

Before the Hearing Commissioners
Appointed by the Grey District Council
and West Coast Regional Council

Under the Resource Management Act 1991

In the matter of Resource consent applications by TiGa Minerals and Metals
Ltd to establish and operate a mineral sands mine on State
Highway 6, Barrytown (RC-2023-0046; LUN3154/23)

Summary Statement of Naomi Louise Crawford

2 February 2024

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Summary of evidence

- 1 My name is Naomi Louise Crawford.
- 2 I prepared a statement of landscape evidence dated 19th of January 2024. My qualifications and experience are set out in that statement of evidence.
- 3 I repeat the confirmation given in that statement that I have read and agree to comply with the Code of Conduct for Expert Witnesses in the Environment Court.
- 4 My role in relation to TiGa Minerals and Metals Limited's (**TiGa**) application (the **Application**) has been to provide landscape and visual advice since September 2022. In my statement of evidence, I outline the landscape and visual effects arising from the proposed mining extraction and processing activity.
- 5 This oral statement provides an overview of my findings and recommendations. It is also accompanied by graphics which were filed alongside my evidence. To begin, I will illustrate the existing landscape character through site panoramas. (*Refer to the Existing Site Panoramas*).

Summary

- 6 With the mitigation proposed, I consider the Project will result in a graduation of landscape and visual effects (largely dependent on when and where the mining activity is occurring). My evidence identifies that landscape effects range from *low (less than minor)* to *low to moderate (minor)* during mining operations. Once the Project is completed, this will reduce from *very low (less than minor)* to a *low positive effect*.
- 7 For visual effects, I have identified that effects range from *very low (less than minor)* to *low to moderate (minor)* during mining operations. This reduces from *very low (less than minor)* to *low (less than minor)* range upon Project completion. To illustrate the potential visual effects for neighbouring properties, I have prepared a number of visual simulations. (*Refer to Visual Simulations*).
- 8 Recently I have participated in expert conferencing with Mr Rhys Girvan (Landscape Expert for Grey District Council). A Joint Witness Statement (JWS) was prepared on the 29th of January 2024.
- 9 My views are largely aligned with Mr Girvan with the exception of effects upon landform and natural character (as per paragraphs 10-12 of the JWS) "*Whilst we (the experts) agree these are not significant, the level at which effects occur is slightly different in the opinion of each expert.*" For the two points of difference for landform and natural character, I will summarise my findings and explain how I have reached my conclusions.

- 10 For landform, I believe that during mining there will be a *low to moderate adverse (minor) effect* (whereas Mr Girvan identifies this as slightly higher). Long term we agree that this will reduce to a *very low adverse (less than minor) effect*.
- 11 My findings are informed by the previous modification of the site, mining occurring in 3ha panels (limited to 8ha of disturbance at any one time), the active mining pit being up to 9m lower and different to the surrounding landform (although temporary and moving across the site), the use of progressive rehabilitation and a mixture of short term and permanent bunding and stockpiles. At the end of the Project the final rehabilitated landform will be average 0.8m lower overall, meaning it will not be out of context with the surrounding environment.
- 12 When assessing natural character, I believe that the effect will be *low to moderate adverse (minor)* during the mining operation (whereas Mr Girvan identifies this as slightly higher). However, *“in the long term, following Project completion, we (the experts) agree there is potential for a low positive (beneficial) effect on natural character.”*
- 13 I consider that the natural character of the site and surrounding area will only be adversely affected for a short period during the Project. Effects are largely able to be avoided beyond the mining disturbance area (and beyond the modified pastoral land) and will not affect coastal processes (as per the evidence of Mr Gary Teear).
- 14 This is a result of the temporary nature of the mining activity and the periodic and short duration of when the mining of each panel will reach its western most extent near the coast. In addition, the natural character of the night sky will be protected by mining and trucking only occurring during daylight hours, and lighting being designed to minimise light spill.
- 15 Boundary setbacks also offer some protection during mining, and are strengthened by buffer planting, fencing, and progressive rehabilitation. This provides the ability to reverse the currently declining natural character of the site through the benefit of large amounts of new planting. No coastal vegetation will be removed.
- 16 With respect to the natural character values of the wetlands and margins, I have considered the natural elements, patterns, processes and qualities that contribute to them. In addition to the mitigations proposed above, the evidence is that the proposal will meet high standards of environmental protection for the hydrological function of the Canoe Creek Lagoon (Mr Jens Rekker). Furthermore, the water quality and aquatic life will be protected, and there will be no change to visual clarity (Mr Mike Fitzpatrick). The proposal will not impact coastal processes in either the short-term or the long-term (Mr Gary Teear).
- 17 Proposed mitigation measures aim to preserve and rehabilitate the site as well as minimise potential adverse effects from surrounding viewpoints (*Refer to*

Landscape Mitigation Plan). These measures (supported by consent conditions) include the adoption of setbacks from landscape features and neighbouring properties, the use of recessive colours, and the implementation of bunds.

- 18 There will be approximately 4ha of new riparian, wetland, coastal and boundary planting implemented in the first 1.5 years of the Project. 98.5% of this planting will be maintained and retained with only the small amount of planting on the southern end of the central stockpile bund being removed at the end of the consented period. *(Refer to Plant Species, Growth Rates, Indicative Staging and Colour Palette)*.
- 19 The intention behind Condition 19.7 of the JWS is to ensure that planting is maintained during the consent term and not removed by the landowner once TiGa have rehabilitated and exited the Site. At the end of the consent period, it is considered that the planting would be sufficiently established, and that further maintenance intervention will not be required. As per the evidence of Ms Katherine McKenzie, this planting is also protected by a number of different plan provisions (both operative and proposed).

Conclusion

- 20 I consider that the proposed mining activity is appropriate for this environment. This is due to the fact that the site has already been modified by farming, the mining activity is for a short timeframe, and the proposal will return the site to its current landuse. The final rehabilitated site will appear similar to the current situation, although with a lower landform (except on the western end) and improved drainage.

Naomi Louise Crawford

Dated this 2nd day of February 2024