

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 sand mine on State Highway 6, Barrytown (RC-2023-0046; LUN3154/23)

Evidence of Mark William Geddes in relation to Minute 8

4 March 2024

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INTRODUCTION

1. This evidence intends to provide the information requested in Minute 8 dated 26 February 2024 by the Chair of the Hearing Commissioners in relation to the TiGA Minerals and Metals resource consent application.
2. The information requested in paragraph 9 of that minute is stated below:
 - a. The degree that lighting effects on the Westland Petrel have informed the Te Tai Poutini proposed plan in terms of development rights to subdivide and develop land in Barrytown, e.g. through s32 analysis and provisions.
 - b. A sense of how the existing environment through subdivision and development might occur from any unchallenged parts of the proposed plan or the existing plan causing light emissions.
 - c. Whether on the proposed plan, D-GoC made submissions to address the lighting matter by controlling land uses in Barrytown.
3. My response to this request is set out below.

The degree that lighting effects on the Westland Petrel have informed the Te Tai Poutini proposed plan in terms of development rights to subdivide and develop land in Barrytown, e.g. through s32 analysis and provisions.

4. In short, lighting effects on the Westland Petrel have informed the Te Tai Poutini Proposed Plan (TTPP).
5. The TTPP has a Light Chapter that both enables artificial outdoor lighting and manages its adverse effects. Lighting is not addressed in any other chapter of the TTPP in accordance with the National Planning Standards¹. While lighting effects on the Westland Petrel are not specifically mentioned in the Light Chapter, it includes the following objectives and policies that refer to the need to protect the ecosystems and fauna. Accordingly, the TTPP addresses the potential adverse effects on the Western Petrel generically, rather than specifically.

Objective LIGHT-O2

¹ Direction 7, clause 32

Artificial outdoor lighting is located, designed and operated to maintain the character and amenity values within zones, so that it does not adversely affect the health and safety of people, the safe operation of the transport network, protects views of the night sky, the habitats and ecosystems of nocturnal native fauna and the species themselves.

Policy LIGHT-P1

Provide for the use of artificial outdoor lighting that:

- a. Allows people and communities to enjoy and use sites and facilities during night time hours and contributes to the security and safety of private and public spaces;*
- b. Maintains the character and amenity values of the zone and surrounding area;*
- c. Supports the social, cultural, and economic wellbeing or health and safety of people and communities, including road safety;*
- d. Minimises sky glow and light spill; and*
- e. Protects the health and well-being of people and ecosystems.*

Policy LIGHT-P3

Control the intensity, location and direction of any artificial outdoor lighting to:

- a. Ensure that any artificial outdoor lighting avoids conflict with existing light sensitive areas and uses;*
- b. Internalise light spill within the site where the outdoor lighting is located;*
- c. Minimises adverse effects on views of the night sky and intrinsically dark landscapes including in areas of outstanding coastal natural character;*
- d. Minimises adverse effects on the significant habitats of light sensitive native fauna and the species themselves; and*
- e. Minimises adverse effects on the health and safety of people and communities in the surrounding area.*

[Emphasis Added]

6. I now comment on the relevant rules of the Light Chapter.
7. Rule LIGHT-R3 applies to the Natural Open Space Zone, the Coastal (Precinct 2) Settlement Zone, and in All Zones where the site falls within the Outstanding Coastal Natural Character Overlay. These zones and overlays include most of the areas to the east of the site on the Paparoa Range and parts of Punakaiki, although not the Scenic Visitor Zone in Punakaiki, and not the General Rural Zone that include the site and the land that adjoins the site (to the north and south), which includes most of the Barrytown flats.

8. Rule LIGHT-R3 includes several restrictive requirements including:
 - a. A 2 Lux limit for outdoor lighting between 7:00 to 10:00pm;
 - b. A 1 Lux limit for outdoor lighting between 10.00pm and 7am.

9. Rule LIGHT-R3 also includes more restrictive requirements where the light is located in the Outstanding Coastal Natural Character overlay, including:
 - a. Shielding and colour requirements;
 - b. A requirement that outdoor lighting must be installed so that it precludes operation between 10.00pm and 7am.

10. Rule LIGHT-R4 applies to the General Rural Zone and Mineral Extract Zone (in which the site is located) and includes requirements that outdoor lighting must comply with a:
 - a. 10 Lux limit between 7:00 to 10:00pm;
 - b. 2 Lux limit between 10.00pm and 7am.

11. The Section 32 report prepared for the Light Chapter refers to a background report for the TTPP Committee from Lois Easton (Planner) dated June 2021. Appendix 1 of that report titled *'key context for developing the provisions'* states:
 - a. Paragraph 2 *"Glare is also a key consideration for wildlife impacts – particularly night flying species such as petrels."*
 - b. Paragraph 15 *"Impacts on significant fauna. The most notable of these are probably bats, moths, penguins and the Westland petrel/tāiako all of which can be confused by lights at night-time"*.

12. I cannot find any reference in the Section 32 report to any technical evidence on lighting effects on wildlife.

13. I now turn to the development that could be enabled by the TTPP.

14. Subdivision is generally classified as a controlled activity in any rural zone² with a minimum lot size of 4ha. However, this is subject to several requirements that may change the activity status of subdivision. An example would be a subdivision in a sensitive overlay would escalate the activity status of the subdivision to restricted discretionary, discretionary or non-complying, depending on the circumstances. This will likely restrict the spatial extent of development on the Barrytown Flats. Subdivision in the open space zone is classified as a discretionary activity.

² This includes the General Rural Zone, Rural Lifestyle Zone and Settlement Zone

15. There are a range of activities permitted in the General Rural Zone³ subject to requirements. Permitted activities include:
- a. Agricultural, pastoral or horticultural activities and buildings
 - b. Residential activities and residential units
 - c. Papakāinga developments
 - d. Residential visitor accommodation
 - e. Home business
 - f. Mineral extraction, prospecting and mineral exploration.
16. However, all these activities would need to comply with Rule LIGHT-R4 of the Light Chapter, which restricts lighting. There could potentially be cumulative effects of light from future development enabled by the TTPP. However, as discussed below, the Light Chapter is subject to challenge and therefore any potential cumulative effects may not occur.
17. With the above matters in mind, the answer to the question is lighting effects on the Western Petrel have informed the TTPP. It has informed the Light Chapter, which intends to manage all lighting effects. The TTPP chapters that enable development are irrelevant at this stage as light effects are not managed through those chapters. Light effects are addressed in the Light Chapter which is still subject to challenge.

A sense of how the existing environment through subdivision and development might occur from any unchallenged parts of the proposed plan or the existing plan causing light emissions.

18. The existing environment includes the future state of the environment as modified by permitted activities that are likely to be implemented⁴. In this case that includes those activities permitted by the Operative Grey District Plan and activities that may be permitted by any rules in the TTPP that are considered operative⁵.
19. All the area surrounding the site, including the Barrytown flats is located in the Rural Zone of the Grey District Plan. The Rural Zone permits:
- a. Residential units subject to a minimum net site area of 1 ha and other standards.⁶
 - b. Lighting subject to not exceeding 2.5 lux onto any adjoining property⁷.
 - c. Non-rural activities⁸ subject to limits.

³ Most of the Barrytown flats are located in the TTPP's General Rural Zone

⁴ Note: It also includes effects of the present environment and the effects of resource consents that are likely to be implemented, but I have not been asked to comment on these.

⁵ Pursuant to s.86F RMA

⁶ Rule 19.7.2

⁷ Rule 19.7.9(i)

⁸ Rule 19.7.16

20. Subdivision in the Rural Zone is classified as a controlled activity subject to a 1 ha minimum allotment size and other standards.⁹ I am not aware that controlled activities can be considered as part of the existing environment.
21. Despite the Grey District Plan permitting large amounts of development in the Barrytown area, it would seem somewhat fanciful to assume that all this development would occur, particularly between now and when the TTPP becomes operative. For example, assuming all development enabled by the Grey District Plan would occur would mean that one house per hectare is constructed across most of the Barrytown area¹⁰ in the next couple of years. This is considered unrealistic. It would be more realistic to assume that some limited permitted development might occur. For example, some agricultural development and one or two houses at most. To substantiate this position, I asked Grey District Council to conduct a search of resource consents and building consents in proximity of the site¹¹. While this search did not involve the entire Barrytown flats, the consent data (**Appendix 1**) confirms that levels of new development are relatively low, with only three new houses being constructed since 2002. This low level of development was consistent with what I saw when visiting the site and surrounding area.
22. Ultimately, most future development will be controlled by the TTPP and its successor. The Light Chapter of the TTPP has been summarised above. There are no provisions of the Light Chapter that are considered operative as all its provisions are subject to challenge from a number of submissions, with notable submissions from the Royal Forest and Bird Protection Society of New Zealand Inc. and the Department of Conservation. Both submissions request the amendment of the Light Chapter so that lighting does not affected habits and ecosystems of native flora and fauna. The Forest and Bird submission specifically requests the rules are amended to protect fauna, in particular the Westland Petrel. It also requests that consent should be required for any industrial activity (e.g. mining and truck movements) outside of daylight hours in the coastal environment.
23. As the TTPP Light chapter is subject to submissions, the outcome of any decisions on these submissions is uncertain. Accordingly, weight cannot be placed on any provisions of the Light Chapter that would enable development rights or enable adverse effects on fauna.

⁹ Rule 25.2

¹⁰ Excluding sensitive overlays

¹¹ This included properties adjoining and adjacent to the site and the adjoining site beyond.

Whether on the proposed plan, D-GoC made submissions to address the lighting matter by controlling land uses in Barrytown.

24. The Department of Conservation submission on the TTPP Light Chapter does not specifically mention controlling land use in Barrytown. Notwithstanding, their submission would have the effect of controlling lighting effects in Barrytown, as it would in other areas. Their submission applies to the whole region and requests to amend:
- a. Objective LIGHT-O2 so that light is managed to not adversely affect the habitats and ecosystems of all native flora and fauna, not just nocturnal species.
 - b. Policy LIGHT-P3 so that light is managed so that it does not adversely effect the habitats and ecosystems of all native flora and fauna.
 - c. Rule LIGHT-R1 to require lights to be direct away from any adjoining and adjacent overlay areas.
 - d. Rule LIGHT-R3 so that it applies to Outstanding Natural Landscapes and Outstanding Natural Features as these contain significant landscape, amenity and natural character values that can be adversely affected by light spill.
 - e. Rule LIGHT-R4 to make it explicit that it applies to all zones and overlays not provided for in LIGHT-R2 and LIGHT-R3.
25. The amendments to the rules requested by the Department of Conservation do not appear to be as onerous as the outcomes sought by the Director General of Conservation expert witness in relation to the TiGA Mineral and Metals resource consent application. For instance, some lighting effects under the TTPP would still occur, whereas the witness is suggesting more stringent controls. Notwithstanding, this is irrelevant as the scope of the Forest and Bird submission means it would be possible to manage all adverse effects of lighting through the TTPP.
26. With the above matters in mind, the answer to the essence of this question is that adverse effects of lighting on the Western Petrel is a matter still in contention for the TTPP.

Conclusion

27. In summary, the TTPP Light Chapter provisions have been informed by the need to protect wildlife, including the Western Petrel from the adverse effects of lighting. The Forest and Bird submission and to a lesser extent the Department of Conservation submission provides scope to amend the TTPP to provide further protection for the Western Petrel.
28. Weight should not be given to any lighting enabled by the TTPP in the Barrytown area as its Light Chapter is subject to challenge. The consent authority can consider the lighting effects from development enabled by the Grey District Plan as part of the existing environment.

However, it would be fanciful to consider that the entire Barrytown area would be developed to the extent possible by the Grey District Plan between now and TTPP light rules becoming operative. It would be more realistic to assume some limited development could occur. Ultimately, most future development in the Barrytown area will be controlled by the TTPP and its successor. However, because the TTPP lighting rules are subject to challenge, it is uncertain at this stage as to how the adverse effects of lighting from future development will be managed.

29. In conclusion, the adverse effects of the proposed activity should be compared against the adverse effects of the existing environment. This should include some limited consideration of the adverse effects of activities permitted by the Grey District Plan, but not fanciful development or any development that is unlikely to occur.

Appendix 1 – Resource Consents

Resource Consents:

- 1803/2008 - To subdivide RS 3253 into 2 Rural allotments with lot 1 being amalgamated.
- 42/1995 - To Subdivide 73.4 hectares in Rural Section 3252 Block 1 Waiwhero survey District, (C T 2A/297), into three small rural allotments of approximately 13.4 hectares.
- 2850/19- To subdivide RS 6674 and RS 4393 into two new allotments at State Highway 6, Barrytown in the Rural Environmental Area.
- 994/2003 - Land Use, to relocate a previously well maintained wooden dwelling from 12 Mile Coast Road to Deverys Creek, Coast Road for the purpose of a private dwelling.
- 216/1996- An application to subdivide Rural Sections 3255 block V Waiwhero S.D. (CT 2B/1370) on State highway 6, Barrytown to allow for Mr Stewarts son to obtain separate title to the land on which his dwelling is located.

Building Consents:

- 987656/2004- Grain Silo
- 973070/1997- Heat dwelling
- 951417/1995-Milking cows
- 986416/2002-Heat dwelling
- 986809/2003-Farm Storage
- 992109/2011- Dwelling
- 994842/2016-Studio
- 986410/2002-Dwelling
- 987537/2004-Dwelling
- 990171/2008-Storage
- 993471/2014-Second hand Fire