremely strong wind occurring. It is possible that the dust is also coming from the active area of the site on the northern boundary, however it is not possible to determine that from the video.



Figure 12: Visible dust from clay overburden area on 2 March 2026

There also appears to be some visible dust from the southern end of the site (Figure 18). This appears to be from the foreshore and exposed areas of tailings. Given the wind speeds measured it is not surprising that dust is being generated from the surface.



Figure 13: Visible dust from southern end of the site on 2 March 2026

It is possible that some additional short-term mitigation could be taken to reduce dust in some of these areas. For example, a water truck may have assisted with dust generated by a vehicle moving on the main site access road. The dust chapter of TIL's proposed Environmental Management Plan sets out mitigation measures that can be implemented in strong wind conditions, when Alert Level 4 is reached, such as applying additional water in particular areas of the site, and also includes in section 6.7 contingency measures that can be used in very high wind conditions such as the addition of polymers to the water to increase dust control.

However, it is extremely difficult to reduce dust emissions in the high wind conditions experienced on the day, and it is not possible to do anything about the sand from the foreshore. It is PDPs' opinion that given the strong wind conditions that even with additional mitigation measures, there would be dust generated.

Dust generation on-site is not of itself necessarily an issue. The key question, with regard to the permitted activity rule, is whether there are any off-site dust effects and the extend of those effects. That cannot be determined from the video.

4.4 Conclusions

Based on our review of the video it appears that areas of the TIL site are contributing to the dust that is visible. There are short-term mitigation measures that could be implemented that would reduce the dust potential, however it is our opinion that given the strong wind conditions that even with mitigation measures implemented, there would be dust generated.

Overall, we do not consider that this indicates that there was a breach of the WRC permitted activity rules.

5.0 Responses to RFIs

As mentioned earlier the Panel has asked TIL two specific questions in relation to air quality.

5.1 RFI 9

The first of these is RFI9 which states:

The Panel considers that an air discharge permit is needed and requests the Applicant to draft air permit conditions utilising the air related conditions currently inserted to AUTH 01.01 (Conditions 8-16).

Applicant also to consider the need for other air-related conditions in the consent suite (e.g. AUTH 08.01 and Schedule 1) to be transferred to the air permit.

As a general point, at the PFC the Panel expressed a preference for consent conditions to address the “what” (is required) with the “how” to be left to management plans to improve clarity, certainty and enforceability of consents. The air quality experts agreed to confer and advise on good practice consent conditions (as recommended by Mr Stacey for WRC) for dust management (with suggested updates for the dust management plan in chapter 6 of the Environmental Management Plan in Appendix T of the Substantive Application).

As set out above, PDP does not consider that an air discharge permit is required, and WRC holds the same view. On this basis, PDP has not worked with TIL’s planning expert to draft the conditions of an air permit.

Rather, PDP has considered whether the existing proposed air quality conditions meet the Panel’s preference for conditions to set the requirements that must be met and for the management system to set out how they are met. PDP agrees with this approach as it allows for more flexibility and allows consent holders to quickly adapt or modify mitigation measures without having to seek consent variations which can be a protracted process.

In this regard PDP considers that the conditions that have been proposed by TIL are appropriate and inform the site dust management plan.

Specific comments on how the proposed conditions do this are set out in Table 4.

In the next section of this report, in response to RFI 10, PDP has considered if any additional air-related conditions to manage dust beyond those proposed by TIL are necessary (whether they would form part of an air discharge consent or the existing consent suite).

Table 4: TIL Proposed Conditions

Condition Number	Proposed Wording	Comment
8	The Consent Holder shall implement measures to manage dust to ensure that all activities in the Consent Area comply with the following: (a) There shall be no discharge of contaminants beyond the boundary of the Consent Area that has adverse effects on human health, or the health of flora and fauna.	This condition sets limits on potential discharges from the site. The proposed EMP responds to these limits by containing requirements for mitigation and monitoring to ensure that that the limits are met.

Table 4: TIL Proposed Conditions

Condition Number	Proposed Wording	Comment
	(b) There shall be no discharge of particulate matter that is objectionable to the extent that it causes an adverse effect at or beyond the boundary of the Consent Area. (c) The discharge shall not significantly impair visibility beyond the boundary of the Consent Area.	
9	The Consent Holder shall ensure that within the 100m Priority Stabilisation Area shown in green in Figure 1 below⁹: (a) extraction of sand is completed within 12 months of the date of commencement of this consent; and (b) stabilisation of any exposed surfaces shall be completed within 3 months of mining operations being completed. Stabilisation in this area involves compaction and surface stabilisation to minimise the potential for discharges of dust.	Based on PDP's experience, the 100 m Priority Stabilisation Area is appropriate to minimise the potential for effects at the northern end of the Central Block. Again, this is setting out what must be achieved, with the EMP setting out how it will be achieved.
10	The Consent Holder must continuously monitor dust discharges using at least six (6) PM ₁₀ dust monitors, including one located upwind and one located downwind of the Consent Area, one located in proximity to Taharoa school/Kura, one located between the boundary of the Central Block and receptor R4, and one located in proximity to the receptors R2 and R3.	TIL is proposing to change to PM ₁₀ monitoring and this condition sets that out and also identifies two specific locations where this will occur. This represents current best practice and represents some of the most extensive monitoring around an extractive activity site that PDP is aware of in New Zealand.
11	The PM ₁₀ monitor adjacent to Taharoa school/Kura shall use an Approved Method compliant with Schedule 2 of the National Environmental Standards for Air Quality (NESAQ), or an equivalent method as demonstrated through compliance with AS 3580.9.17:2018 or EN 12341:2014, or any updated or superseding standard that ensures equivalent data quality.	There are different types of PM ₁₀ monitors and TIL has proposed to install one at the Kura which meets the NESAQ. This represents best practice and will provide the best quality data on the levels of PM ₁₀ being experienced at a sensitive location.

⁹ Excluded from table

Table 4: TIL Proposed Conditions		
Condition Number	Proposed Wording	Comment
12	The continuous PM ₁₀ monitors shall provide a minimum of 75% validated data.	The condition sets a standard for operation of the monitors and ensures that there is a high level of performance from the equipment.
13	The PM ₁₀ monitor adjacent to Taharoa school/Kura shall be installed and operational within 6 months of the commencement of this consent.	This condition allows for the practicality of purchasing and installing NESAQ complaint equipment.
14	The Concentrations of PM ₁₀ recorded at the monitor adjacent to Taharoa school/Kura shall not exceed 50ug/m ³ as a 24-hour average.	This condition augments the requirement of condition 8 a, in that it sets an absolute standard for PM ₁₀ that must be met at the Kura.
15	With the exception of the monitor at Taharoa school/Kura the dust monitors in the locations required by condition 10 shall, for a maximum of 16 months from the commencement of this consent, monitor Total Suspended Particulate (TSP). The TSP data shall be used to inform PM ₁₀ trigger values and responses that shall be included in the dust management chapter of the Environmental Management Plan for the site required by condition 18 of the General Conditions in Schedule One.	This condition allows for the TSP monitoring to continue for a period of time to allow for a correlation to be developed between PM ₁₀ concentrations and the extensive TSP data. This represents good practice.
16	With the exception of the monitor at Taharoa school/Kura, the PM ₁₀ dust monitors in the locations required by condition 10 shall be installed and operational within 4 months of the date of certification by Waikato Regional Council of the Environmental Management Plan for the site.	This condition requires the monitor at the school/kura to be installed well ahead of the remainder of the PM ₁₀ monitors. The above condition also requires the PM ₁₀ monitor at the school/kura to begin monitoring at the commencement of the consent. Both of these factors represent best practice.
18	The Consent Holder must prepare a dust management chapter, the objective of which is to avoid offensive or objectionable dust discharges and dust related effects from the mining operations on the site in accordance with the requirements of conditions 8 to 10 inclusive of AUTH142035.01.01. The dust management chapter must include: (a) A general description of the activities and main potential sources of dust emission;	This type of condition is considered appropriate and is commonly included in consents, to ensure that the management plan contains everything necessary to ensure that site is meeting the requirement of the consent. It is PDP's opinion that the measures set out here are sufficient.

Table 4: TIL Proposed Conditions

Condition Number	Proposed Wording	Comment
	(b) A description of the dust mitigation mechanisms which will be deployed on site, including an inventory of relevant equipment, materials and relevant operating procedures, Total Suspended Particulate and PM₁₀ trigger levels for the implementation of dust suppression measures, an inventory of relevant equipment and materials, and contingency procedures; (c) A description of the staff training required, including areas relevant staff are to be trained in, mitigation methods to be used, frequency of training and where training records are to be kept; and (d) Monitoring procedures, records to be kept and a process for review and reporting where required.	

5.2 RFI 10

RFI 10 states:

The Panel requests the air quality experts confer and advise on:

- 1. Good practice conditions of consent for managing dust (as recommended by Mr Stacey refer previous point) in the new air permit.*
- 2. The Panel further requests draft consent conditions requiring an **action plan** with specific actions to be undertaken to reduce overall site PM₁₀ emissions (e.g., xx ha of stabilisation/rehabilitation of existing exposed areas by insert date) if elevated annual PM₁₀ concentrations are measured at Te Kura o Taharoa.*

In terms of point 1, it is PDP's opinion that the conditions that are set out in Table 4, already represent good practice. Notwithstanding this, PDP has set out in Table 5 Mr Stacey's proposed recommendations for conditions, taken from his memorandum provided with WRC's comments on the Application,¹⁰ together with a comment on them.

In formulating good practice conditions of consent for managing dust, it is important to take into account the climatic conditions that exist at Taharoa that will influence the efficacy of the conditions.

¹⁰ Waikato Regional Council Section 53 Comments dated 20 May 2026, Appendix A: Memo from Peter Stacey – Air Quality at section 4.3.

Table 5: Mr Stacey Proposed Conditions		
	Mr Stacey's recommendation	Comment
a	Replacement of TSP monitoring with PM10 monitoring	PDP has proposed this and TIL has already agreed to do this as condition 10.
b	Installation of at least one NESAQ compliant PM10 monitor within the Taharoa community, preferably in proximity to Taharoa School/Kura;	PDP has proposed this and TIL has already agreed to do this as condition 11.
c	Relocation of the MP3 PM10 monitor to a location between the northern boundary and R4 (Wetini property);	PDP has recommended moving one of the monitors closer to the northern boundary which would achieve this.
d	The EMP must identify the proposed mining sequence, duration of works, dust mitigation measures, monitoring procedures, contingency responses, and methods for minimising the length of time that mining activities occur within 200 m of R4;	PDP does not agree that 200 m separation from R4 is necessary, and considers that the separation distances set out in Condition 9 are appropriate. PDP also considers that it is unnecessary to have a specific condition for management measures for this location. We consider that this adds nothing to condition 18.
e	The consent holder must retain a section of ridgeline along the northern boundary of the Central Block that provides physical screening and wind sheltering between receptor R4 and mining activities;	Work in this area has almost been completed. Nevertheless, TIL intends to reinstate a ridge form along the northern boundary of the Central Block once current mining in the area is completed.
f	Increase the width of the Priority Stabilisation Area from 100 m to 200 m;	For reasons stated previously PDP does not consider that it is necessary to increase the Priority Stabilisation Area to 200 m, and does not consider that this represents best practice.
g	Require any sand mining within the Priority Stabilisation Area to be completed within 12 months of the commencement of the new consents;	TIL has proposed this in condition 9 a.
h	A prohibition on any further mining within the Priority Stabilisation Area after the first 12 months of the commencement of the new consents;	PDP considers that this is an operational matter. Nevertheless, PDP considers that the other proposed conditions are sufficient to control particulate in the event that further mining activities occurred within the Priority Stabilisation Area.

Table 5: Mr Stacey Proposed Conditions		
	Mr Stacey's recommendation	Comment
		PDP notes that this is a matter that TIL is the subject of RFI 11 which the Applicant has been asked to respond to and is considering future.
i	Require the stabilisation and permanent rehabilitation of the Priority Stabilisation Area within 24 months of the commencement of the new consents, including ongoing maintenance as required thereafter to minimise any dust effects on neighbours.	PDP considers that this is an operational matter, and in any event proposed condition 9b) requires stabilisation of the area to be completed within 3 months of mining operations in the area being completed. Stabilisation involves compaction and surface stabilisation to minimise the potential for discharges of dust. Again, PDP notes that this is a matter that is the subject of RFI 11 which the Applicant has been asked to respond to and is considering future.
j	Staged works and progressive rehabilitation requirements aimed at minimising the extent of exposed and unstabilised surfaces at any one time;	Proposed Condition 20 in Schedule1 General Conditions sets out the requirements for the Site Rehabilitation Plan including at (b) <i>"A timeline for interim rehabilitation (including stabilisation using, but not limited to kikuyu, marram grass or native grass species) of the areas within 200m from the Consent Area boundary once mining has been completed"</i> Therefore, it is not considered necessary to have a separate air quality related condition which replicates this. Notwithstanding this PDP again notes that this is a matter that the subject of RFI 11 which the Applicant has been asked to respond to and is considering further.
k	Clear stabilisation and rehabilitation timeframes for exposed areas; Taharoa Ironsands Ltd – Central and Southern Blocks Mining Project Waikato Regional Council – Section 53 Comments 22	Proposed Condition 20 in Schedule1 General Conditions sets out the requirements for the Site Rehabilitation Plan including at (b) <i>"A timeline for interim rehabilitation (including stabilisation using, but not limited to kikuyu, marram grass or native grass species) of the areas within 200m from the Consent Area boundary once mining has been completed"</i> Therefore, it is not considered necessary to have a separate air quality related condition which replicates this.

Table 5: Mr Stacey Proposed Conditions		
	Mr Stacey's recommendation	Comment
		Again, this is a matter that is the subject of RFI 11 - which the Applicant has been asked to respond to and is considering further.
l	Investigation and reporting requirements following dust complaints	PDP considers this is appropriate and note that such provisions are already included in Section 6.6 of the Dust Chapter of the Draft Environmental Management Plan submitted with the Substantive Application as Appendix T, and in the proposed conditions in Schedule 1: General Conditions 5-7.
m	Requirement for preparation, certification, implementation, and ongoing review of an EMP addressing dust management; and	PDP considers this is appropriate and note that this is already required in the proposed conditions in Schedule 1: General Conditions 16, 18 and 28.
m	Requirement for public access to PM10 monitoring data	Condition 42 of the Schedule 1: General Conditions already requires Dust Monitoring Data to be made available on a public website.

The second part of RFI 10 requests that an action plan is developed with specific actions to be undertaken to reduce overall site PM10 emissions (e.g., xx ha of stabilisation/rehabilitation of existing exposed areas by insert date) if elevated annual PM10 concentrations are measured at Te Kura o Taharoa.

In response, PDP proposes the following approach which is consistent with a recent decision issued by WRC for the RS Sands sand mine near Cambridge. The decision for this application is attached to MinterEllisonRuddWatt's memorandum of counsel dated 7 September 2026. Rather than preparing a distinct action plan now, the proposal involves investigating any exceedances at the Kura and then identifying if modifications are needed to the EMP to implement new / different mitigation measures to manage dust and then implementing changes to that document.

This would involve adding two new conditions to AUTH142035.01.01as follows:

24. Should the limits set out by Condition 20 be exceeded, an investigation report shall be completed by a suitably qualified and experienced person to determine the cause of the exceedance and identify actions or further mitigation measures to avoid further exceedances. Any recommendations arising from the investigation shall be incorporated into an amended EMP. Any EMP amendments arising from the exercise of this condition shall not trigger the requirements of condition 15 of the General Conditions in Schedule One.
25. The investigation report required by Condition 24 and if required, a revision of the EMP shall be provided to the WRC for certification within 60 days of the exceedance being recorded.

This approach is desirable as it will enable the specific activities undertaken at the mine at the time to be considered and a tailored approach to be taken to any additional mitigation that may be required. Requiring blanket stabilisation of any exposed areas now may not be the most appropriate or effective response.

Limitation

This memorandum has been prepared by Pattle Delamore Partners Limited (PDP) on the basis of information provided by Taharoa Ironsands Limited. PDP has not independently verified the provided information and has relied upon it being accurate and sufficient for use by PDP in preparing the memorandum. PDP accepts no responsibility for errors or omissions in, or the currency or sufficiency of, the provided information.

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