

**FORM 13: SUBMISSION  
ON AN APPLICATION FOR RESOURCE CONSENT  
UNDER SECTION 96  
OF THE RESOURCE MANAGEMENT ACT 1991**

Office  
Use Only



**PART A: DESCRIPTION OF APPLICATION**

CONSENT NUMBER: WCRC: RC-2023-0046 GDC: LUN3154/23	APPLICANT: TIGA MINERALS AND METALS LTD
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DESCRIPTION OF PROPOSED ACTIVITY:  
Establish and operate a mineral sands mine, including construction of associated infrastructure.

LOCATION:  
Barrytown Flats, west of State Highway 6 (Coast Road), 9km south of Punakaiki township and 36km north of Greymouth.

**PART B: SUBMITTER DETAILS**

Full name/s	Graham Charles Wood		
Postal address	[REDACTED]		
I am the owner/occupier (delete one) of the following property:	[REDACTED]		
Primary contact person/s	Graham Charles Wood		
Email address	[REDACTED]		
Phone number/s	Home:	[REDACTED]	Business:
	Mobile:	[REDACTED]	Fax:

Signature of the submitter (or person authorised to sign on behalf of the submitter): 	Date: 13 Oct 2023
Name (BLOCK-CAPITALS): Graham Charles Wood GRAHAM CHARLES WOOD	

*If this is a joint submission by 2 or more individuals, each individual's signature is required. A signature is not required if you make your submission by electronic means.*

- I/we **support** the application numbers indicated by a tick on the back of this form
- I/we **oppose** the application
- I/we **neither support nor oppose** the application

(tick one)

(tick one)

I/we **wish to be heard** in support of my/our submission.

I/we **DO NOT wish to be heard** and hereby make my/our submission in writing only.

If you wish to be heard, and others make a similar submission would you consider making a joint case with them at any hearing

Yes

No

If you indicated you wish to be heard, you will be sent a copy of the S.42A Officer's Report and a copy of the Decision once it is released. Please indicate below which format you would like to receive these documents in:

Electronic (CD) copy

Hard (paper) copy

I/we **have** served a copy of my/our submission on the Applicant as per Section 96(6)(b) of the RMA

Yes

The specific parts of the application that my submission relates to are: *(give details)*

As attached

My/our submission is that: *(include whether you support or oppose the application or specific parts of it; whether you are neutral regarding the application or specific parts of it; and the reasons for your views).*

I/we seek the following decision from the Local Authority: *(give precise details)*

Decline the application to mine Barrytown flats by TIGA minerals in entirety

I am/am not\* a trade competitor for the purposes of section 308B of the Resource Management Act 1991.

\*Select one.

\*I am/am not† directly affected by an effect of the subject matter of the submission that—

(a) adversely affects the environment; and

(b) does not relate to trade competition or the effects of trade competition.

\*Delete this paragraph if you are not a trade competitor.

†Select one.

I request/do not request\*, pursuant to section 100A of the Act, that you delegate your functions, powers, and duties to hear and decide the application to 1 or more hearings commissioners who are not members of the local authority.

\*select one.

**Important information – Please read carefully.**

## AMENITY VALUES and COMMUNITY WELLBEING

Broad statement:

*"I oppose the application due to adverse effects on amenity values and on community wellbeing"*

### AMENITY VALUES

#### Pleasantness

- Calming effect of views: green pasture to sea, from SH6 and local homes
- Long periods of quiet on and near the highway

#### Aesthetic coherence

- Visual connectivity between ocean, pasture and forest remnants, bush-clad hillside
- Dark sky
- Sweeping views

#### Cultural attributes

- Social fabric of rural neighbourhood – SH6 links neighbours but would become an industrial road
- Sense of a growing, environmentally aware community is now being replaced by anxiety and stress

#### Recreational

- Beach front and lagoon-side relaxation and exploration

These amenity values have drawn many of the current residents to the Barrytown coastal environment

TiGa has no social licence to operate here

### WELLBEING

#### Economic wellbeing [See also tips under Nature Tourism heading]

- Many residents in this area do not seek highly paid jobs, or industrial development – they wish to be able to work in a mosaic of low-impact enterprises, including farming
- Many here value quiet, relative isolation, natural environment, above more development
- These attributes also attract tourists: mining not. WCRC slogan *"Untamed Natural Wilderness"*
- As a consequence of degraded amenity and wellbeing values, likelihood of reduced property values and difficulties in selling as potential buyers dissuaded by proximity to mining and trucking<sup>1</sup>

#### Social and cultural wellbeing – see notes under amenity values above

- Much of community wellbeing is about connectedness [requires a safe, usable SH6]

#### Health and Safety

- SH6 likely to become much more dangerous – see detail under trucking
- Dust, noise, and light pollution
- Sleep loss caused by anxiety, stress, trucking noise evening and early morning
- Adverse effects on mental health in the community as a result of ongoing threats to the quiet enjoyment of the area

<sup>1</sup> property values in themselves are not a valid RMA effect, so if you make this point be sure to link it to the valid RMA effects of degraded amenity and wellbeing values

## CLIMATE CHANGE

Broad statement:

*"I oppose the application due to adverse effects both on and of climate change"*

- The proposal is emission intensive, from diesel fuelled trucking and open cast mining
- Carbon emissions from the proposal will generate more than minor effects during a government declared climate crisis, contributing to the myriad of adverse effects from global warming
- The application lacks an emissions report, and this critical lack of information means the proposal cannot be measured against the climate change provisions in the RMA and the Climate Change Response [Zero Carbon] Amendment Act
- The application is in opposition to targets and actions of the Emission Reduction Plan
- The proposed mining would reduce the land elevation by 1.2m, potentially exacerbating climate impacts of coastal erosion and seawater incursion into groundwater from sea level rise and storm surges in a warming climate

## CYCLING SAFETY

Broad statement:

*"I oppose the application due to adverse effects on cycling safety"*

- The significant increase in heavy truck movements associated with the mine will create further dangers for cyclists along the transport route of the Coast Road
- The loss of cycling's positive benefits will have negative impacts on people's health and wellbeing, their cost of living and emission reduction
- Along the vast majority of the 102km distance between Westport and Greymouth there are no cycleways, leaving cyclists with no alternative but to use SH6
- Serious injuries or road deaths are inevitable over the applicant's long-term 30-50-year plans – this proposal will cost lives
- The proposal risks reputational damage to the regional tourism industry if a touring cyclist is seriously injured or killed

## ECOLOGY & ECOSYSTEM IMPACTS

Broad statement:

*"I oppose the application due to adverse effects on indigenous flora and fauna and their habitats"*

- The proposed mining activities will likely cause disturbance through noise, lighting, dust, vibration, truck movements, waterway sedimentation loading, excavation, and alteration of the hydrology, and will therefore have adverse effects on indigenous flora and fauna and their habitats
- An example is the threatened matuku/Australasian bittern which can be expected to seek to avoid noise
- The proposal is inconsistent with the requirement of Policy 11 of the New Zealand Coastal Policy Statement (NZCPS) to avoid adverse effects on threatened or at-risk indigenous species and their habitats
- The mining proposal would come at the cost of delaying an opportunity to restore the coastal lowlands to achieve climate, biodiversity, and freshwater goals

## ECONOMICS

Broad statement:

*"I oppose the application due to adverse social and environmental costs outweighing any short-term economic wellbeing benefits"*

- Adverse effects of the proposal on the Coast Road community and local environment far outweigh any possible benefit such as job creation
- The assessment of economic benefits is highly uncertain due to fluctuating commodity prices
- Social wellbeing should not be compromised in the pursuit of uncertain economic benefits
- The proposal is based on an unsustainable model of economic growth and development that has brought society to its multiple interconnected crises of climate, biodiversity, health, and wellbeing
- The applicant purports that the West Coast is "...a region where jobs have been hard to come by". This is not reflective of the current situation
- The West Coast 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 overall<sup>2</sup>. TiGa claims that this proposal is the answer to employment and economic woes are spurious at best
- The shareholding of TiGa Minerals and Metals Ltd is 89% foreign owned and thus the vast majority of profits (and return to capital) will accrue to overseas shareholders. The proposal is yet another venture that privatises the profits and socialises the losses
- State highway maintenance is covered by the Transport Fund (from fuel excise duty, road user charges and vehicle and driver registration and licensing). However, 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. The 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
- The mining proposal would mean delaying the opportunity for an alternative, sustainable and low-emission mixed land use model for the Barrytown Flats, including tourism, to advance the nature economy and in doing so to support and enhance Te Tai Poutini/the West Coast's greatest asset, the natural environment

<sup>2</sup> <https://gem.infometrics.co.nz/west-coast-region>

## HYDROLOGY AND WATERWAYS

Broad statement:

*"I oppose the application due to adverse effects on the area's hydrology and waterways"*

- There is a critical lack of information to demonstrate that the proposed mining will not result in leaching of heavy metals from the disturbed subsoils, mineral sands and mine waste backfill on exposure to rainwater and air. This leaching could result in heavy metal contamination of the coastal lagoons, wetlands, and freshwater springs
- A Toxicant Management Plan is proposed to be developed only in response to exceeding a threshold level<sup>3</sup>. The proposed actions to be taken include offsetting or compensating for more than minor effects. This plan should have been developed at the resource consent application stage and should detail actions according to the effects hierarchy of avoid, remedy, and mitigate. Offset and compensate actions for more than minor toxicity effects, such as from heavy metals, are entirely inappropriate and unacceptable
- Questions remain around the intended method of dealing with excess water from the mining pit after heavy rainfall i.e. by introducing it to Collins Creek and Canoe Creek. Any contamination from the mineral extraction will likely then enter the freshwater systems
- Topsoil and sub soil structures across the mine site will have been disturbed to a depth of up to 14 metres<sup>4</sup>. The physical, chemical, and biological qualities of the soil will be compromised
- Technical concerns remain that a significant amount of mine water management infrastructure will need to be installed within 20m of the mine pit wall, leading to pit wall instability
- The proposal risks exacerbating impacts on the coastal environment from a catastrophic alpine fault earthquake: scientific research indicates that while we can't predict earthquakes, there is a 75% probability of this occurring in the next 50 years, with a 4 out of 5 chance it will be a magnitude 8+ event<sup>5</sup>

<sup>3</sup> Att. 11 Water Management Plan 7.6.2 p30

<sup>4</sup> The TiGa application says they will mine to 9m, but the hydrology peer review memorandum reveals [p13] that *"the maximum depth of excavation is estimated to be approximately 14m from the peak of a 'hump' in the 'hump and hollow topography"*

<sup>5</sup> [af8.org.nz](http://af8.org.nz)

## NATURE TOURISM

Broad statement:

*"I oppose the application due to adverse effects on the value of West Coast tourism, and its marketing"*

- Industrial mining would both contradict, and jeopardize, the WCRC's own "Untamed Natural Wilderness" strategy, which promotes West Coast's most valuable asset: its natural environment
- Natural resources and attractions increasingly important worldwide and a permanent investment
- West Coast cited as one of world's Top 10 regions to visit: Coast Road singled out [Lonely Planet]<sup>6</sup>
- Mining proposal undermines government investment in the \$41m Dolomite Point redevelopment. Frequent mining trucks would discourage the up to 500,000 people currently visiting annually
- Nature Tourism, in conjunction with innovative low emission business development, offers the most sustainable future for the West Coast.
- Tourism provides ample employment opportunities and is essential to the flourishing economy of the West Coast - Coast's biggest earner and employer [3000 + jobs prior to Covid] and visitor numbers were up 28% in the year to June 2023<sup>7</sup>

### Local tourism operators

- Local nature tourism operators are likely to be adversely affected by mining activities, by SH6 being used as a trucking route and by subsequent reputational damage. Includes Paparoa Nature Tours, Golden Sand Wagon Tours, Pancake Rocks café, Waka Puna canoe hire, Punakaiki Beachcamp
- 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

### Tourist safety issues related to increased traffic volume

- The dramatic increase in traffic movements (estimated 390 equivalent car movements per day, 7 days a week, including 50 heavy truck and trailer movements per day, that's approx. one every 12 minutes, each outgoing truck carrying 30 tonnes of heavy mineral sands!) will create serious safety issues for travellers, especially in peak holiday times, when the highway is often already busy
- The impact of heavy vehicles jeopardizes viability of this highly vulnerable stretch of highway. The likelihood of heavy vehicles contributing to road closures is very high (think Meyville Bay!). Would there be any compensation for businesses affected by road closures?
- The new shared pathway linking Truman Track to the Paparoa Track at the Punakaiki River already has serious safety issues. Extra heavy traffic volumes would undoubtedly add to the problem

<sup>6</sup> <https://westcoast.co.nz/visit/operators/great-coast-road/>

<sup>7</sup> <https://westcoast.co.nz/news/tourism-revival-boosts-west-coast-economy/>; West Coast Visitor trend report, DWC, June 2023



## RADIATION

Broad statement:

*"I oppose the application due to potential adverse effects of radiation"*

- The TiGa radiation assessment report consists of an analysis of only two samples, one of which is 20 years old with no chain of custody. Thus, there is no way of knowing if it comes from the proposed mine site. This is an inadequate basis from which to make a decision on the radiation content of the heavy mineral concentrate coming from the proposed mine
- As TiGa's proposed conditions of consent point out, NZ does not yet have a code of practice for managing radiation safety in the mining industry [Attachment P, 8.6]
- TiGa proposes using the Australian Code of Practice and safety guide published by the Australian Radiation Protection and Nuclear Safety Agency
- Thus, TiGa acknowledges managing radiation risk may be a significant issue
- Australian standards are inappropriate for NZ where environmental conditions and neighbouring community densities are quite different from those in the sparsely-populated desert regions of Australia where much of their mining occurs
- This is a new-to-NZ mining activity, untested
- Independent oversight is needed:
  1. the acknowledged need to manage radiation risks in this new mining activity, and
  2. genuine community concerns, and
  3. the lack of an appropriate code of practice for radiation safety,

mean the development of a Radiation Management Plan, and the monitoring of radiation/dust levels during the mining process, **must be carried out by an independent organisation** such as the Institute of Environmental Science and Research [ESR] and not left up to the mining company

## TĀIKO [Westland petrel]

Broad statement:

*"I oppose the application due to adverse effects on the Tāiko / Westland petrel"*

- There is the potential for unacceptable cumulative effects on the Tāiko population
- The proposed southbound trucking hours of 5am to 10pm include hours of darkness for all months of the year, so they will not protect the petrels from road injuries and fatalities as a result of headlight distraction. Petrels do not always fly directly west out to sea; they are known to also follow the coastline, and the risk remains they could be confused by headlights especially along sections of the Coast Road close to shore
- The proposed northbound trucking hours of 30 minutes before sunrise until 30 minutes after sunset (Westport times) will not protect petrels from the threat of headlight distraction. Headlight use during these periods on this stretch of road is common and necessary, even in clear weather, especially with the proximity of the Paparoa range blocking morning light, and evening light affected by dark bush-clad surrounds
- The proposed site operation of mining, loadout, and 24/7 processing includes operating in the hours of darkness for all months of the year and presents light distraction threats to the tāiko
- The proposal is inconsistent with the requirement of Policy 11 of the New Zealand Coastal Policy Statement (NZCPS) to avoid adverse effects on threatened or at-risk indigenous species and their habitats
- Climate change and the recent Tasman Sea marine heatwaves affect the abundance and distribution of Westland petrel food sources and may impact breeding success. A warming climate also increases the risk of cyclones making landfall on the West Coast. In 2014, Cyclone Ita caused slips and is thought to have destroyed hundreds of petrel burrows. The proposal adds new emissions, contributing to the adverse effects of global warming on the tāiko
- The notably slow reproductive rate means even a few tāiko deaths can have a significant effect on the breeding potential of this already threatened species

## TRUCKING

TiGa proposes "50 truck and trailer movements per day", each outbound truck loaded with 30 tonnes of heavy mineral sands, maybe north to Westport, maybe south towards Greymouth; "no more than three movements per hour between 05.00 and 07.00"; southbound between 05.00 and 22.00; northbound "starting 30mins before sunrise and ending 30mins after sunset". Details in Nick Fuller application transport report.

Westland Mineral Sands have now applied for consent to barge out of Greymouth port, potentially making SH6 south of any Barrytown mine very busy.

Broad statement:

*"I oppose the application due to adverse effects of heavy trucking on our State Highway, on its users, on community wellbeing and on the environment"*

### Road suitability / adverse effects on infrastructure

- Fragile, vulnerable, high maintenance road
- Level of risk for SH6 is already very high – easily damaged
- Waka Kotahi already struggles to maintain our highway
- Road closures, full and partial, already frequent

### Adverse effects on safety of other road users

- Already a dangerous road
- Truck & trailers cross centre line to navigate tight, blind, often climbing corners
- Residential driveway entrances and exits would be more dangerous
- School bus runs: between Punakaiki and Greymouth; between Charleston and Westport
- Cyclists, pedestrians, and motorists: both local and tourist - significant added risks

### Adverse effects of reputational damage on local economy – see Nature Tourism and Economics pages

- Lower local property values as people shy away from investing near a mine haulage route
- Livelihoods affected by safety issues and road damage – cf Hawkes Bay and Coromandel 2023

### Adverse effects on community well-being

- SH6 = TiGa's road to profits, much to go offshore [TiGa is 89% foreign owned], but SH6 = our lifeline: to everything
- Sleep = mental health and well-being; many including children sleep before 22.00 and after 05.00
- Noise and vibration stress for all living within earshot of SH6 – from early hours, all day and after dark

### Adverse effects of trucking on environment – see Climate Change page

### Adverse effects of trucking on Tāiko / Westland petrel – see Tāiko page

### Adverse effects of trucking on nature tourism – see Economics and Nature Tourism pages

Ideas to help with submissions opposing TiGa resource consent application 2023