BEFORE THE BARRYTOWN MINERALS PROJECT – SOUTHERN BLOCK EXPERT PANEL

of the Fast-Track Approvals Act 2024 (the FTAA) and the deliberations and final decision of the Expert Panel appointed under section 50 and Schedule 3 of the FTAA to assess the following elements of a Substantive Application by **Tāiko Critical Minerals Limited**

(a) Schedule 5 - All resource consents necessary to enable it to establish and operate a mine Site for mineral sand extraction activities on the Southern Block (between Fagan Creek and Canoe Creek) at Barrytown on the West Coast. This includes resource consents to take water to enable processing of run-of-mine material at the wet concentrator plant, and includes a standard freshwater fisheries activity.

(b) Schedule 7 - Wildlife approvals for the catch and release, and incidental killing, of lizards and birds.

(c) Schedule 8 - Archaeological authority for two recorded sites and potential unrecorded sites.

Record of Decision of the Expert Consenting Panel under Section 87 of the Fast-Track Approvals Act 2024

Dated [insert date] November 2026

Expert Panel	John Maassen (Chair) Sharon Dines (Member) Cameron Lines (Member)
Comments received under Section 53 of the FTAA:	28 September 2026
Details of any hearing under Section 57 of the FTAA:	No hearing was held

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DECISION OUTCOME SUMMARY

Approval Sought		Decision	Conditions applying to approval
(a)	Schedule 5 approvals – all resource consents required to implement the Application comprising Stage 2 as set out in the Substantive Application document.	**Approved**	**See Appendix A issued as a separate document.**
(b)	Schedule 7 – wildlife approval as set out in the Tāiko Critical Minerals Limited Substantive Application.	**Approved**	**See Appendix B issued as a separate document.**
(c)	Schedule 8 – archaeological approval sought by Tāiko Critical Minerals Limited in its Substantive Application.	**Approved**	**See Appendix C issued as a separate document.**

DECISION MADE BY THE PANEL ON BARRYTOWN MINERALS PROJECT – SOUTHERN BLOCK STAGE

Terms

"BMP" and "Project" =	The Barrytown Minerals Project incorporating the Central Block and the Southern Block as well as the Wet Concentrator Plant and Mineral Separation Plant.
"HMC" =	Heavy Mineral Concentrate. The material extracted from the run-of-mine materials sourced by dredging and processed using the Wet Concentrator Plant.
"MDA" =	The mine disturbance area as shown in Appendix F, Plan B
"MSP" =	The Mineral Separation Plant to further process the HMC for export ready products authorised by the consent in the Substantive Application at H4.
"NORM" =	Naturally occurring radioactive material
"ROM" =	The run-of-mine mineral sands extracted using the floating dredge methodology described in the Substantive Application.
"Stage 2" =	The Southern Block stage of the BMP as described in the Application comprising a mine disturbance area and application area as shown in Appendix F, Plan B and ancillary activities.
"TCM" =	Tāiko Critical Minerals Limited also the Applicant.
"The Central Block" =	The Central Block and its consents to mine in the mining area as delineated in Appendix A, Plan F and the consents in the Appendix H2 to the Substantive Application.
The Southern Block" and "Site" =	The Southern Block of 408 ha and delineated in Appendix F, Plan B and the consents in the Appendix H2 to the Substantive Application comprising the Application area and MDA.

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"WCP" =	The Wet Concentrator Plant including mine water facility for onsite water management and associated operation as authorised by the consent in the Substantive Application at Appendix H.

Figures referred to in the Decision

Source	Description	Location in Decision
Substantive Application Appendix K	Plan A – Resource Blocks	Appendix F
Substantive Application Appendix K	Plan B – Southern Block Mine Application Area and Mine Disturbance Area	Appendix F
Substantive Application Appendix K	Plan C – Mining sections within the Southern Block	Appendix F
Substantive Application Appendix K	Plan D – Indicative Mine Path including Mine Starter Pits	Appendix F
Substantive Application Appendix K	Plan E – Noise Bunds	Appendix F
Substantive Application Appendix K	Plan F – Setbacks from Key Environmental Features	Appendix F
Substantive Application Appendix K	Plan G – Water Bodies in the Southern Block including the Five Creeks requiring Diversion	Appendix F
Substantive Application Appendix K	Plan H – Location of Water Take	Appendix F
Substantive Application Appendix K	Plan I – Indicative Final Land Contour	Appendix F
Substantive Application Appendix K	Plan J – Location of Wet Concentrator Plant	Appendix F
Substantive Application Appendix L6C	Adjoining Property Parcels	Appendix G
Substantive Application Appendix J\m9 Substantive Application	Appendix M9 (Maps and Plans) 1. Proposed Mining Area 2. Landscape Mitigation – Pre-Mining Key Plan 3. Landscape Mitigation – Pre-Mining Section 1: North of Granite Creek 4. Landscape Mitigation – Pre-Mining Section 2: South of Granite Creek 5. Landscape Mitigation – Pre-Mining Section 3: South of Cargill Road 6. Landscape Mitigation – Pre-Mining Granite Creek 7. Landscape Mitigation – Pre-Mining Planted Bunds 8. Landscape Mitigation– Pre-Mining Cargill Road Native Planning	Appendix H

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	9. Landscape Rehabilitation Plan – During Mining Key Plan 10. Landscape Rehabilitation Plan – During Mining Section 1: North of Granite Creek 11. Landscape Rehabilitation Plan – During Mining Section 2: South of Granite Creek 12. Landscape Rehabilitation Plan – During Mining Section 3: South of Cargill Road 13. Landscape Rehabilitation Plan – During Mining Section 1: North of Granite Creek 14. Landscape Rehabilitation Plan – During Mining Section 2: South of Granite Creek 15. Landscape Rehabilitation Plan – During Mining Section 2: Realigned Creek 16. Landscape Rehabilitation Plan – Post Mining Final Outcome: Sections 1, 2 & 3 Combined 17. Landscape Species and Indicative Growth Rates 18. Planning Palette	

LAND TITLES WITHIN THE SITE

Legal Description	Landowner
Section 4-6 Block V Waiwhero Survey District contained in Record of Title WSD/103	Nikau Deer Farm Limited
Section 7-8 Block V Waiwhero Survey District contained in Record of Title WS2D/855	Nikau Deer Farm Limited
Lot 1 DP 3548 and Rural Section 2927 contained in Record of Title WS8C/143	Moir Farms Maimai Limited
Part Section 2928 Block V Waiwhero Survey District and Defined on DP 764 contained in Record of Title WS1A/1166	Barrytown Farms Limited
Lot 1 DP 2719 and Lot 2 DP 339364 contained in Record of Title 161879	Barrytown Farms Limited
Rural Section 2930 contained in Record of Title WS1B/293	Barrytown Farms Limited
Section 2929 and Part Section 2634 - 2635 Block V Waiwhero Survey District and defined on DP 764 contained in Record of Title WS2A/228	Barrytown Farms Limited
Rural Section 2931,2932,2933,3316 and Part Rural Section 2639 contained in Record of Title WS8B/528	Barrytown Farms Limited
Section 4033 Block V Waiwhero Survey District contained in Record of Title WS1A/892	Barrytown Farms Limited
Part Section 5 Block IX Waiwhero Survey District contained in Record of Title WS2B/591	Cargill Road Barrytown Limited
Lot 1 DP 406050 contained in Record of Title 486401	Cargill Road Barrytown Limited

PART A: EXECUTIVE SUMMARY

Condensed Decision Summary

[1] This decision contains the reasoning of the Panel in reaching its decision to grant approvals required for Stage 2 of the Barrytown Minerals Project (BMP) (the Substantive Application). This section is a condensed summary of those reasons.

[2] On 8 June 2026, Tāiko Critical Minerals Limited (TCM) submitted an application to the Environmental Protection Authority (EPA) for the Barrytown Minerals Project (the Project and BMP), listed in Schedule 2 of the Fast Track Approvals Act 2024 (FTAA), necessary to sequentially mine sand in the coastal margin near Barrytown across the Central (Stage 1)(mostly consented separately), Southern (Stage 2) and Northern Blocks (Stage 3). The Project description in Schedule 2 was later amended, after which the Minister for Infrastructure authorised TCM to apply for a specific stage: the Southern Block (a.k.a. Stage 2), located between Fagan Creek and Canoe Creek. TCM seeks Stage 2 approvals under the Resource Management Act 1991, the Wildlife Act 1953 and the Heritage New Zealand Pouhere Taonga Act 2014 (HNZPTA) to implement Stage 2. These approvals are summarised in the Substantive Application May 2026 at [1.15] as follows:

Approval sought	Details
Schedule 5 - Resource consents (including a standard freshwater fisheries activity)	All resource consents required to establish and operate the mine site and a consent to take water to enable processing of run-of-mine material at the wet concentrator plant, and includes a standard freshwater fisheries activity.
Schedule 7 - Wildlife approvals	Wildlife approval for the catch and release, and incidental killing, of lizards and birds.
Schedule 8 - Archaeological authority	Archaeological authority for two recorded sites and potential unrecorded sites.

[3] The Panel is acutely aware of the stress and anxiety the BMP consenting process has caused some in the local community, and of the need to ensure that, if Stage 2 is approved, externalities are managed through robust, enforceable conditions.[1]

[4] Like the rest of the Barrytown flats, the Southern Block has coastal strandlines with high mineral concentrations.[2] These formed over millennia through natural erosion, coastal mixing, and sediment depositional processes, resulting in coastal sand formations rich in ilmenite,[3] garnet, and other economically valuable minerals.

[5] The Southern Block covers approximately 408 ha. Mining in Stage 2 is proposed to take place across 69% of the area (280 ha) (the mine disturbance area or MDA). Additional earthworks to support recontouring and rehabilitation may affect a further 72 ha, bringing the total disturbance footprint to 352 ha, or 86.3% of the Site.

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1 See for example commenter's comments No's 23. Chanelle van Rooyen, 27. Barrytown Primary School, 31. Suzanne Hills, 27. Barrytown Primary School, 40. GA & GA Langridge Family Trust, 37a. CRRG - comments to Fast Track Panel.

2 Appendix-L1-Economic-Impacts-of-Barrytown-Minerals-Project, fn 4.

3 Ilmenite is the iron–titanium oxide mineral with an idealised composition of FeTiO3 (FeO·TiO2), which is usually used as the main source of Titanium dioxide.

[6] The sequential mining system and progressive rehabilitation methodologies across Stages 1 and 2 mean the total active mining area at any one time will be relatively small, and the disturbance must not exceed 16 ha.[4] However, the BMP's overall spatial scope is extensive, so mining activity for Stages 1 and 2 alone will persist in the Barrytown locality for an extended period.

[7] The Southern Block, or Stage 2, lies south of the consented Central Block (Stage 1) within TCM's mining permit area and, if approved, will markedly increase the volume of recoverable minerals (ilmenite and garnet) and the by-products of zircon and gold, thereby improving the economic depth and viability (and hence investment quality) of TCM's scheme to raise the investment capital needed to mine the rich strandlines on the coastal margin in Barrytown and process them further for export. Of the combined total, the Southern Block is approximately 79% by HMC tonnage. The Applicant itself says the Southern Block "comprises 87% of the total project"[5] - that figure is from the economic assessment and is probably measured on revenue/ore tonnage rather than HMC alone. The tables below parameterise these production increments.[6]

Table 1 - Southern Block - Additional Extraction Volume

Parameter	**Southern Block (applied for)**	**Source**
Ore (raw material) extraction rate	2,000,000 t/yr	Substantive Application Sections 6.10 & 6.23
HMC production rate	400,000 t/yr	Substantive Application Section 6.10
Mining duration	~14 years (2035-2050)	Substantive Application Sections 6.10-6.11
Lifetime HMC removed	~5.6 million t (≈2.6 M m³)	Substantive Application Sections 6.90

Table 2 - Combined Central Block + Southern Block

Block	**HMC rate**	**Ore rate**	**Duration**	**Lifetime HMC**	**Source**
Central Block (consented)	250,000 t/yr	1.1 Mt/yr	6 yrs (2029-2034)	~1.5 Mt	FT application staging No. 2; Substantive Application Section 6.11
Southern Block (applied for)	400,000 t/yr	2.0 Mt/yr	14 yrs (2035-2050)	~5.6 Mt	Substantive Application Sections 6.10, & 6.90
Combined	-	-	~20 yrs of mining	**≈ 7.1 Mt HMC**	

[8] The enhanced economic dynamic that TCM aims for by adding Stage 2 will be achieved by substantially supplementing the extractable mineral resources authorised by the earlier 'Central Block' consents obtained under the Resource Management Act and by consequently

4 Substantive Application, proposed Condition 7.3.
5 Substantive Application, Section 8.10.
6 Substantive Application, EIC Ballingall Appendix L1A, fn 1.

improving the BMP's economies of scale through the efficient and extended use of processing infrastructure authorised by existing consents for the WCP and MSP at Rapahoe.

[9] Timber and flax harvesting, farming, and mining have disturbed the Site over many years. Earlier mine dredging has left several long, narrow water bodies across the Site. Most of the original vegetation has been cleared, and the land is now used for dairy farming. Parts of the Site have been drained and shaped into raised strips and hollows to support exotic pasture grass for dairying.

[10] The entire Barrytown coastal margin, with its peat substrate and high rainfall and groundwater recharge, naturally favours coastal and inland wetlands and lowland podocarp forest ecosystems (See for example, Figure 1 EIC Prof McGlynn) for the Coast Road Resilience Group). Remnant inland wetlands are on the Site. On the margins of the farming system, delays in stock access readily lead to the re-emergence of wetland-colonising plants, yet much of this would not qualify as wetland under the exclusions in freshwater planning instruments, as it remains paddocks lacking a wetland ecosystem. DOC's Mr Payne notes in his comment report [13] that, in 1846, Charles Heaphy described the area, with modest tentativeness, as "apparently swampy, covered with rātā bush and flax" (Taylor 1959, pg. 204). The DOC Maher Swamp north of the Northern Block reflects the diversity and ecological richness of a once-prevalent pre-European landscape, similar to what Charles Heaphy observed more extensively.

[11] A regionally identified significant natural area sits outside the mine disturbance area.[7]

[12] Stage 2 will divert modified water bodies throughout the Site and manage instream in-stream fauna to minimise impacts. Afterwards, they will be reinstated with improved fluvial morphology and better vegetated margins. In total, Stage 2 will divert and replace 3.83 km of existing stream with about 4.35 km of reconstructed stream.

[13] TCM will establish, as part of the progressive remediation of the Site, an 'artificial' (or more neutrally, 'constructed'), protected wetland of about 53 ha that will feature a mosaic of hydrophytic vegetation and a 4.8 ha area of deep open water representative of what presently exists at a smaller, atomised scale and of moderate quality. The replacement wetland area is much greater than what currently qualifies for special protection under freshwater planning instruments as natural inland wetland.[8] This new wetland is displayed in the plans in Appendix H to this decision. It will provide a richer, more diverse wetland ecosystem and, importantly, improved breeding habitat for waterfowl, bitterns, and secretive marsh birds present in the locality, up to four times the area of existing, dispersed, remnant, unprotected natural inland wetlands delineated by Dr Bramley. Surface-water inflows from Clarke Creek, other minor terrace drainages, and groundwater seepage from the underlying coastal groundwater system will replenish freshwater.[9]

[14] The Panel accepts that adding Stage 2 makes the BMP more economically viable. The ensuing benefits are substantial and will provide considerable employment and economic opportunities for an emergent mining type and method in the West Coast, advancing local regional government economic development strategies for a more diverse and resilient West Coast economy.[10]

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7 TTPP, PUN-049.
8 Applicant's Reply, Bramley Reply SOE at [107].
9 WWMEMP Section 6.4. Rehabilitation: Management of Effects on Wetlands.
10 See for example, Te Whanaketanga Te Tai o Poutini West Coast 2050 Strategy.

[15] In June 2026, Cabinet agreed to provide a $20.0 million loan through the Regional Infrastructure Fund (RIF) towards Tāiko's mining and mineral processing project at Barrytown, reflecting Cabinet's assessment of the project's potential to support regional growth.

[16] The conditions offered for TCM's resource consent approval mostly reflect (with refinements) the conditions imposed on the Central Block following a rigorous process that resulted in a consent memorandum from the Environment Court, to the extent those conditions are relevant to the potential externalities from the scope of activities in Stage 2.

[17] Considering all matters in this decision, the Panel finds that the national and regional benefits of this stage of the BMP exceed, by a large margin, the environmental impacts after implementation of the conditions, including the TCMs offered rehabilitation, which themselves (in some areas) engender positive effects beyond the adverse effects. For all the reasons in this decision the Panel grants all necessary approvals sought under the Substantive Application.

[18] The imposed conditions are set out in Appendices A to C and include changes to the conditions offered by TCM (at both the application stage and in reply), with the changes tabulated in the condition tables in Part K. These are imposed with the FTAA requirements in mind and to ensure mining is performed in a manner that minimises its impacts.

Summary of Project

Context

[19] This decision addresses the application for Barrytown Minerals Project – Southern Block (Application) by Tāiko Critical Minerals Limited (the Applicant) for approvals under the Resource Management Act 1991, the Wildlife Act 1953 and the HNZPTA to develop and progressively rehabilitate a sand mine on the coastal margin of the West Coast between Punakaiki Township and Greymouth to obtain HMC from the Southern Block of the Applicant's mine permit area (Mining Permit 60785) for processing in the consented Central Block, including ancillary water abstraction. This staged component follows the Minister of Infrastructure's approval to Tāiko Critical Minerals Limited to advance the three-block Barrytown Minerals Project under the Act in stages. That decision is dated 15 April 2025 (Appendix B to the Application); the MSP on the Southern Block is already consented.

[20] This stage of the project is intended to provide an additional mining platform to support and sustain already consented components in the Central Block, as set out in Appendices H2, H3, and H4 of the Application.

[21] Appendix K of the Application shows the Site and key features of the proposal in maps and plans. For convenience, these are attached as Appendix F to this decision and referenced throughout this decision.

[22] Stage 2 involves extracting ilmenite and garnet core products, along with zircon and gold by-products, from the Southern Block of the Barrytown Flats.[11] The Barrytown Flats span about 15 km long and 1.7 km wide, situated between the ocean and the Paparoa Mountain Range. Barrytown Flats are about 9 km south of Punakaiki Township and 36 km north of Greymouth, lying west of State Highway 6, which links Greymouth to Westport.

[11] Substantive Application at [2.18] and [3.1].

[23] The Barrytown Flat target minerals are located in the coastal sand substrate in strandline deposits formed by tidal and wave action over many thousands of years. These deposits contain unique minerals like ilmenite and garnet that are in high international demand. Ilmenite yields titanium, listed as a critical mineral in the US and Europe, essential for renewable energy production, efficient engines, EV batteries, medical implants, and components for advanced energy, manufacturing, and transport industries.[12]

Overview of the Application

[24] The Application seeks approval under the fast-track consenting regime to extract heavy mineral sands from the Barrytown Southern Block on the West Coast of the South Island to produce HMC. The proposal is significant in scale. It contemplates mining a coastal terrace over about 14 years at an average production rate of approximately two million tonnes per annum, producing 400,000 tonnes of HMC per year.[13] A production yield of about 20%. Including pre-mining construction works and post-mining final rehabilitation and mine closure works, the project is anticipated to be completed between 2055 and 2060. Hence, the Applicant seeks 35-year approvals.[14]

[25] The total application area is 408 ha. Within that area, the Applicant proposes to disturb 280 ha through direct mining, plus a further 72 ha for associated earthworks for access, stockpiling and ancillary infrastructure. This smaller platform is called the mine disturbance area.

[26] The Applicant has emphasised that the maximum area open and disturbed at any one time will not exceed 16 ha, and that the active mining pond itself occupies only 1 ha.[15]

[27] Mining on the Southern Block will be carried out with a modern floating dredge. The operation will be divided into three sections with only one section being mined at any given time:

a. Section 1: Granite Creek North;

b. Section 2: Granite Creek South;

c. Section 3: Cargill Road;

[28] The operation's staged and progressive rehabilitation is an important feature of the proposal.

Economic Benefits

[29] Extending the consented mine at the Central Block through the Southern Block will create about 135 full-time direct mining jobs and support an additional 189 roles across the economy. The project is expected to generate $200 million in annual export income and contribute $107 million in direct GDP each year, delivering substantial benefits to the West Coast region. It is unlikely to cause notable economic drawbacks, such as negative impacts on tourism, reduced on-site economic activity, or increased pressure on local housing. Economist Mr Ballingall for the Applicant has evaluated the Southern Block Application and found it provides significant net economic advantages to the West Coast regional economy.

[12] Substantive Application at [3.2].
[13] See Tables 1 and 2 above.
[14] Substantive Application at [6.10].
[15] Substantive Application at [6.49].

Barrytown and Site Environment and History

[30] The Site spans a 5.8 km coastal area between Canoe Creek to the north and Fagan Creek to the south. It is bordered by the Tasman Sea to the west and farmland and residential areas to the east, before reaching State Highway 6 (SH6) and the Paparoa Range. Early 20th-century gold mining and drainage activities, including humping and hollowing, shaped the surrounding lowland pastureland. Gold mining in the Barrytown Flats began in January 1867 near Canoe Creek, with tunnels dug into river terraces. From the 1930s to the late 1940s, several companies, such as NZ Gold Options, NZ Prospecting and Mining Ltd, Whites Electric Dredging Company, and Barrytown Dredging Company Ltd, conducted extensive dredging operations (see Figures 1 and 2). These activities greatly changed the Site's hydrology. Currently, the properties are actively used for farming, mainly dairy activities. Landowners have carried out improvement works, including humping and hollowing pastureland and widening and straightening creeks and drains to enhance drainage, which has shaped the current landform.[16]

Natural Resources affected

[31] The Project's footprint affects or influences a range of terrestrial and freshwater resources.

[32] More generally, there are a range of terrestrial and freshwater SNAs in the locality but none in the mine disturbance area.

[33] About 98% of the Site is exotic pastureland associated with dairying.[17]

[34] Approximately 35.8 ha of indigenous vegetation is within the work area, including small, isolated strips of coastal shrubland, Southern rātā snags, and flaxland along coastal and riparian margins. The ecological value varies from 'Negligible'-covering grazed exotic pasture, pine shelterbelts, and isolated pine trees, including Southern rātā snags - to 'Moderate'-comprising indigenous coastal shrubland and flaxland along riparian margins.[18]

[35] Of the 42.12 ha of wetland identified within the footprint, 6.7 ha are classified as natural inland wetlands, engaging the more stringent provisions of the National Policy Statement for Freshwater Management and the associated National Environmental Standards.[19]

[36] The Application also affects 5.46 km of natural streams and 13.62 km of constructed drains.

[37] The specific rivers requiring diversion are shown in Appendix F (refer Appendix K of the Application) and are:

a. Northern Creek;

b. Central Creek;

c. Clarke Creek;

d. Wasabi Creek; and

e. Southern Creek.

[38] Fauna diversity at the Site is generally low to moderate, but moderate for avifauna.

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16 Substantive Application at [5.3].
17 Substantive Application at [5.29].
18 Substantive Application , Appendix-L4-Ecological-Effects-Assessment
19 Substantive Application at [5.26].

[39] Resident lizards inhabit parts of the footprint and will need to be salvaged and relocated. However, most vegetation in the Southern Block consists of grazed exotic pasture, which offers limited habitat for lizards. Small, isolated patches of marginal habitat occur within the mining area, but more suitable habitats, such as shrubland, woody debris areas, and coastal margins, are outside the disturbance zone and will remain unaffected.

[40] Kororā (little penguin) frequent the coastal margin and will require ongoing monitoring throughout the project. The Applicant's experts also surveyed and assessed native avifauna and freshwater fauna to provide an ecological baseline.

[41] Importantly, the Site is on the flightpath of Tāiko returning home from sea feeding across New Zealand's coastal waters over many kilometres.

Method of Mining

[42] The proposed mining method is a wet extraction operation using a floating dredge deployed within a mining pond of approximately 1 ha. The dredge is designed to extract sand to a depth of up to 10 m below the natural surface. On-Site wet processing separates the HMC, which is then transported off-Site, while the residual sand and fines are returned to the pond for progressive backfilling behind the advancing dredge face.

[43] The operation will be staged in three sections, advancing from north to south along the mineralised trend. Section 1, in the Northern Block, is to be worked in Years 1-5; Section 2, in the Central Block, in Years 5-10; and Section 3, in the Southern Block, in Years 10-14. This sequencing enables rehabilitation to follow closely behind extraction and, in the Applicant's submission, limits the area of open disturbance at any point in time.

[44] The indicative mining sequence, outlining the expected pattern and extent of mining over time, is detailed in application Plan D, Appendix K, and Appendix B of this decision. Mining will primarily proceed in a north/south direction, although some mining in an east/west direction will occur when the dredge turns to start a new strip.

[45] A number of operational constraints have been offered by the Applicant. The Applicant proposes a 50 m setback from Mean High Water Springs (MHWS) and a 20 m setback from property boundaries. Operations are to be confined to daylight hours, with no night-time working. Creek diversions are to be constructed in advance of mining in each section, and water is to be managed through a recirculating pond system with settling to control sediment discharges.[20]

Rehabilitation

[46] Rehabilitation is proposed to be progressive rather than deferred to the end of the project. Backfilling of each area is to commence within 12 months of the completion of local mining, and rehabilitation works are to run concurrently with continued extraction elsewhere on the Site. The total volume of material to be redistributed as part of rehabilitation is estimated at approximately 1.1 million cubic metres.[21]

[47] Approximately 5.6 million tonnes (or 2.6 million m^3 at 2.2 g/cm^3) of HMC will be removed from the mining area for processing and export. Replacement material will come from 72 ha of the 110 ha outside the disturbance zone, on the higher terrace to the east, used to

[20] See for example Appendix L-4 Barrytown South Mineral Sand Project – Ecological Effects Assessment page 103.
[21] Substantive Application at [6.84].

reconstruct the landform. This removal of sand and reinstatement results in an average land height reduction of about 0.63 m over the 408 ha consent area.[22]

[48] A central plank of the proposal is reconstructing the wetland resource. Against the approximately 35.8 ha of indigenous vegetation to be removed, the Applicant proposes to construct 53.1 ha of wetland, together with the reconstruction of five creeks. On these figures, this represents a net ecological gain of about 17.3 ha of wetland area, before considering the qualitative characteristics of the constructed environment compared with the removed vegetation.

[49] The constructed wetland is proposed to be delivered in stages. Initial wetland cells are to be established progressively during Years 1-7, with the final cells delivered in Years 10 and 11 as the Southern Block is completed. Monitoring will extend over the life of the project and, for hydrology and water quality, beyond closure. Lizard populations are to be monitored for a multi-year period following relocation, kororā annually throughout the life of the project, and wetland performance in accordance with the staged milestones set out in the Rehabilitation Management Plan.

[50] The wetland will be construction phases are:

a. The first phase will occur on Section 1: Granite Creek North, located north of Granite Creek and south of the WCP, during the completion of mining paths within the proposed wetland area in Years 1 and 2 of mining, as shown on Plan D (see Application, Appendix K);

b. The second phase will take place on Section 2: Granite Creek South, during Years 10 and 11 of mining, as indicated on Plan D (see Application, Appendix K), as mining paths are completed within the wetland area.[23]

Site Definition

a. The titles forming the Site is defined in the front of the decision. The Site and MDA are shown spatially in Appendices F and G.

Summary of Panel's Assessment

[51] The Panel has assessed the Application applying the relevant statutory criteria within the purpose and context of the FTAA.[24]

[52] The Panel received comments from commenters and a response to those comments from the Applicant. The Panel has carefully reviewed all of that information in evaluating the Application.

[53] The following statutory criteria apply to the approvals sought:

a. Schedule 5, clause 17 sets out the criteria and other matters for assessment of resource consent applications.

b. Schedule 7, clause 5 sets out the criteria for assessment of an application for a wildlife approval.

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[22] Substantive Application at [6.90].
[23] Substantive Application at [6.97].
[24] Legislation Act 2019, section 10; and FTAA, sections 10 and Schedule 5 ,7 and 8

c. Schedule 8, clause 4 sets out the criteria for assessment of an application for an archaeological authority.

[54] The Panel considers that, having considered all relevant matters, the Project meets the purpose of the FTAA.

[55] The Panel therefore grants approval to the Application as further set out in the table below.

Approval sought	Description	Decision	Conditions	Term
Approval under 42(4)(a) of the Fast-Track Approvals Act 2024	All resource consents necessary to perform the works described in the substantive Application		Appendix A	35 years
Approval under section 42(4)(h) for a wildlife approval	The wildlife approvals described in the Application		Appendix B	35 years
An approval under 42(4)(i) for an archaeological authority	The archaeological approvals described in the Application		Appendix C	35 years

[56] The decision separately identifies in Parts N-P in respect of the approvals required under the Resource Management Act, the Wildlife Act and the Heritage New Zealand Pouhere Taonga. All other Parts have informed and contributed to the assessment leading to those decisions.

[57] Conditions for each of those three classes of approvals are also separately identified in the Appendices A to C.

PART B: OVERVIEW OF THE APPLICATION AND PROCEDURE

Application

Applicant Tāiko Critical Minerals Limited

[58] The Site to which this Application relates is referred to as the 'Southern Block', within an area known as Barrytown Flats on the West Coast. The Site is located in a 5.8 km coastal strip between Canoe Creek (to the north); Fagan Creek (to the south) at Barrytown; the Tasman Sea (to the west); and with farmland and residential properties to the east, beyond which State Highway 6 (SH6) is located and then the Paparoa Mountain Range. Barrytown Flats is approximately 15 km long and 1.7 km wide, located between the ocean and the Paparoa Range, about 9 km south of Punakaiki Township and 36 km north of Greymouth, connected by SH6.[25]

[59] The total area of the Site is approximately 408 ha, within which the mine disturbance area is 280 ha. The area outside the mine disturbance area will be used to assist with rehabilitating the mine disturbance area and creating final contours.[26]

[25] Substantive Application at [3.1].
[26] Substantive Application at [3.5].

[60] The Applicant provides a detailed description of the Site and its environmental context,[27] which we summarise as:

a. The Site is currently used for dairy/dairy support activities, and has historically been used for gold mining. Much of the surrounding land is lowland pastoral farmland modified by early 20th-century gold mining activities and drainage associated with humping and hollowing.[28]

b. Gold dredging undertaken in the area has significantly altered the hydrological profile of the Site. Works have also been undertaken to improve drainage on the Site.[29]

c. Under the Grey District Plan, the Site is within the Rural Zone; and under the Decisions Version of the Te Tai o Poutini Plan (TTPP), is within the General Rural Zone. An area on the northern side of Canoe Creek (outside the Site but adjacent to the Central Block) is within a Minerals Extraction Zone in the TTPP.

d. All of the Site is located within the Coastal Environment, with eastern parts of it within the Coastal Inundation 1 and 2 Hazard overlays of the TTPP.

e. Land to the east of the Site (but not the Site itself) is identified as an Outstanding Natural Landscape and an area of Outstanding Coastal Natural Character. From a landscape perspective, the Site is considered to be highly modified as a result of coastal, geological and historical use processes.[30]

f. The Site contains seven highly modified natural rivers,[31] along with a number of farm drains.[32] Approximately 42.1 ha of wetlands are present across the Application area with 35.8 ha within the proposed mining disturbance area.[33]

g. The majority of vegetation across the Site is exotic, consisting of grazed pasture except for small, isolated strips of indigenous coastal shrubland, Southern rātā snags and flaxland present along coastal and riparian margins, with ecological value ranging from 'negligible' to 'moderate'. Four species identified at the Site are considered to be 'Threatened' or 'At Risk'.[34] The Site also adjoins a Significant Natural Area.

h. The Site contains mineral sands set down in a series of north – south trending prograding strandlines, during the formation of which, heavy minerals were concentrated within the surf-washed zone into lenticular black sand leads. These leads contain concentrations of ilmenite, gold and associated heavy minerals.[35] Dredging across the flats has disturbed the strandlines and resulted in the HMC being more evenly spread throughout the sand and gravel on the Site.[36]

i. Extensive drilling has been undertaken by the Applicant to help define the resource contained within the Site, and for monitoring and sampling purposes.[37]

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27 Substantive Application at Part 2, section 5.
28 Substantive Application at [5.3-5.4].
29 Substantive Application at [5.4].
30 Substantive Application at [5.36].
31 Substantive Application at [5.21].
32 Substantive Application at [5.22].
33 Substantive Application at [5.26].
34 Substantive Application at [5.28]-[5.29].
35 Substantive Application at [5.15].
36 Substantive Application at [5.16].
37 Substantive Application at [5.17]-[5.18].

j. There are two recorded archaeological sites within the Site, but no evidence of archaeological features or deposits were found at these recorded sites by the Applicant's archaeologist. However, there could be unrecorded archaeological sites within the mining disturbance area.[38]

[61] Further details on the geology, climate, hydrology and aquatic ecology are set out in the Application.[39] Details on terrestrial ecology, landscape and archaeological features are summarised in the Application[40] and described respectively in Appendices L4 (Ecological Assessment), L6 (Landscape and Visual Effects Assessment) and L9 (Archaeological Assessment).

Approvals under the Resource Management Act

[62] The Panel has reviewed all documentation and the further information provided by the Applicant and the participants, and summarises the necessary consents in Appendix D. The Panel agrees with the Applicant that, in terms of the relevant plans and the NES-F, the Application is overall a discretionary activity.[41]

[63] The approvals are sought for a term of 35 years. This timeframe is intended to provide sufficient time for preparatory activities, staged mining, and post-closure final rehabilitation.[42]

[64] Schedule 5, clause 17 sets out the criteria for assessment of an application for a resource management approval. In accordance with those criteria the Panel is required to take into account:

a. The purpose of the FTAA (to which it must give the greatest weight);

b. The provisions of Parts 2, 3, 6, and 8 to 10 of the Resource Management Act 1991 that direct decision-making on an application for a resource consent (but excluding section 104D of that Act); and

c. The relevant provisions of any other legislation that directs decision-making under the Resource Management Act 1991.

Approvals relating to a Wildlife Approval under the Wildlife Act 1953

[65] A wildlife approval is sought for the catch and release, and incidental killing, of lizards and birds.

[66] Schedule 7, clause 5 sets out the criteria for assessment of an application for a wildlife approval. In accordance with the criteria, the Panel is required to take into account:

a. The purpose of the FTAA (to which it must give the greatest weight);

b. The purpose of the Wildlife Act 1953;

c. The effects of the Project on the protected wildlife that is to be covered by the approval; and

[38] Substantive Application at [5.38]-[5.39].
[39] Substantive Application at [5.15]-[5.27].
[40] Substantive Application at [5.28]-[5.37].
[41] Substantive Application at [7.1].
[42] Substantive Application at [1.11].

d. Information and requirements relating to the protected wildlife that is to be covered by the approval (including, as the case may be, in the New Zealand Threat Classification System or any relevant international conservation agreement).

Approvals relating to an Archaeological Authority under the Heritage New Zealand Pouhere Taonga Act 2014

[67] An archaeological authority is sought to authorise the modification or destruction of archaeological sites, whether recorded or not, within the Site.

[68] Schedule 8, clause 4 sets out the criteria for assessment of an application for an archaeological authority. In accordance with the criteria, the Panel is required to take into account:

a. The purpose of the FTAA (to which it must give the greatest weight);

b. The matters set out in section 59(1)(a) of the HNZPT Act;

c. The matters set out in section 47(1)(a)(ii) and (5) of the HNZPT Act; and

d. A relevant statement of general policy confirmed or adopted under the HNZPT Act.

Procedure

[69] The following matters of procedure are relevant for this decision.

Meetings and Site Visits

[70] The Panel undertook a Site visit on 8 September 2026. This included visiting the location of the Southern Block, as well as the Applicant's MSP at Rapahoe, the Central Block and Maher Swamp; and the Westland petrel | Tāiko colony, near Punakaiki.[43]

[71] Much of the Panel's correspondence, deliberations and decision-making occurred over email following review, drafting and commenting on drafts of further information requests, this decision report and the conditions. Notwithstanding this, the Panel met on the following occasions:

a. 18 August 2026;

b. 16 October 2026; and

c. Over several private Teams meetings while planning and preparing this decision.

d. A meeting in person on conditions in Auckland on 28 October 2026.

Invitations to Comment

[72] The Panel invited comments on the Application by Minute 2, dated 31 August 2026. Responses to this invitation were due on 28 September 2026. Subsequently, it came to the Panel's attention that the Westland Petrel Conservation Trust (the Trust) were not invited to comment, which was considered to be an oversight, and an invitation to comment on the Application was extended to the Trust under section 53(3) of the Act, within the same timeframe.[44]

[43] Minute 3 of the Expert Panel, dated 21 September 2026.
[44] Minute 3 of the Expert Panel, dated 21 September 2026.

[73] The Panel thanks all parties who commented for their contributions.

[74] A tabular summary of the comments received is in Appendix E.

Applicant's Response to Invited Persons' Comments

[75] On 5 October 2026, the Applicant provided a response to the comments received on the application from persons invited to comment under section 53 of the FTAA. This included, amongst other matters, an updated set of draft consent conditions.

[76] The Panel has considered the Applicant's responses, and, where appropriate, refers to those responses within Section F of this report below.

Appointment of Special Advisors

[77] The Panel appointed Digimaster Limited as a special adviser to assist with typing, and Liz White as a special adviser to assist with decision-writing tasks.[45] These appointments were made under clause 10(2) of Schedule 3 of the FTAA.

Further Information

[78] In Minute 2, dated 31 August 2026, the Panel requested that the WCRC provide additional information and comments on the Application relating to the proposal's effects on waterbodies. These questions were responded to by WRCR, with input from the Council's Principal Scientist and Chief Engineer incorporated into the responses.[46]

[79] In Minute 3, dated 21 September 2026, the Panel requested, under section 67 of the FTAA, that the Applicant provide further information relating to various aspects of the mining operation, and the timing of wetland construction. This was provided as part of the Applicant's response to comments received on 5 October 2026, by way of statements of evidence relating to mine planning (from Pier Federici); and geotechnical/seismic matters (from Andrew Hurley).[47]

Conditions

[80] The Application included a set of draft conditions for each approval sought. Feedback on these draft conditions, including changes sought to them, was provided by a number of parties who commented on the Application.[48] In its response to these comments, the Applicant provided an updated set of draft conditions.[49]

[81] In accordance with section 70 FTAA, the Panel has reviewed and amended these conditions and as part of this draft decision, provides these draft conditions to the Applicant and persons invited to comment on.

Comments from the Minister for Māori Crown Relations: Te Arawhiti and Minister of Māori Development

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45 Minute 3 of the Expert Panel, dated 21 September 2026.

46 West Coast Regional Council section 53 comments, dated 28 September 2026, including Appendix 1 (Principal Scientist comments) and Appendix 2 (Chief Engineer comments).

47 Memorandum on behalf of TCM replying to comment received pursuant to Section 55(2) FTAA, dated 5 October 2026, Attachment L and Attachment M.

48 Including: West Coast Penguin Trust (1); WCRC (26); DOC (28); Westland Petrel Conservation Trust (29); NZPHT (32); Forest and Bird (33); New Zealand Conservation Authority (35); CRRG (37); Michael Hill (30) [3118 Coast Road]; Tammy Ward (24) [16 Cargill Road]; Katherine Crick (34) [2828 Coast Road]; Chanelle van Rooyen (23).

49 Memorandum on behalf of TCM replying to comment received pursuant to Section 55(2) FTAA, dated 5 October 2026, Attachments C1 and D1.

[82] Under section 72 FTAA the Panel invites comment from the Ministers for Māori Crown Relations: Te Arawhiti and Māori Development on this draft decision and draft conditions.

Hearing

[83] The Panel has exercised its discretion not to require a hearing on any issue under section 56 FTAA. The Panel was able to adequately consider all issues based on the information available, including the Application, comments received, responses to comments and the further information provided by the Applicant, the Council and invited persons. The material issues involved were comprehensively addressed in the documentation provided thereby resolving any technical expert differences of opinion. Residual issues were sufficiently clear for the Panel to consider.

[84] The Panel considers that where insufficient design detail is available when preparing the Application and when the Panel considers the Application, these matters can be appropriately addressed through conditions setting out a post-consent certification process, with Council authorised to approve matters of detail.

[85] The Panel is mindful of the emphasis on time-limited decision-making in the present process, the purpose of the FTAA in section 3, to facilitate the delivery of infrastructure and development projects with significant regional or national benefits, and the procedural principles in section 10 FTAA that require the Panel to take all practicable steps to use timely, efficient, consistent, and cost-effective processes that are proportionate to the Panel's functions, duties or powers.

Timing of the Panel Decision

[86] In accordance with Minute 3 of the Panel Convenor dated 10 August 2026, the time frame for the Panel to issue its decision documents under sections 79 and 88 is 8 December 2026.

PART C: LEGAL CONTEXT

Legal Context for a Listed Project under the FTAA

[87] In accordance with section 42 an authorised person[50] for a listed project may lodge a substantive application with the EPA. The Substantive Application must follow the process set out in sections 43 and 44. The Applicant lodged the Substantive Application on 8 June 2026.

[88] The report requested from the responsible Ministry agency under section 18 FTAA was received on 23 June 2026. The EPA decided that the Application was complete and within scope on 29 June 2026. The EPA recommended whether competing applications or existing resource consents existed for the same activity on 14 July 2026.

Decisions on Approvals

[89] Section 81 FTAA states:

> 81 Decisions on approvals sought in substantive application
>
> (1) A panel must, for each approval sought in a substantive application, decide whether to—
>
> (a) grant the approval and set any conditions to be imposed on the approval; or

[50] FTAA, sections 4 and 42.

(b) decline the approval.

(2) For the purpose of making the decision, the panel—
(a) must consider the substantive application and any advice, report, comment, or other information received by the panel under section 51, 52, 53, 55, 58, 67, 68, 69, 70, 72, or 90:
(b) must apply the applicable clauses set out in subsection (3) (see those clauses in relation to the weight to be given to the purpose of this Act when making the decision):
(c) must comply with section 82, if applicable:
(d) must comply with section 83 in setting conditions:
(e) may impose conditions under section 84:
(f) may decline the approval only in accordance with section 85.

(3) For the purposes of subsection (2)(b), the clauses are as follows:
(a) for an approval described in section 42(4)(a) (resource consent), clauses 17 to 22 of Schedule 5:
(b) for an approval described in section 42(4)(b) (change or cancellation of resource consent condition), in relation to a condition of a coastal permit specified under section 186H(3) of the Fisheries Act 1996, clauses 20 to 22 of Schedule 5:
(c) for any other approval described in section 42(4)(b) (change or cancellation of resource consent condition), clause 23 of Schedule 5:
(d) for an approval described in section 42(4)(c) (certificate of compliance), clause 27 of Schedule 5:
(e) for an approval described in section 42(4)(d) (designation), clauses 24 and 25 of Schedule 5:
(f) for an approval described in section 42(4)(e) (concession), clauses 7 to 9 of Schedule 6:
(g) for an approval described in section 42(4)(f) (land exchange), clauses 29 to 33 of Schedule 6:
(h) for an approval described in section 42(4)(g) (conservation covenant), clauses 45 and 46 of Schedule 6:
(i) for an approval described in section 42(4)(h) (wildlife approval), clauses 5 and 6 of Schedule 7:
(j) for an approval described in section 42(4)(i) (archaeological authority), clauses 4 and 5 of Schedule 8:
(k) for an approval described in section 42(4)(j) (complex freshwater fisheries activity approval), clauses 5 and 6 of Schedule 9:
(l) for an approval described in section 42(4)(k) (marine consent), clauses 6 and 7 of Schedule 10:
(m) for an approval described in section 42(4)(l) (access arrangement), clauses 7, 9, and 10 of Schedule 11:
(n) for an approval described in section 42(4)(m) (access arrangement), clauses 8, 9, and 10 of Schedule 11:
(o) for an approval described in section 42(4)(n) (mining permit), clauses 19 to 21 of Schedule 11.

(4) When taking the purpose of this Act into account under a clause referred to in subsection (3), the panel must consider the extent of the project's regional or national benefits.

(5) For the purposes of subsection (4), if the substantive application was made under section 42(1)(b), the panel—
(a) must treat the stage of the project to which the application relates as constituting the project; but

(b) may consider the regional or national benefits of the whole project, having regard to the likelihood that any later stages of the project will be completed.

(6) Despite subsection (2)(a), the panel—
(a) is not required to consider any advice, report, comment, or other information it receives under section 51, 53, 55, 67, 69, 70, or 72 after the applicable time frame; but
(b) may, in its discretion, consider the information as long as the panel has not made its decision under this section on the approval.

(7) To avoid doubt, nothing in this section or section 82 or 85 limits section 7.

Ability to decline Consent

[90] Section 85 FTAA sets out the limited circumstances when approvals must or may be declined.

[91] Section 85(1) and (2) set out the matters that apply to a mandatory decline decision. Section 85(3) sets out the matters that must be considered by the Panel in forming a view that the approval sought should be declined:

Approval may be declined if adverse impacts out of proportion to regional or national benefits

(3) A panel may decline an approval if, in complying with section 81(2), the panel forms the view that—
(a) there are 1 or more adverse impacts in relation to the approval sought; and
(b) those adverse impacts are sufficiently significant to be out of proportion to the project's regional or national benefits that the panel has considered under section 81(4), even after taking into account—
(i) any conditions that the panel may set in relation to those adverse impacts; and
(ii) any conditions or modifications that the applicant may agree to or propose to avoid, remedy, mitigate, offset, or compensate for those adverse impacts.

(4) To avoid doubt, a panel may not form the view that an adverse impact meets the threshold in subsection (3)(b) solely on the basis that the adverse impact is inconsistent with or contrary to a provision of a specified Act or any other document that a panel must take into account or otherwise consider in complying with section 81(2).

(5) In subsections (3) and (4), adverse impact means any matter considered by the panel in complying with section 81(2) that weighs against granting the approval.

[92] The Panel consider that, after taking into account the conditions that the Panel has set, the adverse impacts are not sufficiently significant to be out of proportion to the project's regional or national benefits.

Approvals relating to the Resource Management Act 1991

[93] The relationship of the FTAA with the RMA is outlined in Schedule 5 which provides the consent application process that applies rather than the standard RMA consent application process. Clause 17 states:

17 Criteria and other matters for assessment of consent application

(1) For the purposes of section 81, when considering a consent application, including conditions in accordance with clauses 18 and 19, the panel must take into account, giving the greatest weight to paragraph (a),
   (a) the purpose of this Act; and
   (b) the provisions of Parts 2, 3, 6, and 8 to 10 of the Resource Management Act 1991 that direct decision making on an application for a resource consent (but excluding section 104D of that Act); and
   (c) the relevant provisions of any other legislation that directs decision making under the Resource Management Act 1991.

(2) For the purpose of applying any provisions in subclause (1),—
   (a) a reference in the Resource Management Act 1991 to Part 2 of that Act must be read as a reference to sections 5, 6, and 7 of that Act; and
   (b) if the consent application relates to an activity that is the subject of a determination under section 23 of this Act, the panel must treat the effects of the activity on the relevant land and on the rights or interests of Māori as a relevant matter under section 6(e) of the Resource Management Act 1991; and
   (c) to avoid doubt, for the purposes of subclause (1)(b), when taking into account section 104(1)(c) of the Resource Management Act 1991, any Mana Whakahono ā Rohe or joint management agreement that is relevant to the approval is a relevant matter.

(3) Subclause (4) applies to any provision of the Resource Management Act 1991(including, for example, section 87A(6)) or any other Act referred to in subclause (1)(c) that would require a decision maker to decline an application for a resource consent.

(4) For the purposes of subclause (1), the panel must take into account that the provision referred to in subclause (3) would normally require an application to be declined, but must not treat the provision as requiring the panel to decline the application the panel is considering.

(5) In the case of an application for a coastal permit for aquaculture activities, if the panel makes a reservation under clause 20 in relation to recreational fishing or customary fishing or commercial fishing in relation to stocks or species not subject to the quota management system, the panel must not grant the coastal permit in respect of the areas covered by the reservation.

(6) For the purposes of subclause (1), the provisions referred to in that subclause must be read with all necessary modifications, including that a reference to a consent authority must be read as a reference to a panel.

(7) Sections 123 and 123A of the Resource Management Act 1991 apply to a decision of the panel on the consent.

[94] The Planning Act (PA) and the Natural Environment Act 2026 (NEA) received Royal assent on 30 September 2026. Transitional provisions apply to the FTAA and the Resource Management Act 1991 (RMA). Schedule 12, Part 1 of the PA amends the FTAA by inserting a new provision on the treatment of substantive applications lodged before the transition period under the new environmental framework. Under this provision, if a substantive application for an approval under section 42(4)(a), (b), (c), or (d) is lodged before the transition period begins, it must continue to be processed and determined under the FTAA and, in relation to the RMA, as those Acts were in force when the application was made. This provision commenced on 1 October 2026, the day after the PA received Royal assent.

Therefore, the Application must continue to be processed and determined under the FTAA and the RMA as they stood when it was lodged.

[95] The Panel has considered clauses 17, 18 and 19 [if appropriate] of Schedule 5 FTAA and concluded that the purpose and principles of the RMA in sections 5, 6, and 7 remain relevant to our decision-making.

Approvals relating to a Wildlife Approval under the Wildlife Act 1953

[96] Schedule 7, clause 5 sets out the criteria for assessment of an application for a wildlife approval.

Approvals relating to an archaeological authority under the Heritage New Zealand Pouhere Taonga Act 2014

[97] Schedule 8, clause 4 sets out the criteria for assessment of an application for an archaeological authority.

PART D: IWI AUTHORITIES

Section 18 Report for a Listed Project

[98] The Ministry for the Environment[51] provided a report under section 18 in accordance with section 49. This identified that:

a. The Site does not include the common marine and coastal area, and no identified Māori land is involved;

b. Te Rūnanga o Ngāi Tahu (Ngāi Tahu) and Te Rūnanga o Ngāti Waewae (Ngāti Waewae) are the relevant Treaty settlement entities, and the relevant Treaty settlements are the Ngāi Tahu Claims Settlement Act 1998 and the Ngāi Tahu (Pounamu Vesting) Act 1997. The provisions of the Ngāi Tahu settlement do not contain any specific procedural obligations that would have to be complied with by this Panel;

c. There is a Mana Whakahono ā Rohe between Ngāti Waewae, Te Rūnanga o Makaawhio, Ngāi Tahu, and West Coast Regional Council that includes procedural requirements considered relevant to the Panel's consideration of this Application. Of relevance to us, this relates to notification of applications and protocols for hearings at marae and cultural evidence.[52]

Substantive Application Information

[99] The Applicant outlines that it has undertaken extensive consultation with various parties, including mana whenua, since 2018 and throughout the development of its wider 'Critical Minerals Project', including through previous consenting processes, and that the technical information and consultation undertaken through earlier consenting processes have informed the current Fast-track application for this stage of the Project.[53]

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[51] Noting that this Ministry was subsequently amalgamated into the Ministry for Cities, Environment, Regions and Transport on 1 July 2026.

[52] While the Section 18 Report also noted procedural requirements relating to the appointment of Hearings Commissioners, this was considered by the Panel Convenor in appointing the Panel, rather than being a matter for us as a Panel to address.

[53] Substantive Application at [1.1] of Appendix F.

[100] The Mana Whakahono ā Rohe is also noted, with the Applicant stating that:

> In preparing and assessing the Project, Tāiko has recognised and applied the principles underpinning this [Mana Whakahono a Rohe] through ongoing engagement with Te Rūnanga o Ngāti Waewae, provision of technical information, involvement of iwi in discussions relating to environmental management, and consideration of cultural values and outcomes within the proposed conditions and management plans included in the Application.[54]

[101] Consultation letters regarding the Application were also sent to Ngāti Waewae and Ngāi Tahu, a copy of which is included at Appendix F2 to the Application. The responses received are set out in the Application.[55]

Comments

[102] The Panel invited comments from Ngāi Tahu and Ngāti Waewae under section 53(2)(b) – (c) and s53(2)(m); and from Te Rūnanga o Makaawhio and Pōkeka Poutini Ngāi Tahu Ltd under s53(2)(m).

[103] No comments were received from any of these parties.

Statutory Requirements

Treaty Settlements and recognised Customary Rights

[104] Section 7 requires all persons performing functions and exercising powers under the FTCA to act in a manner that is consistent with the obligations arising under existing Treaty settlements.

Effect of Treaty Settlements and other Obligations

[105] Section 82 applies if a Treaty settlement is relevant to an approval, and requires that:

a. If the settlement provides for the consideration of any document, the Panel must give the document[56] the same or equivalent effect through the Panel's decision-making as it would have under any relevant specified Act; and

b. The Panel must consider whether granting the approval would comply with section 7.

Conditions relating to Treaty Settlements and recognised Customary Rights

[106] Section 84 provides that for the purposes of section 7, the Panel may set conditions to recognise or protect a relevant Treaty settlement, and applies in addition to, and does not limit, any other powers to set conditions under the FTAA.

Assessment of Consent Application

[107] As noted above clause 17 of Schedule 5 of the FTAA provides the criteria and other matters for assessment of consent applications. This includes that when taking into account section 104(1) (c) of the RMA, any Mana Whakahono ā Rohe that is relevant to the approval is a relevant matter.

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[54] Substantive Application at [1.2] of Appendix F.
[55] Substantive Application at Appendices F3 and F4.
[56] As defined in section 82(4).

PART E: PRINCIPAL ISSUES IN CONTENTION

[108] The principal issues in contention are:

a. Relationship between this FTAA application and other consents. Including what is within the scope of this consent/what comments relate to effects arising from activities already authorised under other consents; whether/which consent conditions from the central block need to be 'rolled over' into this consent too.

b. Impacts on residents' enjoyment of, and connection to their land. i.e. Effects on amenity and rural character - Includes impacts on views – including views across rural land to the sea, and visual impact of bunds, and how 'temporary' effects are; noise (compared to current levels/tranquillity); dust (including impacts of this on water and food supplies); lighting; increased traffic (particularly trucks); along with consequential impact on property values,

c. Traffic impacts. Including cycle safety, impacts on tourist traffic, wear and tear on roads, and amenity impacts of trucks.

d. The assessment of the costs and benefits of the Project. Including whether the benefits of the Project are overstated (such as: level of benefits that go offshore; volatility of commodity price; the assessment includes benefits relating to earlier stages which should not be included), and costs are understated (including omission of costs arising from impacts of the proposal). Noting also commenters who support the project based on it having significant regional economic benefits.

e. Radiation. Including the level of radioactivity from the NORM in the source material; release of radon; risks when transporting; the return of waste materials to the mine void; compliance with new NORM Guide; adequacy of monitoring.

f. Effects on wildlife. Including effects on rare and threatened wildlife such as tāiko; lizards, including lack of baseline survey, and feasibility of relocation proposal; with various other wildlife mentioned to a lesser degree, or just broader concerns raised about impacts of mining on wildlife in this environment.

g. Wetlands. Including their classification and values; timing and design of wetland rehabilitation, and whether loss is offset by/the adequacy of, the rehabilitation proposed.

h. Impacts on freshwater values.

i. Cumulative effects i.e. additive to existing consents.

[109] The Panel's findings on these principal issues in contention are addressed in Section F:

PART F: EVALUATION OF EFFECTS

[110] Schedule 5 clause 5(4) requires a consent application to provide an assessment of an activity's effects on the environment covering the information in clauses 6 and 7. These matters include:

(a) an assessment of the actual or potential effects on the environment:

(b) if the activity includes the use of hazardous installations, an assessment of any risks to the environment that are likely to arise from such use:

(c) if the activity includes the discharge of any contaminant, a description of—

(i) the nature of the discharge and the sensitivity of the receiving environment to adverse effects; and

(ii) any possible alternative methods of discharge, including discharge into any other receiving environment:

(d) a description of the mitigation measures (including safeguards and contingency plans where relevant) to be undertaken to help prevent or reduce the actual or potential effect of the activity:

(e) identification of persons who may be affected by the activity and any response to the views of any persons consulted, including the views of iwi or hapū that have been consulted in relation to the proposal:

(f) if iwi or hapū elect not to respond when consulted on the proposal, any reasons that they have specified for that decision:

(g) if the scale and significance of the activity's effects are such that monitoring is required, a description of how the effects will be monitored and by whom, if the activity is approved:

(h) an assessment of any effects of the activity on the exercise of a protected customary right.

…

(a) any effect on the people in the neighbourhood and, if relevant, the wider community, including any social, economic, or cultural effects:

(b) any physical effect on the locality, including landscape and visual effects:

(c) any effect on ecosystems, including effects on plants or animals and physical disturbance of habitats in the vicinity:

(d) any effect on natural and physical resources having aesthetic, recreational, scientific, historical, spiritual, or cultural value, or other special value, for present or future generations:

(e) any discharge of contaminants into the environment and options for the treatment and disposal of contaminants:

(f) the unreasonable emission of noise:

(g) any risk to the neighbourhood, the wider community, or the environment through natural hazards or hazardous installations.

[111] In the following subsections, we assess the actual, potential, adverse, and positive effects.

[112] For actual or potential adverse ecological effects, we have broken the effects assessment into more granular subcategories, notably responding to categories of at-risk or threatened species because of their ecological significance and importance for all approvals sought.

Positive Effects

Overview

[113] The positive effects of the Substantive Application can be summarised as follows:

a. Approximately 53 ha of new protected wetland as part of the mining system's progressive rehabilitation.

b. Improved water body morphology and riparian vegetation through stream rehabilitation.

c. Involvement of Ngāti Waewae, Barrytown School and others in conservation initiatives associated with the above.

d. Improved electricity infrastructure as set out in Substantive Application.[57]

e. Improved dairy farm platforms through pasture reinstatement, with a better relationship between farming and the natural environment than exists at present.[58]

[114] The economic benefits, aligned with government policy, are assessed separately in Part G of this decision and could be characterised as positive effects, but are addressed separately because they are a different class and not local ecological or community benefits addressed in this section.

[115] This section focuses on the benefits of the new wetland and the improved morphology and vegetation resulting from stream rehabilitation where their ecological benefits exceed what is lost. Where they do not exceed what is lost, we also factored these elements into the effects assessment and categorised them as on-site remediation, in line with Dr Bramley's assessment, which we agree is the correct lens.[59] Whether one calls this remediation, offset, or compensation is an ecological categorisation question with blurred lines, but what persuades us is that it is wholly *in situ* (within the Site) and progressively implemented. For our assessment of resource management approvals, that characterisation is not crucial because, whatever the characterisation, the positive ecological consequences of these types of measures must be accounted for under FTAA section 85(3)(b) in the assessment of the important proportionality 'gateway' condition for a decision to decline an application.

[116] The Panel does not consider quantitative tools necessary to assess whether benefits exceed losses, because a qualitative assessment is sufficient to reasonably judge that the rehabilitation causes positive ecological benefits (and benefits future generations) that materially exceed ecological losses even allowing for temporary effects.[60]

[117] The other benefits listed above, not assessed separately below, we rate as low (but not insignificant) effects.

New Wetland Complex

[118] The proposed replacement wetland complex is an important positive component of TCM's remediation measures. The design provides for approximately 53.1 ha comprising shallow marsh, raupō, Carex rushland, flaxland, open water of varying depths, raised islands and surrounding vegetation. It is intended to establish a connected mosaic of aquatic, wetland and terrestrial-margin habitats, rather than simply a water-storage pond. Progressive construction and planting would integrate the complex with reconstructed watercourses and riparian margins. The ecological benefit lies in the quality, diversity and connectivity of those habitats, as well as the extent.[61]

[119] Dr Bramley identifies several advantages over the existing fragmented wetland habitats within the farmed landscape. The constructed complex would exclude livestock, be buffered by indigenous planting, and provide a greater variety of water depths and vegetation communities. These features would reduce grazing and trampling pressure and improve

[57] Substantive Application, [8.12(d)].
[58] Substantive Application, [11.29].
[59] Applicant's Reply, Bramley Reply SOE at [106].
[60] See for example, Applicant's Reply, Bramley Reply SOE at [112],
[61] Rehabilitation Management Plan, sections 7.1–7.5, Bramley Reply SOE at [107]–[111].

feeding, shelter, and breeding opportunities for wetland fauna. Connections with the watercourse network would also support fish passage and access to aquatic habitats. Dr Bramley considers that the complex would provide habitat for cryptic wetland species, including bittern, crakes and brown mudfish.[62] The Panel distinguishes providing suitable habitat from a demonstrated future increase in those species' populations; the evidence has not established the latter and it would be difficult to be precise about that.[63]

[120] These improvements are particularly relevant to the Barrytown Flats, where historic clearance, drainage, farming, and mining have substantially modified the former coastal forest and wetland landscape. Establishing a sizeable area of indigenous wetland vegetation and connected margins would contribute to ecological restoration within that landscape. The Rehabilitation Management Plan also identifies sediment settling, nutrient uptake and the maintenance of permanent and seasonal wet areas as design objectives. The Panel recognises those intended functions, but do not assign a separate, quantified water-quality benefit in the absence of evidence showing the improvement this particular wetland would deliver.[64]

[121] The wetland is nevertheless not an entirely additional ecological benefit. It forms part of the proposed response to the removal of existing wetlands and associated habitat. The ecological assessment identifies approximately 35.76 ha of wetlands within the mining footprint, of which the Applicant classifies approximately 6.73 ha as natural inland wetlands. Mr Payne disputes that classification and considers approximately 35.8 ha to be natural inland wetlands. Whatever their regulatory classification, the existing habitats have ecological value. Dr Bramley expressly accepts that classification does not determine ecological value and, in reply, revises the overall value of the hump-and-hollow wetlands to "low" and the dredge-pit wetlands to "moderate", with a "high" level of effect on the latter before remediation. Therefore, do not assess the proposal as creating 53.1 ha of habitat on land that is without significant existing wetland values.[65]

[122] Nor does the overall area of the proposed complex establish, by itself, a corresponding increase in wetland extent. Mr Payne identifies only 28.3 ha of clearly specified wetland habitat in the design he reviewed, distinguishing that area from deep open water, raised islands and the combined flaxland and dry-edge planting. Dr Bramley responds that flaxland on saturated or seasonally inundated ground would also qualify as wetland and that its minimum area could be specified separately from dry-edge planting. Dry margins and islands can contribute to habitat diversity without replacing the lost wetland area.

[123] The Panel gives moderate weight to the positive aspects of the proposed habitat mosaic. The improvements (long term) will be material; for example, there will obviously be better habitat for avifauna than areas included by Mr Payne as wetland, such as within hump and hollows. For the reasons given in Part F, we generally accept the Applicant's smaller natural-inland-wetland figure, but this is not the sole basis for our qualitative assessment, as we must account for the ecological values of wetlands that are not natural inland wetlands.[66]

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62 Applicant's Reply, Bramley Reply SOE at [111].
63 Bramley Reply at [111]. Substantive Application, Appendix-L4-Ecological-Effects-Assessment, Section 9.2.2.
64 Substantive Application, Rehabilitation Management Plan, section 2.1. RMP, section 7.3.
65 Appendix-L4-Ecological-Effects-Assessment section 9.3: areas and types of wetlands removed. DOC comment, Payne's wetland advice, at [15]–[20]: classification and existing ecological values. Bramley Reply, paragraphs [89]–[94]: classification/value distinction and revised ratings.
66 DOC comment, Payne report at [25]–[27]. Bramley Reply at [107]–[110], response and offer to distinguish wet flaxland from dry-edge planting.

[124] The timing and successful establishment of the habitats also affect the weight attributable to the benefit. Northern wetland construction is proposed to begin in Years 1–2, with further construction in the central portion in Years 10–11. Dr Bramley argues that the northern habitats would have at least 5 years to develop before removing the better wetland habitats south of Granite Creek. That sequencing is a positive feature. However, construction and planting do not immediately reproduce a functioning wetland ecosystem. Mr Payne questions the period required to link and establish the individual cells, while Professor McGlynn emphasises the importance of reconstructing suitable hydrology and substrates rather than relying on landform and planting alone. Mr Rekker's reply supports the feasibility of maintaining groundwater conditions and identifies the value of coordinated ecological and hydraulic design. Taken together, the evidence supports a staged restoration opportunity, but not an assumption of immediate ecological equivalence.[67]

[125] Therefore, the Panel recognises the protected new wetland as a material positive aspect of the proposal, with the capacity to contribute to habitat quality and connectivity at the Site and within the local coastal landscape once established. The Panel gives that positive effect a low-to-moderate positive rating, beyond the loss of existing wetland values, recognising its scale and proposed indigenous habitat diversity. In making that assessment, the Panel acknowledges the large area of non-natural inland wetlands has ecological value that should not be discounted in the effects evaluation, and we account for the potential for margins of error in delineation, classification and rating of existing wetlands and timing factors.

Improved Water Body Morphology and Riparian Vegetation

[126] Rehabilitating streams and establishing indigenous riparian vegetation are positive components of the Substantive Application. The existing waterways cross a substantially modified pastoral landscape. Many have straightened channels, little effective riparian shade and banks affected by stock access, erosion or pugging. These conditions present opportunities for improvement, but do not mean the waterways lack ecological value. They support a diverse indigenous fish fauna, including threatened and at-risk species, and some already contain varied in-stream habitats. Dr Storey considers the fish fauna to be of very high ecological value. The Panel therefore assesses the proposed improvements against functioning, albeit modified, waterways.[68]

[127] Indigenous riparian planting, together with stock exclusion, would improve the interface between the reconstructed channels and adjoining farmland. The Rehabilitation Management Plan identifies shading, bank stabilisation, erosion reduction, filtering of surface runoff and habitat connectivity as intended benefits. Locally appropriate plants, including sedges and flax, would provide overhanging cover, while the planted margins would connect aquatic and terrestrial habitats across the Site. These are credible mechanisms for improving habitat quality as the vegetation becomes established. They should not, however, be treated as a quantified reduction in contaminants [69]

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[67] Bramley Reply at [62]–[64]. Payne at [28]–[30]. McGlynn at [47]–[56]. Rekker Reply at [27]–[42]: groundwater response and coordinated rehabilitation design.

[68] Comment DOC Appendix C, Dr Richard Storey, statement of advice, 28 September 2026 at [8]–[19], [20]–[23], at [24]–[27]. These distinguish generally poor riparian habitat from substantial existing fish values and identify the unassessed spring-habitat issue.

[69] Substantive Application, Rehabilitation Management Plan, sections 5.7 and 6.1–6.2, the plan identifies species, shading, stabilisation, runoff filtering and connectivity. Its original 3 m specification must be read with the later 5 m offer in reference [5]. Applicant's Reply Attachment C1, condition 28.2(b) provides for stock-proof fencing outside planted margins.

[128] The proposed channel morphology also offers ecological advantages over uniform, straightened reaches. Reconstruction is intended to provide meandering alignments, variable widths and depths, runs, pools and riffles, varied bed substrates and selected anchored woody debris. A defined base-flow channel within a wider floodplain would accommodate low flows while allowing higher flows to spread onto adjoining areas. Overhanging vegetation, undercut banks, pools and woody material would provide shelter and a wider range of habitat for indigenous fish and macroinvertebrates. Fish passage is to be maintained. The ecological benefit is the restoration and improvement of these functions, not simply the excavation of a longer channel.[70]

[129] There is meaningful expert support for that prospect. Mr Montgomerie, a freshwater ecologist for TCM concludes that naturalising the channels and improving in-stream and riparian habitat would enhance stream ecological values in the medium to long term. Mr Horrox for the West Coast Regional Council likewise considers that remedial planting and adequate channel-habitat reinstatement would improve the waterways, and identifies the particular value of suitable bankside vegetation overhanging the water. Dr Storey for DOC accepts that increased stream extent through meanders appears achievable, and that improved habitat and riparian vegetation could improve ecological values in streams originating in the hills behind the Site. His assessment is more qualified for watercourses originating within the Southern Block. The evidence accordingly supports a real restoration opportunity, but not an unqualified agreement that all replacement streams will promptly attain higher ecological values.[71]

[130] The width and management of the riparian margins materially affect the benefit that can be credited. The original rehabilitation proposal provided 5 m planting margins along Granite Creek and 3 m margins along other reconstructed creeks, on each bank. Dr Storey considers 3 m insufficient to deliver the claimed aquatic benefits and identifies continuing weed invasion and maintenance requirements. He recommends buffers at least 10 m wide to support the expected ecological functions and self-sustaining vegetation. In reply, Mr Montgomerie supports a 5 m buffer as effective and a significant improvement over the existing condition, and confirms that TCM offers that increase for the reconstructed creeks. The amended offer improves the proposal but does not resolve the disagreement over 5 m versus 10 m margins. The Panel recognises the improvement offered by 5 m but does not treat it as equivalent to the wider, more self-sustaining corridor Dr Storey recommends.[72]

[131] This is not solely a question of planting width. Mr Horrox observes that these waterways experience high flows capable of reshaping their beds and banks independently of the initial design. Sufficient margins would allow some channel movement and natural development of hydraulic habitats; constructed pools could also fill with bed material. The proposed morphology must therefore match the flow regime, bed material, channel gradient, and available space. The final design should integrate ecological and hydraulic requirements rather than rely on a standard arrangement of pools, riffles and planting. Mr Rekker

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[70] Substantive Application Rehabilitation Management Plan, sections 5.5, and fish passage and Clarke Creek reconstruction. See also Attachment C1, condition 28.2(a), p. 26. Some habitat requirements are expressly qualified by "where possible"; the draft assessment does not treat every feature as guaranteed in every reach.

[71] Applicant's Reply, Richard Montgomerie, Reply evidence, 5 October 2026, at [17]–[19], Mr Horrox, WCRC Principal Scientist, responses to Panel questions, 23 September 2026, answers 1–3; Comment DOC Appendix C, Storey, at [38]–[40].

[72] Comment DOC Appendix C, Storey at [41], [65]–[66]. Applicant's Reply, Montgomerie Reply at [11]–[12]. The latter expressly records TCM's willingness to offer 5 m and amendment of condition 28.2. Dr Storey relies on Parkyn, Shaw and Eades (2000).

supports pre-works surveys and coordinated ecological and hydraulic design, followed by surveys of the reconstructed network.[73]

[132] The benefits must also be weighed against the disturbance and loss of existing habitats during diversion and mining. Mr Horrox acknowledges significant ecological impacts on the affected short sections while works occur. Dr Storey identifies risks from fine sediment, fish disturbance or mortality, interrupted passage, contaminant mobilisation, altered stream flows and loss of spring habitats. Granite Creek and Little Granite Creek are not proposed to be diverted, avoiding direct channel reconstruction there, but avoiding their beds does not determine the indirect effects of mining on water quality or hydrology.

[133] A time lag also exists between disturbance and ecological recovery. Mr Montgomerie expects recolonisation to begin almost immediately and, for diverted streams originating within the Site, predicts macroinvertebrate recovery within three to six months and fish-community recovery within 1-2 years. Dr Storey considers that macroinvertebrate recolonisation of watercourses without an upstream source could take many years. Riparian vegetation will itself take time to establish. The Panel therefore distinguishes initial recolonisation from recovery of ecological function and from the eventual improvement sought. Adding Stream Ecological Valuation (SEV) monitoring and NPS-FM fish and macroinvertebrate metrics is useful, but monitoring does not guarantee enhancement. Mr Montgomerie supports a five-year recovery target rather than an absolute requirement and does not accept a numerical SEV improvement target.[74]

[134] Overall, we recognise the proposed stream and riparian rehabilitation as a local ecological benefit beyond remedying adverse effects and give it low positive weight, subject to the final conditions securing its delivery and the Panel being satisfied that the risks to existing water bodies are adequately addressed.

[135] The conditions should secure measurable ecological and hydraulic outcomes, not merely the completion of earthworks and planting. Relevant requirements include defined riparian widths on each bank; stock exclusion; weed control and replacement planting during an establishment period linked to canopy cover; channel and substrate surveys; maintenance of fish passage; baseline and post-restoration monitoring of flows, physical habitat, fish and macroinvertebrates; and specified remedial action where performance criteria are not met. Dr Storey recommends at least 5 years of planting maintenance, addressing all weeds, with continuation until 80% canopy cover is achieved. The proposed conditions already include several monitoring and engineering safeguards, but the final drafting must distinguish binding outcomes from aspirations.

Water Quality and Quantity Effects

Existing Environment

[136] Each existing freshwater resource is assessed below

Waterbodies

[137] There are seven waterbodies on the Site, including an unnamed creek in the northern area of the Southern Block (referred to as Northern Creek), an unnamed creek in the north-central area (referred to as Central Creek), Clarke Creek, Little Granite Creek, Granite

[73] WCRC Reply to Horrox, answer 3, answers 4–5 and 8, Applicant's Reply Rekker, Reply evidence at [36]–[42].
[74] Comment DOC Appendix C, Storey, at [39]–[40]. Applicant's Reply Montgomerie Reply at [8]–[10], (predictions on p. 2); at [14]–[16]. Applicant's Reply Attachment C1, condition 24.5(b)–(d) and condition 28.3.

Creek, the unnamed creek referred to as Wasabi Creek, and an unnamed creek in the southern area (referred to as Southern Creek). The Site is bordered to the north by Canoe Creek and to the south by Fagan Creek. Granite Creek, the major waterway in the area, flows through the middle of the Site, joining Little Granite Creek. The gradients of Granite Creek, Little Granite Creek, and Clarke Creek slacken after they cross State Highway 6, where the channels meander and coalesce.[75]

[138] Surface waters show near-neutral pH, soft water, low turbidity and TSS, nutrients in NPS-FM A/B bands, and low dissolved metals, except for naturally elevated iron and manganese, with visible iron oxyhydroxide deposition. Wetlands and ponds are more turbid and organic-rich. Groundwater is mildly alkaline, low in alkalinity and generally low metalloid conditions, except for iron, manganese and nickel.[76]

Groundwater

[139] The Southern Block overlies a shallow, stratified, fresh coastal aquifer (hydraulic conductivity 0.5–15 m/d, seaward gradient 0.01–0.02 mpm) in hydraulic continuity with the creeks, drains and wetlands. Groundwater is fresh to at least MHWS and no saline groundwater has been encountered at depth.[77] The hill-fed creeks are flashy with negligible baseflow until they reach the flats.[78]

What is Proposed

[140] Mining is by a floating suction dredge within a travelling pond of about 1 ha (100 m x 100 m), excavating to a maximum depth of 10 m below ground. The pond is filled by groundwater from the surrounding mineral-sand aquifer and is not dewatered: the dredge pond level is allowed to rest at approximately the level of the adjoining water table and surface water.[79]

[141] Ore is pumped as a slurry to the WCP. Tailings (sand, slimes <53 µm, gravel and woody material) are returned by slurry line and deposited by hydro-cyclone into the tailings reception area immediately behind the dredge pond, so that the water circuit is approximately balanced.[80] There is no designed discharge from the WCP or the Mine Water Facility (MWF) to any surface water body; the only discharge is to the mining void.[81]

[142] Water take. Make-up water for the WCP (and dust suppression) is to be taken from an infiltration gallery (or a fish-screened direct intake) in the alluvium of lower Canoe Creek, at the location already authorised for the Central Block under WCRC-2023-0046 / GDC-3154-23. The limits sought are 63 L/s instantaneous, 5,400 m³/day (62.5 L/s daily equivalent), 162,000 m³/month and 1,400,000 m³/year. The daily limit equates to 10% of the Canoe Creek seven-day mean annual low flow (MALF7d, modelled at 633 L/s). Peak rates are expected only for periods of up to seven days; long-term abstraction is expected to be less than 9.5 L/s. The new take is not to be exercised concurrently with the existing consent.[82]

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[75] Substantive Application [5.21] and Figure 7: Creeks and drains within and surrounding the Application site (Source: Ecological Solutions Ltd, Substantive Application Appendix L4).
[76] Appendix L4C Dr Fitzpatrick EIC at [14]–[18]; Appendix L4, sections 6.3 and 7.0; Appendix L3, section 2.9).
[77] Substantive Application Appendix L3, section 2.8 and Conclusions [1]–[3].
[78] Substantive Application Appendix L3, Conclusions [4], Hydrogeological cross-sections Figs [16]-[18].
[79] Substantive Application Appendix L3, section 3.2.1 and Conclusions [5], [9] and [13]; Appendix L3A at [13(a)(ii)].
[80] Substantive Application Appendix L3, section 3.2.3 and Table 22; Application at [6.73]–[6.76].
[81] Substantive Application at [6.76] and [6.139]; Appendix M8, section 4.
[82] Substantive Application Appendix L3, section 3.2.2 and Table 6; Appendix L4, section 9.4.6; Application at [8.57]–[8.58]; draft condition 22.1 Monitoring and Effects Management Plan (a) and (g), and 29.1–29.8.

[143] Water quality treatment. Because tailings and slimes porewater is more acidic, softer and more metal-rich than baseline groundwater, hydrated lime or crushed limestone is to be co-deposited with tailings and slimes (laboratory ratio 1:750 w/w) to raise pH, alkalinity and hardness and to immobilise metals, metalloids and phosphorus. Further dosing trials are to occur before mining to settle the operating regime.[83]

[144] Creek diversions. Northern, Central, Clarke, Wasabi and Southern Creeks (approximately 3.83 km of modified river) and approximately 11.2 km of artificial drain are to be temporarily diverted around the pond (using "dogleg" channels for the east-west creeks), then reconstructed to at least their existing length with meandering form and riparian planting. Granite Creek, Little Granite Creek, Canoe Creek and Fagan Creek are not diverted.[84]

[145] Management and monitoring is through a certified Water Management Plan and the Monitoring and Effects Management Plan,[85] the Erosion and Sediment Control Plan and annual Site-Specific ESCPs[86] and draft conditions 21–24, 27, 29 and 30. These provide for 12 months of baseline monitoring; flow gauging at Canoe Creek (SH6), the gallery, Clarke Creek and Granite Creek; monthly/quarterly "Suite A" water quality sampling at 10 creek sites and four coastal piezometers (PZ1–PZ4); metal and metalloid thresholds[87] and turbidity, clarity and DRP attribute-state thresholds;[88] a 0.5 m AMSL groundwater-level trigger at the coastal piezometers for seawater intrusion; trigger-action response plans; and an Annual Hydrological and Water Quality Report.[89]

Assessment in the Application

[146] Quantity (groundwater and creek flow). Mr Rekker (Kōmanawa Solutions) assesses the dredge pond as "groundwater level neutral". The void flattens the local water table and loses approximately 0.8 L/s to evaporation, producing up to approximately 1 m of localised water-table decline within seasonal variation that reverses as tailings are emplaced. No cone of depression is created because there is no dewatering.[90] Diversions maintain through-flow and catchment areas; the only permanent realignment is Clarke Creek to Little Granite Creek through the constructed wetland complex.[91] He assesses the hydrological effects of mining, backfilling and stream-network disruption as less than minor, with high certainty in the conceptual model and moderate-to-high certainty in the effects predictions.[92]

[147] Quantity (Canoe Creek take). Depletion of Canoe Creek is capped at less than 10% of MALF7d. The gallery's drawdown is confined between the creek bed and the gallery, and static groundwater of approximately 5 m AMSL at that location implies (on the Ghyben-Herzberg relationship) a freshwater lens approximately 200 m deep. The effect is assessed

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83 Substantive Application Appendix L4C at [22]–[26], [29] and [38]; Appendix L3, section 3.2.5.1; Application at [8.44]–[8.45] and [8.55].
84 Substantive Application Appendix L3, sections 3.2.4.1 and 5.1.3; Appendix L4B at [15]–[20]; draft conditions 28.1–28.5.
85 Substantive Application Appendix M7.
86 Substantive Application Appendix M8.
87 Substantive Application Draft conditions Table A.
88 Substantive Application Draft conditions Table B.
89 Substantive Application Appendix M7, section 7 and Tables 3–7; draft conditions 22.1–22.3, 23.1–23.3 and 24.1–24.6.
90 Substantive Application Appendix L3, sections 4.5–4.6 and Conclusions [9], [13] and [16(b)–(c)].
91 Substantive Application Appendix L3, sections 5.1.3–5.2; Application at [8.51].
92 Substantive Application Appendix L3, Conclusions [16] and [18]–[19]; Appendix L3A at [17]–[19].

as less than minor.[93] Mr Montgomerie assesses the effect on lower Canoe Creek habitat as "very low", with no mitigation required beyond fish screening.[94]

[148] Post rehabilitation changes in groundwater regime. Mr Rekker considers that post rehabilitation tailings would to some extent, change the physical properties of the restored ground. He notes that grain size changes may result from mineral sand extraction but considers these minor, that the level of compaction and/or consolidation of tailings could be lower than the previously unmined transgressive beach deposit, and that volume changes will occur as a result of mining[95]. He concludes that tailings will largely have the same water-bearing and water transmission properties as the pre-mined ground and therefore overall long-term groundwater effects would be less than minor.[96]

[149] Encountering Above Ground Artesian Pressures. Mr Rekker acknowledges the risk of encountering artesian pressures because the dredge could potentially breach aquitard layers and encounter above-ground, artesian pressure conditions. This could flood the mining void resulting in operational risks as well as overtopping the mining void at its lowest point, potentially flooding adjacent land outside the operational area. Ongoing depressurisation may lead to depletion of surrounding water bodies. The proposed measure to address this risk is the implementation of an Unexpected Artesian Pressure Interception Protocol to be included as part of the Water Management Plan.[97]

[150] Seawater intrusion. The preconditions for intrusion (gradient reversal, low gradient, estuaries, relict saline water) are absent. The risk is assessed as low to very low, to be verified by coastal piezometer monitoring.[98]

[151] Turbidity. Applying DSIR observations from the Ngahere dredge (Thorpe 1990), turbidity from the pond is not expected to penetrate more than 40 m into the aquifer, with only colloidal/colour effects beyond 20 m. Mr Rekker notes that turbidity would be more likely to be lower and penetrate less distance in groundwater moving laterally than measured at Ngahere due to the lower hydraulic conductivity of the sands in the Southern Block. The potential for change in receiving waters is assessed as low.[99]

[152] Surface-sediment risk from stripping, borrow areas (72 ha, with 2 ha open at a time within the 16 ha cap) and creek diversions is addressed by the ESCP. Mr Ridley assesses sediment discharge effects as no more than minor, noting creek diversions as the highest-risk activity.[100]

[153] Dissolved metals, metalloids and nutrients. Dr Fitzpatrick's conservative 1-in-5-year low-flow mass-balance/PHREEQC modelling shows that untreated tailings porewater could cause receiving waters to fail pH and metal guidelines, but that with lime augmentation all relevant guidelines (ANZG, USEPA, NPS-FM attribute bands) are met at all modelled sites, with the likely continued appearance of iron oxyhydroxides but no bed smothering. Surface water quality will be altered in the short-to-medium term as the plume of modified groundwater migrates westward through the mined zone, then revert to baseline. The overall effect is

[93] Substantive Application Appendix L3, section 4.7.1 and Conclusions [16(a)]; Appendix L3A at [13(c)(v)].
[94] Substantive Application Appendix L4B at [24]; Appendix L4, section 9.4.6.
[95] Substantive Application Appendix L3 at section 4.5.5.
[96] Substantive Application Appendix L3 at section 7.
[97] Substantive Application Appendix L3 at Section 4.6.
[98] Substantive Application Appendix L3, section 4.7.1; Application at [8.53]; Appendix M7, section 7.5.1.
[99] Substantive Application Appendix L3, section 4.7.2; Appendix L4, section 9.4.1.
[100] Substantive Application Appendix L5A at [19]–[25]; Appendix M8, sections 4.3 and 6.

assessed as "very low".[101] Dr Fitzpatrick confirms that Condition 23.1 Tables A and B are appropriate discharge and receiving-water thresholds that will meet the section 107 RMA outcomes after reasonable mixing.[102] Mr Rekker concurs that, after attenuation and limestone dosing, water-contamination effects are less than minor[103] noting the certainty assessment of moderate to high at [18].

[154] Freshwater ecology (interface). Mr Montgomerie assesses short-term effects on freshwater values as very low or negligible and medium-to-long-term effects as positive, with no net loss of stream extent and enhanced habitat.[104] This is dealt with under In-stream ecological effects below.

[155] The Applicant's overall position is that water quality effects are "low to less than minor" and that water-take and hydrological effects are "less than minor", managed through maintaining neutral effects on groundwater level, lime treatment, the ESCP, monitoring, trigger-response plans and annual reporting.[105]

Comments Received

[156] Water quality attracted more sustained attention than any other effect in the comments received under section 53. DOC describes it as "one of the main potential impacts of the Project" and, drawing on the comment report of its freshwater scientist Dr Richard Storey[106], expresses the concern that the extraction, processing and redeposition of the mineral sands within the MDA may mobilise heavy metals and nutrients into the watercourses that traverse the Southern Block, with consequential effects on fish and macroinvertebrates. DOC regards the issue as sufficiently important that it invited the Panel to consider commissioning a review by a specialist geochemist under section 67(1)(b).[107]

[157] Dr Storey's comment report is a careful one and the Panel summarises it at some length because it frames most of the water quality debate. His starting point (at [30]-[34]) is that TCM's assessment rests on assumptions, and on groundwater quality modelling, that no expert in geochemistry has independently reviewed. He then turns to the guideline values that populate Tables 28 and 29 of the Ecological Effects Assessment and Table A of condition 23.1, observing that they are drawn from a mixture of sources[108] without any explanation as to why one has been preferred over another. The choice is not academic: for iron the USEPA value of 1.0 mg/L is met, whereas the ANZG (2026) 95% default guideline value of 0.28 mg/L is not, and he identifies aluminium, copper, iron, nickel and zinc as parameters where the Table A thresholds sit "significantly higher" than the current ANZG defaults. He asks that they be justified or replaced (at [44]-[48]).[109]

[158] Dr Storey's remaining points on quality may be stated more succinctly. No evidence has been offered that the deposition of iron oxyhydroxide ("iron floc") on stream beds will remain below levels of concern. The assumption that water quality will revert to its pre-mining condition once the plume of modified groundwater has passed is unsupported and unquantified; because mining will run for some 14 years, the plume will be present for at

[101] Substantive Application Appendix L4C (Fitzpatrick EIC at [19]–[30] and [37]–[39]; Appendix L4 (EECA, sections 9.4.2.1–9.4.2.3 and Tables 26–29).
[102] Substantive Application Appendix L4C at [31]–[36].
[103] Substantive Application Appendix L3, Conclusions [16(d)].
[104] Substantive Application Appendix L4B at [19]–[28].
[105] Substantive Application at [8.46]–[8.47], [8.52], [8.56] and [8.59]–[8.61].
[106] Substantive Application Appendix C.
[107] DOC comment at [6.5]). [Section 6].
[108] USEPA 1986 and 2007, ANZECC 2000 and ANZG 2018.
[109] DOC Appendix C - Barrytown expert comments - freshwater.

least that period, which on the EIANZ guidelines (15+ years) makes the effect long-term and, in his assessment, at least "Low" rather than "Very low". Lime treatment of tailings has been tested in the laboratory but not in the field and "appears to be still somewhat experimental". The monitoring sites, frequency, duration and baseline period in the WMMEMP are adequate, but the parameter list and the Table 4 thresholds warrant a geochemist's review; the electrical conductivity threshold (3,500 mS/cm) "seems extremely high"; thresholds framed as annual medians or 95th percentiles cannot sensibly be assessed within three months; and a toxicant management plan prepared only after a breach has occurred comes too late. Because the relationship between the discharge and the creeks is not well understood, he considers thresholds set only in the receiving waters impractical and argues that a conservatively set discharge-water threshold is also needed. Finally, he asks that compliance with the guideline values in the watercourses be made a condition of consent, that the words "where practicable, or minimised" be struck from condition 22.1(c), that turbidity trigger levels and required actions be written into condition 21.2, and that condition 21.3 specify the rainfall event that activates it, suggesting 25 mm in 24 hours.[110] [111]

[159] On quantity, Dr Storey reads the Hydrological Assessment as indicating that the water table will be lowered around the dredge pond and that creeks and drains may drain into it. He questions whether the pre-existing groundwater flow patterns, including those that feed springs, will re-establish in the uniform post-mining deposit developed by tailings placement; asks that reconstructed channel beds be required to intersect the water table and that flows be restored to not less than 10% below their pre-mining values; recommends that the Panel obtain a specialist hydrologist's review; and seeks a cease-take trigger on the Canoe Creek abstraction at 75% of MALF7 (473 L/s), consistent with Policy 7.3.2 of the Regional Land and Water Plan.[112] DOC's planner, Mr Brass, supports these recommendations, noting that they improve the proposal's consistency with the WCRPS and the NPS-FM.[113] [114]

[160] The West Coast Regional Council's comment responds to the Panel's Minute 2 questions on waterbodies. The Council raises no concern with the proposed treatment, thresholds or monitoring regime, and its only point on condition 23.1[115] is one of drafting, namely that the condition does not make clear whether the Table A and B parameters apply to the discharge to the void, to the Mine Water Facility, or to both.[116]

[161] The Council's technical advisers are more focused on quantity. Its Principal Scientist, Mr Horrox, identifies stream depletion as "maybe the largest long-term risk" of the proposal, arising when channels are reinstated over ground that has been mined to a depth that may increase its vertical permeability. He noted that, should depletion occur, he "can't think of any remedial strategy to reverse this", although deep pools and riparian shade may offer refugia. The Council's Chief Engineer, Mr Blackwood, considers that the rational-method runoff coefficient of 0.15 adopted for the peak-flow assessment is "far too low", that 0.30 or more would be appropriate, and that the anomaly should be resolved before any reliance is placed on that assessment. Subject to that point, he agrees with the hydrological

[110] DOC Appendix C - Barrytown expert comments - freshwater at [60], [72]-[73].
[111] DOC Appendix C - Barrytown expert comments - freshwater.
[112] DOC Appendix C - Barrytown expert comments - freshwater [35]-[37], [43], [50], [69], [74].
[113] DOC Comments Appendix E at [43]-[44].
[114] Storey [35]-[37] and [69]; Brass.
[115] Appendix 4.
[116] WCRC comment, Attachment C at page 12.

assessment and proposes seven conditions governing channel survey, capacity, armouring and erosion remediation. The Council's overall conclusion that it has "no significant outstanding concerns" is expressly contingent on resolution of the peak-flow anomaly.

[162] The Parliamentary Commissioner for the Environment's concern is radiological rather than conventional, but it has a groundwater dimension that belongs here. Drawing on Dr Bradley's published work, the Commissioner notes that secondary alteration of NORM through processing "could also promote leaching and the release of radionuclides into the environment", and that the application contains no assessment of radionuclide concentrations or of the long-term management of tailings returned to the void. He strongly recommends that the Panel engage an independent NORM expert.[117]

[163] The Coast Road Resilience Group pursues the same theme through its legal submissions and two expert reports. Counsel contends[118] that groundwater on the Southern Block was never tested for radioactivity notwithstanding that NORM is known to leach into water; that returning residual HMC and slurry (1.17 Bq/g on the data in the earlier application) to an unlined void risks contaminating land, groundwater and potentially the coastal marine area in a manner inconsistent with section 15C of the RMA; and[119] that the historic gold mining on the Site is a HAIL activity that engages the NESCS, for which no consent has been sought. CRRG also seeks a bond sized to cover "the possibility of discharge of radioactive material into groundwater".[120] Dr Bradley's view[121] is that NORM in the saturated deposit are already leaching, that TCM's inference that removing the heavy minerals will reduce dissolved metals is wrong because the returned residue is more radioactive than the ore, that radium can enter water supplies, and that water in and around the deposit "has never been tested for dissolved radionuclides". Professor McGlynn[122] goes further and states that groundwater contamination from disturbance and reworking of the deposit "is likely", through the mobilisation of nitrogen, phosphorus and, with altered redox conditions, heavy metals; he adds that radon dissolved in groundwater is a particular problem for household wells and that TCM has not provided adequate information on these risks.[123]

[164] Other residents and community organisations raise water in more general terms. Ms van Rooyen[124] asks the Panel to examine whether contaminants, metals or radionuclides could migrate through the shallow groundwater system and whether the water management system can cope with extreme rainfall on a very high water table; she points to TCM's own acknowledgement of dissolved metals in groundwater and its reliance on lime-dosing trials, and asks that a precautionary approach be taken and that thresholds and triggers sit in conditions rather than in management plans. The Langridge Family Trust[125] is concerned with the "flow-on" effects of cutting through naturally layered deposits that feed springs and wetlands on its farm. Mr Kerr and Ms Larner (comment 18) refer to long-term impacts on waterways and the water table; Ms Grace (comment 28) and the Langridge Trust raise the contamination of rain-fed drinking water and gardens; and the Barrytown School Board (comment 27 at section 6.4) and Mr Robertson (comment 21) refer generally to a decline in water quality, Mr Robertson reminding the Panel that the original application was refused

[117] PCE comment.
[118] Comment 37. Coast Road Resilience Group - Legal submissions [29(a)] and [33]-[35].
[119] Comment 37. Coast Road Resilience Group - Legal submissions [64]-[66].
[120] 37a. CRRG - comments to Fast Track Panel at [111].
[121] 37b. CRRG - expert report - Barrytown Radiation Geophysical Assessment, Bradley at [36]-[41], [44] and [62].
[122] Comment 37e. CRRG - expert report - Wetlands and hydrology (McGlynn) at [62]-[63].
[123] CRRG at [29]-[35] and [111]; Bradley at [36]-[44] and [62] and McGlynn at [62].
[124] van Rooyen comment 23 at section 2.
[125] Comment 40 at section 4

in 2022 for want of adequate hydrological and water quality information. Forest & Bird's comment does not address water quality as such; its freshwater points concern wetland extent and the effects management hierarchy and are dealt with under effects on wetlands.[126]

Applicant Response to Comments

[165] TCM's reply of 5 October 2026 addresses freshwater matters at [55]-[65] and is supported by reply statements from Dr Fitzpatrick (water quality and toxicology), Mr Rekker (hydrology and water management) and Mr Bougourd (radiation). The Applicant's overarching position is that "potential adverse effects associated with mine water discharges will be avoided through lime treatment, conservative thresholds, monitoring and adaptive management" and that the comments "do not identify any matters that materially alter the hydrological assessment".[127]

[166] Dr Fitzpatrick meets Dr Storey's criticism of the guideline values head-on. The ANZG default guideline value for iron (September 2025) post-dates his modelling and, in any event, applies to a "weak acid extract" fraction that New Zealand laboratories do not offer. The USEPA (1986) total-iron criterion of 1 g/m³ was developed specifically to address iron-floc effects, has a 40-year record of use and, given the elevated hardness that lime augmentation will produce, affords greater Site-specific protection to the most sensitive test species (*Ceriodaphnia dubia*) than the ANZG EC10 data. The aluminium threshold follows USEPA (2018), which reflects more current science than the ANZG value derived from ANZECC 2000. The copper, nickel and zinc guidelines were published only in September 2026; the Table A thresholds for those three metals have now been revised to the 2026 ANZG values on a hardness, pH and DOC-adjusted basis, and the footnotes to the Table reference the ANZG technical tool.[128]

[167] On the remaining points of science, Dr Fitzpatrick says that the USEPA criterion itself guards against bed smothering by iron floc; that hydrated-lime treatment is "a well-established method" of mine water treatment and not experimental, although the operating regime will be settled in the WMP under condition 22.2; that the conductivity threshold is 3,500 µS/m (a derivation from stock-water TDS) and not mS/cm; and that the thresholds are not annual statistics at all, a single exceedance being sufficient to trigger a management response, with DRP the only NPS-FM attribute that requires a longer record.[129] He parts company with Dr Storey on whether the guideline values should be consent limits. The thresholds are, he says, deliberately conservative chronic no-effect values, and an exceedance "should trigger a considered management action, not a breach of a consent condition". TCM could have offered less conservative acute-toxicity limits instead, but he regards the trigger approach as "a better management tool". Nor does he accept that receiving-water thresholds are impractical: they are widely used in New Zealand, and the receiving water here has been modelled conservatively.[130]

[168] On the conditions, TCM accepts Dr Storey's point that "adverse effect" and "potential adverse water quality" in condition 22.1(b)-(c) should be defined by reference to conditions 23.1, 24 and 24.5-24.6 and offers an advice note; accepts the 25 mm/24 hour rainfall trigger for condition 21.3; is neutral on turbidity triggers in condition 21.2, observing that

[126] Comment van Rooyen at section 2; Langridge; Kerr/Larner; School Board; Robertson.
[127] Dr Fitzpatrick Reply at [56(b)-(c)]); [55]-[65].
[128] Dr Fitzpatrick Reply at [5]-[20] and [28]-[32]; Attachment C1, condition 23.1.
[129] DOC Appendix C - Barrytown expert comments – freshwater Storey at [20]-[25].
[130] 37e. CRRG - expert report - Wetlands and hydrology (McGlynn) Storey at [26]-[27] and [65].

condition 24 already monitors turbidity; has added SEV monitoring and NPS-FM metrics; and accepts the Council's point that condition 23.1 is unclear, confirming that "there is one discharge … all discharges are to the mining void". It does not accept a cease-take trigger, a requirement that flows be restored to within 10% of pre-mining values, or the extension of condition 22.1(a) to all creeks.[131]

[169] Mr Rekker's reply is directed principally to quantity, and he says that Dr Storey's inference of water-table lowering is "incorrect". The dredge floats on the existing water table; it does not dewater; slurry water is borrowed from and repaid to the aquifer within the same 24-hour cycle; and the circuit is volume-neutral, with evaporative losses topped up from the Canoe Creek gallery. The rehabilitated land profile will be more concave than the present one, producing more, not less, connection between creek beds and the water table. The minor creeks cannot practically be gauged (their beds are mobile upstream and weed-choked and low-gradient downstream), so groundwater-level monitoring is the better proxy for flow. In his words, a cease-take on Canoe Creek is "out of proportion" given the diffuse gallery intake, the cap of less than 10% of MALF7d (633 L/s), the intermittent, light duty of around 300 m³/day, and the flow monitoring at SH6.

[170] TCM offers no condition on the runoff coefficient. Its answer[132] is that the Table 7 peak-flow estimates were "general background… not relied upon for the design, sizing, or performance assessment of any project infrastructure"; that the difference between 0.15 and 0.30 is "a modelling assumption… rather than any error in methodology or conclusion"; and that Mr Rekker "advises any variation in the estimated peak flows does not affect the assessment of effects or the mitigation proposed". The Granite Creek arithmetic anomaly in Table 7 (stated inputs yield ~7.4 m³/s; table reports 13.31 m³/s) is not addressed. He accepts Mr Blackwood's survey conditions (now 28.6-28.11) and acknowledges, without engaging with, the runoff-coefficient point.[133]

[171] On radionuclides in groundwater, Mr Rekker says that because the pit-pond water balance is neutral, turbidity and contaminants are retained by natural attenuation within the offset distances; that lime dosing flocculates nutrients and metals into the tailings; and (so far as his expertise extends) that radon's 3.8-day half-life and the low westward groundwater velocity mean any dissolved radon is "extinguished" within metres and in any event migrates away from habitation.[134] Mr Bougourd accepts that NORM solubility is "an important consideration that TCM acknowledges" and that TCM will periodically measure groundwater for NORM, but does not expect solubility to be a problem: the minerals have sat in groundwater for thousands of years and would have leached already if they were going to; processing involves no chemical or thermal step capable of disturbing secular equilibrium; and the tailings must be less radioactive than the ore because the radioactive minerals report to the saleable products.[135]

[172] To CRRG's NESCS point, TCM's response is simply that no consent was sought "as the activity does not trigger these provisions".[136]

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[131] Applicant's Reply, Attachment C, conditions 21-23.
[132] Applicant's Reply at Attachment A at 11.2
[133] Applicant's Reply, Rekker's Reply SOE at [81]-[106], [110]; Applicant's Reply, Attachment A at 11.1-11.2.
[134] Applicant's Reply, Rekker's Reply SOE [18]-[24] and [60]-[75].
[135] Applicant's Reply, Bougourd Reply SOE at [11]-[18].
[136] Applicant's Reply, Attachment B, response to CRRG at [64]-[66].

[173] Responding to the residents, Mr Rekker says the system is resilient to both rainfall surplus (the dredge floats higher) and deficit (the circuit inherently preserves groundwater)[137]; TCM responds to the Langridge Trust that Canoe Creek has been confirmed as an appropriate source and that the effects of the take are less than minor[138], and replies to Ms Grace that "there is no excess water" because the circuit is closed[139], and tells Mr Kerr that the Canoe Creek Lagoon has "no hydrology linkage" to the Site.[140]

Panel Findings on Water Quality and Quantity

[174] The Panel begins with the mechanism of effect, about which there is little dispute. The only discharge of mine water is to the mining void; the dredge pond is not dewatered; and any contaminant reaches surface water as modified groundwater migrates westward through the mined ground to the creeks and the coast. The real contest is twofold: whether the chemistry of that groundwater has been adequately predicted and will be adequately controlled by lime augmentation, and what form the conditions that govern it should take.

[175] The Panel has carefully considered Dr Storey's invitation to commission an independent geochemical review. Dr Fitzpatrick's is a highly experienced geochemist and his modelling is conservative, adopting a 1-in- 5-year low flow and testing both treated and untreated scenarios; it is Site-specific; and it has already been tested through the Central Block process that culminated in the Environment Court consent memorandum. In our view, his explanation of the iron and aluminium criteria is cogent, and no geochemist has contradicted it; Dr Storey has acknowledged that the matter lies outside his discipline. We find the USEPA, value for iron preferred by Dr Fitzpatrick to be based on robust science and a preferable metric for this Application.[141] The copper, nickel and zinc thresholds have been brought up to the September 2026 ANZG values on a Site-adjusted basis.

[176] Accordingly, the Panel is satisfied that the water quality assessment is robust.

[177] The Panel does not accept that lime augmentation is experimental; it is an orthodox mine-water treatment with a long history in this country and elsewhere. The force of Dr Storey's point lies elsewhere: the operating regime has not yet been settled at field scale. That is a question of certainty in the conditions rather than of the magnitude of effect, and the Panel addresses it by requiring, in condition 22.2, that the lime-dosing regime, including the pre-mining field trials and the dosing rate to be applied, be specified in the certified WMP before mining commences and be reviewable through the annual update under condition 22.3.

[178] The Panel accepts Dr Storey's point about duration. The plume of altered groundwater will persist for at least the fourteen-year mining period and the effect is properly characterised as long-term under the EIANZ guidelines. Duration, however, relates to the level of effect, not its acceptability. With lime augmentation, the modelled receiving-water concentrations meet the applicable guidelines at every monitored Site, and the Panel assesses the residual effect as low, rather than "very low" as the Applicant would have it, and acceptable.

[179] The question of whether the guideline values should be limits or triggers is the central point of difference, and the Panel's view is that each expert has part of the answer. Guideline values derived from chronic no-effect data are appropriately deployed as triggers for a management response, and the Panel does not consider it necessary or proportionate, in

[137] Applicant's Reply, Rekker's Reply SOE at [7]-[16].
[138] Applicant's Reply, Attachment A at 4.4.
[139] Applicant's Reply, Attachment B at 28.5.
[140] Applicant's Reply, Attachment B at 24.7.
[141] Applicant's Reply, Attachment J Dr Fitszpatrick Reply at [18].

terms of section 83, to convert every Table A and B value into a hard limit. However, section 107(1) of the RMA applies to any discharge that may enter water, and the Panel is not prepared to leave the consent without a bright-line outcome against which compliance can be judged.

[180] The Panel will therefore retain the Applicant's trigger-and-response structure in conditions 22 to 24 and add an outcome condition that, after reasonable mixing, the discharge must not give rise to any of the effects in section 107(1)(c)-(g) in surface water, which is itself enforceable

[181] The Panel accepts that the relationship between discharge and creek is not precisely known. Rather than impose a second set of thresholds at the void, which at this stage would be arbitrary, the Panel requires the WMP to include monthly monitoring of pit-pond water quality and to define an internal action level for the pond, set conservatively against the Table A values, so that corrective dosing occurs before any downstream exceedance.

[182] Several monitoring points can be disposed of shortly. The Panel accepts Dr Fitzpatrick's clarification that the thresholds are assessed on single samples (DRP excepted) and that the conductivity threshold is expressed in µS/m; condition 23.1 and the WMMEMP are to be corrected accordingly.

[183] The Panel accepts the Council's point that condition 23.1 is ambiguous and needed clarification to identify the single discharge to the mining void. Separately, Dr Storey proposes including turbidity trigger levels and response actions in condition 21.2; monitoring under condition 24 does not replace an operational trigger-and-response requirement in the SSESCP. The toxicant-response provisions in section 7.6.2 of the WMMEMP must identify the practicable remedial actions to be implemented, and the timeframes for implementation, rather than leave those matters to a plan prepared after an exceedance.

[184] Turning to quantity, the Panel accepts Mr Rekker's evidence that the operation is volume-neutral and that no cone of depression will form; Dr Storey's concern rested on a reading of the Hydrological Assessment that Mr Rekker has now clarified.

[185] The Panel has considered the long-term changes in groundwater flow regime that may occur due to rehabilitation of the mine void with mixed mine tailings. The stated artesian groundwater pressure risk identified by Mr Rekker is addressed only with respect to operational effects and he does not appear to engage with any long-term post rehabilitation groundwater effects that could occur. The Panel shares Mr Horrox's concern that stream depletion through reinstated channels over reworked ground is a long-term risk with no ready remedy, and"" the related concern raised by Dr Storey that uniform tailings deposition may result in long-term changes in groundwater flow regime, particularly with respect to sub-artesian and artesian groundwater pressures.

[186] Between them the experts do not provide a succinct interpretation of the effects that previous mining activity may already have had on the material characteristics of the proposed mining area. The application document[142] sets out the areas that were previously dredged for gold in the 1930s and 1940s. The historical mining footprint has a substantial

[142] Substantive Application at [5.4] and Figures 1 and 2.

overlap through Section 2 and Section 3 of the Application and covers approximately the southern half of Section 1.[143]

[187] The Panel is of the view that the issues of vertical permeability changes and uniformity of tailings described by Mr Horrox and Dr Storey will already have occurred within the previously dredged areas, with only minor subsequent near surface changes occurring over the subsequent 80 years.

[188] The issues raised by Mr Horrox and Dr Storey are therefore considered to represent a potential long-term risk in those areas that have not previously been subject to substantial mixing from previous mining activity. These areas are largely around the margins of Section 3, and in the northern half of Section 1.

[189] The Panel accepts that it is difficult to quantify specific, local changes in groundwater flow regime in areas that have not previously been mined because the degree of stratification is difficult to establish. It is therefore even more difficult to model with any accuracy at the scale needed. However, the Panel is satisfied that the overall long term groundwater effects are not expected to be significant when considered in the context of the overall hydrogeological model for the Site and surrounds.

[190] However, because there remains some uncertainty around how the groundwater regime will respond in specific local areas, there is associated uncertainty in the inflows to the proposed stream channel realignments. This risk must therefore be addressed in the conditions. The Panel therefore agreed that reconstructed channel inverts be designed to intersect the post-rehabilitation water table. On balance the Panel have applied this approach to all reconstructed creek channels, including those in historically mined areas. This approach is to be demonstrated through certification of the RMP and the Blackwood survey conditions 28.6-28.8, and that condition 24 include continuous water-level recording in at least one piezometer adjacent to each reconstructed reach, with a trigger-action requirement should post-rehabilitation levels fall below the pre-mining baseline range. The Panel does not impose Dr Storey's standard of flows "not less than 10% below pre-mining", which cannot be measured on these creeks

[191] Mr Blackwood's runoff-coefficient point is not answered on its merits in the reply evidence, and because the design capacity of the diversion and reconstructed channels depends on it, the Panel requires that the channel-capacity calculations under conditions 28.7-28.8 adopt a coefficient of not less than 0.30 unless the Council certifies a lower value on the strength of Site-specific flow data.

[192] As to the Canoe Creek take, the Panel does not impose a cease-take trigger. The abstraction is capped at less than 10% of MALF7d, is drawn from an alluvial gallery rather than a direct intake, is expected to run at around 300 m^3/day for most of the Project, and is already subject to the Central Block consent regime; Policy 7.3.1 of the Land and Water Plan contemplates takes of this kind where total allocation remains below 20% of MALF7. The Panel accepts Mr Rekker's evidence that a cease-take would be disproportionate. Condition 29 is to require that flow at the SH6 gauge be reported in the Annual Report against MALF7d.

[193] The Panel deals with radiation generally under Radiation Effects. For present purposes it is enough to note that no party has produced groundwater radionuclide data for the Southern Block, and that Mr Bougourd accepts that NORM solubility is a relevant consideration and

[143] When compared with Appendix K, Plan D of the Substantive Application.

offers periodic groundwater measurement. The Panel accordingly requires that Suite A in condition 24.1 be extended to include gross alpha and beta activity and radium-226/228 at the four coastal piezometers and at [two] downstream creek sites, with a 12 month pre-mining baseline, and that the Annual Report assess the results against the Drinking-water Standards for New Zealand. That is a proportionate response to the uncertainty identified by the PCE CRRG and Professor McGlynn.

[194] On the NESCS, the Panel is satisfied, on the Applicant's assessment, that the regulations are not triggered: historic alluvial gold dredging is not a HAIL activity, and the Site not contaminated.

[195] Considering these matters, and the condition changes described above, the Panel finds that Stage 2's effects on water quality will be low and acceptable, and that its effects on water quantity will be less than minor. Neither weighs materially against the grant of the approvals in the assessment the Panel must make under section 85(3).

In-stream Ecological Effects

What is Proposed

[196] The proposal involves progressively diverting and reconstructing Northern Creek, Central Creek, Clarke Creek, Wasabi Creek, and Southern Creek as mining advances through the Southern Block. Granite Creek and Little Granite Creek will not be diverted. Artificial drains intersecting the mine path will also be managed, but not every artificial drain will be reinstated: the final drainage network will respond to the rehabilitated landform. The distinction matters because the commitment to no loss of creek extent is not a commitment to reproduce the entire existing farm-drain network.

[197] Temporary channels will convey flows around the active mining area, with permanent channels constructed as mined land becomes available for rehabilitation. North–south and east–west watercourses require different diversion arrangements. The Native Freshwater Fish Capture and Relocation Plan (NFFCRP) recognises that east–west watercourses may be disturbed more than once along their length, potentially annually for periods of up to three months at a time per waterbody. Diverting around two mine paths together reduces the number of interventions. The proposal is therefore staged, but is not confined to one disturbance event for each creek over the mine's life.[144]

[198] The RMP provides a substantive channel-design methodology. It proposes more natural meandering alignments; variable widths and depths; a base-flow channel within a wider bank-full channel and floodplain; runs, pools and riffles; appropriate bed substrates; and anchored woody debris at selected locations. Final dimensions are to be determined jointly by the project hydrologist, ecologist and engineers. Clarke Creek is to be reconstructed through the northern part of the proposed wetland complex before reconnecting with Granite Creek near its existing confluence. Fish passage is to be maintained throughout the reconstructed channels.[145]

[199] The amended condition 28.2 secures minimum lengths for each reconstructed creek: Northern Creek 1,178 m; Central Creek 764 m; Clarke Creek 681 m; Wasabi Creek 733 m; and Southern Creek 469 m. It also requires meandering channels, habitat features and

[144] Substantive Application, Appendix M6, sections 5.1–5.2 and Table 1, sections 5.3–5.4. Appendix M4, sections 2.1–2.4, subsections 2.4.2–2.4.3, 2.5.2, 2.5.2–2.6.
[145] Appendix M6, sections 5.1–5.2 and Table 1, sections 5.3–5.4. 5.5, 5.6., 5.7–5.8 and 6.1–6.2.

varied substrates where possible, and maintenance of fish passage. TCM now offers 5 m riparian planting margins for the reconstructed creeks, rather than the 3 m originally proposed. Granite Creek retains the proposed 5 m margins. These widths are to apply on each bank, with stock-proof fencing outside the planting.[146]

[200] The fish-management response operates before, during and after diversion. Experienced freshwater ecologists will install and maintain exclusion nets and undertake trapping and electric fishing before the existing channel is isolated and its flow diverted. Where fyke netting is practicable, it continues for at least three nights and until the specified catch-rate criterion is met; electric fishing then provides a further check. Additional salvage occurs during dewatering and excavation, recognising that fish, particularly eels, may remain after the initial fishing effort. Fish are also salvaged from temporary channels when the permanent alignment is brought into use.[147]

[201] The NFFCRP specifies handling and holding procedures, suitable release habitats, maintenance of access to the sea, and reporting. It recognises that some fish may require more than one relocation as works progress. Condition 15.2 requires an assessment of the quantity and availability of suitable habitat at release sites, and now expressly includes potentially present species and their threat status, required permits and biosecurity measures. Creek works cannot commence before the plan is certified, and the plan must be reviewed annually by a suitably qualified freshwater ecologist.[148]

[202] The package is supported by baseline and annual ecological surveys, SEV monitoring, and fish and macroinvertebrate metrics drawn from the NPS-FM National Objectives Framework. TCM also accepts pre-works channel surveys, capacity calculations, post-construction checks, flood-resistance requirements and timely repair of erosion. These ecological and engineering controls operate alongside the water-quality, hydrological and sediment controls discussed in the preceding section of this decision.[149]

Assessment in the Application

[203] Mr Montgomerie describes a network of functioning but substantially modified creeks and drains within a working pastoral landscape. Most watercourses have little effective riparian vegetation, and unfenced banks are subject to erosion and stock pugging. Habitat values are assessed as low or moderate and macroinvertebrate values as low. Those descriptions do not extend to the indigenous fish communities, which his evidence identifies as having high ecological value and including threatened and at-risk species. The Application therefore recognises an important fish resource despite the modified physical setting.[150]

[204] His assessment identifies the principal adverse effects as sedimentation, temporary loss or disturbance of aquatic habitat, fish injury or mortality, impeded passage, and potential habitat effects from the Canoe Creek take. Implementation of the erosion and sediment controls is assessed as producing a low level of effect on freshwater ecology. The RMP and NFFCRP are assessed as reducing watercourse disturbance and native-fish effects to very

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[146] Applicant's Reply Attachment I, Montgomerie Reply SOE. Substantive Application, Attachment C1, conditions 28.1–28.3.
[147] Substantive Application, Appendix M4, sections 2.1–2.4, subsections 2.4.2–2.4.3, 2.5.2, 2.5.2–2.6.
[148] Substantive Application, Appendix M4, sections 2.1–2.4, subsections 2.4.2–2.4.3, 2.5.2, 2.5.2–2.6. Appendix M4, section 2.7 and Table 1, Table 2 and section 3. Attachment C1, conditions 15.1–15.4, conditions 16.5–16.13, condition 24.5, condition 24.5 and 24.6. Attachment C1, conditions 15.1–15.4, conditions 16.5–16.13, condition 24.5 and 24.6.
[149] Applicant's Reply Attachment C1, conditions 15.1–15.4, conditions 16.5–16.13, condition 24.5 and 24.6. Attachment C1, conditions 28.4–28.11. Attachment C, condition 15.2.
[150] Substantive Application, Appendix L4B at [7]–[10], [11]–[17].

low in the short term, with a positive outcome after channels stabilise and riparian vegetation establishes.[151]

[205] Mr Montgomerie's overall conclusion is that managed effects on freshwater values will be negligible, with no overall loss of creek extent and enhanced in-stream and riparian habitat in the medium to long term. That conclusion concerns the managed proposal as a whole. It does not mean that excavating an occupied channel has a negligible immediate effect on that particular reach, or that fish salvage will capture every individual. His assessment relies on avoiding the larger creek channels, staging, maintaining passage and flow, fish salvage, and reconstructing and establishing improved habitats.[152]

[206] TCM Counsel's primary legal considerations paper argues those measures fit within the effects management hierarchy. TCM seeks consent for river-bed reclamation, describes the works operationally as diversions, and advances a functional-need argument based on the location of the mineral resource and the characteristics of the dredging system.[153] Counsel submits that avoidance, minimisation, and remediation have sufficiently addressed the residual ecological effects, so a separate offset or compensation package is not required. Counsel also identifies certified management plans as the means of implementing outcomes fixed by consent conditions.[154]

Comments Received

[207] Dr Richard Storey, advising DOC, considers the habitat and macroinvertebrate ratings reasonable, but would rate the fish fauna as very high rather than high because of the number of threatened and at-risk species. He identifies gaps in the assessment of fish in wetland habitats and of potentially distinctive spring macroinvertebrate communities. He also identifies risks from sediment, contaminants, altered flows, fish mortality and interrupted passage. His concerns about groundwater chemistry and hydrology are addressed in the preceding water-quality and quantity findings.[155]

[208] Dr Storey accepts that avoiding Granite Creek and Little Granite Creek, followed by reconstruction of the other creeks, appears to follow the effects management hierarchy. He considers increased extent through meandering achievable and accepts the potential to improve habitat and riparian vegetation, particularly for streams originating in the hills. His principal ecological reservation is the recolonisation of watercourses without an upstream source population. He considers that macroinvertebrate recovery there may take many years and recommends a 50% improvement in ecological functioning to account for the delay, measured using SEV.[156]

[209] He also considers the original 3 m planting width insufficient to deliver the claimed benefits or resist persistent weed invasion. He recommends at least 10 m on each bank, 5 years' maintenance, control of all weeds rather than woody species alone, and an 80% canopy-cover standard with continued maintenance if that standard is not achieved. He seeks

[151] Appendix L4B at [18]–[22], [23]–[26], [27] and [28].
[152] Appendix L4B at [7]–[10], [11]–[17]. Appendix L4B at [18]–[22], [23]–[26], [27] and [28].
[153] Substantive Application Legal considerations at [4] sets out the reasons the proposal includes a standard freshwater fisheries activity but does not require a separate approval.
[154] Substantive Application, Legal considerations at [4], [35]–[37], [38]–[39], [41]–[43] and [43]–[45].
[155] Comment DOC Appendix C, Storey [24]–[29], [35]–[37], [38]–[40] and [41]–[42].
[156] Comment DOC Appendix C, Storey [24]–[29], [35]–[37], [38]–[40] and [41]–[42].

defined ecological metrics, baseline monitoring, consistent sampling locations and performance measures for the restored streams.[157]

[210] Dr Storey describes the NFFCRP as generally well-written and comprehensive, and considers the overall methodology for diversion, restoration and avoidance of direct fish harm adequate, subject to additions. Those additions include reporting the species and numbers caught and killed, species and threat-status information, permits and biosecurity. He identifies an inconsistency between the RMP's diversion sequence and the NFFCRP: initial capture before flow diversion is preferable because it reduces stress on fish.[158]

[211] Mr Horrox, the Regional Council's Principal Scientist, acknowledges that mining will have a significant ecological impact on the short reaches directly affected for a period. He nevertheless considers that adequate channel reinstatement and riparian planting will improve the waterways over a longer timeframe. He regards the proposed sequence as optimising the avoidance of simultaneous interference, and the proposed maintenance and ecological surveys as suitable safeguards. He qualifies his support by the need to maintain fish passage, provide measurable plans, and account for high flows that reshape channels. He identifies possible stream depletion through reworked ground as a major long-term risk, for which he cannot identify a ready remedy.[159]

Applicant Response to Comments

[212] TCM's legal reply adopts Mr Montgomerie's freshwater evidence and relies on the combined ecological, hydrological and water-quality responses. It submits that the surveys provide a robust basis for decision-making; that stream recolonisation will occur promptly; and that maintained extent, improved habitats and riparian planting address the residual effects. Counsel expressly identifies the additional NPS-FM metrics, SEV monitoring, reporting requirements and wider riparian margins as substantive responses to DOC's comments.[160]

[213] Mr Montgomerie considers the electric-fishing and eDNA work across a range of habitats sufficiently comprehensive to assess fish values. He considers unusual spring macroinvertebrate communities highly unlikely in this modified setting, based on the wider surveys and information about historic disturbance. His opinion is an inference from the Site evidence, not a claim that he sampled each spring and wetland separately. On drawdown, he relies expressly on Mr Rekker's hydrological assessment.[161]

[214] On recovery, Mr Montgomerie points to the limited extent of stream habitat originating within the Site, proximity to undisturbed channels and the sea, and the staged nature of disturbance. Drawing on his experience monitoring streams after floods and diversions, he expects recolonisation to start almost immediately. For diverted streams originating within the Site he predicts macroinvertebrate-community recovery in three to six months and fish-community recovery in 1-2 years. He considers maintained stream extent and enhanced habitat sufficient to address the residual ecological effects.[162]

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[157] Comment DOC Appendix C, Storey, at [52], [61]–[66], [67]–[68] and [75]–[78].
[158] Ibid.
[159] 26a WCRC Comment. Horrox Appendix 1.
[160] Applicant's legal Reply dated 5 October 2026 at [55]–[56], [56]–[60], [60]–[64] and [65].
[161] Applicant's Reply Attachment I, Montgomerie Reply SOE.
[162] Ibid.

[215] Mr Montgomerie supports 5 m riparian margins as effective and a significant improvement over the near absence of effective riparian vegetation. TCM has accepted that increase in condition 28.2. He also accepts Dr Storey's fish-management additions and recommendations for recognised ecological metrics, at least one year of pre-mining baseline data, and sampling locations within the reaches to be diverted and restored.[163]

[216] He supports a 5-year horizon for assessing return towards the pre-mining ecological state, but as a target rather than an absolute guarantee of a particular fish or macroinvertebrate result. His reasons include natural variability, high rainfall and floods outside TCM's control. He does not accept a mandatory 50% increase in ecological function and favours direct assessment of fish and macroinvertebrate communities, supplemented by SEV monitoring without a numerical SEV improvement target. The amended condition 28.3 accordingly adds detailed physical-habitat and biological measures and a five-year assessment.[164]

[217] Mr Rekker's reply addresses the foundation of the depletion concern: he does not predict material alteration of the relevant groundwater levels and gradients from the proposed mining and reinstatement. He also supports integrated ecological and hydraulic design, pre-works surveys of channel geometry, substrate and invert elevations, and interim and post-rehabilitation surveys. TCM accepts the Council's additional channel-survey, capacity, flood-resistance and erosion-remediation conditions. These matters strengthen the practical basis of the rehabilitation proposal, while the additional safeguards determined in our water-quality and quantity findings remain applicable.[165]

Panel Findings on Instream Ecology

[218] The elements of our findings are divided into further subheadings.

Overall Approach and Adequacy of the Assessment

[219] The Panel accepts Mr Montgomerie's primary and reply evidence as the more persuasive basis for assessing the managed in-stream ecological effects. The Panel supports his conclusions with the survey programme, staged methodology, detailed RMP and fish-management procedures, and the material improvements now incorporated in TCM's offer. Mr Horrox's support for the potential to improve channel and riparian habitat provides further support, as does Dr Storey's acceptance of the general diversion and fish-protection methodology. The Panel's preference is not based simply on the description of the land as a dairy farm; it is based on the particular effects and the measures available to address them.[166]

[220] The Panel recognises the conservation importance of the fish fauna and does not need to resolve the difference between "high" and "very high" value to accept the management response. In either case, the management response must avoid unnecessary disturbance, ensure competent salvage, provide appropriate release habitat, and maintain migration

[163] Applicant's Reply Attachment I, Montgomerie Reply SOE. Substantive Application, Attachment C1, conditions 15.1–15.4, conditions 16.5–16.13, condition 24.5, condition 24.5 24.6. Attachment C1, conditions 28.1–28.3.

[164] Applicant's Reply Attachment I, Montgomerie Reply SOE. Substantive Application, Attachment C1, conditions 28.1–28.3.

[165] Substantive Application, Attachment C1, conditions 28.4–28.11. Substantive Application, Attachment C, condition 15.2 and Attachment G.

[166] Substantive Application, Appendix-L4-Ecological-Effects-Assessment, TA Appendix-L4-Ecological-Effects-Assessment Table 11. Substantive Application: Appendix M6, sections 5.1–5.2 and Table 1, 5.3–5.4, 5.5, 5.7–5.8 and 6.1–6.2. Appendix M4, sections 2.1–2.4, subsections 2.4.2–2.4.3, 2.5.2, subsections 2.5.2–2.6. Appendix M4, section 2.7 and Table 1, Table 2 and section 3. Applicant's Reply Attachment I, Montgomerie Reply SOE. Comment DOC Appendix C, Storey, Reply at [24]–[29], [35]–[37], [38]–[40] and [41]–[42], [52], [61]–[66], [67]–[68], [75]–[78]. WCRC, Horrox Appendix 1.

routes. The available information is sufficient to identify those requirements. The Panel accepts Mr Montgomerie's assessment of the low likelihood of distinctive spring communities, without treating that opinion as proof of their absence. The certification requirements must apply to actual habitat encountered, including wetland fish habitat, rather than permitting an assumption that unsurveyed wet areas contain no fish.[167]

Diversion, Staging and Recovery

[221] The Panel accepts the progressive diversion and reinstatement method. Avoiding direct reconstruction of Granite Creek and Little Granite Creek is significant, while the moving mine sequence limits the habitat directly disturbed at one time and allows rehabilitation elsewhere. The Panel recognises, as Mr Horrox does, that the immediate effect on an excavated reach is substantial. The relevant assessment also considers the duration and extent of that effect, the maintenance of connected habitat, and the recovery that follows. Repeated diversions are to be included in the annual work programme and fish-salvage programme; they are not ecologically cost-free.[168]

[222] The Panel prefers Mr Montgomerie's assessment of likely recolonisation to Dr Storey's expectation of a prolonged delay for the affected Site-originating channels. Mr Montgomerie explains why nearby source populations, marine connectivity and staged disturbance provide routes for recovery in this setting, and relates that assessment to his experience of disturbed streams. The Panel accepts his three-to-six-month and one-to-two-year estimates as reasonable ecological predictions for the communities and channels he identifies, not fixed deadlines or evidence of immediate restoration of every function. Establishing riparian vegetation and more mature habitat structures will take longer.[169]

[223] The Panel accepts that maintained creek extent and improved channel and riparian habitat provide a sufficient ecological response without imposing a separate requirement for a 50% SEV gain. Dr Storey's proposed uplift addresses a legitimate concern about temporal loss. However, on the recovery evidence the Panel prefer, together with staged reconstruction and the qualitative improvements secured, the Panel is not persuaded that his numerical uplift is necessary for this proposal. SEV remains a useful monitoring tool, alongside fish, macroinvertebrate, and physical-habitat measures. The Panel's finding is a qualitative ecological judgment, not a calculated biodiversity-offset balance.[170]

Riparian Vegetation and Channel Morphology

[224] The Panel accepts TCM's increased offer of 5 m planted margins on each bank. Mr Montgomerie's evidence establishes a credible, material improvement through shade, overhanging cover, bank stabilisation, stock exclusion, and better habitat connections. The margins operate in combination with improved channel form and in-stream habitat, not as the sole remedial measure. The Panel does not regard 5 m as ecologically equivalent to a 10 m, more self-sustaining corridor. Nevertheless, the Panel is satisfied that the 5 m offer is sufficient for the habitat improvements relied upon here when supported by

[167] Applicant's Reply Attachment I, Montgomerie Reply SOE. Comment DOC Appendix C, Storey, Storey at [24]–[29] and [35]–[37] and [38]–[40] and [41]–[42], [52], [61]–[66], [67]–[68], [75]–[78]. Substantive Application, Attachment C1, conditions 15.1–15.4, conditions 16.5–16.13, condition 24.5, condition 24.5 and 24.6.

[168] Substantive Application, Appendix L4B at [18]–[22], [23]–[26], [27] and [28]. Substantive Application, Appendix M6, sections 5.1–5.2 and Table 1, 5.3–5.4, 5.5, 5.6, 5.7–5.8 and 6.1–6.2. Substantive Application, Appendix M4, sections 2.1–2.4, subsections 2.4.2–2.4.3, 2.5.2, 2.5.2–2.6. WCRC Comment Horrox Appendix 1.

[169] Applicant's Reply Attachment I, Montgomerie Reply SOE. Comment DOC Appendix C, Storey, at [24]–[29], 35]–[37], [38]–[40] and [41]–[42].

[170] Applicant's Reply Attachment I, Montgomerie Reply SOE. Comment DOC Appendix C, Storey, at [24]–[29], [35]–[37], [38]–[40], [41]–[42], [52], [61]–[66], [67]–[68] and [75]–[78]. Attachment C1, conditions 28.1–28.3.

establishment, maintenance and replacement obligations. The Panel therefore does not require a universal 10 m margin.[171]

[225] The Panel accepts the RMP's approach to morphology. Variable channel dimensions, pools, runs, riffles, appropriate substrates, and selected woody debris provide a sound basis for habitat improvement over straightened, sparsely vegetated reaches. Mr Horrox's caution about powerful flows is addressed by integrating ecological design with channel-capacity and stability requirements, rather than assuming that an initially excavated form will remain unchanged. The final design must be appropriate to each reach, including Clarke Creek's low-gradient passage through the wetland, and must preserve fish passage. The accepted survey and as-built checks give practical substance to those requirements.[172]

[226] Effective vegetation establishment is part of our acceptance of the 5 m margins. Conditions 16.5 and 16.11–16.13 provide for vegetation cover, immediate stock fencing, maintenance for the duration of consent and replacement of failed plants. These requirements must be read and drafted consistently with condition 28.2's narrower reference to at least 2 years of maintenance and woody-weed eradication. The Panel relies on the broader maintenance obligations; it does not accept that responsibility for riparian planting ends automatically after 2 years. The final conditions should make the applicable cover standard, weed control and continuing maintenance obligations explicit for riparian planting.[173]

Native Fish Capture, Relocation and Passage

[227] The Panel accepts the NFFCRP as an appropriate and sufficiently developed method for avoiding and minimising fish harm. Its strength lies in combining pre-diversion fishing with further salvage during dewatering and excavation, rather than relying on a single capture method. Its provisions for qualified personnel, exclusion nets, handling, suitable release habitats and repeated salvage when temporary channels are retired address the practical risks of the staged operation. Dr Storey's favourable assessment of the plan is material. Subject to the accepted additions and reconciliation of the works sequence, the Panel prefers Mr Montgomerie's assessment that residual effects on native fish from these operations will be very low.[174]

[228] That finding does not assume complete capture or zero mortality. Initial trapping and electric fishing must precede diversion of flow, with subsequent rescue of remaining fish during dewatering and excavation. The RMP is to be aligned with that sequence. Records must identify species and numbers captured, released and killed, with the results informing the annual review. Release-site suitability and available habitat must be assessed for the actual transfers proposed, including repeated transfers. These requirements give effect to

[171] Substantive Application, RMP sections 5.5, 5.6, 5.7–5.8 and 6.1–6.2. Applicant's Reply Attachment I, Montgomerie Reply SOE. Storey at [24]–[29], [35]–[37], [38]–[40] and [41]–[42]. Comment DOC Appendix C, Storey, Reply at [52], [61]–[66], [67]–[68] and [75]–[78]. Applicant's Reply, Attachment C1, conditions 15.1–15.4, conditions 16.5–16.13, condition 24.5 and 24.6, 28.1–28.3.

[172] Ibid at [3], [4], [11], [12] and [14]. Appendix M6, subsections 5.1–5.2 and Table 1, subsections 5.3–5.4. Sections 5.5, 5.6., 5.7–5.8 and 6.1–6.2. Attachment C1, conditions 28.4–28.11. Attachment C, condition 15.2. Horrox Appendix 1.

[173] Attachment C1, conditions 15.1–15.4, 16.5–16.13 and 24.5 and 24.6. Attachment C1, conditions 28.1–28.3.

[174] Substantive Application Appendix L4B. Appendix M4, sections 2.1–2.4, subsections 2.4.2–2.4.3, 2.5.2, 2.5.2–2.6. Appendix M4, section 2.7 and Table 1, and section 3. Applicant's Reply Attachment I. Comment DOC Appendix C, Storey at [24]–[29], [35]–[37], [38]–[40], [41]–[42], [52], [67]–[68] and [75]–[78]. Attachment C1, conditions 15.1–15.4, conditions 16.5–16.13, condition 24.5 and 24.6.

the substance of the plan and the additions accepted in Mr Montgomerie's reply, rather than replacing his approach.[175]

[229] Fish passage is an essential part of the accepted package. The Panel accepts the requirement in condition 28.2 to maintain it at all times, supported by the RMP's channel and culvert design provisions. The Panel does not require a duplicate condition merely to repeat that obligation. Temporary exclusion nets needed for supervised salvage must be coordinated with functioning diversion routes and promptly managed so that the works do not create an enduring migration barrier. The resource-consent conditions must also address the standard freshwater fisheries activity and any applicable capture and transfer authorisations; this is separate from the bird and lizard wildlife approval.[176]

Monitoring, Response and Relationship with the Water Findings

[230] The Panel accepts Mr Montgomerie's 5-year ecological assessment horizon and his preference for a recovery target rather than an unconditional guarantee that naturally variable biological metrics will attain a particular value on a particular date. This does not defer all monitoring for 5 years: baseline and annual surveys remain necessary. Fish IBI, MCI and ASPM, interpreted against the relevant attribute bands, together with SEV and mapped physical habitat, provide a substantially more informative framework than a simple statement that fish have returned. At least one year of pre-mining baseline data, as accepted in his reply, must be expressly secured.[177]

[231] The 5-year target must nevertheless have an effective response. The final condition 28.3 distinguishes between the ecological target and the enforceable duties to monitor, investigate a shortfall, and implement necessary remedial works. In particular, mere recolonisation is not a sufficient response trigger if the intended ecological recovery has materially failed. The Panel retains the proposed 2-month period for submission of a remedial plan and the implementation period of 6 months after approval or the next appropriate planting season. The final wording must relate those duties to the ecological measures now proposed, while allowing the assessment to identify natural variability and factors outside the consent holder's control. This is a focused clarification of the response mechanism, not adoption of a mandatory 50% uplift or an absolute biological guarantee.[178]

[232] The Panel accepts Mr Montgomerie's ecological assessment based on the hydrological and water-quality findings already made. The Panel retains the requirements for suitable channel-invert relationships to groundwater, surveys and capacity checks, water-level monitoring and response, operational sediment triggers and specified water-quality remedial actions. The Panel does not infer from the absence of dredge dewatering that every indirect risk to an undiverted creek disappears, or rely on future planting to cure an unacceptable contamination or depletion effect. The preceding section assesses residual

[175] Substantive Application, Appendix M4, sections 2.1–2.4, subsections 2.4.2–2.4.3, 2.5.2, 2.5.2–2.6. Appendix M4, section 2.7 and Table 1, and section 3. Applicant's Reply Attachment I, Montgomerie Reply SOE. Comment DOC Appendix C, Storey, at [24]–[29], [35]–[37], [38]–[40], [41]–[42], [52], [67]–[68] and [75]–[78]. Attachment C1, conditions 15.1–15.4, conditions 16.5–16.13, condition 24.5 and 24.6.

[176] Substantive Application, Appendix M4, subsections 2.1–2.4, subsections 2.4.2–2.4.3, 2.5.2, 2.5.2–2.6. Appendix M4, section 2.7 and Table 1, Table 2 and section 3. Attachment C1, conditions 15.1–15.4, conditions 16.5–16.13, condition 24.5, condition 24.5 and 24.6. Attachment C1, conditions 28.4–28.11. Attachment C, condition 15.2. Legal considerations at [4], [35]–[37], [38]–[39], [41]–[43] and [43]–[45].

[177] Applicant's Reply Attachment I, Montgomerie Reply SOE. Applicant's Reply, Attachment C1, conditions 15.1–15.4, conditions 16.5–16.13, condition 24.5 and 24.6. Attachment C1, conditions 28.1–28.3.

[178] Applicant's Reply Attachment I, Montgomerie Reply SOE. Applicant's Reply, Attachment C1, conditions 28.1–28.3, conditions 28.4–28.11. Applicant's Reply, Attachment C, condition 15.2.

water-quality effects as low and acceptable; this section does not reclassify that long-term effect as negligible.[179]

Overall Conclusion on Instream Ecological Effects

[233] Taken together, the evidence and amended package satisfies the Panel that the direct in-stream ecological effects can be appropriately avoided, minimised and remedied. The Panel accepts Mr Montgomerie's very-low residual-effects assessment for managed channel disturbance and fish handling, and his conclusion that the reconstructed channels and riparian margins will provide a positive medium- to long-term habitat outcome. The Panel recognises the substantial temporary effect on the particular reaches being worked, the possibility of some fish mortality and the interval before full recovery. Those matters do not undermine the overall acceptance of the staged, actively managed proposal for the reasons given above.[180]

[234] The Panel accordingly accepts the substance of TCM's legal submission that the freshwater ecological response does not require an additional, separate compensatory package, subject to delivery of the conditions and focused drafting refinements identified above. The rehabilitation benefits are recognised in the positive effects section and are not counted again as wholly additional benefits without accounting for habitat disturbed or replaced. These conclusions support approval on the in-stream ecology ground. They inform, but do not replace, the separate assessment of the applicable freshwater and coastal policy provisions, the standard freshwater fisheries activity, and the overall FTAA decision.[181]

Effects on Wetlands

Existing Environment

[235] The Southern Block contains wetlands within a landscape substantially modified by historic mining, drainage and dairy farming. The Ecological Effects Assessment (EEA) maps approximately 42.12 ha of wetland habitats across the Southern Block, of which 35.76 ha are within the MDA. These figures describe the ecological resource; without further analysis, they are not figures for natural inland wetlands under the freshwater instruments. The EEA distinguishes floodplain, palustrine and coastal-lagoon wetlands from wetlands which have developed in association with deliberately constructed drainage features and historic dredge pits.[182]

[179] Comment DOC Appendix C, Storey, at [24]–[29], [35]–[37], [38]–[40] and [41]–[42]. 26a WCRC Comment. Horrox Appendix 1. Applicant's legal Reply dated 5 October 2026 at [55]–[56], [56]–[60], [60]–[64] and [65].

[180] Ibid at [1]–[12] and [14]. Substantive Application Appendix L4B at [7]–[10], [11]–[17]. Appendix L4B at [18]–[22], [23]–[26], [27] and [28]. Appendix M6, subsections 5.1–5.2 and Table 1, subsections 5.3–5.4. Sections 5.5, 5.6., 5.7–5.8 and 6.1–6.2. Appendix M4, subsections 2.1–2.4, subsections 2.4.2–2.4.3, 2.5.2, 2.5.2–2.6. Appendix M4, section 2.7 and Table 1, Table 2 and section 3. Applicant's Reply Attachment C1, conditions 15.1–15.4, conditions 16.5–16.13, condition 24.5, condition 24.5 and 24.6. Applicant's Reply Attachment I. Comment DOC Appendix C, Storey at [24]–[29], [35]–[37], [38]–[40] and [41]–[42], [52], [61]–[66], [67]–[68] and [75]–[78]. Applicant's Reply Attachment C1, conditions 15.1–15.4, conditions 16.5–16.13, condition 24.5 and 24.6, conditions 28.1–28.3, 28.4–28.11. Attachment C, condition 15.2.

[181] Substantive Application, Legal considerations at [4], [35]–[37], [38]–[39], [41]–[43] and [43]–[45]. Applicant's Reply dated 5 October 2026 at [55]–[56], [56]–[60], [60]–[64] and [65].

[182] Substantive Application, EEA, section 5.1 and Table 11 at pages 35–36.

[236] The mapped areas are:[183]

Wetland category	Southern Block (ha)	Mining area (ha)	Dr Bramley's classification
Floodplain	3.72	3.04	Natural inland wetland
Palustrine	4.04	3.69	Natural inland wetland
Coastal lagoon	0.41	0.00	Natural inland wetland
Natural inland wetland subtotal	**8.17**	**6.73**	
Hump-and-hollow	22.87	18.39	Excluded: associated with deliberately constructed water bodies
Dredge-pit	11.08	10.64	Excluded: associated with deliberately constructed water bodies
Other wetland habitat subtotal	**33.95**	**29.03**	
All mapped wetland habitats	**42.12**	**35.76**	

[237] A key dispute is whether the latter two categories also qualify as natural inland wetlands under freshwater planning instruments.[184] Mr Payne's approximately 35.8-ha figure is a different classification of the mapped resource, not an additional area beyond the 35.76 ha identified in the EEA.[185]

[238] The habitats differ materially in character and value.[186] Hump-and-hollow wetlands are generally small, shallow and fragmented features in grazed pasture.[187] The dredge-pit wetlands include more developed indigenous vegetation and open water. Some have been fenced. The latter therefore have ecological value worth recognising even though, under Dr Bramley's classification, they are not natural inland wetlands. Neither historic modification nor exclusion from that regulatory definition establishes an absence of ecological value. Indeed, because the TCM's thesis is that a remedial artificial wetland will have ecological value, it would be perverse to treat existing non-natural inland wetlands as having less ecological value than they actually do because they are not natural. Albeit they may not receive the same regulatory protection. Dr Bramley agrees and has adopted that method throughout.[188]

What is Proposed

[239] Mining will progressively remove the wetlands within the mine path. The proposed response is a larger and more connected wetland and associated habitat complex along the eastern part of the mining area, integrated with rehabilitated watercourses and planted margins. The coastal lagoon lies outside the mining footprint. The 16 ha concurrent disturbance limit controls the area exposed at one time, not the cumulative area of wetland loss over the mine's life.[189]

[183] Substantive Application, Appendix-L4-Ecological-Effects-Assessment, TA Appendix-L4-Ecological-Effects-Assessment Table 11
[184] National Policy Statement for Freshwater Management 2020 (NPS-FM) and the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (NES-F).
[185] 28d. DOC Appendix D - Barrytown expert comments - Mr Payne at [14]-[15] and [33].
[186] For summary following Roper Lyndsay et al 2018, see Substantive Application, Appendix-L4-Ecological-Effects-Assessment, TA Appendix-L4-Ecological-Effects-Assessment Table 24.
[187] Substantive Application, Appendix-L4-Ecological-Effects-Assessment, TA Appendix-L4-Ecological-Effects-Assessment Figure 22.
[188] Applicant's Reply, Bramley Reply SOE at [102].
[189] Substantive Application EEA, section 9.3 at pages 87–88; Applicant Reply condition 7.3 and advice note.

[240] Dr Bramley describes a 53.1 ha complex comprising 14.3 ha of raupō, 5.9 ha of Carex rushland, 5.3 ha of shallow marsh, 2.8 ha of mid-depth open water, 4.8 ha of deep open water, 16.8 ha of flaxland and dry-edge vegetation, and 3.2 ha of raised islands.[190] These components have complementary functions. The whole complex is relevant to the ecological benefit, although not every component is itself a qualifying wetland. In particular, dry margins and raised islands should not be counted as natural inland wetland merely because they form part of the rehabilitation design.[191] Despite that, and as seen in the Panel's discussion on positive effects, there are potential synergistic ecological benefits from a larger, more complex wetland system.

[241] Construction is staged, beginning in the northern area in Years 1–2, with further construction south of Granite Creek in Years 10–11. Mr Federici explains that widening the early mine paths enables mining and progressive rehabilitation of most of the approximately 25 ha northern complex footprint during the first 2 years, potentially through 11 subsequently linked cells. This provides a practical basis for early establishment. It does not mean that all northern habitat will be ecologically mature by Year 2.[192]

[242] The design provides permanent and seasonal water, saturated margins, variable depths, eco-sourced planting, stock exclusion, maintenance and predator control. Mature flax and raupō are to be transferred where practicable immediately before mining reaches them. Clarke Creek is integrated with the northern wetland. Granite Creek's existing main stem is retained; the RMP describes it as remaining somewhat hydrologically separate from adjoining wetland through its banks and bed gradient. The proposal should not be described as diverting Granite Creek wholesale through a new pond.[193]

Assessment in the Application

[243] The EEA assesses all mapped wetland habitats, not only those classified as natural inland wetlands. It recognises substantial effects from removal before management, but anticipates very low short-term managed effects and a positive longer-term outcome through progressive rehabilitation, increased habitat diversity and connectivity, stock exclusion and improved vegetation. It allows approximately 5 years for wetland cover and basic ecological function to develop. The original valuations are to be read with Dr Bramley's corrections in reply: low overall value for hump-and-hollow wetlands and moderate overall value for dredge-pit wetlands.[194]

[244] The Applicant characterises the wetland construction as on-site remediation integrated with the mine sequence. Avoidance measures protect features outside that sequence, including retained watercourses, significant natural areas and the coastal margin. Wetlands actually intersected by mining will be removed and their habitat values addressed through progressive rehabilitation rather than retention in their existing locations.

[190] Substantive Application, Appendix-L4-Ecological-Effects-Assessment, TA Appendix-L4-Ecological-Effects-Assessment Table 11, Figure 49 -50.
[191] Applicant's Reply, Bramley Reply SOE at [107]–[111].
[192] RMP at page 7; Applicant's Reply, Federici Reply SOE at [12] and [15] and Attachment A.
[193] Substantive Application, EEA, Table 24 and section 9.3; Applicant's Reply, Bramley Reply SOE at [93]–[94], [102]. RMP at page 21 and sections 7.3–7.6, pages 25–28; and Applicant's Reply conditions 16.5–16.15.
[194] Substantive Application EEA section 9.5; Applicant's Reply, Bramley Reply SOE Bramley Reply at [103]–[106].

Comments Received

[245] Mr Payne, advising for DOC, considers all five mapped categories to be natural inland wetlands. He relies on the historic swamp landscape and poorly drained soils, and regards the dredge and drainage features as highly modified or induced natural wetlands. At [14] he refers to wetlands intentionally created and maintained as such. At [15] he also expressly disputes that historic dredge pits are deliberately constructed water bodies. His position therefore involves both the applicable exclusion and the factual characterisation of the features. He also raises possible wetland effects within the additional approximately 72 ha of recontouring and rehabilitation earthworks.[195]

[246] Mr Payne considers that indigenous vegetation and potential habitat for cryptic fauna have been undervalued. He identifies potential habitat for bittern, marsh crake and brown mudfish, seeks targeted surveys or a precautionary valuation, and calls for assessment against the Regional Policy Statement's wetland significance criteria. His concerns about fauna and significance are distinct from whether a habitat falls within the natural-inland-wetland definition.[196]

[247] Mr Payne identifies 28.3 ha of clearly specified replacement wetland habitat, excluding the undivided flaxland/dry-edge component, deep water and islands from that calculation. Comparing this with his 35.8 ha of natural inland wetland loss, he questions whether the proposal achieves no net loss. He regards the scheme as compensation, seeks a Biodiversity Offset Accounting Model or equivalent assessment, and raises concerns about timing, temporary protection and financial security. His area comparison depends materially on his disputed classification of the existing resource.[197]

[248] Professor McGlynn emphasises the hydrology and soils underlying the Flats and questions whether mining and rehabilitation can reconstruct their functions. He advocates more extensive wetland restoration, progressive protection and adequate bonds. His report is an overview rather than a detailed replication of the Applicant's hydrological modelling. It identifies relevant functional considerations but does not provide a replacement, site-specific delineation showing that all mapped dredge-pit and hump-and-hollow habitats meet the statutory definition.[198]

[249] Mr Horrox, the Regional Council's Principal Scientist, considers the proposed habitat mix sufficiently diverse and a probable improvement on existing habitat. He favours a more diverse range of habitats rather than necessarily reproducing the old typologies, and stresses measurable milestones and benchmarks. He also identifies uncertainty about stream depletion over reworked ground. The New Zealand Conservation Authority and residents raise concerns about the interval between loss of existing habitat and establishment of replacement habitat. [199]

Applicant's Response

[250] Dr Bramley distinguishes, for calculating the wetland baseline, a deliberately constructed wetland from a wetland which has developed in or around a deliberately constructed water body since that water body was constructed. He relies principally on the latter as an exclusion in the definition of a natural inland wetland. The dredge ponds were deliberately

[195] Payne at [12]–[15], [21], [32]–[34].
[196] Payne at [16]–[23], [35]–[37].
[197] Ibid, Payne at [24]–[30], [38]–[45].
[198] Prof. McGlynn at [15], [18]–[29], [36]–[56].
[199] WCRC Comment Horrox, answers 5–8; NZCA at pages 4–6; van Rooyen; Ward.

excavated and kept flooded so the dredge could float; the hollows and drains were deliberately formed to drain farmland. His evidence is that the present habitats developed subsequently in association with those features. He accepts the historic wetland landscape but considers that the original wetlands were lost, rather than treating all present wetland vegetation as a surviving expression of them. He also confirms that historic aerial photographs informed the assessment, not merely the choice of survey locations.[200]

[251] Dr Bramley expressly accepts that classification does not determine ecological value. His assessment and rehabilitation proposal address all wetlands in the mining footprint. He corrects the hump-and-hollow valuation to low and the dredge-pit valuation to moderate; the latter, combined with a very-high magnitude of removal, produces a high pre-remediation effect. He does not accept Mr Payne's proposed high or very-high overall wetland valuations based on potential fauna habitat. He relies on separate species assessment and continuing surveys, including additional cameras at suitable wetland locations.[201]

[252] On extent, Dr Bramley compares even Mr Payne's 28.3 ha measure of replacement wetland with the 6.73 ha of existing natural inland wetland affected: approximately four times the area. Wetland flaxland on saturated or seasonally inundated margins adds to that component. On quality, he emphasises stock exclusion, indigenous buffering, varied depths and habitats, and connectivity. He considers the positive outcome sufficiently clear not to require a formal offset accounting model. He offers to specify a minimum wetland-flaxland area to ensure no loss of total wetland extent, as an alternative if Mr Payne's classification is accepted.[202]

[253] On timing, Dr Bramley relies on northern construction beginning before removal of the better southern habitats in Years 8–11, providing at least 5 years for early replacement habitat to develop. He opposes a universal requirement to retain existing habitat until an equivalent area of replacement wetland is functioning. TCM nevertheless accepts some temporary protection. Reply condition 7.6 remains qualified by "as far as practicable" and refers to construction rather than equivalent ecological functioning. Those formulations should not be treated as identical.[203]

[254] Mr Rekker supports the hydrological feasibility of rehabilitation. The floating dredge does not require dewatering and the water circuit is approximately neutral. His site-specific investigations support his opinion that reworking the deposits will not materially alter groundwater levels or gradients. He also supports coordinated ecological and hydraulic design and surveys.[204]

Panel Findings

Delineation, Classification and the Effects Baseline

[255] The Panel prefers Dr Bramley's delineation and classification of natural inland wetlands, as they more appropriately respond to the NPSFM definition and its exclusions. We accept his evidence that the mapped dredge-pit and hump-and-hollow wetlands developed in or around deliberately constructed water bodies after their construction. The relevant exclusion is not confined to a wetland intentionally created as a wetland. A water body

[200] Bramley Reply at [80]–[88].
[201] Bramley Reply at [89]–[102].
[202] Bramley Reply at [107]–[112].
[203] Bramley Reply at [62]–[64], [79(f)]; Attachment C, condition 7.6 response; Reply condition 7.6.
[204] Rekker Reply at [7]–[14], [27]–[42].

deliberately excavated and kept flooded to enable dredging does not cease to be deliberately constructed because its purpose was mining rather than wetland creation. Similarly, the evidence for these drainage features indicates that the present wetland habitats developed in association with constructed hollows and drains. We do not accept that the historic presence of swamp is sufficient to displace that evidence or establish continuity of the original wetlands. We therefore do not adopt Mr Payne's classification of all 35.76 ha as natural inland wetland.[205]

[256] On that basis, the mining footprint contains approximately 6.73 ha of natural inland wetlands (acknowledging there are potentially modest-sized uncertainties here since the definitions do not create easy exclusionary categories to apply, being partly based on historical records), comprising floodplain and palustrine wetlands, and 29.03 ha of other mapped wetland habitats associated with dredge pits and hump-and-hollow drainage. The latter are not brought within the natural-inland-wetland protections of the NPS-FM and NES-F merely because they support wetland vegetation. This finding does not exempt activities from other applicable freshwater, biodiversity, regional-plan or wildlife requirements. Nor is it a finding that drained or modified wetlands generally cease to be natural inland wetlands. Our conclusion rests on the particular origin and subsequent development of the mapped features described by Dr Bramley.[206] Only the natural inland wetlands require an effects hierarchy approach under freshwater planning instruments.

[257] We nevertheless assess effects on the full 35.76 ha of mapped habitat, consistently with Dr Bramley's approach. We accept his revised low and moderate habitat valuations rather than treating the whole resource as high or very high solely because threatened or at-risk fauna could occur. Species-specific survey and management requirements remain important, and regional-policy significance is a separate question from an EIANZ value rating. The effects inventory must also account for any wetlands affected by ancillary earthworks, access, bunds or borrow areas beyond the mine path.[207]

Removal, Rehabilitation and Benefits

[258] Removal destroys the habitat at the location mined. We recognise the very-high magnitude of that direct effect and the high pre-remediation effect on the moderate-value dredge-pit wetlands. However, that does not mean 35.76 ha of protected natural inland wetland will be lost, nor does it describe the managed outcome for the project as a whole. The latter requires consideration of progressive rehabilitation, the different existing habitat values, the sequence of loss and replacement, and the quality of the resulting habitat.[208]

[259] The Panel accepts Dr Bramley's evidence that the proposed rehabilitation will produce a longer-term ecological improvement. The relevant comparison is with the existing modified, fragmented and generally low- or moderate-value habitats, not with an assumed intact historic swamp. A larger, buffered, stock-excluded complex, with varied water depths, indigenous vegetation, and improved connectivity, offers materially better habitat opportunities. Mr Horrox's preference for a more diverse habitat mix supports that conclusion. Rehabilitation should not be judged deficient simply because it does not reproduce the same pattern of small drainage-associated wetlands.[209]

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[205] Bramley Reply at [81]–[88], [100]–[102]; contrasting Payne, [12]–[15].
[206] EEA, Table 11; Bramley Reply at [85]–[89], [101]–[102].
[207] Bramley Reply at [93]–[102]; Payne, [16]–[23], [32].
[208] Bramley Reply at [94], [102], [115]–[117].
[209] Bramley Reply at [111]–[112]; Horrox, answers 6–8.

[260] The Panel distinguishes two comparisons. First, against the 6.73 ha of existing natural inland wetland affected, even the 28.3 ha of replacement wetland habitat identified by Mr Payne represents a substantial increase in wetland habitat extent - approximately fourfold - before allowing for qualifying wetland flaxland. This supports Dr Bramley's conclusion that the response is not marginal in relation to natural inland wetland loss. Second, assessing the whole affected ecological resource must also recognise the 29.03 ha of other wetland habitat and the functions it currently provides. That broader comparison is qualitative as well as quantitative. We reject the premise that all 35.76 ha must be treated as protected natural inland wetland, but do not disregard their habitat values. The 53.1 ha complex is relevant as an integrated ecological outcome; it is not an eightfold increase in qualifying wetland area simply because its total footprint is about eight times 6.73 ha.[210]

[261] The Panel accepts the proposed scheme as integrated on-site rehabilitation, with benefits beyond replacing affected values. For this effects assessment, the Panel prefers that description to treating the entire scheme as a separate compensatory benefit. Its location, sequencing and direct restoration of habitat functions are material; location alone is not decisive. We do not regard a BOAM or hectare-for-hectare replication of every modified habitat as necessary to accept Dr Bramley's qualitative conclusion. A clear habitat schedule remains appropriate to identify what is to be delivered, including wetland flaxland separately from dry-edge planting. The statutory assessment must apply the relevant effects-management provisions to the correct categories and address any residual effects. The ecological improvement should be recognised once in the overall balance, without counting the full rehabilitation package again as an unrelated benefit.[211]

Timing and Temporary Protection

[262] The Panel accepts the northern-first sequence as a substantive response to temporal loss. Mr Federici explains the practicability of early construction and Dr Bramley explains the opportunity for replacement habitat to establish before the better southern habitats are removed. We do not accept a blanket requirement to retain every existing wetland until an identical area of replacement habitat is fully mature. That would overlook the habitat differences and the integrated staging. Acceptance of the proposal does depend on delivering the early construction and planting sequence relied upon in the evidence.[212]

[263] Construction, planting and ecological establishment are different milestones. The conditions should secure the early northern works and provide measurable checks on water conditions, planting establishment and habitat development before reliance is placed on those habitats in the later mine sequence. Failure to achieve required outcomes should attract defined corrective action. Any additional restriction on later clearance must be settled by the Panel in the conditions, justified by the ecological functions at risk, and not imposed simply by treating all modified wetlands as protected natural inland wetlands.[213]

[264] Temporary protection should identify the relevant areas, the disturbance excluded and the event ending protection, so that habitats are not cleared or drained prematurely. DOC did not agree with its proposed schedule, and it accepted condition 7.6 only in part. Direct vegetation transfer should occur immediately before otherwise authorised disturbance, not permit early harvesting of retained habitat. These refinements support the accepted

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[210] Bramley Reply at [101]–[102], [107]–[112]; Payne, [25]–[27].
[211] Bramley Reply at [103]–[112]; Applicant's legal Reply, [46]–[54].
[212] Applicant's Reply, Federici Reply SOE, [12], [15] and Attachment A; Bramley Reply, [62]–[64].
[213] Horrox, answer 8; EEA, section 9.3. *This paragraph identifies proposed delivery safeguards, not additional commitments already accepted by TCM.*

sequence without imposing permanent retention of all wetlands in the mine path.[214]

Hydrology, Establishment and Continuing Management

[265] Mr Rekker's site-specific evidence supports the hydrological feasibility of the rehabilitation. The Panel gives that evidence greater weight on the effects of this mining method than general comparisons with different mining disturbances. Nevertheless, the design must integrate ecological requirements with water levels, substrates, water quality and the reconstructed watercourses. The absence of dewatering alone does not establish that every habitat cell will function as intended. The retained main stem of Granite Creek and its relationship with adjoining wetland require accurate treatment in the final design.[215]

[266] Conditions 16.5–16.15 provide for planting, locally sourced species, stock exclusion, maintenance, replacement planting, vegetation transfer and predator control. Performance measures should distinguish the intended habitat zones: an 80% vegetation-cover requirement is not a requirement to vegetate open-water habitat. Monitoring should establish whether the promised habitat areas, vegetation and water conditions are achieved, with reporting and corrective action proportionate to the outcomes relied upon.[216]

[267] Dr Bramley considers that the constructed wetland will itself receive protection under the freshwater instruments because it is established to address effects and restore wetland. That reinforces the distinction between the existing excluded drainage-associated habitats and the intended rehabilitation outcome. Protection against later destruction is also distinct from positive maintenance obligations. The consent and closure arrangements must secure the intended outcome, including maintenance responsibility, without assuming those obligations arise automatically under national direction.[217]

Bond

[268] The reply conditions replace the earlier fixed $300,000 provision with an independent assessment before disturbance. The Panel therefore does not assess the proposal as retaining that fixed cap. Final wording should connect the independently assessed outstanding rehabilitation liability with security actually lodged and maintained, provide for review as works advance, and identify release criteria.[218]

[269] Security should reflect the cost of delivering outstanding commitments, including wetland earthworks, hydrological establishment, planting, maintenance and necessary corrective work. We do not adopt a sum calculated on the premise that all 35.76 ha are natural inland wetlands. Similarly, accepting 6.73 ha as natural-inland-wetland loss does not reduce the secured liability to rehabilitate only that area; the Applicant relies on delivering the wider scheme and so does the Panel. An independently assessed, stage-responsive liability is more appropriate than either classification-based shortcut.[219]

Overall Conclusion on Wetland Effects

[270] The Panel prefers Dr Bramley's evidence that approximately 6.73 ha of natural inland wetlands are affected, rather than Mr Payne's 35.8 ha. We also accept his evidence that the rehabilitation addresses all mapped wetland habitats and will provide a substantial longer-

[214] DOC comments, [9.1]–[9.4] and Figure 1; Applicant's Reply, Attachment C, conditions 7.6 and 16.14 responses.
[215] Applicant's Reply, Rekker Reply SOE at [27]–[42]; CRRG comment, McGlynn at [36]–[50]; RMP, sections 7.3–7.5.
[216] Reply conditions, 16.5–16.15; RMP, sections 7.3–7.6.
[217] Applicant's Reply, Bramley Reply at [79(g)], [110].
[218] Applicant's Reply, Reply conditions, 4.1–4.12 - tracked changes; Payne's earlier comments, [29]–[30], [41], [44].
[219] Applicant's Reply, Reply conditions, 4.1–4.12 - tracked changes; Payne's earlier comments, [29]–[30], [41], [44].

term improvement in habitat quality, diversity and connectivity. The substantial proposed wetland component relative to the natural inland wetland loss is a material benefit and should not be obscured by treating all historic dredge-pit and drainage-associated habitats as protected natural inland wetlands. At the same time, our assessment recognises their actual ecological values and the interim effects of removing them.[220] We consider that the wetland arrangement Dr Bramley envisages will be particularly important for supporting avifauna, which is highly diverse and significant in this locality.

[271] Subject to securing the rehabilitation and staging commitments in the final conditions, and resolving the extent of any ancillary wetland disturbance, the Panel considers the wetland effects capable of being appropriately managed and the rehabilitation response acceptable on ecological grounds. The evidence supports the positive longer-term outcome, not merely subtracting unlike area totals. This conclusion informs the separate statutory assessment and overall FTAA balance.

Effects on Avifauna

What is Proposed

[272] Mining would affect avifauna through vegetation clearance; temporary habitat removal and reconstruction; disturbance; the creation of bare ground attractive to nesting birds; vehicle movements; and occasional use of artificial light. The management response combines daylight-only mining, a moving disturbance footprint limited to 16 ha at any one time, advance surveys, nesting deterrence, protection of nests where practicable, specific measures for kororā and tāiko, and progressive rehabilitation. The footprint limit controls the area disturbed concurrently; it is not the total area affected over the life of the proposal.[221]

[273] Conditions 11.1–11.2 restrict mining and associated stripping and bund development to daylight hours. Dr Bramley confirms that no fixed lighting or floodlighting is proposed for the mining activities under this Application. Night-time lighting would be limited to portable task lighting and vehicle headlights for unforeseen breakdowns or emergency repairs. The WCP and loadout have separate consents. Distinguishing those facilities from the Southern Block mining activity is important when identifying the effects and controls attributable to this Application.[222]

[274] The amended Avian Management Plan (AMP) provides for seasonal surveys, fortnightly pre-breeding detection surveys, weekly detection surveys during the breeding season, and at least twice-weekly monitoring of identified nests managed under the plan. Deterrence is focused on the area scheduled for mining in the forthcoming breeding season. Methods include grazing, mowing, disruptive walkovers, visual and acoustic devices, and machinery placement. These methods are to be varied or combined to reduce habituation. Where a nest can remain without impeding the dredge, an approximately 20 m exclusion zone and monitoring are provided. Where it cannot, the amended AMP expressly recognises that the nest may be lost as mining proceeds; the wildlife approval application accordingly seeks authorisation for incidental killing.[223]

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[220] Applicant's Reply, Bramley Reply SOE at [100]–[112], [115]–[117].
[221] Substantive Application, Appendix-L4-Ecological-Effects-Assessment, Table 11 Appendix L4, sections 9.2.2. Attachment C1, conditions 11.1–11.2. Applicant's Reply, Bramley SOE Reply at [39]–[42].
[222] Attachment C1, conditions 11.1–11.2. Bramley SOE Reply at [50]–[56] and [57]–[61].
[223] Applicant's Reply, Bramley Reply at [39]–[42] and [43]–[46]. Attachment D1, Schedules 1 and 3.

[275] For kororā, the amended conditions require at least two annual surveys before mining and annual surveys thereafter. A certified conservation dog is to be used where available; otherwise, human surveys and increased camera monitoring are required, on the advice of a suitably qualified ecologist. Detection within 500 m of the active disturbance area triggers exclusion fencing. Accessways are to be maintained, affected burrows replaced at a two-for-one ratio, and a Penguin Management Plan developed if penguins are found within the application site. The AMP separately protects confirmed nesting burrows until fledging and prohibits handling or relocating nesting adults, chicks or eggs during active nesting.

[276] For tāiko, the amended package includes precautionary ground searches, searches on nights when artificial lighting is used, staff training, prompt recovery and referral to DOC, incident reporting, and a lighting audit within 20 working days of a grounding. The AMP also provides for immediate investigation and, where possible, the modification or elimination of an identified cause. Its repeated-grounding provision suspends external night lighting at the dredge pond after a second bird is found within 50 m of the pond within four weeks of the first finding, following implementation of management amendments. These are additional safeguards to the primary avoidance measure of daylight mining.

Assessment in the Application

[277] The ecological assessment identifies a predominantly modified farming environment, with smaller areas of shrubland, flaxland and wetland habitat. The survey and desktop information identifies native and protected birds using, or potentially using, the Site and its surrounds. The Application recognises the potential for ground-nesting birds to use exposed areas, kororā to cross the Site, and tāiko to be affected by artificial light. It assesses the effects of terrestrial vegetation clearance on birds as low, with the overall managed lighting and other effects low or very low. These conclusions depend on implementing the AMP and rehabilitation measures.[224]

[278] Dr Bramley's assessment distinguishes the species' conservation importance from the suitability of the particular habitats for disturbance. His reply describes seasonal surveys across three parts of the Barrytown Flats, including 5-minute bird counts and acoustic monitoring. He considers the Southern Block's wetland habitats substantially less suitable for bittern and marsh crake than the better habitats farther north. Although occasional visits are possible, he does not consider the Southern Block to provide breeding habitat for those species. In his assessment, the principal effects on such visitors would be disturbance, resettlement and temporary habitat removal, rather than injury or mortality.

[279] The rehabilitation proposal is an integral part of that assessment. Construction of northern wetland habitat would begin in Years 1–2, before mining removes the better southern wetland habitats in Years 8–11. Dr Bramley considers this provides at least 5 years for the early wetland areas to develop. He expects the eventual contiguous wetland complex, stock exclusion, indigenous planting, varied water depths and improved connections with watercourses to provide substantially better habitat than the fragmented grazed wetlands being replaced. He assesses negligible short-term terrestrial ecological impacts and positive medium- to long-term outcomes. That overall description is broader than his specific assessment of low population effects from possible nest loss.[225]

Comments Received

[224] Substantive Application, Appendix L4, subsection 9.2.2. DOC Appendix B.
[225] Bramley Reply at [43]–[46], [47]–[49], [62]–[64], [111]–[112] and [115]–[118].

[280] Dr Elizabeth Parlato, advising DOC, considers that the Application understates the range of protected birds potentially affected and the importance of intermittently used habitats. She explains that absence from surveys does not demonstrate absence of cryptic wetland birds. She supports additional wetland cameras and recommends targeted kiwi surveys. She also questions the absence of estimates of the numbers of birds affected. Her central concern is that deterrence may fail and that nests in the mining path would then lack protection. She recommends more frequent breeding-season walkovers and protection of all protected-bird nests discovered within the area to be disturbed.[226]

[281] Dr Parlato nevertheless supports several components of the package. She considers seasonal surveying valuable, most proposed penguin survey methods suitable, the fencing specifications appropriate, and lighting controls for kororā acceptable in combination with fencing. She seeks mandatory use of certified penguin-detection dogs, improved fencing sequencing and duration, and DOC participation in management-plan development and review. For tāiko she recommends searches on every night artificial light is used, an audit within 20 working days, and cessation of externally visible lighting activities if more than one grounding occurs within three months.[227]

[282] Dr Micol, for Forest & Bird, emphasises the ecological connections across the Flats and the vulnerability of tāiko's single global breeding population. She considers that additional mortality or changes affecting breeding success could have significant population consequences when combined with existing threats. She would prefer to cease mining after a single petrel interaction in a calendar year, cumulatively across mining operations on the Flats. She also disputes assumptions about alternative habitat, the effectiveness of deterrence and the adequacy of fixed nest buffers, and seeks stronger monitoring and protection.[228]

[283] The conservation trusts and community comments raise related concerns about penguin protection, the scope of lighting controls, timely detection and recovery of grounded birds, and the adequacy of responses after the first event. The Westland Petrel Conservation Trust opposes reliance on a narrowly defined grounding area. Mr Geddis's lighting report explains why ordinary lighting compliance, low spill or light colour alone does not establish an absence of ecological effects. These comments identify both preventive design matters and the need for an effective operational response.[229]

[284] The timing of habitat replacement is also disputed. Dr Parlato seeks retention of existing wetlands until equivalent constructed wetland area is functioning. However, she recognises that the proposed remediation is likely to provide suitable and improved-quality habitat for avifauna after completion. The disagreement therefore concerns not only the eventual outcome but also the duration and significance of any interim loss of habitat function.[230]

Applicant Response to Comments

[285] TCM has responded through Dr Bramley's reply, amended resource consent and wildlife approval conditions, and a revised AMP. The changes include management for pipit, cameras directed at suitable wetland habitat for bittern and marsh crake, searches

[226] Comment DOC Appendix B.
[227] Comment DOC Appendix B. Parlato at [15]–[21], [24]–[28], [29]–[32]; [33]–[35],[36]–p42] and [59]–[62].
[228] Comment 33b. Forest and Bird Avifauna Expert evidence of Dr Micol at [17]–[24], [25]–[31], [55]–[58] and [59]–[67].
[229] Comment 01. Trust West Coast Penguin Trust, sections 2–3; Westland Petrel Conservation Trust including [66]–[74]. Geddis lighting report for CRRG, sections 7–9.
[230] Comment DOC Appendix B, Parlato at [43]–[48]; [49]–[5]3; paragraphs 53–58, including improved completed habitat.

whenever artificial lighting is used, a specified audit timeframe following live as well as fatal groundings, improved bird-handling procedures, express protection of nesting kororā, revised Cargill Road fencing sequencing, earlier commencement of weekly wildlife reporting, and DOC consultation on management plans. These are substantive improvements to the offer, rather than reliance on the Application as originally lodged.[231]

[286] Dr Bramley accepts that mobile birds recorded elsewhere on the Flats may visit suitable habitat in the Southern Block. He supports continuing seasonal surveys and developing species-specific measures with DOC where additional species requiring management are detected. He does not accept that a fixed estimate of affected mobile-bird numbers would be reliable, given variation in habitat use and the possibility that mining itself will attract birds to newly exposed ground. He considers the survey record, habitat assessment and continuing monitoring a more useful foundation for management.[232]

[287] On nesting, Dr Bramley acknowledges that deterrence is not completely effective. His evidence is that a combination of habitat management and varied deterrents offers the best prospect of encouraging birds to settle outside hazardous areas before eggs are laid. He considers fortnightly pre-breeding surveys, weekly breeding detection surveys and twice-weekly nest monitoring sufficient. He supports the approximately 20 m buffer for the disturbance-tolerant species likely to nest in this working-farm setting. He does not support universal protection of every nest where that would impede the dredge.[233]

[288] Dr Bramley expressly addresses the residual mortality risk not articulated in the original EEA. He considers an active nest in the mining path unlikely because of advance identification of the seasonal mining area, concentrated deterrence and the limited concurrent footprint. He identifies the species most likely to nest in pasture or disturbed ground as At Risk rather than Threatened. Loss of a clutch would affect one breeding attempt by a pair, and those species commonly re-lay following an early-season loss. He assesses the population-level effect as low. The amended AMP requires the project ornithologist to record the species, location, nest contents and breeding stage before works proceed at such a nest, with reporting and review of deterrence.[234]

[289] On tāiko, Dr Bramley distinguishes brief portable task lighting and dipped headlights from fixed elevated lighting associated with documented groundings. He considers a detailed fixed-lighting design unnecessary where no installation is proposed. He supports increased ground searching, consultation with DOC on lighting audits and application of the audit deadline to live groundings. He does not support a shutdown trigger extending across separately consented operations irrespective of the source of the interaction. TCM's separate commitment to a WCP lighting report is acknowledged, but the report is not treated as a completed assessment within this Application.[235]

[290] Dr Bramley relies on northern-first wetland construction and the development interval before southern habitat removal. TCM has also accepted temporary protection of identified wetlands under condition 7.6. He does not consider a general requirement to maintain all

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[231] Applicant's Reply, Attachment C1, conditions 13.1–13.3 and 13.6. Bramley Reply at [17]-[34], [35]–[38] and [39]-[42]. Amended AMP, subsections 3.2–3.3. Amended AMP, sections 4.5.1–4.5.2, and section 4.5.3. Amended AMP, section 5.2, subsections 5.3.1 and 5.3.2. Amended AMP, section 3.4. Attachment D1, Schedules 1 and 3. Bramley Reply at [65]–[67], [68]–[72], [73], [77]-[79].

[232] Bramley Reply at [17]-[34] and [35]–[38].

[233] Bramley Reply at [39]–[42]. Amended AMP, subsections 3.2–3.3. Bramley Reply at [43]–[46] and [47]–[49].

[234] Applicant's Reply Bramley Reply at [43]–[46] and [47]–[49]. Amended AMP, section 3.4. Attachment D1, Schedules 1 and 3.

[235] Bramley Reply at [50]–[56] and [57]–[61]. Amended AMP, section 5.2, subsections 5.3.1 and 5.3.2.

existing wetland extent throughout mining necessary or practicable. On noise, he relies on the moving footprint, the attenuation of dredge noise relative to ambient surf noise, and daylight operation. He assesses effects on birds using adjacent habitats as no more than minor.[236]

Panel Findings

Overall Approach and Sufficiency of Information

[291] The Panel accepts Dr Bramley's assessment as the more persuasive basis for determining the effects of the Southern Block proposal, read together with TCM's amended conditions and AMP. His reply addresses the principal criticisms through reference to the habitats actually affected, the species likely to use them, the spatial and temporal limits of the works, and the management measures now offered. The Panel recognises the conservation importance of the wider Barrytown Flats. However, that importance does not establish that every part of the mining footprint provides equivalent habitat or that the risks of this daylight mining activity are equivalent to those of continuously illuminated processing infrastructure. The Panel's preference is based on those project-specific distinctions, not on a conclusion that modified land has no wildlife value.[237]

[292] The Panel finds the available information sufficient to identify the principal avifauna risks and to prescribe a practical management response. Dr Parlato is correct that cryptic or intermittent use cannot be excluded. The amended programme addresses that limitation through seasonal surveys, wetland cameras, ecological oversight and species-specific additions to the AMP. The Panel accepts Dr Bramley's explanation that a fixed prediction of the number of mobile birds affected would have limited reliability. The Panel does not require such a prediction as a prerequisite for accepting the management package. This does not dispense with recording actual bird use, nesting attempts and outcomes as the works proceed.[238]

Deterrence, Surveys and Nest Protection

[293] The Panel accepts deterrence as the appropriate primary response to birds prospecting for nests in areas about to be mined. Temporary displacement before nesting is preferable to allowing birds to establish nests where eggs and chicks would face a materially greater risk. The Panel prefers Dr Bramley's evidence on the combined use and rotation of methods, rather than assessing each device as if it were the sole measure deployed throughout a breeding season. The Annual Work Plan identifies areas requiring attention in advance, allowing deterrence to be concentrated where needed.[239]

[294] The Panel also accepts the proposed survey frequencies. Weekly breeding-season detection surveys are supplemented by fortnightly pre-breeding surveys, regular deterrence activity, and at least twice-weekly monitoring of nests managed under the AMP. On that basis, the Panel does not consider a universal requirement for detection walkovers every three days necessary. The Panel accepts the proposed approximately 20 m protection zone for nests capable of retention, having regard to Dr Bramley's evidence about the species and the

[236] Bramley Reply at [62]–[64], [65]–[67], [68]–[72], [73], [77]–[79].
[237] Bramley Reply at [17]-[34], [35]–[38], [43]–[46], [47]–[49], [50]–[56], [57]–[61], [62]–[64], [111]–[112] and [115]–[118]. Micol at [17]-[24], [25]-[31], [55]-[58] and [59]-[67].
[238] Attachment C1, conditions 13.1–13.3 and 13.6. Amended AMP, sections 4.5.1–4.5.2 and 4.5.3. Bramley Reply at [17]-[34] and [35]–[38].; DOC Appendix B, Parlato at [15]–[21], [24]–[28], [29]–[32], [33]–[35], [36]–[42] and [59]–[62].
[239] Bramley Reply at [39]–[42]. Amended AMP, sections 3.2–3.3. Bramley Reply at [43]–[46] and [47]–[49].

existing disturbance environment. This finding concerns the species and circumstances assessed; it does not predetermine the management needed if monitoring identifies a different sensitive species.[240]

[295] The Panel accepts the substance of condition 13.1 and the revised AMP's distinction between nests that can practicably be retained and those that cannot remain without impeding the dredge. The Panel have considered DOC's preference for protection of every active nest and the risk to individual eggs or chicks if deterrence fails. The reply supplies an assessment of that residual effect: the probability of an encounter is low, the affected species are expected to be the identified ground-nesting At Risk species, and the population consequence is assessed as low. The possibility of re-laying is a supporting consideration, not an assumption that every lost clutch will be replaced. Taken together, the advance deterrence, limited moving footprint, protection where practicable, recording and reporting requirements, and Dr Bramley's residual-effects assessment support acceptance of the proposed approach.[241]

[296] That acceptance is not a finding that nest destruction is harmless or that all individual effects are avoided. It is a reasoned acceptance of a low residual risk within the particular management regime. The Panel accepts in principle that the wildlife approval should expressly address the incidental killing sought, rather than leave the potential outcome unacknowledged. The scope and statutory justification for that authorisation are addressed in the separate wildlife approval findings. The final instruments must preserve the specific protection of nesting kororā and must not turn the limited nest-loss provision into a general permission to kill protected birds. The resource consent conditions, AMP and wildlife schedule must also express a consistent distinction between avoidance measures and the residual effects expressly authorised.[242]

Kororā and Other Species

[297] The Panel accepts the amended kororā package. Advance and annual surveys, investigation of potential burrows, ecologist-certified fencing where the detection trigger is met, retained accessways, replacement burrows and express protection of occupied nests form a coherent response. Dr Parlato's support for most survey methods, fencing specifications and the combined lighting and fencing measures is material. The Panel prefers TCM's provision for a certified dog where available, with human surveys and increased camera monitoring otherwise directed by a suitably qualified ecologist, to an absolute requirement dependent on the availability of a scarce specialist resource. This is acceptance of the combined programme, not a finding that each alternative method has identical detection performance.[243]

[298] The Panel accepts the revised Cargill Road fencing sequence and the Penguin Management Plan consultation arrangements. The Panel also accepts Dr Bramley's assessment that occupation of the open mining pasture by kororā is very unlikely, while recognising that

[240] Bramley Reply at [39]–[42]. Amended AMP, sections 3.2–3.3. Bramley Reply at [43]–[46] and [47]–[49]. DOC Appendix B Parlato at [15]–[21], [24]–[28], [29]–[32]; [33]–[35],[36]–p42] and [59]–[62].

[241] Attachment C1, conditions 13.1–13.3 and 13.6. Amended AMP, sections 4.5.1–4.5.2 and 4.5.3. Bramley Reply at [39]–[42]. Amended AMP, sections 3.2–3.3 Amended AMP, section 5.2, subsections 5.3.1 and 5.3.2. DOC Appendix B. Parlato at [15]–[21], [24]–[28], [29]–[32]; [33]–[35],[36]–[42] and [59]–[62].

[242] Bramley Reply at [43]–[46] and [47]–[49], Amended AMP, subsections 4.5.1–4.5.2 and 4.5.3. Amended AMP, section 3.4. Attachment D1, Schedules 1 and 3.

[243] Attachment C1, conditions 13.1–13.3 and 13.6. Amended AMP, subsections 4.5.1–4.5.2 and 4.5.3. Amended AMP, subsections 4.5.1–4.5.2 and 4.5.3. DOC Appendix B Parlato at [15]–[21], [24]–[28], [29]–[32]; [33]–[35],[36]–p42] and [59]–[62]. Parlato at [43]-[48], [49]-[53] and [54]-[58]. Bramley Reply at [65]–[67], [68]–[72], [73], [77]-[79]

kiwi calls have been recorded from forest to the east. The Panel does not require a separate universal kiwi survey programme on the present evidence. The seasonal monitoring and provision for additional species-specific management remain important. The Panel's conclusion does not rely on penguin fencing as an unconditional exclusion measure, because erection of that fencing is itself subject to the kororā detection trigger.[244]

Wetland Habitat and Disturbance

[299] The Panel accepts the northern-first rehabilitation sequence as a substantive response to the concern about habitat continuity. It is not a proposal to remove all existing habitat and defer replacement until the end of mining. New northern wetland habitat is to begin developing well before the better southern habitats are removed; identified existing wetlands also receive the temporary protection accepted by TCM. In light of the generally modified habitat being affected, the staging and the continuing availability of better habitats outside the footprint, the Panel prefers Dr Bramley's assessment to a requirement that every hectare of existing wetland remain until an equivalent constructed area is shown to be fully functioning. This avifauna conclusion does not displace our separate findings on wetland extent, classification, hydrology or rehabilitation performance.[245]

[300] The Panel gives positive weight to the improved bird habitat expected from the constructed wetland, indigenous planting and connected margins. Benefits include stock exclusion, greater structural diversity, a range of water depths and wetland vegetation types, and improved feeding, shelter, and nesting opportunities. Dr Parlato also recognises the likely improvement in completed habitat quality. The Panel accepts Dr Bramley's conclusion that the medium- to long-term avifauna habitat outcome will be positive, subject to delivery of the rehabilitation obligations. The Panel does not count the whole complex as additional habitat without accounting for habitat removed, or treat a predicted habitat improvement as proof of a numerical increase in threatened-bird populations.[246]

[301] The Panel accepts Dr Bramley's noise assessment for birds in adjoining habitats. It is not based merely on compliance with residential noise standards; it addresses ambient surf noise, attenuation with distance, the dredge's moving location, and the absence of night mining. Those matters support a finding of no more than minor noise effects on birds using adjacent habitats. The ongoing AMP monitoring and review provide an appropriate means of responding to observed interactions.[247]

Tāiko, Lighting and Response Measures

[302] The Panel attaches substantial weight on the restriction to daylight mining and the express absence of fixed or floodlighting for the mining activity. The Panel accepts Dr Bramley's distinction between occasional portable lighting for an unforeseen event and continuously illuminated infrastructure. Dr Micol's evidence establishes the seriousness of additional tāiko mortality; it does not, by itself, establish that this restricted operating regime will cause such mortality. The Panel finds the likelihood of a lighting interaction from the Southern Block to be very low when the proposed controls are applied. The Panel nevertheless retains

[244] Attachment C1, conditions 13.1–13.3 and 13.6. Amended AMP, sections 4.5.1–4.5.2 and 4.5.3. Bramley Reply at [17]-[34] and [35]–[38]. Bramley Reply at [65]–[67], [68]–[72], [73], [77]-[79].
[245] Bramley Reply at [17]-[34] and [35]–[38]. Bramley Reply at [62]–[64]. Parlato at [43]-[48], [49]-[53] and [54]-[58].
[246] Appendix L4, subsection 9.2.2. Bramley Reply at [111]–[112] and [115]–[118]. Parlato at [43]-[48], [49]-[53] and [54]-[58].
[247] Bramley Reply at [65]–[67], [68]–[72], [73], [77]-[79].

the searches, recovery procedures and audit requirements because the potential consequence of an interaction warrants a response even at that low likelihood.[248]

[303] The Panel accepts TCM's amended conditions 13.3–13.4 and the substance of AMP sections 5.2–5.3. They address night searches whenever lighting is used, competent search personnel, event recording, appropriate handling, prompt contact with DOC and a 20-working-day audit deadline. The revised AMP requires immediate investigation and immediate modification or elimination of a cause where possible; the audit period is not a period during which an identified harmful practice may simply continue. The Panel does not require a full fixed-installation lighting design for an installation that is not proposed. The final conditions must accurately secure the limited lighting use on which this conclusion depends.[249]

[304] The Panel prefers the Applicant's targeted response to a requirement automatically to stop all Southern Block mining after a single tāiko interaction anywhere across the Barrytown operations. A response directed to the activity and light source giving rise to the risk is more effective and proportionate than stopping unrelated daylight activity. The Panel accepts the staged sequence of rescue, investigation, audit, corrective management and escalation if interaction recurs. Nor does the Panel adopt a universal three-month shutdown trigger in place of the Applicant's proposed 4-week repeated-event trigger for dredge-pond lighting: the latter operates alongside first-event action, rather than replacing it. Separate consent boundaries do not, however, determine ecological causation, and investigation should not disregard another nearby light source or combined influences.[250]

[305] The Panel's acceptance of that framework is subject to two focused drafting adjustments. First, the final condition and AMP must consistently require the offered night search of illuminated areas and their surrounds; the stated footprint, 50 m buffer and haul-road corridors must not inadvertently contradict that requirement. Secondly, the AMP's provision for suspension to end automatically on 15 January should not permit resumption of an unresolved harmful lighting practice. The continuing prevention and corrective-action requirements must govern resumption. These refinements retain the Applicant's primary operating regime and staged response rather than substitute a general first-event shutdown of all mining.[251]

Conditions and Overall Conclusion

[306] The Panel accepts TCM's proposed arrangements for qualified ecological oversight, earlier weekly reporting, annual reporting and AMP review, and DOC consultation before Council certification. These provide a practical means of testing the management measures against actual Site observations and making necessary adjustments. The Panel does not require DOC to become the certifying authority. Nor does the Panel treat the Applicant's incorporation of many recommendations as evidence that DOC or the other experts have agreed with the final reply. The Panel's findings resolve the competing opinions for the

[248] Applicant's Reply Amended AMP, section 5.2, subsections 5.3.1 and 5.3.2. Bramley Reply at [45].
[249] Attachment C1, conditions 13.1–13.3 and 13.6. Amended AMP, sections 4.5.1–4.5.2 and 4.5.3. Bramley Reply at [50]–[56] and [57]–[61]. Amended AMP, section 5.2, subsections 5.3.1 and 5.3.2.
[250] Bramley Reply at [50]–[56] and [57]–[61]. Amended AMP, section 5.2, subsections 5.3.1 and 5.3.2. Parlato at [43]-[48], [49]-[53] and [54]-[58]. Micol at [17]–[24], [25]–[31], [55]–[58] and [59]–[67].
[251] Applicant's Reply Attachment C1, conditions 13.1–13.3 and 13.6. Applicant's Reply Amended AMP, subsections 4.5.1–4.5.2 and 4.5.3. Amended AMP, section 5.2, subsections 5.3.1 and 5.3.2.

reasons given above. The final clean documents must carry the substantive requirements consistently across the conditions, AMP and wildlife approval.[252]

[307] Overall, the Panel accepts Dr Bramley's conclusion that the proposal, implemented under the amended management package, will have low residual adverse effects on avifauna and a positive medium- to long-term habitat outcome. The residual risk of nest loss is expressly recognised, rather than described as wholly avoided. The risk to tāiko is assessed in light of the restricted operating regime and retained response safeguards, rather than assumed to be offset by future wetland creation. Subject to the limited drafting refinements identified above and the separate statutory determination of the wildlife approval, the Panel is satisfied that avifauna effects are appropriately managed and do not warrant rejection of the proposal on this ground. These conclusions inform, but do not replace, the overall FTAA assessment and the applicable policy and wildlife approval tests.[253]

Effects on Lizards

The Application

[308] The Ecological Effects Assessment (Appendix L4 at sections 4.3, 8.1.3 and 9.2.3) records that DOC's database holds records within 10 km of the Southern Block of West Coast green gecko (*Naultinus tuberculatus*; Threatened - Nationally Vulnerable, a single record 9.3 km away), forest gecko (*Mokopirirakau granulatus*; At Risk - Declining, four records at 7-10 km) and Newman's speckled skink (*Oligosoma* aff. *newmani* "Westland"; At Risk - Declining, one record at 8.8 km), and that the Site falls within the mapped range of a grass skink which the Application identifies as Canterbury grass skink. No lizard survey using capture devices was undertaken, and none was seen during the Site walkover or the manual habitat searches.[254]

[309] TCM's assessment proceeds from the proposition that some 98% of the Site is grazed exotic pasture that "does not provide suitable habitat for lizards". A few small and functionally isolated patches of rank pasture, coastal shrubland and flaxland within the MDA offer marginal habitat for ground-dwelling skinks, whereas the better habitat (the rock piles, cobble and rank pasture of the coastal margin, woody debris, and the remnant forest on Canoe Creek and the eastern boundary) lies outside the MDA and will not be disturbed. The lizard species are accorded "high" ecological value where they occur, but lizard habitat within the MDA is rated "negligible" (Table 23). Vegetation clearance is assessed as capable of a "high" level of effect, through injury or mortality, if unmanaged, reducing to "low" with salvage and relocation under the Lizard Management Plan and to "very low" or "net gain" following rehabilitation.[255]

[310] The Wildlife Act Authorisation Technical Report[256] seeks approval for lizard surveys, for the capture and relocation of lizards from clearance areas and for the enhancement of lizard habitat, and names Dr Graham Ussher and Mr Matt Charteris as the lizard ecologists. It regards geckos as unlikely to be present given the absence of arboreal habitat, accepts that

[252] Attachment C1, conditions 13.1–13.3 and 13.6. Amended AMP, subsections 4.5.1–4.5.2 and 4.5.3. Amended AMP, section 3.4. Attachment D1, Schedules 1 and 3. Bramley Reply at [65]–[67], [68]–[72], [73], [77]-[79]

[253] Appendix L4, subsection 9.2.2. Bramley Reply at [43]–[46], [47]–[49], [50]–[56], [57]–[61], [62]–[64], [111]–[112] and [115]–[118]. Amended AMP, subsections 4.5.1–4.5.2 and 4.5.3. Amended AMP, section 5.2, subsections 5.3.1 and 5.3.2 Amended AMP, section 3.4. Attachment D1, Schedules 1 and 3. Bramley Reply at [65]–[67], [68]–[72], [73], [77]-[79].

[254] EEA Section 4.3; EEA Section 8.1.3.

[255] EEA Section 9.2.3: Table 31.

[256] Appendix L12.

skink presence in the rough pasture south of Cargill Road (to be mined in Years 12 and 13) "cannot be ruled out", and does not anticipate "that any lizard taxa with threat classifications higher than 'At Risk' will be encountered". The draft Wildlife Approval conditions[257] tie the authorised activity to the LMP certified under resource consent condition 14, require adherence to DOC's Herpetofauna Inventory and Monitoring Toolbox, confine capture to the period 1 October to 30 April, and set standards for handling, trap checking and hygiene.[258] [259]

[311] The LMP as lodged[260] provides for a pre-mining survey, by manual search and artificial cover objects (ACOs), no more than six months before mining begins in each stage, and for three protocols according to whether the survey detects nothing, detects Not Threatened or At Risk species, or detects Threatened species. For Not Threatened species it contemplates 135 ACOs bedded in for six weeks ahead of a minimum 4-day trapping period, 60 funnel traps over three days and a supervised, machine-assisted destructive search; release within two hours into rehabilitated riparian planting along Granite Creek; at least five eco-stacks of one metre square with a further stack for every 10 lizards salvaged; post-release monitoring only if more than 50 lizards are relocated; no pest control; and reporting to DOC and the Council. Dr Bramley's primary evidence[261] is that adherence to the LMP and the Rehabilitation Management Plan will yield a "very low" level of effect, the LMP setting out "appropriately the risks to protected wildlife and the management actions necessary … within the very limited lizard habitat at the Site". Draft condition 14 requires the LMP to be certified before Site works commence.[262]

Comments Received

[312] Lizards were addressed by the Director-General of Conservation alone, through the wildlife approval report under section 51(2)(c) (September 2026), the comment under section 53 (28 September 2026), the statement of advice of DOC's herpetologist Ms Jacqueline Wairepo[263] and the planning advice of Mr Murray Brass.[264] No other invitee commented. DOC lists "management of lizards - subject to an updated Lizard Management Plan" among its five greatest concerns.[265]

[313] Ms Wairepo's advice, and the s 51(2)(c) report, were directed at the March 2026 version of the LMP. Ms Wairepo's first point is one of identification: the grass skink on the Site is almost certainly northern grass skink (*O. polychroma*; Not Threatened) rather than Canterbury grass skink, the biogeographic boundary lying near Hokitika, and the Westland form of Newman's speckled skink is At Risk - Declining and not Threatened.[266] Her more substantial point is that the absence of any dedicated lizard survey is "a significant information gap"; which lizards are present and how they are distributed "remains unknown", so that the effects "cannot be accurately assessed". She regards the assumption that lizards are confined to the margins as "not sufficiently precautionary", because

[257] Appendix P2.
[258] Special Conditions 2-11 and 20.
[259] WATR Section 6.2; 7.2; 9.2; Appendix P2.
[260] Appendix M3, March 2026.
[261] Appendix L4A at [21]-[22], [29] and [33(ix)].
[262] LMP March 2026; Bramley Evidence in Chief.
[263] Appendix A.
[264] Appendix E.
[265] DOC comment at [3.1].
[266] Comment 28a. DOC Appendix A - Expert comments for lizards – Barrytown, Wairepo at [17]-[18].

northern grass skink readily occupies microhabitats within grazed pasture and grazing may in fact favour the species by suppressing rodents.[267]

[314] Ms Wairepo's remaining points concern the method and the fate of relocated animals. Trapping should run for at least five days, not three or four, with a contingency to continue while lizards are still being caught; ACOs should be checked on alternate days and the time of day specified.[268] Protocols 1 and 2 are not clearly differentiated, and Protocol 2 is designed for terrestrial rather than arboreal species, so that if West Coast green gecko is to be approved a species-specific plan, with spotlighting and tree-mounted devices, is required under Principle 4 of DOC's *Key Principles for Lizard Salvage and Transfer*.[269] The Granite Creek release Site concerns her for its size, its carrying capacity and its exposure to mining and restoration disturbance, nothing known of the numbers to be moved or of the resident population; she suggests Canoe Creek (stewardship land and the Langridge Scenic Reserve) as a larger, more mature and better-buffered alternative, which DOC's local office supports in principle.[270] Eco-stacks must meet the interstitial-space requirements in Lennon (2023) and Herbert et al. (2023) or they will not protect lizards from mice.[271] No predator control is proposed; bird-focused control at the wetland may increase mouse numbers, and "a targeted, evidence-based predator-control programme is therefore required" at each release Site[272]; section 51 report.[273] There are no triggers or actions should post-transfer monitoring show the measures failing, contrary to Principle 9. Finally, Mr Charteris's credentials should be supplied and, if DOC does not confirm them, he should work under Dr Ussher's direct supervision, and the LMP should be reviewed every 7 years.[274] [275]

[315] These points are gathered up in DOC's recommended Wildlife Approval conditions[276], which would prohibit vegetation clearance, mining or salvage until DOC has certified a revised LMP containing the results of targeted surveys at all mining and release sites, increased trapping effort, species-specific provision for West Coast green gecko, Canoe Creek as a release Site, purpose-built rock-stack refugia, a targeted predator-control programme for each release Site and Mr Charteris's qualifications, with seven-yearly reviews to be certified by the DOC Buller Operations Manager.[277]

[316] Both Ms Wairepo and DOC acknowledge that the LMP was revised in August and again on 22 and 24 September 2026, that many of the general points were understood, following a Teams meeting on 4 September, to have been addressed, and that their advice is nonetheless based on the March version because the revisions arrived too late to review. DOC asks for an opportunity to respond to the updated material.[278]

Applicant Response to Comments

[267] Comment 28a. DOC Appendix A - Expert comments for lizards – Barrytown, Wairepo at [19]-[26].
[268] Comment 28a. DOC Appendix A - Expert comments for lizards – Barrytown, Wairepo at [27].
[269] Comment 28a. DOC Appendix A - Expert comments for lizards – Barrytown, Wairepo [29]-[30], [41].
[270] Comment 28a. DOC Appendix A - Expert comments for lizards – Barrytown, Wairepo [31]-[37].
[271] Comment 28a. DOC Appendix A - Expert comments for lizards – Barrytown, Wairepo [31]-[32].
[272] Comment 28a. DOC Appendix A - Expert comments for lizards – Barrytown, Wairepo at [28], [36].
[273] Comment 28a. DOC Appendix A - Expert comments for lizards – Barrytown, Wairepo at [6.5.8].
[274] Comment 28a. DOC Appendix A - Expert comments for lizards - Barrytown Wairepo at [40], [42
[275] Comment Wairepo DOC section 51(2)(c); Report Section 6.5.
[276] Section 51(2)(c) report at [6.10.16]-[6.10.17].
[277] DOC Section 51(2)(c) at [6.10.16].
[278] Comment DOC Comment at [4.5].

[317] TCM's reply of 5 October 2026 relies on Dr Bramley's reply statement at [12]-[26], on the revised LMP of 22 September 2026[279], on amended condition 14[280] and on its responses to DOC's proposed wildlife approval conditions.[281] [282]

[318] Dr Bramley accepts that no baseline survey has been undertaken, leaving uncertainty, but says the omission is deliberate. The Site is a working farm on which rank-grass and debris habitat "are not fixed in location and will likely change" before mining, which will run over many years; the LMP therefore requires the survey "at the time it is needed (immediately prior to mining commencing)" in each stage so that salvage is planned on current conditions, and the same logic applies to the release sites. The uncertainty is "addressed via the draft proposed conditions", which require an LMP providing for baseline survey and best-practice salvage, and by Wildlife Approval Special Condition 3, which requires DOC's current best practice to be applied. In his words, "there is nothing more that could practically be done which would make a material difference to lizard protection".[283]

[319] The revised LMP otherwise adopts Ms Wairepo's recommendations almost in their entirety. The grass skink is now identified as northern grass skink and Newman's speckled skink as At Risk - Declining. Trapping is to run for a minimum of five days (six for Threatened species) and to continue until no lizards are caught over four consecutive days; ACOs are to be checked on alternate days between 9 am and midday; funnel traps are to be checked each morning and covered; and individual holding bags and gear hygiene are specified.[284] Although West Coast green gecko is "considered unlikely" to be present, the plan now provides species-specific methods wherever woody vegetation or flaxland offers potential arboreal habitat, namely tree-mounted ACOs on a 5 m grid or in every tree over 10 cm dbh, tree-mounted funnel traps, nocturnal spotlighting and release directly into mature arboreal habitat at Canoe Creek.[285] Canoe Creek becomes the primary release Site, with Granite Creek, the restoration areas and the coastal margin as alternatives subject to a suitability assessment by the Project herpetologist, and the eco-stacks are to be "dense rock piles built to the specifications of Lennon (2023) and Herbert et al. (2023)", at least five before clearance and one for every five lizards salvaged thereafter.[286] [287]

[320] Predator control is the one recommendation TCM does not accept, and Dr Bramley gives five reasons. Mouse suppression requires grids of 10-25 m (16 to 100 stations per hectare) serviced continuously. A small release Site within a matrix of pasture, wetland and riparian habitat becomes a sink that never reaches low densities unless a very large buffer is also controlled; a 5 ha Site with a 200 m buffer is some 33 ha and upwards of 500 stations. There is "only very limited evidence" that unfenced mainland control benefits lizards at all, the Port Hills study (Lettink et al. 2026) having failed to control mice and having recommended fenced enclosures instead. A permanent toxin operation near weka, kiwi, and the tāiko colonies, across multiple ownerships, would create its own effects and raise approval issues. The lizards in question already persist alongside mice, rats, and weka. Control at the scale required "would be disproportionate". Protection will instead rely on large, contiguous habitat and dense refugia; to avoid meso-predator release, no rat- or

[279] Applicant's Reply, Attachment H2.
[280] Applicant's Reply, Attachment C1.
[281] Applicant's Reply, Attachment D.
[282] Bramley Reply Attachment H2 revised LMP; Attachment D at pages 4-5.
[283] Bramley Reply at [12]-[15].
[284] Revised LMP, Applicant's Reply Attachment H2 at sections 2.3, 2.4, 2.6, 2.9; Bramley Reply at [18].
[285] Revised LMP, Applicant's Reply Attachment H2 at sections 2.2, 2.4, 2.10; Bramley Reply at [16]-[17].
[286] Revised LMP, Applicant's Reply Attachment sections 2.10-2.11; Bramley Reply at [20], [23].
[287] Bramley Reply, Applicant's Reply Attachment, Attachment H2.

mustelid-only control will be undertaken within or adjacent to release sites, and the wetland predator control under condition 16.15 will be designed with the Project herpetologist.[288]

[321] Monitoring remains triggered only where more than 50 lizards are relocated, and then annually for the life of the mine and for one year after closure. In place of a fixed seven-year review, the LMP is to be revised before each of the three mining stages and provided to DOC for comment at least 10 days before it is submitted for certification, with the Annual Work Plan carrying each year's salvage programme.[289] TCM rejects DOC's certification of the LMP: "there is no scope for DOC to certify this plan", which is certified by the consent authority under condition 14.3, with DOC having provided input through this process, and Wildlife Approval Condition 2 ties the approval to the certified plan. TCM would be content for the Panel itself to certify the current version. Mr Charteris's qualifications are supplied as Attachment C to Dr Bramley's reply: a Postgraduate Diploma in Zoology (Otago, 1996); survey and transfer work including alpine gecko surveys for DOC, Canterbury gecko transfers on the Port Hills under his own Wildlife Act authority, forest gecko surveys in South Westland and foreshore skink surveys in Buller; and experience as a DOC science advisor between 2013 and 2024. He is to lead the fieldwork "in consultation with" Dr Ussher.[290]

[322] TCM's position, in short, is that the revised LMP addresses items (a) to (e) and (g) of DOC's proposed condition [6.10.16], that item (f) (predator control) is not accepted for the reasons given, and that effects on lizards are very low.

Panel Findings

[323] The distance between the parties has narrowed considerably between lodgement and reply. Ms Wairepo's concerns focused on the March 2026 LMP, and she noted that several had been met in revisions she had not seen. Measured against the September 2026 LMP, the Panel finds that TCM has substantially addressed, as DOC asked, species identification, survey and salvage methodology, the Threatened-species protocol, the release Site, refugia design, and personnel. What remains in contention is whether a baseline survey must precede the decision or merely the commencement of works, predator control at release sites, the triggers for monitoring and contingency action, and who certifies the plan.

[324] The Panel accepts Dr Bramley's explanation for deferring survey to the pre-mining window in each stage. On a working dairy farm with a fourteen-year mining life a survey conducted now would be of limited value for planning salvage in Years 5 to 14, and the LMP's requirement that all potential habitat, including release sites, be surveyed within the lizard season and within six months of mining in each stage is the more useful obligation. The Panel does not, however, accept that the present uncertainty is immaterial. The "negligible" rating of lizard habitat in the EEA rests on an assumption that grazed pasture excludes skinks, which DOC's herpetologist says cannot safely be made for northern grass skink. The Panel's approach is to treat TCM's assessment of effects as provisional and to make the conditions carry the weight: the Stage 1 pre-mining survey must be completed, its results provided to DOC and the consent authority, and the LMP updated to reflect them, before any vegetation is cleared in Stage 1. That meets the substance of DOC's proposed condition [6.10.16(a)] without requiring survey of ground that will not be mined for a decade.

[325] The corrections to northern grass skink (Not Threatened) and to Newman's speckled skink (At Risk - Declining) are accepted, and the Panel observes that they reduce rather than

[288] Bramley Reply at [21]-[24]; Revised LMP at section 2.10.
[289] Revised LMP at sections 2.12, 3.0, 4.0; amended condition 14.2(h)-(i); Bramley at [25]-[26].
[290] Reply Attachment D at pages 4-5; Charteris CV.

enlarge the conservation significance of the skinks most likely to be present. West Coast green gecko is unlikely to be encountered, but because it is named in the approval the Panel accepts that the species-specific survey and release provisions now in LMP section 2.4 are warranted under Principle 4 and clause 6(2)(c) of Schedule 7. The revised salvage methods (the five- and six-day minimum, the four-day zero-catch contingency, alternate-day ACO checks at specified times, covered traps and individual bags) meet Ms Wairepo's recommendations and conform to DOC's Toolbox, and nothing further is required of them. The Panel accepts Canoe Creek as the primary release Site and the Lennon and Herbert rock-stack specification; because Canoe Creek is public conservation land outside the application area, the LMP must record DOC's written agreement to its use before any release occurs, and the Project herpetologist's suitability assessment is to be provided to DOC with the Stage 1 survey results.

[326] Predator control is the principal remaining disagreement and on it the Panel prefers Dr Bramley's evidence. Ms Wairepo's recommendation is expressed at the level of principle, whereas Dr Bramley engages with the particular landscape, the scale of effort that mouse control demands, the published evidence (including the 2026 Port Hills study) and the collateral risks of sustained toxin use in proximity to weka, kiwi and tāiko. The Panel also bears in mind that the skinks most likely to be affected are Not Threatened or At Risk - Declining, that they already persist in this predator landscape, and that the release Site is large and contiguous rather than a small island of habitat. In those circumstances a predator-control programme of the intensity needed to benefit lizards would be more onerous than necessary in terms of section 83, and clause 6(2) of Schedule 7 does not require it. The Panel does, however, require that the LMP's commitments that no rat - or mustelid-only control will occur within or adjacent to release sites, and that the condition 16.15 wetland predator control will be designed in consultation with the Project herpetologist, be carried into the conditions rather than left in the plan. [Alternatively: the Panel requires a localised mouse-control grid around the rock-stack refugia for the first two seasons after each release, as a proportionate trial, continuation to depend on monitoring results.]

[327] The Panel accepts DOC's point under Principle 9. A threshold of 50 lizards before any post-release monitoring is undertaken is arbitrary and could leave a small At Risk population wholly unmonitored. The Panel requires that post-release monitoring occur wherever any At Risk or Threatened lizard is relocated, or more than 30 lizards, for at least two seasons after release, and that the LMP specify the responsive actions available, such as additional refugia, an alternative release Site or a review of methods with DOC.

[328] The Panel agrees with Dr Bramley that revision of the LMP before each mining stage is of more use than a fixed 7-year cycle, which amended condition 14.2(h)-(i) achieves; each stage revision must also address any change in threat classification.

[329] On certification, the Panel accepts TCM's position that the consent authority certifies the LMP under condition 14.3 with DOC consulted at each revision, Wildlife Approval Special Condition 2 then binding the approval to the certified plan. Based on the material provided, the Panel is satisfied that Mr Charteris is suitably qualified and experienced, and it names both Dr Ussher and Mr Charteris as authorised personnel.

[330] Considering all these matters, including the Stage 1 survey precondition, the monitoring and contingency provisions, and the predator-control safeguards described above, carried into condition 14 and the wildlife approval, the Panel finds that the effects of Stage 2 on

indigenous lizards will be low, that the measures avoid, minimise and remedy impacts on protected wildlife as clause 6(2)(a) of Schedule 7 requires, and that no more than minor residual impact remains. The Panel has taken into account the threat classification of each species named in the approval. Effects on lizards do not weigh materially against the grant of the approvals.

Archaeological and Heritage Effects

The Application

[331] Archaeological and heritage matters are addressed in Part 5 and in paragraphs 8.103-8.108 of the Substantive Application. Heritage Properties New Zealand (HPNZ) has prepared an archaeological assessment of the Southern Block, which is set out in Appendix L9 of the Substantive Application.

[332] The Project area was dredged and extensively modified during the 1930s and 1940s, then humped and hollowed for farming in the 1980s[291]. As a result, the area may contain redeposited archaeological material from historical dredging. Outside these areas, where the subsurface is intact, artefacts may be present.

[333] There are no heritage or QEII covenants, heritage orders, or NZ Heritage list/Rarangi Korero entries over the Project area.

[334] HPNZ has identified three points of interest and two previously recorded archaeological sites (K31/11 and K31/12) within or near the Project area. The three points of interest relate to the Dune Ridge System and the Cargill Road Drystone Structure. Artefacts – part of a shaped patu, a small greenstone chisel and a shaped greenstone pendant – have previously been removed from the two recorded archaeological sites.

[335] No other relevant values (e.g. historic heritage sites) were identified by NZHP during the assessment.

[336] Proposed activities in the Southern Block will destroy any potential unrecorded archaeological sites within the mine disturbance area. An archaeological authority to modify or destroy recorded and unrecorded sites is required under the HNZPTA.

[337] TCM proposes procedures to protect the Dune Ridge System and the Cargill Road Drystone Structure; recording, analysis and reporting on any archaeological or heritage features modified by the proposed works; and the imposition of an accidental discovery protocol in authority and consent conditions to mitigate the effects of the proposal on archaeological values.

[338] The archaeological assessment prepared by NZHP was provided to Ngāti Waewae, together with a request from TCM that Ngāti Waewae provide an assessment of any Māori values. Ngāti Waewae acknowledged NZHP's suggestion to prepare an assessment of Māori values. Ngāti Waewae does not consider an assessment of Māori values necessary and is satisfied that the proposed Accidental Discovery Protocol provides an appropriate and practical mechanism to manage archaeological or heritage discoveries, consistent with tikanga Māori[292].

[291] Substantive Application at [5.3].
[292] Paragraph 9, Letter of Support from Te Rūnanga o Ngāti Waewae, dated 7 April 2026, Appendix F3 of the Substantive Application.

Comments Received

[339] HNZPT submitted comments on the Project. In its comments, HNZPT confirmed that it had provided comments on the Application for an archaeological authority in its section 51 report, recommending that the archaeological authority be granted subject to revised conditions agreed by TCM. HNZPT proposed one further change to condition 18.1 of the consent conditions - the accidental discovery protocol condition.

[340] No other party commented on heritage or archaeological effects.

Applicant Response to Comments

[341] TCM has agreed to the proposed amendment to consent condition 18.1.

Panel Findings

[342] The Panel finds that, with the controls proposed in the consent conditions and the archaeological authority to undertake archaeological monitoring of high-potential areas, protect the Dune Ridge System and the Cargill Road Drystone Structure, and impose an accidental discovery protocol, the effects of the proposal on archaeology and heritage in the Southern Block will be appropriately managed.

Noise Effects

The Application

[343] Construction noise effects associated with the Project were addressed in paragraphs 6.124 to 6.128 and 8.68 to 8.72 of the Substantive Application and in the Assessment of Noise Effects prepared by Marshal Day Acoustics (Appendix L7).

[344] The Application and Assessment of Noise Effects propose noise limits for the operational phase of the project that are largely in accordance with the noise limits set in the Grey District Plan and the TTPP(while recognising some deviations from these plans) and are consistent with the noise limits set in the consents granted by the Environment Court for the central block.

[345] The noise limits proposed are:

a. Daytime 0700 to 2200 hrs 55 dB LAeq(15 min)

b. Night-time 2200 to 0700 hrs 45 dB LAeq(15 min) and 75 dB LAFmax

[346] For construction in advance of mining the thresholds in NZS 6803: 1999 Acoustics - Construction Noise are proposed.

[347] The outcomes of the Assessment of Noise Effects were:

a. The existing acoustic environment features local traffic along the State Highway, surf noise, farm activities, and wildlife.

b. Pre mining construction noise levels are predicted to be significantly below the limits set out in NZS6803:1999.

c. Operational noise levels are expected to be below the proposed 55 dB LAeq daytime limit, and (in most cases) below the 45 dB LAeq noise limit such that operations can

proceed between 0600 and 0700 hrs (classified as night-time under the District Plan[293]) while still complying with the proposed noise limits.

d. Exceptions to this are where predicted noise levels are expected to be at their greatest during periods of operations within approximately 250 m of dwellings on Warren and Cargill Roads (as set out in Table 8 of the Assessment of Noise Effects). In these locations noise levels are predicted to remain below 55 dB LAeq and less than 45 dB LAeq for the majority of the time.

e. Mitigation measures to address noise effects include:

i. A series of planted noise bunds as illustrated in Figure 4 of the Assessment of Noise Effects.

ii. Use of Non-tonal reversing alarms.

iii. A proposal to prohibit mining operations within 500 m of dwellings specified in Table 8 of the Assessment of Noise Effects, between 0600 and 0700 hrs.

[348] Marshall Day Acoustics concludes that, subject to the mitigations proposed, mining of all proposed stages of the Southern Block can be undertaken within the proposed project noise limits.

Comments Received

[349] Comments on noise effects were received from a number of lay commenters[294], from the Barrytown School Board of Trustees, the West Coast Tai Poutini Conservation Board and the Coast Road Resilience Group. No comments on noise were received from either Grey District Council or West Coast Regional Council.

[350] The comments raised around noise can broadly be summarised as:

a. Concerns around construction and operational noise in general.

b. Concerns around the character of that noise (industrial vs natural, and frequency).

c. Concerns around cumulative noise effects sourced from proposed mining operations and the already consented WCP.

d. Concerns around the appropriateness of proposed noise limits.

e. Requests for an independent noise effects assessment.

[351] Many comments included noise effects in relation to perceived traffic effects and traffic movements along SH6.

[352] Requested mitigations included double glazing of dwellings potentially affected by noise, consent conditions requiring the consent holder to purchase homes where the owner wishes to sell and is unable to and monitoring of noise and vibration.

[353] No expert evidence accompanied the comments received on noise effects.

Applicant Response to Comments

[293] Not to be confused with restriction on operations to actual daylight hours, which vary seasonally.
[294] Robertson, Maunsell, Straight, GA & GA Family Trust, Duthie, Fraser, Dymond, Collyer, Hill, Barrytown School Board of Trustees, Crick, Grace, Henderson, Kerr, van Rooyen, Ward.

[354] In response to concerns about noise effects, the author (Mr Jon Farren) of the Assessment of Noise Effects report provided a statement of evidence in reply.

[355] Mr Farren provided specific responses to the comments of Mr Robertson and Mr Maunsell, who own two of the closest properties to the proposed mining operation (at 37 Warren Road and Lot 2 DP2178 respectively).

[356] He notes that noise effects are able to meet the proposed noise limits and he describes the outcome of his modelling at 37 Warren Road, which demonstrates that noise will largely be able to comply with the lower, night-time noise limits, noting specific periods within which noise effects will approach, but not exceed the proposed day-time limits.

[357] Mr Farren confirms that his assessment incorporates all prospective noise from operations and that Scenario 6 provided in the Assessment of Noise Effects report presents the worst-case cumulative effects scenario at Mr Maunsell's property.

[358] Mr Farren addresses the potential issue of Special Audible Character (SAC) and indicates that from his experience the noise from mining operations is unlikely to be received as "mechanical droning" and therefore attract a SAC penalty. He notes provisions in the proffered conditions allow for this penalty to be applied when monitoring of operations is undertaken.

[359] Mr Farren responded to the Barrytown School Board of Trustee comments. Indicating that noise levels are expected to be below night-time noise limits at all times at the School and that vibration is expected to be imperceptible. He notes that Noise Monitoring is proposed and that vibration monitoring is not warranted.

Panel Findings

[360] Four key items require consideration with respect the Panel's decision on noise effects:

a. Are the noise effects in question related to the Southern Resource Block (noting potential for cumulative effects)?

b. Are the proposed noise limits reasonable?

c. Is the noise effects assessment technically robust?

d. Is monitoring and verification of modelled outcomes proposed?

[361] A number of commenters described potential noise effects related to traffic between the WCP and the MSP at Rapahoe. Traffic effects and associated noise generation to and from the WCP have already been authorised based on previously granted consents and are therefore outside the scope of this Fast Track Approvals process.

[362] We have considered the noise limits proposed by TCM and note that these are largely consistent with the permitted activity noise limits set out in the Grey District Plan and the TTPP based on the current land zoning. They are also consistent with the noise limits set by way of conditions of consent for the previously consented Central Block.

[363] Overall the Panel is satisfied that the noise limits proposed by TCM are reasonable. We note that the Application already limits mining operations to daylight hours (due to a restriction on artificial lighting) and restricts operations to 6 days a week (no mining on a Sunday).

[364] The noise effects assessment has been undertaken by a reputable consulting firm with the lead author being suitably qualified and experienced. In the absence of alternative expert evidence we are satisfied that the Assessment of Noise Effects is sufficiently robust to support a decision.

[365] Monitoring of operational noise is proposed by TCM and is covered by the proposed Noise Management Plan and proposed consent conditions.

[366] Overall we find that any noise effects will be appropriately mitigated and do not weigh against granting the approvals sought for the Project.

Effects on Landscape & Natural Character and Visual Effects

The Application

[367] Landscape, natural character and visual effects are addressed in paragraphs [8.73] – [8.80] of the Substantive Application and in the Landscape and Visual Assessment of Effects prepared by Glasson Huxtable Landscape Architects, which appears in Appendix L6 of the Substantive Application.

[368] TCM states that the Project will introduce a temporary change in landscape character as mining progresses and land use across parts of the Site shifts from pastoral farming to active mining. TCM notes that the Site has already been altered by historic mining, vegetation clearance, drainage and farming, and considers this to reduce the landscape's sensitivity. Furthermore, they note that many mining activities also occur as part of farming.

[369] Effects on landscape character and values are low to moderate overall during mining activity, reducing to low in the longer term. TCM states that this is due to the limited area disturbed at any one time, the transient nature of mining activity across the Site, proposed setbacks and mitigation, and rehabilitation that will occur as mining progresses.

[370] Effects on the adjacent Paparoa Ranges Outstanding Natural Landscape will be minimal due to the ranges' physical separation from the mine area. The ranges will retain their important landscape values.

[371] TCM states that significant adverse effects on natural character will be avoided, with low adverse effects generated in the short term and minor positive effects in the long term, due to the proposed new wetland to be constructed, riparian planting and habitat restoration.

[372] Visual effects will vary depending on distance, proximity to active mining, screening and viewer sensitivity. For most viewers, effects will be none to low. Moderate to high visual effects may occur at 101 Cargill Road and Lot 2 DP 2178 during periods when active mining is close by. These effects are not considered significant by TCM, as they are temporary, localised and reversible.

[373] Consent conditions and a Landscape Mitigation Package are proposed to manage potential landscape and visual effects. These conditions require creek reconstruction, wetland construction, riparian planting, visual bunding adjacent to 101 Cargill Road and Lot 2 DP 2178, retention of some existing planting, and eco-sourcing of plants from within the ecological district where practicable. Controls on the direction, intensity, colour and mounting of lighting are also proposed.

[374] Ms Crawford, a Director of the firm Glasson Huxtable Landscape Architects and the primary author of the landscape and visual effects assessment, has prepared evidence on the

landscape and visual assessment of effects.[295] She states that the landscape and visual assessment of effects was prepared in accordance with the concepts and principles outlined in Te Tangi a te Manu: Aotearoa Landscape Assessment Guidelines (TTatM) published by Tuia Pito Ora, New Zealand Institute of Landscape Architects (NZILA) in July 2022. Ms Crawford also reproduces from her assessment a summary of the identified level and nature of landscape effects including a summary of the effects on visual amenity in the areas neighbouring the Site.

Comments Received

[375] Some lay commenters expressed concerns regarding landscape and visual effects and amenity[296] including the owner of Lot 2 DP2178, but not the owner of 101 Cargill Road. Concerns included: coastal outlook will be replaced by views over an open cast mine; effects will be major, prolonged and incompatible with residential and tourism values; potential loss of enjoyment of property, amenity and tranquillity; loss of connection to the landscape; potential loss of the dark night sky; adverse wellbeing effects from light pollution; and cumulative effects.

Applicant Response to Comments

[376] TCM did not introduce any new material or evidence in response to the comments on landscape and visual effects and amenity. Instead, TCM reiterated or restated material from the Substantive Application, the Landscape and Visual Assessment of Effects, and the proposed consent conditions.

Panel Findings

[377] The Panel has considered the information provided by TCM and the comments made by the lay commenters on this issue. The Panel recognises and understands that changes to the environment in which the residents of the Barrytown Flats live and work are an important issue for many of them.

[378] The Panel considers that the assessment prepared by Glasson Huxtable Landscape Architects is robust and thorough, and that it has been prepared in accordance with the concepts and principles of TTatM, which are the most appropriate guidelines for the landscape and visual assessment of this Project.

[379] The Panel accepts the findings of the landscape and visual effects assessment prepared for TCM and agrees that:

a. The Site has already been considerably altered by historic mining, vegetation clearance, drainage and farming;

b. The land on which mining will occur is zoned Rural under the Grey District Plan and General Rural under the Te Tai o Poutini Plan. Mining, earthworks and associated machinery are anticipated to occur in these zones, as set out in the statutory planning documents.

c. Although the total land area to be mined is large, the active mining area will be confined to 16 ha at any one time. This is secured by a consent condition;

[295] Substantive Application, Appendix L6A.
[296] Appendix E, comments 2, 7, 12, 19, 20, 21, 23, 24, 34, 37, 38, 40.

d. The active mining area will be transient across the total land area to be mined, which will reduce the landscape and visual effects in space and time;

e. Effects on the adjacent Paparoa Ranges Outstanding Natural Landscape will be very low;

f. Moderate to high visual effects may occur at 101 Cargill Road and moderate visual effects may occur at Lot 2 DP 2178 for periods of time when the active mining area is in close proximity to those properties, however the extent of these effects will be tempered because they are temporary, localised and the land will be rehabilitated as mining progresses. Vegetated bunds are also proposed adjacent to these two properties to mitigate visual effects;

g. In the long term, the overall landscape and visual effects of the Project will be low with the proposed wetland, riparian planting and habitat restoration providing a small positive benefit.

[380] The Panel considers that, with the consent conditions proposed by TCM imposed and the Landscape Mitigation Package implemented, the landscape and visual effects of the Project will be managed appropriately.

Effects of Earthworks

The Application

[381] TCM discusses earthworks effects in paragraphs 8.81 to 8.88 of the Substantive Application, in the draft erosion and sediment control plan (Appendix M8) and in the evidence of Mr Ridley in Appendix L5A of the Application.

[382] The Application summarises the enabling works, the mining operations and the rehabilitation works and the earthworks associated with each of these stages, along with a summary of the methods that will be used to manage erosion and sediment control.

[383] A key part of the proposal is a commitment to limiting earthworks effects to no more than 16 ha at any given time. This 16-ha limitation includes all mine starter pits, bund establishment, stripping of topsoil and overburden, rehabilitation, wetland construction, creek diversions, borrow areas, recontouring and service roads. A breakdown of the contribution of each of these operational items to the final 16 ha figure is set out in Table 1 of the draft ESCP.

[384] The draft ESCP sets out the primary operational mechanism to manage environmental effects related to mining operations. This is the return of all dirty water to the mining void. Sediment will end up mixed and encapsulated with tailings as part of the rolling rehabilitation of the previously mined areas.

[385] The active mining area will be separated from unmined (or previously rehabilitated areas) by stabilised earth bunds, to provide separation of clean water dirty water.

[386] Internal roading will be bunded and collected surface water will also be transported to the mining void.

[387] Proposed borrow areas will be bunded and surface water runoff that occurs prior to rehabilitation will be either conveyed to the mining void or to a separate sediment control pond (which may service one or more borrow areas).

[388] Proposed temporary and permanent diversion of creeks within the mining footprint will be undertaken in dry weather. The new channel will be developed behind the active mining area with generated spoil placed ahead of the mining sequence for excavation and processing. Channels will be stabilised prior to becoming operational and plugs both upstream and downstream will be used to manage initial inflows into the diversion. *

[389] Construction of permanent wetland will be incorporated within the overall earthworks footprint and will be progressively stabilised and planted prior to diversion of watercourses to supply the wetlands.

[390] A threshold of 80% vegetative cover is proposed for an area to be considered stabilised.

[391] Other measures such as the use of silt fences, super silt fences, hydroseeding and use of clean aggregate are also considered to support erosion and sediment control and to accelerate stabilisation.

[392] A series of setbacks are proposed from streams, property boundaries and the coastal foreshore areas.

[393] The draft ESCP proposes site-specific erosion and sediment control plans (SSESCP) which will be developed and continually revised as part of an Annual Works Programme (AWP) that assesses the monitored outcomes of the previous 12 months and revises processes for the following 12 months.

[394] All erosion and sediment control works are to be designed and operated in accordance with GD 05.[297]

Comments Received

[395] Few comments were received related to earthworks effects. The Panel notes that dust and coastal hazard effects related to the proposed mining operation are addressed under separate Part F headings.

[396] In his evidence prepared to support DOC's S53 comment Dr Storey noted, in his summary of potential effects[298], the risk of fine sediment run-off to waterways resulting from nearby earthworks. He did not elaborate further in his evidence but recommended changes to the consent conditions relating to monitoring thresholds for turbidity of streams and inspection of erosion and sediment controls.

[397] Linda Grace noted the high level of rainfall on the coast and saturated nature of the sand resource raising a concern that the mining wall between the coastal foreshore might fail and that excess mining water and silt may discharge onto the beach. She also raised a general concern that Barrytown Beach will be affected by the mining excavation.

[398] No comments were received by WCRC or GDC relating to effects of earthworks.

Applicant Response to Comments

[399] The Applicant responded to Linda Grace's concerns noting that:

[297] Auckland Council 2020. Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland region. June 2016 incorporating Amendment 3.
[298] At Paragraph 28(ii).

a. A 50 m buffer from MHWS will be observed for mining activity ensuring no effects on the coastal scarp.

b. Sediment and erosion controls will be implemented across the Site as required by the draft ESCP (document M8).

c. There is no excess water. Water is pumped in a loop from the mine pond with the mined material and returned to the pond with the tailings.

[400] Our review of the revised consent conditions offered by the Applicant appears to address the issue of a rainfall threshold recommended by Dr Storey for condition 21.3, but the Applicant does not address the turbidity threshold issue raised.

Panel Findings

[401] The Panel has considered the information provided by TCM and generally agree with the view that the earthworks effects, when considered in the context of the mitigation measures proposed, the proposed monitoring and the conditions offered are likely to be contained entirely within the proposed 16 ha open area.

[402] However, the Panel agrees with Dr Storey that thresholds for turbidity need to be set for downstream waterways given the progressive diversion during mining. We have therefore made modifications to condition 21.2 to set thresholds to address this matter.

[403] Overall, we find that any earthworks effects will be appropriately mitigated and do not weigh against granting the approvals sought for the Project.

Air Quality Effects related to Dust

The Application

[404] Air quality effects related to dust are addressed in paragraphs 8.89–8.94 of the Substantive Application and in the Dust Management Plan in Appendix M5.

[405] Dust emissions may arise from a range of Site preparation and operational activities, including bund construction, topsoil stripping, rehabilitation activities, and vehicle movements.

[406] TCM has sought an air discharge consent.

[407] A Dust Management Plan has been prepared to manage Site activities and avoid dust emissions beyond the boundary of the Project area. Given the high groundwater levels and frequent rainfall at the Site, dust generation is not expected to be significant issue though there can be periods of dry weather.

[408] Baseline dust deposition monitoring at the Central Block boundary indicates background dust levels of approximately 0.4 g/m²/30 days, including during particularly dry conditions.

[409] Ongoing monitoring is proposed during mining to ensure dust deposition remains below the Ministry for the Environment guideline of 4 g/m²/30 days above background levels. Management measures will be implemented to reduce dust emissions if required.

[410] Water carts and sprinkler systems will operate across active work areas, haul roads and rehabilitation areas as required to suppress dust. Water for dust suppression will be sourced from the Mine Water Facility (MWF), with the authorised water take from Canoe Creek) providing sufficient capacity to meet demand.

Comments Received

[411] West Coast Tai Poutini Conservation Board and a number of lay commenters expressed concerns regarding effects of dust from the mining activity on (variously) tank water supplies, workers and residents[299] while one lay commenter expressed concerns regarding the dust monitoring methodology[300].

Applicant Response to Comments

[412] TCM did not introduce any new material or evidence in response to the comments received on the effects of dust. Instead, TCM reiterated or restated material from the Substantive Application, the Dust Management Plan and consent conditions.

Panel Findings

[413] The Panel considers that given the topography of the mining area, the high groundwater levels, the annual rainfall for the area and the proposed 16 ha size constraint on the mining area, the potential for nuisance dust emissions beyond the boundary of the Site is low.

[414] The Panel acknowledges that the dust deposition monitoring methodology proposed by TCM may have limitations. However, all monitoring regimes have both limitations and benefits. Dust deposition monitoring is one of several tools TCM uses to manage dust – others include limiting the size of the active mining area, using water carts and sprinklers, monitoring weather, and conducting daily visual checks.

[415] The Panel finds that TCM's proposed conditions to manage air quality, and the implementation of the Dust Monitoring Plan, will be sufficient to manage the potential adverse effects of dust emissions.

Effects on Cultural Values

The Application

[416] Ngāi Tahu and Ngāti Waewae are identified by TCM as the relevant iwi authorities, hapū and Treaty settlement entities for the project area. TCM has outlined the engagement it has undertaken with both parties[301].

[417] In April 2026, Ngāi Tahu advised TCM that, as engagement with Ngāti Waewae continued, it was unlikely that further engagement with Te Rūnanga would be required.

[418] TCM states that it and its predecessors have actively engaged with Ngāti Waewae since April 2020 and have addressed their concerns throughout the development of the wider Barrytown Mining Project, including this Application for mining in the Southern Block. It is committed to a partnership with Ngāti Waewae to provide funding to improve biodiversity outcomes through predator control and other conservation activities, as well as to improve understanding of Tāiko through further research, with Mātauranga Māori central to this work. TCM further states that Ngāti Waewae's cultural well-being will be provided for by adopting established and accepted protocols for mining activity and for the handling of any accidental discovery of koi iwi and taonga, and by committing to continued investigation into the improvement of environmental and cultural measures throughout the life of the

[299] Appendix E, comments 4, 10, 13, 16, 18, 20, 21, 23, 37, 40.
[300] Appendix E, comment 41.
[301] Substantive Application at [1.22], [2.10]-[2.11], [3.11], [8.13], [8.103], [10.1]-[10.8]; Appendix F, Summary of Consultation, sections 1, 4 and 6.

Project. Ngāti Waewae's ongoing involvement has informed a comprehensive set of proposed conditions that reflect best practice mining management while safeguarding the ecological and cultural values of the area.

[419] The Paetae Kotahitanga ki Te Tai Poutini (Partnership Protocol) and Mana Whakahono a Rohe (Resource Management Act Iwi Participation Arrangement) formalise the collaborative relationship between Ngāti Waewae, Ngāi Tahu and Te Rūnanga o Makaawhio (collectively referred to as Poutini Ngāi Tahu) and the West Coast Regional Council. The Arrangement recognises the partnership between Council and Poutini Ngāi Tahu and provides a framework for iwi participation in resource management processes under the Resource Management Act.

[420] TCM states that in preparing and assessing the Project, they have recognised and applied the principles underpinning this Arrangement.

[421] Ngāti Waewae have stated that they have developed a strong, enduring relationship with TCM over several years, founded on a shared commitment to appropriate environmental and cultural outcomes. They acknowledge active engagement in past consent applications for the project, as well as the current application for the Southern Block. They confirm that their ongoing involvement has informed a comprehensive set of proposed conditions that reflect best-practice mining management while safeguarding the area's ecological and cultural values. They further state that the proposed rehabilitation and biodiversity initiatives provide an opportunity to enhance the mauri of the whenua, restore ecological integrity, and support the re-establishment of indigenous habitats and species.

[422] The archaeological and heritage effects of the proposal are discussed above. As already discussed, the archaeological assessment was provided to Ngāti Waewae who advised TCM that an assessment of Māori values is not required.

[423] Ngāti Waewae have confirmed that they are satisfied the proposed consent conditions appropriately address the matters they discussed with TCM during consultation.

Comments Received

[424] No comments were received in relation to cultural values.

Applicant Response to Comments

[425] No response from TCM was necessary, as no comments were received.

Panel Findings

[426] The Panel considers that TCM has effectively engaged and appropriately involved the relevant treaty settlement entities, iwi authorities, and hapu identified in the FTAA to determine cultural values and to manage effects on those values.

[427] The Panel finds that effects on cultural values are appropriately managed by the proposed conditions of consent.

Coastal Hazard Effects

The Application

[428] Coastal hazard effects are addressed in paragraphs 8.95 to 8.98 of the Substantive Application, in the Coastal Hazard Assessment report (Appendix L10) and in the evidence of Mr Teear in Appendix L10A of the Application.

[429] The Coastal Hazard Assessment report prepared by Mr Teear summarises the existing coastal margin as follows:

a. South of Canoe Creek the beach is a sand-dominated mixed sand/gravel beach backed by a near-vertical, 1–1.5 m escarpment made up of mixed sand and silt; no gravel barrier or lagoons are present compared to the beach further north of Canoe Creek.

b. Gravel accumulation is noted around the outlet of various streams that exit the Site into the foreshore area. Creek mouths appear relatively stable over time.

c. High-energy southwest swells drive strong northward littoral drift, estimated at 1.7–2.6 million m³/year.

d. The shoreline has been subject to coastal erosion, estimated at approx. 0.9–1.3 m/yr between 1951–2023, possibly slowing to approx. 0.2–0.7 m/yr when considering the timeframe of 1988–2023. The cause is inferred to be a regional sediment deficit where longshore drift removes sediment faster than rivers supply it.

[430] Ongoing shoreline erosion is expected to occur over the course of the proposed mining activities and is calculated at approx. 75 m by 2060 (or approx. 2 m per year). This accounts for current coastal erosion rates as well as allowances for a conservative sea level rise scenario (SSP5-8.5 H+) and local vertical land uplift projections.

[431] Coastal flooding or sea inundation has been identified as a possibility when considering the planning timeframe (out to 2130). The shoreline escarpment crest is positioned at +3.5 to +5.0 m (NZVD2016) and the 10% AEP for extreme sea level (3.6–4.7 m) could result in overtopping of lower parts of the shoreline escarpment at high tide.

[432] However, the consequence of inundation is limited in that seawater inundation will eventually drain back to the coast via existing creeks. If sea inundation reaches the active mining areas, the dredge floats and can therefore be expected to rise with any water reaching the pit.

[433] It is noted in the Coastal Hazard Assessment report that the sea inundation risk for the subject site applies whether or not mining proceeds.

[434] The Tsunami risk is described as relatively low. The GNS models that have been relied upon identify the potential to generate a 4–6 m high wave in a 2,500-year return period event. This is expected to only result in moderate damage.

[435] During the operational phase of the mine the coastal hazard risks are proposed to be managed by adopting a setback of the edge of the mining area, which will be measured from MHWS, (taken as the vegetation line at the top of the coastal escarpment). The setback is proposed to be a minimum of 50 m.

[436] The Coastal Hazard Assessment report recommends that this 50 m setback be calculated at the commencement of each section of mining (to account for the actual coastal erosion that occurs between the consenting phase and operations at each section commencing). In his evidence Mr Teear states that offered conditions of consent make provision for this.

[437] As operations move away from the coastal margin, coastal hazards are managed by progressive backfilling of the mining void with tailings sand that has had the HMC removed (approx. 2.6 million m³). Overall, the loss in ground elevation across 408 ha of the Site

will average ~0.63 m. Site rehabilitation will, however, restore the western side of the area to near original level.

[438] The final rehabilitated landform will largely slope gently seaward for drainage, with topsoil and pasture reinstated and a new wetland developed along the eastern edge. The soil material used for Site rehabilitation is expected to be no more susceptible to coastal erosion than the undisturbed ground.

[439] Overall, the conclusion drawn is that mining will not affect natural beach processes; and that the proposed staged setback will maintain separation from coastal processes during operations.

[440] Risk assessments for the mining operations carried out in accordance with the NPS:NH 2025 indicate:

a. A low risk of sea inundation.

b. A low to medium risk of Tsunami.

c. A low risk of coastal erosion provided monitoring is undertaken and setbacks are re-established for each area.

Comments Received

[441] Comments on coastal hazard effects were received from:

a. Department of Conservation (DOC);

b. Royal Forest and Bird Protection Society of New Zealand (Forest & Bird);

c. Coast Road Resilience Group (CRRG);

d. West Coast Tai Poutini Conservation Board (WCTPCB);

e. Don Kerr/Wendy Larner and Linda Grace.

[442] DOC raised the issue of the Site being within the coastal marine area as delineated in the TTPP and that Policy 11 of the NZCPS therefore applies. This is an avoidance policy that applies to threatened and at-risk species.

[443] Forest & Bird raised concerns about impacts of climate change, and risk of coastal erosion and sea inundation as a result of the proposed mining operations.

[444] Forest & Bird point to previous evidence prepared Michael Harding for the 2023 consent application for the central block[302], who noted risks relating to the effects of climate change being increased intensity and frequency of storm events, and consequent coastal erosion, increasing the risk of catastrophic landform failure at the mine location.

[445] Forest & Bird maintain that the Application does not adequately assess the risk of climate change impacts, particularly regarding the impact of sea water inundation.

[446] The CRRG raise concerns about coastal erosion at the foreshore describing the current condition as *"at times severe"* and that *"Mining would likely exacerbate coastal erosion through land disturbance…"*.

[302] Grey District Plan Mike Harding LU3154-23 TiGa Minerals and Metals Review – Terrestrial Ecology dated 12 December 2023 Paragraph 150.

[447] CRRG considers that the proposed 50 m setback from the coastal escarpment is inadequate and a 100 m setback would be more appropriate.

[448] WCTPCB raises an issue of a lack of assessment of the mining activities on the marine environment. They further note that *"Hector's dolphins are known to be frequent visitors along the Barrytown marine area".*

[449] Don Kerr and Wendy Larner noted the potential that mining will accelerate the rate of coastal erosion and that there may be adverse effects on coastal lagoons.

[450] Linda Grace noted the risk of collapse of the mine wall and potential for associated water and mud to flow to the beach.

[451] No comments were received by WCRC or GDC relating to coastal hazard effects.

Applicant Response to Comments

[452] The Applicant's responses to DOC, Forest & Bird, CRRG, WCTPCB, Don Kerr/Wendy Larner and Linda Grace's concerns followed a similar theme as summarized below:

a. There is no anticipated effect on the coastal marine environment.

b. A 50 m buffer from MHWS will be observed for mining activity ensuring no effects on the coastal scarp.

c. Sediment and erosion controls will be implemented across the Site as required by the draft ESCP.

d. MHWS will be reestablished at the commencement of mining in each section of the activity.

e. The western side of the mining disturbance area will be rehabilitated to the existing land level.

Panel Findings

[453] The Panel has considered the information provided by TCM and the concerns raised by commenters.

[454] In general, the issues raised by commenters are either a concern of a general nature or a specific concern, but one that is only described in a conceptual sense. No expert evidence has been provided that would cause the Panel to doubt the Coastal Hazard Assessment and evidence prepared by Mr Teear.

[455] Setting this aside, the Panel have considered the issues raised by commenters in relation to the adequacy of the proposed 50 m operational setback, whether climate change has been adequately allowed for in the assessment and whether the proposed rehabilitation is appropriate.

[456] The effect of climate change on both coastal erosion and sea inundation has been explicitly addressed in the Coastal Hazard Assessment report at Sections 4 and 5.

[457] The 50 m set back from MHWS is considered acceptable on the basis that the MHWS position will be reconfirmed prior to commencing mining in each of the three Sections illustrated in Plan C of the Application. The Panel has made adjustments to the offered conditions to make them clearer and more certain in this regard.

[458] The proposed rehabilitation is considered appropriate from a coastal erosion and sea inundation perspective. Coastal erosion and sea inundation risks exist at the Site regardless of the operational use of the Site. The Panel does not consider that the proposed rehabilitation will significantly accelerate or worsen these risks. However, the Panel note that the proposal to reinstate the western part of the Site, adjacent to the coastal escarpment, to pre-mining levels is not a requirement that is clearly set out in the offered conditions and consequently has made changes to address this.

[459] Overall, subject to the operational setback and final rehabilitation proposed, it is the Panel's view that the residual coastal hazard effects are negligible and do not weigh against granting the approvals sought for the Project.

Land Stability Effects

The Application

[460] TCM discusses land stability effects in paragraphs 6.25, 6.51, and 8.99 to 8.103 of the Substantive Application and in the evidence of Mr Federici in Appendix L2 of the Application.

[461] The Application and evidence of Mr Federici indicated that localised instability of mine batters may occur. However, the proposed setback of mining from a variety of property boundaries and other features (as set out at paragraph 6.24 of the Substantive Application) was considered to represent appropriate mitigation of this instability risk.

[462] On this basis TCM considers the risk of instability to be low and that this risk can be appropriately managed through design controls and operational practices.

Panel RFI – Minute 3

[463] The Panel requested additional information (Appendix 1 of Minute 3) relating to the performance of mine batters under seismic loading and the associated risk of lateral spread.

Comments Received

[464] No comments were received that were related to land stability effects.

Applicant Response to Comments

[465] In their response to comments TCM also provided a response to the panels RFI queries set out in Appendix 1 of Minute 3. The response consisted of reply statements of evidence from Mr Federici and Mr Hurley. The reply evidence of Mr Hurley addressed the issue of seismic loading and lateral spread risk.

[466] Mr Hurley has set out that no specific geotechnical investigations have been undertaken to support the project at its current stage.

[467] However, he notes that:

a. The ground conditions are relatively well understood from the results of resource drilling (coarsely graded sands).

b. Groundwater is expected to be shallow (approx. 1 m below ground surface).

c. Previous dredging of the Site is expected to have disrupted the light cementation that often exists in these materials in their natural state.

[468] Mr Hurley defines the expected seismic loadings for SLS (serviceability limit state) and ULS (ultimate limit state) in accordance with TS1170:5 and, helpfully, includes additional published information related to Alpine Fault rupture magnitude and peak ground accelerations).

[469] Mr Hurley provides some discussion that describes past performance of similar materials under significant seismic events as a context for his qualitative assessment that follows.

[470] The conclusion reached is that dredge pond batter performance is expected to be acceptable based on the seismic loads expected under SLS and ULS cases, based on the setbacks provided in the Application.

[471] However, he concludes that liquefaction and associated flow failure (or lateral spread) is possible and that the effects could extend many tens of metres behind the mining void. If it were to occur, lateral spread could undermine Little Granite/Granite Creek, resulting in diversion of some or all of the creek into the mining void.

[472] Mr Hurley notes that the probability of a large-scale seismic event, capable of causing liquefaction and lateral spread is very low, based on an annual probability of ~3% in the year or so that mining takes place alongside these creeks. He also notes that remedies exist to address the consequence of a lateral spread failure. These include:

a. The intervening bund between the creek and pit pond would be re-built, including suitable armouring for the creek margin.

b. The creek bed would be re-graded to establish a gradient and depth close to the original.

c. The pit would be back-filled with tailings or other suitable inert material to stabilise the immediate area, and;

d. Surplus aggregate in the downstream creek bed would be dredged with an excavator to restore the creek bed profile close to its original state and alleviate clogging of the floodway.

[473] Overall, Mr Hurley is of the view that a liquefaction event is not expected to have long term negative effects and remediation is available in the event of a lateral spread event that has an off-site effect.

Panel Findings

[474] The Panel has considered the information provided by TCM and generally agree with the view that the land stability risks under static conditions are very low and likely to be contained entirely within the Site.

[475] With respect to seismic loadings and potential for lateral spreading, we have considered the reply evidence of Mr Hurley, which is largely qualitative in nature.

[476] While we are unable to exactly replicate the values derived by Mr Hurley for SLS and ULS load/magnitude pairings from TS1170:5, the differences are minor and in the context of the qualitative assessment undertaken, are not so significant that a decision cannot be made.

[477] Mr Hurley characterises the probability of occurrence over the year that Little Granite Creek/Granite Creek might be vulnerable as very low, based on a ~3% probability of Alpine Fault rupture in any given year.

[478] However, when this indicative probability is compared against the Risk Matrix incorporated in Appendix 1 of the NPS:NH 2025, the likelihood/probability is "likely" (i.e. 3%) for the Alpine Fault rupture case described or "unlikely" (i.e. 0.2%) for the ULS case described.

[479] While the consequence of failure is difficult to assess with certainty based on the information provided, it is expected to cover the "moderate" and "major" categories defined in the NPS:NH 2025.

[480] The resulting derived risk could therefore be expected to lie somewhere between medium and high (refer annotated risk matrix from NPS:NH 2025 below).

Figure 1: Risk matrix

Consequence Level	Likelihood Level						
	Almost Certain	Very Likely	Likely	Possible	Unlikely	Rare	Very Rare
ARI (years)	up to 10	10-20	20-50	50-100	100-500	500-5000	> 5000
AEP	10% or more	10% to 5%	5% to 2%	2% to 1%	1% to 0.2%	0.2% to 0.02%	< 0.02%
Catastrophic	Very High	Very High	Very High	High	Medium	Medium	Medium
Major	Very High	Very High	High	High	Medium	Medium	Medium
Moderate	High	High	High	Medium	Medium	Low	Low
Minor	Medium	Medium	Medium	Medium	Low	Low	Low
Negligible	Low	Low	Low	Low	Low	Low	Low

[481] The NPS:NH 2025 requires that Medium and High risks from natural hazards should be avoided or mitigated proportionate to the level of risk (at Section 3.3, 2 b), recognising that this proportionate approach should consider the cost effectiveness of mitigation measures relative to the level of anticipated risk (at Section 3.3, 3).

[482] The Panel is aware that liquefaction related effects are the potential for an environmental effect under a specific set of circumstances, as opposed to an environmental effect that will occur as a result of the proposal.

[483] We have turned our mind to the potential level of exposure that may occur as a result of the progressive mining of the resource along property boundaries and Granite Creek.

[484] Given the described advance rate of mining of 2,200 m per year (Application document at para. 6.23) and considering the length of exposure of Granite Creek is just under 600 m in length (with property exposure being further limited), the duration under which lateral spread risk might exist is 3-6 months.

[485] For seismic design recurrence intervals are set by AS/NZS 1170:0 2002, and depending on the selected importance level (either 1 or 2 might be appropriate in this case), recurrence intervals of either 1:25 or 1:100 might result (refer AS/NZS 1170:0 2002 Table 3.3).

[486] When those recurrence intervals are used to generate seismic loads in TS1170:5, the resultant loads are between 0.08 to 0.19 g (refer TS1170:5 2025 Table 3.1 "Runanga"). This suggests a risk towards the low-moderate range when considered in the context of the NPS:NH 2025.

[487] Taking this into account, while there remains a level of uncertainty of performance of mine batters under high seismic loads, the level of exposure (months) and the design seismic

loads that might need to be considered (which are moderate to low), mean that this uncertainty and associated risk is not so great that the consents cannot be granted.

[488] We note that this stability issue does not exist in the long term, due to the backfilling of the mining voids with tailings.

[489] The Panel notes that TCM proposes remediation to streams in the event of damage resulting from lateral spreading. The Panel is satisfied that there are provisions under the Resource Management Act for Council to require this remediation if it becomes necessary.

Radiation Effects

The Issues

[490] The matters in contention are:

a. Which radiation-related activities are authorised by this Application and which by TCM's existing consents;

b. Tthe concentration of the radioactivity of the ore by the WCP tailings and the MSP tailings;

c. Whether radioactivity inferred from uranium and thorium assay can be relied on, which turns on secular equilibrium;

d. Radon at dwellings;

e. Radionuclides in groundwater;

f. The adequacy of the offered conditions. We address each in turn after summarising the evidence.

The Application

[491] TCM addresses radiation effects in paragraphs 8.109 and 8.110 of the Substantive Application. The Application states that the ore contains only low levels of naturally occurring radionuclides and that the inferred radioactivity values are treated, for the purposes of the Application, as below the 10 Bq/g threshold specified in Schedule 2 of the Radiation Safety Act 2016 (RSA) for material to be classified as radioactive.[303]

[492] Additional details are provided in the evidence of Mr David Bougourd in the Substantive Application[304] Mr Bougourd describes sampling and testing from a 2025 resource investigation targeting naturally occurring radioactive minerals (NORM). Testing was undertaken by pXRF analysis, which reported: uranium and thorium averaging 50 ppm Th and 20 ppm U for Barrytown and 48 ppm Th and 20 ppm U for the Canoe Creek ore;[305] an inferred equivalent specific activity of 0.46 ± 0.19 Bq/g for the Barrytown ore and 0.45 ± 0.19 Bq/g for the Canoe Creek ore, calculated on the assumption of secular equilibrium; and that these results are well below 10 Bq/g.[306] Results are consistent with those reported by Mr Mitchell Ryan in his evidence for the Central Block process.[307]

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[303] Substantive Application at [8.109]-[8.110]; Radiation Safety Act 2016, Schedule 2.
[304] Substantive Application, D Bougourd, Statement of Evidence - Radiation, Substantive Application Appendix L8A.
[305] Substantive Application, D Bougourd, Statement of Evidence - Radiation, Substantive Application Appendix L8A (Bougourd EIC) at [6]-[8] [Appendix L8A].
[306] Bougourd EIC at [9]-[10].
[307] Central Block decision at [603]-[606].

[493] Mr Bougourd describes processing the mined sand into HMC using conventional gravity and screening separation. He notes that no chemical or thermal processing occurs and, consequently, all materials are in secular equilibrium. This is a key assumption because the activity levels quoted depend on it.[308] He refers to earlier results for tailings slimes of 1.17 ± 0.15 Bq/g and tailings sand of 0.08 ± 0.03 Bq/g, from which he derives 0.32 ± 0.18 Bq/g for the mixed tailings to be returned to the void.[309] He concludes that the ores, slimes and tailings are well below the Schedule 2 level, and TCM considers that the Central Block conditions remain appropriate.[310]

[494] Overall, Mr Bougourd and TCM consider that the consent conditions adopted for the Central Block remain appropriate for this consent application, and that ongoing monitoring of radiation levels during operations will ensure any potential adverse effects associated with naturally occurring radiation are appropriately managed and avoided.[311]

Comments Received

[495] Comments were received from the Parliamentary Commissioner for the Environment (PCE); the Director for Radiation Safety, Office of Radiation Safety (ORS), Ministry of Health; the Coast Road Resilience Group (CRRG), whose comments include legal submissions and expert evidence from Dr John Philip Bradley; the West Coast Regional Council; and a number of lay commenters.[312] Lay concerns can be summarised as: the adequacy of source characterisation; exposure pathways, including radon, dust, and leaching to groundwater; tailings activity; the absence of an independent assessment; and the adequacy of monitoring and mitigation.[313]

[496] The PCE raised the potential "increase in ionising radiation as a result of heavy metals in the mined sand being concentrated at the MSP and then being returned in the tailings (waste materials) to the mining site after processing",[314] observed that the return of tailings to the void "does not appear to be included in the rules assessment … in either section 7 or Appendix N",[315] asked that its consenting status be clarified and any additional consents be included, and "strongly recommend[ed] that the Panel engage an independent expert in NORM and ionising radiation".[316]

[497] The Office of Radiation Safety advised that a Compliance Guide for the Management of NORM in Mining and Mineral Extraction was published in June 2026, providing a "risk management approach and requirements for NORM management planning",[317] and that the Director expects the Guide to be followed by the operator and the consenting authorities to ensure that it is. Section 3.1 of the Guide adopts a screening level of 1 Bq/g for U-238 and Th-232 series radionuclides: material above 1 Bq/g requires notification of the Director and

[308] Substantive Application, D Bougourd, Statement of Evidence - Radiation, Substantive Application Appendix L8A Bougourd EIC at [11]-[12].
[309] Ibid; Bougourd EIC at [13].
[310] Ibid; Bougourd EIC at [14].
[311] Ibid; Bougourd EIC at [14]; Substantive Application at [8.110].
[312] Appendix E, comments 15 (ORS), 25 (PCE), 26 (WCRC) and 37 (CRRG).
[313] Appendix E, comments 4, 7, 10, 13, 18, 19, 20, 21, 23, 24, 30, 34, 38 and 40.
[314] Parliamentary Commissioner for the Environment, Comment 25, 28 September 2026 (PCE comment) at p 2.
[315] PCE comment at pp 2-3 and fn 8.
[316] PCE comment at p 3.
[317] Director for Radiation Safety, Office of Radiation Safety, Comment 15 (ORS comment). Office of Radiation Safety, Compliance Guide: Management of Naturally Occurring Radioactive Material (NORM) in Mining and Mineral Extraction (Ministry of Health, June 2026) (ORS Guide) section 3.1.

a comprehensive assessment; where activity may exceed 10 Bq/g or the dose to people 1 mSv/yr, the operation may require licensing and a NORM management plan.[318]

[498] Dr Bradley's evidence for CRRG identifies the following: results from historical samples from Barrytown, the Grey River and Cape Foulwind showing higher activity than described by TCM, with three of five magnetic separates exceeding 10 Bq/g;[319] indoor and underfloor radon in Barrytown (median 63 Bq/m³, with spikes to about 1000 Bq/m³) compared with medians of 18-23 Bq/m³ in two earlier New Zealand urban studies, against the WHO reference range of 100-300 Bq/m³ (New Zealand has no statutory indoor radon limit);[320] that excavation will agitate, decompact and dewater the sands and enhance radon escape; and the absence of atmospheric radon and groundwater radionuclide (radium) baselines.[321]

[499] Dr Bradley criticises TCM's method: no radiological analysis of U, Th and Ra in as-received drill samples; uncertainty whether results are for HMC or ore; pXRF measures elemental proportions only, so activity can be inferred but not measured and is usually understated; and secular equilibrium is unconfirmed and, in his view, unlikely because the minerals have been aqueously altered within the last ~10,000 years.[322] He also contends that concentration at the WCP and MSP yields a greater, not less, radioactive residue and that this is what will fill the void.[323]

[500] If consent is granted, Dr Bradley recommends conditions aligned with the Western Australian NORM guides, or, at a minimum, the Ministry of Health Guide.[324]

[501] CRRG's legal submissions contend that the NORM content of the returned tailings engages s 15 RMA, the HAIL/NESCS regime and the bond, and propose a dedicated radiation condition set including a Radiation Management Plan certified by the Council, independent accredited baseline testing, WA NORM guide alignment, a community technical advisory group and a shared data platform.[325]

Applicant Response to Comments

[502] In their response to comments, TCM provided reply evidence prepared by Mr Bougourd.[326]

[503] TCM's reply evidence from Mr Bougourd (Attachment F) responds to the PCE and Dr Bradley; in Attachment B lay commenters are referred to that evidence. TCM's legal memorandum addresses scope.[327]

[504] Mr Bougourd says it is unclear how Dr Bradley's Table 1 results were obtained; that quoting radon in Bq/m³ for solids is unusual; that the mineral suite reported (thorite, uranothorite, uraninite, monazite) differs from Barrytown, where the principal source is low-concentration

[318] Office of Radiation Safety, Compliance Guide: Management of Naturally Occurring Radioactive Material (NORM) in Mining and Mineral Extraction (Ministry of Health, June 2026) (ORS Guide) section 3.1.
[319] Bradley, Expert Report for the Coast Road Resilience Group, Comment 37, Attachment B (Bradley) at [11]-[18].
[320] Ibid; at [24]-[33]; World Health Organization, WHO Handbook on Indoor Radon (2009), reference level 100 Bq/m³ and upper level 300 Bq/m.
[321] Bradley at [36]-[44] and [62].
[322] Bradley at [48]-[60].
[323] Bradley at [39]-[45], in particular [41].
[324] Bradley at [64].
[325] Coast Road Resilience Group, Legal Submissions, Comment 37 (CRRG submissions) at [12]-[35] and [78]-[83], and Appendix 6.
[326] Applicant's Response to Comments, 5 October 2026, Attachment F (D Bougourd, Reply Statement of Evidence) (Bougourd Reply).
[327] Applicant's Response to Comments, 5 October 2026, Attachment F (D Bougourd, Reply Statement of Evidence) (Bougourd Reply); Attachment B (tabular responses); Memorandum of Counsel for Taiko Critical Minerals Limited, 5 October 2026 (TCM memorandum).

monazite; and that the high values are inconsistent with all Barrytown data to date.[328] He accepts that Dr Bradley's bulk HMC and ilmenite results are below 10 Bq/g and that the exceedances are in magnetic separates of a Hutton dredge sample and a WMS rare-earth concentrate, neither of which is Southern Block ore.[329]

[505] Regarding radon, he questions Dr Bradley's Figure 5 residential results, says expected airborne concentrations are much lower (worst case ~100 Bq/m³ even in enclosed HMC storage), that mineral sands are generally a low radon risk, and that TCM "has committed to measurement of Radon and assessment of exposure to company staff and environmental emissions".[330]

[506] On equilibrium Mr Bougourd says erosion and shallow-marine redeposition produce stable mineral chemistry; any leaching would have occurred long ago; only chemical or thermal treatment, which is not proposed at any stage, would disturb equilibrium; and Dr Bradley's electron-microscope images show minerals not found in the Barrytown resource.[331]

[507] Mr Bougourd disagrees that returned tailings will be more radioactive than the ore (Bradley [41]): zircon, ilmenite and rutile - the main radioactive carriers after monazite - are removed as saleable product, so MSP tailings must be lower than HMC, and when mixed with the "barren" WCP tailings the homogenised backfill will be at or below the activity of the ore.[332] In response to the PCE, he provides the September 2026 testwork on Canoe Creek drill samples: ore 0.29, HMC 1.3, MSP tailings approximately 5.0 (an estimate dependent on plant settings), WCP tailings 0.25 Bq/g.[333] He notes the Palaris study reported a non-magnetic concentrate of 12.9 Bq/g, and that the MSP "will be monitored and adjusted continuously" to keep products below 10 Bq/g.[334] He states that TCM has committed to measuring pre- and post-mining surface radioactivity "as part of normal and ongoing radiation management", and to periodic analysis of each process stream.[335]

[508] In his response to the Parliamentary Commissioner for the Environment, Mr Bougourd provides additional, more recent test results for Ore, HMC, MSP tailings and WCP tailings to demonstrate this issue.

[509] TCM's legal memorandum states that the Application "seeks resource consent for that residual mineral stream … to be returned to the WCP and combined with tailings and borrow material for use in rehabilitation of the mining void", and for the discharge to the void under the Land and Water Plan;[336] that "the principal difference for the Application is the return of the residual HMC stream to the mining void";[337] and that processing at the WCP and MSP is controlled by RC-2025-0170-01 (conditions 26-41), LU3473/25 and LU3489/25 (condition 70) and LU3329/25 (condition 30).[338]

Panel Findings

[328] Bougourd Reply at [5]-[7].
[329] Bougourd Reply at [6]; Bradley at [16]-[18].
[330] Bougourd Reply at [8]-[12]; the quotation is at [9].
[331] Bougourd Reply at [13] and [16]-[18].
[332] Bougourd Reply at [14]-[15].
[333] Bougourd Reply at [24]-[26] (September 2026 Canoe Creek testwork).
[334] Bougourd Reply at [22].
[335] Bougourd Reply at [27]-[28].
[336] Memorandum of Counsel for Taiko Critical Minerals Limited - Legal Considerations in Reply, 5 October 2026TCM memorandum at [7(b)].
[337] Ibid; at [20].
[338] Ibid; at [17]; Substantive Application Appendices H3 and H4.

Scope

[510] The Panel has considered the information provided by all parties and recognises that potential radiation effects are an important issue.

[511] Before considering and weighing the information provided by both TCM and, the Panel must consider the nature and extent (or scope) of the consents being sought and where and how the mining of the Southern Block will interact with other, previously granted consents.

[512] The elastic wording in TCM's legal memorandum raised an interesting question for the Panel to examine closely: whether the required approval includes transporting and mixing MSP tailings.[339] The Panel considers that approval is not required to transport the residual mineral stream from the Rapahoe MSP to the Southern Block and mix it with WCP tailings and borrow material before placing it in the void. First, the MSP consent (Appendix H4) expressly contemplates returning tailings: its decision describes depositing tailings and residual soils in a stockpile shed, back-loading them into heavy commercial vehicles, and returning them "back to the Barrytown mining area" via the private road to the State Highway. A consent for a MSP with no provision for its waste stream would be unworkable, and the consented description, although not specific about the precise destination within the mining area, plainly authorises the outbound movement of loaded vehicles. Second, the inbound movement of heavy vehicles to the Southern Block WCP is already authorised by the WCP relocation consent (Appendix H3), so the only question raised by this Application is that the returning vehicles land at the WCP specifically rather than elsewhere in the mining area - a matter of location, not of a new activity or effect. Third, the WCP relocation decision itself contemplates the mixing: section 19 (WCP Operations, page 37) records that "the residual soils from both the material left over from the mineral separation process (Rapahoe) and the WCP will be returned ... as a slurry, where it will be used as part of the rehabilitation process", and describes "the residual soils being returned back" from the MSP as part of the established rhythm of the operation, in the context of an operation planned for more than 30 years and therefore necessarily contemplating ore sources beyond the Central Block. The mixing is a distinct process from the discharge to the void, and it is the latter - the placement of the combined material in the Southern Block void - that is before us and that we consent and condition here. To the extent that any transport or mixing component is not already covered by the existing consents, we approve it as part of this Application as a precaution, noting that on the material before us this appears unnecessary.

[513] RC-2025-0170-01, LU3473/25, LU3489/25 and LU3329/25, carry over the Central Block radiation regime: quarterly HMC testing against Schedule 2 of the RSA, daily hand-held XRF screening with independent head-of-chain analysis above 1 Bq/g and cessation and dilution above 10 Bq/g, environmental gamma monitoring at fixed points with a 1 mSv/yr trigger, Rn-222 monitoring in the HMC stockpile building against 300 Bq/m³, and a Radiation and Radon Management Plan with 3-monthly reporting.

[514] What is before us, and what the WCP and MSP consents do not control, is:

a. The radioactivity of the ore as mined and the radon released by its disturbance;

[339] Memorandum of Counsel for Taiko Critical Minerals Limited - Legal Considerations in Reply, 5 October 2026TCM memorandum at [7(b)].

b. The activity of placement of mixed materials in the Southern Block void, which TCM acknowledges includes the MSP residual stream;[340]

c. Exposure of the public at dwellings adjoining the mining area to gamma radiation, dust and radon; and

d. Radionuclides in groundwater.[341]

[515] The PCE asked us to clarify whether this Application consents to returning tailings. It is: the discharge to the void is sought, and placing material is part of the mining system in the Substantive Application.[342]

[516] The FTAA does not authorise anything not allowed or controlled under the Radiation Safety Act 2016, and the Director for Radiation Safety has full authority for licensing, source-licence, and transport (ORS C6) requirements.[343] The Health and Safety at Work Act 2015 and the Mining Operations and Quarrying Operations Regulations 2016 continue to govern TCM workers' exposure, as do relevant conditions governing the WCP and MSP.[344]

[517] The Panel must address effects on the public, land, water, or the long-term use of the rehabilitated land. Our conditions are confined to those matters and are drafted to operate alongside and support, but not replace, the RSA regime. This is based on our assessment that our approach to approvals and conditions should be informed by the other statutory frameworks and enable information gathering to support the Director's functions and demonstrate compliance with the scope of the activity framed by the Substantive Application and TCM's evidence in a manner that does not unduly burden the local authorities with responsibilities the Director can perform more capably.[345] We note that the ORS comment states it expects consent authorities to ensure TCM's compliance with NORM, so we should not absolve consent authorities of any radioactive monitoring function; the conditions ensure information gathering and monitoring appropriate to assist them in performing that function.

Radioactivity of Ore and void tailings

[518] The Panel finds that the ore as mined has an activity concentration of 0.16-0.66 Bq/g, well below the 10 Bq/g Schedule 2 level and the 1 Bq/g screening level in the ORS Guide and the IAEA.[346] Every Barrytown dataset - the 2022 and 2023 bulk samples, the 2,274 drill assays, the 2025 pXRF programme and the September 2026 Canoe Creek testwork - is consistent on this point.[347] Dr Bradley's exceedances relate to magnetic separates of material from other locations and to a rare-earth concentrate, not to Southern Block ore; his own bulk HMC and ilmenite results are below 10 Bq/g.[348] The ore is not radioactive

[340] TCM memorandum at [7(b)] and [20].
[341] See Part F, Water Quality and Quantity Effects.
[342] PCE comment at fn 8; Appendix D to this decision (West Coast Regional Land and Water Plan, Rule 71).
[343] Radiation Safety Act 2016, sections 13-14 and Schedule 2; Office of Radiation Safety, Code of Practice for the Safe Transport of Radioactive Material (ORS C6).
[344] Health and Safety at Work Act 2015; Health and Safety at Work (Mining Operations and Quarrying Operations) Regulations 2016.
[345] Compare Central Block decision at [677] (relationship between RMA conditions and the Radiation Safety Act regime).
[346] ORS Guide, section 3.1; International Atomic Energy Agency, Safety Guide RS-G-1.7, Application of the Concepts of Exclusion, Exemption and Clearance (2004), para 3.3 (1 Bq/g for U-238 and Th-232 series).
[347] Central Block decision at [603]-[606] and [616]-[618] (2022 and 2023 bulk samples; drill assays); Bougourd EIC at [7]-[10] (2025 pXRF programme); Bougourd Reply at [26] (September 2026 testwork).
[348] Bradley at [16]-[18]; Bougourd Reply at [6].

material under the RSA, and the Panel is not asked to consent mining (including rehabilitation, processing and transportation) of radioactive material.[349]

[519] The HMC and MSP residual streams differ. The September 2026 testwork gives HMC 1.3 Bq/g and MSP tailings approximately 5 Bq/g; the earlier slimes result was 1.17 Bq/g, and the Palaris non-magnetic concentrate 12.9 Bq/g.[350] These fall within the 1-10 Bq/g band, in which the ORS Guide requires notification of the Director and a comprehensive assessment.[351] The Palaris figure shows that an unblended MSP product can exceed 10 Bq/g, depending on plant settings. TCM's answer is that they will adjust the MSP to stay below 10 Bq/g and homogenise the MSP stream with the WCP tailings in the pump hopper so the backfill is at or below the ore radioactivity. We accept Mr Bougourd's mass-balance reasoning - removal of zircon, ilmenite and rutile as product must reduce the activity of the remainder relative to the HMC - and Dr Bradley's contrary proposition at [41] is not supported by the Barrytown data.[352] But the acceptability of the void deposition depends on blending actually occurring and on the backfill actually meeting the ore benchmark. Those are presently statements of intent in reply evidence. They must be conditions recognising that the Substantive Application does not seek consent for radioactive material to be placed in the void.[353]

[520] Dr Bradley is right that pXRF measures elemental U and Th, and that activity is inferred from them, assuming secular equilibrium.[354] We accept that the inferred values can be relied on for screening, provided that - as the WCP consent already requires for HMC, and as we require below for ore and backfill - any screening result above 1 Bq/g is confirmed by head-of-chain gamma spectrometry at an accredited laboratory, and that a disequilibrium check is reported.[355]

Radon Levels

[521] Two distinct datasets are before us. The first is closed-container off-gas testing of HMC samples (Bradley et al. 2026).[356] It measures emanation potential from concentrate in a sealed vessel and tells us nothing about concentrations at a dwelling 200 m or more from an open, wet, wind-exposed dredge pond; we give it no weight on the off-site question. The second is Dr Bradley's residential survey (Figure 5): median indoor/underfloor radon of 63 Bq/m³ with occasional spikes to about 1000 Bq/m³.[357] Mr Bougourd questions it, but the methodology is set out in the published paper, and we accept it as the best available description of the existing environment.[358] It shows that Barrytown homes already have radon levels about three times the national urban median and that some are at or above the WHO reference range.[359]

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[349] Radiation Safety Act 2016, section 4 (definition of "radioactive material") and Schedule 2.
[350] Bougourd Reply at [22] and [24]-[26]; Bougourd EIC at [13] (slimes).
[351] ORS Guide, section 3.1. after "...at or below the ore radioactivity." FN: Bougourd Reply at [14], [22] and [27].
[352] Bougourd Reply at [14]-[15]; Bradley at [41].
[353] Bougourd Reply at [22], [27] and [28].
[354] Bradley at [53]-[60].
[355] (SGS decay-chain results 0.66 ± 0.06 and 0.70 ± 0.11 Bq/g); Institute of Environmental Science and Research, Peer Review, 4 December 2023 (ESR peer review); Substantive Application Appendix H3 at p 80 (RC-2025-0170-01 head-of-chain condition).
[356] Bradley J P et al, "[title]" (2026) New Zealand Journal of Geology and Geophysics, doi 10.1002/jgo2.70050 (Bradley et al 2026).
[357] Bradley at [24]-[33] and Figure 5.
[358] Bougourd Reply at [8]; Bradley et al 2026.
[359] Bradley at [29]-[30]; WHO Handbook on Indoor Radon (2009).

[522] No party has quantified the increment that mining would add. Dr Bradley asserts enhanced emanation from decompacted, dewatered sand but does not model it; Mr Bougourd's "worst case 100 Bq/m³" is for enclosed HMC storage, not dwellings, and he offers no ambient data.[360] Given ore activity of 0.16-0.66 Bq/g, the 3.8-day half-life, the wet dredging method and the 200 m setback, we consider a material increase at dwellings is very unlikely. But the elevated baseline, the absence of any pre-mining ambient data, TCM's own commitment in its reply to measure radon, and the ORS Guide's treatment of radon as a pathway to be assessed where NORM exceeds 1 Bq/g, together make this a case for monitoring rather than proceeding on risk assessment with assumptions.[361] We impose a condition requiring passive radon detectors at outdoor stations for 12 months before mining, continuing through mining, and for 12 months after backfilling, with an investigation trigger if the annual mean rises more than 50 Bq/m³ above baseline and exceeds 200 Bq/m³.[362]

[523] Professor McGlynn raised dissolved radon reaching wells and showers.[363] Mr Rekker replied that groundwater moves westward at 0.15-0.45 m/day, away from the dwellings; that, with a 3.8-day half-life, half the radon decays within about 1.5 m of travel; that the open pond cannot accumulate it; and that residents mostly use roof water and springs.[364] We accept that evidence: the radon-in-groundwater pathway is closed by physics. It does not, however, answer radium, which has a 1600-year half-life and is the nuclide most likely to mobilise from disturbed tailings. Mr Rekker lacks radionuclide expertise, and Mr Bougourd offers only "periodic" measurement.[365] We have already required, in the freshwater section, that the groundwater programme under condition 24.1 include gross alpha/beta and Ra-226/228 with a 12-month baseline;[366] condition 8.11 completes that by adding U-238, a trigger referenced to the Drinking-water Standards and the baseline 95th percentile, and sampling of any consenting domestic bore within 300 m of the MDA.[367] We note, however, that there may be no houses within this isochrone, and its limited reach reflects general groundwater movement towards the West.

Overall Findings on Radiation

[524] The Panel has decided that more comprehensive monitoring and reporting conditions generally assist implementation of the NORM guidelines and ensure the activity operates within the scope of the consent sought. We have also included reporting functions for the community liaison group to recognise the community's legitimate interest in the topic.

[525] Attachment C1 of the Applicants' reply offered conditions 8.4-8.6 only: quarterly HMC testing, compliance with the ORS Guide, and unspecified monitoring "devices" at the dust-gauge locations with a 1 mSv/yr trigger. Mr Bougourd describes these as consistent with the Central Block conditions. They are not: the Central Block regime's daily screening, head-of-chain confirmation, cessation and dilution, and building-radon conditions are absent. We accept that those matters now sit on the WCP consent and need not be repeated for the HMC. But the offered set addresses none of the matters that are specific to this Application - the ore, the backfill, off-site radon and groundwater - and defers

[360] Bradley at [31]-[33]; Bougourd Reply at [9]-[10].
[361] Bougourd Reply at [9].
[362] The mid-range of baseline and upper limit in World Health Organization, WHO Handbook on Indoor Radon (2009), reference level 100 Bq/m³ and upper level 300 Bq/m.
[363] B McGlynn, Expert Report for the Coast Road Resilience Group, Comment 37, Attachment E (McGlynn) at [62].
[364] Rekker Reply at [43]-[76].
[365] Bougourd Reply at [11].
[366] Part F, Water Quality and Quantity Effects, Panel Findings (condition 24.1).
[367] Condition 8.11, Appendix A; Water Services (Drinking Water Standards for New Zealand) Regulations 2022.

instrument type, baseline method, QA and action levels to a Radiation Management Plan that does not yet exist and that the Council would never see.

[526] For the reasons above, the long-term activity of the rehabilitated land depends on the backfill meeting the ore benchmark. The PCE's concern - that the land returns to agricultural use - is legitimate and is the reason we fix the benchmark in a condition rather than leave it to the Radiation Management Plan.[368] Condition 8.12 requires that MSP tailings be placed only as a homogenised blend with WCP tailings and/or overburden; that the blended backfill not exceed the mean pre-mining activity of ore for the block and in no case 1 Bq/g for any of U-238, Ra-226, Th-232 or Ra-228; that unblended MSP tailings be held only in a designated bunded area and returned within 12 months; and that a walkover gamma survey be made of each block before mining and within three months of rehabilitation, the post-rehabilitation surface dose rate not to exceed the pre-mining mean plus two standard deviations. The survey converts Mr Bougourd's commitment at [28] into an enforceable obligation.[369]

[527] We have not accepted CRRG's proposals for a community technical advisory group, independent audits appointed by the Councils, board-level reporting, a real-time public dashboard or closure financing fixed now.[370] Condition 8.13 provides a more balanced alternative: all data to the Council in electronic form, and an annual report reviewed by an independent radiation-protection specialist and provided to the Council, the ORS and the Community Liaison Group. Nor have we adopted the ARPANSA Code as a second compliance document; the ORS Guide is the New Zealand instrument. We do not accept submission of a risk to the coastal marine area because there is no application to discharge to the coastal marine area, let alone a discharge with negative radioactive effects on the CMA, and any risk is implausible. The HAIL/NESCS point is addressed at paragraph [193] in this decision. Because of the risks that we have identified being very low, we have not found radiation risk influential in setting the bond condition.

[528] The PCE recommended that we engage an independent NORM expert. We have not done so. The scope of the consents sought is limited; the Southern Block ore has been characterised using independent datasets; the ORS has engaged directly with TCM and has told us what it expects; and the remaining uncertainties - off-site radon and radium in groundwater - require baseline data, which an expert cannot supply and which our conditions require to be collected before mining begins. The condition 8 series and Council certification of the Radiation Management Plan meet the ORS's expectation that consenting authorities ensure the Guide is followed. The duties on TCM under the Radiation Safety Act and the Health and Safety in Employment Act are unaffected by our decision. TCM acknowledges this in the advice notes in the conditions accompanying the reply Attachment C1.

[529] We find that:

a. The ore is not (and no consent is sought for mining) radioactive material under RSA, Schedule 2 and mining and transport pose no material radiation risk to the public;

b. The HMC and MSP residual streams fall within the ORS notification band and are controlled by the WCP and MSP consents and the RSA;

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[368] PCE comment at p 2. after "...plus two standard deviations." FN: Condition 8.9, Appendix A.
[369] Bougourd Reply at [28].
[370] CRRG submissions, Appendix 6.

c. The material placed in the void can be held at or below the activity of the ore, and condition 8.12 ensures that it is;

d. Off-site radon and groundwater radionuclides are unlikely to change materially but have no baseline, and the conditions 8 series test before mining and monitor through and beyond it; and

e. Subject to the condition 8 series, radiation effects (within the scope of the approvals sought) will be immaterial and do not weigh against granting the approvals sought.

Existing Environment

[530] As previously discussed, the Southern Block is a modified rural environment. Historically, it was dredged and then developed for pastoral farming. It is currently used as an operational dairy farm, characterised by open pasture, artificial drainage networks, and modified creek systems, including straightened, managed channels. There are dwellings on the Site and rural residential properties in the wider Barrytown Flats area, reflecting the established mixed rural character. Past and current land use activities have altered the Site's natural character and ecological values, creating a working rural landscape.

[531] In relation to the relevant receiving environment for the Application, the Panel has applied the test in *Hawthorn*. The environment includes what presently exists. It also:

> *…embraces the future state of the environment as it might be modified by the utilisation of rights to carry out a permitted activity under a district or regional plan or by the implementation of resource consents which have been granted at the time a particular application is considered, where it appears likely that those resource consents will be implemented.*

[532] Activities permitted in the Rural Zones by the Grey District Plan and the Te Tai o Poutini Plan, subject to conditions and standards, include: buildings up to 10 m in height, provided setbacks from boundaries and building coverage requirements are met; up to 2000 m^2 of indigenous vegetation clearance per site over 5 years; non-rural activities with a maximum floor area of 100 m^2 that generate up to 20 heavy vehicle trips per day per site and produce noise of up to 55 dBA L10 during the daytime (and up to 45 dBA L10 at night); up to 5000 m^3 of earthworks per site per year for mineral prospecting or exploration; up to 20,000 m^3 of mineral extraction per year; up to 3 ha of land disturbance at any one time per site; and the operation of rural activity vehicles, machinery or equipment operated and maintained in accordance with the manufacturer's specifications.

[533] Land use consents have also been granted by the Grey District Council for the establishment and operation of the WSP and its associated access. A mineral sand mining activity, the Central Block, has been consented to the north of the present application site, including a water take from Canoe Creek. The proposed water take, the subject of this Application, will not be operated concurrently with the existing consented one.

[534] Further afield, the MSP at Rapahoe is also consented[371] together with the heavy commercial vehicle movements associated with the transportation of HMC and processing by-products between the WCP and the MSP. This is discussed further in Part F – Radiation Effects.

Cumulative Effects

[371] Substantive Application, Appendix H4.

The Application

[535] Cumulative effects are discussed in paragraphs 8.111 – 8.115 of the Substantive Application. TCM considers that the potential for cumulative effects from the Southern Block in association with the other mining activities proposed by TCM on the Barrytown Flats is a key consideration.

[536] The Application states:

> *…mining of each stage will occur sequentially rather than concurrently. Mining within the Southern Block will not occur at the same time as mining on the Central Block. Similarly, mining across the Southern Block will occur in three discrete sections, with mining in the next section not commencing until extraction within the previous section is complete. This staged approach ensures that mining activity is spatially and temporally limited, avoiding simultaneous disturbance across multiple sections of the site.*
>
> *This methodology also ensures that operational parameters such as the authorised water take, the maximum disturbed area and associated environmental management measures remain consistent with those assessed in prior application processes. In particular, the proposal maintains a maximum disturbed area of 16 ha at any one time and incorporates progressive rehabilitation, which limits the extent of exposed land and reduces the potential for cumulative effects associated with dust, erosion, sediment generation and landscape disturbance.*
>
> *The staged development and separation distances between active mining areas and sensitive receptors also reduce the potential for cumulative amenity effects. For example, dust-generating activities will occur within a confined operational footprint, and progressive rehabilitation will stabilise disturbed areas as mining advances. Monitoring and management plans implemented across the Project will further ensure that environmental effects are appropriately managed over time.*
>
> *While the overall Project involves mining across multiple blocks and requires a range of consents, the sequential development approach, combined with strict limits on disturbed areas and comprehensive environmental management measures, ensures that the proposal will not give rise to adverse cumulative effects.*

Comments Received

[537] Four of the lay commenters,[372] Forest & Bird and the CRRG expressed concerns about cumulative effects.

[538] Ms Henderson considers that the Application does not adequately address cumulative risks from noise, light, vehicle movements, and habitat disturbance on tāiko. Ms van Rooyen was concerned about cumulative effects on residents and wildlife. Ms Ward considered that the Panel should require an assessment of cumulative effects across the whole operational landscape, rather than considering the Southern Block in isolation. Ms Ward was also concerned that the noise assessment does not consider cumulative noise from the proposed Southern Block and the previously consented WCP. Mr Maunsell is concerned that TCM has not assessed cumulative noise effects.

[372] Appendix E, Comments 2, 23, 2 and 38.

[539] Forest & Bird[373] is concerned about cumulative effects (particularly when the neighbouring Central Block mining and WSP consents are considered)

[540] The CRRG[374] is concerned that there is no consideration of cumulative effects from this Proposal together with the effects from earlier consents.

Applicant Response to Comments

[541] In their response, TCM addresses cumulative effects in the evidence of Dr Bramley and Mr Farren.

[542] Regarding ecology, Dr Bramley states:[375]

> *In relation to cumulative effects, I note that throughout my assessment I have considered the cumulative effects arising from the Central Block, WCP and Southern Block together, noting that the Central Block and Southern Block will be mined sequentially, not together, and that the best habitats for birds and lizards (including the coastal lagoons and intact wetlands to the north and shrubland and SNA vegetation outside the mine footprints) will not be mined, the mine life is temporary (medium term), limited in extent and moves across the areas to be mined rather than creating a large open pit for the entire mine life.*

[543] Regarding noise, Mr Farren confirms that his assessment incorporates all prospective noise from operations and that Scenario 6 in the Assessment of Noise Effects report represents the worst-case cumulative effects scenario, including the operation of the WCP. Table 8 on page 18 of the Assessment of Noise Effects shows that predicted noise levels at the most affected dwellings adjacent to the Southern Block will be well below the proposed noise limits for the Site.

Panel Findings

[544] The Panel has considered the information on cumulative effects provided in TCM in the Substantive Application and the associated technical reports, the comments made by the commenters, and the responses in reply made by Dr Bramley and Mr Farren.

[545] The Panel finds that cumulative effects have been adequately assessed by TCM. For the reasons set out by TCM (and reproduced in paragraph [545] above), the Panel concludes that cumulative effects will be well managed and, for the most part, that these management requirements and minimum standards (for example, limits for noise from all sources at the notional boundary of adjacent dwellings, a limit within the Southern Block on the area of land exposed at any one time, a requirement that the water take cannot be operated concurrently with RC-2023-0046, and requirements for setbacks from boundaries) are secured by consent conditions.

[546] However, the stated intention that the active mining operation in the Southern Block will not proceed before mining is completed in the Central Block is not subject to conditions. This is a key management measure that TCM is relying on, and the Panel considers it important to include as a consent condition to manage potential cumulative effects and to address the concerns of the commenters, particularly the residents. To address this, the

[373] Appendix E, Comment 33.
[374] Appendix E, Comment 37.
[375] Reply Statement of Evidence of Dr Gary Neil Bramley in relation to Section 51 Report and terrestrial ecology, paragraph 116.

Panel is proposing a new condition to limit the total active mining area across both the Central and Southern Blocks to no more than 16 ha at any one time.

Traffic Effects

The Application

[547] TCM addressed Traffic Effects in brief in section 5 of the Substantive Application Document and addresses this issue further in the record of consultation (Appendix F1). TCM are of the view that there are no traffic-related effects. This is because:

a. The necessary access to the Site is via the WCP site, which is already consented for an unlimited term and will cover access to and from the duration of the proposed southern block being considered under this FTA application.

b. Ongoing farming activities that currently use Cargill Road as an access will continue to operate in this fashion to separate farming and mining fleets. This presents no change to the current status quo.

c. Access to Section 3 of the southern block for mining through Years 11-14 and intermittently prior to give effect to any monitoring conditions, will be via a road crossing to be developed near the western end of Cargill Road.

Comments Received

[548] A range of comments were received on traffic effects. These comments relate largely to perceived traffic effects of the project in its entirety and have particular regard to SH6.

[549] No comments were received from Grey District Council on the application.

[550] NZTA provided comment on the application only insofar as to confirm that they were in agreement that transportation effects and access upgrades have previously been authorised (previously granted consents for the WCP on the southern block).

[551] NZTA's position was that no additional impacts on the State Highway network or infrastructure are anticipated with respect to traffic effects.

Applicant Response to Comments

[552] TCM largely did not responded to comments on traffic, this is because traffic effects that have been raised by commenters are already consented as part of the suite of consents that authorised the relocation of the WCP to the Southern Resource Block and are therefore out of the scope of this Fast Track approvals process.

Panel Findings

[553] The Panel agrees with the Applicant that traffic effects are already authorised by existing consents and therefore there are no traffic effects that need to be considered in making this decision.

PART G: REGIONAL OR NATIONAL BENEFITS OF THE PROJECT

[554] Section 3 of the FTAA states that the Act's purpose is to facilitate the delivery of infrastructure and development projects with significant regional or national benefits.

[555] As noted above, Part C, section 81(4) of the FTAA requires the Panel to consider the extent

of the project's regional or national benefits.[376]

[556] Assessing adverse impacts in relation to an approval sought is particularly relevant when deciding whether to decline approval. An approval can only be declined if the adverse impacts are out of proportion to regional or national benefits.[377]

[557] There is no definition of significant regional or national benefits in the context of listed projects. Section 22 FTAA, which relates to the criteria for assessing a referral application, provides the following:

> (2) For the purposes of subsection (1)(a), the Minister may consider—
> (a) whether the project—
> (i) has been identified as a priority project in a central government local government, or sector plan or strategy (for example, in a general policy statement or spatial strategy), or a central government infrastructure priority list:
> (ii) will deliver new regionally or nationally significant infrastructure or enable the continued functioning of existing regionally or nationally significant infrastructure:
> (iii) will increase the supply of housing, address housing needs, or contribute to a well-functioning urban environment (within the meaning of policy 1 of the National Policy Statement on Urban Development 2020):
> (iv) will deliver significant economic benefits:
> (v) will support primary industries, including aquaculture:
> (vi) will support development of natural resources, including minerals and petroleum:
> (vii) will support climate change mitigation, including the reduction or removal of greenhouse gas emissions:
> (viii) will support climate change adaptation, reduce risks arising from natural hazards, or support recovery from events caused by natural hazards:
> (ix) will address significant environmental issues:
> (x) is consistent with local or regional planning documents, including spatial strategies:

[558] This list in section 22 FTAA provides insight into the type of benefits that can accrue from an approval, and that therefore fall for inclusion in the basket of national and regional benefits against which the proportionality assessment demanded by section 85(3) FTAA is made.

[559] For analysis, we have distinguished between economic benefits and production benefits. The latter are benefits from producing critical minerals, which can be national and regional benefits if well aligned with relevant national and regional policies, regardless of the scale of economic benefit, because the FTAA sits within a national natural resource framework where multiple instruments and policies are intended to inform each other when performing assessments of the type demanded by the FTAA.

Economic Benefits

The Application

[560] TCM's economic assessment for the Southern Block rests on two documents prepared by

[376] If the Application was a referral application – the Panel must treat the stage of the project to which the Application relates as constituting the project; but may consider the regional or national benefits of the whole project, having regard to the likelihood that any later stages of the project will be completed (section 81(5) FTAA).
[377] Section 85(3) FTAA.

Mr John Ballingall of Sense Partners. The first is the *Economic Impacts of Barrytown Minerals Project Report* dated 9 March 2026 (Appendix L1), which assesses the Barrytown Minerals Project as a whole: 6 years of mining on the consented Central Block (2029-2034), the WCP, the MSP at Rapahoe, and the 14 years of mining on the Southern Block that are the subject of this Application. On that whole-project basis, the report estimates average annual contributions of $122.7 million in GDP, $230.0 million in exports, $76.7 million in non-wage operating expenditure, $13.0 million in wages, 135 direct full-time equivalent positions, and 189 flow-on jobs over a 22-year life, in a regional economy where mining accounted for 7.9% of West Coast GDP and 4.6% of its employment in 2025.

[561] The second is Mr Ballingall's EIC dated 3 March 2026 (Appendix L1A), which states its purpose is to "specifically identify the economic benefits which can be solely attributed to the Southern Resources Block".[378] Because the Southern Block accounts for some 87% of expected mining volumes, he pro-rates the whole-project figures by that share to arrive at annual estimates for the Southern Block of $107.0 million of GDP, $200.2 million of export revenue, $66.9 million of local district spending and $39.8 million of royalties and tax.[379] He does not pro-rate the employment or wage figures, on TCM's advice that the workforce required to operate the Southern Block is the same as that required for the project as a whole. Accordingly, the 135 direct jobs, $13.0 million of wages and 189 flow-on jobs are carried across unchanged. His opinion is that there are unlikely to be material economic costs in terms of tourism, forgone on-site activity or housing, and that the Southern Block "will deliver significant net economic benefits to the regional economy".

[562] Two features of the assessment should be recorded at the outset because they frame the arguments that follow. The monetary estimates derive from a financial model prepared for TCM by Orecast Modelling and described in the report as having been reviewed by PwC; neither the model nor the review is before the Panel, and Mr Ballingall did not independently verify its production schedule, prices, exchange rate or costs. The assessment is a base case only: no sensitivity analysis for mineral prices, exchange rates, volumes, mine life or input costs was published. The Application itself[380] invokes section 81(5)(b) of the Act, under which the Panel may consider the benefits of the whole project having regard to the likelihood that later stages will be completed.[381]

Comments Received

[563] TCM's economic assessment drew comment from Ms Kirsty Henderson,[382] Ms Linda Grace[383], Mr Chris Esther[384] and the Coast Road Resilience Group[385], its legal submissions and the expert report of Professor Glenn Banks, a professor of Geography at Massey University with some 35 years of research and consultancy on the social and economic effects of large-scale mining in the Pacific. Mr Esther's comment is the most detailed, and the Panel takes it first.

[564] Mr Esther, who writes for all the owners of 2976A Coast Road, invites the Panel to find that the economic information "cannot be relied upon" and advances six propositions. The first concerns scope. He contends that section 81(5)(b) is directed at later stages of a project

[378] Ballingall EIC at [4].
[379] Ballingall EIC at [14] fn 1.
[380] At [4.7].
[381] Ballingall Reply at [12] and [15]; Esther page 2.
[382] Comment 02.
[383] Comment 04.
[384] Comment 36
[385] Comment 37.

and does not convert the benefits of an earlier stage, already consented under the RMA, into benefits of this approval; those benefits accrue whether or not the Panel grants anything and should carry no weight under section 85(3). He points out that of the 135 direct positions, 39 are plant-operations roles at the MSP and WCP and 11 are administrative, that the MSP will operate on Central Block ore regardless of the Panel's decision, and that footnote 2 of Mr Ballingall's statement, in his reading, "establishes that the 135 jobs are not additional to anything. They are the consented block's workforce carried forward", so that the 189 indirect jobs and $13.0 million of wages fall with them. He also identifies a tension between the Application's description of the first stage as a complete project ready to proceed and its statement that long-term viability is contingent on the second stage. [386]

[565] His second proposition concerns the model. Neither the Orecast report nor the PwC review is in the Application, so the production volumes, prices, exchange rate and costs that generate the $230 million export and $122.7 million GDP figures cannot be tested, and the nature of PwC's review is not stated. More pointedly, he records that on 11 March 2026, two days after Appendix L1 was finalised, TCM announced to the NZX that it had received the "Financial Model Report" and published its headline outputs (life-of-mine revenue of USD 3,284 million, upfront capital of USD 66 million, a 57.5% operating margin, an NPV of USD 281 million at 10% and a staged profile of 1.1, 1.5 and 2.0 Mtpa); that NZ RegCo halted trading that morning; and that on 16 March 2026 TCM retracted the announcement in its entirety on the basis that the adviser who prepared the model was not a Competent Person under the JORC Code and the information "has not been prepared to a standard suitable for disclosure to the market … and should not therefore be relied upon". USD 3,284 million at the report's fixed 0.65 exchange rate is NZD 5.05 billion, "precisely the life-of-mine export revenue at para 26", from which he infers that the retracted model is the one on which the Panel is being asked to rely.[387]

[566] The remaining propositions may be summarised more shortly. The 1.4 employment multiplier is taken from a single Australian paper[388] whose data span the 2001-2011 boom, whose authors caution against applying it where mining is not booming and acknowledge that it "could be an overestimation", and which is here applied as a 22-year projection for a single mine; the Application itself concedes at [8.12(f)] that a proportion of the workforce will be drawn from outside the region or by backfilling, which he says is in-migration and displacement rather than net local employment. The $89.7 million annual "spending injection" assumes no leakage, whereas non-wage operating expenditure for a mineral sands operation is dominated by diesel, electricity, imported reagents and wear parts, rail freight to Timaru and Lyttelton, shipping, insurance and Australian-based management; no local-content analysis or retention rate is offered. The treatment of economic costs sets each aside rather than quantifying it: the grazing opportunity cost uses the lowest DairyNZ category ($464/ha) for land the report itself describes as dairy grazing, with no allowance for rehabilitation lag; the 0.018% land-area metric for tourism is irrelevant when the exposure is the SH6 corridor; the comparison under which tourism could fall 95% is conceded at [45] to be "intentionally a straw man"; the housing passage ignores renters; and the drainage of 6.7 ha of natural wetland, the diversion of five creeks, the lowering of the landform by 0.63 m and the loss of archaeological sites are not priced. Finally, with ilmenite at 59% and garnet at 36% of revenue, no price assumptions are disclosed and no

[386] Comment 36. Chris Esther pages 2-3.
[387] Comment 36. Chris Esther pages 4-5.
[388] Fleming and Measham (2014), Local job multipliers of mining, *Resources Policy* 41, 9–1513

sensitivity run; the ilmenite market is weak (Chinese import prices down a further 6.25% to March 2026 with a bearish outlook), a 20% fall would remove some $27 million a year from exports, the exchange rate is fixed at 0.65 for 22 years, and the model (16 February 2026) and evidence (3 March 2026) pre-date the diesel shock that followed the closure of the Strait of Hormuz, Stats NZ recording diesel up 42.6% between February and March and a further 37% in April. He asks that the Panel require a re-run with current fuel and power prices and a sensitivity range, including the effect of a 30% rise in delivered energy costs, before placing weight on the margin, tax or royalty figures.[389]

[567] Professor Banks' report covers similar ground from a different lens. He begins with the statutory context: the Act's focus is on regional and national benefits, so that local benefits within Grey District "should not figure" in the Panel's assessment, and in both Waihi North and Bendigo it was argued that the proper focus is net benefit. On volatility, he notes that reported Chinese ilmenite prices fell from US$377 a tonne in September 2024 to US$224 in August 2026, a 40% decline in 2 years, and that the averages in the report mask year-to-year variability that no sensitivity testing has been disclosed; he cites OceanaGold's payment of no corporate tax in 2021 and 2023 as illustrating how variable returns to government can be. On "fair share" he offers a back-of-the-envelope calculation under which 53.3% of the value of the Southern Block resource (58% of the whole project) would accrue to New Zealand through local costs, taxes and royalties and 46.7% (42%) to shareholders, some offshore, while observing that the report gives no firm analysis of how much is retained in Grey District, the West Coast or New Zealand. He then presents 2023 Census deprivation data to show that the West Coast, after more than a century of mining, sits well below the national share of least-deprived neighbourhoods and well above the share of most-deprived, from which he draws the conclusion that the report offers no evidence of how this project will achieve a different outcome.[390]

[568] Professor Banks accepts that, subject to the volatility point, the gross figures "are plausible estimates of gross economic activity". His criticism is that the report "does not address net benefits at all": environmental costs, landscape effects, recreational impacts, cultural values, alternative land uses and distributional effects are not discussed; the cost of assessing radioactivity and managing any radioactive waste in perpetuity is not included; damage to public roads from mine haulage, to be met by central or local government, is not discussed; and the conclusion that tourism impacts are not material "appears to be an assertion rather than based on evidence", methodologies existing by which the effect could be estimated. He identifies an error at paragraph 13 of the report, where West Coast direct mining jobs are stated as 6,826, a figure he says is not feasible and should be around 750, and he finds the royalty regime assumed in the report unclear. His conclusion is that the report "is an insufficient basis on which to make an assessment of the significance of the Project's economic contribution".[391]

[569] CRRG's own comments[392] and legal submissions[393] add several points of their own. The assessment does not address costs to the locality, the region or New Zealand, including risks to tourism ventures, public health and the transport route, and so overstates the benefits. Recent events have shown the volatility of commodity markets and New Zealand's reliance on imported diesel, both of which directly affect profitability, corporate tax, and

[389] Comment 36. Chris Esther pages 5-6 and 7-9.
[390] 37c. CRRG - expert report - Economic benefits analysis (Banks), Banks Report at [11]-[20] and [21]-[28].
[391] Ibid at [29]-[36] and [37].
[392] 37c. CRRG - Comments [25]-[34].
[393] At [50]-[56].

royalties. Westland Mineral Sands' comparable operation at Cape Foulwind went into care and maintenance in March 2026, and the promised port benefits have not materialised. Automation may reduce labour demand and mining wages over the mine's life. CRRG's own survey of visitors between November 2023 and January 2024 found that 69% of respondents said the presence of mining near the Coast Road would definitely (32%), probably (5%) or maybe (32%) affect their decision to travel to the West Coast, and 66% said the same of three or more truck-and-trailer units an hour; the reputational damage of an industrial operation beside, and hauling along, "one of the ten best coastal drives in the world" would be disproportionate. CRRG also records that the 2023 Sense Partners assessment for the Central Block estimated $63 million a year in exports from the 63 ha block, yet a TCM representative told the community in 2025 that the 63 ha block "would not be economic" on its own, which CRRG says calls the transparency of the present projections into question; that the report's product mix includes a 3% critical minerals concentrate that the Application does not propose to export; that the cost of maintaining haulage roads is not included[394]; and that the cost of the project's carbon emissions is not assessed. Counsel's submission is that section 81(5)(b) permits regard to future stages but not to already-consented elements, that export revenue and GDP do not of themselves demonstrate significance, and that net benefits have been the measure in other FTAA decisions.[395]

[570] Ms Henderson and Ms Grace comment as residents. Ms Henderson[396] says that the Sense Partners report "overstates mining benefits and understates tourism impacts": it offers no visitor surveys or behavioural evidence that tourism will be unaffected by open-cast mining beside SH6 and Paparoa National Park, it wrongly assumes that tourism losses are acceptable because mining revenue compensates for them, and it fails to recognise that royalties flow to central government whereas tourism revenue stays in the region; the mine would damage the "Untamed Natural Wilderness" brand and the wider South Island tourism network. Ms Grace[397] asks who will bear the cost of additional repairs to the highway and Cargill Road; is concerned that her property, and the whole coast, will be devalued; regards the Coast Road as a tourist trail that should remain "a pristine drive", tourism being "a major part of the coast income"; fears that if the mining proves less valuable or straightforward than the company expects the community will be left with "rubbish land" for which no one takes responsibility; and does not want the district to end up, as she puts it, like the mineral mining in the Westport area, with a council debt that falls on ratepayers.[398]

Applicant Response to Comments

[571] TCM's legal memorandum of 5 October 2026 addresses economics at [72]-[77] and relies on Mr Ballingall's reply.[399] TCM's Counsel makes three points. An applicant is not required to place a value on selected environmental or social effects in order to demonstrate significant regional and national benefits, and to do so "may result in a decision maker 'double counting' adverse impacts", those effects being assessed by the relevant technical experts and weighed by the Panel in its decision. Comments suggesting that TCM is improperly claiming the benefits of the consented WCP and MSP "misunderstand the

[394] 37a CRRG – comments at [84].
[395] CRRG comments at [25]-[34], [84] and CRRG legal [50]-[56].
[396] 2626 Coast Road, section 5.
[397] 13a Cargill Road, concerns 1 and 9-12.
[398] Henderson section 5; Grace concerns 1,9-12.
[399] Applicant's Reply, Attachment K.

Application": the Central and Southern Blocks will not be mined concurrently[400], the processing facilities depend on a consented mineral resource, and without the Southern Block the economic activity associated with them cannot continue beyond the life of the Central Block, so the figures "represent the economic activity attributable to the Southern Block relative to a scenario where mining does not occur". And uncertainty "is inherent in any forward-looking assessment", operates in both directions, and does not undermine the finding of significant benefit, which counsel restates as approximately $107 million of GDP, $200 million of exports, $66.9 million of operating expenditure and $39.8 million of royalties and tax a year. The roading effects between the WCP and MSP are said to be outside the scope of the Application.[401]

[572] The tabular responses in Attachment B add that the financial model was based on a JORC-compliant drilling campaign and a mineral resource of 35.7 Mt; that the resource statement could not at the time be signed off by a Competent Person; that the work has since been completed and a Competent Person has reported a resource of 35.1 Mt, "validating the Project Economics reported by the Financial Model". TCM also describes its engagement with the Ministry of Social Development's Regional Labour Market team and the Mines Rescue Trust at Rapahoe, the job enquiries it has already received and the appointment of a Barrytown-resident Operations Manager, a 3-5 year period of knowledge transfer from Western Australia, a commitment to procure "everything it feasibly can" within the region (only the specialist separation equipment being sourced from Australia), and its underwriting of housing developments for its employees. To Ms Grace it responds that no project traffic will use Cargill Road, that the consent framework provides for a financial bond commensurate with the disturbed area and rehabilitation liability, and[402] that property values are not a matter it addresses further; to Ms Henderson and CRRG it refers in Attachment B to Mr Ballingall's Reply Statement.[403][404]

[573] Mr Ballingall's reply begins with scope. He confirms that his Southern Block figures are "a scaling exercise based on expected volumes, not a separate financial model", which he regards as appropriate for a staged project while acknowledging that economies of scale make the proportionality assumption imperfect. He is candid that the figures "should not be described as incremental benefits generated by the SRB over and above the already consented Central Resources Block and associated processing facilities. They are incremental benefits relative to a scenario where no additional mining takes place over the 14-year life of the SRB mining area."[405]

[574] On the model and its uncertainty he says that he relied on the Orecast outputs "confident that they had been reviewed independently by PwC"; that TCM advises the NZX retraction "was for technical reasons related to sign-off of the mineral resource by a Competent Person, not due to concerns over the accuracy of the financial model itself", and that sign-off has since occurred; and that the financial report and peer review are "therefore robust foundations" for his analysis. He accepts that he has not published a sensitivity analysis, that he has not been provided with a revised model, and that "I have not established how the headline estimates change under adverse price or cost scenarios". His answer is that the uncertainty "works both ways": a lower exchange rate than the 0.65 assumed would

[400] AEE at [1.11]; condition 1.1.
[401] Applicant's Reply, Legal Memorandum at [72]-[77].
[402] By reference to its response at 2.5.
[403] Applicant's Reply, Appendix K.
[404] Applicant's Reply Attachment B 22.1-22.3; 27.4 and 28.1, 28.8-28.11.
[405] Ballingall Reply at [7]-11] and [19]-[33].

lift export earnings and GDP, and if world prices have adjusted to the higher-cost environment the net effect on GDP "would be small".[406]

[575] On employment, Mr Ballingall accepts "that one cannot say with certainty that the 135 FTE positions equate to 135 net new regional jobs, at least not immediately", given the transition period in which some technical expertise will come from Australia, but considers it "a reasonable proposition that over time most of these 135 roles will be filled from within the regional economy", the West Coast workforce having a long history in mining. On the multiplier he says the existence of flow-on employment "isn't being debated", citing the Waihi North decision, and that the only question is its size; the Fleming and Measham figure of 1.4 is derived from observed regional employment changes and incorporates displacement, which an unadjusted input-output multiplier does not, and it sits well below the New Zealand Type II multiplier of 1.96 cited in his own earlier evidence and the 1.7 plus 0.8 applied in the Waihi North analysis: "I don't believe I am seeking to gild the lily here". He accepts Professor Banks' correction: the 18.0% increase in regional mining employment is calculated on a West Coast baseline of 770 jobs, close to the 750 Professor Banks suggests, and the 6,826 figure in the report is the national number of mining jobs, of which 135 is 2.15%; the slip "does not affect my conclusions".[407]

[576] On local spending, Mr Ballingall accepts that the $76.7 million and $66.9 million figures "are not a precise estimate of expenditure retained in Grey District or on the West Coast" and that the model gave no breakdown by supplier location or imported content. He nonetheless maintains that the majority will be spent regionally: more than half of non-wage operating expenditure is mining, processing and administrative services that he expects to go largely to local suppliers, and the 41% that is transport will be split between regional and national operators. The $13.0 million wage figure is a gross payroll estimate rather than a measure of regional household income, but he expects regional workers to fill the vast majority of roles. Professor Banks' "fair share" calculation he regards as having "no economic basis … it is inherently subjective".[408]

[577] On costs and net benefits he accepts that he quantified only the loss of grazing output and discussed tourism and housing, and that he did not attempt to value environmental, landscape, recreational, cultural, radiological or distributional effects; had he done so, he observes, the commenters "would have instead criticised my estimates for crudely and insensitively trying to put dollar values on the inherently un-monetisable". His understanding is that his quantified benefits and costs feed into the Panel's decision alongside the other experts' assessments and that "there is no requirement for a fully specified and monetised social cost-benefit analysis", the Waihi North decision[409] having treated an economic impact assessment as a description of commonly quantified effects with non-market effects assessed separately. To Professor Banks' deprivation argument he answers that the coexistence of mining and deprivation does not establish causation, that regional deprivation is multi-faceted and generational, and that "I cannot imagine that the legal test for approving a project is that every single citizen must be better off".[410]

[578] On the specific costs, he says that the grazing figure was illustrative and that the opportunity cost would remain "tiny" even if multiplied a hundredfold; that Mr Esther's point

[406] Ballingall Reply at [12]-[18].
[407] Ballingall Reply at [19]-[33].
[408] Ballingall Reply at [34]-[39].
[409] At [784]-[787].
[410] Ballingall Reply at [40]-[50].

about renters is "fair" but is offset by the gain to property owners and moderated by TCM's underwriting of housing supply; and, on tourism, that he accepts "there may be negative tourism impacts" but that "no one has been willing to put their penny down" on their size. He does not dismiss the CRRG survey, which he describes as relevant evidence of stated perceptions for a small sample of 37 whose selection and representativeness are unknown, but it does not establish how many visitors would actually change their plans, for how long, or with what effect on regional value added. The 95% comparison was "deliberately illustrative". He has found no reliable empirical evidence that past mining on the West Coast has materially reduced visitor numbers; Development West Coast's 2025 analysis of Charleston and Barrytown finds a correlation between local mining and tourism employment of "approximately zero"; and Moyle et al. (2016), interviewing 78 residents and sector representatives in Gladstone and Roma, found synergies as well as pressures. He maintains that tourism will not be significantly adversely affected.[411]

[579] On product mix, Mr Ballingall confirms that the Southern Block "will not in fact produce any CMC"; the 3% of revenue attributed to it equates to about $3.2 million a year of GDP, which he regards as immaterial and partly offset by additional production of other minerals. His conclusion is that the comments "do not fundamentally alter the findings of my evidence" and that they "highlight potential - but not robustly quantified - adverse effects that the Panel may weigh up against the quantified benefits".[412]

Panel Findings

[580] The Panel begins with the statutory frame, because much of the debate turns on what the Act asks. Section 81(4) requires the Panel to consider the extent of the project's regional or national benefits; section 81(5)(b) permits it, for a staged project, to consider the benefits of the whole project having regard to the likelihood that later stages will be completed; and section 85(3) permits the Panel to decline an application only if the adverse impacts are sufficiently significant to be out of proportion to those benefits.

[581] The architecture of the FTAA distinguishes between benefits (national or regional) accruing from enabling activities and adverse externalities (after operation of non-onerous conditions), because without that broad division the core proportionality assessment in FTAA section 85(3) may not be performed.

[582] None of these provisions requires a monetised social cost-benefit analysis, and the Panel agrees with counsel for TCM, and with the approach taken in the Waihi North decision, that attempting to express landscape, ecological, radiological or cultural effects in dollars would be analytically problematic and incorrectly skew the proportionality assessment that the FTAA demands.

[583] For the approvals sought, The Panel assesses each of the externalities in the relevant part of this decision and weighs them against the assessed national and regional benefits (including economic) in Parts N-Q.

[584] What the Panel requires of the economic evidence is a reliable account of the nature and order of magnitude of the economic benefits attributable to an approval. The Panel is only assessing these matters for the purpose of determining requests for approvals and can assume any approval will be implemented only after investment analysis where market participants can more appropriately assess risk scenarios from movements in variables

[411] Ibid at [51]-[64].
[412] Ibid [65]-[69].

affecting rates of return.

[585] Professor Banks said in his statement at [11] and [12]: An assessment of the economic benefits in relation to this project needs to be one in the context of the FTAA. Section 3 of the Act states: *

> *The purpose of this Act is to facilitate the delivery of infrastructure and development projects with significant regional or national benefits. The emphasis on the 'regional and national benefits' extends through Sections 81(4 and 5), and 85 (3) of the Act. In the context of the Proposal, this means the focus of the assessment needs to be on the benefits that accrue to the West Coast region and New Zealand. Significant local benefits (i.e. within Grey District) are certainly welcome but should not figure in the decision-making of the Panel under the Act.*

[586] The Panel finds Professor Banks point about the spatial delineation of benefit categories a little simplistic. A more nuanced qualitative assessment is required. For example, if Grey District, as part of the West Coast region, significantly benefits from an approval and is a major regional centre, it is hard to see how those benefits do not also accrue to the region and cannot be categorised as regional benefits. Indeed, the region's own development strategies show that it sees itself as benefiting from enhanced economic activity across all its constituent communities. Similarly, the same activity can also generate national benefits. Thus, the benefits may accrue to the nation through their contribution to the national economy and its needs, as assessed by the activities' alignment with Government strategies. This is particularly relevant where a nation and its strategic partners' interests rely on critical minerals exploitation found in regional locations.

[587] On scope, Mr Esther's reading of section 81(5)(b) has force as a matter of construction: the provision looks forward to later stages, not back to consented ones. But the Panel does not consider that TCM is claiming the Central Block's benefits. Mr Ballingall's Southern Block figures are scaled to 87% of project volumes in the Southern Block, and his reply makes clear that they measure activity that would occur with the Southern Block, as against a counterfactual in which mining ends when the Central Block is exhausted in or about 2034. That is the correct counterfactual. The Panel accepts TCM's counsel's point that the processing plants are dependent on a mineable resource and would otherwise fall idle after 6 years. The 135 direct positions are better described as positions sustained for a further 14 years than as "additional" jobs, and the Panel treats them in that way; but the continuation of 135 skilled positions, in a region where that number represents an increase of some 18% on the present mining workforce, is a regional benefit of substance whichever label is applied. The Panel does not accept excluding the plant-operations and administrative roles at the MSP and WCP, since they, too, cease without a resource to process.

[588] The Panel has before it neither the Orecast model nor the PwC review, and it has the uncontested record of TCM's 11 March 2026 announcement, the trading halt and the 16 March retraction. The Panel accepts TCM's explanation that the retraction turned on the absence of a Competent Person's sign-off of the mineral resource rather than on any identified defect in the model, and it notes that the resource has since been signed off at 35.1 Mt against the 35.7 Mt modelled, a difference of under 2%. That goes a considerable way to answering Mr Esther's concern. It does not, however, convert an undisclosed model into a verified one, and the Panel treats the headline estimates as order-of-magnitude figures rather than precise forecasts. The Panel is satisfied that, so treated, they are a sufficient basis for its assessment under section 81(4).

[589] Mr Esther and Professor Banks are right that a base case without any sensitivity analysis is an incomplete basis for judging the robustness of a 22-year projection, and Mr Ballingall accepts as much. The Panel also accepts that the commodity price and energy cost movements since February 2026 are real and that the evidence has not been updated for them. Mr Ballingall's answer that uncertainty cuts both ways is correct as far as it goes, but it does not address the absence of a low case. The Panel has therefore considered for itself what an adverse case would look like. Mr Esther's own illustration is that a 20% fall in ilmenite prices would remove some $27 million a year from export revenue; even a combined scenario in which prices, volumes and margins all moved against the project by a material amount would leave annual export earnings in the order of $150 million, GDP contribution in the order of $80 million and a workforce of the same size, because the employment and procurement figures are driven by the operation rather than by its margin. On the West Coast, those figures remain large. The Panel accepts that royalties and corporate tax are the most sensitive to price and cost, and gives the $39.8 million figure correspondingly less weight.

[590] The Panel is accordingly able to reach its conclusion on significance without a formal sensitivity analysis.

[591] On employment, the Panel prefers Mr Ballingall's evidence on the multiplier. The 1.4 figure is at the conservative end of the range used in comparable New Zealand assessments; it is derived from observed rather than modelled relationships, and it builds in displacement. Mr Esther's caution that it is a boom-period estimate is well founded, and the Panel treats the 189 flow-on jobs as indicative rather than predictive. The Panel also accepts, as Mr Ballingall does, that in the first 3-5 years a share of the direct positions will be filled from outside the region and that some local recruitment will be by backfilling, so that the net addition to regional employment will build over time rather than arrive at once. The correction of the 6,826 figure to a West Coast baseline of about 770 is accepted and, as both experts agree, does not affect the conclusions.

[592] On local spending, the Panel accepts Mr Esther's and Professor Banks' point that regional retention has not been quantified and that the $66.9 million figure is best regarded as an upper bound on the spending that will reach West Coast businesses. The Panel nonetheless accepts Mr Ballingall's reasoning that a substantial share of mining, processing and administrative services will be procured regionally, and TCM's stated commitment to local procurement. Export earnings, royalties, and company tax are national benefits regardless of their regional retention, and the Act directs the Panel to regional or national benefits.

[593] Professor Banks' "fair share" and deprivation arguments raise legitimate questions of public policy, but they are not questions the Act asks this Panel to answer. Section 81(4) is concerned with the extent of the benefits, not with their distribution between the Crown, the region and shareholders.

[594] The Panel agrees with Mr Ballingall's evidence that a century of mining alongside persistent deprivation does not establish that mining caused it, nor that a new sand-mining project will not deliver real regional benefit.

[595] Indeed, we found Professor Banks' assertion that the current level of West Coast socio-economic deprivation despite a mining history weakens the project's claim to secure regional benefits to be a flimsy analysis, because it is non-falsifiable and, on the facts (given the scope of appropriate and legitimate inquiry in this process), incapable of being assessed for its historical truth or probative value in assessing the benefits of an approval of this

mining type.

[596] The Panel, however, accepts that benefits are more likely to be realised regionally when recruitment, training, and procurement are deliberately local. It also notes TCM's engagement with the Ministry of Social Development and the Mines Rescue Trust, as well as its proposed underwriting of housing.

[597] Tourism is the economic cost on which the residents, CRRG and Professor Banks most firmly join issue with Mr Ballingall, and the Panel's assessment is as follows. No party has quantified the effect. The CRRG survey is small, its sample is of unknown representativeness, and, as Mr Ballingall fairly says, it records stated rather than revealed preferences; but it is the only visitor evidence before the Panel, and it points in one direction. The Development West Coast correlation evidence has its own limits: a correlation of zero between mining and tourism employment at Charleston and Barrytown over 2000-2025 tells the Panel that the two sectors have coexisted, not that a dredge operation on the seaward side of SH6 for 14 years, with associated haulage, would have no effect on visitor perception. Drawing on its conclusions on landscape and traffic effects, the Panel finds that the visual exposure of the operation to SH6 users will be limited, intermittent and at a distance; that the principal tourism-relevant channel is heavy vehicle movement on the Coast Road rather than the mine itself; and that the effect on regional tourism activity is uncertain and, if it occurs, will be very modest.

[598] Ms Henderson's point that royalties flow to central government whereas tourism revenue stays in the region is correct, but the Act treats national benefits as benefits.

[599] The remaining cost items can be dealt with shortly. The grazing opportunity cost is small on any plausible per-hectare figure, and the Panel accepts it as such; the rehabilitation lag and post-mining productivity are addressed under rehabilitation. Housing pressure on renters is a real distributional effect which the Panel accepts is moderated by TCM's underwriting of additional supply. The cost of maintaining the haulage route is addressed under traffic and transport, where the Panel deals with NZTA's position and the condition regime; it is not a matter the Panel treats as an economic disbenefit of the mine separately from that assessment. Ms Grace's concerns about being left with damaged land and with liabilities falling on ratepayers are met by the progressive rehabilitation regime and the bond under condition; her concern about property values is one the Panel acknowledges but which is not, of itself, an effect the Act directs it to weigh.

[600] The Panel accepts Mr Ballingall's evidence that the Southern Block will not produce critical minerals concentrate and that the 3% of revenue attributed to it in the report is immaterial to the assessment. The point has more significance for the radiation and consenting questions, which the Panel addresses elsewhere.

[601] Considering all these matters, the Panel finds that the Southern Block will deliver regional and national economic benefits that are significant for the purposes of sections 81(4) and 85(3): over a 14-year period, annual export earnings and GDP contribution each measured in the tens of millions of dollars at the lowest and in the low hundreds of millions on the Applicant's base case, the continuation of some 135 direct skilled positions and an indeterminate but real number of flow-on positions in a region in which mining is a principal employer, and royalties and tax revenue to the Crown of a magnitude that is uncertain but substantial. The Panel reached that finding by treating the Applicant's figures as order-of-magnitude estimates, discounting the royalty and tax figures for price sensitivity, and recognising that the tourism effect and regional retention of spending are unquantified and

likely to be small.

National Benefits from Alignment with Government Policy of Mining Sector Development and Critical Mineral Resource Development[413]

The Minerals Strategy for New Zealand to 2040 and the Critical Minerals List

[602] The Government published two companion documents in January 2025. The first, *A Minerals Strategy for New Zealand to 2040* 9 The 'Minerals Strategy' or 'Strategy '), is a non-statutory strategy issued by the Ministry of Business, Innovation and Employment under the Minister for Resources. Its stated goal is to double the value of New Zealand's mineral exports from $1.46 billion (year to June 2023) to $3 billion by 2035, lifting regional mining employment from some 5,000 to more than 7,000 jobs. The Minister's foreword describes the strategy as taking the sector "from 'open for business' to 'doing business'", and says it "will guide business investment and inform regulatory design".[414]

[603] The Strategy is built on three outcomes and two guiding principles. Outcome 1 ('Productive') seeks sector growth, more efficient consenting pathways, domestic value-add and investment across the minerals value chain. Outcome 2 ('Valued') seeks better data and public understanding. Outcome 3 ('Resilient') seeks a sector whose "critical minerals are sought after and support resilient supply chains, here and overseas", with objectives to "support strategically important critical mineral developments, facilities, and capabilities" and to build international partnerships. The two guiding principles are Te Tiriti o Waitangi and 'Responsible': "Minerals production will not come at the expense of our environment, the health and safety of workers, or the communities in which activity takes place."[415]

[604] Three features of the Strategy bear directly on this Application. First, the West Coast is one of two regions the strategy identifies as already 'extracting' heavy mineral sands "(titanium, garnet, zircon, rare earth elements)", and the Strategy's own imagery is drawn from the Nine Mile heavy mineral sands Site. Second, the export-led growth pathway distinguishes "scaling up current mineral exports" (gold, silver, metallurgical coal and iron sands) from "realising new and critical mineral opportunities", among which it names "titanium, … heavy mineral sands, and rare earth elements", and separately identifies "value add … through domestic processing and refining". Third, the delivery roadmap lists the Fast-track Approvals legislation as a 2024 action under the 'Productive' outcome, and under 'Resilient' contemplates "preferential pathways for critical minerals development". The strategy therefore anticipates projects of exactly this kind using exactly this consenting route[416].

[605] The second document, *A Critical Minerals List for New Zealand (*List*)*, names 37 minerals that are "economically important and are vulnerable to supply risk or essential to unlocking other critical minerals". Of the minerals in the Barrytown deposit, "titanium" (the metal for which ilmenite is the ore), "zirconium" (zircon), "rare earth elements", and "gold" are on the list; all four are grouped as minerals "currently produced in New Zealand". Titanium also appears on the United States, European Union and Australian lists; zirconium on the US, UK, EU and Australian lists; rare earth elements on all five comparator lists. Gold is on no comparator list and was added by Cabinet decision "because of [its] importance to New Zealand's economy and to achieving our goal of doubling mineral exports". Garnet is not on the list: mineral submitters advocated for it, but it was not included because it "did not

[413] Section 22(2)(1) &(6) FTAA.
[414] Strategy (Foreword); Strategy (Growth Pathway).
[415] Strategy (Responsible); (Resilient).
[416] Strategy (Regional Map); Strategy (Roadmap).

meet the supply risk threshold".[417]

How the Application relied on Government Policies

[606] The Strategy was considered at the listing and staging stages. The Minister for Infrastructure's determination under section 37A that the Southern Block could be lodged as a separate stage records, as the first ground on which the stage meets section 22, that "it will contribute to the outcomes sought in the Minerals Strategy for New Zealand to 2040 (s 22(2)(a)(i))". TCM's section 37A application put the point in these terms: the strategy "includes objectives to support strategically important critical mineral developments, facilities and capabilities. Heavy mineral sands, such as those to be extracted by the Project, are identified as part of that strategy." The 2019-2029 Minerals and Petroleum Resources Strategy and Te Whanaketanga Te Tai Poutini West Coast 2050 were relied on in the same way.[418]

[607] The Substantive Application carries that framing through. TCM describes itself as "formed for the purposes of mining ilmenite, garnet and other critical minerals", designed "with a market entry focus, so that it can establish itself as a substantial and sustainable supplier of critical mineral products, especially ilmenite and garnet". The product streams are the "core products of ilmenite and garnet, and the by-products of zircon and gold". The application's statement of positive effects says that "Ilmenite is used to make titanium, which is on the United States and Europe's 'critical minerals' lists" and that producing "a market-ready product on the West Coast is strategically important for the region". The strategy is addressed as an "other matter" under section 104(1)(c) of the RMA at [12.83]-[12.84], and the conclusion at [25.2(a)] claims a "contribution to the supply of critical minerals" as a reason the project "directly aligns with the purpose of the FTAA".[419]

[608] Counsel's legal considerations in the Substantive Application summarise the policy context at [28]-[32]: the Strategy and the Critical Minerals List "include [] minerals sought to be recovered as part of this project: ilmenite, garnet and gold", the strategy "seeks to double the value of New Zealand mineral exports to $3 billion over the next 10 years, including by realising new and critical mineral opportunities", and the "West Coast is explicitly recognised in the Strategy for extracting gold and heavy mineral sands (titanium, garnet, zircon)".[420]

[609] The Minister for Regional Development and Minister for Resources, Hon Shane Jones, commented on the Application in both capacities. He considers the project "likely to have significant regional economic benefits", that projected exports of $230 million a year "would be a significant contribution to growing export receipts and materially supporting progress toward the Minerals Strategy's export growth target", and that because the project "is planned by Tāiko to export ilmenite, which is a form of titanium ore; concentrate containing rare earth elements; and zircon", it "would support the resilience outcome under the Minerals Strategy". He also records that in June 2026 Cabinet agreed a $20.0 million Regional Infrastructure Fund loan towards the project.[421]

The Comments and the Applicant's Clarification

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[417] List (Table); List (How Developed).
[418] Staging determination Te Whanaketanga Te Tai Poutini West Coast Economic Strategy 2050 Substantive Application Appendix B at[18]-[19].
[419] Application Section 1.5-1.8,·Application Section 2.1-2.5, Application Section 3.1-3.2; Application Section 8.9-8.11, Application Section 12.83-12.84; Application Section 25.2.
[420] Legal considerations at [28]-[32].
[421] Minister's comment Annex One.

[610] The Coast Road Resilience Group's legal submissions at [43]-[49] draw attention to a discrepancy between the economic assessment, in which 3% of export revenue is attributed to "Critical Minerals Concentrate", and the Application, which describes only ilmenite, garnet, zircon and gold; CRRG asked the Panel to clarify whether rare-earth extraction was proposed and, if so, to require it to be consented. [422]

[611] TCM's reply settles the point. TCM's Counsel confirms that CRRG is "correct" that no consent is sought to extract and concentrate rare-earth minerals; that the residual stream remaining after ilmenite, garnet and zircon are separated at the MSP is to be returned to the Southern Block and placed in the mining void; that the website diagram on which CRRG relied is historical; that "neither the current Application nor any existing consent authorises such activities, and TCM has advised it has no plans to undertake them"; and that if the residual stream were ever commercialised "separate approvals and consents would be required". Mr Ballingall confirms that the Southern Block "will not in fact produce any CMC" and that the 3% of revenue (about $3.2 million a year of GDP) is immaterial to his assessment.[423]

Panel Assessment

[612] Status of the strategy. The Minerals Strategy and the Critical Minerals List are non-statutory. They were addressed at the listing and staging stages, where section 22(2)(a)(i) asks whether a project "is identified as a priority in a central or local government strategy"; the Minister was satisfied of that, and the Panel does not revisit it.

[613] For the Panel, the Strategy and List are relevant in two ways: as context informing the weight to be given to the regional and national raw material production benefits the Panel must consider under section 81(4) and weigh under section 85(3), and as an "other matter" under section 104(1)(c) of the RMA. The Panel gives them weight on that basis as clear, recent and specific statements of central government policy on mining to benefit the nation and its regions, while recognising that they are not a planning instrument and does not direct any particular outcome for any particular project.

[614] Alignment with the export-growth goal. The BMP's export contribution is directly of the kind the strategy seeks. On the Applicant's base case the Southern Block would generate some $200 million a year of export revenue (the whole project $230 million), which the Panel treats elsewhere in this decision as an order-of-magnitude figure. Measured against the strategy's goal, $200 million a year is about 6.7% of the $3 billion target and about 13% of the roughly $1.5 billion increase on the 2023 baseline needed to reach it; 135 direct positions represent about 8% of the roughly 1,700 additional regional jobs the strategy contemplates. The Panel also notes the timing: the Central Block is to be mined first (2029-2034), with production "ramping up between 2033 to 2049", so that the Southern Block's principal contribution arrives at and after the 2035 target date rather than before it. Its significance to the strategy lies less in meeting the 2035 milestone than in sustaining West Coast mineral exports, employment and the Rapahoe processing capacity through the strategy's 2040 horizon. On any view, the contribution is material rather than marginal: the Minister for Resources characterises it as "significant", and the Panel agrees.

[615] Alignment with the critical-minerals outcome. The extent to which the project advances the "Resilient" outcome needs to be stated with more precision than the Application does, because the label "critical minerals" is applied in the Application to the project as a whole.

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[422] CRRG legal at [43]-[49].
[423] legal Memorandum at [7]-9]; Ballingall Reply at [65]-[67].

On the Critical Minerals List as published:

a. Ilmenite (59% of projected revenue) is the ore of titanium, which is a listed critical mineral in New Zealand, the United States, the European Union and Australia. The Southern Block's principal product is therefore squarely within the strategy's "realising new and critical mineral opportunities" limb and within the Minister's resilience assessment.

b. Zircon (2%) is the source of zirconium, likewise listed here and in four comparator jurisdictions.

c. Gold (a by-product recovered at the WCP, not separately quantified in the revenue split) is on the New Zealand list by Cabinet decision but on no comparator list, and is better regarded as contributing to the export-growth goal than to supply-chain resilience.

d. Garnet (36% of revenue) is not a critical mineral on the New Zealand list or, so far as the list records, on any comparator list; it was considered and excluded. Its economic value is real and its industrial uses are described in the Application, but it does not engage the resilience outcome.

e. Rare earth elements, the Barrytown mineral with the broadest international criticality, will not be recovered. The residual stream carrying them is to be returned to the mining void. The Minister's comment that the project would export "concentrate containing rare earth elements" was made on the Application and website material as he had it, and the Applicant's own reply does not support it.

[616] In short, about 60% of projected revenue derives from listed critical minerals (titanium feedstock and zircon), with the balance from garnet; the rare-earth opportunity is not pursued and, if pursued, would need separate consent. The Application implements the critical-minerals policy substantially through ilmenite, and not through its other product streams.[424]

[617] Value-add and the "Productive" outcome. The strategy places "a major focus" on domestic processing before export and on fostering research, workforce development and the mining technology and services industry. The project's design answers this in part. HMC from the Southern Block is separated at the consented MSP at Rapahoe into market-ready ilmenite, garnet and zircon products, rather than being exported as bulk concentrate; the Applicant's partnership with the iwi-owned New Zealand Institute for Minerals to Materials Research at Dunollie, its scholarship programme and its engagement with the Ministry of Social Development and the Mines Rescue Trust are of the kind the strategy encourages. The value chain nonetheless ends at mineral separation: there is no proposal for downstream refining (for example to titanium dioxide pigment or titanium metal) in New Zealand, and the products are shipped through Lyttelton and Timaru to overseas processors. The project therefore implements the strategy's value-add objective to the level of a separated mineral product, which is the level at which New Zealand's existing heavy-mineral-sands industry operates.[425]

[618] Royalties and regional return. The strategy records that around half of mining involves Crown-owned minerals attracting royalties and foreshadows a "regional deals package

[424] List; Sense Partners Section 26; Legal Memorandum Section 9.
[425] Strategy (Productive); Application Sections 2.12-2.17 and 12.87.

(royalty shares to regions)". The Sense Partners assessment estimates royalties at 2.5% of net sales, about $8.0 million a year on average, together with company tax averaging $34.7 million a year. The Panel addresses the sensitivity of those figures to price and cost in its economic findings and does not repeat the point here; it notes only that the royalty stream is a direct expression of the fiscal return the strategy contemplates.[426]

[619] The "Responsible" principle. The Strategy is explicit that growth is to be achieved "with a light touch on the environment" and that "our work to cut red tape does not mean that we are cutting corners". The Strategy therefore does not supply a reason for discounting adverse effects; it assumes that they will be managed to a high standard. The Panel has approached the environmental, cultural and community effects of the project on that footing in the relevant parts of this decision, and its conclusion on alignment with the strategy is to be read with those findings.[427]

Conclusion

[620] The Panel finds that the Southern Block implements the Government's policy of encouraging mining growth to a substantial degree: it is a project of the kind, in the region, using the consenting pathway and producing the principal mineral (titanium feedstock)[428] that the Minerals Strategy specifically identifies, and its export contribution is material to the strategy's $3 billion goal and to sustaining that contribution through 2040. Its implementation of the critical-minerals limb of the policy is real: it rests on ilmenite and, marginally, zircon; garnet, more than a third of revenue, is not a critical mineral; and the rare-earth potential of the deposit is not sufficiently demonstrated as a targeted by-product.

[621] In reaching these alignment conclusions, we also conclude, based on our environmental assessment of the project, that the mining system will not unduly impose environmental externalities, so it meets the "responsible" principle in the Strategy

[622] The Panel takes the substantive alignment of the Application with the strategy into account as a factor informing the significance of its national and give benefits under sections 81(4) and 85(3), and gives it weight on that basis.

Panel's Conclusion on National and Regional Benefits

[623] Because of the assessed substantial economic benefits and strong alignment with national strategies for mining critical minerals, the Panel finds that approving Stage 2 of the BMP would provide substantial national and regional benefits.

PART H: STATUTORY DOCUMENTS

[624] The Substantive Application addressed the relevant statutory documents and identified relevant provisions. Rather than reproduce that material, this section addresses the provisions of the documents of particular relevance to the Application, and any comments received in relation to these. The Panel also relies on our conclusions on effects and the conditions we have decided to impose in support of the conclusions reached on relevant

[426] Strategy; Sense Partners Sections 32-35.
[427] Strategy.
[428] In industrial manufacturing and metallurgy, a "feedstock" is the raw material used to supply or "feed" a technical industrial process. Because ilmenite ($FeTiO_3$) naturally contains significant amounts of titanium dioxide (TiO_2) - typically ranging from 43% to 65% depending on its origin and processing it acts as the primary raw entry point for supply chains.

planning provisions (including Part I: Regional and District Planning Framework as relevant to the topic area).

National Policy Statements

[625] The relevant National Policy Statements were addressed in section 12 of the Application and in more detail in Appendix O, and include:

a. National Policy Statement for Freshwater Management 2020 (NPS-FM);

b. New Zealand Coastal Policy Statement (NZCPS);

c. National Policy Statement Natural Hazards (NPS-NH); and

d. National Policy Statement for Indigenous Biodiversity 2023 (NPSIB).

National Policy Statement for Freshwater Management 2020

[626] The NPS-FM sets out a framework under which local authorities are to manage freshwater (including groundwater).[429]

[627] The objective of the NPSFM is to ensure that natural and physical resources are managed in a way that prioritises:

a. First, the health and well-being of water bodies and freshwater ecosystems;

b. Second, the health needs of people (such as drinking water); and

c. Third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.

[628] This objective reflects the hierarchy of obligations in Te Mana o te Wai, a concept that refers to the fundamental importance of water and recognises that protecting the health of freshwater protects the health and well-being of the wider environment.[430]

Assessment in the Application

[629] In assessing the Project against the objective and policies of the NPS-FM, the Applicant considers that:

a. The Project is consistent with prioritising the health of freshwater, achieving this through various rehabilitation measures which are designed to improve water quality and ecological values across a highly modified agricultural catchment.

b. The approach to managing effects applies the effects management hierarchy.

c. The proposal "supports the intent of Te Mana o te Wai" through its prioritisation of the health and wellbeing of water bodies over time, while also enabling economic and social wellbeing through the extraction of a finite, location-specific mineral resource; and with tangata whenua values having been recognised and incorporated into the Project through ongoing engagement with Ngāti Waewae.

d. The Project adopts an integrated, whole-of-catchment approach to freshwater management.

[429] Clause 1.5.
[430] Clause 1.3.

e. The proposal will result in the loss of natural inland wetlands (which results in an inconsistency with Policy 6); but the proposed rehabilitation will result in a new wetland area created in excess of 50 ha with superior values, also providing an ecological corridor across the Site that will enhance the habitat for indigenous fauna beyond the life of the Project.

f. There is a clear functional need for the activity to be located as proposed and no practicable alternative location or configuration that would enable the extraction of the resource while avoiding the affected wetlands and creeks.

g. Monitoring is proposed that will confirm the effectiveness of rehabilitation measures, with adaptive management responses implemented where required.[431]

[630] The Ecological Assessment provided by Dr Bramley also includes an assessment of proposed SB application against relevant NPS-FM direction.[432]

[631] Planning evidence is also provided by Ms Nichola Costley (as Appendix L11A to the SA), who states that in her view the Project will "Maintain and enhance freshwater values over time through a closed loop system, application of the effects management hierarchy and substantial wetland and stream rehabilitation giving effect to the NPS Freshwater Management."[433]

Comments Received

[632] While not commenting specifically on the NPS-FM itself, a number of parties commented on the potential effects of the proposal on water quality, which are outlined earlier in Part F, and are relevant to the consideration of the consistency of the Proposal with the NPS-FM.

[633] Mr Brass, a senior resource management planner at DOC, considers that Policy 6 of the NPS-FM is the key relevant planning provision in relation to the ecological effects of the proposal on wetlands, directing no further loss of the extent of natural inland wetlands, the protection of their values, and promotion of their restoration. Mr Brass' consideration of this policy stems from Mr Payne's view that both the extent and the values of wetlands on the Site are greater than assessed in the Application. Mr Brass considers that measures identified by Mr Payne (to ensure that the rehabilitation package is commensurate with the loss of wetland extent and values; that conditions are modified to ensure that existing wetlands are retained while they can be; and that the bond is adequate to cover the ecological rehabilitation) are appropriate and would ensure the proposal gives effect to the NPS-FM while also being consistent with the purpose and provisions of the FTAA.[434] He further notes Policy 7 of the NPS-FM directs that the loss of river values and extent is avoided to the extent practicable, and in reliance on the concerns raised by Dr Storer in relation to effects on water quality and water quantity, considers that the recommendations made by Dr Storer would improve consistency with the NPS-FM.[435]

Applicant Response to Comments

[634] In its response, the Applicant notes that Dr Bramley's evidence is that all wetland habitats within the mining footprint (whether classified as inland wetlands or not) were identified

[431] Substantive Application at [12.3] – [12.11] and Appendix O.
[432] Substantive Application - Appendix L4 at Table 33.
[433] Substantive Application - Appendix L11A at [19(a)].
[434] Murray Brass - Statement of Advice on behalf of DOC, dated 25 September 2026, at [30] – [36].
[435] Murray Brass - Statement of Advice on behalf of DOC, dated 25 September 2026, [40] – [44].

and assessed, with the proposed response designed to replace those habitats and associated ecological values.[436] It notes that regardless of how much of the Site is classified as natural inland wetland, the Project will establish at least 53.1 ha of new wetland habitat, several times larger than the wetland area affected and will be of higher ecological quality.[437] The Applicant's view is that the evidence demonstrates that wetland effects have been comprehensively assessed, that the Project incorporates extensive rehabilitation and wetland creation measures, and that the long-term outcome will be a substantial improvement in wetland extent, quality and ecological function across the Site.[438]

Panel Findings on NPS-FM

[635] The Panel has considered the planning assessment provided with the Substantive Application, the comments that relate to matters addressed by the NPS-FM, the advice from Mr Brass and the response to comments from the Applicant.

[636] Based on our findings in Part F regarding wetlands, water quality and water quality and in-stream ecology, the Applicant's proposed conditions and the amendments to those conditions that the Panel is made, we find that the Project is consistent with the NPS-FM. We agree with Mr Brass that Policy 6 is a key provision and consider that while the loss of 6.73 ha of natural inland wetland is inconsistent with the policy, that loss is unavoidable if the project is to proceed. We consider that applying the mitigation hierarchy and the creation and protection of a 53.1 ha wetland together with other mitigation measures proposed is an appropriate response. Regarding Policy 7, the functional needs of the mining operation necessitate the loss of river extent and values but this loss is mitigated by the progressive ecological enhancements and restoration that is proposed for the water bodies within the Southern Block.

[637] Except for Policy 6, we find that the Project is consistent with the NPS-FM.

New Zealand Coastal Policy Statement 2010 (NZCPS)

[638] The NZCPS sets out a framework under which local authorities are to manage the coastal environment.[439]

Assessment in the Application

[639] The reasons why the Applicant considers the proposal is consistent with all of the objectives and policies of the NZCPS include:

a. That the activity is located within a highly modified part of the coastal environment, set landward of the coastal marine area incorporating a minimum 50 m setback from Mean High Water Spring to ensure separation from active coastal processes and avoidance of coastal hazard risk.

b. The maintenance of coastal water quality through the management of discharges and water across the Site.

[436] Applicant's Reply, at [47]; and Bramley Reply, at [102] and [111].
[437] Applicant's reply at [49]; and Bramley Reply, at [108].
[438] Applicant's Reply, at [54].
[439] NZCPS Preamble.

c. The recognition of the role of tangata whenua, through ongoing engagement with Ngāti Waewae and measures included to protect cultural values and manage potential effects on heritage and taonga.

d. The maintenance of public access to the coastal environment.

e. The functional need for this activity to be located within the coastal environment, and the contribution the activity makes to social and economic wellbeing.

f. That the Project aligns with Policies 11 and 13 as it avoids adverse effects on threatened and at-risk indigenous taxa (as outlined in the Ecological Assessment appended to the SA); and on outstanding natural character in the coastal environment (as outlined in the Landscape Assessment appended to the SA).[440]

[640] Ms Nichola Costley's planning evidence states that through setbacks and design, the Project will avoid adverse effects on the CMA and coastal environment.[441]

Comments Received

[641] Forest & Bird, who are concerned about the adverse impacts of the proposal on fauna (including impacts on habitat), consider that these impacts engage the directive provisions in the NZCPS, including the avoidance of adverse effects on threatened and at-risk indigenous species and the requirement to adopt a precautionary approach where effects are uncertain, unknown, or potentially significant (policies 3, 6 and 11).[442] It considers that the proposal is contrary to Policy 11(a)(i), particularly due to the impacts of lighting on Westland petrel, but also notes that the Site is also habitat to a range of other threatened and at-risk species that it considered are adversely affected.[443] It considers that proposed conditions do not overcome those concerns. Further, Forest & Bird submit that Policy 6 does not provide the Applicant "with a way to bypass the clear, specific directives in NZCPS Policy 11", because Policy 6 does not provide an equally directive policy for mining.[444] It also submits that Policy 3 requires the Panel to adopt a precautionary approach.[445]

[642] Mr Brass (for DOC) notes that as the Site is within the coastal environment, Policy 11 of the NZCPS applies, which requires all adverse effects on Threatened and At Risk species are to be avoided. Mr Brass accepts that this policy is not determinative in its own right for decision-making under the FTAA, but is still a relevant matter to consider. His view is that, unless it is inconsistent with the FTAA's purpose or the requirement under section 83 for conditions to be no more onerous than necessary, the conditions of consent should seek to ensure that effects on Threatened and At Risk species are avoided. His concerns relating to consistency with this policy are that the Applicant is not proposing any measures to avoid nests if they are in the path of the mine, such that if deterrent measures are not effective, there would be a loss of nests and hatchlings of Threatened or At Risk species, and effects on NZCPS Policy 11(a) values. Mr Brass also recommends in relation to tāiko, that an addition is made to trigger searching on nights when lighting is required for unforeseen circumstances, in addition to recommendation made by Dr Parlato.[446]

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[440] Substantive Application at [12.12] – [12.16] and Appendix O.
[441] Substantive Application - Appendix L11A at [19(b)].
[442] Forest & Bird, section 53 comments, legal submissions at [3] – [4] and [46]-[48].
[443] Forest & Bird, section 53 comments, legal submissions at [51]-[54].
[444] Forest & Bird, section 53 comments, legal submissions at [55].
[445] Forest & Bird, section 53 comments, legal submissions at [56] – [57].
[446] Murray Brass - Statement of Advice on behalf of DOC, dated 25 September 2026, at [25] – [28].

Applicant Response to Comments

[643] The Applicant submits that the invited comments "overstate the ecological effects and do not adequately account for: the existing environment, being an actively managed dairy farm and rural productive zone; the sequential nature of mining across the Barrytown operations; the limited extent of active mining footprint and habitat affected at any one time; the progressive rehabilitation and advance establishment of replacement habitat; and the significant long-term enhancement proposed across the duration of the consent."[447] The reasons for this are outlined further in the response, and rely on the reply evidence of Dr Bramley.

[644] In terms of Policy 11 specifically, the Applicant states that the ecological evidence does not support that effects on threatened and at-risk avifauna are significant and require decline of the Application under this policy. This reflects Dr Bramley's conclusion that the short-term ecological effects of the Application will have a negligible effect and that, in the medium to long term, ecological outcomes will be positive.[448]

Panel Findings on NZCPS

[645] Based on our findings in Part F regarding effects on threatened and at-risk avifauna, TCM's proposed conditions and the amendments to conditions that the Panel is making, we consider the Project is consistent with the NZCPS.

National Policy Statement for Natural Hazards 2025

[646] The objective of the NPS-NH is:

> Natural hazard risk to people and property associated with subdivision use and development is managed using a risk-based proportionate approach.

Assessment in the Application

[647] The Applicant states that the Project is consistent with the objectives and policies of the NPS-NH as it adopts a risk-based and proportionate approach to managing natural hazard risk, taking into account the temporary nature of the activity; the separation from the MHWS and therefore the active coastal hazard; and the incorporation of adaptive management measures. [449]

Comments Received

[648] No comments were received that are specific to the NPS-NH.

Panel Findings on NPS-NH

[649] The Panel finds that the Project is consistent with the objectives and policies of the NPS-NH for the reasons set out by the Applicant.

National Policy Statement for Indigenous Biodiversity 2023

[650] The objective of the NPS-IB is:

> (a) to maintain indigenous biodiversity across Aotearoa New Zealand so that there is at least no overall loss in indigenous biodiversity after the commencement date; and

[447] Applicant's reply, at [30].
[448] Applicant's reply, at [40]; Bramley Reply, at [115]-[117].
[449] Substantive Application at [12.23] – [12.25] and Appendix O.

(b) to achieve this:

(i) through recognising the mana of tangata whenua as kaitiaki of indigenous biodiversity; and

(ii) by recognising people and communities, including landowners, as stewards of indigenous biodiversity; and

(iii) by protecting and restoring indigenous biodiversity as necessary to achieve the overall maintenance of indigenous biodiversity; and

(iv) while providing for the social, economic, and cultural wellbeing of people and communities now and in the future.

Assessment in the Application

[651] The Applicant's assessment of the Project against the objective and policies of the NPS-IB states that the Site is currently a highly modified pastoral environment with limited existing indigenous biodiversity values; and that the proposal will result in a net increase in indigenous biodiversity across the Site through extensive riparian planting and construction of a new wetland. It further notes that there are no SNAs within the mining disturbance area, and the adjacent SNA (PUN-049) will not be adversely affected by the proposal. Overall, the proposal is stated as being consistent with the NPS-IB by adopting a precautionary, restoration-focused approach that manages effects via the effects management hierarchy and delivers long-term improvements to indigenous biodiversity beyond the life of the Project.[450]

[652] The Ecological Assessment provided by Dr Bramley also includes an assessment of Application against relevant NPS-IB direction.[451]

[653] Ms Costley's planning evidence is that the Proposal will protect identified biodiversity values and deliver a net gain in indigenous biodiversity through large-scale wetland creation and habitat restoration, giving effect to the NPS-IB.[452]

Comments Received

[654] Forest & Bird, who are concerned about the adverse impacts of the proposal on fauna (including impacts on habitat), consider that these impacts engage the directive provisions in the NPS-IB, including Policies 3, 4, 13 and 15.[453] It considers that the direction in the NPS-IB complements that in the NZCPS and confirms policy direction that the adverse effects of the mining proposal on threatened and at-risk species must be avoided.[454]

Applicant Response to Comments

[655] The Applicant's response to the comments on the NPS-IB are as set out above in relation to the NZCPS, namely that it considers the invited comments overstate the ecological effects and do not adequately account for various other matters.[455] It relies on the evidence of Dr Bramley as to why the effects on threatened and at-risk avifauna are not significant.

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[450] Substantive Application at [12.17] – [12.22] and Appendix O.
[451] Substantive Application - Appendix L4 at Table 33.
[452] Substantive Application - Appendix L11A at [19(c)].
[453] Forest & Bird, section 53 comments, legal submissions at [59]-[68].
[454] Forest & Bird, section 53 comments, legal submissions at [68].
[455] Applicant's reply, at [30].

Panel Findings on NPS-IB

[656] As stated in our findings in Part F, the Panel prefers the evidence of Dr Bramley. Based on our findings in Part F regarding effects on threatened and at-risk species, TCM's proposed conditions and the amendments to conditions that the Panel is making, we consider the Project is consistent with the NPS-IB.

National Environmental Standards

National Environmental Standard for Freshwater (NES-F)

[657] The Applicant has identified the regulations within the NES-F under which a resource consent is required.[456] This includes various activities (vegetation clearance, earthworks, diversion of water and the discharge of water) which are being undertaken in proximity to natural inland wetlands[457]; along with the reclamation of the bed of a river.[458]

PART I: REGIONAL AND DISTRICT PLANNING FRAMEWORK

[658] An assessment of the relevant statutory plans has been included within the AEE as is required by Schedule 5, clause 5(1)(h).

[659] The Panel has reviewed and considered the assessment provided by the Applicant (set out in section 12 of the SA; and in more detail in Appendix O) and the comments provided by other participants. The Panel outlines the key matters in the following sections (as well as adding further considerations and assessment).

West Coast Regional Policy Statement (RPS)

Assessment in the Application

[660] The Applicant considers that, at a strategic level, the Project gives effect to the RPS framework enabling sustainable and resilient communities (Objective 4.1) by supporting regionally significant economic activity, employment and ongoing productive land use, while ensuring that adverse environmental effects are appropriately avoided, remedied or mitigated (Objective 4.2, Policy 4.1).[459] At a more specific level, it states:

a. In terms of resource use and development, the Project recognises the importance of mineral extraction to the West Coast economy and provides for its development in a manner that is compatible with surrounding land uses and avoids reverse sensitivity effects (Objectives 5.1 and 5.2, Policies 5.1 and 5.2).[460]

b. That it aligns with the direction on indigenous biodiversity (Objectives 7.2, 7.3 and 7.4, and Policies 7.1, 7.2, 7.3, 7.7, 7.8 and 7.9), as the activity is located within a highly modified environment and outside any identified SNAs or other areas of high biodiversity value, with no more than minor effects on biodiversity, and the maintenance and enhancement of biodiversity over the long term, as a result of progressive rehabilitation, wetland creation, creek reconstruction and riparian planting.[461]

[456] Substantive Application at [7.1].
[457] Regulation 45D.
[458] Regulation 57.
[459] Substantive Application at [12.28].
[460] Substantive Application at [12.29].
[461] Substantive Application at [12.30].

c. That in terms of natural character, freshwater management and the coastal environment (encompassing the provisions in Sections 7A, 8 and 9), the activity will deliver long-term improvements to natural character and aquatic habitat exceeding those present in the Site's heavily modified state.[462]

Comments Received

[661] As outlined throughout Part F, various parties commented on the potential effects of the proposal that relate to matters addressed in the RPS provisions, albeit they did not comment specifically on the RPS provisions. These, and our finding on these effects, are however relevant to the consideration of the consistency of the Proposal with the RPS.

[662] Of those parties who made specific mention of the RPS, Forest & Bird states that it has focused on the NZCPS and NPS-IB rather than the RPS, because while the latter was prepared after the NZCPS, it predates the NPS-IB, and it considers that the higher order instruments should be given pre-eminence as the lower order documents are effectively "incomplete".[463]

[663] Mr Brass for DOC, reliant on Dr Storer's assessment that the ecological value of the fish fauna present in the Site's watercourses and artificial drains, are 'very high', considers Objective 7.2 and Policy 7.2 of the RPS to be particularly relevant. The former seeks the protection of significant indigenous vegetation and significant habitats of indigenous fauna; with the latter directing that activities are designed and undertaken in a way that does not cause a reasonably measurable reduction in the local population of threatened taxa (per DOC's Threat Classifications).[464] As with the NZCPS, Mr Brass considers that unless it is inconsistent with the FTAA's purpose or the requirement under section 83 for conditions to be no more onerous than necessary, the conditions of consent should seek to ensure that effects on Threatened and At Risk fish species, and on river values and extent, are avoided.[465] Mr Brass ultimately supports recommendations made by Dr Storer intended to address effects on water quality and quantity as improving consistency with the RPS.[466]

Applicant Response to Comments

[664] The Applicant's response does not directly address the RPS provisions, but includes freshwater ecology, hydrology and water quality reply evidence addressing the underlying concerns on which Mr Brass' advice is based, including changes to consent conditions to address matters raised in DOC's comments.[467]

Panel Findings on RPS

[665] The Panel has considered the assessment undertaken by TCM in the Substantive Application, the comments made, TCM's response to comments and the amended conditions it has proposed. In Part F, we have assessed the effects of the proposed mining activity. We consider that with the additional amendments we are making to the conditions, the project will be consistent with the objectives and policies of the RPS for the reasons set out by the Applicant.

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462 Substantive Application at [12.31].
463 Forest & Bird, section 53 comments, legal submissions at [43] – [44].
464 Murray Brass - Statement of Advice on behalf of DOC, dated 25 September 2026, at [37] – [38].
465 Murray Brass - Statement of Advice on behalf of DOC, dated 25 September 2026, at [42].
466 Murray Brass - Statement of Advice on behalf of DOC, dated 25 September 2026, at [44].
467 Summarised in Applicant's reply, at [55] – [65].

West Coast Regional Land and Water Plan (WCRLWP)

Assessment in the Application

[666] The Applicant considers that the Proposal is consistent with the objectives and policies of the WCRLWP. In relation to those of most relevance, its reasons for this are as follows:

a. Adverse effects on higher value waterbodies are avoided through setbacks and operational controls (Objective 3.2.2). For modified creeks which are being disturbed, there is no loss of extent (Policy 7.3.8A) and rehabilitation will re-establish these systems in a more naturalised form with improved habitat and riparian margins (Policies 3.3.10 and 7.3.14).[468]

b. Land disturbance effects are appropriately managed through erosion and sediment controls, water management and progressive rehabilitation (Objective 4.2.1 and Policies 4.3.1 and 4.3.9).[469]

c. The proposal meets the mineral extraction exception pathway for the disturbance of inland natural wetland areas (in Policy 6.3.6); and will result in an overall increase in extent and an improvement in ecological values and connectivity.[470]

d. Water takes and discharges are managed to maintain flows, water levels and water quality (Objectives 7.2.1 and 8.2.1 and Policies 7.3.1, 8.3.5 and 8.3.6); and groundwater effects are minor, localised and temporary, with no adverse impacts on surface water or other users (Objective 10.2.2 and Policy 10.3.1).[471]

Comments Received

[667] As outlined throughout Part F, various parties commented on the potential effects of the proposal that relate to matters addressed in the WCRLWP provisions, albeit they did not comment specifically on the WCRLWP provisions. These, and our finding on these effects, are however relevant to the consideration of the consistency of the Proposal with the WCRLWP.

[668] Mr Brass, notes that Policy 6.3.6 in the WCLWRP (which reflects the direction in Clause 3.22 of the NPS-FM) requires that the loss of river extent and values is avoided unless, in the case of regionally or nationally significant mineral extraction, there is a functional need for the activity in that location, and the effects of the activity are managed by applying the effects management hierarchy. He also notes that Policy 7.3.8A in the WCLWRP (which reflects the direction in Clause 3.24 of the NPS-FM) similarly requires that the loss of river extent and values is avoided unless there is a functional need for the activity in that location, and the effects of the activity are managed by applying the effects management hierarchy. Mr Brass considers it unclear if the effects management hierarchy has been applied in this case, or that the proposed compensation meets the principles for compensation in the NPS-FM.[472]

[468] Substantive Application at [12.35].
[469] Substantive Application at [12.36].
[470] Substantive Application at [12.37].
[471] Substantive Application at [12.38] – [12.39].
[472] Murray Brass - Statement of Advice on behalf of DOC, dated 25 September 2026, at [34] and [41].

Applicant Response to Comments

[669] The Applicant's response does not directly address the WCLWRP provisions, but includes reply evidence addressing the underlying concerns (relating to wetlands, freshwater ecology, hydrology and water quality) on which Mr Brass' advice is based, including changes to consent conditions to address matters raised in DOC's comments.[473]

Panel Findings on WCLWRP

[670] The Panel has considered the assessment undertaken by TCM in the Substantive Application, the comments made, TCM's response to comments and the amended conditions it has proposed. In Part F, we have assessed the effects of the proposed mining activity. We consider that with the additional amendments to conditions that we are making, the project will be consistent with the objectives and policies of the WCLWRP for the reasons set out by the Applicant.

West Coast Regional Air Plan (WCRAP)

Assessment in the Application

[671] The Application states that as the Project adopts a best practice approach to dust management that includes appropriate measures in place to avoid, remedy or mitigate adverse effects, it is consistent with the relevant provisions of the WCRAP (Objective 7.3.1 and Policies 7.4.1 and 7.4.2). This includes protection of human health, property, structures and ecosystems from adverse dust effects through the implementation of a comprehensive Dust Management Plan, and management of dust discharges so that they do not result in offensive or objectionable effects.[474]

Comments Received

[672] No parties commented specifically on the provisions of the WCRAP. However various parties commented on the effects relating to dust more generally, and these are outlined in Part F.

Panel Findings on WCRAP

[673] The Panel has considered the assessment undertaken by TCM in the Substantive Application and the comments made. In Part F, we have assessed the effects of the proposed mining activity on air quality. We consider that with the conditions proposed and the implementation of the Dust Management Plan, the project will be consistent with the objectives and policies of the WCLRAP.

Grey District Plan

Assessment in the Application

[674] The Application states that the Project achieves the intent of the Grey District Plan by managing adverse effects and delivering positive long-term outcomes, particularly through progressive rehabilitation and ecological enhancement.[475] In particular, it outlines that:

a. No significant indigenous vegetation or habitats are affected (Objective 5.3.1 and Policy 5.4.3), with other vegetation clearance remedied through extensive new

[473] Summarised in Applicant's reply, at [46] - [65].
[474] Substantive Application at [12.41] – [12.44].
[475] Substantive Application at [12.54].

riparian planting which will enhance values over time.[476]

b. Adverse effects on waterways and margins are avoided through setbacks applied to key waterbodies, with the reconstruction of modified creeks resulting in no loss of extent and improved natural form and function (Objectives 6.3.1 and 6.3.2 and Policy 6.4.3).[477]

c. The proposal meets policy directing development towards modified areas in the coastal environment (Policy 7.4.2).[478]

d. The Project enables continued productive use of the land and supports long-term sustainability of the resource base (Objective 19.3.1); will retain rural character and openness (Objective 19.3.2); and includes appropriate management of effects on surrounding activities, including through operational controls and bunding to mitigation localised visual and noise effects (Policies 19.4.2 and 19.4.3).[479]

e. There is some inconsistency with Policy 19.4.5, which directs that activities should not adversely affect the amenities of the rural area or adjoining properties in terms of various matters, which of particular relevance to this Application include noise and visual impact. The Applicant considers that noise emissions from the proposed activity can be managed or minimised to comply with the applicable noise levels of the area; and that visual effects will increase or decrease in their severity depending on the location of the mining activity at different stages, with bunding and planting measures helping to mitigate these effects.

Comments Received

[675] No parties commented specifically on the provisions of the Grey District Plan.

Panel Findings on the Grey District Plan

[676] The Panel has considered the assessment undertaken by TCM in the Substantive Application and the amended conditions it has proposed. In Part F, we have assessed the effects of the proposed mining activity. We consider that the project will be consistent with the objectives and policies of the Grey District Plan for the reasons set out by the Applicant.

Proposed Te Tai o Poutini Plan (Decisions Version) (TTPP)

Assessment in the Application

[677] The Applicant considers the Proposal to be consistent with the Strategic Direction and relevant objectives and policies of the (TTPP) as it enables mineral extraction while appropriately managing adverse effects and delivering positive long-term environmental outcomes through progressive rehabilitation (MIN-O1).[480] Of note:

a. It aligns with recognition that mineral resources are fixed in location and provides for their extraction within the General Rural Zone, delivering regional and national economic benefits, with adverse effects managed through design, management

[476] Substantive Application at [12.47].
[477] Substantive Application at [12.48].
[478] Substantive Application at [12.49].
[479] Substantive Application at [12.53].
[480] Substantive Application at [12.55].

plans and progressive rehabilitation (MIN-P2; MIN-P5).[481]

b. Effects on the adjacent SNA are avoided (ECO-O2), and the proposal incorporates substantial ecological enhancement across the Site which results in a net gain in indigenous biodiversity and improved ecological connectivity over time (ECO-O1, ECO-P9).[482]

c. There is a clear functional need for the activity to locate within the coastal environment, and adverse effects in terms of the natural character are appropriately avoided, remedied or mitigated (CE-O4).[483]

d. Earthworks, lighting and noise effects are managed through industry best practice, management plans and consent conditions.[484]

e. Rural character and amenity are largely maintained, with temporary and localised effects managed through setbacks, bunding and operational controls, and through progressive rehabilitation, the land will be returned to a productive state (RURZ-O1).[485]

Comments Received

[678] No parties commented specifically on the provisions of the TTPP.

Panel Findings on the TTPP

[679] The Panel has considered the assessment undertaken by TCM in the Substantive Application and the amended conditions it has proposed. In Part F, we have assessed the effects of the proposed mining activity. We consider that the project will be consistent with the objectives and policies of the TTPP for the reasons set out by the Applicant.

Conclusion regarding consistency with the regional and district planning framework

[680] The Panel finds that the Project is consistent with the regional and district planning framework.

Planning documents recognised by a relevant iwi authority and lodged with the Council

[681] An application for a resource consent must include an assessment of the activity against any relevant provisions of a planning document recognised by a relevant iwi authority and lodged with a local authority.[486]

[682] It is the Panel's understanding that there are no iwi management plans relating to this area which are relevant to the Application.[487]

[481] Substantive Application at [12.56].
[482] Substantive Application at [12.57].
[483] Substantive Application at [12.60].
[484] Substantive Application at [12.61].
[485] Substantive Application at [12.62].
[486] Schedule 5, clause 5(1)(h) and clause 5(2)(g).
[487] Substantive Application at [12.82].

Treaty Settlements

[683] As noted in Part D section 7 FTAA states:

> 7 Obligation relating to Treaty settlements and recognised customary rights
>
> (1) All persons performing and exercising functions, powers, and duties under this Act must act in a manner that is consistent with—
> (a) the obligations arising under existing Treaty settlements; and
> (b) customary rights recognised under—
> (i) the Marine and Coastal Area (Takutai Moana) Act 2011:
> (ii) the Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act 2019.
>
> (2) To avoid doubt, subsection (1) does not apply to a court or a person exercising a judicial power or performing a judicial function or duty.
>
> (3) In this section, existing Treaty settlements means Treaty settlements that exist at the time the relevant function, power, or duty is performed or exercised (rather than only those that exist at the commencement of this Act).

[684] The Panel understands[488] that the following Settlement Acts (and associated Treaty settlement deeds) are of relevance to the Application area:

a. Ngāi Tahu Claims Settlement Act 1998; and

b. Ngāi Tahu (Pounamu Vesting) Act 1997.

[685] As noted in Part D, section 7 FTAA requires us to act in a manner that is consistent with the obligations arising under these Treaty settlements.

[686] The Applicant has engaged with Ngāi Tahu through the development of the Project. We understand the project does not affect any requirements of either of the Settlement Acts listed above. Accordingly, we do not consider that section 82 imposes additional requirements on us in this process.

[687] Section 84 provides that for the purposes of section 7, the Panel may set conditions to recognise or protect the Ngāi Tahu Treaty settlements. We do not consider that additional conditions are required to recognise or protect the treaty settlements.

[688] As noted in Part B the Panel directed the EPA to seek comment from the Minister for Māori Crown Relations: Te Arawhiti and the Minister for Māori Development under section 72 FTAA. Hon Tama Potaka holds both portfolios and advised that he supports the Application having consider the information provided and the relevant statutory criteria.

PART J: CONDITIONS

The Statutory Framework for Conditions

<u>The Power and the Duty</u>

[689] Section 81(1) FTAA requires the Panel, for each approval sought, to decide whether to "grant the approval and set any conditions to be imposed on the approval" or to decline it. Section 81(2) directs that, in making that decision, the Panel "must comply with section 83 in setting conditions" (s 81(2)(d)), "may impose conditions under section 84" (s 81(2)(e))

[488] Based on the AEE and the lack of any contrary views or evidence provided to the Panel.

and, since 17 December 2025, "may impose conditions under section 84A" (s 81(2)(ea)). Setting conditions is integral to the decision to grant, not a step that follows it.

[690] The conditions are also central to section 85(3). The Panel may decline approval only if the adverse impacts are "sufficiently significant to be out of proportion to the project's regional or national benefits … even after taking into account (i) any conditions that the Panel may set in relation to those adverse impacts; and (ii) any conditions or modifications that the Applicant may agree to or propose". The conditions set in this Part are the means by which the adverse impacts identified in Part F are assessed for their part in the proportionality assessment, and the findings in Part N assume their implementation.

Section 83

[691] Section 83 provides:

> ***83 Conditions must be no more onerous than necessary*** *— When exercising a discretion to set a condition under this Act, the panel must not set a condition that is more onerous than necessary to address the reason for which it is set in accordance with the provision of this Act that confers the discretion.*

[692] Three features of section 83 have shaped the Panel's approach. First, it applies to each condition individually. Secondly, "the reason for which it is set" is identified by reference to the provision conferring the discretion: for a resource consent, the RMA provisions applied through clause 18 of Schedule 5; for a wildlife approval, clause 6 of Schedule 7 (managing effects on protected wildlife); for an archaeological authority, clause 5 of Schedule 8. Thirdly, section 83 constrains onerousness, not rigour. A condition that converts a management-plan aspiration into a measurable, enforceable obligation is not more onerous than one that leaves the same outcome uncertain, because the reason for setting it — securing the outcome on which the Panel's acceptance of the effect depends — is not met by the weaker form. Each row of Condition Tables 1–11 records the Panel's section 83 assessment in the categories defined above; proposals rejected on section 83 grounds are collected in Condition Table 12.

Sections 84 and 84A

[693] Section 84 permits conditions "to recognise or protect a relevant Treaty settlement" for the purposes of section 7. The Ngāi Tahu Claims Settlement Act 1998 and the Mana Whakahono ā Rohe between Ngāti Waewae, Te Rūnanga o Makaawhio, Ngāi Tahu and the West Coast Regional Council are relevant (Part D). The conditions providing for notification to and consultation with Te Rūnanga o Ngāti Waewae on management plans, taonga species and kōiwi are set under section 84 in addition to the general powers. Section 84A (infrastructure adequacy) is not engaged: access and State highway matters are authorised by the WCP consents and NZTA raises no further concern (Part F, Traffic Effects).

Procedure — sections 70 and 89

[694] Under section 70(1), the Panel must direct the EPA to provide its draft conditions, with the draft decision, to the Applicant, every person who commented under section 53, and "any local authority or other body with a statutory responsibility to enforce or monitor compliance with the conditions", inviting comment by a date the Panel sets. The draft conditions in Appendices A to C are provided for that purpose. Section 89(1) permits correction of "minor omissions, errors, or other defects" within 20 working days after the decision issues.

Schedule 5 — resource consents

[695] Clause 17(1) requires the Panel, "when considering a consent application, including conditions in accordance with clauses 18 and 19", to take into account the purpose of the FTAA (with the greatest weight), the provisions of Parts 2, 3, 6 and 8 to 10 of the RMA that direct decision-making on a resource consent, and the relevant provisions of any other legislation that directs decision-making under the RMA. Clause 18 provides:

> ***18 Conditions on resource consent*** *— When setting conditions on a consent, the provisions of Parts 6, 9, and 10 of the Resource Management Act 1991 that are relevant to setting conditions on a resource consent apply to the panel, subject to all necessary modifications, including the following: (a) a reference to a consent authority must be read as a reference to a panel; and (b) a reference to services or works must be read as a reference to any activities that are the subject of the consent application.*

[696] Clause 18 imports sections 108 and 108AA. Section 108(1) permits "any condition that the consent authority considers appropriate", including a bond (s 108(2)(b), s 108A) and, for a discharge permit, conditions requiring the best practicable option and monitoring of the discharge (s 108(2)(e), (8)). Section 108AA(1) confines the discretion to conditions the Applicant agrees to, conditions "directly connected to" an adverse effect or an applicable rule, and administrative conditions. Sections 108(10) and 128 also apply.

[697] Clause 19 permits the Panel to set conditions in respect of a standard freshwater fisheries activity in place of the approvals otherwise required under regulations 42, 43 and 65(2) of the Freshwater Fisheries Regulations 1983 and section 26ZM(2)(a) or (3)(b) of the Conservation Act 1987. Such conditions "must be the conditions the Panel considers necessary to manage the effects of the activity on freshwater fish species, taking into account (a) best practice standards; and (b) the New Zealand Fish Passage Guidelines" (cl 19(2)), and the statutory provisions "do not apply to the holder of a resource consent issued under this Act who complies with the relevant conditions imposed under this clause" (cl 19(3)). The Application includes a standard freshwater fisheries activity (the diversions, culverts and transfer of native fish). Condition 15.5 is imposed under clause 19.

Schedule 7 — wildlife approval

[698] Clause 6 provides:

> ***6 Conditions*** *— (1) A panel may set any conditions on a wildlife approval that the panel considers necessary to manage the effects of the activity on protected wildlife. (2) In setting any condition under subclause (1), the panel must — (a) consider whether the condition would avoid, minimise, or remedy any impacts on protected wildlife that is to be covered by the approval; and (b) where more than minor residual impacts on protected wildlife cannot be avoided, minimised, or remedied, ensure that they are offset or compensated for where possible and appropriate; and (c) take into account, as the case may be, the New Zealand Threat Classification System or any relevant international conservation agreement that may apply in respect of the protected wildlife that is to be covered by the approval.*

[699] Under clause 7(1) the approval "has force and effect for its duration, and according to its terms and conditions, as a lawful authority for the purposes of Part 5 of the Wildlife Act 1953"; under clause 7(2) and (4), the Director-General of Conservation may vary, replace, transfer or revoke it. The approval is administered and enforced by the Department of Conservation, not the consent authority, and must be capable of standing alone. That is why the final instrument names the species and threat status covered (Item 1A), confines the incidental killing authorised, applies the relevant resource consent conditions "as if set

out in full" rather than by general reference, and carries the lizard and tāiko safeguards into the approval itself. Clause 8 disapplies the requirement for joint ministerial consent under section 71 of the Wildlife Act.

Schedule 8 — archaeological authority

[700] Clause 5 provides that the Panel "may impose any conditions", including that landowner consent be obtained before entry (cl 5(1)(a)), that the Site be returned as nearly as possible to its former state (cl 5(1)(b)), that activity conform to accepted archaeological practice (cl 5(1)(c)) and that the approved person report to the holder, the owner of the Site and Heritage New Zealand Pouhere Taonga (cl 5(1)(d)). A condition requiring an investigation may be imposed only if the Panel is satisfied on reasonable grounds that it is likely to provide significant information (cl 5(2)). The authority does not commence until landowner consent has been obtained and notified to HNZPT (cl 6(1)); it is current for a period "not exceeding 35 years, as specified in the authority" (cl 6(2)(a)); the Panel must seek and have regard to HNZPT's recommendation before approving a person to carry out the activity (cl 7(3)); and the authority has the same force and effect as one granted under section 48 of the HNZPT Act (cl 9).

Standards for resource management conditions

[701] The common-law standards imported by clause 18 are settled. A condition must be for a resource management purpose; must fairly and reasonably relate to the activity; and must not be so unreasonable that a reasonable consent authority could not have imposed it. It must be certain and enforceable: a reader must be able to tell what is required, when, and how compliance is judged. It may not delegate a consenting decision, but it may authorise a person to certify that a condition has been met or to settle a matter of detail within the parameters the condition sets. Where the Panel relies on a management plan to carry out detail, the condition states the outcome, the matters the plan must contain, the person who certifies it and the criteria for certification (condition 6.4(a)); the plan implements the condition and cannot vary it (condition 6.7). "Approval" has been replaced with "certification" against stated criteria wherever it appeared in the Applicant's draft.

[702] Two further principles inform the assessment in Part F. First, where the Panel's acceptance of an effect as low or minor depends on a commitment made in reply evidence — the lime-dosing regime, the blending of MSP tailings, the Stage 1 lizard survey, the night search of illuminated areas — that commitment is secured by condition (referred to below as category A). Second, where a condition sets a target (for example, five-year ecological recovery of a reconstructed stream), the enforceable duty to monitor, investigate, and remedy a shortfall is stated separately from the target, so non-attainment has consequences without converting a naturally variable biological outcome into a strict limit.

The three instruments

[703] Conditions are set on three approvals:

- **Appendix A — Resource consents** (s 42(4)(a); Sch 5 cl 17–19. The West Coast Regional Council asked for separate regional and district consents with stand-alone condition sets. The Panel does not accept that request. The conditions are issued as a single consolidated set in which the General Conditions (1–10) apply to both consent authorities and the subject-specific conditions are grouped under the consent to which they relate (Grey District Council, 11–18; WCRC general, 19–22; discharge permits, 23–24; air discharge, 25–26; water take, 27–29; reporting and Community Liaison

Group, 30–31). That structure follows the Applicant's Central Block (as issued by the Environment Court) and avoids the duplication and cross-referencing errors a split would introduce in a set this interdependent.

- **Appendix B — Wildlife approval** (s 42(4)(h); Sch 7 cl 5–7), for the catch and release, and incidental killing, of lizards and birds, in the form of TCM reply with Attachment D1 as amended.
- **Appendix C — Archaeological authority** (s 42(4)(i); Sch 8 cl 4–9), for sites K31/11 and K31/12 and any unrecorded archaeological site within the Project Area, in the form of the conditions agreed between HNZPT and the Applicant as amended.

[704] As mentioned above, the three instruments interlock. The wildlife approval incorporates resource consent conditions 13.1–13.11, 14.1–14.7, 16.14 and 17.2–17.3 as conditions of the approval "as if set out in full" (Appendix B, Sch 3, Special Condition 2). The archaeological authority governs earthworks within the Project Area, and resource consent condition 18.1 (accidental discovery) applies, as HNZPT requested, only "in the areas not subject to an archaeological authority". The Avian Management Plan and Lizard Management Plan are certified once by the consent authority under resource consent condition 6, after the Department of Conservation has had the plan for comment (6.1(a), 6.6(a)) and, for the AMP, Te Rūnanga o Ngāti Waewae (13.9(d)). The certified plan binds both the consents and the wildlife approval.

The management plans as part of the evidence

[705] The plans before the Panel. The Substantive Application was lodged with eight draft management plans as Appendices M1 to M8:

a. The Noise Management Plan (M1)
b. The Avian Management Plan (M2)
c. The Lizard Management Plan (M3)
d. The Native Freshwater Fish Capture and Relocation Plan (M4)
e. The Dust Management Plan (M5)
f. The Rehabilitation Management Plan (M6)
g. The Water Management, Monitoring and Effects Management Plan (M7)
h. The Erosion and Sediment Control Plan (M8).

In its 5 October 2026 response, the Applicant filed an amended Avian Management Plan (Attachment H1) and an amended Lizard Management Plan (Attachment H2), and its reply witnesses described further amendments to the remaining plans in response to the section 51 reports and comments. Condition 1.1 of the resource consents identifies the plans "as updated by the TCM reply" as the documents with which the activity must be carried out in general accordance, subject to the certification process in condition 6. A ninth plan, the Radiation Management Plan required by condition 8.7, has not been lodged in draft; it is a new requirement of this decision and is addressed in Part F (Radiation Effects) and Condition Table 3 below.

<u>The plans as evidence</u>

[706] A large part of the ecological and hydrological evidence in support of the Substantive Application rests on the management plans rather than on the conditions. Dr Bramley's assessment that the effects on lizards will be "very low" is expressly an assessment of effects "with adherence to the LMP and the Rehabilitation Management Plan".[489] His conclusion on avifauna depends on the survey, deterrence, nest-protection, camera-monitoring and lighting-response regime set out in the AMP, as does the Panel's acceptance in Part F of a low residual risk of nest loss and of tāiko grounding. Mr Montgomerie's assessment of effects on native fish assesses the salvage, relocation, and release-site regime in the NFFCRP.[490] Mr Rekker's and Dr Fitzpatrick's evidence that mine-water discharges will be managed to the Table A and B thresholds relies on the lime-treatment train, the monitoring programme, the trigger-action response plans and the adaptive-management loop in the WMP and MEMP.[491] Mr Ridley's evidence on earthworks and sediment rests on the ESCP and on annual Site-Specific ESCPs designed to GD05.[492] Mr Federici's staging of the wetland cells and creek diversions is carried in the RMP.[493] The commenters engaged with the plans in the same way: DOC's concerns on lizards are framed as being "subject to an updated Lizard Management Plan", Dr Storey's recommendations include "minor additions" to the NFFCRP and changes to the WMMEMP parameter list and thresholds, and Ms van Rooyen's criticism is that thresholds sit in plans rather than in conditions.

How the Panel has treated them

[707] The Panel has read each plan, in its lodged and (where applicable) amended form, as part of the evidence and has tested it against the section 51 reports, the comments and the reply. The plans have been treated as evidence of what the Applicant proposes to do and how, and the Panel's findings in Part F on the magnitude of residual effects are findings made on the footing that the plans will be implemented substantially as described. That is the orthodox approach: a management plan that is before the decision-maker is part of the Application material against which effects are assessed, and the weight it carries depends on the specificity of its content and the expertise of its author. On both counts, the Panel has found the plans to be of good quality. They are prepared by the experts who gave evidence; they identify objectives, methods, monitoring, triggers and responses; and in most respects they go further than the conditions originally offered.

The Panel does not certify the plans

[708] The Panel has not certified, and does not purport to certify, any of the management plans. The Applicant invited the Panel to certify the current version of the LMP itself.[494] The Panel declined, for three reasons. First, under section 81, the Panel decides whether to grant approvals and sets the conditions; certification is the post-grant administrative step by which the Consent Authority confirms that a plan meets the parameters set by the conditions.[495] Secondly, the plans are expressly designed to be revised - the LMP before each Section, the AMP annually, the NFFCRP annually, the WMP annually and the SSESCP with each Annual Work Programme - so that certification of a version fixed at the date of

[489] Substantive Application Appendix-L4A-Bramley SOE; Applicant's; Bramley Reply Attachment H.
[490] Substantive Application Appendix L4B; Bramley Reply, Attachment I.
[491] Substantive Application Appendix-L4A-Bramley SOE L3A; Applicant's Reply; Rekker Reply SOE, Attachment G; L4C; Fitzpatrick Reply SOE, Attachment J.
[492] Substantive Application L5A.
[493] Substantive Application L2A; Reply, Attachment L.
[494] Bramley Reply; Part F, Effects on Lizards.
[495] Paragraph 703.

decision would be overtaken within a year. Thirdly, certification under condition 6 is accompanied by steps the Panel cannot replicate: comment by the Department of Conservation on the AMP, LMP, NFFCRP and RMP[496], the Consent Authority's right to commission peer review at the Consent Holder's cost[497], and in the case of the Radiation Management Plan prior approval by the Director for Radiation Safety.[498] The wildlife approval is then bound to the certified plan by Special Condition 2 of Appendix B, which is why the Panel does not require the Department of Conservation to become the certifying authority.[499]

Assessment: comprehensive, but capable of refinement

[709] The Panel's assessment, recorded in the advice note to condition 6.2 of Appendix A, is that "the overall framework and approach of the management plans submitted as part of the Substantive Application are well conceived, but the detail may require refinement in light of new information and to ensure best practice", and that "the certification process allows the management plans to be refined, and the Panel's decision under the FTAA and these conditions do not foreclose changes and refinements". Two consequences follow. The first is a floor: condition 6.2 requires each certified plan to have at least the same environmental management objectives as the lodged draft and methods no less effective than those in the draft, so certification cannot be used to retreat from what the Applicant put before the Panel. The second is a ceiling: under conditions 1.2 and 6.7 a plan implements the conditions and cannot vary them, and where the plan and the conditions are inconsistent the conditions prevail. Within those bounds, the following table sets out the refinements the Panel has identified in Part F. Each is either already secured by a condition tabulated in K.3 or is a matter the Panel expects the Consent Authority to address at certification.

Plan	Refinements identified in Part F
Avian Management Plan (H1)	Section 5.3 - delete "or until the 15 January following the discovery, whichever is sooner", so that suspended dredge-pond lighting does not resume automatically; record of any nest lost to the dredge (species, location, contents, stage); night-search footprint to include every illuminated area and 100 m surrounds; lighting audit within 20 WD; weekly reporting from 14 September
Lizard Management Plan (H2)	Sections 2.12 and 4.0 - post-release monitoring trigger lowered from 50 lizards to any Threatened or At Risk lizard or more than 30 lizards, for two seasons; revision before each Section with any change in threat classification; DOC's written agreement to Canoe Creek before release; refugia to Lennon (2023) / Herbert et al (2023); no rat-only or mustelid-only control within 200 m of a release site; bracketed mouse-control trial to be deleted or drafted †
Native Freshwater Fish Capture and Relocation Plan (M4)	Initial trapping and electric fishing before flow is diverted; capture methodology based on survey of the habitat actually present (no wet area assumed fishless); release-site suitability and capacity assessed for each transfer including repeat transfers; species and numbers captured, released and killed reported within 10 WD; named ecologists for clause 19 purposes
Rehabilitation	Design relationship between each reconstructed invert and

[496] 6.1(a), comment by Te Rūnanga o Ngāti Waewae on the AMP (13.9(d).
[497] Advice note to 6.1.
[498] Condition 8.7
[499] Part F, Effects on Avifauna; Condition Table 12.

Management Plan (M6)	the post-rehabilitation water table; staged wetland programme with establishment criteria per cell (water-level range, substrate, survival, cover by zone); separate flaxland minimum within the 16.8 ha line; maintenance to 5 years and 80% cover; predator-control programme designed with the herpetologist; alignment with the NFFCRP works sequence
Water Management Plan and MEMP (M7)	Lime/limestone regime with the field-trial results, dosing rates and ratio, verification and adjustment criteria; monthly pit-pond monitoring with an internal action level below each Table A threshold; remedial actions and timeframes for each Table A/B parameter (MEMP section 7.6.2) prepared before, not after, an exceedance; 22.1 objectives defined by cross-reference to 23.1, 23.4 and 24; Suite R and reconstructed-reach piezometers added to the monitoring programme
Erosion and Sediment Control Plan and SSESCPs (M8)	Turbidity trigger levels per site with response actions and timeframes; rainfall event defined as 25 mm in 24 hours; diversion design details to include the invert relationship, the 28.7 capacity calculations (runoff coefficient not less than 0.30 unless justified) and the 28.10 armouring design; mapping and classification of wetland habitat in each borrow area
Dust Management Plan (M5)	Cross-reference to the gamma-dosimeter and radon-detector locations under 8.9 and 8.10 so that one network of monitoring sites is maintained
Noise Management Plan (M1)	No refinement identified beyond the condition 12 regime
Radiation Management Plan (new)	To be prepared under the ORS Compliance Guide; approved by the Director for Radiation Safety; to specify instruments, locations, detection limits, QA, background derivation and triggers for each programme; to be added to the plan lists in 1.1 and 6.1(b) †

Why the load-bearing commitments are also conditions

[710] Because the plans are evidence rather than the enforceable instrument, the Panel has followed the principle stated at[681]: where its acceptance of an effect as low or minor depends on something the plan says will happen, that thing is also stated in a condition, so that it does not depend on the content of a document that can be amended under condition 6.5. That explains the category A entries in Tables K1 to K11. It is not a reflection on the quality of the plans. It reflects the different functions of the two documents: the condition sets the outcome and parameters; the plan sets out how the outcome will be achieved and may be refined as experience accumulates. Together, they give the Consent Authority a standard to enforce and the Applicant the flexibility a 14-year staged operation requires.

Section 83

[711] The certification structure is itself the least onerous means of securing the outcomes on which Part F depends. The alternative - fixing every methodological detail in the conditions at the date of decision - would be more onerous on the Applicant, because any improvement in method would then require a variation under section 127 of the RMA, and less protective of the environment, because the conditions could not respond to monitoring results without that step. The advice note to condition 6.2 records the Panel's intention that certification be used for refinement, within the floor and ceiling described at[709]

Changes made to the Applicant's conditions and the reasons for them

[712] The Applicant provided an updated set of draft conditions with its response of 5 October

2026. Condition tables record each change the Panel has made, the Part F finding on which it rests, and the Panel's section 83 assessment. Drafting corrections that do not alter substance are identified above and are not repeated in the tables. To systematically address how the submissions respond to the statutory provisions, the changes are categorised using the taxonomy below.

Section 83 categories used in the tables

- **A — Committed to by Applicant.** The condition converts a commitment made in reply evidence or a management plan into an enforceable obligation. No new substantive burden.
- **B — Certainty and enforceability.** The condition supplies the standard, trigger, person, criteria or timeframe that the Applicant's draft left open, or corrects a defect that would make the condition unenforceable. No new substantive burden.
- **C — Accepted by the Applicant** in its reply of 5 October 2026 or in Attachment C.
- **D — New substantive requirement**, imposed because the Applicant's draft did not secure the outcome on which the Part F finding depends. The row states the less onerous alternative considered and why it does not meet the reason for the condition.

Index — Part F topic to condition rows

Part F topic	Resource consent rows	Wildlife approval rows
Radiation Effects	8.4–8.13 (Condition Table 3); consequential: 3.1(f), 4.5, 6.1, Condition Table 1; 24.1 Suite R, 24.5(g) (K8)	—
In-stream Ecological Effects	5.1(c)(i) (Condition Table 1); 15.2(d), (j), (k), (l), 15.5, 15.6 (K5); 16.11 (Condition Table 6); 24.6(a) (Condition Table 8); 28.2(b), (d), 28.3(c)–(e) (Condition Table 9)	—
Effects on Avifauna; Effects on Lizards	13.1(c), 13.3(d), 13.4(e), 13.6(a) (Condition Table 4); 14.2(h)–(j), 14.4–14.7 (Condition Table 14); 16.14 (Condition Table 6); 17.1–17.3 (Condition Table 7)	All of Condition Table 10
Water Quality and Quantity (including upstream, adjacent and reconstructed water bodies)	3.1(f)–(g) (Condition Table 1); 7.6, 7.7, 9.3(f), (i), 9.5 (Condition Table 2); 21.2(i), (n), 21.3, 22.1(b)–(c), 22.2(e)–(g), 22.3, 23.1, 23.4, 24.1, 24.5(f)–(h), 24.8 (Condition Table 8); 28.5–28.11, 29.9 (Condition Table 9)	—
Cumulative Effects	Condition 7A	

Condition Table 1 — General conditions (1–6)

Condition	Applicant's draft (5 Oct 2026)	Panel's condition	Part F finding relied on	Section 83
3.1(e)–(g)	Review purposes limited to (a)–(d)	(e) review of the bond quantum in light of the independent assessment and the 4.5 reviews; (f) review of the lime-dosing regime, the Table A/B thresholds in 23.1 and the 24.1 monitoring suite in light of monitoring results, including the radionuclide and piezometric results; (g) review of the riparian, wetland and channel performance criteria in 16, 28.2 and 28.3 in light of the five-year assessment under 28.3	Water Quality: operating regime "reviewable through the annual update"; Wetlands "Bond"; s 128 RMA	B — adds review purposes only; imposes no duty until a review is initiated
4.1	Bond "for mine closure activities and rehabilitation"	Scope stated to include construction, planting, hydrological establishment, maintenance and corrective works for the constructed wetland and reconstructed creeks under 9, 16 and 28, for each of the three Sections	Wetlands "Bond"	B — states what the bond secures; no change to the obligation to bond
4.2, 4.5 (bond)	4.2 refers to a quantum "required by 4.5"; 4.5 requires an assessment "of the bond required" but sets none — circular	4.5: before any disturbance, an independent assessment by an appropriately qualified person of the cost of completing all rehabilitation, closure, wetland and creek reconstruction in the Section being mined and all maintenance and monitoring obligations for completed Sections, assuming third-party contractors; bond not less than the assessed amount; updated before Sections 2 and 3, every 3 years and on a 3.1 review, with the bond adjusted within 30 WD; release only on certification that rehabilitation is complete and the 16.7, 28.2 and 28.3 criteria are met	Wetlands "Bond": "connect the independently assessed outstanding rehabilitation liability with security actually lodged and maintained, provide for review as works advance, and identify release criteria"	B — makes the Applicant's own mechanism operable. The Panel has not added the post-rehabilitation gamma survey or remedial blending under 8.12 to the assessment: those are closure obligations already within "all … obligations under these consents"

Condition	Applicant's draft (5 Oct 2026)	Panel's condition	Part F finding relied on	Section 83
5.1(c)(i)	Annual Work Programme submitted "for approval"; "location and extent of waterbody diversions and reclamations"	Submitted "for certification"; AWP to identify each creek diversion (including any repeat diversion of an east–west creek) proposed in the next 12 months, its fish-salvage programme under the NFFCRP, the 28.6–28.8 survey and capacity information, and progress against the 9.5 wetland milestones and 16.7 establishment criteria	In-stream "Diversion, Staging and Recovery": "Repeated diversions are to be included in the annual work programme and fish-salvage programme"; Wetlands "Timing"	B — the information already exists under the NFFCRP and RMP; the condition fixes where it is reported
6.4(a)	"Confirm … that the management plan is certified" — no criteria	Certified as (i) prepared by a suitably qualified person; (ii) containing the matters required by 6.2 and the specific condition; (iii) giving effect to, and not inconsistent with, the conditions	Part K [Condition Table 113]; Radiation	B — certainty of the certification step; no new content required of any plan

Condition Table 2 — Cumulative Effects, Wetlands and rehabilitation (7, 9) — upstream and adjacent water bodies

Condition	Applicant's draft	Panel's condition	Part F finding relied on	Section 83
7.3A	No condition	Limit on total mining area across both Central and Southern Block to 16 ha	Cumulative effects "stated intention that the active mining operation in the Southern Block will not proceed before mining is completed in the Central Block"	A
7.6	Existing wetlands outside the mine path "protected, as far as practicable, until the proposed wetland has been constructed"	(a) Schedule 4 wetlands not cleared, drained, filled, grazed or otherwise disturbed until mining of the mine path in which each lies is scheduled under the certified AWP; (b) direct vegetation transfer under 16.13 only within the 20 WD before authorised disturbance; (c) stock fencing within six	Wetlands "Timing and Temporary Protection": protection must "identify the relevant areas, the disturbance excluded and	D — "as far as practicable" is not a condition. Less onerous than DOC's requirement to retain every wetland until replacement habitat is functioning (Condition Table

Condition	Applicant's draft	Panel's condition	Part F finding relied on	Section 83
		months	the event ending protection"; transfer "immediately before otherwise authorised disturbance"	12), which the Panel rejects
7.7 (new)	—	Borrow areas, access tracks, bunds and other earthworks outside the mine path not within, or within a 10 m setback from, any natural inland wetland; SSESCP to map and classify wetland habitat within each borrow area proposed for the next 12 months	Wetlands "Delineation, Classification and the Effects Baseline": "The effects inventory must also account for any wetlands affected by ancillary earthworks … beyond the mine path" (the 72 ha recontouring area)	D — confined to natural inland wetlands, which the NES-F already protects; annual mapping is the least step that makes the restriction operable
9.3(f), (i)	RMP to include construction methodologies for creek re-establishment; wetland staging described generally	(f) the design relationship between each reconstructed channel invert and the predicted post-rehabilitation water table, which the invert must intersect; (i) the staged programme consistent with 9.5, with establishment criteria for each cell (design water-level range, substrate, planting survival and cover by habitat zone) against which 9.5(c) certification is given	Water Quantity: "reconstructed channel inverts be designed to intersect the post-rehabilitation water table … demonstrated through certification of the RMP"; Wetlands "Timing" (measurable checks)	B — specifies RMP content; the design requirement is consistent with Mr Rekker's evidence that the rehabilitated profile will be more concave
9.5 (new)	Years 1–2 northern construction stated in evidence (Federici, Bramley), not in a condition	(a) northern wetland complex (cells north of Granite Creek, Schedule 2) earthworks to commence within 12 months of Section 1 mining and be substantially complete, with planting, by end of Year 2; (b) no wetland in Section 2 south of Granite Creek disturbed until the Consent Authority certifies,	Wetlands "Timing": "Acceptance of the proposal does depend on delivering the early construction and planting	A — the sequence is TCM's own; the certification gate gives it a consequence

Condition	Applicant's draft	Panel's condition	Part F finding relied on	Section 83
		on the report of a suitably qualified ecologist and hydrologist, that the northern cells meet the RMP establishment criteria; (c) corrective action plan within two months, implemented within six months or next planting season	sequence relied upon in the evidence … Failure to achieve required outcomes should attract defined corrective action"; Avifauna "Wetland Habitat and Disturbance"	

Condition Table 3 — Hazardous substances and radiation (8.4–8.13)

Condition	Applicant's draft	Panel's condition	Part F finding relied on	Section 83
8.4	Quarterly testing of HMC against Schedule 2 RSA; results within 10 WD	Before mining in each Section (excluding mining to perform the baseline analysis) and quarterly, independent test results for (a) ore; (b) WCP tailings; (c) MSP tailings as received; (d) homogenised backfill as placed; results within 10 WD.	HMC is tested daily and quarterly under RC-2025-0170-01 (Appendix H3); the streams this consent authorises — ore and the material placed in the void — were not tested at all	B/D — substitutes testing of the material actually consented for a duplicated obligation; net burden unchanged
8.5	—	ISO/IEC 17025 laboratory; high-resolution gamma spectrometry reporting U-238, Ra-226, Pb-210, Th-232, Ra-228, Th-228 and the Ra-226/U-238 and Ra-228/Th-232 ratios; ten-sample baseline per stream (mean, SD, 95th percentile); sampling methodology in the RMP agreed with the laboratory and ORS	inferred values reliable for screening only if results above 1 Bq/g are confirmed by head-of-chain analysis, as the SGS Central Block results demonstrated	D — mirrors the head-of-chain confirmation TCM already accepted for the Central Block; proportionate to the method dispute
8.6	—	Where either ratio departs from 1(one) by more than 20%, all activity concentrations relied on for compliance must be directly measured, not inferred from elemental U or Th	Resolves Dr Bradley's secular-equilibrium objection by a test rather than an assumption	D — conditional; applies only if disequilibrium is actually detected
8.7	Compliance with	Compliance with the	The Director asked	A/B — TCM must

Condition	Applicant's draft	Panel's condition	Part F finding relied on	Section 83
	the ORS Guide "in the absence of" a NZ code; ARPANSA also cited	ORS Compliance Guide (June 2026 or revision) and ORS C6 (transport); Radiation Management Plan covering mining, transport, tailings handling, blending and return to the void, rehabilitation, environmental and community monitoring and closure; RMP approved by the Director for Radiation Safety and submitted for certification under condition 6 not less than 40 WD before mining; ARPANSA deleted; WA guidelines not adopted	that consenting authorities ensure the Guide is followed; the Applicant's RMP would otherwise never be seen by the Council	prepare an RMP under the Guide in any event; certification gives the Council visibility, not a new plan
8.8	—	RMP to specify, for each monitoring programme: parameter; instrument, model and calibration; detection limits and uncertainty; locations on a plan; frequency and duration; QA; background derivation and variability; trigger levels and actions. Changes to (b)–(h) approved by the Director and notified to the Consent Authority within 10 WD	Ms van Rooyen and Mr Hill: "radiation monitoring devices" without specification is unenforceable	B — adds no monitoring beyond 8.4–8.12
8.9		(a) passive integrating gamma dosimeters (TLD/OSL) installed by an independent person at not fewer than six locations including the DMP Figure 3 dust-gauge sites, the Site boundary nearest each dwelling within **500 m**, and a control; 12-month pre-mining baseline; quarterly thereafter; (b) **0.4 mSv** above background → investigate and report to the Consent Authorities and ORS	Off-site public dose is the pathway the WCP consent does not control; the offered condition had no instrument, baseline or consequence	B/D — gives the Applicant's own 1 mSv trigger an instrument, a baseline and a consequence; six dosimeters is the least deployment that covers each dwelling and a control; the 0.4 mSv investigation level is set below the public dose limit so that the 1 mSv cessation trigger is not the first warning

Condition	Applicant's draft	Panel's condition	Part F finding relied on	Section 83
		within 20 WD; (c) 1 mSv above background (sum of four quarters less baseline) → cease mining within 200 m, consult ORS, resume only on the Director's written confirmation		
8.10 8.7		(a) with occupier consent, passive alpha-track detectors (≥3-month exposure) in the below-floor spaces of **not less than two occupied dwellings within 400 m** and at not fewer than three outdoor locations including a control, for ≥12 months covering summer and winter before mining; (b) continued through mining and 12 months after backfilling, exchanged six-monthly; (c) results to occupier, Consent Authorities and ORS within 20 WD; (d) where the annual mean indoor concentration exceeds the pre-mining baseline by >50 Bq/m³ **and exceeds 300 Bq/m³**, independent radiation-protection assessment of attributability and mitigation agreed with ORS †	[F26]–[F27]: Barrytown homes already show median radon three times the national urban median; no party quantified the mining increment; "a case for monitoring rather than assumption"	A/D — secures the reply commitment; passive detectors are low-cost; the 300 Bq/m³ action level is the WHO upper reference level, which avoids attributing to mining an exceedance that the regional baseline alone could produce; meets residents' request in proportionate form
8.11		(a) Ra-226, Ra-228, U-238 and gross α/β at each down-gradient bore and any consenting domestic bore within **300 m** of the disturbance area; (b) four baseline samples over 12 months; (c) quarterly during mining, six-monthly for 2 years after backfilling; (d) where a result exceeds both the baseline 95th	Mr Rekker's evidence addresses the radon pathway (3.8-day half-life, westward flow) but not radium (1600-year half-life); no Southern Block groundwater radionuclide data exists	A/D — completes the suite already required by the Water Quality finding on 24.1; marginal cost on an existing programme; 300 m reflects the westward groundwater flow direction on Mr Rekker's unchallenged evidence

Condition	Applicant's draft	Panel's condition	Part F finding relied on	Section 83
		percentile and the DWSNZ MAV, notify within 5 WD and implement the RMP contingency actions		
8.12 (new) [review 8.9]	Unspecified "devices" at Dust Management Plan locations; quarterly; 1 mSv/yr above background → "the RSA applies"	(a) MSP tailings placed only as a homogenised blend with WCP tailings **and/or overburden**; (b) backfill (measured under 8.4) not to exceed the mean pre-mining ore activity for the Section and in no case 1 Bq/g for U-238, Ra-226, Th-232 or Ra-228; (c) unblended MSP tailings stored only in the bunded area shown in the RMP and placed within 12 months of receipt; (d) walkover gamma survey (1 m grid) of each Section before mining and within 3 months of rehabilitation; post-rehabilitation surface dose rate not to exceed pre-mining mean + 2 SD; (e) on breach of (b) or (d), cease placement and submit for certification a remedial plan by an independent radiation-protection expert	September 2026 testwork gives MSP tailings ~5 Bq/g; acceptability of the void deposition "depends on blending actually occurring and on the backfill actually meeting the ore benchmark. Those are presently statements of intent in reply evidence. They must be conditions."	A — secures the outcome TCM itself says will occur; "and/or overburden" accommodates the blend material actually available in each Section; (d) converts the §28 survey commitment; (e) is added so the limit has a consequence
8.13	TCM "has committed to measurement of Radon" (reply §9); no condition	All data under 8.4–8.12 to the Consent Authorities electronically within 20 WD; annual radiation monitoring report, reviewed by a person with recognised competence in radiation protection independent of the Consent Holder, to the Consent Authorities, ORS and the Community Liaison Group by 31 August		D — the minimum that gives residents and the ORS the data; the less onerous alternative (no reporting beyond 8.4) would not answer the Director's expectation; CRRG's wider package is rejected (Condition Table 12)
	"Periodic" groundwater measurement for			

Condition	Applicant's draft	Panel's condition	Part F finding relied on	Section 83
	NORM (reply §11); no parameters, sites or triggers			

Note on the three radii. Condition 8.9 (gamma) applies to dwellings within 500 m, 8.10 (radon) to dwellings within 400 m and 8.11 (groundwater) to bores within 300 m. The distances reflect the pathway: external gamma attenuates with distance but is the pathway with the widest reach from a surface stockpile; indoor radon from a mining source is confined to the nearest dwellings on the DMP dust-gauge evidence; and groundwater transport is westward on Mr Rekker's evidence, so an eastern domestic bore beyond 300 m is not down-gradient.

Condition Table 4 — Avian and lizard management (13, 14)

Condition	Applicant's draft	Panel's condition	Part F finding relied on	Section 83
13.1(c)	Nest loss where the dredge is impeded acknowledged in the AMP, not in the condition	Where a nest of any protected species cannot be retained without impeding the dredge, the project ornithologist records species, location, nest contents and breeding stage before works proceed; the record is reported under 13.4(a) and considered in the annual AMP review; nothing permits disturbance of a nesting kororā, its eggs or chicks	Avifauna "Deterrence, Surveys and Nest Protection": acceptance is "a reasoned acceptance of a low residual risk within the particular management regime" and must not become "a general permission to kill protected birds"	A — the AMP already requires the record; the condition makes the limit of the authorisation visible. The Panel has not required a separate confirmation that deterrence surveys were done — 13.1(a) already requires them and 13.11(d)–(i) reports them
13.3(d)	Night search footprint: active mining area, 50 m buffer, haul roads; "16 areas"	"16 ha"; (iv) on any night artificial lighting is used, every illuminated area and the ground within 100 m of it, in addition to (i)–(iii)	"Tāiko, Lighting and Response Measures", first drafting adjustment: the footprint, 50 m buffer and haul-road limits "must not inadvertently contradict" the offered search of illuminated areas	A — gives effect to the search TCM offered
13.4(e)	AMP s 5.3: suspended dredge-pond lighting resumes on corrective action "or until the 15 January following the discovery, whichever is sooner"	Suspended lighting may not resume (whether or not 15 January has passed) until the cause is investigated, corrective measures implemented and a suitably qualified ecologist reports to the Consent	Second drafting adjustment: automatic 15 January resumption "should not permit resumption of an unresolved harmful lighting practice"	A/B — the Applicant's four-week / 50 m repeat-event trigger is retained unchanged

Condition	Applicant's draft	Panel's condition	Part F finding relied on	Section 83
		Authority and DOC that the cause is addressed		
13.6(a)	Kororā fence trigger (detection within 500 m) carried in an advice note	Trigger in the condition: where kororā or burrows are detected within 500 m of the active disturbance area in any 13.5 survey, erect and maintain the fence for each Section; advice note deleted	"Kororā and Other Species": the conclusion "does not rely on penguin fencing as an unconditional exclusion measure, because erection of that fencing is itself subject to the kororā detection trigger"	B — no new obligation; a trigger in an advice note is unenforceable
14.2(h)–(j)	"A schedule for revision as mining proceeds"; DOC consultation on revisions	(h) LMP revised before mining commences in each of Sections 1, 2 and 3, each revision addressing any change in threat classification of species named in the wildlife approval; (i) each revision to DOC for comment ≥10 WD before submission for certification; (j) consultation with DOC	Lizards: stage-based revision preferred to DOC's seven-year cycle; "each stage revision must also address any change in threat classification"	A — the Applicant's own proposal made specific
14.4 (new)	Pre-mining survey within six months of mining in each stage, in the LMP only	No clearance or ground disturbance in Section 1 until (a) the pre-mining survey is complete within the lizard season and within six months before clearance; (b) results and the herpetologist's release-site suitability assessment provided to DOC and the Consent Authority; (c) LMP updated and certified. Same sequence before Sections 2 and 3	Lizards: "the Stage 1 pre-mining survey must be completed … before any vegetation is cleared in Stage 1. That meets the substance of DOC's proposed condition [6.10.16(a)] without requiring survey of ground that will not be mined for a decade"	D — DOC's survey of all sites before decision rejected as more onerous (Table K12); this is the precondition the finding requires
14.5 (new)	Canoe Creek identified as primary release site in the LMP	No release at Canoe Creek or other public conservation land until DOC's written agreement is	Lizards: Canoe Creek "is public conservation land outside the application area;	B — necessary for the lawfulness of the release

Condition	Applicant's draft	Panel's condition	Part F finding relied on	Section 83
		obtained and provided to the Consent Authority	the LMP must record DOC's written agreement to its use before any release occurs"	
14.6 (new)	Post-release monitoring only where more than 50 lizards relocated	Monitoring for at least two lizard seasons where (a) any Threatened or At Risk lizard, or (b) more than 30 lizards, relocated; LMP to specify responsive actions (additional refugia, alternative site, review of methods with DOC)	Lizards: "A threshold of 50 lizards … is arbitrary and could leave a small At Risk population wholly unmonitored" (DOC Principle 9 accepted)	D — two seasons is the minimum that can show persistence
14.7 (new)	LMP states no rat- or mustelid-only control near release sites; no condition	No rat-only or mustelid-only predator control within or within 200 m of a lizard release site; the 16.14 predator control designed in consultation with the project herpetologist †	Lizards: those commitments are to "be carried into the conditions rather than left in the plan"; DOC's targeted mouse control rejected under s 83 (Table K12)	A

Condition Table 5 — Native freshwater fish (15)

Condition (v3 C1)	Applicant's draft	Panel's condition (v3 C1)	Part F finding relied on	Section 83
15.2(d)	Capture methodologies "or justification there is no habitat for native fish present"	Methodologies for creeks, drains and wetland habitats based on a survey of the habitat actually present at the time of works; no wet area may be assumed fishless without survey	"Panel Findings on Instream Ecology": "The certification requirements must apply to actual habitat encountered, including wetland fish habitat, rather than permitting an assumption that unsurveyed wet areas contain no fish"	B — survey is already the NFFCRP method; the change removes an assumption, not adds a task
15.2(j)	NFFCRP and RMP inconsistent on whether capture precedes diversion	Sequence of works providing for initial trapping and electric fishing before flow is diverted; further salvage during dewatering and excavation and when any temporary channel is retired	"Native Fish Capture, Relocation and Passage": "Initial trapping and electric fishing must precede diversion of flow … The RMP is to be aligned with that sequence"	C — Dr Storey's point accepted by Mr Montgomerie
15.2(k)	Assessment of release-site habitat	Assessment of release-site suitability and capacity for	Same: "Release-site suitability and	B — extends an accepted

	quantity and availability	each transfer, including repeated transfers of the same reach	available habitat must be assessed for the actual transfers proposed, including repeated transfers"	obligation to the staged reality of the works
15.2(l)	Reporting under the NFFCRP	Species and numbers captured, released and killed reported to the Consent Authority and DOC within 10 WD of each diversion	Same: "Records must identify species and numbers captured, released and killed, with the results informing the annual review"	C
15.5	No standard freshwater fisheries activity condition	For cl 19 Sch 5: fish passage maintained at all times in every temporary and permanent channel and culvert, designed and constructed to the NZ Fish Passage Guidelines (NIWA, current edition); (a) capture, holding and transfer only by the ecologists named in the certified NFFCRP; (b) no transfer to any water body other than an NFFCRP release site; compliance satisfies regs 42, 43 and 65(2) FFR 1983 and s 26ZM Conservation Act	Same: "The resource-consent conditions must also address the standard freshwater fisheries activity and any applicable capture and transfer authorisations"; [K9]	B — required by cl 19(2); replaces separate statutory approvals; no duplicate passage condition beyond 28.2(a)(vi)
15.6 (new)	—	RMP and SSESCP must be consistent with the works sequence in the certified NFFCRP	Same	B — resolves an inconsistency in TCM's own documents

Condition Table 6 — Landscape, wetland design and maintenance (16)

Condition (v3 C1)	Applicant's draft	Panel's condition (v3 C1)	Part F finding relied on	Section 83
16.4(c)	80% vegetation cover, undifferentiated	80% cover for final rehabilitation in each vegetated habitat zone (not open-water habitat); 80% canopy cover for riparian planting; measured alongside weed cover, bare ground and floristic similarity	Wetlands "Hydrology, Establishment and Continuing Management": "an 80% vegetation-cover requirement is not a requirement to vegetate open-water habitat"; In-stream "Riparian Vegetation": cover standard to be explicit	B
16.7(a)(iv), (e)	53.1 ha schedule with 16.8 ha "flaxland and dry edge vegetation" combined; no establishment	(a)(iv) at least 16.8 ha of wetland flaxland (**being not less than 60%**) and dry-edge vegetation; (e)	Positive Effects / Wetlands: "A clear habitat schedule remains appropriate … including wetland	A — Dr Bramley offered the separate minimum; a 60% floor within the 16.8 ha line secures it without fixing hectarages the final

Condition (v3 C1)	Applicant's draft	Panel's condition (v3 C1)	Part F finding relied on	Section 83
	criteria	establishment criteria for each habitat zone (water-level range, substrate, planting survival and cover) and the monitoring demonstrating achievement, reported under 5.2 with corrective action under 9.5(c)	flaxland separately from dry-edge planting"	design may legitimately vary; criteria give the schedule a measure. Habitat lines still sum to 52.5 ha against the 53.1 ha total †
16.11	All planting maintained "for the duration of the consent" (in tension with 28.2(d)'s 2 years); woody weeds	Maintained until final mine closure and not less than 5 years after planting of each area, then until the 16.4(c) cover standards are achieved and certified; control of all weed species; replacement of failed plants (16.12)	In-stream "Riparian Vegetation and Channel Morphology": "it does not accept that responsibility for riparian planting ends automatically after 2 years"; Dr Storey's five-year / 80% canopy standard accepted	D — 5 m margins accepted in place of 10 m "when supported by establishment, maintenance and replacement obligations"; the maintenance term is the quid pro quo
16.14	Predator control "as recommended by a qualified ecologist"; no term	Designed in consultation with the project herpetologist, subject to 14.7, set out in the RMP, continued to final mine closure plus 5 years	Lizards (meso-predator release); Wetlands: closure arrangements "must secure the intended outcome, including maintenance responsibility"	A/B

Condition Table 7 — Lighting (17)

Condition (v3 C1)	Applicant's draft	Panel's condition (v3 C1)	Part F finding relied on	Section 83
17.1	Condition 17 absent from the RTF (present in the PDF); cites the May 2023 Australian guidelines	Reinstated; guidelines "the version current at the date of these consents, or any subsequent revision". No advice note on WCP/loadout lighting — those installations are governed by RC-2025-0170 and need no reference here	Avifauna "What is Proposed"; WPCT refers to the 12 May 2026 revision	B
17.2	Daylight-only operation in 11.1; "no fixed lighting" stated by Dr Bramley, not in a condition	No fixed, elevated or flood lighting for mining, stripping, bund construction, creek diversion or rehabilitation; lighting limited to portable task lighting and vehicle headlights between sunset and sunrise for unforeseen breakdown or emergency repair; each use	"Tāiko, Lighting and Response Measures": "The Panel attaches substantial weight on the restriction to daylight mining and the express absence of fixed or floodlighting … The	A — secures the Applicant's own operating regime; the full lighting design sought by WPCT is not required (Table K12)

		recorded (date, duration, location, lighting used), reported under 13.4 and triggering the 13.3(d)(iv) search	final conditions must accurately secure the limited lighting use on which this conclusion depends"	
17.3	Lighting audit within 20 WD in the AMP	Audit by a suitably qualified person within 20 WD of any grounded seabird under 13.4(d), to the Consent Authority and DOC with the actions taken	Same: 20-working-day audit accepted	A

Condition Table 8 — Sediment, water management, discharge and monitoring (21–24)

Condition	Applicant's draft	Panel's condition	Part F finding relied on	Section 83
21.2(i), (n)	SSESCP to include diversion design details and a turbidity monitoring programme; TCM "neutral" on triggers	(i) design details to include the 9.3(f) invert relationship, the 28.7 capacity calculations and the 28.10 armouring design; (n) turbidity trigger levels for each monitoring location (set by reference to Table B and the baseline 90th percentile) with response actions and timeframes; weekly and rainfall-event (≥25 mm/24 h) monitoring upstream and downstream, daily and rainfall-event downstream of diversions and borrow cuts	Water Quality: "monitoring under condition 24 does not replace an operational trigger-and-response requirement in the SSESCP"	D — TCM neutral; triggers reference thresholds already in Table B; the alternative (monitoring only) leaves no operational response
21.3	Rainfall event unspecified	≥25 mm in 24 hours	Water Quality (Dr Storey)	C
22.1(b)–(c)	"will not cause adverse impacts"; "avoided where practicable, or minimised"	(b) assessed by reference to the 23.1 thresholds and the 24.1, 24.6 and 24.7 monitoring; (c) by maintaining compliance with 23.4 and responding to any 23.1 exceedance in accordance with the MEMP	Water Quality: TCM accepted definition by cross-reference and offered an advice note	C/B — accepted in substance; placed in the condition rather than an advice note
22.2(e)–(g); 22.3	WMP content general; lime regime "to be settled" by trials; toxicant management plan prepared after a breach	(e) lime/limestone regime with field-trial results, dosing rates and ratio, verification method and adjustment criteria; (f) monthly pit-pond monitoring for Suite A with an internal action level for each Table A parameter set conservatively below the threshold; (g) for each Table A/B parameter the practicable remedial	Water Quality: the lime regime is orthodox but "the operating regime has not yet been settled at field scale … a question of certainty in the conditions"; a second threshold set at the void "would be arbitrary", so an	B — each element specifies what the WMP must contain; the pond action level is TCM's own trigger-and-response structure applied one step upstream

Condition	Applicant's draft	Panel's condition	Part F finding relied on	Section 83
		actions and timeframes (MEMP s 7.6.2); 22.3 WMP certified before mining, updated annually	internal pond action level is required instead; response plans prepared after an exceedance "come too late"	
23.1	Tables A and B "complied with"; discharge point ambiguous (void, MWF or both); units "m/m3"; statistics unclear	Treated mine water from the MWF discharged only to the mining void and no other discharge of mine water to land or water; Table A complied with in the receiving waters at Schedule 3 sites; Table B at Schedule 3 sites and the Table B locations; each threshold (other than the NPS-FM attribute states for clarity and DRP) assessed on each individual sample; units g/m³; Cu, Ni, Zn hardness/pH/DOC-adjusted	Water Quality: WCRC's ambiguity point accepted; TCM confirmed "there is one discharge … all discharges are to the mining void"; Dr Fitzpatrick's single-sample clarification accepted; thresholds remain triggers	C/B — clarification; DOC's request that guideline values become consent limits rejected (Condition Table 12)
23.4	No outcome condition; 24.2 narrative	Notwithstanding 23.1–23.3, the discharge to the void and any consequential entry of contaminants into surface water must not, after reasonable mixing, give rise in any receiving water body to the s 107(1)(c)–(g) effects (listed); compliance assessed at the 24.1 downstream sites	Water Quality: "the Panel is not prepared to leave the consent without a bright-line outcome against which compliance can be judged"	D — the statutory minimum for a discharge permit; TCM's own evidence is that the outcome will be met
24.1	Suite A at 10 creek sites and PZ1–PZ4; no radionuclides; no reconstructed-reach piezometers; baseline period stated only in the WMMEMP	Suite R (gross α, gross β, Ra-226, Ra-228) quarterly at PZ1–PZ4 and [two] downstream creek sites [Granite Creek downstream and Wasabi Creek] † from ≥12 months before mining for the term; one continuously (hourly) logged piezometer adjacent to each reconstructed reach of Northern, Central, Clarke, Wasabi and Southern Creek, installed before reconstruction; all 24.1 monitoring to commence ≥12 months before mining to establish the	Water Quantity: stream depletion is "a long-term risk with no ready remedy" and the minor creeks cannot be gauged, so groundwater level is the operative proxy; Radiation in water: Suite R "a proportionate response to the uncertainty identified by the PCE, CRRG and Professor McGlynn"	D — Dr Storey's "flows not less than 10% below pre-mining" rejected as unmeasurable; the piezometer proxy is the least onerous enforceable alternative; Suite R is marginal on an existing programme

Condition	Applicant's draft	Panel's condition	Part F finding relied on	Section 83
		baseline for Tables A/B, the NPS-FM attribute states and the 24.8 trigger		
24.5(f)–(h)	Content general	(f) Canoe Creek SH6 flow against MALF7d (633 L/s) with volumes taken under 29; (g) Suite R results against the radiological MAVs in the Water Services (DWSNZ) Regulations 2022; (h) reconstructed-reach groundwater levels against the pre-mining baseline range and any 24.8 action	Canoe Creek finding: reporting against MALF7d in place of a cease-take; Radiation [F28]	B — reporting in lieu of the cease-take trigger rejected in Condition Table 12
24.6(a)	Baseline survey of unspecified duration; five empty bullets	Baseline (pre-mining) surveys over not less than 12 months before any creek works, then annual in-stream and riparian habitat, macroinvertebrate and fish surveys in the six named creeks at fixed sites within the reaches to be diverted	In-stream: "At least one year of pre-mining baseline data, as accepted in his reply, must be expressly secured"	C
24.8 (new) [piezometer trigger]	—	If a reconstructed-reach piezometer falls below the pre-mining baseline range for more than 14 consecutive days outside the equivalent seasonal range: notify within 5 WD, investigate, and within 20 WD submit for certification remedial measures (regrading of the invert, bed sealing, augmentation) and a timeframe	Water Quantity: "a trigger-action requirement should post-rehabilitation levels fall below the pre-mining baseline range"	D — a trigger-action, not a limit; the remedial options are those Mr Horrox and Mr Rekker identify

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Condition Table 9— Creek diversions and Canoe Creek take (28, 29)

Condition (v3 C1)	Applicant's draft	Panel's condition (v3 C1)	Part F finding relied on	Section 83
28.2(b)	"Minimum of 5m" riparian planting	Width "on each bank" of not less than 5 m for Granite Creek and all other reconstructed creeks; stock-proof fencing outside the planting (c)	In-stream "What is Proposed" and "Riparian Vegetation": the offer applies on each bank	A — records the offer
28.2(d)	Maintenance "for a period of no less than 2 years", woody weeds only	Maintenance in accordance with 16.11 and 16.12 for not less than 5 years after planting and thereafter until 80% canopy cover; control of all weed species (including blackberry and gorse); replacement of failed plants	In-stream "Riparian Vegetation": 28.2's "narrower reference to at least 2 years" must be read consistently with 16.11	D — conformed to 16.11 (Condition Table 6); the same quid pro quo
28.3(c)	"aim being to return the post mining ecological state to a better than pre mining"	Target: 5 years after permanent diversion, SEV, MCI, ASPM, Fish IBI and mapped physical habitat returned to at least the pre-mining state measured in the 24.6 baseline, with improvement expected thereafter; assessment to identify natural variability and factors outside the Consent Holder's control	"Monitoring, Response and Relationship with the Water Findings": five-year horizon accepted "as a target rather than an unconditional guarantee"; 50% SEV uplift not adopted	A — the target is the Applicant's own; the numerical uplift is rejected (Table (Condition 12)
28.3(d)–(e)	Remedial plan only "where monitoring concludes recolonisation has not occurred"; "Further Offset Works Plan" for "approval"	Remedial Works Plan where the (c) target is not met — "recolonisation alone is not sufficient" — identifying cause and works, for certification within two months; implemented within six months or next planting season; surveys repeated 2 years after completion	Same: "mere recolonisation is not a sufficient response trigger if the intended ecological recovery has materially failed"; two-month and six-month periods retained	B — keeps TCM's timeframes; changes only the trigger so the target has a consequence
28.5	Design criteria and profile certified through the SSESCP	Permanent diversions established to design criteria and profile "including a channel invert that intersects the predicted post-rehabilitation water table", certified through the SSESCP	Water Quantity (inverts); 9.3(f)	B
28.6	Survey of invert level and cross-sections at ≤100 m before interference (Blackwood 1)	Adds bed substrate and the adjacent groundwater level; results supplied to the Consent Authority	Baseline for the 24.8 trigger; In-stream "Riparian Vegetation and Channel Morphology" (integrated ecological and hydraulic design)	B — marginal addition to an accepted survey
28.7	Capacity	Capacity calculated by a	Water Quantity: Mr	D — restores the

Condition (v3 C1)	Applicant's draft	Panel's condition (v3 C1)	Part F finding relied on	Section 83
	"reliably calculated and the information supplied to the Consent Authority in writing"; Mr Blackwood's "to the satisfaction of" standard removed by TCM; no coefficient	suitably qualified engineer from the 28.6 survey, with the design flows for the reconstructed channel including the 20-year (5% AEP) flood under 28.10; where the rational method is used, a runoff coefficient of not less than 0.30 unless a lower value is justified by a suitably qualified hydrologist and accepted in writing by the Consent Authority; calculations supplied and certified before works commence	Blackwood's point "is not answered on its merits in the reply evidence"; the Table 7 Granite Creek anomaly is unreconciled; the coefficient bites on the return-period check and the 28.10 velocities † (V18 paragraph to be conformed)	certification step the Panel relies on for stream-depletion risk; the "unless justified" proviso prevents the coefficient being more onerous than the hydrology warrants
28.8	Post-construction survey against "required dimensions"	Survey of slope, invert level and dimensions against 28.5 and the 9.3(f) invert relationship, supplied within 20 WD	Blackwood 3	B — gives the as-built check a defined comparator
28.10	Bends to withstand 20-year flood velocities (Blackwood 5)	Velocities "calculated on the basis required by Condition 28.7"; armouring design in the SSESCP	Blackwood 26b: stabilisation designed before the works	B — makes the coefficient operative where it matters
28.11	Erosion remedied within 10 WD "of the damage occurring"; satisfaction standard dropped	Within 10 WD of the damage occurring or being identified, whichever is earlier, to the satisfaction of the Consent Authority	Blackwood 6	B — an unobserved date of occurrence is not an enforceable trigger
29.9 (new)	No reporting of Canoe Creek flow	Daily mean flow at the SH6 gauge (24.1) reported in the Annual Report against MALF7d with daily volumes taken under this consent and RC-2023-0046	Canoe Creek finding: "Condition 29 is to require that flow at the SH6 gauge be reported in the Annual Report against MALF7d"	B — in lieu of the cease-take trigger

Condition Table 10 — Wildlife approval conditions

Item / condition	Applicant's draft	Panel's condition	Part F finding relied on	Section 83
Sch 1, Item 1	1(d): "Where nests cannot proceed without impeding progress of the dredge, incidental killing"	1(d) confined to eggs, chicks or nesting adults (other than kororā or tāiko) at a nest in the mine path that cannot be retained, after the AMP's deterrence and detection measures and the 13B record; kororā handling limited to release into an unoccupied burrow; lizard holding ≤12 h;	Avifauna "Deterrence, Surveys and Nest Protection"; DOC s 51 report [6.1.5]–[6.1.8]	B — narrows the authority to the residual effect accepted; adds no duty

Item / condition	Applicant's draft	Panel's condition	Part F finding relied on	Section 83
		liberation only at LMP sites; advice note that deterrence and nest protection are not Wildlife Act activities		
Sch 1, new Item 1A	No species list	Species covered named with NZTCS status (West Coast green gecko NV; forest gecko and Newman's speckled skink Declining; northern grass skink NT; kororā Declining — handling and fencing only; tāiko Naturally Uncommon — grounded birds only; At Risk and Not Threatened pasture-nesting birds — Item 1(d))	Lizards: "The Panel has taken into account the threat classification of each species named in the approval"; cl 6(2)(c)	B — certainty; gives the cl 6(2)(c) finding something to attach to
Sch 1, Item 2	Application Area only	Add the LMP release sites; Canoe Creek added conditionally on DOC's written agreement (mirrors RC 14.5)	Lizards (Canoe Creek is outside the application area; Sch 2 cl 2.1 would otherwise prohibit the liberation)	B — lawfulness of the release
Sch 1, Item 3	Dr Ussher; Mr Charteris "in consultation with" Dr Ussher	Both named; standard for substitutes approved by the Manager under cl 3.1 (current seabird or lizard handling experience)	Lizards: Mr Charteris suitably qualified (Bramley reply, Attachment C)	B
Sch 1, Item 4	"[Term to be same as resource consents, and subject to 10 year reviews]"	35 years; holder to review the AMP and LMP against current species knowledge, threat classifications and DOC protocols at intervals not exceeding 10 years and provide the review to the Manager and Council (Special Condition 26)	Summary of Assessment (35 years); the Panel cannot reserve a review power — variation and revocation vest in the Director-General (cl 7(2), (4))	B — a review obligation on the holder is the least onerous means of meeting DOC's concern over a 35-year term
Sch 2, cl 2.3; cl 11.1	"where possible, one week prior"; variation application to "the Department"	Notice ≥10 WD before lizard salvage in each Section, before the first kororā survey each year, and of each certified AWP; "Director-General"; revocation reference	Enforceability over a 35-year term	B
Sch 3, cond 2	"The relevant conditions of the Consents"; "Consent [X]"; "condition 14.1 – 14.32"	Conditions 13.1–13.11, 14.1–14.7, 16.14 and 17.2–17.3 of the consents apply as conditions of the approval "as if set out in full"; certified LMP (as revised per Section) and AMP (and any Penguin Management Plan)	Lizards (Council certifies, DOC consulted); Avifauna "Conditions and Overall Conclusion": "there is no scope for DOC to certify this plan"; cl 7(1)	B — the approval must be enforceable by DOC on its own terms; DOC certification rejected (Condition Table 12)
Sch 3, cond 3–4	Protocols unspecified; amendments without DOC	Toolbox and Key Principles (2019 or revision); each amended plan to the Manager ≥10 WD before certification, certified copy within	Avifauna "Conditions and Overall Conclusion" (DOC	C

Item / condition	Applicant's draft	Panel's condition	Part F finding relied on	Section 83
	input	10 WD	consultation before Council certification)	
Sch 3, new 5A–5B	—	5A: Section-by-Section survey precondition (mirrors RC 14.4); 5B: Threatened-species protocol in LMP s 2.4 applies on detection of West Coast green gecko; Manager notified within 2 WD	Lizards: Stage 1 precondition; "species-specific survey and release provisions … warranted under Principle 4 and clause 6(2)(c)"	D as to 5A (same reasoning as RC 14.4); A as to 5B (LMP s 2.4 is the Applicant's own)
Sch 3, cond 6	Capture 1 Oct – 30 Apr	Adds: continue until no lizards caught for four consecutive trapping days (minimum five days; six for Threatened species)	Lizards: revised salvage methods "meet Ms Wairepo's recommendations and conform to DOC's Toolbox"	A — the revised LMP's own method
Sch 3, new 11A	—	Liberation only at a certified LMP site with ≥5 rock-stack refugia to Lennon (2023) / Herbert et al. (2023) built before salvage, plus one per five lizards	Lizards: Lennon and Herbert specification accepted	A
Sch 3, new 11B	—	Post-release monitoring ≥2 seasons where any Threatened/At Risk lizard or >30 lizards relocated; LMP to specify responsive actions (mirrors RC 14.6)	Lizards (Principle 9)	D — as RC 14.6
Sch 3, new 11C	—	No rat-only or mustelid-only control within 200 m of a release site; 16.14 control designed with the herpetologist (mirrors RC 14.7) †	Lizards	A
Sch 3, cond 13, new 13A, 13B	Avifauna not handled except accidental discovery; tracked-change remnants	13: handling limited to injured/sick/dead birds, grounded seabirds and uninjured kororā that cannot be shepherded; 13A: no handling of kororā with viable eggs or chicks until fledged; no killing of kororā or tāiko; no destruction of a retainable nest; 13B: nest record before works at any Item 1(d) nest (mirrors RC 13.1(c))	Avifauna "Deterrence, Surveys and Nest Protection": "must preserve the specific protection of nesting kororā"	A — records AMP ss 3.4 and 4.5.3
Sch 3, cond 14	"warm" location	Cool, draught-free location	DOC [6.9.15]; conform to 22–23	B
Sch 3, cond 17–18	Notification to DOC; "Grantor"	Ngāti Waewae also notified of dead kororā or tāiko (taonga species); "Manager"	s 84; Mana Whakahono ā Rohe; AMP s 4.5.4 already provides	A — AMP commitment; s 84
Sch 3, cond 20–21	Weekly reporting 1 Oct – 31 Jan (both date ranges	Salvage report within 20 WD with Herpetofauna Database submission; weekly reporting 14 Sep – 31 Jan (conforming to RC	Avifauna "Conditions and Overall Conclusion":	C as to dates; B as to content

Item / condition	Applicant's draft	Panel's condition	Part F finding relied on	Section 83
	present in D1); content unspecified	13.4(a)) with DOC's content list (Threatened/At Risk entries, injuries, near misses, 13B records, lighting events and 24 search results, actions); footage retained 12 months	"earlier weekly reporting … accepted"; DOC [6.10.8] (TCM accepted the dates)	
Sch 3, new 24	Night search in AMP and RC 13.3 only	Search of every illuminated area and 100 m surrounds by trained personnel within one hour of lights-off or before sunrise; recorded (mirrors RC 13.3(d)(iv))	"Tāiko, Lighting and Response Measures"	A — the same regime as the consents, carried into the instrument DOC administers
Sch 3, new 25	Response in AMP s 5.3	On any grounding: immediate investigation and modification of a controllable light source; 20-WD audit in consultation with the Manager; dredge-pond lighting ceases on a second bird within 50 m within four weeks, resuming only on the ecologist's report — not merely because 15 January has passed (mirrors RC 13.4(e), 17.3)	Same: two drafting adjustments; DOC's three-month trigger not adopted	A/B — the Applicant's four-week / 50 m trigger retained
Sch 3, new 26	—	Annual AMP review and per-Section LMP review; 10-yearly review of both against current knowledge; each reviewed plan to the Manager and Ngāti Waewae ≥10 WD before certification; certified plan to the Manager within 10 WD	Lizards (stage-based revision); Avifauna "Conditions and Overall Conclusion"	A/B

Condition Table 11 — Archaeological authority (HNZPT agreed set)

Item / condition	Agreed set	Panel's condition	Basis	Section 83
Term	30 years	35 years from commencement under cl 6(1) †	Sch 8 cl 6(2)(a); mining to 2050 and closure to 2055–60; parity with the other approvals	B — a 30-year term would expire before final rehabilitation earthworks
Authority details	Appendix 1 blank; landowner consent "to be provided"; sites "potential subsurface archaeological sites"; land parcels incomplete †	Figure 1 of the Archaeological Assessment as Appendix 1; commencement conditional on landowner consents (including GDC for road reserves) notified to HNZPT; sites K31/11, K31/12 and unrecorded sites; Ms Wooller approved under cl 7 on HNZPT's	Cl 6(1), 7(3); Decision Outcome Summary; Wooller [9]–[10]	B — an authority cannot issue with blank particulars

Item / condition	Agreed set	Panel's condition	Basis	Section 83
		recommendation of 14 September 2026		
Determination	"pursuant to section 81 … and section 48 HNZPTA"	Granted under s 81 FTAA, having the same force and effect as a s 48 authority under Sch 8 cl 9; scope extended to progressive rehabilitation	Cl 9	B
Cond 1 and interpretation	"on-site archaeological work" undefined; single notification trigger	Term defined (any earthworks in the Project Area including clearance, stripping, bunds, diversions, mining, recontouring); notification per Section, 5 WD, to HNZPT and Ngāti Waewae	Fourteen-year staged operation	B
Cond 2	AMP "approved" by HNZPT, no criteria or timeframe; AMP version A needs amendment (HNZPT [15]–[16])	HNZPT approval as to content (a)–(f) (including high-potential areas, on-call protocol, Protected Objects Act procedure) and consistency with conditions, within 20 WD; same basis for amendments †	Part J [K13]; cl 9 makes HNZPT the post-grant regulator, so HNZPT approval is orthodox once criteria are stated	B
Cond 5	"Any earthworks that may affect an archaeological site must be monitored" — circular: a site is unknown until found	(a) all earthworks in the Figure 8-1 high-potential areas monitored; (b) excavator topsoil stripping over consecutive days at the start of each Section; (c) on-call protocol elsewhere, extending to features found beyond mapped areas; (d) accepted practice and the AMP	Wooller [13]: monitoring of high-potential areas "provide[s] sufficient mitigation"; lodged Appendix P3 cond 4 contained these elements and the agreed set dropped them	A — reinstates the mitigation on which the Applicant's own s 59 assessment rests
Cond 7, 10–12	Annual report from "date of issue"; completion and reporting on a single trigger; "to the satisfaction of HNZPT"	Annual report from commencement of works to HNZPT and Ngāti Waewae; completion notification and interim report per Section (AGS12 standard) to HNZPT and the landowner; final report within 12 months of all works to HNZPT, landowners, Ngāti Waewae, Grey District Museum and NZAA	Cl 5(1)(d); staged project; AGS12 supplies the objective standard	B

Item / condition	Agreed set	Panel's condition	Basis	Section 83
Cond 9	Kōiwi stop-work radius 20 m	20 m retained † (L9 recommended 30 m)	Consistent with RC 18.1	C
New cond 13	Omitted	Cargill Road drystone structure (POI 003): bund not built against it; machinery within 20 m limited and monitored; photographed before and after Section 3 works [alternatively RC 18.2] †	Wooller [13], [14(g)]; lodged P3 cond 9	A — the Applicant's lodged condition
RC 18.1	Accidental discovery protocol applies site-wide	Applies only "in the areas not subject to an archaeological authority" (v3 C1)	HNZPT comment 32; accepted by TCM	C

Condition Table 12 — Proposals not adopted

Topic	Proposal	Proposed by	Reason not adopted	Part F
Radiation	Community technical advisory group; Council-appointed independent audits; board-level reporting; real-time public dashboard; closure financing fixed now (Appendix 6)	CRRG	Condition 8.13 (electronic data, independently reviewed annual report to Councils, ORS and CLG) delivers the information outcome at a fraction of the burden; closure liability is addressed by the 4.5 assessment	[F31]
Radiation	ARPANSA Code and WA NORM Guidelines as further compliance documents	CRRG; Panel review	The ORS Guide and ORS C6 are the New Zealand instruments the Director administers; adding overseas codes creates competing standards without a regulator to resolve them	
Radiation	Section 15C RMA	CRRG	No discharge to the coastal marine area is proposed; not engaged	
Radiation	NESCS consent for historic gold-mining (HAIL)	CRRG	Not a radiation issue addressed in the decision.	
Radiation	Independent NORM expert engaged by the Panel	PCE	Four independent datasets including decay-chain spectrometry; ESR peer review; direct ORS engagement; the remaining uncertainties are of baseline data, which 8.10–8.11 require to be collected †	
Radiation	Residential monitoring at "all dwellings on the Barrytown Flats"	Residents	Met in proportionate form by 8.10 (not less than two consenting dwellings within 400 m, with outdoor stations) and 8.9 (boundary dosimeters nearest each dwelling within 500 m)	
Radiation	HMC testing retained in 8.4 as belt-and-braces	Panel review	HMC is tested daily and quarterly under RC-2025-0170-01 with the same 1 Bq/g and 10 Bq/g triggers; duplication adds cost without	

Topic	Proposal	Proposed by	Reason not adopted	Part F
			information	
In-stream	10 m riparian margins	DOC (Storey)	5 m sufficient for the improvements relied on "when supported by establishment, maintenance and replacement obligations" (16.11, 28.2(d))	Riparian Vegetation and Channel Morphology
In-stream	50% SEV uplift target	DOC (Storey)	"not persuaded that his numerical uplift is necessary for this proposal" on the recovery evidence preferred	Diversion, Staging and Recovery
In-stream	Separate fish-passage condition	DOC	28.2(a)(vi) already requires passage at all times; 15.5 addresses the cl 19 activity; "does not require a duplicate condition"	Native Fish Capture, Relocation and Passage
Avifauna	Protection of every protected-bird nest in the mine path; three-day breeding-season walkovers	DOC (Parlato)	Deterrence-first regime with recorded nest loss accepted as a low residual risk; 13.1(c) records each loss	Deterrence, Surveys and Nest Protection
Avifauna	Mandatory certified penguin-detection dog	DOC	Dog "if available", otherwise human surveys and increased camera monitoring directed by an ecologist (13.5(a)), preferred to dependence on a scarce resource	Kororā and Other Species
Avifauna	DOC as certifying authority for AMP/LMP; seven-yearly LMP review certified by DOC	DOC	Council certifies, DOC consulted; "does not require DOC to become the certifying authority"; stage-based revision preferred	Conditions and Overall Conclusion; Lizards
Avifauna	Cessation of externally visible lighting if more than one grounding in three months	DOC	Applicant's four-week / 50 m repeat-event trigger operates alongside first-event action; three-month trigger "not adopted … in place of" it	Tāiko, Lighting and Response Measures
Avifauna	Cease all mining after a single tāiko interaction, cumulatively across all Barrytown operations; 20 km exclusion	Forest & Bird; WPCT	A response "directed to the activity and light source giving rise to the risk is more effective and proportionate than stopping unrelated daylight activity"	Tāiko, Lighting and Response Measures
Avifauna	Full fixed-lighting design and lighting management plan before determination	WPCT (Geddis)	"does not require a full fixed-installation lighting design for an installation that is not proposed"; 17.2 secures the absence of fixed lighting	Tāiko, Lighting and Response Measures
Avifauna	Extend 11.1(b) hours-of-operation radius from 500 m to 1 km; add dwelling	Mr Hill	Noise findings do not support it; v3 C1 11.1(b) retains 500 m.	Noise
Lizards	Targeted survey of all mining and release sites before the decision	DOC (Wairepo)	Survey "at the time it is needed" per Section is "the more useful obligation"; 14.4 precondition meets the substance of [6.10.16(a)] "without requiring survey of ground that will not be mined for a decade"	Lizards
Lizards	Targeted, evidence-based predator (mouse) control at each release	DOC (Wairepo)	On Dr Bramley's evidence (grid density, 33 ha buffer, Port Hills results, toxin risk to weka, kiwi and	Lizards

Topic	Proposal	Proposed by	Reason not adopted	Part F
	site		tāiko) "a predator-control programme of the intensity needed … would be more onerous than necessary in terms of section 83" †	
Lizards	Ten-year approval term	DOC	35 years with a 10-yearly review obligation (Item 4, SC 26); the Panel cannot reserve a review power	Lizards;
Water	Table A/B guideline values as consent limits	DOC (Storey)	Chronic no-effect values "appropriately deployed as triggers"; "not … necessary or proportionate, in terms of section 83, to convert every Table A and B value into a hard limit"; 23.4 supplies the enforceable outcome	Panel Findings on Water Quality
Water	Separate discharge-water thresholds at the void	DOC (Storey)	"at this stage would be arbitrary"; monthly pit-pond monitoring with an internal action level substituted (22.2(f))	Panel Findings on Water Quality
Water	Cease-take trigger on Canoe Creek at 75% MALF7	DOC (Storey)	Take <10% MALF7d, alluvial gallery, ~300 m³/day, Policy 7.3.1 LWP; "a cease-take would be disproportionate"; reporting substituted (24.5(f), 29.9)	Canoe Creek take
Water	Flows restored to not less than 10% below pre-mining	DOC (Storey)	"cannot be measured on these creeks"; piezometer proxy with trigger-action substituted (24.1, 24.8)	Panel Findings on Water Quantity
Water	Extension of 22.1(a) to all creeks; independent geochemist and hydrologist reviews	DOC	Water quality assessment found robust; Mr Rekker's clarification accepted; reviews not required	Panel Findings on Water Quality and Quantity
Water	Thresholds in conditions rather than management plans	Residents (van Rooyen)	Met in substance by 23.1, 23.4 and 22.2(e)–(g)	Panel Findings on Water Quality
Water	Separate regional and district consents with stand-alone condition sets	WCRC	Consolidated set retained ([K15])	—
Wetlands	Retain every existing wetland until an equivalent area of constructed wetland is functioning; BOAM offset accounting	DOC (Payne, Parlato); NZCA; residents	"We do not accept a blanket requirement to retain every existing wetland until an identical area of replacement habitat is fully mature"; 7.6 and 9.5 substitute defined protection and a northern-cells certification gate; "do not regard a BOAM … as necessary"	Timing and Temporary Protection; Removal, Rehabilitation and Benefits. See also Schedule 4.

Conclusion regarding conditions

[713] The Panel considers the conditions in Appendices A to C, are for a resource management (or, as the case may be, wildlife or heritage) purpose; directly connected to the adverse effects identified in Part F; certain and enforceable; and no more onerous than necessary to address the reason for which each is set. Of the seventy-odd changes tabulated above,

the great majority fall into categories A to C — securing the Applicant's own commitments, supplying certainty, or recording what the Applicant has accepted. The category D conditions (7.6, 7.7, 8.5, 8.6, 8.9, 8.10, 8.11, 8.13, 14.4, 14.6, 16.11, 21.2(n), 23.4, 24.1, 24.8, 28.2(d), 28.7 and their wildlife-approval mirrors) are each tied to a specific Part F finding and, in each case, the less onerous alternative considered is recorded and the reason it does not meet the purpose of the condition is given. Where a commenter's proposal has not been adopted, Condition Table 12 records the reason. The conditions, so framed, are the conditions the Panel has taken into account under section 85(3)(b)(i) in concluding that the adverse impacts of the Project are not out of proportion to its regional and national benefits.

PART K: FTAA, SECTION 3

[714] The Panel's decision is subject to the purpose of the FTAA, contained in section 3, namely to: facilitate the delivery of infrastructure and development projects with significant regional or national benefits.

[715] As noted in Part G, the Panel accepts that the Project will deliver development projects with significant regional and national benefits.

PART L: OVERALL ASSESSMENT

Statutory Requirements

[716] Section 81(1) requires the Panel, for each approval sought, to decide whether to grant it and set conditions, or to decline it. Section 81(2) prescribes how the Panel makes that decision: by considering the Application and the comments received, applying the assessment criteria in the Schedule that governs each approval (section 81(3)), setting conditions in compliance with section 83, and declining only in accordance with section 85. Section 81(4) directs that, in taking the purpose of the Act into account, the Panel must consider the extent of the Project's regional or national benefits. Each Schedule in turn requires the Panel to give the greatest weight to the purpose of the Act. Part G assesses those benefits, and the Panel found them substantial from a national and regional perspective. The findings in that Part are not repeated here; they are the basis on which each approval is now measured.

[717] The mandatory grounds for declining an approval in section 85(1) and (2) are not engaged. The Project involves no ineligible activity, the Panel has acted consistently with the relevant Treaty settlements and the Mana Whakahono ā Rohe (Part D), and no other circumstance in those subsections arises. The only question is therefore the discretionary one in section 85(3): whether, after taking into account the conditions set in Part J and those the Applicant has offered, the adverse impacts of the Project are sufficiently significant to be out of proportion to its regional or national benefits. Section 85(4) makes clear that inconsistency with a provision of a specified Act or planning document cannot of itself meet that threshold; section 85(5) confirms that an "adverse impact" is any matter weighing against the grant. The Panel has approached each approval on that footing, and does not revisit the discussion of the test in Part C.

[718] The Panel records three matters that apply to all three approvals. First, the effects findings in Part F were made on the basis that the conditions in Appendices A to C will be implemented; the acceptability of each adverse effect was tested against the conditioned, not the unconditioned, proposal, as section 85(3)(b)(i) directs. Secondly, the management plans were treated as evidence of what will be done and how, with the outcomes on which

the Panel relied secured by condition. Thirdly, the positive effects of rehabilitation — the wetland complex, the reconstructed stream reaches and riparian margins — have been counted once, in the effects assessment, as part of the net environmental outcome, and are not added again to the benefits side of the section 85(3) comparison.

[719] Clause 17(1) of Schedule 5 requires the Panel, when considering the consent applications and the conditions to be set under clauses 18 and 19, to take into account, giving the greatest weight to the first: (a) the purpose of the Act; (b) the provisions of Parts 2, 3, 6 and 8 to 10 of the RMA that direct decision-making on a resource consent, excluding section 104D; and (c) the relevant provisions of any other legislation that directs decision-making under the RMA. Clause 17(1)(c) makes any relevant Mana Whakahono ā Rohe a matter under section 104(1)(c). The activities for which consent is sought are listed in Appendix D and taken together under the Regional Land and Water Plan, the Regional Coastal Plan, the Grey District Plan, the Te Tai o Poutini Plan and the NES-F, the Application is overall a discretionary activity (Part H). Section 104D does not apply, and the Panel has not applied a gateway test, but the outcome would not differ if it did.

[720] The Panel has taken into account the actual and potential effects on the environment under section 104(1)(a), as assessed topic by topic in Part F, and the positive effects of the rehabilitation programme, which are assessed there as a to low to moderate positive weight. It has taken into account under section 104(1)(b) the NZCPS (including Policy 11, considered in the avifauna and coastal sections), the NPS-FM and NES-F (wetlands, water quality and quantity), the NPS-IB, the NPS-NH, the West Coast Regional Policy Statement, the regional plans and the two district plans, with the conclusions recorded in Part H. Under section 104(1)(c), it has taken into account the Mana Whakahono ā Rohe (Part D), the Minerals Strategy and Critical Minerals List (Part G) and the Central Block consents and Environment Court conditions as part of the existing environment. The discharge permits satisfy section 105 and section 107: the Panel has found that, after reasonable mixing, the discharge to the mining void will not give rise to any of the effects in section 107(1)(c)–(g), and condition 23.4 makes that outcome enforceable. The water permit satisfies the allocation framework in the Land and Water Plan, the take being less than 10% of MALF7d. Section 108AA is met: every condition in Appendix A is one the Applicant has agreed to, is directly connected to an adverse effect or an applicable rule, or is administrative (Part J).

Resource Consent Approvals

[721] The Panel has considered sections 5 to 8 of the RMA as matters it must take into account under clause 17(1)(b), while recognising that the governing purpose is that of the FTAA. The Project is consistent with sustainable management in section 5: it enables the use of a finite mineral resource and the economic and social well-being that follows, while the conditions sustain the potential of the land through progressive rehabilitation, safeguard the life-supporting capacity of water and ecosystems through the water quality, wetland and ecological conditions, and manage the adverse effects identified in Part F. The matters of national importance in section 6 that are engaged — the coastal environment, natural inland wetlands and the habitats of indigenous fauna (section 6(a) and (c)), the relationship of Ngāti Waewae with their ancestral lands and taonga (section 6(e)) and historic heritage (section 6(f)) — have each been recognised and provided for in the way described in Parts D, F and H. The section 7 matters, in particular kaitiakitanga, the efficient use of natural resources, the intrinsic values of ecosystems and the finite characteristics of natural and physical resources, point in the same direction. The Panel has taken into account the principles of the Treaty of Waitangi under section 8 through the engagement, consultation

and conditions described in Part D and the section 84 conditions in Part J.

[722] The adverse impacts that weigh against the grant, with the conditions in place, are: the loss of some 6.73 ha of natural inland wetland and 29 ha of other wetland habitat ahead of the constructed complex reaching function; the substantial temporary effect on each creek reach as it is excavated and reconstructed, with some fish mortality; a low residual risk of nest loss for ground-nesting birds and of tāiko grounding; a low, long-term alteration of surface water quality as the plume of modified groundwater passes; low to moderate landscape and amenity effects during the 14-year mining period; and the residual uncertainty in radiation, stream-depletion and groundwater effects that the monitoring and trigger-action conditions are designed to resolve. Part F assesses each of these as low, less than minor, or capable of being appropriately managed, and several are followed by a positive medium- to long-term outcome. Set against regional and national benefits found to be substantial — the sustaining of 135 direct positions and the Rapahoe processing capacity for a further fourteen years, export earnings in the order of $200 million a year, royalties and tax, and direct alignment with the Minerals Strategy — the Panel is satisfied that these impacts, individually and cumulatively, are not out of proportion to the Project's benefits engendered by approving the Substantive Application.

[723] Giving the greatest weight to the purpose of the Act, and having taken into account the RMA provisions and planning instruments in the manner clause 17 requires, the Panel grants the resource consents listed in Appendix D for a term of 35 years, with a lapse period of [5] years, subject to the conditions in Appendix A. The conditions comply with section 83, section 108 and section 108AA for the reasons given in Part J, and the standard freshwater fisheries conditions required by clause 19 of Schedule 5 are included in condition 15.

Wildlife Act Approval

[724] Clause 5 of Schedule 7 requires the Panel, when considering the application for a wildlife approval, to take into account, giving the greatest weight to the first: (a) the purpose of the Act; (b) the purpose of the Wildlife Act 1953 and the effects of the Project on the protected wildlife to be covered by the approval; and (c) the information and requirements relating to that wildlife, including the New Zealand Threat Classification System and any relevant international conservation agreement. Clause 6 governs conditions. The approval sought is for the catch, holding, release and incidental killing of lizards and birds in the course of mining the Southern Block, and the species and threat classifications covered are now named in Item 1A of Appendix B.

[725] The Wildlife Act's purpose is to protect wildlife; absolute protection under section 3 is the default, and approval is an exception that must be justified by the circumstances. The Panel has found in Part F (Lizards; Avifauna, Kororā and Other Species; Tāiko, Lighting and Response Measures) that the effects of the conditioned Project on protected wildlife will be low. For lizards, the skinks most likely to be present are Not Threatened or At Risk–Declining; the Stage 1 survey precondition, salvage protocols, and release-site and monitoring conditions conform to the Department's best practice; and no more than minor residual impact remains. For birds, deterrence and detection under the AMP, the 20 m nest exclusion zone, the express protection of nesting kororā and the restriction to daylight mining without fixed or flood lighting reduce the residual risk of nest loss, and of tāiko grounding to a level the Panel accepts as low; the incidental killing authorised is confined to eggs, chicks or nesting adults, other than kororā or tāiko, at a nest in the mine path that cannot be retained after those measures have been applied and recorded. The Panel has

taken into account the threat classification of each species named, including the Nationally Vulnerable tāiko and the At Risk kororā.

[726] The conditions in Appendix B are, in the Panel's judgement, necessary to manage the effects of the activity on protected wildlife. In setting them, the Panel has considered, for each, whether it avoids, minimises or remedies impacts (clause 6(2)(a)); has found that no more than minor residual impacts remain, so that the offset or compensation limb in clause 6(2)(b) is not reached, while noting that the constructed wetland complex will in any event provide materially improved habitat; and has taken into account the Threat Classification System (clause 6(2)(c)). The Department of Conservation's recommendation for a sustained predator-control programme at the lizard release sites has not been adopted for the reasons given in Part F: on the evidence, it would be more onerous than necessary under section 83, and clause 6(2) does not require it. The approval incorporates the relevant resource consent conditions as if set out in full and must stand alone, because under clause 7 the Director-General, rather than the consent authority, administers, varies, and enforces it.

[727] The adverse impacts that weigh against this approval are the loss of individual eggs, chicks or nesting adults that the deterrence regime fails to displace, any mortality in lizard salvage, and the residual risk to tāiko from the limited task lighting permitted. The Panel has found each to be low and, at the population level, not material to the conservation status of any species. They are not out of proportion to the Project's regional or national benefits, and the Panel has no basis under section 85(3) to decline.

[728] Giving the greatest weight to the purpose of the Act, and having taken into account the purpose of the Wildlife Act, the effects on the protected wildlife covered and the information and requirements relating to it, the Panel grants the wildlife approval sought, for a term of [35] years, subject to the conditions in Appendix B. Under clause 7(1), the approval has force and effect as a lawful authority for the purposes of Part 5 of the Wildlife Act, and under clause 8, the Minister's consent under section 71 of that Act is not required.

Archaeological and Heritage Approval

[729] Clause 4 of Schedule 8 requires the Panel, when considering the application for an archaeological authority, to take into account, giving the greatest weight to the first: (a) the purpose of the Act; (b) the matters in section 59(1)(a) of the HNZPTA, the purpose of that Act, the historical and cultural heritage value of the sites and any other factors justifying their protection, the interests of any person directly affected, and any relevant statutory acknowledgement; and (c) any relevant statement of general policy under that Act. Clause 5 governs conditions; clause 6 the duration; and clause 9 gives the authority the same force and effect as one granted under section 48 of the HNZPTA. The authority sought is to modify or destroy the recorded sites K31/11 and K31/12 and any unrecorded archaeological site within the Project Area in the course of mining and progressive rehabilitation.

[730] The purpose of the HNZPTA is to promote the identification, protection, preservation and conservation of the historical and cultural heritage of New Zealand. The archaeological assessment, accepted by Heritage New Zealand in its report under section 51(2)(d), establishes that the two recorded sites are of low to moderate archaeological value, that the archaeological potential of the remainder of the Southern Block is confined to identified high-potential areas, and that the information those sites hold can be preserved by record through monitoring and investigation to accepted archaeological practice. The Dune Ridge

System and the Cargill Road drystone structure are to be protected rather than destroyed. Ngāti Waewae, having been provided with the assessment, advised that an assessment of Māori values was not required and that the accidental discovery protocol provides an appropriate and practical mechanism consistent with tikanga; the authority nevertheless provides for notification to Ngāti Waewae, cultural protocols and the kōiwi procedure. No person directly affected opposes the authority, and the landowners' consent is a condition of its exercise. The Panel has taken Heritage New Zealand's Statements of General Policy into account and finds nothing in the authority inconsistent with them. Heritage New Zealand recommends granting the authority subject to the conditions it agreed with the Applicant, and approving Ms Wooller under section 45 to carry out the work.

[731] The conditions in Appendix C require landowner consent before entry, conformity with accepted archaeological practice and the Archaeological Management Plan approved by Heritage New Zealand against stated criteria, monitoring of high-potential areas, investigation and recording of any evidence encountered, interim and final reporting to the AGS12 standard to Heritage New Zealand, the landowners, Ngāti Waewae and the New Zealand Archaeological Association, and protection of the Cargill Road structure. They are the conditions clause 5 contemplates, and each satisfies section 83 for the reasons recorded in Condition Table 11. The accidental discovery protocol in resource consent condition 18.1 applies only outside the area covered by the authority, so that the two instruments do not overlap.

[732] The adverse impact that weighs against this approval is the destruction of two recorded sites of low to moderate value and any unrecorded sites within the mine path, mitigated by preserving their information on record. That impact is minor and is not out of proportion to the Project's regional or national benefits.

[733] Giving the greatest weight to the purpose of the Act, and having taken into account the matters in section 59(1)(a) of the HNZPTA and the relevant statements of general policy, the Panel grants the archaeological authority sought under section 81 of the Act, with effect as if granted under section 48 of the HNZPTA, for a period of [35] years from its commencement, subject to the conditions in Appendix C, and approves Ms [Wooller] under section 45 of the HNZPTA as the person to carry out the archaeological work.

Overall Conclusion

[734] The three approvals interlock. The resource consents authorise the mining, discharges, diversions and take; the wildlife approval authorises the handling and, within narrow limits, the incidental killing of protected wildlife that the mining will entail; and the archaeological authority authorises the modification of sites in the mine path. Each has been assessed against its own criteria, but the adverse impacts and the benefits are those of a single Project, and the proportionality judgement under section 85(3) has been made for each approval on the same evidential footing. The Panel is satisfied that for none of them do the adverse impacts, after the conditions are taken into account, approach the threshold of being out of proportion to the Project's regional or national benefits.

[735] The Panel accordingly determines, under section 81(1)(a), to grant each of the approvals sought in the Substantive Application, subject to the conditions in Appendices A, B and C. The formal decisions on each approval follow in subsequent parts of this decision.

PART M: FINAL DECISION ON RMA APPROVALS

[736] The Panel has considered the Application and supporting information as well as the

comments received on it and on the draft conditions, as well as the further information provided as a result of comments received from other participants and the subsequent refinement of the Application.

[737] Overall, the Panel is satisfied that the matters set out in section 81 of the FTAA have been addressed appropriately and that the purposes of the FTAA are achieved by this Decision. In reaching that view, the Panel has had regard to the actual and potential effects on the environment of allowing the activity as set out above. The Panel has also had regard to the relevant planning documents.

[738] The Panel determines to grant the approvals sought subject to the Conditions attached as Appendix A to this Decision.

[739] As required by section 99 of the FTAA the persons listed in that section are entitled to appeal and must commence any appeals within the 20-working day period from the day this Decision is published under section 88(3).

PART N: FINAL DECISION WILDLIFE ACT APPROVALS

[740] The Panel has considered the Application and supporting information as well as the comments received on it and on the draft conditions, as well as the further information provided as a result of comments received from other participants and the subsequent refinement of the Application.

[741] Overall, the Panel is satisfied that the matters set out in section 81 of the FTAA have been addressed appropriately and that the purposes of the FTAA are achieved by this Decision. In reaching that view, the Panel has had regard to the actual and potential effects on the environment of allowing the activity as set out above. The Panel has also had regard to the relevant planning documents.

[742] The Panel determines to grant the approvals sought subject to the Conditions attached as Appendix B to this Decision.

[743] As required by section 99 of the FTAA, the persons listed in that section are entitled to appeal and must commence any appeals within the 20-working-day period from the day this Decision is published under section 88(3).

PART O: FINAL DECISION ARCHAEOLOGICAL APPROVALS

[744] The Panel has considered the Application and supporting information as well as the comments received on it and on the draft conditions, as well as the further information provided as a result of comments received from other participants and the subsequent refinement of the Application.

[745] Overall, the Panel is satisfied that the matters set out in section 81 of the FTAA have been addressed appropriately and that the purposes of the FTAA are achieved by this Decision. In reaching that view, the Panel has had regard to the actual and potential effects on the environment of allowing the activity as set out above. The Panel has also had regard to the relevant planning documents.

[746] The Panel determines to grant the approvals sought subject to the Conditions attached as Appendix C to this Decision.

[747] As required by section 99 of the FTAA, the persons listed in that section are entitled to appeal and must commence any appeals within the 20-working-day period from the day

this Decision is published under section 88(3).

John Maassen
(Chair)

Sharon Dines (Member)

Cameron Lines (Member)

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APPENDIX A: CONDITIONS OF APPROVAL UNDER THE RESOURCE MANAGEMENT ACT

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APPENDIX B: CONDITIONS OF APPROVAL UNDER THE WILDLIFE ACT

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APPENDIX C: CONDITIONS OF APPROVAL UNDER THE HERITAGE NEW ZEALAND POUHERE TAONGA ACT 2014

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APPENDIX D: APPROVALS SOUGHT

Consent type	Activity	Rule breaches
Grey District Plan		
Land use consent	Clearance of indigenous vegetation	Rule 19.7.5(v): Clearance of indigenous vegetation exceeds permitted activity volumes outside of an SNA within 10 m of a river or stream greater than 3 m in width (Discretionary Activity)
Decisions Version Te Tai o Poutini Plan (Rules under appeal are noted with an *)		
Land use consent	Clearance of indigenous vegetation	ECO-R1*: the clearance of indigenous vegetation in the coastal environment and riparian margins will exceed the permitted activity volumes (Discretionary Activity ECO-R9*)
	Earthworks within riparian margins	NC-R1*: earthworks will be undertaken in areas including creeks and their riparian margins which will exceed permitted activity volumes (Discretionary Activity NC-R4*)
	Structures within riparian margins	NC-R2*: existing farm bridges will be replaced post mining which are not permitted under the plan. Structure definition (includes equipment, made by people and which is fixed to land and includes any raft) potentially includes the dredge. (Discretionary Activity NC-R5*)
	Structures in the coastal environment	CE-R4*: existing farm bridges will be replaced post mining which are not permitted under the plan. The dredge is also considered to be a structure and cannot comply with the rules in the GRUZ. (Discretionary Activity CE-R14*)
	Mineral extraction	GRUZ-R11*: does not comply with permitted activity rule due to volume of material to be extracted; mining to be undertaken within the riparian margins of creeks and wetlands; disturbance of two historic heritage sites; undertaken within 250 m of a sensitive activity on an adjoining site; and operation outside permitted hours. (Discretionary Activity GRUZ-R25*)
West Coast Regional Land and Water Plan		
Land use consent	Earthworks within riparian margins	Rule 2: earthworks will exceed permitted volumes and vegetation clearance will take place in riparian margins with creeks to be mined, reclaimed and reconstructed. (Discretionary Activity Rule 16)
	Earthworks in the non-erosion prone area outside riparian margins	Rule 3: earthworks will exceed 5,000 m^3 per ha annually. Some soil will be placed on creek beds as part of the reconstruction of rectified creeks. (Discretionary Activity Rule 16)
	Vegetation disturbance in riparian margins	Rule 8: vegetation will be removed from riparian margins as these areas are mined. Some soil will be placed on creek beds as part of the reconstruction of rectified creeks. (Discretionary Activity Rule 16)
	Activities within the bed of a river outside of a wetland identified in Schedule 1 or 2	Rule 35: Creeks will be diverted with some sections reclaimed as the reconstructed creeks will be developed with more meandering pathways
	Diversion of water	Rule 58: five creeks across the Southern Block will require diversion which is a discretionary activity
Water permit	To take and use water for the purpose of mineral sand processing	Rule 40: the take and use of water from Canoe Creek to operate the WCP is a restricted discretionary activity (Discretionary Activity Rule 55)

	To take and use ground water for the purpose of mineral sand mining and processing	Rule 44: to take and use groundwater intercepted during mining to pump run-of-mine material to the WCP (Discretionary Activity Rule 56)
Discharge permit	To discharge water to the mining void	Rule 67 (discharge to water and land): to discharge water to the mining void is a discretionary activity due to the augmentation of lime (Discretionary Activity Rule 71)
NES-FM consent	Vegetation clearance in the non-erosion prone area	Rule 10: while not within a Schedule 1 or 2 wetland and was permitted, now requires consent under NES-FM.
Regional Air Quality Plan		
Discharge permit	To discharge dust to air from stockpiling and handling gravel, sand and soil	Rules 3 and 5: to authorise unanticipated dust emissions (Discretionary Activity Rule 16)
NES-F		
	Vegetation clearance within, or within a 10 m setback from, a natural inland wetland	Regulation 45D(1)
	Earthworks within, or within a 10 m setback from, a natural inland wetland	Regulation 45D(2)
	Earthworks outside a 10 m, but within a 100 m setback, from a natural inland wetland that will result in partial or complete drainage of the wetland	Regulation 45D(3)
	Diversion of water within, or within a 100 m setback from, a natural inland wetland	Regulation 45D(4)
	Discharge of water into water within, or within 100 m setback from, a natural inland wetland	Regulation 45D(5)
	Reclamation of bed of rivers	Regulation 57

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APPENDIX E: SUMMARY OF SECTION 53 COMMENTS RECEIVED

Note: This document is a summary only to provide an overview of comments received in relation to the Barrytown Minerals Project. Please refer to the submitted documents from invited parties for the full text. The Panel has read and considered all comments received in full.

No.	Party/Agency	Summary of Comments / Key Issues Raised	Relief Sought
1	West Coast Penguin Trust	Notes that robust conditions protecting kororā and tāiko were secured for the Central Block only after a sustained process. Concerned that a number of protections achieved for the Central Block have not carried through to what is proposed for the Southern Block. Considers that the Central Block conditions should be treated as the floor for this application, not a ceiling to be renegotiated downward. Concerns include: - No provision for control of stoats, cats or rats in the draft AMP or draft conditions. - Providing DOC with an approval role over any amendments to the AMP. - The need to reduce speeds when driving at night on Coast roads to reduce kororā deaths from vehicle strikes. - The lack of a standalone Penguin Management Plan- rather than a subsection of a combined AMP - as a trigger response if kororā are confirmed using the Southern Block. In relation to tāiko, states that DOC holds the relevant grounding records, the technical relationship with the colony, and the statutory role of administering agency for this species, and that it defers to its assessment, noting aspects of DOC's pre-lodgement consultation response, and that some of the matters raised have not been addressed in the final application documents. Fully supports DOC's assessment and asks the Panel to adopt whatever conditions DOC recommends in its section 51 report to restore parity with the Central Block conditions for tāiko. Considers that the concept of social licence can be expected by local communities for all mining operations, particularly of this scale and significance locally, and encourages the Panel to encourage the Applicant to do more in that regard.	Should the Southern Block extension proceed, carry through in full or strengthen the level of protection for the Central Block for both kororā and tāiko- That the Panel: - Require predator control as a specific condition per DOC advice; - Require DOC approval, not only comment, on AMP amendments; - Resolve the unaddressed question of SH6 trucking and lighting for both kororā and tāiko; - Retain provision for a standalone Penguin Management Plan; and - Adopt DOC's recommended conditions for tāiko in full once its section 51 report is filed.
2	Kirsty Henderson	Opposes the proposal and considers it to be fundamentally incompatible with the environmental, economic, cultural, and landscape values of the Barrytown–Punakaiki area. Considers that mining should not be permitted in such a sensitive, visible, and internationally significant location. Considers that the failure to engage affected parties reflects poorly on the applicant's consultation process. Considers the location of the mine, in one of New Zealand's most iconic tourism corridors, to be inappropriate, and considers an open-cast mine in this location would cause irreversible brand damage and undermine decades of regional tourism investment. Notes that their property's 180-degree coastal outlook would be replaced by a view directly over an open-cast mine for 9–14 years and does not agree that this is a 'less than minor' impact, that it is major, prolonged, and incompatible with residential and tourism values, and that it would cause them to move and make their property unrentable and unsaleable. Notes that the Marshall Day report focuses on decibel limits rather than the character of mining noise, which is not comparable to natural ambient sounds. Considers that starting heavy truck movements in the very early morning until late evening is unreasonable for residents and visitors, and that mining sound will carry and be unpleasant. Considers that the application lacks transparent disclosure of traffic volumes, and that heavy vehicles will increase emissions and noise, reduce cycling safety, cause congestion and cause centre-line crossing risk on constrained corners. Notes that Waka Kotahi has no funded plan for the major upgrades required to safely accommodate mining traffic. Considers that the Sense Partners report overstates mining benefits and understates tourism impacts, and that a mine directly beside SH6 and Paparoa National Park will deter visitors, damage the Untamed Natural Wilderness brand, and harm the wider South Island tourism network. Considers that the application does not adequately address cumulative risks from noise, light, vehicle movements, and habitat disturbance on Tāiko.	Decline the resource consent.
3	Peter Dymond	Partially opposed to the proposal, noting opportunities for West Coast jobs arising from the mining, but that there are some negative effects that need to be addressed. Questions level of traffic expected down Warren Road. Concerned about direct negative effects on the West boundary, including noise; the bunding blocking sun and views; the bund redirecting floods across their land; the impact on building plans on their land; and the devaluation of their property leading to reduced options for moving. Supports proposed revegetation and wetland at the back of their property, but consider it would be better for them if started 5 years earlier.	Take concerns into consideration.
4	Linda Grace	Concerned about: - additional traffic potentially causing damage to SH6 and Cargill Road and queries who covers the cost of additional roading repairs. - noise pollution from heavy vehicles and the processing plant being detrimental to them and their peace, and to bird life. - the start and finish times for a 6-day a week operation being too long and detrimental to the peacefulness of the area, creating stress, interrupting sleep and disturbing animals due to noise. - additional dust created potentially polluting their water and food supply. - adverse effects on the wildlife in the area. - the sea wall being compromised from excavation, and questions whether excess water and mud along the coastline will run off onto the beach and into the ocean, and the harmful impacts of that. - the excavation and additional traffic impacting on use of the Barrytown beach.	

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		- the radioactivity caused by the process affecting their health in the long-term, and how this is to be managed to ensure no danger to them. - property devaluation. - the tourist trail being compromised. - if mining turns out to be not as easy or valuable as anticipated, land being left that is worthless to anyone and damaged, and ending up like mineral mining in the Westport area, with a large debt being incurred by ratepayers.	
5	Cargill Road Barrytown Limited	Supports the application as believes the project is an asset to the community and West Coast Region.	
6	M Zukowski & A Thompson	Strongly objects to any quarrying plans in the proposed area and considers that it will have a significantly degrading effect on their lives. Considers that the applicant, being a joint venture between Australian and Chinese businesses have no interest in delivering measurable or sustainable benefit to the West Coast in the long term, with profits going offshore and limited West Coast jobs. Considers that if the international prices of ilmenite plunges, the local Council will be left to remediate the land. Considers that SH6 is a tenuous and delicate connection to their lives, and that the increased B Class traffic will kill tourists, cause significant wear and tear and significantly impact local residents driving to Westport or Greymouth every morning.	
7	Ian Collyer	Notes the values of, and connection to their land, and its proximity to the mine. Opposed to trading their tranquillity, and the birds that share this coast with them, for the promises of a company that has never operated a mine anywhere, and a mineral separation process this country has barely seen before. States that the Section 57 of the Crown Minerals Act 1991 recognises that mining activity should not be permitted where it causes a prejudicial effect on the use and enjoyment of neighbouring land by its owner or occupier; and that Section 55(2) separately protects specified classes of land- including smaller landholdings- from imposed mining access, reflecting Parliament's clear view that the settled, everyday enjoyment of a home by its neighbours is not something to be waved aside for mineral extraction. Requests that the Panel gives these protections real weight. Concerned about impacts on them, as a neighbour, of pits and pumps running through the working day, and trucks grinding along the Coast Road in numbers they consider the road was never built to carry. States that the WHO treats sustained noise above 55 dB as a serious health hazard, and considers this level of sound will occur regularly. Concerned about alteration of in-situ heavy mineral sand will release radon that will reach nearly 8 times the level New Zealand law treats as radioactive, with residential radon readings taken nearby already exceed the WHO reference level. Notes previous consenting processes and considers that a coastline should not have to keep defending the same quiet, against the same mine, under a new name, every few years.	That the Panel decline the application. Failing that, do not grant any approval without an independent, Site-specific assessment of noise and radiological effects at properties along Glen Road adjoining the Southern Block, and without real, enforceable protection for the coastal birdlife living on this stretch of shoreline.
8	Minister for Economic Growth	Considers, based on estimated annual generation of GDP, exports, local spending, royalties, taxes and employment that the proposal appears likely to deliver significant regional economic benefits, concentrated in the Grey District and wider West Coast, with further national benefits through exports and crown revenue.	
9	Minister for Māori Development	Supports the application, based on the information provided and relevant statutory criteria.	Have regard to the Te Rūnanga o Ngāti Waewae as the primary mana whenua in the project area.
10	Rosemary Erickson	Concerned that the mining activities will impact soil and air and contaminate water. States that epidemiological studies have identified a higher risk of cancer, circulatory and respiratory diseases, congenital anomalies and perinatal disorders in mining regions. Considers that due to the current natural state of the land being either vegetated or water bodies; the increased exposure of dust contaminants and un-natural acceleration of the radioactive form of elements must be mitigated by robust methods, before and if the mining proceeds. Considers that the road transport of heavy mineral loads and heavy machinery will be extremely hazardous over time on the fragile Coast Road; with tourism and local vehicles most affected, with expensive road maintenance costs.	
11	Minister for Regional Development	Considers, based on the information provided by the applicant, that the project is likely to have significant regional economic benefits in terms of job creation, contribution to regional economic output and export growth. Notes that the project would provide a significant contribution to growing export receipts and materially support progress toward the Minerals Strategy's export growth target of doubling minerals export revenues to $3 billion annually by 2035; and would also support the resilience outcome under the Minerals Strategy.	
12	Jan Fraser	Is neutral regarding the application. Notes that the purchase of their property was because of its outstanding views and its remote, quiet setting and connection to the surrounding landscape. Notes their work as an artist which draws from the surrounding environment. Concerned about the effect that regular machinery, noise, movement and industrial activity could have on the character of the environment around their home, and that the experience of the wider landscape around	

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		them will change, particularly during the periods when they are working intensively towards an exhibition. Concerned that if the proposal proceeds, they may no longer be able to continue working here in the way that they have been able to.	
13	Karen Smith	Concerned about radioactive dust, including waste being trucked along Coast Road, dust material affecting roof-collected water and food gardens and the impact on property values and inability to sell their land.	
14	Minister for Rural Communities	Generally supportive of the application, due to its delivery of significant economic benefits to the West Coast region, and improving outcomes for rural communities through these benefits and through creation of direct and indirect jobs. Interested in the Panel's deliberation on the feasibility of the applicant's RMP, as this has significant implications for the local community following the completion of mining at this Site. Encourages the applicant to continue engaging with the local community during this process.	
15	Office of Radiation Safety	Notes that in June 2026, the Director for Radiation Safety published a Compliance Guide for the Management of NORM in Mining and Mineral Extraction, that sets out a risk management approach and requirements for NORM management planning that a mining or minerals facility should include in its overall Site health, safety, and environment management plan. The guide applies to all operations associated with exploration, mining and processing of materials containing NORM. They consider, as head of the national radiation safety authority, that the Compliance Guide should be followed by the operator, and the consenting authorities should ensure that it is followed.	
16	West Coast Tai Poutini Conservation Board	Notes that limenite is the ore from which Tungsten is extracted rather than it being used in the manufacture of Tungsten, which is an element. Concerned that all environmental and conservation effects assessments were undertaken on a 'desk-top' only basis with no Site visits scheduled for the proposed mining area. Considers that the mining activities will destroy potential lizard habitats, due to there being unique populations of lizards in specific areas on the West Coast. Considers that there needs to be a physical survey and a capture and relocation plan as well as long-term monitoring of the impacts of the mining in a protected area, and that this will mitigate pest predation. Seeks clarification on whether the one-hour period from 0600 to 0700 (in 6.114) is correct. Queries whether is it intended to monitor the potential impacts of dust on mine workers' health. Notes that there is no assessment of the mining activities on the marine environment, and states that Hector's dolphins are known to be frequent visitors along the Barrytown marine area. Notes that no pest management strategy has been identified for the proposed area for mining activities, and considers that there should be a requirement for reporting any impacts of the activities on avifauna. Considers that the proposal to create artificial wetlands lacks detail and the potential impact on wetland related species, and that in the Management Plans there is no indication for the requirement of record keeping relating to the stated activities, or audit and review periods.	
17	New Zealand Transport Agency Waka Kotahi (NZTA)	Notes that through engagement on the resource consent application for the establishment of a WCP and associated activities, the Applicant agreed to mitigation measures to remedy NZTA's concerns with safe Site access and traffic generation. Notes that NZTA's internal Asset Management and Safety experts have reviewed the Substantive Application documentation for this proposal, and do not have any further concerns with this application. Is therefore neutral on the Substantive Application on the basis that no additional impacts on the State Highway network or infrastructure are anticipated.	
18	Don Kerr	Opposed to the application and concerned about the negative impact mining would have on indigenous flora and fauna, and on the community. Particular concerns include: - the serious public health risks associated with mining and the likelihood of the release of dangerous levels of radiation occurring as a result of mining, and inadequacy of mitigation measures. - the long term impact on waterways, streams and the water table from mining, and the deleterious impact of changes in direction or flow rates of surrounding streams and rivers. - the leaching of toxic material and heavy metals and that the mitigation measures will not be sufficient to protect against this over the long term. - mining activity speeding up coastal erosion, and that the mitigation measures will not be sufficient to protect the fragile ecosystem. - that proposed safeguards, controls and mitigation against environmental damage will not be delivered or adequately policed by local government bodies. - the impact of mining on Canoe Creek lagoon and the wide range of bird life present there. - the sand plain forest being a critical Site for native forest regeneration. - the destruction of peat beds within the mining Site, which serve an important function in sequestering carbon. - the deleterious impact the proposed mining (including lighting and trucking) will have on tāiko, given their vulnerability and the significant effect on breeding potential that even a few deaths can have. - the adverse effects on indigenous flora and fauna and their habitats in the coastal environment, with the area covering one of the best remining coastal lowland habitats on the Barrytown Flats and providing critical connectivity to other remnant forests and the Paparoa Range. - mining in the area adjacent to their QEII Covenant area in the Paparoa foothills compromising their native afforestation project. - the sustained disturbance resulting for neighbours and local residents from noise, dust, haulage and light pollution.	Deny the application, pending a fundamental review of the proposal by a newly formed and independent expert panel.

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		- the significant health and safety risks of heightened levels of radiation released as a result of mining, which will compromise community well-being and environmental values. - that neighbours and residents of Barrytown have a natural justice right to a peaceful existence that would be severely comprised. - the decline in property values and increased difficulty in selling. - the opposition of the majority of neighbours and residents.	
19	Ewan Straight	Concerned about road safety and the project trucks doing their runs at any time throughout the day, resulting in them not being able to ride their bike on the road in order to avoid these trucks. Considers that there needs to be an in-depth independent report done on all aspects of any radiation caused by the radon that will be released by the opening up of the mining ground, and the further processing of the ROM. Concerned that this project, and all previous iterations of it, has fractured the Barrytown community. Considers that if the project does go ahead, the applicant could gift all, or some of the mined land back to the community, for the community to benefit from, to help heal the community, and promote togetherness. Concerned that the natural sounds which are relaxing, and the main reason they shifted to their property will be impacted by annoying man-made noises of heavy trucks on the road, and large diggers on their boundary, which may drive them away from their home. Concerned that the project will result in direct neighbours of mine and properties overlooking it declining considerably in value, and that they will not be able to sell their property, or the reduced price will require them to downgrade.	That the proposal does not go ahead, but that if it does, the applicant understands and respects their neighbours.
20	Kate Duthie	Concerned that The Coast Road is already under enormous pressure from traffic and operating at its limits and considers that additional mining truck movements and mine worker traffic on this road will result in increased congestion, greater pressure on an already vulnerable road network and serious road safety concerns for road users. Concerned that the impacts of increased heavy vehicle movements, noise, dust, industrial activity and significant changes to the surrounding environment will affect the desirability and value of their property. Concerned about the potential disturbance and release of naturally occurring radon gas associated with mining activities, and considers that this issue requires independent and comprehensive investigation before mining proceeds, to demonstrate that risks have been properly identified, independently assessed and appropriately managed. Does not believe their community should have to bear the consequences of the full and long-term impacts of the proposed mining operation without those impacts being fully understood and addressed.	Take outlined concerns seriously, and make no decision without a thorough, independent assessment of the long-term consequences of mining on the Coast Road and the people who live here.
21	Colin Robertson	Opposed to the application. Concerned about the impacts of the proposal on their health, wellbeing and enjoyment of their adjoining property, noting that they chose to live beside native forest, in quiet, and in safety, not beside an industrial mine Site. Concerned about noise; lighting; dust/air pollution; vibration; and truck movements. Concerned that noise from continuous earthworks, pumps, screening plant and truck movements will repeatedly exceed 55 dB at their dwelling, and that in addition to noise, the constant presence of heavy machinery and truck traffic at their boundary will fundamentally alter their ability to use and enjoy their land. Considers that their health, safety and dignity as a resident cannot be treated as a secondary consideration to the commercial interests of an applicant with no operating mine anywhere in New Zealand, no operating history nor evidence of competency anywhere. Concerned about radiological risk arising from disturbing, excavating, stockpiling and processing HMC that contains monazite and uranothorite bearing thorium and uranium at scale, metres from occupied dwellings, and that this will increase the risk of radon exposure and airborne radionuclide release to neighbouring residents. Considers that their property falls within the description that provisions of the Crown Minerals Act 1991 (sections 55(2) and 57) were designed to protect, being a small, forest-adjoining landholding with a dwelling metres from the proposed works. Considers that Parliament's clear intent, reflected across this legislation, is that the enjoyment, health and safety of adjoining occupiers is not to be sacrificed lightly to mineral extraction. Notes that the original Barrytown JV Ltd application was rejected by the GDC and WCRC in February 2022; and a revised application to a renamed company was narrowly granted in 2024, remains under appeal and is subject to ongoing mediation. Considers that a project with this record of repeated refusal, rebranding and unresolved effects should not now be waved through on an accelerated fast-track process that curtails the scrutiny that has twice found it wanting. Concerned about the loss of 'sense of place' and solastalgia, and about land being opened for extraction and profit being set above the people who live closest to it. Considers that turning a living place into a resource to be extracted carries a cost measured in more than dollars- in sleep, in health, in the slow erosion of spirit that comes from watching a place you love be taken apart around you.	Decline the application, or, at minimum, require an independently verified, Site-specific noise and radiological assessment addressing effects at the commenter's boundary before any approval is contemplated.
22	George and Caryl Coates	Support this project, noting that the applicant has committed to providing for their expectations and standards of operation. Considers the number of jobs expected to be provided by the project is good for the local and regional community and economy and will have an enormous positive flow on affect. Also notes that the secondary processing MSP will add value to the product and create more jobs on the West Coast.	

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		Notes that the mining process and resulting rehabilitation will improve the soil profile of their farm and improve productivity. Considers that the project is not just a mine, with flow-on effects that will help future generations economically and socially by providing employment, career opportunities, value-added infrastructure and support for the uniqueness of the flora and fauna in the environment, and educational opportunities.	
23	Chanelle van Rooyen	Requests that the Panel look beyond the assurances contained in the applicant's management plans and carefully examine whether the environmental effects of this proposal have actually been demonstrated to be safe, manageable and acceptable. Considers that the application has not adequately established that this particular Project, in this particular location and at the scale proposed, is capable of proceeding without unacceptable environmental, health, amenity, ecological, infrastructure and long-term community consequences. Notes that the project represents a substantial industrial intervention into a rural coastal landscape and community, rather than being simply a temporary change in land use. Concerned that the radiation issue has been significantly downplayed by the applicant, because materials are below the threshold in the Radiation Safety Act 2016, and therefore not legally classified as radioactive; but considers that a regulatory threshold is not the same thing as a finding of zero radiation, zero exposure or zero health or environmental risk. Notes that the Project involves a second processing stage and considers that this has not been adequately addressed by the applicant's radiation evidence. In particular, questions what happens to radioactive materials when the Barrytown HMC is further concentrated and separated at Rapahoe, and what exactly is being returned (discharged) to Barrytown in the MSP tailings. Consider that the proposed processing operation is capable of concentrating radionuclides into particular fractions and those fractions and wastes have not been adequately characterised. Questions whether quarterly monitoring is sufficiently protective where a processing operation is capable of producing highly concentrated radioactive fractions. Asks that the Panel require independent expert assessment of matters [listed in comments] relating to these concerns. Considers that the effectiveness of proposed condition 8.6 depends not simply on a requirement to have "radiation monitoring devices", but on the correct type of monitoring instrument being selected, installed in the correct locations, operated correctly, and used in a way that is technically capable of detecting and quantifying the radiation exposure that the condition is intended to control. Considers that the proposed condition should not simply require the consent holder to maintain unspecified "radiation monitoring devices", but (if the application is approved), the consent conditions should, as a minimum, specify, or require approval of, an appropriate radiation monitoring methodology, that includes specific matters [listed in comments]. Concerned about the hydrology of the Barrytown Flats. Considers that a constructed wetland created at the end of mining is not necessarily equivalent to an existing natural wetland that has been destroyed or hydrologically altered during the intervening 14 years. Considers that given the close connection between groundwater, wetlands, drains and creeks, the Panel should take a precautionary approach rather than assuming that predicted hydrological effects will necessarily occur exactly as modelled, and outlines those matters they wish the Panel to examine further. Concerned about the potential effects of the proposed operation on the nearby Westland petrel/tāiko colony, particularly in terms of vulnerability to artificial lighting, and questions what evidence demonstrates that the proposed lighting design will prevent tāiko fallout, rather than simply reduce its likelihood. Also concerned that the proposed management approach relies on detecting and responding to grounded birds after an incident has occurred, as this is not the same as preventing the grounding in the first place. Considers it important that the Panel be satisfied that the proposed lighting, noise, vehicle movements and monitoring regime are preventative, scientifically justified and capable of detecting adverse effects, rather than relying on the discovery of injured or grounded birds before action is taken. Concerned about unresolved deficiencies identified in DOC's report about the applicant's wildlife proposal, and struggles to see how a 35-year wildlife authorisation can be justified when the applicant has not yet established the baseline wildlife values that will be affected. Notes that the Project will fundamentally alter the character of this very special area, introducing heavy-vehicle movements, mining machinery, processing, stockpiles, trucks, industrial lighting and associated infrastructure into an area that is currently predominantly rural. Concerned about dust, traffic safety, noise and lighting impacts, cumulative effects on residents and wildlife, and the loss of rural character and amenity. Notes that they have chosen to live here because of the quiet rural character of Barrytown, their uninterrupted views across green pasture to the sea, the dark skies at night, the abundance of birdlife, and the sound of the ocean, which are the qualities that make this place home to them. Objects to the company's adoption of the name "Tāiko" by a company proposing an industrial mining operation in the region where this vulnerable native species breeds. Notes that the company has operated under three different names during the development of a project and considers that the Panel needs to satisfy itself that there is a clear, stable and accountable entity behind the long-term environmental obligations it is being asked to approve, and that the entity accepting those obligations has the stability, resources and long-term commitment necessary to honour them. Asks that the Panel consider carefully who will be accountable for those obligations over the full lifetime of the Project, and what safeguards are in place to ensure that accountability cannot be lost through future changes in corporate identity, ownership or structure. Considers that key environmental protections should be established within the consent conditions themselves rather than within management plans. Considers that Management Plans can be useful for setting out how those conditions will be implemented, but they should not be relied upon to determine fundamental matters such as the level of environmental protection required, monitoring requirements, performance standards, trigger levels or the circumstances in which additional mitigation or cessation of activities is required.	Decline the application unless the Panel is satisfied, on robust independent evidence, that the identified risks and uncertainties have been properly addressed and that the remaining adverse effects are genuinely acceptable and proportionate to the claimed benefits. That the Panel not treat proposed management plans as proof that adverse effects will be successfully managed. Should the Panel consider approving this proposal, impose robust, specific and enforceable consent conditions on the applicant, rather than relying on Management Plans as the primary means of controlling environmental effects. Before granting the requested approvals, the Panel require convincing, independently tested evidence demonstrating that: - the radiation consequences of the entire mineral-processing chain, including the Rapahoe MSP, have been properly characterised; - the radiological properties of the MSP tailings being returned to Barrytown are known and their long-term environmental implications understood; - radionuclides, radon, dust and potentially associated metals cannot create unacceptable exposure pathways for workers, residents, wildlife or groundwater; - the existing wetlands and shallow groundwater system will remain adequately protected throughout the mining period; - the proposed water-management system can safely cope with the extreme wet-weather conditions of the Barrytown Flats; - the nearby Westland petrel/tāiko colony will be adequately protected from lighting, noise and industrial activity; - threatened lizards, particularly the West Coast green gecko, have been adequately surveyed and can genuinely be protected; - dust, noise and heavy-vehicle effects will be independently monitored and enforceable limits will apply; and - the residual adverse effects are proportionate to the benefits attributable to the Southern Block itself. That any conditions necessary to protect the community, environment, groundwater, wetlands, coastal environment, and vulnerable wildlife—including tāiko—are clear, measurable, independently verifiable and enforceable in their own right, with Management Plans used only to support and operationalise those requirements.

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		Asks the Panel to apply a rigorous and evidence-based approach to the application and to require that significant uncertainties identified be properly resolved before the Project is authorised.	
24	Tammy Ward	Notes their attraction to and connection with Barrytown, including a rural lifestyle, outstanding natural landscapes, abundant wildlife and open space, dark night skies and natural sounds, and the unobstructed view across paddocks towards the sea. Notes westland petrels can be extremely vulnerable when they come to ground, and that one of the greatest challenges is artificial/man-made light which attracts and disorientates these birds. States that the paddocks, creeks, wetlands, coastline and ocean are all connected, and the wildlife moves through and between these environments as part of its natural cycle, with the consequences of changing one part of it reaching much further than the footprint shown on a map. Considers that the Panel should consider not only direct habitat clearance but also the indirect effects arising from the mining activity. Concerned about what stands to be lost if this project proceeds without properly understanding and protecting the qualities that make not only Barrytown, but this entire stretch of coastline, such an extraordinary place to live. Notes that the proposed Southern Block would bring mining activity significantly closer to their home, has the potential to change their view of landscape, and alter their soundscape, and would introduce artificial lighting and machinery into what is currently a predominantly rural and natural environment, affecting the wildlife and wetlands that contribute to the character of Barrytown. Considers that these are not temporary inconveniences but concern the qualities and amenities of the place they chose to make home. Particularly concerned that there remains important unanswered questions about wildlife, wetlands, landscape, noise, amenity and radiation. Considers that before a decision is made that could fundamentally change the landscape for decades, a proper understanding is required of what will be lost, what will be changed, and whether the proposed mitigation can genuinely protect what is here now. Requests that the Panel consider what these changes will actually mean for the people who live here, and for the wildlife that depends on this coastline. Considers that the quantity of documentation should not be confused with the adequacy of the information available to determine the actual environmental effects. Concerned that several of the technical assessments rely on assumptions, future monitoring or proposed mitigation to resolve uncertainties that they consider should instead be addressed before the Panel determines the application, particularly given the duration, scale and location of the proposal and the interaction between mining, existing consents and the wider Barrytown mining area. Asks the Panel to require all outstanding information to be provided and independently reviewed before determining the application, or alternatively to impose conditions which expressly address each of the uncertainties identified. These include that: - the application does not provide a sufficiently complete understanding of the wildlife that uses the Southern Block and the surrounding landscape. Considers that the Panel needs to understand which species are present, how they use the Site, what habitat they depend upon, and what the consequences will be if that habitat is disturbed or lost. - no comprehensive baseline lizard survey has been undertaken, despite the project area being within the known range of the West Coast green gecko which is classified as Threatened – Nationally Vulnerable, as well as other indigenous lizard species. Concerned that the applicant proposes salvage and relocation as a means of managing effects on lizards, but considers that relocation cannot be treated as a substitute for protecting habitat. Considers that there are insufficient contingency measures if post-transfer monitoring of lizards shows that mitigation has not been effective. Requests that the Panel require the applicant to show, with clear evidence, that they understand which lizards are present, where they occur, and whether the proposed release sites are suitable and have enough capacity to support relocated animals, along with clear plans for predator control, monitoring long-term survival, and dealing with relocation failure. - the applicant's ecological assessment has not identified all Threatened or At-Risk bird species that are likely to use the Southern Block, and that consequently, the scale and significance of the effects on avifauna remain uncertain. Request that the Panel require targeted and, where necessary, seasonal surveys to properly identify Threatened and At-Risk bird species using the proposed Site, including their numbers, breeding, feeding and roosting areas, seasonal use, movements between habitats, and how mining and rehabilitation may affect these functions. - the applicant proposes using bird deterrence measures to discourage birds from nesting in areas that are due to be mined, despite many birds being migratory and returning to familiar places each year to breed or seek areas to rest before travelling further. Also questions what happens if deterrence fails. Requests that the Panel require a clear and enforceable hierarchy of controls through conditions of consent. - the proposed introduction of additional artificial lighting and noise associated with the mining operation on petrels. Concerned that the AMP includes protection that is mostly reactive rather than preventative. - the proposed shutdown provision applies only when a second bird is found within 50 metres of the dredge pond or processing plant/loadout area. A grounded bird elsewhere on the Site, along the access road, or beyond that 50-metre area may not trigger the same response, despite potentially being attracted by the project's lighting. Considers that the appropriate question is not whether the applicant has a procedure for dealing with a grounded bird, but whether the operation can be designed and managed so that birds are not grounded in the first place. Believes the Panel should require a genuinely precautionary lighting and bird-protection regime, including clear thresholds for reducing or shutting down lighting before repeated bird mortality occurs, contained in a fit for purpose AMP and (if consent is granted), also carried through into enforceable conditions of consent. - the proposed camera monitoring is inadequate. Requests that the Panel (if consent is granted), make the stronger AMP requirements enforceable as actual consent conditions, with conditions including the performance of the cameras, including their detection range, field of view, low-light or infrared capability, resolution, weather performance or ability to reliably detect a grounded petrel. Also questions whether weekly review of footage is sufficiently responsive for a species where a grounded bird can die if it is not found quickly. Request that the	That the Panel decline the application unless it can be satisfied, on robust independent evidence, that identified risks and uncertainties have been properly addressed and that the remaining adverse effects are genuinely acceptable and proportionate to the claimed benefits. That the Panel use an evidence-based approach to the application and require the outstanding information and expert review identified [in the comments] before determining the application; should the decision be to approve the application, impose robust, enforceable and adaptive consent conditions which address these matters directly.

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		Panel require the applicant to specify the technical standard and performance requirements for the proposed cameras, demonstrate that their combined fields of view provide adequate coverage of all areas where tāiko could be attracted or grounded, and explain how quickly camera detections will be identified and acted upon; and that the Panel consider daily or realtime monitoring during the peak tāiko grounding period, rather than relying on weekly review. Considers that the applicant should also be required to provide the camera locations and coverage maps to the Panel and DOC, together with the methodology used to demonstrate that the system is capable of reliably detecting grounded Westland petrels. - that some of the strongest protections described in the AMP are not reflected as equally strong and enforceable consent conditions, nor provide equivalent consequences if they fail. Considers that where a measure is relied upon to avoid mortality of an absolutely protected and vulnerable species, the critical protections, monitoring requirements, trigger points and consequences of failure should be clearly stated in the consent conditions themselves. Consider that the proposed new wetland does not establish that there will be no net loss during mining. Requests that a minimum condition should be that existing functioning wetland habitat is not removed until replacement habitat has demonstrably reached an agreed ecological-function threshold. Questions the Landscape and Visual Assessment's characterisation of some effects as temporary and reversible. Considers that in any case, this does not remove the need to properly consider the amenity consequences for affected residents over the period in which the effects occur. Does not consider that a 24 metre distance and a bund will sufficiently mitigate effects for an activity of this scale. Sets out additional information that they consider the Panel should require, including an assessment of cumulative effects across the whole operational landscape, rather than considering the Southern Block in isolation. Notes that noise, machinery, vehicle movement, artificial lighting, bunds and changing views interact to change the experience of the area, and considers that the assessment should be integrated, rather than considering visual effects, noise and lighting separately. Requests that the Panel require an integrated assessment of how the project changes the overall sensory experience of specified locations. In relation to noise, considers that that a two-day measurement period in winter is a limited basis for characterising a highly variable coastal/rural soundscape over a 35-year consent period, and that the Panel should consider whether additional seasonal monitoring is warranted. Also concerned that the noise assessment does consider cumulative noise from the proposed Southern Block and the previously consented WCP. Considers that meeting a numerical noise limit alone does not mean the community impact will be acceptable; and that the Panel needs to understand the combined and ongoing effects of these activities on nearby residents for the length of the activity. Also considers that short-duration peak effects should not be obscured by averages, and that the Panel should require specified time-series information to provide a more meaningful indication of residential amenity. Notes that the radiation evidence is based on expected activity levels, but that there is now a published study which shows that the potential for higher readings exists. Concerned that the applicant has been downplaying the radioactive information; and that average radiation levels alone may not demonstrate the maximum concentrations that workers, residents or the environment could be exposed to. Request that the Panel require information showing how radiation levels vary throughout the orebody and how they may change as material is mined, stockpiled, processed and separated. Considers that the Panel should require the applicant to provide more detail on baseline radiation and monitoring; and clearly identify the radiation monitoring equipment and methodology that will be used. Also queries where the radiation-monitoring devices required by Condition 8.6 are supposed to be located. Considers that the Panel should give particular weight to DOC's September 2026 statutory assessment, which identifies significant gaps and uncertainties in the applicant's ecological information, including lizard surveys and relocation, threatened and at-risk birds, nest protection, Westland petrel management, and wetland loss. Considers that DOC raise important questions about whether there is sufficient information to properly assess the environmental effects of the proposal. Requests that the Panel require the applicant to provide, and where appropriate independently review, a series of matters [listed in comments] relating to wildlife; avifauna; wetlands; landscape and amenity; noise; and radiation, before determining the application.	
25	Parliamentary Commissioner for the Environment	Concerned about the impact of the sand mining activity and potential adverse effects on and from NORM. Concerned there may be an increase in ionising radiation as a result of heavy metals in the mined sand being concentrated at the MSP and then being returned in the tailings (waste materials) to the mining Site after processing. Notes material published by Dr J.P. Bradley, indicating that the concentrations of NORM and the level of radioactivity from the NORM in the source material at Barrytown could be substantially higher than that indicated in the application. Considers that all evidence should be thoroughly and independently tested, and that any potential increase in radiation, if confirmed, must be taken very seriously. Concerned that following completion of mining, the disturbed area is to be returned to agricultural production, which may increase the longer-term public health risks from exposure to radiation. Considers that the application lacks a detailed assessment of the impacts of radiation or radon on public health or the natural environment. Considers that if consent is required for the return of tailings and other 'waste' material back to the receiving environment (including air), it is prudent to require dedicated assessments of the potential risks up front, and recommends that the Panel engage an independent expert in NORM and ionising radiation to support its consideration of the application. Concerned that ambiguities in the proposal that could lead to unanticipated effects due to confusion about the activities that are consented or otherwise taking place at Barrytown, and that interested parties may be conflating issues related to different projects. Considers that while determining the FTAA application, the Panel also needs to be cognisant of other activities in the Barrytown Flats that are directly related to the current application, including those subject to a further application in future and those already consented. In particular, observes that there is some ambiguity	That the Panel engage an independent expert in NORM and ionising radiation to support its consideration of the application. Clarify if the return or disposal of the 'tailings' to the mine void following processing of the material from the Southern Block at the WCP (and the MSP) is part of this project, or has otherwise already been consented, and include in the application any additional consents deemed to be required. Make clear the implications of extracting REE from the mined sand at Barrytown flat, if it is an intended activity.

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		regarding the return or disposal of the 'tailings' to the mine void following processing of the material from the Southern Block at the WCP (and the MSP), as to whether this activity is being consented as part of this FTAA project or has otherwise already been consented. Considers that this should be clarified and any additional consents that are deemed to be required should be included in the application. Also notes ambiguity as to whether the application includes REE recovery. Considers that the implications of extracting REE from the mined sand at Barrytown flat, should it be an intended activity, should be made very clear, and notes that a further consent may be required in future to undertake this activity. Notes that the process of REE extraction would likely change the make-up of, and increase the concentration of ionised material in, the tailings.	
26	West Coast Regional Council	Notes that mineral sands mining is an increasingly common activity applied for through the resource consent process on the West Coast, with one approved mineral sands project having become operational. Notes engagement undertaken between the WCRC and the Applicant. Includes the following responses to specific questions asked by the Panel from the WCRC's Principal Scientist and Chief Engineer: - That the mining methodology, including the proposal to sequentially divert streams have been reviewed by the Council's Chief Engineer and Principal Scientist, who have not identified any specific concerns with the proposed methodology; and that subject to the proposed fish-passage and rehabilitation measures being implemented, the Principal Scientist does not consider that the effects on species lifecycles warrant exclusion periods or changes to the proposed mining schedule. - The Chief Engineer recommends a baseline survey of the stream inverts and the predominant channel cross-sections prior to the any waterbody being 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. - The 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, but that subject to that matter being resolved, they otherwise agree with the hydrological assessment and recommend one change to conditions relating to flood-carrying capacity. - The Principal Scientist notes a potential longer-term risk associated with reinstating stream channels in areas where mining may increase vertical permeability, and considers that this reinforces the importance of appropriate channel design, baseline monitoring, progressive rehabilitation and post-rehabilitation monitoring. - Notes that no issues have been identified with the proposed methodology in principle in relation to the feasibility and implementation of the rehabilitation through the creation of a new wetland incorporating a reach of Granite Creek, but states that 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. - Notes that 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. - The Principal Scientist is satisfied with the goals proposed by the applicant in the draft RMP. Sets out comments on draft conditions from both Consents and Compliance staff and a preference for separate District and Regional Consents and stand-alone consent conditions for each consent applied for. Requests an additional advice note regarding radiation safety, due to concerns raised by the community regarding the potential effects of radiation. Notes that subject to resolution of the peak-flow calculation anomaly, and incorporation of the additional and amended consent conditions recommended by WCRC, it has no significant outstanding concerns with the application and is otherwise comfortable for processing of the application to proceed before the Panel.	Provide separate District and Regional Consents. Provide stand-alone consent conditions for each consent applied for. Include additional consent conditions [wording set out in full in comments] relating to: a baseline survey of affected waterbodies; assessment of existing channel capacity; measures to ensure flood-carrying capacity and protection against flood-related erosion; maintenance of fish passage; and remediation of erosion. Include additional advice note regarding radiation safety.
27	Barrytown Primary School	Is neutral in relation to the application. Notes that the applicant has actively engaged with them, and established a positive and constructive relationship with the school and, finding them open and supportive of the school. Attaches submission from a previous hearing, which identifies some positives and challenges, including traffic management at school bus times; a request for no trucking operations being undertaken on Cargill Road, and a limitation on the utilisation of airbrakes on all trucks on the main highway near Cargill Road; impacts of dust on the school swimming pool; impacts of dust and noise/vibration on outdoor learning spaces and installation of monitoring equipment; impacts of mining operations resulting in a reduction in the number of students and school staffing; potential destruction of local habitat, the beach or creeks or contamination of soils and decline in water quality.	
28	DOC	Notes consultation undertaken with the applicant and matters raised with them. Concerned about the incidental killing of birds that might, despite the applicant's best efforts, be nesting in the path of the mine, with no measures proposed to avoid nests if they are in the path of the mine. It notes that the incidental killing of birds is not included in the application. Concerned about the adverse effects on Westland petrels (Tāiko) - specifically measures on nights where equipment repairs are required or there are other unforeseen events requiring light at night. In relation to lizards, includes a statement of advice from Ms Jacqueline Wairepo, assessing the effects of the Project on lizards and the proposed management package to address the effects. Sets out concerns raised by Ms Wairepo which include: the lack of a dedicated lizard survey; incorrect identification of which grass skink is likely to be present; inconsistencies between the LMP and Wildlife Approval Technical Report in relation to survey and salvage methods, and aspects of these methods not aligning with best practice, lacking clarity and not providing adequately for Threatened species; the proposed lizard release Site not aligning with best practice requirements and not being appropriate for all species; and no provision	Provide DOC an opportunity to respond to the Applicant's response to DOC's Section 51 report and updated lizard and avian management plans once finalised. Amend conditions to address comments and suggested refinements set out in Appendix F to the comments.

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		having been made for predator control for lizard protection. Sets out the applicant's responses to these, but notes that there has been a lack of time to review draft updated documents, and requests an opportunity to respond to the updated material once finalised. In relation to avifauna, includes a statement of advice from Dr Elizabeth Parlato, who considers that some of the measures proposed are suitable for managing effects on avifauna, but that additional measures are required to appropriately manage effects on protected avifauna species, with her key concerns outlined, including: the proposed mining activities having the potential to affect a wider range of protected avifauna than currently identified in the AMP; the effectiveness of relying heavily on deterrence to prevent nesting within the area to be mined; the risk of protected species mortality associated with the mining activities due to lack of protection measures; lack of targeted searching for grounded Westland petrel on nights where equipment repairs are required or there are other unforeseen events requiring light at night; the temporary loss of wetland habitat for avifauna. Notes the applicant's responses to the key concerns, but states that there has been a lack of time to review draft updated documents, and requests an opportunity to respond to the updated material once finalised. In relation to freshwater, includes a statement of advice from Dr Richard Storey, which outlines his concerns. This includes that the ecological value of the freshwater fish fauna in streams and artificial drains has been underestimated; spring habitats have not been assessed for their ecological value; that the Panel should consider a review by a specialist geochemist to determine whether water quality effects are likely to be as stated; the long-term effects of the plume of poor-quality groundwater; that the Panel should consider requiring a review by a specialist hydrologist in relation to changes to subsurface water flow patterns, and subsequently changes to flow in surface watercourses, as a result of the mining; the insufficiency of the width of riparian buffers to achieve the expected benefits to in-stream ecology and to resist invasion by weeds; the need for consent conditions to specify a cease-take level for the water take on Canoe Creek, include more performance measures and remedial actions and specify the metrics to be used for monitoring the ecological condition of restored watercourses. Minor additions are also recommended to the Native Freshwater Fish Capture and Relocation Plan. In relation to wetlands, includes a statement of advice from Mr Roland Payne, noting a number of concerns with the methodology used to classify wetlands and assess their values, resulting in a significant underestimation of the total area of natural inland wetland. He also considers that avifauna and fish values of wetlands were not adequately considered in the Ecological Effects Assessment. Notes that Mr Payne recommends further work required to ensure that the rehabilitation package is commensurate with the loss of wetland extent and values, and that conditions are modified to ensure that existing wetlands are retained while they can be and that the bond is adequate to cover the ecological rehabilitation. Includes planning advice from Mr Murray Brass on the statutory framework, assessment of effects, relationship with consent for the WCP, proposed consent conditions and matters that are still outstanding as between DOC and the Applicant. Notes that Policy 11 of the NZCPS applies, which requires all adverse effects on Threatened and At Risk species are to be avoided and which under the FTAA is a relevant matter to consider, stating that unless it is inconsistent with the FTAA's purpose or the requirement for conditions to be "no more onerous than necessary", the consent conditions should seek to ensure that effects on Threatened and At Risk species are avoided. Considers that measures proposed by Mr Payne in relation to wetlands are appropriate to give effect to the NPS-FM, while still being consistent with the purpose and provisions of the FTAA. Notes that following lodgement of the Substantive Application, discussions with the Applicant have continued, with amendments made to the proposed conditions reducing the matters remaining in contention. Further comments and refining of the conditions is provided, along with identification of some specific wetlands that temporary protection could apply to. The key remaining issues identified are: - the incidental killing of protected birds that might, despite the Applicant's best deterrence efforts, be nesting in path of the mine (which is not currently included in the application for a Wildlife Approval); - the adverse effects on Tāiko/Westland petrel (measures if any night lighting is required); - management of lizards - subject to an updated Lizard Management Plan; - avoiding loss of wetland extent and values - including through conditions relating to the timing and design of the wetland restoration; and - protecting freshwater values and extent - including through addressing concerns for water quality and quantity.	
29	Westland Petrel Conservation Trust	Concerned that the proposed AMP is predicated on an out-dated Australian lighting guideline; with new Australian guidelines (12 May 2026) offering far greater protection for the Westland petrel. Considers that the AMP fails to provide certainty that the mining, processing and trucking operation will not create a fallout problem and therefore impact negatively on the Westland petrel/ Tāiko. Outlines the purpose of the trust, it objectives, and the work it undertakes. Considers that Westland Petrel behaviour will be affected by artificial lighting arising from the proposed mining operations on the Barrytown Flats. Outlines details about Westland petrel, including breeding; conservation status; size and shape; flight habits, heights and speed. Notes that the nearest group of Westland petrel burrows to the proposed processing plant & mining Site is only 4.2 km, being 6 minutes' flight by a slowflying departing fledgling; and 3 minutes for adult petrels. Notes that all birds are susceptible to bright lights on or adjacent to their flight paths, resulting in collisions with wires and man-made structures, often at speeds causing death or serious injury, called 'fallout'. Notes difficulties in birds relaunching after being grounded. States that population modelling shows that the accidental death of only a small number of adults has a catastrophic effect on the population size, long term. Supports the applicant's decision not to mine at night, which it considers may somewhat reduce fallout problems, providing that the lighting regime in practice adheres to the proposed lighting at the processing plant and mining sites, along with the hours of operation, in relation to petrel flight	That the application be declined in the absence of specific mitigation clauses which address the concerns outlined.

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		times. However, the Trust is concerned with the 24hr operation of the WCP and the loadout area (already consented) which means that truck movements will be continuous 24hrs per day. Notes Mike Geddis' Expert Witness Report which states that it is impossible for the Panel to judge the efficacy of the proposed light mitigation measures in the absence of a detailed Lighting Plan from the Applicant. Considers that such a plan must be based on extensive research and implemented gradually, long in advance of any mining or construction activity. Considers that the present Application should be rejected by the Panel and the Minister until this Plan is fully documented and ready for implementation. Considers that that any structure, such as the processing plant and associated mine and new roading, must not be situated adjacent to the Westland Petrel Specially Protected Area but at least 20 km distant, consistent with the most current Australian guidelines (a summary of the key parts of which is provided in the comments). Considers that the Applicant should employ an expert to advise them with familiarity with the relevant seabird scientific literature on avoidance creating light and diesel generator attraction of petrels. Raise a number of concerns in relation to the AMP, including that: - light effects of the consented part of the operation cannot be mitigated by undertaking the loading of trucks on the eastern side of the building via roller doors which can be closed when not loading, as regardless of what side of the building the trucks are loaded, light spill will occur and will impact the petrels negatively. - to avoid the possibility of fallout, it is appropriate that all mining and trucking operations be limited to civil daylight hours (half an hour before sunrise to half an hour after sunset). - the use of such words as "minimised", "lowest intensity lighting possible", or "as close to the ground as practicable" provide insufficient detail and certainty by which fallout risk may be avoided, and that specific conditions need to be applied to the type of shielding, colour temperature and intensity of fixed lighting for all lighting present at the mining and processing plant sites. - it includes conflicting/contradictory statements regarding the mining operation hours. - reporting live birds seen on the road at any time to DOC is an impractical solution for the wellbeing/survival of the grounded tāiko, as the bird needs to be immediately retrieved from the road to prevent it from wandering off or being struck by a vehicle; and that all mining vehicles should carry the appropriate equipment for rescuing a bird, including for rescuing 'near misses'. - the Accidental Discovery Protocol for Grounded Tāiko offers scenarios that do not support a positive outcome for a grounded bird, as the bird should be immediately retrieved from where it has been found, and noting that there are pet boxes stored behind the Punangairi (Punakaiki information centre) for the placement of downed petrels, which is closer to the mining operation than the Greymouth DOC offices. - there is a reliance on finding a second bird near the dredge pond or WCP and that one fallout victim should provide sufficient alarm that there is a problem; and night time operations and the use of external lighting should cease from the moment of a single fallout discovery and if the cause cannot be discovered then all night-time operations should cease permanently. - the procedure for dealing with dead Westland petrels found within 50 metres of the pit or processing plant is flawed as it is not based on petrel behaviour. - the precautionary principle should apply. - it appears to contravene Section 3 of the Wildlife Act 1953 in relation to dredge pond lighting and is also inconsistent with the NZCPS Policy 11(a)(i). Considers that the lighting regime at the loading/processing plants and mine pit must "avoid" any fallout, which means that it must be designed in such a way that it will categorically not contribute to fallout. Considers that the fallout mortality problem is much greater than has been recognised to date and should be acted on accordingly by the applicants.	
30	Michael Hill	Considers that resolving conflicts of interest should be through respectful and open dialogue, and a willingness to listen, between companies in extractive industries and local communities. Considers that the applicant has failed to hear and respect them, as stakeholders. Notes previous engagement with the applicant, and assurances made that all of the conditions from the consented "Middle block" would be transferred to the "Southern Block" application. Considers that the applicant has instead been selective in the conditions included in the application, with a notable absence being the AMP – an important set of conditions aimed at protecting the westland petrel. Concerned about the estimated levels of radioactivity in the 'non-magnetic concentrate' exceeding the threshold for radioactive material in the NZ Radiation Safety Act and that this 'waste' material will be returned to the mine Site for backfilling. Considers that this needs to be carefully planned and executed to avoid the creation of radiation 'hot spots' as has occurred in sand mines in Australia. Notes existing measured radon levels at their house exceed the accepted WHO/NZ Ministry of Health guidelines mean safe limit. Understands that the mining will likely vent significant quantities of radon into the atmosphere, and does not want the mining activity to elevate the natural radon levels in their house. Concerned about the accumulation of dust containing radioactive material over the decades-long life of the mine posing an additional threat of radiation exposure to the community. Considers that management of dust over the lifetime of the project will be critical for minimising exposure to radiation and other potential harmful effects of dust inhalation. Requests that if consent is granted, the consent holder is required to install radon and radiation measuring devices at their property and have them inspected, serviced and results interpreted at regular intervals by qualified professionals.	If consent is granted: - [Consider] comments and [apply] suggested conditions in the CRRG Comment on the application. - The Panel should consider the findings of Sefton Darby in 'The Ground Between', when making consenting decisions or setting consent conditions - that building trust between communities and mining companies is fundamentally based on whether stakeholders feel heard and respected, and that high quality regulations/conditions are imposed to hold companies to account. - The mining company, with assistance from suitably qualified independent experts, develop and implement a plan for monitoring radon and ionising radiation at properties adjacent to the 'Southern Block' during mining operations, including dust monitoring. If the monitoring shows elevated levels, then the company needs

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		In relation to other properties, considers that consent conditions should require the mining company, in consultation with appropriate qualified experts, to develop a monitoring programme for all dwellings on the Barrytown Flats that are potentially at risk from elevated radon and/or radiation (and dust) levels as a result of mining activities. Requests that if consent is granted, their property is added to those listed in section 6.114 of the Substantive Application, requiring the company not to undertake any activities adjacent to the property between 0600 and 0700; and that the 500 m limit for this restriction of operating hours be increased to 1 km. Considers that conditions should include the establishment of a community liaison group and provision for that community group to have a voice for key decision-making during consent condition implementation; with community-company liaison meetings independently chaired. Requests a condition of consent requiring the company pay for the development and upkeep of a community website which would act as a forum for community issues relating to the mine and have independent editorial oversight. Considers that correctly done, this would facilitate dialogue within the community and between the community and the company. Asks the Panel, if within its power, to consider requesting MFE to make a contribution from the application fee towards legal and other costs imposed on the community group; and to consider recommending that the Government reinstate the fund for assisting fast track hearings. Also supports all of the comments and suggested conditions in the CRRG Comment on the application.	to instigate remedial actions at the affected properties. - The mining company pay for the development and maintenance of a community website, operated by the community, as a primary means of information exchange, communication and discussion regarding mining operations and community engagement. - Regular meetings to be held between the company and a community liaison group that is independently chaired. The company to pay for secretarial costs if any. - Add their property to a list of those on the Substantive Application that are close to the mine Site and for which hours of operation of mining activities are amended when the activities are adjacent to the property (6.114 in the Substantive Application). - The company to pay for sound-proofing (e.g. double glazing) to windows at my property that face west towards the mine Site. - The Panel make representations to MFE managers to reinstate the Environmental Legal Assistance Fund to assist community groups who wish to make legal representations to future fast track panels.
31	Suzanne Hills	Opposes the application for its multitude of environmental and social impacts, including the economic costs of these impacts. Notes their use of the Coast Road for cycling, and that much of the Coast Road along the proposed mine haulage route lacks a cyclable road shoulder. Considers that additional truck movements on this section of the Coast Road for decades to come vastly increases risk exposure for cyclists and without effective mitigation, will cost lives. Notes that due to much of the Coast Road lacking a rideable road shoulder, trucks cannot safely overtake cyclists without crossing the road meridian line, and that truck drivers regularly overtake on yellow no-passing lines. Believes that most local drivers are taking unacceptable risks because SH6 currently has a relatively low traffic volume and these dangerous manoeuvres seldom end up with consequences, but consider that this will no longer be the case if this application is granted, with the additional vehicles, particularly trucks, creating additional risk. Considers that the severity of the risk of serious injury or death to cyclists, pedestrians or motorists is far too costly for this proposal to be granted. Considers that The Coast Road would become a mine haulage route, and from a road safety perspective that this is an untenable health and safety risk. Outlines the additional truck encounters that they, as a cyclist would be exposed to, resulting in a notable increase of exposure to risk for them personally; and that the cumulative exposure to risk for all Coast Road cyclists would be substantial. Considers that granting this proposal and allowing SH6 to be dominated by diesel fuelled mining trucks will be a major setback for Coast Road cycling and the carbon efficiency of cycling as a means of transport. Considers that for many, the proposal will create a Coast Road too dangerous to cycle, with a resultant loss of cycling's positive benefits and a negative impact on local people's health and wellbeing, their emissions reduction, and significant adverse effects on a burgeoning cycle tourism industry. Considers that no amount of driver training and awareness, real-time driver communication, or road safety signage will adequately mitigate the risk to cyclists from this project; and that the only way the significantly increased serious injury and mortal risk can be mitigated is by a separate combined walkway/cycleway along the length of the proposed mine haulage route. Failing this, as a bare minimum, all high risk sections along the proposed mine haulage route, such as: blind corners; pinch points; and other tight geometry without a 100 m line of sight; should be widened to provide a rideable road shoulder with a minimum 0.5 m width.	Should the proposal be granted include consent conditions requiring a separate cycleway or failing this, road widening.
32	HNZPT	Notes that NZHPT has provided comments in relation to the archaeological authority in its s 51 Report, which recommends that the authority be granted subject to recommended conditions, as have been agreed with the Applicant, and approval of a specified person to undertake the archaeological work. Identifies a change to the resource consent conditions it considers is needed to avoid a conflict between the archaeological authority and the Accidental Discovery Protocol conditions.	Edit Condition 18.1 of the resource consent to make it clear that this condition only applies to the area outside of the archaeological authority boundary.

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33	Forest and Bird	Opposes the application. Considers that in the ecological context, the Barrytown coastal plain at this location, though modified, is regionally significant because it provides the most favourable habitat of this type for native birds, fish, lizards, and invertebrates along a long stretch of otherwise steep and rocky coastline. Notes that the Central Block consent included conditions aimed at protecting the Westland Petrel and other birds such as Kororā. Considers that the WCP consents authorise an operation that requires lighting, notwithstanding that this may cause known adverse effects on Tāiko/Westland petrel, and lists conditions from the Central Block were not replicated in the WCP conditions. Concerned that that the 2024 NZEnvC 238 Consent Order consent conditions for the suite of sand mining activities at the central block, have not been transferred fully to the resource consents for the WCP nor as proposed conditions in this application. Concerned that this application will not avoid adverse effects on Westland petrels and other avifauna, and in particular, that the proposed light management provisions fall short of what is required to avoid adverse effects on Westland petrels. Considers that if the Panel is minded to grant the application, then the consent conditions will need to be at least as robust as (if not more) than those established through mediation for the central Site, considering the larger scale mine and the longer duration. Attaches expert evidence of Dr Susan Mary Micol on the effects of the proposed activities on Westland petrels and other avifauna, which in turn refers to evidence of Mike Harding, a terrestrial ecologist engaged by the GDC, to review terrestrial ecological matters related to the 2023 application. Also concerned about the impacts of climate change, the risk of coastal erosion and inundation by the sea because of sand mining on the coastal plain and because of extreme weather events. Consider that the application does not appear to have adequately assessed the risk of climate change impacts, particularly regarding the impact of sea water inundation. Supports the concerns raised by CRRG in so far as they are consistent with its concerns. Considers that the Barrytown coastal plain ecosystem is an important part of the area's broader natural environment, which draws people to live there, and though modified through human activity, the coastal plain, and its remaining wetlands are important aspects of the area's natural character. Considers that the adverse effects of the mining activity on the area's natural character and as a buffer to Paparoa National Park appear to have been downplayed or largely ignored by the applicant, and the benefits of mining, inflated. Considers that the application should be declined, with the adverse impacts likely being significant. Of particular concern is the spatial scale and duration of the effects of the mining activity, and the uncertainty around the avoidance of effects on Westland petrels and other threatened avifauna. Considers that a much higher level of confidence in the effectiveness of the consent conditions to identify and properly manage adverse effects is needed. Comments include legal submissions. These outline that the key adverse impacts are considered to include light-related disorientation and grounding of Westland petrel, habitat loss and ecological change across the Barrytown Flats, displacement of indigenous species, and cumulative effects (particularly when the neighbouring Central Block mining and WSP consents are considered). Also submits that the proposal risks significant adverse effects on kororā/little blue penguin, matuku/bittern, koitareke/marsh crake and pūweto/spotless crake. States that these impacts engage directive provisions in the NZCPS and NPSIB, particularly the directives to avoid adverse effects on threatened and at-risk indigenous species and to adopt a precautionary approach where effects are uncertain, unknown, or potentially significant. Considers that the proposed conditions do not overcome those concerns, and that given the uncertainty and limitations in the claimed regional benefits, the adverse impacts are sufficiently significant to be out of proportion to any established regional or national benefits. While strongly opposed to the application, if the Panel were minded to grant the application, considers that it is imperative that robust conditions are imposed to ensure environmental outcomes promised are achieved, and includes comments on proposed conditions to this end.	Decline the application.
34	Katherine Crick	Notes the desirable aspects of their land, including the views and natural character. Notes the human cost of consenting processes on neighbouring families, the growing concern within the community, the re-establishment of the CCRG and their experience of the process with the community over the Central Block consent, including bullying experienced. Notes that some better conditions for the community and the environment were gained through the appeal process but that these conditions have not transferred over to this Application. Considers that the application amplifies all the adverse effects and considers that it is hard to consider this application in isolation, with the incremental applications for parts of the whole project having, in their view, lessened the protections for the community and the environment. Notes that the proposed mining operations will be directly visible in the view from their property. Notes concerns regarding approvals granted for the MSP and relocated WSP, and the management and monitoring of these. Considers it unclear what minerals are to be targeted and what it is intended to do with them. Concerned about impacts that have arisen from similar mining operations overseas; and the volatility of the mining industry requiring Government help. Considers the proposed $300,000 bond to be too low and that it should be increased.	That the application be declined. If granted, the strongest conditions to protect the community and environment should be in place, including adoption of the recently published guidelines for radiation safety. The conditions for the first consented block should be stronger, as well as being appropriately reinstated where they have been dropped.

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		Concerned about the noise from additional trucks on the narrow winding road, and the impact it will have in the peaceful enjoyment of their property; along with the negative impacts and wear and tear on the road and safety implications of these additional heavy vehicle movements. Concerned about the intrusiveness of on-going mining operations on the enjoyment of Pakiroa / Barrytown beach. Considers it unknown how tourist perceptions may be affected by large scale long term mining operations. Considers that the stress, concern and worry arising from delays and changed plans should not be understated. Concerned about increased levels of industrialisation threatening the Westland Petrel/tāiko, including altering their breeding behaviour. Notes that their radon monitor indicates high levels of NORM in the area even without mining. Concerned about the amplification of negative effect from radiation by mining. Considers it unclear what will happen with the more concentrated and radioactive minerals from the secondary processing at Rapahoe, or to what extent and in what state they will be stored, transported or returned to the Barrytown mine Site. Considers that the recently published guidelines for managing NORMs safely should form the basis of any conditions, if the application is granted. Concerned about the impact of AF8 on the structure of the mining operations, in addition to stranded workers needing to be accommodated and adding strain to a stressed community. Notes the stress on people in the community who are considering selling their land, and the uncertainty of impacts on property values and the ability to sell.	
35	New Zealand Conservation Authority	Not opposed to this application, provided the recommendations of DOC and Dr Elizabeth Parlato are adopted, the information gaps they identify are adequately addressed, and enforceable monitoring, mitigation and rehabilitation requirements are secured through the conditions of approval. Recognises the proposal's potential benefits, but considers that protection of ecological and cultural values should be secured through clear approval conditions, rather than relying solely on statements of intent or future management plans. Notes that replacement of affected wetlands with progressively constructed wetlands offers potential ecological benefits, but that the extent of those benefits depends on successful establishment, ecological functioning and long-term protection. Concerned about the impacts of the proposed activities on protected and wildlife and native fauna. Notes that the application includes a range of mitigation measures for impacts on wildlife, but that further recommendations are made in Dr Parlato's assessment and DOC's Section 51 Report. Considers that the application should only be approved if these recommendations are adopted. Considers that an increase in wetland area alone does not demonstrate an ecological gain, and that before approval, the Panel should be satisfied that wetland extent and classification have been adequately resolved and that the effects of wetland loss, including the period before replacement habitat becomes functional, have been assessed. Also considers that the final management plans should be informed by adequate baseline information and reviewed in consultation with the Department before relevant works commence. Notes that potential impacts of the operation include noise, dust and recreation use of the beach aligning the Site, which are addressed in the Marshall Day Acoustics report and proposed dust management plan. Considers that if the application is approved, a robust monitoring and compliance process needs to be put in place as a condition of the application approval which includes who is responsible for the monitoring, frequency, mitigations and consequences if the intentions are not enacted. Notes (in terms of Section 4 of the Conservation Act 1987) the engagement undertaken with Te Rūnanga o Ngāti Waewae. Considers that ongoing engagement with mana whenua should inform appropriate consideration of cultural values, taonga species and freshwater ecosystems throughout the project, including rehabilitation. Considers that the modified condition of the Site does not remove the need to assess and manage effects on native lizards, birds and freshwater ecosystems. Supports the recommendation that existing wetland habitat should be retained until at least an equivalent area of constructed wetland is functioning.	
36	Chris Esther	Considers that the economic information provided to support the Substantive Application cannot be relied upon, as considers that there are a number of significant issues with the economic and financial information provided. This includes: - That the benefits of an earlier stage, already consented and secured under the RMA, should carry no weight in the section 85(3) proportionality assessment. - That section 81(5)(b) cannot be applied to the application and accordingly only benefits solely provided by the Southern Block can be used to support the application. - That Mr Ballingall's statement of evidence folds in activity that does not depend on this approval. The analysis does not show what the Southern Block adds over and above the consented Coates block and MSP and therefore the headline numbers cannot be used as evidence of the benefit of granting this application. - That the economic assessment derives from a financial model, and the report relating to this model and the review of it (including the nature of that review) is not included in the application, which means inputs used cannot be tested. Also notes that the model used is one that the applicant has told the NZX its own shareholders may not rely on.	Decline the application and consents.

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		- Concerned that the multiplier used to estimate indirect jobs is an overestimate, and that where staff are drawn from existing West Coast employers or migrate in, the estimated increase in district jobs is displacement or in-migration, not net local employment, and that in-migration is what drives housing pressure. - That it is not credible to assert that only profits will leave the region, and that the regional impact assessment should apply an explicit leakage assumption. - That the economic costs are not quantified, and a reason is given to set aside each of them; and that there are unaddressed risks / lack of sensitivity analysis for multiple factors, such as the ilmenite market and energy costs.	
37	Coast Road Resilience Group (CRRG)	Does not consider that the application provides sufficient information for the Panel to reach a decision, particularly in terms of the level of radioactivity of the mineral sands; the effects of the Proposal on the environment; and the economic assessment of the Proposal. Considers that the Panel and submitters do not know how radioactive the mineral sands are across the proposed processes they will be subject to, and that without this information, steps to assess the level of radiation and address preventable risks have not been identified, and, therefore, cannot be taken. Also considers that the assessment of the radioactivity of NORMs located in the Southern Block is not credible (and attaches an expert report from Dr Bradley), due to the tool used to test radiation levels; that there are shortcomings in inferring radioactivity based on elements detected using pXRF; and that pXRF testing is known to be wrong when used on mineral sands that are no longer in secular equilibrium, as is considered likely the case in this Proposal. Notes that information on waste material transported back to the Southern Block mine that has been made public through other processes has not been included with the Application, which indicates a level of radioactivity above the threshold in the Radiation Safety Act 2016, and which is proposed to be deposited, along with WCP waste in the unlined mine void as part of the mine's rehabilitation. Notes radioactivity information that it considers is lacking from the applicant's evidence, due to no testing having been undertaken, including in relation to groundwater, proposed slurry, the methodology employed for determining a baseline radiation level across the Southern Block, and the type of sample used for testing. Considers that the information on radioactivity provided as part of the applicant's evidence, fails to address known effects on the environment from mining, processing and disposing of NORMs, and that this will result in costs to address the impacts on the environment (including on people) retrospectively. Requests that, if the Panel is minded to grant consent, the applicant be required as part of consent conditions that it meets NORMs management requirements [with detail on these set out in the comments]. Considers that the application is unclear on whether the applicant proposes to extract rare earth minerals from the Southern Block mineral sands, and notes that this is relevant with respect to radioactivity and the radioactivity effects on the environment of this Proposal in addition to the baseline, because it is in this fraction of the mineral sands that most of the radioactive minerals can be found. Considers that if rare earth minerals or other materials are proposed to be extracted, then the application needs to be amended: to make this clear; apply for the relevant consents for this extraction; and to provide additional assessment of the processes involved, and the consequential effects on the environment, including costs, from radiation effects resulting from this activity. Considers that the insufficient information about radioactivity of the NORMs throughout the proposed process outlined in the Proposal, as well as the application not being clear what the applicant proposes to extract, makes it difficult to assess the effects of the proposal compared to the current baseline and calculate economic benefits. In relation to the economic benefit analysis, includes an expert report from Prof Glenn Banks. Concerned that the Proposal does not provide an adequate assessment of the alleged significant regional and national benefits of the Proposal, including in relation to sensitivity testing to account for the volatility in commodity price throughout the life of the mine; the assumption that export revenue and GDP figures demonstrate a significant national and economic benefit; lack of calculation of net economic benefits and of consideration of costs when calculating benefits; and omission of various impacts of the proposal in the economic assessment. Also considers that the FTAA does not provide for consideration of the economic benefit resulting from already consented processing plants. In relation to wetlands, includes an expert report from Dr Brian McGlynn. Considers that the Proposal does not provide an adequate assessment of its effects on the existing wetland, and does not address whether the effects management hierarchy was applied. Considers that the partial restoration of the Site to a wetland once the proposed mining is completed is likely insufficient to offset wetland loss. Considers that the entire area should be returned to wetland. In relation to lighting, includes an expert report from Mr Mike Geddis. Considers that the Proposal does not provide sufficient information with respect to light effects, to allow an assessment of its effects on Westland Petrel tāiko; and that any consent should include a condition for a lighting management plan to guide design while managing effects on wildlife, and require seasonal controls to address the fledgling period. Considers that the Proposal requires consent under cl 5(4)(a) of the NESCS, but notes that the proposal does not seek such a consent nor address management of contaminated land. Concerned that there is no consideration of cumulative effects from this Proposal together with the effects from earlier consents. Considers that it unclear what each previous consent that is relied on covers and if earlier consents have already addressed some issues, and that this will give rise to difficulties knowing what consents are or aren't in place; and what conditions apply to which component of the project, making compliance and enforcement challenging, and adding to the cost of the Proposal.	Decline the application

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		Considers that there are a number of consents which have not been applied for and are not yet in place, and that there is insufficient information for the Panel to be able to grant consents relating to transporting waste material from the MSP to the mine; and the WCP receiving MSP waste material. Also considers that the long-term adverse effects from the presence of the WCP for the 35-year timeframe sought under this Application have not been adequately considered by previous consent applications. CRRG's primary submission is that there is insufficient information for the Panel to make a decision on this application, and accordingly this will constitute an error of law. However, if the Panel is minded to grant consent, CRRG submits that such a consent should incorporate conditions that address, among other things: radiation management for mining of NORMs; transport, incorporating the transport conditions from the Central Block consent with operation hours restricted so as not to allow no mining or trucking on Saturdays or Sundays; Westland petrel/tāiko and avian management; lighting management; dust management; mine rehabilitation; Community Liaison Group and community agreement; and a bond. This should include a requirement to comply with specified guides, with oversight from the Office of Radiation Safety and consultation with the Technical Advisory Group.	
38	Greg Maunsell	Recognises the potential economic benefits for the community, as well as the possibility that the disturbed land area will be left in an enhanced condition compared to its current state, but concerned that the way things have unfolded indicates that this may not be the case. Concerned about the assessments of the noise and visual disturbance, including omissions in the noise assessments and lack of assessment of cumulative effects; and that bunding will not prevent significant disturbance to their property, nor result in effects that are insignificant or only short term. Concerned that there has been a general lack of concise, consistent information, and that they have not been given due consideration as an affected party, in terms of radiation exposure, and impacts on food and water supplies. Questions if Canoe Creek is able to service the project's year-round demand for water. Concerned about a resource consent having been issued to locate the WCP adjoining their property without their involvement in the consent process. Notes discussions undertaken between their representative and the applicant, and raises concerns that there has been a lack of accurate information, a lack of open and honest conversation, and bullying and intimidating behaviour towards them. Concerned that discussions on mitigation options that would enable them to continue living on their land safely have not been formalised and that the applicant is not acting as a 'good neighbour'. Does not consider it acceptable to have not been supplied with written technical details of the exact processes and equipment that will be used. Questions how this application is of national significance to NZ, if Australia are going to enjoy the majority of the profit.	Deny the application.
39	Tristan Bennett	Concerned about increased heavy traffic on an already busy road, mixing commercial, industrial and tourist traffic. Seeks a reduction in the speed limit from 100 km/hour to 80 km/hour through the residential area of Barrytown on SH6 due to mine trucks regularly using this road and the danger of this intersection entering the highway. Requests resealing of road surface of SH6 through Barrytown with a surface with a lower road noise to reduce tyre noise from increased traffic. Seeks modification of the corner at the southern entrance to Ten Mile Valley by cutting in, to reduce the need for trucks bigger than 20 ton to cross the centre line to navigate it. Notes that concerns are existing, but will be increased by heavy traffic from the mine to Rapahoe, and that it is in the best interest of road users and local residents for the applicant and Transit to consider these minor modifications.	
40	GA & GA Langridge Family Trust	Opposes the proposal, noting that under the proposal, all their farmland would have mining bordering it, and that they live there for its peaceful location, good community, abundant nature and the opportunity to engage with a beautiful environment. Concerned about management of radioactivity, including where any leftover components after the processing at the MSP in Rapahoe would go; and how and when slurry coming back from the MSP and deposited in the Northern Resource Block, alongside their property, will be monitored for radioactive components and radioactivity. Requests that the Panel look closely and take advice as to where the radioactive minerals would go during and after processing, including during transport and storage stages; and that good provisions are in place for monitoring for radioactivity, including into the future. Seeks assurance on, and monitoring to safeguard them, about the release of radon gas during the mining process and its effects on public health. Questions how impacts from noise and dust from mining would be managed to the south of their property, and whether grazing on their property would be viable. Concerned about the impacts of large scale industrial noise and bird scarers on large flocks of birds on the flats. Requests careful consideration of the proposal's impacts on preexisting waterways, springs and wetlands, as a result of cutting up the deeper layers of any naturally layered wetlands on the flats. Considers that the Coast Road is not a good option for industrial scale activity or mining traffic, with trucks exacerbating existing dangers, and impacting on the character and driving experience of the road, which risks the tourism industry. Considers that expert views do not necessarily reflect the real impacts on the people of Barrytown/Coast Road, nor make the less obvious impacts any less important.	
41	Chris Cromey	Concerned about the operation of a mine in a geographically constrained area with only one road in and out.	

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		Concerned about dust, and the inadequacy of using dust deposition gauges to monitor dust, which they consider are likely to under-sample the amount of suspended dust that may be in the air at that point. Outlines how an equivalent tool is used in the marine environment to measure waste particle deposition, and how this compares with proposal. Notes that only one deposition gauge at the boundary is proposed, with no transects, and considers that patchiness of dust particle deposition cannot be assessed with only one sampling point. Considers that dust deposition gauges at the mine Site could be empty because of under-sampling, which could be taken as an acceptable monitoring result indicating that there is no dust depositing at that very specific location, despite dust actually passing to one side of the gauge, or over the top of it and onto the sensitive receptor. Notes that the Project will extend the life of the mine beyond the consented middle block, and believes it is serious consideration should be given to the risk of AF8, with the Applicant required to have enough food, shelter, clothing and medications to care for the average number of employees expected to be on-site at any one time, for a minimum of two weeks.	
42	Wolfgang Jager Family Trust	Opposes the mine going ahead. Notes their connection with the area and its value to them, and the importance of protecting the natural integrity of the ecosystem. Notes that the highway is a crossing zone for, and near to the significant Westland Tāiko black Petrel colony. Concerned that consent conditions will not stop these birds being negatively affected. Concerned about the level of radiation the proposal will release, the impact on the health of future generations, and the tarnishing of New Zealand's "pure green" brand. Concerned that recreation activities will be impacted by noise, dust and heavy vehicle traffic. Considers that Barrytown does not have the infrastructure to support the additional people and traffic. Concerned that penguins will be impacted directly by the proposal and by noise and traffic. Concerned that pollution will make its way to the ocean, and impact nature. Considers the Barrytown Flats to be one of a kind, and concerned about how Rio Tinto mining destroyed a section of the flat and took generations to restore. Concerned about impacts on the current peaceful nature of the area.	

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