

**Specialist Response Template – Fast-track Approvals Act 2024 –
Substantive Application**

Technical Specialist Memo – Air Quality

To: Emma Chandler – Planning Consultant & Warwick Pascoe – Principal Project Lead

From: Louis Boamponsem

Qualifications & Relevant Experience: I hold a PhD in Environmental Science degree from The University of Auckland (specialising in air quality monitoring and assessment). I have 13 years' experience in air quality monitoring, research and broad environmental science lecturing including more than 20 published articles.

I am employed as a Senior Specialist within the Contamination, Air and Noise team of the Specialist Unit, Planning and Resource Consents Department, Auckland Council. I have held this role since May 2024 and am principally involved in evaluating and preparing specialist and technical input to resource consenting issues and proposals. I was previously employed by the Research and Evaluation Unit (RIMU), Auckland Council as an Air Quality Scientist.

Preparation in Accordance with the Code of Conduct: I confirm that I have read the Environment Court Practice Note 2023 – Code of Conduct for Expert Witnesses ([Code](#)), and have complied with it in the preparation of this memorandum. I also agree to follow the Code when participating in any subsequent processes, such as expert conferencing, directed by the Panel. I confirm that the opinions I have expressed are within my area of expertise and are my own, except where I have stated that I am relying on the work or evidence of others, which I have specified.

Date: 20/4/2026

1.0 APPLICATION DESCRIPTION

Application and property details

Fast-Track project name: Hunua Quarry Expansion

Fast-Track application number: FTAA-2603-1185 (EPA reference) + BUN60464053 (Auckland Council reference)

Site address:

Hunua Quarry Expansion – 489 Hunua Road, Hunua

2.0 Executive Summary / Principal Issues

I have reviewed the Hunua Quarry Development application lodged under the Fast-track Approvals Act 2024. My review has focused on the air quality aspects of the proposal, including the potential for dust related nuisance and human health effects under both the existing and expanded quarry operations.

Hunua Quarry is a long-established, aggregate operation, and the proposal represents a continuation and spatial expansion of quarrying activities rather than the introduction of new or atypical air quality effects. The primary air quality contaminants of concern remain dust related, including Total Suspended Particulates (TSP), particulate matter (PM₁₀), and respirable crystalline silica (RCS).

Based on the existing air quality monitoring data from the site, current operations have generally achieved good air quality outcomes, with low ambient PM₁₀ concentrations measured at sensitive receptors and a very limited number of short duration dust exceedances. There is no evidence from the existing environment to suggest significant adverse human health effects arising from PM₁₀ emissions associated with the quarry.

In relation to the proposed expansion, PDP (the applicant's consultant) concludes that while the scale and duration of quarrying activity will increase, the nature of air discharges will not materially change, and hourly extraction and processing rates will remain unchanged. The assessment identifies that the most challenging dust scenarios may arise during overburden stripping in later stages; however, these effects are expected to be localised, intermittent, and manageable with the continuation of established mitigation measures.

I agree with PDP's assessment that, provided the proposed dust mitigation measures continue to be implemented consistently throughout the project, PM₁₀ concentrations will continue to be effectively controlled. As such, it is extremely unlikely that off-site PM₁₀ concentrations would reach a level at which adverse human health effects would be experienced. The proposed monitoring framework, including continuous particulate and meteorological monitoring, clear trigger levels, and adaptive management requirements, provides an appropriate level of assurance that any emerging risks can be identified and addressed early.

Overall, from an air quality perspective, I consider the proposal to be acceptable. Subject to the proposed conditions and ongoing implementation of the Air Quality Management Plan, the air quality effects of the quarry expansion are expected to be no more than minor, and I support the application on this basis.

3.0 Documents Reviewed

- Hunua Quarry - Air Quality Assessment (AQA), prepared by Pattle Delamore Partners Ltd, dated March 2026.
- Hunua Quarry Development – Assessment of Environmental Effects (AEE), prepared by Boffa Miskell Limited, dated March 2026.
- Hunua Quarry - Air Quality Management Plan (AQMP), prepared by Winstone Aggregates, dated March 2026.
- Hunua Quarry - Quarry Management Plan (QMP), prepared by Winstone Aggregates, dated March 2026.
- Hunua Quarry - Draft Resource Consent Conditions (FTAA), including Appendix B12.7 Conditions, dated 30 March 2026.
- Hunua Quarry - Annual Dust Monitoring Report (DIS60266230), prepared by Winstone Aggregates, covering the period 1 March 2024 - 28 February 2025, dated 17 March 2024.
- Hunua Quarry - Air Discharge Compliance Inspection Report (DIS60266230), Auckland Council, dated 25 September 2024.

4.0 Additional Reasons for Consent Not included in AEE

N/A

5.0 Specialist Assessment

1. Introduction

This specialist assessment relates to the application by Winstone Aggregates for the continued development and expansion of the Symonds Hill Pit at Hunua Quarry. The proposal seeks to enable ongoing quarrying activities, including associated earthworks, extraction, processing, and rehabilitation, over the consented quarry footprint.

In preparing this memo, I have reviewed the application in full and considered it alongside the relevant technical material, management plans, monitoring information, and draft consent conditions provided in support of the proposal. The assessment below focuses on the existing air quality environment, the potential air-quality effects arising from the proposed activities, the effectiveness of proposed mitigation measures, and the implications of the proposal within the applicable statutory framework.

2. Existing Environment

Hunua Quarry currently operates under an existing air discharge consent (DIS60266230), which regulates discharges of dust and requires ongoing ambient air quality and meteorological monitoring. Monitoring undertaken over an extended period demonstrates consistent compliance with the consented 24-hour average Total Suspended Particulate (TSP) limit of $100 \mu\text{g}/\text{m}^3$. Recorded concentrations also remain below the Ministry for the Environment's good practice trigger value of $80 \mu\text{g}/\text{m}^3$ for the vast majority of monitored days.

The most recent Annual Dust Monitoring Report, covering the period from 1 March 2024 to 28 February 2025, confirms that dust concentrations at all monitoring locations were well within consent limits, with no exceedances recorded. This compliance history is further supported by Auckland Council's air discharge compliance inspection dated 25 September 2024, which assigned the site an overall rating of fully compliant. No substantiated dust complaints were recorded during the most recent monitoring period. Collectively, this information indicates that the existing receiving environment is stable and that current dust management controls are functioning effectively.

3. Potential Air Quality Effects

The Air Quality Assessment report by PDP (AQA) identifies fugitive dust as the primary air quality effect associated with the proposed continued development of the Symonds Hill Pit. Relevant particulate fractions include TSP, PM_{10} , and respirable crystalline silica (RCS), which may be generated through earthworks, overburden stripping, drilling and blasting, haul road traffic, stockpiling, and aggregate processing activities. These emission sources are typical of large-scale quarry operations.

Under conservative, unmitigated scenarios, coarse dust may travel short distances downwind during dry and windy conditions. Finer particulate fractions can disperse more widely, although concentrations reduce rapidly with distance from sources due to atmospheric dilution and deposition. The AQA identifies that surrounding sensitive land uses are sufficiently separated from primary dust generating areas to limit the potential for significant off-site effects. The proposal represents a continuation of an existing quarry operation, and no substantial change to baseline air quality conditions is anticipated when standard controls are applied.

The greatest potential for dust effects is expected during periods of intensive earthworks and newly exposed surfaces, particularly during earlier phases of pit advancement. Any dust effects that arise are predicted to be temporary and localised in nature. The AQA indicates that predicted PM_{10} concentrations remain below the National Environmental Standards for Air Quality 24-hour threshold of $50 \mu\text{g}/\text{m}^3$. RCS concentrations are assessed, using conservative assumptions, to remain below the widely applied annual average criterion of $3 \mu\text{g}/\text{m}^3$. On this basis, air quality effects beyond the site boundary are anticipated to be less than minor.

5. Proposed Mitigation Measures

Dust management for the proposed works is addressed through the Air Quality Management Plan (AQMP) and Quarry Management Plan (QMP), which build on measures already implemented at the quarry. These plans provide for active dust suppression using water carts and spray systems, operational speed controls on unsealed haul roads, regular inspection and maintenance of dust control infrastructure, and progressive stabilisation and rehabilitation of disturbed areas. Continuous ambient dust monitoring and on-site meteorological tracking support a responsive management approach, with defined trigger levels and contingency responses.

These measures reflect established industry practice for large quarry operations and are consistent with controls that have achieved a strong compliance record at the site to date. The draft consent conditions require certification, implementation, and periodic review of the AQMP, providing regulatory assurance around their ongoing effectiveness.

6. Regulatory Context

The proposal is consistent with the Auckland Unitary Plan (E14) provisions governing discharges to air, quarry activities, and effects management. Predicted particulate concentrations comply with the National Environmental Standards for Air Quality, and the assessment methodology applies the Ministry for the Environment's Good Practice Guide for Assessing and Managing Dust, including use of the FIDOL framework when considering nuisance effects. The draft conditions require ongoing monitoring, reporting, and adaptive management, ensuring that air quality effects remain appropriately controlled over time.

7. Conclusion

The information reviewed demonstrates that the existing air quality environment at Hunua Quarry is well characterised and supported by a long history of compliance with regulatory limits. Potential air quality effects associated with the continued development of the Symonds Hill Pit are primarily related to dust and are predictable, localised, and manageable. The proposed mitigation framework is comprehensive and proportionate to the scale of the activity, and it is supported by enforceable consent conditions. Provided that the certified AQMP is implemented as proposed, the air discharge effects of the project are expected to remain minor and acceptable under the relevant statutory framework.

6.0 Section 67 Information Gap

I have identified that there are no section 67 information gaps.

7.0 Recommendation

In view of the above assessment, I support the application.

8.0 Proposed Conditions

The proposed air quality-related consent conditions are appropriate to mitigate air discharge effects associated with the project. They are consistent with the measures contained in the applicant's existing air discharge consent and reflect good practice for managing dust and particulate emissions from quarrying activities. The table below sets out the relevant air-quality-related conditions together with brief comments on their suitability:

Condition theme	Consent #	Remarks
General accordance with approved information	1	Requires the project to be undertaken in general accordance with the lodged application material, which includes the Air Quality Assessment and supporting air quality appendices. This establishes the technical baseline for air quality effects assessment.
Management plan certification – Air Quality Management Plan	22–26, 46–47	Sets out the process for certification of the AQMP, including submission timeframes, certification by Council, and compliance with the certified plan once approved.
Air Quality Management Plan – Objective	46	Establishes the objective of the AQMP, being to minimise the risk of noxious, offensive, or objectionable dust or odour beyond the site boundary and to ensure compliance with air discharge limits and performance standards.
Air Quality Management Plan – Content requirements	47	Specifies the required content of the AQMP, including identification of dust sources, mitigation measures, monitoring locations, trigger levels, inspection and maintenance procedures, contingency responses, and calibration of equipment.
Compliance with air quality limits	132–135	Requires all site activities to be operated so that air emissions are maintained at the minimum practicable level and do not result in dust, odour, or hazardous air pollutants beyond the site boundary that are noxious, offensive, or objectionable.

Dust suppression and operational controls	136–148	Requires water suppression, dust minimising earthworks and blasting techniques, maintenance of dust control equipment, appropriate management of stockpiles and internal roads, wheel wash provision, and prohibition of open burning on site.
Dust complaints and investigation	138–140	Provides a framework for responding to dust complaints linked to blasting, including provision of blast and monitoring data to Council and investigation of further suppression measures if repeated non-compliance occurs.
Ambient dust monitoring – TSP	149	Requires continuous Total Suspended Particulate (TSP) monitoring at specified locations, using approved equipment connected to telemetry with real-time alert capability.
TSP concentration triggers and response	150–151	Sets 24-hour average TSP trigger levels at monitoring sites and requires investigation and remedial action if exceedances are identified as originating from site activities.
Reporting of dust monitoring results	152, 156–157	Requires prompt reporting of exceedances, quarterly summaries of dust related operational data, retention of monitoring records, and inclusion of results in the Annual Monitoring Report.
Meteorological monitoring	153	Requires installation, operation, and maintenance of a weather station to record wind speed, wind direction, and rainfall to support interpretation of dust monitoring data.
Respirable Crystalline Silica (RCS) monitoring	154–155	Requires an ambient RCS monitoring programme to assess compliance with an annual average criterion, including baseline and post-construction monitoring and continuation where exceedances are identified.
Annual Monitoring Report	64–66	Requires annual reporting to Council summarising all air quality monitoring, complaints, non-compliances, and corrective actions associated with the project.
Review of consent conditions	67	Enables Council to review conditions if unforeseen air-quality effects arise or if monitoring indicates the need for additional controls.

9.0 Supporting Documents

N/A