

IN THE MATTER of the Resource Management Act 1991
AND
IN THE MATTER of an application for resource consents by **TIGA
MINERALS AND METALS LTD**
AND
IN THE MATTER of a submission by the
COAST ROAD RESILIENCE GROUP INC

Lay witness statement of evidence of Suzanne Hills
For COAST ROAD RESILIENCE GROUP INC
Topic Indigenous Biodiversity

Dated: 29 January 2024

Coast Road Resilience Group Inc

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INTRODUCTION

1. My full name is Suzanne Denise Hills. I have a B.Tech (Hons) in Biotechnology and Bioprocess Engineering, Massey University, 1992. I had a career in the food industry in New Zealand and the UK in technologist, technical management and auditing roles for 17 years. Before moving to the West Coast I spent 8 years on a life's sailing adventure. I hold current roles of West Coast branch chair of Forest & Bird; chair of Coast Road Dawn Chorus Inc, and trustee of the West Coast Penguin Trust.
2. I am a member of the Coast Road Resilience Group Inc. (CRRG). I have been asked by the CRRG to provide lay witness evidence in relation to indigenous biodiversity. I am not an expert in this matter and this report is not intended as expert evidence. I have prepared this statement of evidence for the CRRG in relation to this application.
3. I am familiar with the TIGA application site because I have lived on the Barrytown Flats for 7 years.
4. In preparing this statement of evidence, I have reviewed the following documents.
 - TiGa RC Application AEE Final and all of the application's attachments; all of the Amendment to Application documents; and all of the Request for Information documents.
 - Final Terrestrial Ecology Peer Review by Mike Harding
 - Both WGA hydrological and hydrogeological Peer Reviews
 - Statement of evidence - Gary Bramley terrestrial ecology
 - Statement of evidence –Robert Brand
 - Statement of evidence – Dr Susan Waugh
 - Statement of evidence of Kate Simister
 - Submissions 61, 223, 237, 241, 251, 309
 - GDC and WCRC s42a Officers Reports
 - Grey District Significant Natural Areas Assessment – 1 June 2006 [PUN-W034]
5. In addition to providing this statement in support of the CRRG, I also lodged a personal submission in relation to the TIGA Minerals and Metals Ltd application.

SCOPE OF EVIDENCE

6. This evidence focuses on the following matters: indigenous biodiversity, their habitats and ecology. Other CRRG members and expert witnesses will be providing evidence on other aspects of the application.

Summary

7. The proposed site sits amongst the best remaining coastal lowland habitat on the Barrytown Flats. The proposal would have adverse effects on indigenous flora and fauna and their habitats in the coastal environment.
8. The proposal is inconsistent with the requirement of Policy 11(a) of the New Zealand Coastal Policy Statement (NZCPS) to avoid adverse effects on threatened or at-risk indigenous species and their habitats.
9. At-risk and threatened avifauna would likely be affected by noise, lighting, vibration, human activities, and vehicle movements near their habitats, particularly during the breeding season.
10. The proposed management activities and the 20m buffer from wetlands are not sufficient to avoid adverse effects.
11. The proposal would add new carbon emissions, adding to the cumulative impact of exacerbating the effects of climate breakdown, and directly impact local at-risk and threatened species.
12. The proposal is inconsistent with the precautionary approach of the National Policy Statement on Indigenous Biodiversity (NPS-IB).

Specific Concerns

13. The proposed site sits amongst the best remaining coastal lowland habitat on the Barrytown Flats playing a crucial link in ki uta ki tai (the mountains to the sea). The coastal lagoons provide critical connectivity to the coastal marine area including the marine reserve to the north, and connectivity from the lowland wetlands up into the Paparoa foothills and alpine tops. North of the site is Maher Swamp(PCL) and scheduled 1 and 2 wetlands on private property directly to the north of Burke Road. South of the site is the Canoe Creek conservation area and the remnant sand plain forest of the Langridge scenic reserve. Directly north-east of the site is a 79ha QEII conservation covenant that extends up into the Paparoa foothills and borders with Public Conservation Land.

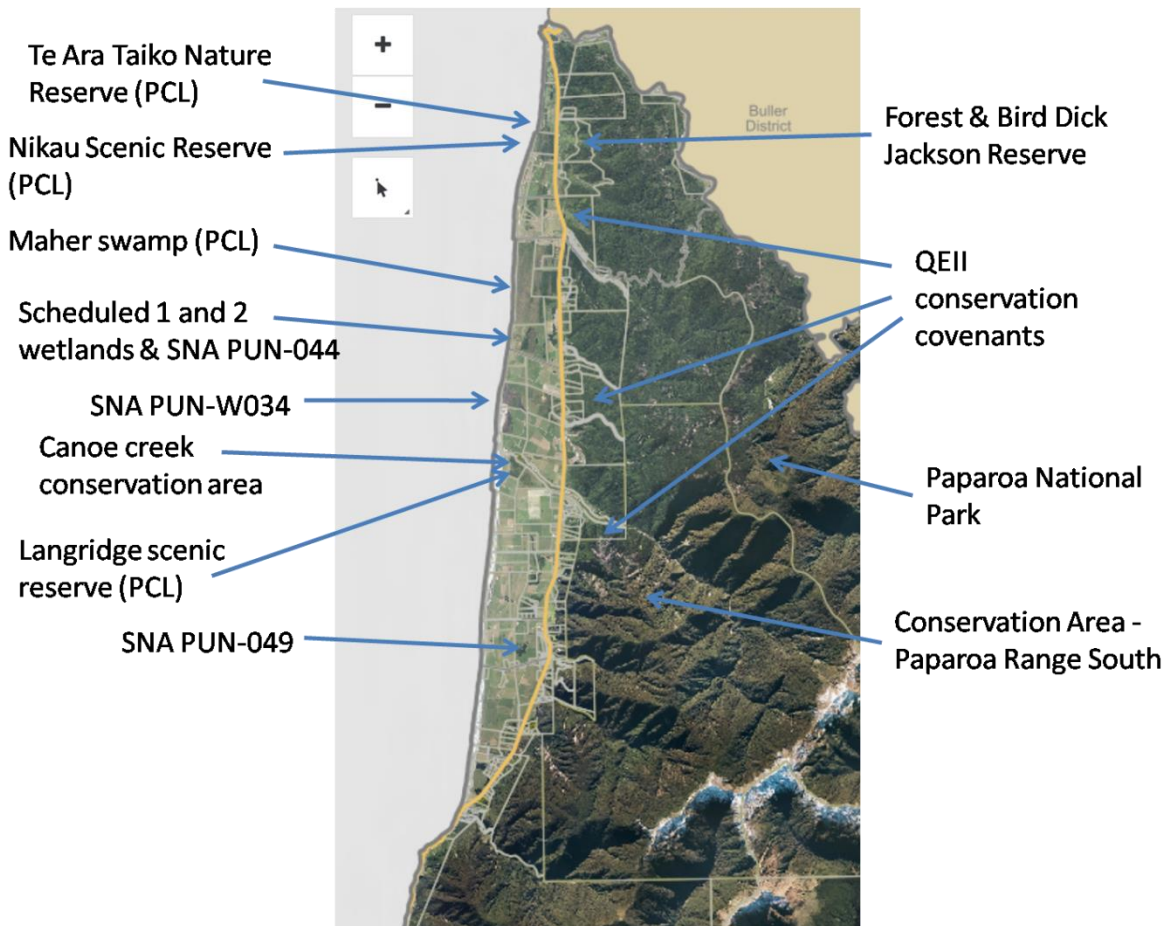


Figure 1—some of the protected areas of the Barrytown Flats

14. The applicant holds an 800ha mining permit (MP60785) covering the northern half of the Barrytown Flats (excluding areas of Paparoa National Park, Te Ara Taiko Nature Reserve and the Punakaiki Marine Reserve). The NZ Petroleum and Minerals recommendation report for the issue of this permit **entirely dismisses** the ecological sensitive areas of the Barrytown Flats outside of the Crown Minerals Act Schedule 4 areas. Refer Attachment One: *Recommendation Report Date: 27 June 2022 To: Susan Baas, National Manager Petroleum and Minerals From: Tim Journeaux, Principal Minerals Advisor Application: Minerals Mining Permit 60785, Subsequent Permit Application*. The application summary mistakenly states: *Sensitive Areas: The permit area does not overlie any Schedule 4 land, World Heritage sites or any other sensitive areas* [bold our emphasis].

15. As part of the above report, the Environmental Capability Assessment (ECA) undertaken by SGS included this misinformation: *The Applicant, Barrytown JV Limited, is currently undertaking similar permitted activities in NZ and has illustrated experience in respect to environmental management activities in relation to the proposed mining activities* [bold our emphasis]. In s7.3.3 of the report SGS contains further misinformation: *Community Consultation has shown the community to be largely engaged with and supportive of the project...The community have also indicated an interest in being involved with any rehabilitation plans, especially in relation the areas of concern i.e. wetlands and/or*

promoting connectivity between wetland and other ecologically significant areas. There is also the potential to add value to the current protected areas in the northern areas through active management of pests etc., [Note: this is already being undertaken by community groups and organisations] this would be particularly important for the Westland Petrel and in promoting connectivity from the Paparoa Ranges to the coastal lagoons and wetlands, a sequence which is unique in the west coast.

It is patently obvious that any members of the community motivated to give their time to wetland rehabilitation post mining would be against such a proposal in the first place.

16. Given the misinformation and the astonishing oversight of the sensitive areas of tāiko habitat (directly under flight paths and adjacent to breeding ground), and the precious remnant coastal wetlands and indigenous forests, I conclude the environmental assessment for the mining permit cannot be relied on. It is therefore imperative that through this resource consent process the ecological effects are considered with great care.
17. Mining is proposed up to 20m from wetlands and coastal lagoons, including a SNA, all of which are important habitats for threatened and at-risk indigenous species. Refer to *Significant Natural Areas Programme Punakaiki Ecological District PUN - W034 SNA*¹. I note the entire coastal lagoon sequence, including inside the proposed application area, is recommended as a SNA in this report. I also note paragraph 35 of the Terrestrial Ecology Peer Review by Mike Harding: *Canoe Creek Lagoon, and its surrounding riparian vegetation and habitat, is ecologically significant; it should be regarded as an SNA.*
18. The applicant has provided incomplete evidence to establish what minimum buffer is required to avoid adverse effects on at-risk and threatened species. A thorough, fully independent and impartial assessment by a suitable qualified ecologist is required to establish minimum setbacks. Both the proposed 20m setback, and the 100m setback that was discussed during the hearing of the previous application, are arbitrary.
19. I note paragraph 53 of the Terrestrial Ecology Review: *The proposed buffer of 20m is narrow, especially as at the Canoe Creek Lagoon margin – and probably elsewhere – the adjacent vegetation/habitat is ecologically significant (an SNA). It is likely that a 20m separation between mining activities and fauna habitat will be insufficient to avoid adverse effects on sensitive species using that habitat. A wider buffer should be provided to reduce this risk. **The earlier hearing decision noted that there was evidence that a buffer of 100m would be required to mitigate effects on avifauna*** [bold our emphasis].
20. There is a very real risk the applicant's proposed (and theoretical) water quantity management systems would fail to control partial drainage, water level range or hydrological function of the coastal lagoons and wetlands and therefore would disrupt naturally functioning systems. At the very minimum, as a precautionary approach, there

¹Link to Boffa Miskell report here: [PUN-WO34 SNA](#)

should be a 100m setback (more if required to avoid adverse effects on at-risk and threatened species) from the coastal lagoons, Rusty Lagoon and the kahikatea wetland on the private property to the north.

In note paragraph 35 of the Terrestrial Ecology Peer Review: *If there is any mining-induced alteration to hydrology (especially water levels) at adjacent wetlands, there remains a risk that there will be adverse effects on indigenous biodiversity.*

21. There is a risk that the applicant's proposed water quality management systems would fail to control metals and metalloids below threshold levels in the discharge waters and potentially adversely affect fish fauna and other indigenous biodiversity. The proposed mining process will likely cause metals and metalloids to be leached from the disturbed sub-soils, mineral sands and mine waste backfill on exposure to rainwater and air. A Toxicant Management Plan is proposed to be developed only in response to a threshold level exceedance. The proposed actions to be taken include offsetting or compensating for more than minor effects. This plan should have been developed at the resource consent application stage and should detail actions according to the effects hierarchy of avoid, remedy, and mitigate. Offset and compensate actions for more than minor toxicity effects, such as from metals and metalloids, are inconsistent with Policies 4 and 5 in Chapter 7 of West Coast Regional Policy Statement. Additionally, they cannot be accepted because the applicant has provided no detail on the proposed offset and compensation measures.
22. The proposed trucking during dawn and dusk periods, and the night-time light vehicle movements put kororā at risk of serious injury and death from vehicle collisions during the breeding season. I note Mike Harding's review covers this in detail and agree with his recommendation in paragraph 117: *To help avoid adverse effects on kororā, it would be prudent to restrict mine traffic on the Coast Road to hours of daylight, outside the dawn and dusk periods, for the July to December period.*
23. Further to the above, due to the excellent work of the Paparoa Wildlife Trust operating on the eastern side of the Paparoa range in controlling mustelids and providing crèche facilities to protect roroa chicks, and in tandem with the investment the Department of Conservation has made into landscape scale pest control of the Paparoa range, roroa are regularly heard by residents on the Barrytown Flats. People have seen evidence of the birds around their properties with 'screwdriver holes' and 'scratchings', others have rescued injured kiwi from the Coast Road, or seen or recorded them on trail cameras (Ref: video evidence to be provided at the hearing 'Roroa at Coast Rd property'). The proposed trucking during dawn and dusk periods, and light vehicle movements during the hours of darkness will put roroa at further risk of injury or death from vehicle collisions.
24. The proposed operation is entirely diesel fuelled, including diesel generators running the processing plant for an unspecified timeframe. In Mr Brand's statement of evidence, he states in paragraph 38: *TiGa has committed to connecting to the West Coast power grid instead of using diesel for its processing plant power requirements.* I note this and other

emission reduction measures stated by Mr Brand have not been proffered as consent conditions.

25. This proposal would add new carbon emissions, exacerbating the effects of climate breakdown and directly impacting local indigenous biodiversity. Local examples of climate breakdown impacts include: Tasman Sea heatwaves driving colder waters deeper and changing the distribution of food sources for marine species; further loss of West Coast kelp forests; sediment loading in coastal waters from intense rain events, causing difficulties for visual predators like kororā; Tasman Sea storm surges encroaching into the coastal lagoons; predators moving up into higher elevations of the Paparoa ranges.
26. The proposal lacks an assessment against the *National Policy Statement Indigenous Biodiversity 2023*. It is inconsistent with NPS-IB Policy 3: *A precautionary approach is adopted when considering adverse effects on indigenous biodiversity*.
27. The proposal is inconsistent with Te Mana o te Taiao/Aotearoa New Zealand Biodiversity Strategy 2020 and its implementation plan. The strategy and its implementation is a key component of fulfilling our international obligation under the United Nations Convention on Biological Diversity. The implementation plan assigns multiple lead agency responsibilities to regional and district councils across all of the 13 strategy objectives, including: *Objective 3: Biodiversity protection is at the heart of economic activity*; and *Objective 13: Biodiversity provides nature-based solutions to climate change and is resilient to its effects*. The proposal is also inconsistent with the Global Biodiversity Framework, to which New Zealand signed up in 2022, with obligations on signatories to halt further extinctions of indigenous species.
28. I note the proposed site includes indigenous vegetation of several mature kahikatea trees and harekeke. The application proposes to remove this vegetation. This proposed clearance does not meet the permitted or controlled activity standards of Te Tai o Poutini Plan (TTPP) for vegetation clearance in the coastal environment. This section of TTPP has immediate legal effect.
29. I have serious and valid reservations regarding the applicant's true commitment to the area's ecology and indigenous biodiversity. Alarm bells rang on reading the applicant's submission 493 to Te Tai o Poutini Plan (TTPP) where they seek:
 - Management of effects, rather than minimisation of effects
 - Support or recognition of the operational need to locate within SNAs
 - That avoid, protect, prevent, or minimise, restrict and preserve provisions be limited to SNAs.

These signalled aspirations do not bode well with for the area's ecology, nor are they consistent with the NPS-IB.

Opportunity cost

30. The mining proposal has an opportunity cost of continued coastal lowland restoration to achieve urgent climate, biodiversity, and freshwater goals.
31. The Coast Road community is diverse and is made up of a mixture of multi-generational families and people new to the area. There is a growing environmental awareness and commitment to building a better world amongst the community. I note the Barrytown Flats has three QEII conservation covenants within 4km of the proposed site, one of which is a forest and wetland regeneration project in the Canoe Creek catchment.
32. Conservation Volunteers NZ has a base on the Barrytown Flats with the West Coast's largest nursery and active planting projects at Te Ara Tāiko Nature Reserve and nearby Bullock Creek (both public conservation land). They have a current planting capacity of 100,000 p.a., with the ability to increase to 500,000 p.a. with on-growing satellite sites.
33. There is an established community predator trapping group, Coast Road Dawn Chorus, which operates on the Coast Road from 12 Mile to the Truman Track. Over 100 people (including Earthcare Papa Taiao students from Greymouth High School) are involved in hosting a trap on their property or checking trap lines on public conservation land, including the lower reaches of the Croesus Track and Maher Swamp on the Barrytown Flats, Dolomite Point, and the Truman Track.
<https://www.facebook.com/CoastRoadDawnChorus>
34. Recently the Paparoa Predator Free project was launched:
<https://www.paparoapredatorfree.nz> a 230,000 hectare project from the Buller River to Grey River, and the Tasman Sea to the Inangahua River, encompassing the Paparoa Range (and the Coast Road community).
35. The Coast Road has an ideal goldilocks climate for native forest and wetland regeneration with its regular rainfall, plentiful sunshine hours and mild temperatures. As CVNZ has proven, native regeneration on the Barrytown Flats is a guaranteed success. The Paparoa Range provides the ecological seed source.
36. For all of these reasons the Coast Road community is ideally placed to continue to build on regenerative projects, whether that is active or passive: the whenua wants to be wetland and indigenous forest again. This aspiration is consistent with the NPS-IB *Policy 13: Restoration of indigenous biodiversity is promoted and provided for. And Policy 14: Increased indigenous vegetation cover is promoted in both urban and nonurban environments.*
37. With active planting, in as little as 5 years, a canopy starts forming. In combination with pest and predator control, the Barrytown Flats could operate as a powerful carbon sink, earning carbon and biodiversity credits; provide significant biodiversity, freshwater,

economic and wellbeing co-benefits; and provide meaningful and impactful jobs for rangatahi in the nature economy, including nature tourism. Add initiatives such as local food gardens, biofuel crops, compost production, a combined walkway/cycleway, shared transport systems, a conservation centre of excellence, a tiny home village, and the potential for a truly sustainable and regenerative community and economy emerges.

38. This is the opportunity cost that will likely be forgone with the TiGa operation – if the proposal is consented and a pathway is opened up for the applicant to realise their long-term multi-decade plan, even the most environmentally committed people are likely to become disillusioned due to the ongoing stress of living amongst an operation with its adverse social, wellbeing, ecological, freshwater and climate impacts. The time invested by local community members in opposing the application has already been considerable and has been a major distraction from advancing positive regenerative initiatives. Older generations have a responsibility to provide hope and action for our young people that is so desperately lacking with the current business-as-usual model, of which this proposal is most certainly one.

Submissions and peer reviews

39. I wholeheartedly endorse Mike Harding’s terrestrial ecology peer review and congratulate Mr Harding for his thorough and fully impartial review. His reference to the Barrytown flats environment as an ‘enclave’ (para 38) particularly resonates. Para 38: *The proposed mine location lies between areas of protected land to the north and south; and between the coast to the west, and forested slopes of the Paparoa Range to the east. Ecologically, it is an enclave within areas of indigenous vegetation and habitat, substantial portions of which are protected as public conservation land.*
40. I endorse submissions from the highly reputable organisations of: Forest & Bird (237); West Coast Penguin Trust (61); and the QEII Trust (251) and share these organisations’ concerns.
41. I agree with the Department of Conservation submission (241).
42. Many individual community members raised concerns regarding the impacts on indigenous biodiversity, species, habitats and ecosystems. In particular I wish to highlight the following detailed submissions from knowledgeable and experienced individuals:
- Submission 223 by Dr R Gamlen-Greene on freshwater values, fish fauna and avifauna.
 - Submission 309 by F McDonald on kororā road fatalities.

Comment on GDC s42a Officers Report

43. Mr Harding made further and modified recommendations on analysis of the ecological issues raised by submitters – including from experts Dr Susan Waugh and Bruce Stuart-Menteath. The modified recommendations do not appear to be reflected in the s42a report, in particular Mr Harding’s important paragraph 97: *I proposed in my Review (para*

59, above) that the risk to tāiko could be reduced by restricting mining operations and vehicle movements to daylight hours during November to January (inclusive). Further research in response to the information presented by submitters, leads me to conclude that it would be prudent to further reduce the risk of light disturbance to tāiko by ensuring all activities associated with the mine operation (including vehicle movements) are restricted to the hours and weather conditions during which no lights of any form are required.

44. I agree with Mr Harding's final sentence above. Avoidance of adverse effects on avifauna should be driven by their behaviour, not by varying definitions of night-time. Additionally, timing of the use of lights depends on weather conditions.
45. I agree with many points made in the s42a Officers Report and support the precautionary approach reflected in the recommendations as is now required by the NPS-IB. In particular I highlight paragraphs 229, 239, 279, 284, 313 and 323.

Conclusions

46. The proposed site sits amongst the best remaining coastal lowland habitat on the Barrytown Flats. The proposal would have adverse effects on indigenous flora and fauna and their habitats in the coastal environment.
47. At-risk and threatened avifauna would likely be affected by noise, lighting, vibration, human activities and vehicle movements near their habitats, particularly during the breeding season.
48. The proposed management activities and the 20m buffer from coastal lagoons and wetlands are not sufficient to avoid adverse effects. The applicant has provided incomplete evidence to establish the necessary minimum buffers.
49. The proposal would add new carbon emissions, adding to the cumulative impact of exacerbating the effects of climate breakdown, and directly impact local at-risk and threatened species.
50. The proposal is inconsistent with both the requirement of Policy 11(a) of the New Zealand Coastal Policy Statement (NZCPS) to avoid adverse effects on threatened or at-risk indigenous species and their habitats, and the precautionary approach of the National Policy Statement on Indigenous Biodiversity (NPS-IB).