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 further evidence of Suzanne Hills
For COAST ROAD RESILIENCE GROUP INC

Comment on Supplementary Statement of Stephen Miller dated 7 March 2024

Dated: 15 March 2024

Coast Road Resilience Group Inc
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INTRODUCTION

1. My full name is Suzanne Denise Hills. I have a B.Tech (Hons) in Biotechnology and Bioprocess Engineering, Massey University, 1992. I had a career in the food industry in New Zealand and the UK in technologist, technical management and auditing roles for 17 years.

2. I appreciate the Panel granted leave to the Coast Road Resilience Group's (CRRG) climate change expert Dr Renwick to respond to the new material supplied by the applicant on greenhouse gas emissions. However, in the short timeframes involved CRRG has been unable to raise a response from Dr Renwick as he is currently on sabbatical leave in Europe. I have been asked by the CRRG to provide lay witness comment in lieu of Dr Renwick on the supplementary statement of Stephen Miller. CRRG trusts this is acceptable to the Panel. I am not an expert in the matters of greenhouse gas emissions and this comment is not intended as expert evidence.

3. I am a member of the CRRG. I have prepared this comment for the CRRG in response to Mr Miller's supplementary statement dated 7 March 2024.

4. I am familiar with the TIGA application and proposed site as I have lived on the Barrytown Flats for over 7 years.

5. In preparing this comment, I have reviewed these documents:
   Supplementary Statement of Stephen Miller, 7 March 2024
   TiGa Sustainability Report, prepared by Dr Danny Samson, 17 January 2024
   Legal Submissions from Counsel on behalf of the Director-General of Conservation, 26 February 2024
   Statement of Expert Evidence of Dr James Renwick, 12 January 2024
   MfE Measuring emissions: A guide for organisations: 2023
   National Environmental Standards for Greenhouse Gas Emissions from Industrial Process Heat 2023

6. I acknowledge reference material in footnotes throughout.

COMMENT ON POINTS IN MR MILLER'S SUPPLEMENTARY STATEMENT

7. Mr Miller's emission estimates in his Table 1 illustrate that Power Generation in the Base Case makes up 73% of the proposal's three main sources of emissions. In paragraph 9 he states: ***The Scenario 1 case shows the updated proposal where the mains connection is done prior to project start up negating the need for the diesel power generation.*** Paragraph 38 of Mr Brand's statement of evidence, dated 19 January 2024 states: ***TiGa has committed to connecting to the West Coast power grid instead of using diesel for its***

processing plant power requirements. And Dr Danny Samson states in the TiGa Sustainability Report: ***The most environmentally sustainable way to generate the necessary electricity for this operation is not to create and use local diesel powered electricity generation but to build a new power line from the grid which is the company's firm intent.*** Despite these repeated statements, the applicant has not included connection to mains power as a consent condition in the last available update of the Proposed Conditions of Consent, dated 7 February 2024.

8. The emissions of Scenario 1 in Mr Miller's Table 1 total 2709 tonnes $CO_{2\text{-}e}$ p.a. The emissions are also reported as percentages of national totals and of national industry and transport sectors. The low percentage values could be interpreted as being insignificant. The rational approach in a climate crisis is to view all emissions as contributing to the cumulative effect. And rather than percentages of national totals, the better comparison is to look to the National Environmental Standards for Greenhouse Gas Emissions from Industrial Process Heat 2023. This standard defines a high-emission site. ***Means a site that, each year, emits more than 2,000 tonnes of carbon dioxide equivalent of greenhouse gases from heat devices that – (a) burn any fossil fuel; and (b) are not back-up devices.***[1] Whilst acknowledging that these standards do not apply to the proposed operations, it is a useful comparison and demonstrates that even with electrification of the processing plant, it is unlikely the operation could be defined as low-emission[2]. Given the need for New Zealand's emissions to start declining from next year, it would not be unreasonable to decline the application. After all, the extraction of the minerals could wait until technologies are available to power the mining and haulage operations using renewable energy.

9. Without prejudice to my position that this application should be declined, 2709 tonnes $CO_{2\text{-}e}$ p.a. could be offset by planting approximately 10-12 hectares p.a. of native trees and shrubs at 4000 stems/hectare to offset emissions within 20 years[3]. This level of planting is reasonable and practical, and could be provided by CVNZ (the West Coast's largest native nursery). Offset planting is not a long-term solution and the better option to meet NZ's statutory emission budgets and our nationally deter mined contributions is not to generate new emissions in the first instance.

10. Without prejudice to my position that this application should be declined, a comprehensive Emissions Plan should be written by a suitably qualified person to independently review and make recommendations relating to greenhouse gas reductions for the proposed activities.

[1] https://www.legislation.govt.nz/regulation/public/2023/0165/latest/LMS605271.html

[2] TiGa Sustainability Report by Dr Danny Samson, pg 5: ***Despite the fact that it is a miner, the scale of the company's operations lead it to believe that it will be classified as a low level emitter,...***

[3] Using Tanes Tree Trust calculator https://toolkit.tanestrees.org.nz/carbon-calculator/

The applicant intends to do this as stated in Mr Miller's paragraph 3: ***This is a preliminary assessment and focusses on primary emission sources (haulage, mining and processing). As I set out in my statement of evidence, identification of further options to reduce the projects carbon footprint will occur in the Front End Engineering Design (FEED) and detailed design stage (i.e. we still have two more stages of work which will seek to further minimise emissions).*** It would be constructive to have this stated intention as a consent condition. For example, Dr Samson states in the TiGa sustainability report: ***The company will provide and use a fully electric bus to transport employees to and from Greymouth each working day to reduce greenhouse gas emissions from employees cars****. (*underline my emphasis*).*[4] Yet, the use of an electric bus has not been stipulated in the updated consent condition 15.3, contained in the Lighting Management Plan dated 8 March 2024.

11. I wish to acknowledge my error of incorrectly applying the methodology to estimate the transport emissions in my original statement of evidence***.*** At the time I was not aware of the MfE guidance and I made my estimate based on data from the SBN Climate Toolbox. It was a genuine error made without intention of inflating the emissions estimate.

12. The MfE guidance states: ***Users should note that these are average emission factors for certain vehicle categories of the New Zealand vehicle fleet. The actual emissions for a specific vehicle in a specific trip could be different.***[5] ***The sources used to develop these emission factors will have inbuilt assumptions, limitations and uncertainties.***[6] I would note that if Mr Miller has used a standard kg $CO_{2\text{-}e}$/km factor from the MfE guidance, it would likely be underestimating the transport emissions given the proposed route has five significant hills and 13km of very winding road. Given the applicant is in discussions with local road haulage contractors, it would have ready access to the actual usage of diesel for a 30t HGV fully loaded one way and return unloaded trip for the proposed route. Therefore, the calculations would be far more accurate if they were based on actual data for the proposed route.

[4] TiGa Sustainability Report by Dr Danny Samson, pg 5

[5] Section 8, pg 82 https://environment.govt.nz/publications/measuring-emissions-a-guide-for-organisations-2023-detailed-guide/

[6] Section 8.2.5, pg 93 https://environment.govt.nz/publications/measuring-emissions-a-guide-for-organisations-2023-detailed-guide/