

Taharoa Ironsands Limited
PO Box 308
Wellington 6140

**Taharoa Ironsands Limited – Central and Southern Blocks Mining
Fast-track Application
Noise response to Roy Wetini Whaanau Trust invited comments**

1 Introduction

This report responds to the invited comments of the Roy Wetini Whaanau Trust dated 20 May 2026 (Invited Party) on the Taharoa Ironsands Limited's Central and Southern Block Mining Fast-track Approvals Act 2024 (FTAA) application.

This report has been prepared by Darran Humpheson, Technical Director of Acoustics at Tonkin & Taylor Ltd. I hold a Bachelor of Science degree with Honours in Applied Physics and a Master of Science degree in Environmental Acoustics. I am a Member of the Acoustical Society of New Zealand and a Member of the United Kingdom's Institute of Acoustics. I am a New Zealand representative of the International Organization for Standardization (ISO) technical committee ISO/TC 43 SC1 "Noise". I am a certified and practicing commissioner under the Making Good Decisions certification programme. I have been employed in acoustics since 1991.

I am the co-author of the Noise Assessment contained within Appendix W of the Substantive Application (Noise Assessment) and undertook the technical review.

I confirm that I have read the Code of Conduct for Expert Witnesses contained in the Environment Court's Practice Note 2023. I have complied with the Code of Conduct in preparing this report. The content of the report is within my area of expertise, and I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed in the report.

This report responds to the following matters raised in the Invited Party's comments:

- The Noise Assessment contained does not assess cumulative noise effects of the proposed works - cumulative noise effects were not assessed within the Northern Block – Pit 1 Application and any future Northern Block Mining FTAA application (FTA372).
- The noise effects of mining the northern ridgeline.
- Mitigation measures proposed do not mitigate effects. A 200 m setback is requested to mitigate noise effects.

2 Background

The Noise Assessment prepared for the Central and Southern Blocks FTAA application assessed the noise effects of the activities for which approval is sought in that application.

The Noise Assessment states that noise compliance for other mining areas was outside the scope of the report.

It did not include a separate quantitative cumulative assessment of other mining areas or projects for two reasons:

- 1 If the future Northern Block mining FTAA project is pursued, cumulative noise effects would be considered at that time – not within the Central and Southern assessment.
- 2 The spatial separation between the Central and Southern Block mining and the Northern Block – Pit 1 activities means any additive noise would not result in any noise exceedances based on realistic operating assumptions. This is addressed further and assessed quantitatively in Section 4 below.

3 Central and Southern Block noise effects

At page 14 of the Invited Party's comments, the Invited Party states that impacts to the adjoining ridgeline have significantly increased noise experienced from their dwelling, particularly during nighttime. The Invited Party also states that the Central and Southern Blocks application does not include sufficient mitigation to alleviate concerns in regard to impacts of noise effects from proposed works.

The Noise Assessment found that mining can occur anywhere within the Southern Block without exceeding the relevant noise limits at any time (Section 7.2).

For the Central Block, the Noise Assessment identified a specific potential risk area: mining on the ridge at the northern end of the block near Wetini Homestead, New Kana Homestead and Old Kana Homestead (Section 7.2). This is the area most relevant to the Invited Party's concern. The Noise Assessment did not identify widespread exceedance risks across the Central Block. Rather, the potential for elevated noise is associated with mining on the exposed ridge area, where topography and line-of-sight to receivers are important factors (Section 10).

To manage this potential for elevated noise levels and increased risk of exceedances, the application proposes a specific ridge mining methodology, as outlined in Section 9.1 of the Noise Assessment. Ridge mining¹ would be restricted to 7 am to 7 pm until operations progress below the ridgeline, after which standard 24-hour operations could commence, subject to confirmation of compliance through noise monitoring (Section 10). This is an important mitigation measure, as it avoids the highest-risk ridge mining activities occurring during the evening and night-time periods, when the potential for sleep disturbance is greatest.

At Section 7.1 of the Noise Assessment the maximum source sound power levels for mining at the top of the ridge to achieve compliance at the nearest receiver are identified as: 100 dB LWA during the day, 95 dB LWA during the evening, and 90 dB LWA at night. However, the proposed restriction of ridge mining (set out at Section 9.1) to 7 am to 7 pm means that the higher-risk ridge mining scenario would not occur at night. These additional controls are set out in the Draft Environmental Management Plan (EMP) at Section 11.3.

¹ Restriction applies if there is line of sight or partial line of sight of the noise source – see Figures 8.1 and 8.2 of the Noise Assessment.

4 Potential cumulative effects

At page 15 and in Attachment 6 the Invited Party has raised concerns that the Noise Assessment does not address cumulative effects in respect of the activities in the Northern Block (Pit 1) and any future Northern Block FTAA project. The Invited Party states that they have experienced an increase in noise effects at their dwelling since consents were granted for the Northern Block (Pit 1). The Invited Party requests that TIL provide an assessment of cumulative noise effects which confirms whether noise generated from the Central and Northern Block (Pit 1) is anticipated to achieve compliance with requirements of the Waitomo District Plan.

The Noise Assessment was prepared for the Central and Southern Block application. Noise compliance for other mining areas, including Pit 1 and any future Northern Block project, was outside the scope of that assessment. In my view, the changes to the resource consent for Pit 1 in the Northern Block issued on 3 October 2025, do not materially alter the conclusions of the Noise Assessment for the Central and Southern Block application for the following reasons:

- 1 **The worst-case Central Block noise scenario is limited and temporary**
The highest predicted noise levels for the Invited Party's property are associated with mining of the northern ridge. That activity is proposed to be managed by modified methodology, restricted hours, and verification and monitoring before standard mining operations commence.
- 2 **Ridge mining is not proposed as a long-term 24-hour activity**
The concern regarding night-time sleep disturbance is directly addressed by the proposed restriction that ridge mining (line-of-sight) occur only between 7 am and 7 pm until mining has progressed below the ridgeline.
- 3 **The internal sequencing reduces the potential for cumulative effects within this application.**
The worst case ridge mining affecting the Invited Party's property is expected to be completed before other mining areas commence (Section 6.1.1 and Section 7.2). On that basis, the worst-case ridge scenario would not coincide with other Central / Southern Block mining scenarios in a way that would materially increase the predicted noise levels at this receiver.
- 4 **Any future Northern Block mining is a separate matter**
The future Northern Block FTAA project does not form part of the approval currently before the Panel. If future Northern Block mining is proposed, cumulative noise from simultaneous mining areas would need to be considered as part of that project's assessment, including any necessary controls on timing, equipment, separation distances, methodology, or monitoring.

From an acoustics perspective, cumulative noise effects arise where multiple sources are audible at the same receiver at the same time. Because sound levels combine logarithmically, two equal noise sources would increase the total level by approximately 3 dB. If one source is materially lower than the other, its contribution to the combined level is much smaller. Therefore, the key issue is not simply whether more than one mining area exists, but whether the combined level at the notional boundary of the receiver would approach or exceed the applicable PWDP limits.

For the Northern Block (Pit 1) Application, I prepared a noise assessment in support of the resource consent. That assessment predicted a worst-case noise level at the notional boundary of the Wetini Whaanau dwelling of 39 dB LAeq (based on worst case plant source sound levels and closest proximity to the dwelling), which is permitted under the PWDP.

Once the ridge has been mined and mining moves away from the northern edge of the Central Block, predicted noise levels at the dwelling will be no more than 40 dB LAeq (Section 8.2). Assuming an absolute worst case situation (all mining plant operating simultaneously and at the closest proximity to the dwelling) combined noise levels would not exceed the PWDP limits during the day and evening.

There is the potential for a minor exceedance risk at night but the degree of exceedance would be marginal - no more than approximately 3 dB above the 40 dB night-time limit, which is at or below the threshold of perceptibility. I consider the risk of this exceedance to materialise to be negligible as it would require plant in both areas to be operating simultaneously at night and at the closest location in each mining area to the dwelling - a scenario which I consider to be highly unlikely in practice.

For the Central and Southern Block application, the Noise Assessment identifies the ridge mining scenario as the controlling case for this receiver. That scenario is proposed to be managed through restricted hours, modified methodology and compliance monitoring. On that basis, the potential for adverse cumulative noise effects from the activities authorised by this application is expected to be low.

5 Response to concern about ridgeline removal and long-term effects

At page 14 the Invited Party expressed concern that removal of the ridgeline will reduce the noise buffer to the south and increase both short-term and long-term noise effects.

The Noise Assessment specifically considered the ridgeline as the key risk area (Section 6.1.2 and Section 7.2) and identified the need for modified mining methodology while works occur on the ridge (Section 9.1).

The modelling for the broader Central and Southern Block mining scenario was undertaken on the assumption that the ridge is mined first, before the remainder of the blocks (Section 7.2). On that basis, the Noise Assessment has already considered the post-ridge situation when evaluating the remaining mining areas. Accordingly, the Noise Assessment indicates that operations within the remaining mining areas can be undertaken in compliance with the permitted noise levels set out in the PWDP.

6 Requested 200 m setback

At page 14 the Invited Party has requested a 200 m setback from external boundaries, which would require retention of the remainder of the ridgeline.

From an acoustics perspective, a fixed boundary setback is not necessarily the most effective noise control. Noise effects depend on several factors, including source sound power level, equipment type, duration, operating height, topographical screening, intervening ground, and the distance to the actual noise sensitive receiver. As the PWDP noise standards are assessed at the notional boundary of the noise sensitive receiver, an assessment based approach is more directly related to managing acoustic effects than a blanket setback from all external boundaries.

In my opinion, the combination of:

- restricting line-of-sight ridge mining to 7 am to 7 pm;
- using a modified mining methodology for the ridge;
- verifying the methodology by a suitably qualified acoustic specialist;
- requiring noise monitoring before standard 24-hour operations recommence; and
- maintaining compliance with the applicable PWDP limits at the notional boundary,

as recommended in the Noise Assessment, and provided for in the Draft EMP, is an appropriate acoustic response to the identified risk of mining of the ridge.

7 Conclusions

The Noise Assessment identifies the northern ridge area of the Central Block as the key location where elevated noise levels could occur at nearby receivers, including the Invited Party's property. That risk is temporary and is proposed to be managed through specific controls, including daytime only line-of-sight ridge mining and monitoring to confirm compliance before standard operations resume.

The Noise Assessment does not predict exceedances for the Southern Block, and no further exceedances are predicted in the Central Block once mining moves away from the northern ridge.

A quantitative cumulative assessment with the future Northern Block FTAA project has not been undertaken and should not be inferred from the Noise Assessment. If future Northern Block mining is pursued, cumulative noise effects would need to be considered at the time that an application is made. However, for the current application, the potential for cumulative noise effects from the activities authorised by this application together with the activities in Pit 1 in the Northern Block is expected to be low.

8 Applicability

We understand and agree that this report will be used by the Fast-track Expert Panel in undertaking its regulatory functions in connection with the Central and Southern Block Mining Project [FTAA-2512-1153].

Tonkin & Taylor Ltd

Report prepared by:



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Darran Humpheson
Technical Director, Acoustics

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