

28 September 2026

**Comments on the Barrytown Minerals Project in Response to Minute 2 of the
Expert Panel [FTAA-2605-1238]**

Background

Mineral sands mining is an increasingly common activity applied for through the resource consent process on the West Coast. This will be the fourth mineral sands project to proceed through the consent process. All three previous projects have been approved following public notification and a hearing, including Stage 1 of the Barrytown Minerals Project.

To date, one of the approved mineral sands projects has become operational: the Okari site near Westport. The site was in construction and operation for several years and is currently in care and maintenance.

The Okari site experienced several compliance issues including, when mineral concentrate was blown from stockpiles during a storm event. The stockpiles were subsequently enclosed, and no further issues arose.

Engagement

The applicant has been in regular contact with WCRC since commencing preparation of its application under the Fast-track process. Reports were provided to WCRC as they became available and prior to the lodging of the substantive application, allowing for ongoing input and feedback from WCRC staff. Engagement has been regular and constructive, with the applicant considering feedback provided by WCRC and making amendments where appropriate.

WCRC has also been in a position to review the proposed consent conditions. Feedback on these conditions is attached as Appendix 4.

Input From Internal Staff

The answers to the specific questions asked by the Panel have had input from the Council's Principal Scientist and Chief Engineer. Copies of their comments are attached as Appendices 1 and 2 and have been incorporated into the responses to the Panel's questions below.

Council Consents and Compliance staff have also reviewed the draft consent conditions prepared by the applicant.

Response to Specific Questions Asked by the Panel

- a) **Evaluate the mining methodology, particularly Section 5.4 (Substantive Application, Appendix 6) and its proposal to sequentially divert streams across the three sectors of Stage 2.**

Creek diversions can be successfully undertaken on the West Coast. Council's Chief Engineer and Principal Scientist have reviewed the proposed sequential diversion methodology and have not identified any specific concerns with the proposed methodology.

Mining through the waterbodies will significantly affect them, and these effects cannot readily be avoided. Proposed mitigation includes rehabilitating the channels to provide equivalent or greater flood-carrying capacity, restoring more natural run–riffle–pool sequences and bed morphology, improving riparian planting, and excluding stock.

- b) Provide a table (perhaps in consultation with the applicant) based on the indicative sequencing model and using the three mining sectors, which streams and for what length in each affected reach are under diversion in years 1-14 so that the panel has a sense of the level of freshwater modification likely to occur in annual and (if possible) monthly intervals.**

The graphic in Appendix 3, developed with the applicant, shows the location and duration of proposed stream diversions hopefully more clearly than a table.

- c) Using the information in b), assess whether the timing interrupts any lifecycles of indigenous species to a degree that should affect the indicative mining sequence.**

The identified waterbodies are short watercourses exposed to scouring flows and existing effects from surrounding dairy farming, nutrient inputs, limited riparian vegetation, and stock access in some areas.

Although aquatic life is expected to be present, the limited shade and riparian cover mean the creeks are unlikely to provide high-quality spawning habitat. Council's Principal Scientist confirms that there is not much suitable spawning habitat for migratory galaxids in the affected channel reaches. These sections may provide some suitable habitat for other native species such as bullies, including redfin bully.

On the information available, significant disruption to species lifecycles is not anticipated because fish passage will be maintained and nearby waterbodies not affected by mining at the relevant time will remain accessible.

On this basis, and subject to the proposed fish-passage and rehabilitation measures being implemented, Council's Principal Scientist does not consider that the effects on species lifecycles warrant exclusion periods or changes to the proposed mining schedule.

- d) Consider what information should be certified and be in place before any waterbody is interfered with to ensure the progressive rehabilitation achieves a final waterbody morphology that is structurally and functionally appropriate and meets the aims of Figure 11 (Substantive Application, Appendix 6).**

The West Coast Regional Council must approve all final management plans before mining begins. The application includes draft rehabilitation and fish capture and relocation plans that set out the proposed diversion and rehabilitation methods. These plans have been reviewed and considered appropriate for the purposes of the application, subject to final approval by the West Coast Regional Council and any amendments or additional requirements considered necessary at that stage.

Council's Chief Engineer has suggested that:

"A baseline survey of the stream inverts should be conducted; together with survey of the predominant channel cross-sections. Ideally this would be completed by a skilled drone operator, with representative cross-sections surveyed at regular intervals – maybe every 100m. This would define the baseline stream morphology. It obviously has to be completed prior to the waterbody being interfered with."

This recommendation has been incorporated into the additional suggested conditions of consent.

- e) Assess the project's potential to materially interfere with natural waterbody hydrology and how any risks can be managed.**

Council's Chief Engineer has identified an anomaly in the calculations for the peak flow estimates which needs to be addressed before reliance is placed on the relevant peak-flow assessment. Subject to that matter being resolved, the Chief Engineer otherwise agrees with the hydrological assessment.

The Chief Engineer has suggested the following:

"Provided the conveyance (flood carrying capacity) of the stream channels during mining and after rehabilitation is at least equivalent to that existing now, then there should be no problems. However, I would recommend that at all bends, the banks and streambed be armoured with designed rock. The normal standard would be to withstand without damage, velocities in a 20-year (5% AEP) flood."

This recommendation has been incorporated into the suggested conditions below.

Council's Principal Scientist has identified stream depletion as a potential longer-term risk associated with reinstating stream channels in areas where

mining may increase vertical permeability. The Principal Scientist has noted that this risk is difficult to assess and that, if depletion were to occur, there may be limited remedial options to reverse it.

Many of these streams flow over old alluvial fans that may already have a tendency to dry up over long rain-free periods. The periodic construction of deep pools as part of remediation may provide refugia for fish during these periods, together with riparian shade. These refugia may also assist fish migration during dry periods. The Principal Scientist has also noted that, where riparian margins are sufficient, there will be some ability for the channel to move and naturally form different hydrological habitats, although natural processes are difficult to replicate and control.

This residual uncertainty reinforces the importance of appropriate channel design, baseline monitoring, progressive rehabilitation and post-rehabilitation monitoring.

- f) Evaluate the methodology and consider aspects of the feasibility and implementation of the rehabilitation through the creation of a new wetland (approx..54ha), incorporating a reach of Granite Creek in the manner shown in the rehabilitation plan in Figure 17.**

No issues have been identified with the proposed methodology in principle. It is difficult to be certain that the proposed method will achieve all of its intended outcomes, as Council is not aware of directly comparable examples.

The area is very wet in general and wetland species have been observed on site developing in hollows of humped and hollowed land and around existing dredge ponds.

Given the high rainfall and water table in this location, the proposed wetland should be capable of retaining water. The range of habitats proposed through remediation appears sufficiently diverse and is expected to provide a substantial area of wetland habitat.

- g) Assess whether the characteristics of the replacement wetland should or can model habitat lost according to the existing wetland typologies in the Ecological Impact Assessment.**

Wetlands are proposed to be developed to contain aspects of the current wetland typologies existing on site. These typologies will be linked within one area rather than being scattered across the site.

The replacement wetland will necessarily differ in character from the existing wetlands and an exact replication of the existing habitat is not expected to be possible. However, the proposed design incorporates characteristics of the

existing wetland types and is expected to provide a substantial area of wetland habitat once established.

- h) Assess whether the goals expressed in the draft rehabilitation management plan adequately capture the overall outcomes sought, both in terms of river morphology and function, and a new wetland and the sufficiency of measures to secure its aims.**

Council's Principal Scientist is satisfied with the goals proposed by the applicant.

These goals will be confirmed through approval of the rehabilitation management plans and their implementation will be subject to compliance monitoring and auditing by Council should the project be approved.

Draft Conditions

WCRC has had input into the development of the draft consent conditions.

WCRC recognises that further amendments or additions to the conditions may be required following review by the technical experts engaged by the Panel, particularly where such changes improve clarity, enforceability, or alignment with statutory functions. WCRC would welcome the opportunity to provide input on any such amendments.

Comments on draft conditions from both Consents and Compliance staff are attached as Appendix 4.

Council would like to see separate District and Regional Consents and would also like to have stand-alone consent conditions for each consent applied for.

The Chief Engineer has suggested the inclusion of additional conditions. These have been amended slightly to ensure that they are appropriately framed and enforceable and should be included under the diversion consents currently listed as section 28.0.

Recommended Consent Conditions

1. Baseline survey

Prior to any waterbody being affected, a baseline survey of the existing channel invert levels and representative channel cross-sections must be completed by an appropriately qualified person.

Cross-sections must be surveyed at intervals of no more than 100 metres, commencing at least 100 metres upstream of the proposed new channel and extending at least 100 metres downstream of the proposed new channel.

The survey results must be provided to the West Coast Regional Council prior to the waterbody being interfered with.

2. Existing channel capacity

Prior to commencing works that affected a waterbody, the existing channel capacity of the affected stream reach must be assessed by an appropriately qualified person and be provided to the West Coast Regional Council in writing prior to the works commencing.

3. Constructed channel survey

Prior to the diversion channel being used to convey flows, the constructed channel must be surveyed to demonstrate that the constructed channel is capable of achieving the existing flood-carrying capacity. The survey results must be provided to the West Coast Regional Council prior to the channel being used to convey the stream.

4. Channel capacity during mining and following rehabilitation

The stream channels constructed to convey the streams during mining, and the rehabilitated stream channels following mining, must have a flood-carrying capacity at least equivalent to that of the existing stream channel, as established through the assessment required by Condition 2.

5. Fish passage

Fish passage must be maintained at all times during the exercise of the consent, including during diversion, mining and rehabilitation works.

6. Protection against flood-related erosion

At all bends on the newly constructed channel during mining, and on the rehabilitated channel following mining, the banks and streambed must be designed and constructed to withstand, without unacceptable erosion or structural failure, flows associated with a 20-year (5% AEP) flood event.

7. Remediation of erosion

Any erosion or other damage to the stream channel resulting from the exercise of this consent must be remedied as soon as practicable and within 10 working days of the damage being identified.

The West Coast Regional Council must be notified of any significant erosion or damage and the remedial action undertaken.

8. Radiation Safety

Due to concerns raised by the community regarding the potential effects of radiation, the Council has agreed with the community that the following advice note be placed on Condition 8.4 in addition to the existing advice note:

Advice Note: *Nothing in this consent affects, limits, or discharges the Consent Holder from any obligation or responsibility under the Radiation Safety Act 2016, or any legislation that amends, replaces, or supersedes that Act.*

It is also recommended that the monitoring required by Condition 8.6 be undertaken by an appropriately qualified and independent person from the Office of Radiation Safety, or another person appropriately independent of the Consent Holder and acceptable to the West Coast Regional Council.



388 Main South Rd, Paroa
P.O. Box 66, Greymouth 7840
The West Coast, New Zealand
Telephone (03) 768 0466
Toll free 0508 800 118
Email info@wcrc.govt.nz
www.wcrc.govt.nz

Conclusion

Subject to resolution of the peak-flow calculation anomaly identified above, and incorporation of the additional and amended consent conditions recommended by WCRC, WCRC has no significant outstanding concerns with the application.

WCRC is otherwise comfortable for processing of the application to proceed before the Panel.

Yours faithfully

A handwritten signature in black ink, appearing to read "Matt Smith", positioned above a horizontal line.

Matt Smith

Group Manager - Regulatory & Policy

West Coast Regional Council