

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 Marie Elder
For COAST ROAD RESILIENCE GROUP INC
Topic Transport

Dated: 29 January 2024

Coast Road Resilience Group Inc
Email: coastroadrg@gmail.com

INTRODUCTION

1. My full name is Marie Elizabeth Elder. I have a B.A. [Hons] English, Otago University 1977 and taught in Wellington secondary schools for 29 years, most recently as Head of Faculty at Wellington High School. Having moved to the Coast in 2008, seeking – and finding - a quieter, simpler lifestyle, I now work part-time on editing and proof-reading contracts and as secretary to the Barrytown School Board of Trustees. I have many community commitments including Truman Track trapping team leader, Civil Defence co-coordinator, book club convenor and elected community representative on the Dolomite Point Redevelopment Project.
2. I have been asked by the Coast Road Resilience Group Inc. to provide lay witness evidence in relation to transport. I am not an expert in the matters of transport and this report is not intended as expert evidence.
3. I am a member of the Coast Road Resilience Group Inc. (CRRG). I have prepared this statement of evidence for the CRRG in relation to this application.
4. I am familiar with the TIGA application site because I have lived on the Coast Road, just north of Punakaiki, for 15 years
5. In preparing this statement of evidence, I have reviewed these documents:
 - a. Full application document, prepared by Tai Poutini Professional Services Ltd
 - b. novo group Transport Assessment, original and revised
 - c. Marshall Day Acoustic Assessment
 - d. Tonkin and Taylor Review of Acoustic Assessment
 - e. Mike Harding Review: Terrestrial Ecology 12 Dec 2023
 - f. Tonkin and Taylor 15 November Consultant's Advice Note [CAN-001]
 - g. TiGa Noise Management Plan, draft [NMP]
 - h. Gary Bramley's Avian Management Plan [AMP]
 - i. Submissions received, and the summary of submissions prepared by Mark Geddes
 - j. Request for Information and Response May 2023
 - k. TiGa Proposed Conditions of Consent

Reference material is acknowledged in footnotes throughout.

Please Note: I have only been able to have a brief look at the 20 January Applicant Evidence and will respond to the transport aspects of this more fully at the hearing.

6. 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

7. This evidence focusses on transport. Other CRRG members and expert witnesses will be providing evidence on other aspects of the application.



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INTRODUCTION

8. I oppose the application due to adverse effects of heavy trucking on the State Highway, on its users, on community wellbeing and on the environment. The following evidence supports and expands on those concerns.

9. The definition of environment, RMA Part One '*Interpretation and application*' includes "*people and communities; and ... social, economic, aesthetic and cultural conditions*".²

¹ Cover page photos: <https://westcoast.recollect.co.nz/nodes/view/15339>
<https://www.google.com/url?sa=i&url=https%3A%2F%2Fventurenewzealand.co.nz>

² See case law: CA695/07 [2009] NZCA 73 between Forest & Bird, and Kapiti District Council and Kotuku Parks Ltd

SUMMARY

10. The applicant intends to truck 250,000 tonnes per annum of heavy mineral concentrate [HMC] along the part of State Highway Six [SH6] known as the Coast Road³, generating 350 truck and trailer movements each week. Each outgoing heavy vehicle would carry 30 tonnes of HMC⁴, to an estimated total weight of 50 tonnes including truck and trailer,⁵ the maximum permitted by Waka Kotahi on a NZ state highway⁶.
11. It is difficult to ascertain from application documents just how many truck and trailer movements there might be in any one day, given that they cite a 'maximum average' of 50 per day, and an 'average maximum' of 50 per day⁷. These terms have little if any meaning and could mean say 80 in any one day, if the company could claim there had only been 20 the day before. Or any other variation on those figures to an average of 350 per week⁸.
12. The only meaningful limit to truck numbers would be a daily, or hourly, maximum. The updated proposed Conditions of Consent refer only to a weekly average.
13. The application appears to be silent on the number of other heavy vehicles entering and leaving the site, for example for fuel delivery.
14. It is worth noting that from a proposed 200 truck and trailer loads per week in 2021, this proposal moves to 350, a 75% increase on the declined Barrytown JV Ltd application.
15. Whatever their other issues, 155 of the 198 submitters opposing this application, and two⁹ of the five neutral submitters have written, individually, of concerns about the proposed trucking. Often it is a prime concern. We found only one original submission, #109, from residents who mention living on the Coast Road but assert the trucking would not be an issue.
16. Principal concerns about the trucking centre around SH6 capability, road safety, noise and vibration, SH6 damage and maintenance, the tāiko/Westland petrel and kororā/Little Blue Penguin, and potential cumulative effects.
17. The importance of the Coast Road to the communities living along it, and its vulnerability, was highlighted by the notified Te Tai Poutini Plan [TTPP] principal planner Lois Easton at the 2023 TTPP hearings when she said the region is "*particularly reliant and vulnerable due to one main road*" which has "*very little resilience*".¹⁰
18. This highway is the Coast Road communities' single link to all services, social connection, education, economic wellbeing and recreation.

³ SH6 from Greymouth to Westport is widely known as the Coast Road

⁴ Application 3.5 p14

⁵ We can only estimate as TiGa have not specified the size, weight, make or model of truck to be used

⁶ From memory [reference misplaced]

⁷ Application 5.28 p42

⁸ novo group Integrated Transport Assessment 10 p3

⁹ #84 Conservation Volunteers NZ, #142 Barrytown School Board of Trustees

¹⁰ 'Coast infrastructure vital' Westport News 31 October 2023

19. Uncertainty as to in which direction TiGa would transport the mineral sands is adding to stress and anxiety in Coast Road communities. This is exacerbated by the possibility of other mines adding heavy traffic to the haulage route.
20. This statement of evidence links to detail in other CRRG lay witness statements including: adverse effects on community connectedness and wellbeing; adverse environmental effects including on the Westland petrel and kororā; adverse effects on the nature economy and reputational damage.
21. This evidence places considerable weight on the lived experience of Coast Road residents, noting the 2018 High Court decision on a Yaldhurst quarry, where the judge ruled *“the experience of residents should be regarded as ‘prime evidence’ and not dismissed easily.”*¹¹
22. It challenges the novo group Transport Assessment conclusion that *“the proposal can be supported from a traffic perspective and the effects on the traffic environment can be considered as being **less than minor**”*¹².
23. It also challenges the conclusion of the Marshall Day Acoustic Assessment, and Tonkin & Taylor Noise Review, that the proposed increase in trucking noise will be acceptable when considered in respect to existing vehicle noise and the existing ambient noise environment.
24. The application and supporting reports are silent on the difference between ‘noise’ and ‘sound’ and the effects each have on the human psyche and on wildlife. Noise is by definition disagreeable¹³ whereas sounds such as that of the ocean or birdlife are calming and pleasant. This renders invalid the reports’ assumption that all noises and sounds can be simplistically combined to give a total ambient noise level.
25. WCRC chair Peter Haddock, longest-serving member of the West Coast Regional Transport Committee [14 years in 2021] said: *“I bring [road safety] up at every meeting [annually with NZTA]. It is unacceptable that in today’s age that trucks have to cross the centre line to get around corners and hope with the grace of God they don’t meet someone coming the other way ... Our roads are not fit for purpose.”*¹⁴
26. Our newly-elected government representative, Tasman West Coast MP Maureen Pugh, when interviewed about the proposal on TVNZ, spoke supportively of the touted economic benefits. When asked whether she had concerns about road safety in the event of consent being granted, her reply acknowledged the safety issues: *“I think it’s a trade-off”*¹⁵.

¹¹ <https://www.stuff.co.nz/environment/109060561/victory-for-yaldhurst-residents-in-100000-quarry-battle> Dec 2018

¹² novo group report 49, page 10

¹³ Marshall Day Acoustic Assessment glossary p23

¹⁴ <https://www.stuff.co.nz/national/124767209/the-west-coasts-deadly-roads-onelane-bridges-narrow-roads-inexperienced-drivers> 1 May 2021

¹⁵ TVNZ Q and A 12 November 2023

27. Tim Kelly, Traffic Engineer and Transportation Planner, Nelson, writes,¹⁶ of the novo group Transport Report that it is *“fairly lightweight for such a significant proposal - no acknowledgement of seasonal variability in traffic volumes, no review of the crash history for roads to be used, no assessment of the wider transport routes to be used etc”*.

This evidence is an attempt to provide some of the detail he refers to.

WAKA KOTAHI

28. Waka Kotahi [NZTA] has made a neutral submission, #138, and to date do not appear to have given written approval to the TiGa application. The mine proposal is inconsistent with the primary function of Waka Kotahi under the Land Transport Management Act 2003, *“to contribute to an effective, efficient, and safe land transport system in the public interest”*¹⁷. It would not be possible for Waka Kotahi to fulfil this function were TiGa permitted to use the Coast Road to truck 250,000 tonnes of HMC per annum. The CRRG wrote to Nicole Rosie, CEO Waka Kotahi to this effect on 05 Oct 2023¹⁸.
29. It is of concern that the effective, efficient, and safe use of the Coast Road might depend on conditions, and on company compliance with those conditions. The burden of monitoring compliance is likely to fall largely to the community, and so the validity of conditions as a mitigating factor is questionable.
30. Even if Waka Kotahi were to grant written approval, there would still be a case for declining consent on the basis of adverse environmental effects, such as adverse safety effects, given the definition of environment is as quoted in my paragraph 9.

NOVO GROUP TRANSPORT ASSESSMENT

31. This statement of evidence challenges the transport assessment conclusion that *“the proposal can be supported from a traffic perspective and the effects on the traffic environment can be considered as being **less than minor**”*¹⁹.
32. The novo group report cites the Coast Road traffic volume as 1156 vehicles per day, having selected *‘the highest count available’* at a point in 2018²⁰, the year visitor numbers at Dolomite Point Punakaiki spiked to 511,000.²¹ 2018 was a peak year, not an average one, and the cited traffic volume does not consider either seasonal variation nor the proportion of heavy vehicles. The number is repeated without qualification or reference in the Marshall Day report²².

¹⁶ 18 December 2023 email to Marie Elder

¹⁷ <https://www.nzta.govt.nz/about-us/about-waka-kotahi-nz-transport-agency/our-legal-framework/>

¹⁸ CRRG to Waka Kotahi 05 Oct 2023 letter is Appendix 1. The only response to date is acknowledgement of receipt

¹⁹ novogroup report 49, page 10

²⁰ novogroup report 5, page 2

²¹ <https://www.doc.govt.nz>

²² Marshall Day Acoustic Assessment 5.5, p19

33. Mike Harding, in his Review – Terrestrial Ecology, 12 Dec 2023, cites annual average daily traffic at Canoe Creek as 786 vehicles, 11% [88] of which are heavy vehicles. As he points out, the application, at 50 trucks per day, would increase heavy vehicle traffic by 57%.²³
34. The novo group report cites ‘no crashes ... within a 100metre radius of the proposed access location in the most recent five-year period available’²⁴. These crash parameters are extraordinarily limited and it would have been more appropriate to provide crash data for the 102kms of potential haulage routes. See crash data my paragraph 51, pp 10,11.
35. 50 heavy vehicle movements per day exceeds even the 30 proposed to be permitted by the mining-enabling provisions of the draft Te Tai o Poutini Plan, MINZ-R3.
36. The novo group report, revised, dismisses potential effects on pedestrians or cyclists, anticipating that mine workers will not commute on foot or by cycle.²⁵ No consideration is given here to the risks posed to other Coast Road pedestrians and cyclists on the 100kms TiGa map out as a potential mine haulage route. For detail on some of the implications of this, see my section on Road Safety, especially pp 10 – 16.
37. The novo group report references the Austroads Guide to Traffic Management when drawing the extraordinary conclusion that “a road of SH6’s characteristics could accommodate in the order of 1620 vehicles per hour” [my emphasis]. It gives little detail on what these assumed characteristics are and does not specify the relevant parts of SH6.
38. 1620 vehicles per hour equates to 27 per minute, close to one every two seconds. Anyone familiar with, for example, the Waianiwaniwa /Ten Mile gorge and its single lane one-way bridge knows this is impossible.
39. The Austroads Guide introduction states “It is difficult to discuss many aspects of traffic management without reference to road design and/or safety issues”. However, the novo group report stops short of discussing Coast Road design and safety issues.
40. When a stated assumption is as far removed from the reality of the Coast Road as this figure of 1620, it casts considerable doubt on the report’s conclusion that the additional effects of the proposal would be “acceptable” and “less than minor”²⁶.
41. TiGa have now, in their January 2024 evidence, provided a Traffic Management Plan [TMP]. A TMP should have been provided as part of the application and its absence upfront shows a worrying lack of awareness and/or concern on TiGa’s part as to the significant adverse effects their trucking intentions would have on the Coast Road and its communities.
42. TiGa anticipate 50 truck and trailer movements per day, on average, 7 days a week, including Sundays and public holidays. This ‘no respite’ trucking is unacceptable to most in the community.

²³ Review - Terrestrial Ecology 116, p21 referencing Annual Average Daily Traffic [AADT] data, Waka Kotahi/NZTA

²⁴ novo group report 5, page 2

²⁵ novo group report 42,43, pages 8-9

²⁶ novo group 38, page 8 and 49, page 10

43. By contrast, the Westland Mineral Sands Conditions of Consent, as an example, specify a limit of 30 truck movements per day, only between the hours of 0800 – 2000, and only Monday to Friday, excluding school bus pick up and drop off times and public holidays²⁷
44. There is no information on make and model of truck and trailer units. Robert Brand, TiGa Managing Director, has stated in the media that they will be ‘*considerably smaller than the milk tankers*’²⁸. He gave no data in support, does not say whether ‘smaller’ means lighter, or shorter, or both, but with milk tankers carrying around 29,000 to 39,000 litres²⁹, they might be considered comparable. Concomitantly, there is no assessment of vehicle turning circles in relation to the tightness of bends in the Coast Road.

ROAD SAFETY

45. The TiGa application and the novo group transport report appear to view the Coast Road as just another NZ highway, able to safely support a substantial increase in its use by heavy vehicles³⁰.
46. However, those who live along SH6 or travel it regularly or visit from elsewhere know it is not just another highway. It is narrow and winding, with single-lane bridges, a high proportion of no-passing and no-overtaking stretches, in a constant state of repair, with frequent slips and subsidence. Comments made by submitters include:

#64: *“I am impacted by the light and noise of every truck that passes our [recently built] home” and “Already, for a State Highway, the road is not in good shape, and that has easily been observed and commented on by foreign visitors I have met.”*

#182: *“a combination of blind corners, a narrow carriageway and abutting cliffs make this [proposed] increase in usage particularly hazardous for cyclist and other road users”*

#44: *“we are aware of milk tankers and larger trucks crossing bridges but they are few and far between. When the Punakaiki [sea wall] was being rebuilt about [5] years ago ... the increase in truck movements was very noticeable both visually and audibly but it was over a finite period and provided an essential service”.*

47. The risks are not merely anecdotal nor merely road user perception: according to the West Coast Councils Transport Programme Business Case Dec 2020, the Coast Road is already dangerous:

*“The Communities at Risk Register (CAR) is produced by Waka Kotahi and highlights the personal risk to road users [on] both state highways and local roads ... [and] while the West Coast has relatively low levels of total deaths and serious injuries, the region’s transport system has **the country’s worst safety record in terms of DSIs per capita**”*³¹ [my emphasis]

²⁷ Westland Mineral Sands Conditions of Consent 17.1 and 17.3

²⁸ ‘Forest & Bird claims anger miner’ Westport News 15 Sept 2023

²⁹ <https://www.westland.co.nz/news/westgold-trucks-mobile-billboard-for-its-environmentally-friendly-message> 4 Jul 2023

³⁰ *The effects on the wider road networks are considered to be acceptable* – Application 5.30, page 43

“a road of SH6’s characteristics could accommodate in the order of 1620 vehicles per hour” novo group 37, page 8

³¹ [West Coast Councils Transport Programme Business Case Dec 2020](#)



Photo 1. Around 15-16 Mile, between mine site and Greymouth



Photo 2. Irimahuhero Point, 16kms north of mine site

48. The two photos above, from the DWC website, show a beautifully scenic Coast Road. Note also tight, snaking bends, with bluffs obscuring vision, and the 2016 Meybille Bay slip to the centre right of Photo 2.³² When current WCRC chair Peter Haddock, said “*Our roads are not fit for purpose*” the Transport Committee on which he sits had identified 14 pinch points along the West Coast, where they said large trucks and tankers could not get around corners without crossing the centre line.³³

49. Some of those 14 places will be outside the scope of this application, but the Google Maps images below show some of the pinch points on the proposed mine trucking routes:



Photo 3. Waianiwaniwa /Ten Mile Creek, between mine site and Greymouth

³² [Meybille Bay slip](#) NZ Herald

³³ <https://www.stuff.co.nz/national/124767209/the-west-coasts-deadly-roads-onelane-bridges-narrow-roads-inexperienced-drivers> 1 May 2021

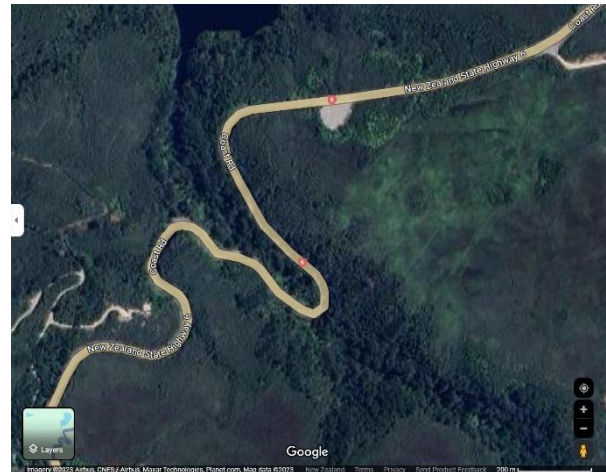


Photo 4. [above left] Irimahuwhero Point, 16 kms north of proposed mine site, en route to Westport

Photo 5. [above right] Deep Creek, just south of Charleston, also en route to Westport, right

These are just three of the most extreme examples: there are many more amongst the 223 bends between Greymouth and Westport. [See my paragraphs 66-67 for some detail on bends].

50. In the 2018 LINZ photo of Deep Creek below, courtesy of Brian Weston’s evidence to the RC hearing for BJV Ltd in 2021, a truck and trailer unit can be clearly seen crossing the centre line as it approaches a blind corner and oncoming vehicle. Submitter #341 says *“even a single axle, dual wheel truck has to cross the centre line at least 5 times on the road between Barrytown and Rapahoe”*.

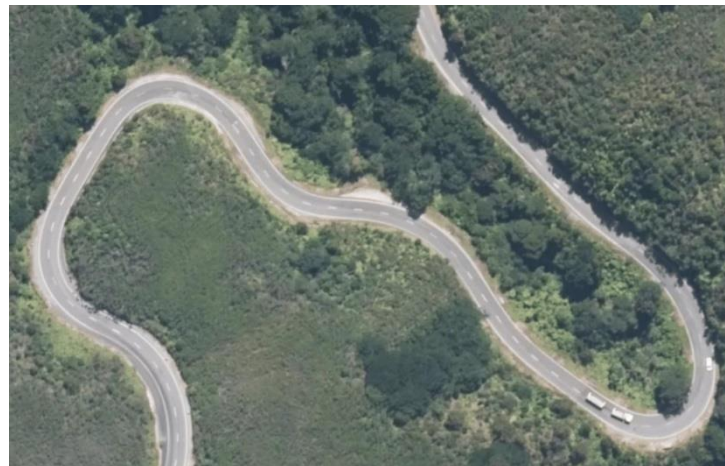


Photo 6. Deep Creek, between the mine site and Westport

Crash data

51. The Coast Road data below are from the Crash Analysis System [CAS] which maps traffic crashes reported to Waka Kotahi /NZTA by NZ Police. The data cover crashes from 1 January 2000 until 14 November 2023 [the most recent update at time of access], on the Coast Road, beginning at the northern end of the Cobden Bridge, Greymouth through to the Buller River bridge, approaching Westport. This is the scope of TiGa’s proposed trucking routes. CAS categorises crashes as Fatal, Serious, Minor and Non Injury:

Fatal:	20
Serious:	47
Minor:	136
Non Injury:	<u>167</u>

Total reported accidents: 370³⁴

These numbers invite comparison with the novo group report of “no crashes within 100metres of the site in the previous five years.” Note the 20 fatal crashes within scope.

Accidents involving trucks

52. “Deaths from crashes involving trucks make up around 20 percent of deaths, but only 6 percent of the total distance travelled. Nearly 90 percent of those killed in heavy vehicle crashes are not the occupants, but the other road users involved.”³⁵ This figure is presumably across all New Zealand roads, where many if not most trucking routes will be considerably safer and more straightforward than the Coast Road.

53. The incidence of single-vehicle accidents also indicates the difficulties trucks encounter on the Coast Road. Photo 7 below shows the aftermath of a single-vehicle milk tanker crash approximately 3km north of Punakaiki, 19 Sept 2018. The truck and trailer unit, travelling south, lost control on a bend³⁶, spun, narrowly missed a driveway [4655 SH6], lost its trailer over the bank [just visible to the right], and finally came to rest with the truck cab facing back north. Fortunately, the driver escaped almost unscathed. Thousands of litres of spilt milk caused an environmental hazard. It could have been much worse, had there been an oncoming vehicle, or a resident had been exiting the driveway, or the fully-loaded trailer had dragged its truck and cab over the perpendicular drop, or if 30 tonnes of heavy mineral concentrate had cascaded over the edge of the highway into the watercourse ecosystem.



Photo 7. Aftermath of a single-vehicle milk tanker crash, 19 Sept 2018

³⁴ <https://maphub.nzta.govt.nz/cas/> Site accessed 5 Jan 2024, research conducted by Teresa Wyndham Smith. Caveat: Not all crashes are reported to the NZ Police; some may have been missed as some dots on the map are obscured by others

³⁵ <https://www.transport.govt.nz/assets/Uploads/Presentation/Overview-of-Road-Safety-in-NZ-Data-packs-for-reference-groups.pdf>

³⁶ As submitter #182 points out, crashes caused by losing control on bends accounts number 15% higher on the West Coast than the national average <https://nzta.govt.nz/2010>

School children

54. Primary and secondary school busses travel SH6 past the proposed mine site on both potential trucking routes. Bus routes are south to Greymouth, north to Punakaiki and from Charleston to Westport. Concerns about road safety for school children, especially those of primary school age, are seen in submissions from parents and from the Barrytown School Board of Trustees³⁷.
55. Robert Brand, TiGa Managing Director, has said verbally TiGa trucks “*could avoid school finishing time*” acknowledging with those words that there is potential danger to school children.³⁸ However, such avoidance is not a proffered condition, and he didn’t mention the before-school bus runs, which can be in low lighting or dark during winter hours.
56. This danger to school children is a very real concern for the community, especially as some of primary school age are collected or dropped across the road from their home driveways. Parents or caregivers accompany young children, but adults can be unexpectedly and unavoidably delayed, leading to a scenario where a young child without traffic awareness attempts to cross the highway alone. This is an existing risk, and fortunately children are on holiday during the peak tourist traffic season, but TiGa plan 350 extra heavy truck and trailer movements every week, all year round.
57. Submitter #90 writes of school children walking ‘*for ages*’ along the road after the school bus ride. As an example, one secondary school pupil walks north on the 100kph highway for approximately one kilometre, to Prospector Place, to be collected in the morning. In the afternoon he walks around another kilometre from where he is dropped at Warren Road to the south. His parents are concerned mining trucks will add to existing risks. He lives at 2976 Coast Road, three kilometres south of the proposed mine, so walks a third of that nearby distance twice a day.

Cycling safety

58. Regular Coast Road cyclist Suzanne Hills has given detailed and convincing evidence³⁹ on the risks to cycling posed by additional heavy trucking on the Coast Road.
59. Further, there are fears for the growing nature-based cycle tourism industry: cyclists from elsewhere in NZ or overseas do not have the same awareness of SH6 road conditions as local cyclists do and so are even more at risk. Submitter #341 writes of “*4 bicycle touring companies that will take the Coast Road off its itinerary [sic] if this proposal goes ahead*”, and #182 points out “*the Coast Road provides access to three of NZ’s premier multi-day bike tracks – the Paparoa Track, Old Ghost Road and West Coast Wilderness Trail*”.
60. An additional 350 trucks per week would threaten the investment and livelihood of local cycle tourism operators as well as the actual lives of the tourists. Word of dangerous

³⁷ Barrytown School Board of Trustees submission #142, s2 Traffic Management

³⁸ ‘Mine Splits Barrytown’ Grey Star 11 Oct 2023 report on public meeting in Barrytown Hall 10 Oct 2023

³⁹ Submission #80

experiences spreads quickly on travel social media and the potential reputational damage to this local industry is incalculable.

61. Ms Hills' concerns are echoed by other local submitters who cycle SH6. The 24 May 2023 frame below is a link to her video evidence of one danger, the illegal overtaking on a solid yellow line of cyclists by heavy vehicles:



Photo 8. Heavy vehicle overtaking on solid yellow lines, just north of Rūnanga

62. Serious road safety concerns affecting cyclists on the section of SH6 “*approximately 1km immediately NE of the Cobden Bridge*” were raised with Waka Kotahi by Detective Scott Burrowes in December 2022, prior to the TiGa application. The full text of his letter and his accompanying photographs are attached, with permission, as Appendix Two:

“I had hoped to cycle to work [Rūnanga to Greymouth] ... however I have chosen to drive because it is simply too dangerous to ‘run the gauntlet’ and try and make it through this stretch of road.” – Detective Burrowes

Detective Burrowes writes of this stretch:

“Without wishing to exaggerate, it’s built as if it’s a death trap designed to ensnare cyclists and funnel them into vehicles.”

He then lists 15 specific hazards, including:

“blind corners ...no shoulder ...physical barriers built along the south side and a cliff wall on the north ... a posted ‘Open Road’ speed limit [means] traffic travelling north-bound tends to eagerly accelerate ... vehicles cross the double yellow lines to avoid [cyclists] ... I’ve seen many close calls and watched vehicles choose to swerve back towards the cyclist.”

Detective Burrowes concludes his letter with suggestions for improvements to this section and his extreme concern that *“one day soon I will be called to investigate a fatal accident where a cyclist will have been struck by a vehicle”*.⁴⁰

Private driveways

63. Many existing driveways along the trucking route have limited vision in one or both directions. See Photos 9 and 10 below for an example, a shared drive at 2828 SH6, approx. 4.2kms south of the proposed mine site. Note the short distance to an obscured bend both to the south [left] and north [right]. 350 extra heavy vehicles on the road each week would add considerably to the level of risk at this point for residents, visitors and the truck drivers.



Photo 9.

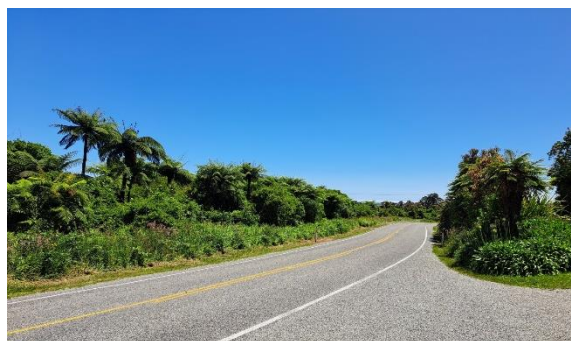


Photo 10.

Pedestrians

64. Parents walking the roadside with pushchairs are a not uncommon sight on the Barrytown Flats, as are runners, people walking their dogs, or just walking. Visitors also walk along the roadside to get that perfect photo, or mill about as they alight from a bus and van, or step back out into the road for a selfie or to get friends or family in the frame.



Photo 11. Young tourists wander to centre dotted line, Coast Road near Punakaiki

⁴⁰ Detective Scott Burrowes to Waka Kotahi/NZTA 08/12/2022 Appendix Two [CRRG dropbox link]
Lay witness statement of evidence Transportation January 2024

Other motorists

65. TiGa have said they will “employ local drivers who know the road well ... [and] will not have tight deadlines, so they can pull over wherever safe to do so to let traffic by”.⁴¹ Again this is a media comment, not a proffered condition, and there is no supporting assessment of the carriageway.

66. In the 30.8 kilometres from the mine site to Greymouth, community research shows a total distance of 11.6 kms in solid yellow no-overtaking lines in 34 separate sections when leaving the mine site, and 8.1 kms in 29 separate sections on returning. This means overtaking is prohibited on approximately 38% of the route to Greymouth and around 26% of the return trip. Also, there are 85 unmarked bends, where bends are a curve without a yellow line, sharp and/or obscured enough to prohibit overtaking,⁴² 13 bridges, one being single lane,⁴³ and two railway crossings. There is of course no overtaking within the two townships, Rapahoe and Rūnanga. There is only one signed slow vehicle passing bay in each direction. See Tables 1 and 2 below.

67. On the potential trucking route from the mine site north to Westport, a distance of 61.7 kms, there is a total of 14.1 kms in 28 separate sections to be solid yellow no-overtaking lines, and 16.3 kms in 36 separate sections travelling south. In addition there are no fewer than 138 bends, the vast majority between the [no-overtaking] townships of Punakaiki and Charleston, and 10 bridges⁴⁴, one of which is single lane. There are four signed passing bays going north and three returning south. See Tables 3 and 4.

68. There are no weighbridges in either direction.

Total kms	Solid yellow lines	No. of sections	% of total kms	No. of bends	No. of bridges	Signed passing bays
30.8	11.6	34	38%	85	12	1

Table 1: Proposed mine site to Greymouth, travelling south

Total kms	Solid yellow lines	No. of sections	% of total kms	No. of bends	No. of bridges	Signed passing bays
30.8	8.1	29	26%	85	12	1

Table 2: Greymouth to proposed mine site to, travelling north

Total kms	Solid yellow lines	No. of sections	% of total kms	No. of bends	No. of bridges	Signed passing bays
61.7	14.1	28	23%	138	10	4

Table 3: Proposed mine site to Westport, travelling north

⁴¹ ‘Miner responds to opponents’ Robert Brand opinion piece, Westport News 11 Oct 2023

⁴² See Appendix 3 for methodology used and further detail on this layperson research. Bends were assumed to be the same in number travelling north or south. There will be a significant margin of error, but it contributes towards an assessment of the transport route.

⁴³ Canoe Creek, Granite Ck, Fagans, Bakers Ck, Fourteen Mile, Thirteen Mile, Waianiwaniwa/Ten Mile, Kotoreti/ Nine Mile, Seven Mile, Coal Creek No 2, Camp Overbridge, MacLeans Creek, Coal Creek No 1

⁴⁴ Waiwhero/Lawsons Creek, Punakaiki River, Bullock Ck, Pororari R, Fox R, Four Mile [single lane], Nile [narrow], Little Totara, Totara, Okari, Mary’s Creek

Total kms	Solid yellow lines	No. of sections	% of total kms	No. of bends	No. of bridges	Signed passing bays
61.7	16.3	36	26%	138	10	3

Table 4: Westport to proposed mine site, travelling south

69. Such limitations on overtaking may well lead to driver impatience and stress, only exacerbated by any significant increase in heavy vehicles. No one wants to follow a truck. For many on the road, especially those travelling to or for work, there is a considerable cost in any extra time spent on the road. Some residents have moved here partly to avoid the stresses and delays of city commuting⁴⁵ and will be none too pleased to find themselves following a heavy truck, or worse a convoy of trucks, especially if they are in turn impeded by the frequent campervans which sometimes drive very slowly. This can be as slow as the 40kph in a 100kph zone experienced by the writer on 10 January 2024. For others, it will be the need to reach health appointments, or collect children from school, or attend to an emergency, that will exacerbate the effects of hold ups on the road and possibly contribute to driver error.

70. Mr Brand’s comment does not address the issue of meeting these heavy vehicles on narrow stretches of road, on tight bends, or on narrow bridges. Nor does he – or the application documents – consider the issue of these heavy trucks meeting each other. Mr Brand has in the media drawn a favourable comparison with the existing milk tankers⁴⁶, but we do not consider this an equivalence: the milk tankers are seasonal, they run to a regular schedule with an observed approximation of 20-24 truck movements per day for 9-10 months of the year⁴⁷ with none at all in June and July. They generally cluster in reasonably close succession, so locals know, after a batch of 5 – 6 tankers has passed, that there will be no more for some hours. They can be predicted and/or avoided, and they service a local primary industry.

Access to the mine site

71. Both proposed access points present difficulties. The southern proposal is near a blind bend, with limited visibility, while the northern option is only marginally better.

72. Waka Kotahi needs to apply full attention to any application to access such a site from the state highway and presumably they will further clarify concerns and conditions around access.

73. And, “... *the access design does not comply with GDC Rule 24.3.1 and vehicle movements onto a Strategic Route outlined in Rule 24.3.4 are exceeded.*”⁴⁸

⁴⁵ Appendix 4: CRRG letter to DWC re TiGa application; DWC campaign ’ <https://westcoast.co.nz/live/cut-out-for-the-coast/>

⁴⁶ “Forest & Bird claims anger miner’ Westport News 15 Sept 2023

⁴⁷ The observed schedule [by two separate Barrytown residents] is that 5-6 trucks go north through Barrytown Flats 05.30 – 07.00 and return, full, around 10.30 – 12.00. Another 5-6 go north around 17.00 – 18.30 and return around 20.00 – 00.00. Truck numbers appear to peak in October’.

⁴⁸ Application paragraph 4.2, p32

NOISE

74. The application, the Marshall Day Acoustic Assessment, and the Tonkin & Taylor Noise Review all appear in agreement that the proposed increase in trucking noise will be acceptable when considered in respect to existing vehicle noise and the existing ambient noise environment.
75. I consider this conclusion to be based on some flawed assumptions.
76. The reports appear to make the assumption that meeting requirements of the notified TTPP, where they differ from the GDP, is sufficient. However, no consent can be granted on the basis of a plan which is still in process, and which is likely to be altered before finalised.
77. For example, the Tonkin and Taylor Review of Acoustic Assessment glosses over the proposed breach of GDP Sunday noise limits when it says “*we ... merely note that residents will not have respite from operational mining noise on that day*”.⁴⁹ Nor will nearby residents, nor any on the SH6 trucking route, have any respite from trucking noise.
78. On the lack of respite, Tonkin and Taylor add “*there is evidence*” [uncited] people become “*habituated to the source of a noise over time*” implying people will get used to it. This is not mitigation, nor is it avoidance.
79. The Tonkin and Taylor Review of Acoustic Assessment merely concurs, without apparent further analysis, with the Marshall Day report’s rather odd claim that “*daytime truck movements are likely to be masked by existing noise levels*”⁵⁰. Every resident living, working, socialising or trying to sleep close to SH6 hears every individual heavy truck that passes, so for them frequency of truck noise would increase by the 57% cited by Mike Harding⁵¹, not merely by a ‘*just perceptible*’ 3 dB⁵².
80. The Tonkin and Taylor 15 November Consultant’s Advice Note [CAN-001] goes even further and claims an increase in “*average traffic noise level [of] less than 1 dB*”. There is no apparent reasoning for this, although the paragraph begins by referring to “*29 truck movements per day*”⁵³ a figure not found elsewhere in application documents.
81. Residents value the existing long periods of quiet – times when the sounds of the sea and wildlife are able to dominate - both diurnally and seasonally. These periods of quiet are an important aspect of the amenity values of the Coast Road.
82. The draft TiGa Noise Management Plan states, p4 “*Mining will only occur during the day*” and in the following line: “*Mining between 07.00 and 22.00*”. As two examples, the sun sets at 17.10 on 1 June and 17.36 on 31 July. This puts 22.00 well into night-time and renders the two NMP statements contradictory.

⁴⁹ Tonkin and Taylor 4.1.2 p3

⁵⁰ Tonkin and Taylor 4.1.3 p4

⁵¹ Review - Terrestrial Ecology 116, p21 referencing Annual Average Daily Traffic [AADT] data, Waka Kotahi/NZTA

⁵² Marshall Day Acoustics Summary p3

⁵³ Tonkin and Taylor CAN-001 15 Nov 2023 p1

83. Application documents do not give consideration to the different effect on humans and wildlife of natural sounds, such as the rhythmic, soothing sound of the ocean, and of unnatural noise, such as trucks and machinery.
84. The ‘existing ambient levels’ referred to by Marshall Day Acoustics include what they call “surf noise” and “sea noise”⁵⁴. The Tonkin and Taylor CAN-001 repeats this conflation between noise and sound⁵⁵. This seems an odd assumption, and a distinction needs to be drawn: the sound of the ocean is rhythmic, calming, varying from day to day. One reason people choose to live or holiday near the sea is to enjoy this sound, along with bird calls.
85. Marshall Day defines ‘noise’ in the p23 glossary as ‘A sound that is unwanted by, or distracting to, the receiver’. Exactly. Sea and surf do not fit this definition, nor do cicadas or bird calls, so it is inappropriate to lump them in with traffic when calculating and describing the existing noise environment. The Marshall Day acoustics report appears to simplistically conflate all sounds into ‘ambient noise levels of around 55 dB during the day’.⁵⁶
86. It would be hard to find examples of people choosing to live or visit a place so they can listen to trucks all day and every day and into the night. Rather, the noise of trucks is an adverse effect on all within earshot of the Coast Road.
87. Several submitters investigate this distinction between noise and sound, including:

#39 *“the data the [MDA] report presents do not adequately or accurately replicate what the human ear experiences” and “TiGa ... ignore the distinction between sound and noise, between soothing-relaxing-calming and grating-intrusive-irritating [noise] pollution”.*

325 *“The problem here is that dB readings give only a very limited picture of the impacts a given noise will have. We need to go deeper into the structure of sound ...”*

Submitter #325 then does just that, providing important evidence on noise and sound.

Some also outline the reverberation effect of the Paparoa Range e.g:

#174 *“At my location sound bounces off the hills on the eastern side increasing the decibel level if measured near the road. This [is] not covered by the acoustic report”*

#336 *“With the mountains rising high so close to the road, this creates a natural amphitheatre, the noise lifts in volume and directly affects all who live along the coast road”*

This recording of reverberating gunshots from the Cargill Road Gun Club illustrates the effect:



Copy of Gun club reverb.m4a

⁵⁴ For example, Marshall Day Acoustics p3, p8

⁵⁵ Tonkin and Taylor CAN-001 15 Nov 2023 p2

⁵⁶ Marshall Day Acoustics Table 1 comments, p8

88. Submitter #98 cites a BJV [now TiGa] expert as suggesting, at the 2021 hearing, that if disturbed by trucking noise people might like to *'move to a bedroom further from the road'*. This inflammatory remark has not been repeated for this application, but its acknowledgement remains: trucking noise would have an adverse effect on the sleep patterns of all residents, including children, who normally are asleep after 5am and/or before 10pm.
89. TiGa claim they *"agreed to a night-time exclusion period of 2200-0500"* in response to discussions with a *"select group of residents"*⁵⁷. This is not quite the case. Residents present at the [fully recorded] meeting say they made no such request, and the BJV 2021 hearing process had already made it clear night-time trucking would have unacceptable adverse effects.⁵⁸
90. The proposed limit on trucking movements to *"no more than three movements per hour between 05.00 and 07.00"*⁵⁹ will, according to our survey, approximately double the number of heavy vehicle movements on the Coast Road during that time, as six milk tankers is a seasonal norm.⁶⁰
91. The around 50 dB Marshall Day discuss is only heard when a truck is actually passing, so the noise effect for residents would actually double from 05.00 to 07.00. Therefore the Marshall Day conclusion, that it would add a mere 3 dB, is based on a misleading assumption that one can measure noise levels as *'on average'*⁶¹ when heavy traffic is actually an intermittent event. As submitter #174 says *"human ears do not average sound out"*.
92. The assumption might be more apt were we discussing more trucks being added to the constant hum of a city motorway.
93. Trucking noise will at all times be exacerbated by each acceleration and deceleration. All living and/or working within earshot of the mine access point, or on a hill, near a bend, or near roadworks i.e. on much of the Coast Road, will be additionally affected. This seems not to have been considered in application documents, other than a brief mention of engine braking and hard acceleration in the Tonkin and Taylor CAN-001, where it is dismissed as applying only to *"receivers close to the access point"* and expected to be managed by the NMP and limits on night-time trucking. However, the [draft] NMP is limited to on-site considerations: *"no unnecessary revving of engines [and] engine braking should be avoided"*.⁶²
94. Residents also draw a distinction between the different types of noise made by different types of heavy vehicle. Milk tankers are described as making a *'swooshing'* sound *'much*

⁵⁷ Application 5.29, p42

⁵⁸ BJVL 2021 Final Decision Paragraph 232 *"we find that the change in the current night time noise environment and amenity will be more than minor, and consequently unacceptable, given the very low current level of traffic after 11 pm, and the proposed night time operation for seven days [sic] week"*

⁵⁹ Novo group 9, p3

⁶⁰ Traffic surveys Appendix 5

⁶¹ Marshall Day 5.50, p20

⁶² NMP 3.0, p7

quieter than a truck’ whether full or empty. Other trucks are described as *‘louder*’ and *‘growlier*’ and *‘rattling loudly when empty*’⁶³

95. An adverse effect of mining machinery noise on wildlife is acknowledged in Gary Bramley’s Avian Management Plan [AMP] when it suggests *“parking earthworks machinery ... [and] starting the engine from time to time*’⁶⁴ to discourage nesting. The plan, bizarrely, seems to be to mitigate adverse effects on wildlife by frightening the birds. This then would be a *‘startle reaction*’ the Tonkin and Taylor CAN-001 says has not been identified.⁶⁵
96. Significant numbers of existing Coast Road residents would be adversely affected by trucking noise. Research courtesy of Coast Road resident Michael Weston, submitted to the 2021 BJV hearing, shows 116 dwellings within 30m of SH6 between Greymouth and Westport, the two speculated end points of the trucking route⁶⁶. 65 are to the south of the proposed mine site and 53 to the north. Many more are a little further away but still well within earshot.
97. Many of these residents are submitters opposed to this application.
98. Consent has been given for considerably more building along the Coast Road since the 2021 survey. Many of these new ratepayers were almost certainly unaware of potential mining in the area when deciding to invest in a beautiful and natural environment. Submitters #148 and #230 say explicitly they would not have bought here had they known.
99. The Tai Poutini Resources application document at 3.39 states *“the average number of daily heavy vehicle movements will remain steady throughout the year. The daylight hours vary throughout the year meaning the hourly trucking rates will be higher in winter when daily daylight hours are the lowest ...”*
100. Midwinter sunset to sunrise using 01 July as a sample [Greymouth readings⁶⁷] is 08.00 to 17.22, giving 9 hours and 22 minutes of ‘daylight’⁶⁸. 50 movements per day would therefore mean one truck movement on average every 11.24 minutes. More, if TiGa really do avoid the school bus runs.
101. NZ Steel, as a comparison, recently rejected the option of trucking iron sands for their Waikato operation because of *“high energy requirements, noise, safety for others and dust problems”*.⁶⁹

VIBRATION

102. The Waka Kotahi website says: *“People can generally feel very low levels of vibration when they are focused – especially when they are resting or completing an activity that is*

⁶³ Informal discussions

⁶⁴ Bramley AMP 3.2 [iii] p10

⁶⁵ Tonkin and Taylor CAN-001 p3

⁶⁶ For detailed data and Mr Weston’s methodology, see Appendix 6

⁶⁷ <https://www.timeanddate.com/sun/new-zealand/greymouth?month=7>

⁶⁸ Please note the use of headlights before, at and after sunrise, and at and after sunset, as detailed in my paragraph 121 p31. TiGa assumptions regarding ‘daylight’ are somewhat arbitrary.

⁶⁹ <https://www.nzsteel.co.nz/sustainability/our-environment/the-mining-operation/>

quiet and/or requires concentration. This is particularly true when there is noise associated with a vibration event, such as the noise of a heavy vehicle passing by coincident with vibration.

In some cases vibration might be annoying – especially at night when it is generally quieter inside and outside of a house, and both noise and vibration are more noticeable. This annoyance can occasionally lead to sleep disruption or concerns about damage to your house or property.”⁷⁰

103. The applicant does not address this adverse effect on residents, and on visitors to the area staying in local accommodation businesses, nor in turn the cumulative effect of reputational damage.

104. Concerns expressed by submitters include those of Dr Christine Robertson, submitter #98, who lived near Baker’s Creek for 24 years. She reports “... *we had to contact NZTA as the heavy traffic [on Baker’s Creek bridge] made our home shake. The bridge had to be worked on to repair the damage due to trucks ...*” It would appear vibration caused by heavy vehicles was an issue not just for this home neighbouring Bakers Creek but also for the bridge itself.

Submitter 134 writes “When a milk truck passes our house, the whole area is vibrating and shaking like an earthquake. I cannot and don’t want to imagine how the coast road will change when we have the discussed amount of daily truck movements.”

Submitter #148 is concerned about effects of vibration on sleep: “Sleep deprivation from regular truck movements and their vibration and sound will have impacts on individuals in the community beyond a bad night’s sleep ... from 5am to 10pm ... there will be no respite”. Submitter #184 makes a similar point.

#206 “Local tourism is likely to be adversely affected ... by the increased heavy traffic and associated noise and vibrations”

#220 “This would be an untenable situation for those living close-by, with noise, vibration, dust, construction work, truck and machinery movements constantly disturbing locals for a currently unspecified future timeframe.”

103. In and near Okari Road, Westland Mineral Sands [WMS] mining trucks are required to reduce their speed to as low as 25kph, one reason reportedly being to avoid adverse effects of vibration on a residence close to the road⁷¹. This constraint is on a smaller local road; TiGa trucks by contrast would presumably be travelling up to 90kph as the legal limit on a 100kph highway. Were their speed reduced, they would create yet another hazard for motorists, and so we have a Catch-22.

⁷⁰ [Link to Waka Kotahi website](#)

⁷¹ WMS Conditions of Consent 17.4

ROAD SUITABILITY, INFRASTRUCTURE AND MAINTENANCE

104. The application is inconsistent with the RMA Schedule 3A 6:

“a territorial authority must include the following objectives in its district plan: to provide ... [an] environment that enables all people and communities to provide for their social, economic, and cultural wellbeing, and for their health and safety, now and into the future”⁷² [our emphasis]

105. The “*wellbeing, and [the] health and safety*” of all who live and work along the Coast Road depends on a safe, efficient and effective highway. This requirement is incompatible with an additional 350 heavy truck and trailer movements per week.

106. As many who live and travel along it emphasise in their submissions on this application, the Coast Road is fragile and frequently damaged, with some sections in a frequently recurring cycle of damage and repair: for example, the constant slumping and crumbling along the sea-side edge between 13 Mile and 14 Mile clearly visible in the 24 November 2023 photo below:

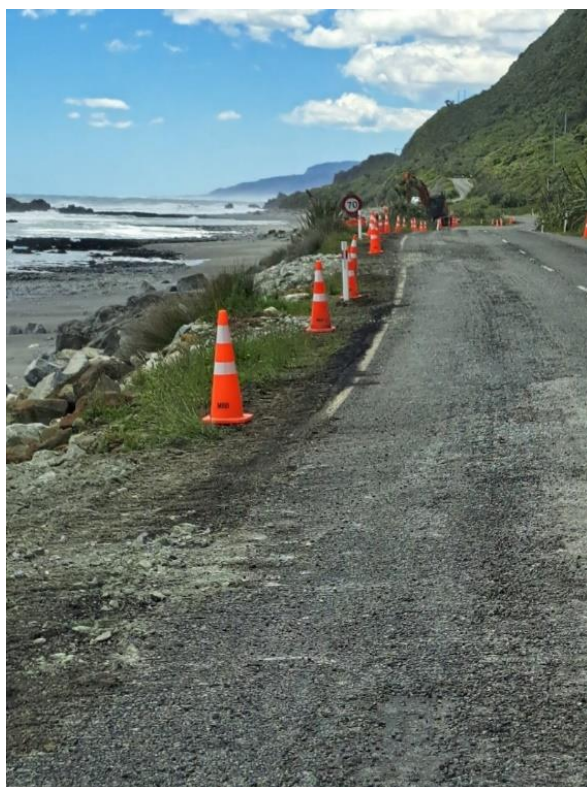


Photo 12: Road edge disintegration just north of 13 Mile, 24 Nov 2023

107. The section of Coast Road above Meybille Bay was closed, then reduced to one lane, by a slip in 2016. It has not only remained single lane for the seven years since, with no repair schedule in sight, but the one remaining lane is in a constant cycle of slump and repair. The road was closed again by a further slip 17 June 2022:

⁷² RMA Schedule 3A 6 Objectives and Policies



Photo 13: Meybille Bay, June 2022

108. The level of risk for SH6 is very high – it is easily damaged – by erosion, slips, rockfall, flooding and earthquake, and it is difficult to repair. Heavy trucks will only exacerbate this level of risk.
109. Photos 14 – 24, on the following pages, show some of the road damage over the past five years, starting with the extremity of ex-Cyclone Fehi, but also highlighting the costly maintenance and repair the Coast Road consistently requires. This would likely be exacerbated were TiGa permitted to move 250,000 tonnes of HMC per annum over 5-12 years.
110. The photos also show the probability of TiGa truck and trailer units being held up on the trucking route, increasing the likelihood of convoys forming.



Photo 14. 01 February 2018, just north of Dolomite Point during ex-Cyclone Fehi, photo left. Photo 15. Repairs begin, photo right. Both show SH6 demolished almost to the centre line.



Photo 16. 01 Feb 2018 after ex-Cyclone Fehi, showing sea inundation just north of Fox River bridge

And since ex-Cyclone Fehi ...



Photo 17. 24 Dec 2020 road closed by slip at Whitehorse Hill, just north of Fox River, left. Photo: NZTA

Photo 18. 10 Feb 2022 Slip just north of Charleston, near Jack's Place, right.



Photo 19. 09 May 2022 Landslide across road at Barrytown Flats, 3.3 kms south of proposed mine site. The yellow dotted line indicates the western road edge.



Photo 20. 17 June 2022 Meybille Bay, further slip closes road [following Sept 2016 slip which closed the road, then reduced it to one lane, as it remains today].



Photo 21. 30 July 2022 Rockfall above Waianiwaniwa / Ten Mile bridge



Photos 22 & 23. 30 Oct 2023 Both taken mid-morning, between Punakaiki and Rapahoe, showing SH6 down to one lane for road repairs, controlled by traffic lights, in two separate places.



Photo 24. A costly 2023 repair to the road edge just north of Waianiwaniwa/ Ten Mile. Note the remaining narrow shoulder beside a steep drop, leaving a pedestrian, cyclist or motorist nowhere to go if needing to avoid an oncoming or overtaking vehicle.

111. An Inside Science report indicates heavy vehicle can cause approximately 1000-2500 times the damage to the road of a sedan car.⁷³
112. A 2022 Scoop article indicates approximately 80% of damage to NZ roads is caused by trucks, yet the trucking industry pays less than 23% of repair costs⁷⁴. Therefore other road users are already subsidising the trucking industry to a significant extent, despite assurances about road user charges covering any potential damage⁷⁵.
113. According to a 2019 RNZ item, state highways cost more than \$20,000 per kilometre to maintain each year.⁷⁶ The Coast Road will not be amongst the cheapest.
114. Roads where the foundations are water-saturated are particularly susceptible to damage, as seen in the animation and still shots below⁷⁷. SH6 is subject to heavy rain saturation, everywhere. Parts are also subject to sea inundation, for example near 13 Mile – see Photo 12.

⁷³ 12.10.20 <https://www.insidescience.org/index.php/news/how-much-damage-do-heavy-trucks-do-our-roads>

⁷⁴ <https://www.scoop.co.nz/stories/trucks-do-the-most-damage-on-our-roads-but-pay-the-least-towards-fixing-them>.

⁷⁵ Waka Kotahi as quoted in GDC s42A report 166, p38

⁷⁶ <https://www.rnz.co.nz/news/national/405389/nzta-doubles-road-maintenance-for-this-summer> RNZ 12.12.19

⁷⁷ <https://www.roadex.org/e-learning/lessons/drainage-of-low-volume-roads/water-and-mechanical-properties-of-roads/>

115. Our West Coast climate, and the proximity of the sea to sections of the road, affect Coast Road durability:

“High amounts of water under bituminous layers can cause high hydraulic pressures in the bottom of the bound layer when it is subjected to heavy traffic wheel loads. These effects act like pressure washes and break the bond between the bitumen and aggregate surfaces.”⁷⁸ [our underlining]. This process is illustrated in the animation below:



Figure 1: animation showing effect of wheels on bitumen

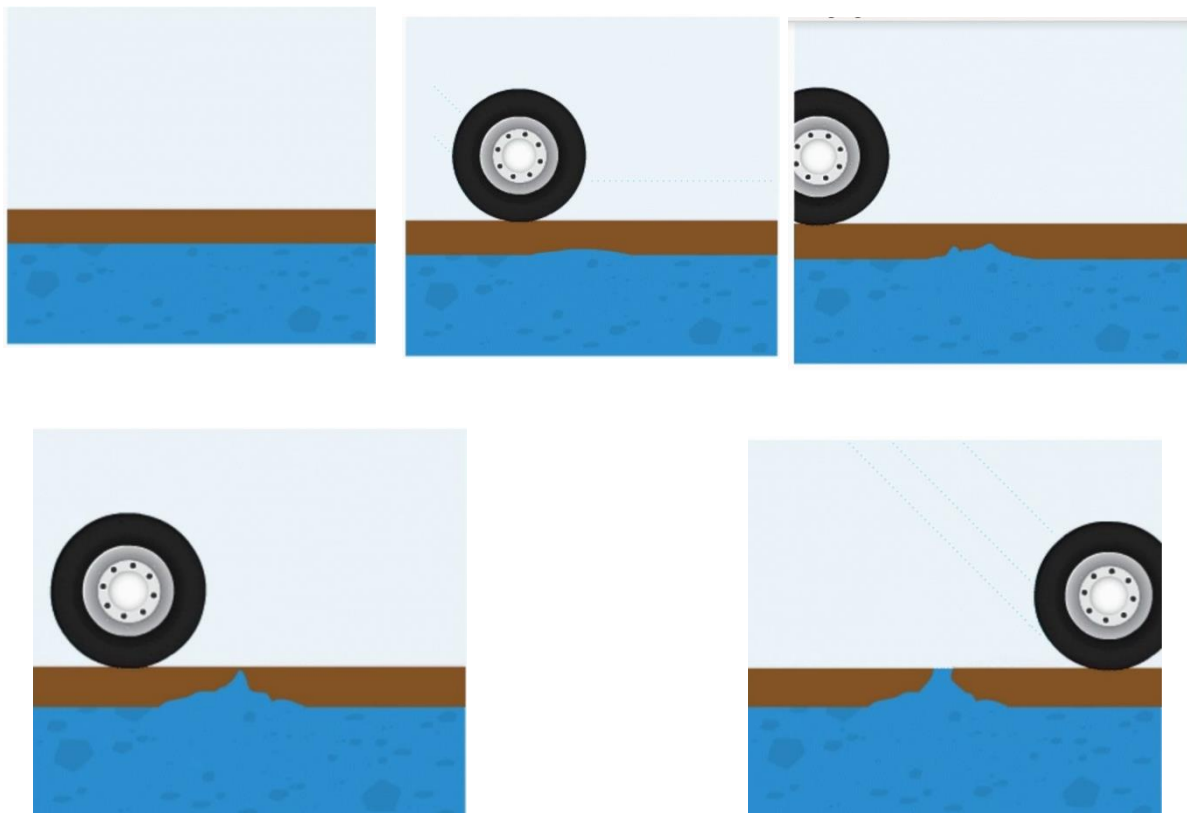


Figure 2. A series of still shots from the Roadex.org animation shows the process of stripping of water saturated road surface

⁷⁸ <https://www.roadex.org/e-learning/lessons/drainage-of-low-volume-roads/water-and-mechanical-properties-of-roads/>

EFFECTS ON TĀIKO /WESTLAND PETREL AND KORORĀ /LITTLE BLUE PENGUIN

116. Detailed evidence on the nature and vulnerability of the Westland petrel in particular and also the Little Blue penguin has been presented by others. The focus here is on claims by TiGa, in the application, in reports, and in the updated Conditions of Consent, 19 January 2024, to the effect they will only truck HMC along the Coast Road in daylight.
117. The Westland petrel is prone to being disoriented and downed by lights and the kororā is vulnerable to being killed when crossing the road to/from nesting burrows.
118. The application documents lack information and therefore mitigation of effects on kororā. As Mr Harding's Review - Terrestrial Ecology points out, it would be prudent to restrict truck traffic to daylight hours for July to December⁷⁹ to protect the kororā, and to daylight hours November to January to reduce the risk for young tāiko.
119. Mr Harding also recommends these be actual daylight hours: *"all activities associated with the mine operation [including vehicle movement] are restricted to the hours and weather conditions during which no lights of any form are required."*⁸⁰
120. TiGa application documents repeatedly assert trucking will occur on the northern route during *"daylight hours only"*⁸¹, specifying this as 30 minutes before sunrise until 30 minutes after sunset. This apparently assumes headlights would not be needed at those times, and also that Westland petrels do not fly to the south of the proposed mine site. There is no apparent data to support these assumptions, and they cannot be taken as effective mitigating or avoidance measures.
121. A community survey of light conditions and traffic has been carried out a few kilometres south of the proposed mine site, on the mornings of 16 and 19 December 2023. In varying conditions, all observed vehicles had headlights on until at least 30 minutes after sunrise, and most were on up to an hour later⁸². The unaltered photos below, taken 30 minutes before, and at, sunrise, in differing conditions and looking both north and south, demonstrate the need for headlights:

⁷⁹ Mike Harding Review – Terrestrial Ecology 117, p21

⁸⁰ Review – Terrestrial Ecology 97, p18

⁸¹ Application 5.56, page 48; / novo group 3.39; as examples

⁸² Survey details and methodology in Appendix Five

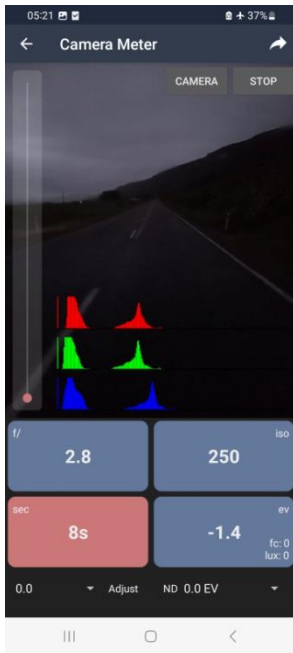


Photo 25.



Photo 26.



Photo 27.



Photo 28.

Photos 25-28 taken 16 Dec 2023 with sunrise at 05:51:

- Photos 25 & 26 looking north and south 30 mins before sunrise
- Photos 27 & 28 looking north and south at sunrise

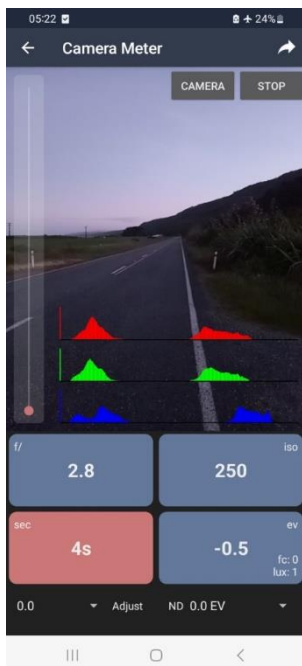


Photo 28.



Photo 29.



Photo 30.



Photo 31.

Photos 28-31 taken Tuesday 19 Dec 2023 with sunrise at 05:52:

- Photos 28 & 29 looking north and south 30 mins before sunrise
- Photos 30 & 31 looking north and south at sunrise

A similar survey was conducted at the same location on the evenings of 14 and 16 January 2024. In varying conditions, all but two of the 19 observed vehicles had headlights on before sunset⁸³; these two were identified as local vehicles on short trips. The unaltered photos below, taken at, and 30 minutes after, sunset, in differing conditions, demonstrate the need for headlights during the times TiGa define as ‘daylight’.



Photo 32.



Photo 33.



Photo 34.



Photo 35

Photos 32-35 taken Sunday 14 Jan 2024 with sunset at 21.14:

- Photo 32 looking north, and Photo 33 looking south, at sunset
- Photo 34 looking north, and Photo 35 looking south, 30 mins after sunset



Photo 36.



Photo 37.



Photo 38.



Photo 39

Photos 36-39 taken Tuesday 16 Jan 2024 with sunset at 21.13:

- Photo 36 looking north, and & Photo 37 south, at sunset
- Photo 38 looking north and & Photo 39 south, 30 mins after sunset

⁸³ Survey details and methodology in Appendix Five. Caveat: Looking into the sun on one photo, caused the app to change settings so the lux wasn't updating for Photos 36-39. Sensor meter data is accurate in spreadsheet, Appendix Five

122. TiGa have repeated the ‘*only in daylight*’ claim, implying no headlights will be necessary, again and again in documentation, in meetings and in the media, until people could be forgiven for presuming it to be true⁸⁴. There is ample evidence to show it is, at best, misleading.

CUMULATIVE EFFECTS: ‘Opening the floodgates’

123. This hearing is convened to consider a single mining application, but we do need to be aware of, and consider, potential cumulative effects. The application alludes to these:

“the consenting of this application may also contribute to the viability of a regional [secondary] processing facility [which] would service mineral extraction across the heavy mineral deposits which span from Buller to Westland in extent”⁸⁵.

124. Indications are this facility might be to the south, at Rapahoe. Were this so, or even if TiGa establishes a railhead operation to the east coast⁸⁶, or ships out of Port Greymouth, any of these could draw WMS trucks south. SH6 between Barrytown and Rapahoe could become extremely busy, filled with perhaps 100 HMC truck and trailer units daily, on average.

125. And, if WMS develop planned sand mines near Hokitika, and gain the applied-for resource consent to export from Port Greymouth, the streets of Greymouth, whether those leading to the port or those leading through to a Rapahoe railhead, could see huge numbers of truck and trailer units every day, seven days a week. Residents need only need talk to friends in Westport to see what this might be like: *“it has been exhausting, trucks every 20 minutes from the shed on the wharf through town ...”⁸⁷*

126. This has implications for SH6, its residents and townships, and the environment beyond the Coast Road.

127. The speculative dollars this development might bring have been well publicised by the mining companies and some of our civic leaders, but Greymouth and Rapahoe are also places where people need to be able to live and work.

128. The application says: *‘the final loading option ... is outside scope of this application’*.⁸⁸ That may be so, but that ‘final loading option’ carries huge implications for residents and visitors to the Coast Road and its towns including Greymouth and Westport.

129. TiGa have tended to downplay their long-term plans since mid-2023, going so far as to now accuse detractors of *“active disinformation”* when mentioning a potential 50-year mining operation⁸⁹. This is disingenuous at best given TiGa said it first, stating publicly at the West Coast Minerals Forum in May 2023 that they would *“Increase [our] permit area and [we] are confident*

⁸⁴ It even appears to be accepted by the Perspective s42A report, 37, p16

⁸⁵ Application paragraph 5.10 p38

⁸⁶ Application paragraph 3.37 p21

⁸⁷ Communication from a Westport resident, quoted in email to CRRG, from Fiona McDonald 2 September 2023

⁸⁸ Application paragraph 3.37 p21

⁸⁹ ‘Forest and Bird claims anger miner’ Westport News 15 Sept 2023

*there are enough minerals for a long-term project ... We're comfortable there's a long-term project for us and for others."*⁹⁰

GDC S42A REPORT

130. The s42A report prepared by Mark Geddes of Perspective Consulting Ltd appears to significantly underestimate the number of potentially affected residences at 29, p1: *"To the south, SH6 runs through Rapahoe, with an estimated 38 residential dwellings within 100m of the road"*. Mr Weston's research shows 65 residences within 30m of SH6 between the mine site and the Cobden Bridge at Greymouth⁹¹.
131. Perspective Consultants, for example in 115 and 116, p26, appear to assume a maximum of 5 trucks per hour. This would need to be written as a condition, as the application merely gives a calculation of 350 trucks per week at an average of 50 per day: we could currently have a situation where 20, or more, trucks leave the site in any one hour, with a huge impact on other road users.
132. I concur absolutely with the s42A warning of a "potential mortal risk" to cyclists and pedestrians in 423, p96 and the requirement, on p101 for "an assessment by a suitably qualified and experienced person that address the actual and potential adverse effects on the safety of pedestrians and cyclists on State Highway 6"
133. I also concur with the GDC s42A report when it requires "an assessment of the potential adverse effects of mine-traffic on kororā along the Coast Road"
134. The s42A reference to this as *"stage one of the applicant's wider plans for mineral sand mining on the Barrytown flats"*,⁹² validates community concerns about long-term effects.
135. Point 157, p36 raises the spectre of *"two or three non-rural activities [which] could be established along this section of SH6 each with 20 truck movements and 100 vehicle movements per day as a permitted activity that would collectively exceed the vehicle movements proposed in the application"*. This is arguably a valid reason not to grant consent to a single activity which alone significantly exceeds permitted vehicle movements.
136. The response of Waka Kotahi to Mr Geddes' queries, as quoted at 166 p38, is surprising:

"Heavy commercial vehicles, like the heavy vehicles in the proposal, pay appropriate road user charges for additional wear and tear on state highways than [sic] lighter vehicles and through commercial licencing fees. Therefore, these are not matters that are raised during the RMA process." - Waka Kotahi

This comment about road user charges conflicts with other information available, as discussed in my paragraphs 111, 112 p27. And these are matters for the RMA, given that the definition of

⁹⁰ Grey Star 27 May 2023

⁹¹ For detailed data and Mr Weston's methodology, see Appendix 6.

⁹² Perspective s42A report 37, p13

environment, RMA Part One includes “*people and communities*” and that SH6 is a vital lifeline for our people and communities.

137. This evidence supports the s42A warning of a “*potential mortal risk*” to cyclists and pedestrians in 423, p96 and the requirement, on p101 for “*an assessment by a suitably qualified and experienced person that address the actual and potential adverse effects on the safety of pedestrians and cyclists on State Highway 6*”⁹³
138. I concur with the GDC s42A report when it requires “*an assessment of the potential adverse effects of mine-traffic on kororā along the Coast Road*”⁹⁴

CONCLUSIONS

139. The Grey District Plan permits “20 heavy vehicle movements per day”⁹⁵ and we consider this proposed 150% increase to 50 per day, up to one every 11.24 minutes in winter⁹⁶ ‘on average’ an unacceptable intensity of heavy traffic to inflict on residents and all other road users.
140. Some of our regional and district leaders claim the benefits of this proposal outweigh the negatives, among them Heath Milne CEO of Development West Coast⁹⁷ and our elected representative Maureen Pugh⁹⁸.
141. In doing so our leaders place a great deal of faith in TiGa’s claims of potential economic returns, and appear to place a great deal less emphasis on the environmental, roading, social, physical, economic and reputational damage this proposal is likely to cause.
142. There are convincing reasons to disagree with the conclusions of the novo group report that “*No adverse transport effects are anticipated on the wider network*” and ‘*Overall the wider transport effects of the proposed activity are ... less than minor*’⁹⁹
143. This statement of evidence demonstrates just how unsuitable the physical and social environment of the Barrytown Flats is for such a significant industrial trucking operation.

LIST OF APPENDICES

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⁹³ TiGa GDC s42A report Appendix 2, 10, p101

⁹⁴ Ibid, 11, p101

⁹⁵ Application p37

⁹⁶ When daylight hours are shorter, by any definition

⁹⁷ Submitter #315

⁹⁸ TVNZ Q&A 12 Nov 2023

⁹⁹ novo group Transport Assessment 38, p8

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021 111 1637

05 October 2023

To: Nicole Rosie, CEO Waka Kotahi nicole.rosie@nzta.govt.nz

Tēnā koe

This letter is in regard to the resource consent applications of TiGa Minerals and Metals [TiGa] to mine on the Barrytown Flats, with approval sought to transport 250,000 tonnes of heavy mineral sands per annum, either north to Westport or south to, or towards, Greymouth. These applications were publicly notified on Friday 15 September¹⁰⁰

Introduction

We write as a community group, Coast Road Resilience Group Inc [CRRG], to ask that you please give due consideration to opposing this bulk transportation of heavy mineral sands on the Coast Road, State Highway 6 [SH6].

We hope approval has not already been given, and are encouraged in this by the fact we have to date been unable to find, in application documents provided by Councils, formal approval from Waka Kotahi.

We understand that under the Land Transport Management Act 2003, the primary function of Waka Kotahi is to “to contribute to an effective, efficient, and safe land transport system in the public interest”¹⁰¹. We believe it would not be possible for Waka Kotahi to fulfil this function if TiGa are permitted to use the part of SH6 known as the Coast Road, in the way they propose.

Our reasons for seeking opposition:

- **Uncertainty as to whether TiGa will truck north or south from Barrytown**
- **Scale of trucking proposal**
- **Cost of maintaining an effective road**
- **Safety of other users**
- **Transport goal of the Emissions Reduction Plan**

¹⁰⁰ <https://www.wcrc.govt.nz/services/consents-compliance/publicly-notified-consent-applications/current-publically-notified-consents/barrytown-mineral-sand-mining>

¹⁰¹ <https://www.nzta.govt.nz/about-us/about-waka-kotahi-nz-transport-agency/our-legal-framework/>

Uncertainty as to whether TiGa will truck north or south from Barrytown

1. TiGa has not, in their applications, decided which trucking route they will use: either north to Westport, or south towards Greymouth¹⁰². We believe such uncertainty in a business plan reduces the company's credibility. And consequently, all of SH6 from Greymouth to Westport has to be considered when assessing effects on our roading link.
2. Recent news reports on Westland Mineral Sands [WMS], mining at Cape Foulwind near Westport, indicate Greymouth will become the export site of choice for the region's heavy mineral sand industry. WMS currently truck to Nelson port, but say that once fitted out '*the WMS barge ... will be permanently based in Greymouth*'.¹⁰³
3. Our group is concerned that if approval is given to TiGa's proposal, it will open the floodgates to even greater demands on the Coast Road. With WMS poised to transport heavy mineral sands the 105 kms south to Greymouth, this could at least double the number of truck and trailer units plying the 36kms of SH6 between the proposed Barrytown mine site and Greymouth.

Scale of trucking proposal

4. We realise Waka Kotahi approval was given for the Barrytown Joint Ventures Ltd [BJV] application in 2021, and that this is a renewed application by the same mining company, albeit now known as TiGa Minerals and Metals. But, this is a larger proposal and so carries appreciably more serious implications for the State Highway.
5. Where BJV Ltd planned an average of 40 truck movements per day¹⁰⁴, TiGa propose 350 weekly truck and trailer movements, each outgoing unit carrying 30 tonnes of heavy mineral sands¹⁰⁵. That's 50 truck movements a day, 17 hours a day, from 05.00 to 22.00 [one every 20 minutes on average], 7 days a week, with no respite. We believe this cannot be construed as "*in the public interest*".
6. This 25% increase on the 2021 proposal surely means a reconsideration of assessment done on the possible and probable effects of the BJV 2021 applications.
7. The likelihood WMS is poised to truck south from Westport to Greymouth adds to the enormity of scale, possibly by doubling it between the proposed Barrytown mine site and Greymouth. On average, that's a truck and trailer unit approximately every ten minutes. We believe this cannot be said to be "*in the public interest*".
8. Trucking on this scale would have adverse effects on the Coast's thriving nature tourism industry, a significant earner for the region. It would be an example of 'reverse sensitivity'¹⁰⁶, where in this case a change of use for the highway would have adverse effects on its neighbours and other users.

Cost of maintaining an effective road

9. We understand the role of Waka Kotahi in providing roading to be used. However, in this instance we believe the public interest of other road users: residents, ratepayers, business operators, service providers and visitors to the region, needs to be weighed against the potential profits for a largely offshore mining company.
10. TiGa's proposal is a very different consideration to that of, say, extra trucks on SH1 between Timaru and Christchurch, on a comparatively flat, straight highway. The Coast Road is often narrow and/or

¹⁰² Integrated Transport Assessment prepared for TiGa Minerals and Metals Ltd by novogroup, p2, 8

¹⁰³ 'First mineral sands export shipment due' Grey Star, 25 Sept 2023

¹⁰⁴ [Nick Fuller \(Transport\).pdf](#) p3, Table 1

¹⁰⁵ Integrated Transport Assessment prepared for TiGa Minerals and Metals Ltd by novogroup, p3, footnote 2

¹⁰⁶ <https://www.nzta.govt.nz/about-us/consultations/archive/guide-to-the-management-of-reverse-sensitivity-effects-on-the-state-highway>.

winding, frequently reduced to one lane by slips and/or erosion¹⁰⁷, prone to slumping and in constant need of repair. 350 additional weekly heavy truck and trailer units would place a huge burden on what is already a fragile, easily damaged, high-risk road, expensive and often difficult to maintain.

11. On SH6 between Greymouth and Westport existing truck and trailer units already need to cross the centre line to navigate tight, blind, often climbing corners. The danger this creates for approaching vehicles will be greatly exacerbated if the number of truck and trailer units is permitted to dramatically increase.
12. The cost of repairing damage to SH6 from the increase in heavy truck movements could be significantly more than the applicant's contribution to the Transport Fund. According to **Clive Matthew-Wilson, road safety advocate: "Excluding events such as storm damage, about 80% of all road maintenance costs are the result of the damage caused by trucks. Yet, the trucking industry pays less than 23% of the costs of building and maintaining these highways."**¹⁰⁸
13. According to 'Inside Science', one heavy truck is estimated to do 1000 – 2500 times the damage to the road of a sedan car, while road user charges cover only a small portion of this.¹⁰⁹ **This means other road users are already heavily subsidising trucking industries.** And, at the same time, we are the very ones whose use of the road would be made more precarious by the TiGa Minerals and Metals proposal.
14. The Transport Fund is already under severe pressure on a national scale so that *"a significant number of road safety-related measures are off-track and unlikely to be achieved by year-end ... overall 41% of the agency's capital projects were off-track"*.¹¹⁰ Coast Road residents see firsthand that Waka Kotahi already struggles to maintain our highway, with frequent full and partial road closures.

Integration and sustainability of the roading network

15. In addition, we understand that in the event of an AF8 or similar natural disaster closing the Coast Road, restoration of SH6 will not be a high priority¹¹¹. Cumulative damage from heavy trucking would only render the road more likely to suffer serious damage in that natural disaster, with drastic consequences for the general public.
16. SH6, which TiGa wishes to use in pursuit of mining profits, is the single link to services for all who live and work along it, and a vital link in the wider supply chain.
17. The sustainability and safety of use of the Coast Road is utterly vital for our livelihoods.

Safety of other road users

18. We believe it is not possible to maintain a safe and effective highway for resident and visitor use if it is also permitted to be used as a haulage route by the mining industry.
19. In 2019 accidents involving trucks made up nearly 20% of the NZ road toll¹¹². Such a huge increase in trucking as TiGa propose would almost certainly add to this toll.
20. The Coast Road from Greymouth to Westport is not without its present dangers. Permitting this additional industrial use would only exacerbate this. In addition to the obvious risks to oncoming vehicles and cyclists, both local and visitor, there would be additional risk at all residential driveway

¹⁰⁷ E.g. Meyville Bay, reduced to one lane for seven years since Sept 2016, constantly slumping; 10 Mile, erosion recently repaired; 13 Mile, constant slumping

¹⁰⁸ As reported in *Scoop*, 13 Dec 2022

¹⁰⁹ Inside Science, 12 Oct 2020 'How Much Damage Do Heavy Trucks Do to Our Roads?'

¹¹⁰ Ministry of Transport officials to Transport Minister David Parker, reported in Newsroom Pro 29 Sept 2023

¹¹¹ West Coast Civil Defence Emergency Management Group, August 2017

¹¹² Scoop, 1 Jan 2023

entrances and exits, and to the school bus runs between Punakaiki and Greymouth, and/or between Charleston and Westport.

21. In addition, there would be noise and vibration stress for all living within earshot of SH6 – from 5am, all day and until 10pm, well after dark. Currently the road is quiet for long periods: to have this replaced by relentless heavy truck movement, noise and vibration cannot be in the interest of safety and nor can it be in the public interest.
22. TiGa claim equivalence between existing milk tankers and TiGa trucks. As regular Coast Road users we might not like meeting the tankers, nonetheless we recognise the difference: milk tankers are seasonal, limited in number and travel at predictable times of day. They can be avoided by vulnerable road users such as cyclists, and they service local livelihoods. TiGa proposes to ply the highway with considerably more heavy trucks in the interests of profits for a company 89% foreign-owned¹¹³.
23. The site access proposed by TiGa¹¹⁴ will access SH6 in a layout that does not comply with the requirements of either the District Plan or the NZTA Policy Manual.

Transport goal of the Emissions Reduction Plan

24. Aotearoa New Zealand's first Emissions Reduction Plan includes the transport goal of ensuring emissions from freight transport are reduced by 35% by 2035. In contrast, the TiGa proposal would add significant new emissions from trucking 250,000 tonnes per annum of heavy mineral sands. We note an emission reduction plan is a permissive consideration of public bodies under 5ZN of the Climate Change Response (Zero Carbon) Amendment Act 2019.

Conclusion

25. We very much hope Waka Kotahi opposes TiGa's application. But, if approval is given, we trust a thorough assessment of all these issues has been, or will be, made, and that it will be publicly available.



KATHERINE (LAKSMI) CRICK
Chair, Coast Road Resilience Group Inc.

¹¹³ <https://app.companiesoffice.govt.nz/companies/app/ui/pages/companies/5824110/documents> December 2022

¹¹⁴ Integrated Transport Assessment (rev'd) prepared for TiGa Minerals and Metals Ltd by novogroup, June 2023, p6, 29

APPENDIX TWO:

Detective Scott Burrowes to Waka Kotahi 08 Dec 2022

See Dropbox 'Coast Road Resilience Group'

https://www.dropbox.com/home/Coast%20Road%20Resilience%20Group?di=left_nav_browse

Document name: ATT 3A SH6 Concerns Det. Scott Burrowes to Waka Kotahi

APPENDIX THREE:

Coast Road characteristics with regard to overtaking: methodology

See Dropbox 'Coast Road Resilience Group'

https://www.dropbox.com/home/Coast%20Road%20Resilience%20Group?di=left_nav_browse

Document name: ATT 3B Coast Rd overtaking methodology and data

APPENDIX 4:

CRRG letter to DWC re TiGa application

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05 October 2023

To: Heath Milne, CEO Development West Coast [DWC] heath@dwc.org.nz

Tēnā koe

This letter is in regard to the resource consent applications of TiGa Minerals and Metals [TiGa] to mine on the Barrytown Flats, with approval sought to transport 250,000 tonnes heavy mineral sands per annum, either north to Westport or south to, or towards, Greymouth. These applications were publicly notified on Friday 15 September 2023.¹¹⁵

Introduction

We write as a community group, Coast Road Resilience Group Inc [CRRG], to ask that you please give due consideration to opposing these applications, as we firmly believe they are not in the long-term interests of the people of the West Coast region.

TiGa already holds a mining permit for much of the Barrytown Flats. These applications are to open-cast mine an initial block of 63ha approximately 9km south of Punakaiki. TiGa seek ilmenite, garnet, zircon, gold and 'other minerals', to a depth of up to 14 metres¹¹⁶, removing 250,000 tonnes of material per annum, and leaving the level of the site permanently lowered by at least a metre. The heavy mineral sands would be transported at 30 tonnes per truck and trailer load, by 50 truck movements a day, for 17 hours per day from 5am to 10pm [one approximately every 20 minutes], along State Highway Six [SH6]. The onsite processing plant is intended to operate 24/7.

Reasons we believe DWC might oppose the TiGa applications:

1. **Undermining the aims of DWC**
2. **Uncertain employment opportunities**
3. **Uncertain economic benefits**
4. **Potentially adverse effects on existing local economy**
5. **Undermining innovative and effective DWC campaign 'Cut out for the Coast'**

¹¹⁵ <https://www.wcrc.govt.nz/services/consents-compliance/publicly-notified-consent-applications/current-publicly-notified-consents/barrytown-mineral-sand-mining>

¹¹⁶ TiGa's application is to mine to 9m, but the hydrology peer review memorandum reveals [p13] "the maximum depth of excavation is estimated to be approximately 14m from the peak of a 'hump' in the 'hump and hollow topography'"

Undermining the aims of DWC

1. We do not believe that this heavy mineral sands mining industry will support the DWC aims of *“sustainable employment opportunities”* nor that it will help *“generate sustainable economic benefits for the West Coast, both now and into the future”*.¹¹⁷ We give further detail on this under the headings ‘Uncertain employment opportunities’, ‘Uncertain economic benefits’, and ‘Potentially adverse effects on existing local economy’.

Uncertain employment opportunities

2. TiGa has garnered some support from community leaders through the promise of mining jobs. However, we believe this is something of a false hope as there is no guarantee local people would actually get these jobs: for one thing, mining companies are known for flying in the expertise they need. And, any jobs gained would be for only the limited life of the mine: they do not represent sustainable employment.
3. We note other mining companies in the region struggle to find the staff they need as it is, according to Bathurst chief executive Richard Tacon and Federation Mining managing director Mark Le Messurier speaking at the October 2022 NZ Resources 2022 Forum.¹¹⁸ The hospitality industry is also struggling to fill positions, *“crying out for staff”*,¹¹⁹ corroborated by the September 2023 survey of 142 local businesses by DWC et al.¹²⁰
4. TiGa’s economic report claims the West Coast to be *“...a region where jobs have been hard to come by”*¹²¹, but this is actually not reflective of the current situation. Infometric data shows the West Coast now has one of NZ’s fastest growing economies, and the equal lowest unemployment rate. Economic growth = 3.1%pa over the year to June 2023, the same as NZ overall, and unemployment = 3.5% in that same period, cf 3.4% in NZ overall¹²². TiGa claims that this proposal is the answer to employment and economic woes are spurious at best.
5. An unexpected, or certainly undesirable, consequence of any new mining jobs might be that they cannibalize workers from other businesses, exacerbating their current difficulties finding staff.
6. Evidence suggests many young people on the Coast, as elsewhere, want innovative jobs that align with their passions, such as work in low emission businesses or ones that restore nature. We saw this with Jobs for Nature following Covid, with employees then wanting to continue the work.
7. We believe TiGa is offering the region an employment inducement which it simply doesn’t need.

Uncertain economic benefits

8. The TiGa assessment of economic benefits is highly uncertain due to fluctuating commodity prices, and the economic wellbeing of the community should not be compromised in pursuit of uncertain benefits.
9. The potential adverse effects of the proposal on the Coast Road community and local environment far outweigh any potential possible benefit such as job creation.
10. The shareholding of TiGa Minerals and Metals Ltd is 89% foreign owned¹²³ and thus the vast majority of profits will accrue to overseas shareholders. The proposal is a venture that privatises the profits and socialises the losses.

¹¹⁷ <https://westcoast.co.nz/development-west-coast/about-development-west-coast/>

¹¹⁸ Westport News, 18 Oct 2022

¹¹⁹ <https://www.stuff.co.nz/life-style/homed/first-homes/129114407/the-first-time-buyers-who-moved-from-wellington-to-westport>

¹²⁰ Survey as reported in Westport News, 18 Sept 2023

¹²¹ Sense Partners, p1, 5

¹²² <https://qem.infometrics.co.nz/west-coast-region>

¹²³ <https://app.companiesoffice.govt.nz/companies/app/ui/pages/companies/5824110/documents> [December 2022]

11. The cost of repairing damage to SH6 from the increase in heavy truck movements could be significantly more than the applicant's contribution to the Transport Fund. This fund is already under severe pressure, and it is likely it will need to be topped up from general taxation, further reducing the actual economic benefits of the proposal to the region or to the country.

Potentially adverse effects on existing local economy

12. Nature tourism, in conjunction with innovative low emission business development, offers a sustainable future for the West Coast, unlike the TiGa proposal. It would undermine efforts by DWC to attract people to the Coast who are *"looking for easy access to some of the world's most stunning natural surroundings"*¹²⁴
13. Natural resources and attractions are a permanent investment and increasingly valued worldwide. The Barrytown Flats, albeit modified in part by farming activities, form part of a natural landscape which connects the ocean, wetlands, forest remnants and Paparoa ranges. An open cast mine and its associated processing plant, lighting, machinery, and trucking would destroy that connectivity.
14. The mine proposal undermines government investment in the \$41m Dolomite Point Redevelopment Project, supported by DWC. Frequent mining trucks would discourage the up to 500,000 people currently visiting annually and would certainly discourage them from staying longer for the enhanced visitor experience the Project aims to provide.
15. There is a very real prospect – already in evidence anecdotally - that residents in the community will suffer additional stress and anxiety watching their property values plummet as people shy away from investing or living near a mine haulage route.
16. Tourism provides ample employment opportunities [3000 + jobs prior to Covid] and is essential to the flourishing economy of the West Coast. Visitor numbers were up 28% in the year to June 2023¹²⁵ and, as evidenced in the DWC tourism Hui in Greymouth in late August 2023, there is much optimism about the 'summer of the Coast' coming up¹²⁶.
17. There is much positive publicity to support this enthusiasm, including a very recent article in the NZ Herald, citing the West Coast as an *"epic journey by campervan"*.¹²⁷ By coincidence, the scenic photo



Photo / BareKiwi

¹²⁴ <https://www.stuff.co.nz/life-style/homed/first-homes/129114407/the-first-time-buyers-who-moved-from-wellington-to-westport>

¹²⁵ <https://westcoast.co.nz/news/tourism-revival-boosts-west-coast-economy/>; Visitor trend report, DWC, June 2023

¹²⁶ Westport News, 04 Sept 2023

¹²⁷ <https://www.nzherald.co.nz/travel/south-island-road-trip-why-the-west-coast-is-an-epic-journey-by-campervan/EMARWFGS5FESLMLC2YYHGXF4Q4/>

of Meyville Bay accompanying the article [above] also illustrates perfectly why this winding road is unsuitable and unsafe for masses of heavy truck and trailer units.

18. The mining proposal would mean delaying the opportunity for a sustainable and low-emission mixed land use model for the Barrytown Flats, including tourism, which would advance the nature economy and in doing so support and enhance Te Tai Poutini/the West Coast's greatest asset, the natural environment.
19. As Nicola Nation, chief executive of social enterprise the Ākina Foundation, puts it, '*The only way to create long-term sustainable value is to consider all stakeholders, including employees, customers, regulators, the environment, and the community*¹²⁸[our emphasis]. We believe nature tourism ventures do this, but that this mining application does not.

Local tourism operators

20. Local nature tourism operators are likely to be adversely affected by mining activities, through SH6 being used as a trucking route and by subsequent reputational damage.
21. Accommodation businesses along the route, most of which are small, low-key, and locally owned and operated, will suffer from the increased heavy traffic movements, and associated noise.
22. These local tourism operators are the ones we believe should be prioritised by DWC as we look ahead to a sustainable economic future coupled with a rich quality of life on the Coast.

Tourist safety issues related to increased traffic volume

23. The dramatic increase in traffic movements, especially the heavy truck and trailers, will create serious safety issues for visitors, especially in peak holiday times when the highway is already busy.
24. The impact of heavy vehicles jeopardizes the viability of this highly vulnerable stretch of highway. The likelihood of heavy vehicles contributing to road closures is significant. We wonder if there would there be any compensation for local businesses affected by road closures.
25. The proposal carries the risk of reputational damage to the regional tourism industry if a tourist, whether pedestrian, touring cyclist, or motorist, is seriously injured or killed on SH6.
26. Observation and anecdote indicate many visitors are already nervous driving SH6 between Greymouth and Westport. Word would soon spread amongst potential tourists that this road is now a trucking route and even more hazardous for the visitor.
27. The likelihood Westland Mineral Sands [WMS] is now poised to truck south from Westport to Greymouth, with their barge to be "*permanently based in Greymouth*"¹²⁹ adds to the enormity of scale, possibly by doubling truck and trailer movements between the proposed Barrytown mine site and Greymouth. On average, that would be a truck and trailer unit approximately every ten minutes.
28. As well as obvious implications for road safety, industrial mining on this scale, and the trucking that goes with it, would both contradict, and jeopardize, the "*Untamed Natural Wilderness*" strategy, which so successfully promotes West Coast's most valuable asset: its natural environment.

Undermining innovative and effective DWC campaign 'Cut out for the Coast'

29. As community members we have enjoyed reading of the DWC recruitment campaign looking for those who are 'Cut out for the Coast' and its success in bringing people here.

¹²⁸ [Stuff Digital Edition \(pressreader.com\)](#) 'How the next government can help impact-led businesses thrive' 2 Oct 2023

¹²⁹ 'First mineral sands export shipment due' Grey Star, 25 Sept 2023

30. The DWC website showcases people who have chosen to live on the Coast, with most of them individuals, couples and families drawn to the natural environment. These people are assets to the region. One of many examples is Daimon Schwalger [The Nomad]:

"All the jobs I drive to [from Westport] ... down to Punakaiki, Hokitika, Greymouth: Sometimes I pinch myself, thinking is this actually real, with just the beauty of driving from A to B." Mr Schwalger also cites the community feel, scenery, and lack of city traffic as pluses. And he notes that [his business, Nomad Video and Audio](#), has taken off, despite him being based so remotely.¹³⁰

31. Mr Schwalger – and many others who share his appreciation of the natural environment - might not feel quite so enamoured of the drive were it to become a mine haulage route, shared with a truck and trailer every twelve minutes, or potentially every six minutes south of the Barrytown mine site.

Conclusion

32. Thank you for your consideration of this matter, and we look forward to your response. We hope DWC will support our efforts towards a sustainable future by opposing TiGa's resource consent.



KATHERINE (LAKSMI) CRICK
Chair, Coast Road Resilience Group Inc

APPENDIX 5

Traffic surveys related to photos around sunrise and sunset on Barrytown Flats

See Dropbox 'Coast Road Resilience Group'

https://www.dropbox.com/home/Coast%20Road%20Resilience%20Group?di=left_nav_browse

Document name: ATT 3C SH6 traffic surveys sunrise sunset

APPENDIX 6

M. Weston's methodology and detailed data [originally for BJV hearing 2021]

See Dropbox 'Coast Road Resilience Group'

https://www.dropbox.com/home/Coast%20Road%20Resilience%20Group?di=left_nav_browse

Document name: ATT 3D Sh6 residences methodology & data M. Weston

¹³⁰ <https://www.stuff.co.nz/life-style/homed/first-homes/129114407/the-first-time-buyers-who-moved-from-wellington-to-westport>