

Bendigo-Ophir Gold Project

To: Bendigo-Ophir Gold Project Panel

Via: Environmental Protection Authority: bendigoftaa@fasttrack.govt.nz:

substantive@fasttrack.govt.nz; and contact@fasttrack.govt.nz

Di Lucas ONZM

- a. In response to the invitation from the Expert Panel to provide comment and evidence as an owner of “adjacent land”,¹ I provide brief comment as a landowner, followed by an expert statement.² If the Expert Panel chooses to conduct a hearing, I seek to be heard as per FTAA s. 57 (1) (c). I also seek to attend conferencing, including expert conferencing regarding landscape values and effects, remediation and covenanting.
- b. I, Diane Jean Lucas, am the owner of 4 ha of land between the Mata-Au delta to Te Wairere (Lake Dunstan) and State Highway 8, opposite the southern junction with Bendigo Loop Road. I received a letter of invitation to make comment as the owner of [REDACTED].
- c. Also, I am a trustee for the Top House Trust land to the north toward the outlet to Bendigo Creek, including [REDACTED] with our historic family house, and [REDACTED]. We have consented water takes from the Bendigo Aquifer for domestic and farm use.
- d. I grew up on Bendigo Station which my father (RF (Dick) Lucas) owned from 1947 until 1979. The natural, cultural and historic heritage, recreational value and pastoral management of the area have been important in my comprehension of the context to the BOGP site.³

¹ Minute 3 of the Expert Panel, Appendix 2. Map of adjacent land (section 53(2)(h)). Appendix 3. pages 10 - 11.

² Unfortunately the invitation is at a difficult time whilst I am moving home and office following a fire.

³ *My Heritage Place*. April 2026. Anna Dunlop. He Wāhi Tuku Iho Hira Ki Ahau.

Di Lucas (BSc, MLA, Registered Life member NZILA) Landscape Architect

1. With natural science and landscape qualifications along with project and field experience in the South and North Islands, I established a rural-based landscape planning, design and management practice in Canterbury in 1979. I have since provided advice to land owners, communities, iwi, NGOs, central and local government through the decades and within all regions. Since 1982 I have been variously and continuously appointed by central government to provide advice on environmental, conservation, high country and tenure matters through until my resignation in 2022.
2. My comments are prepared in accordance with the Environment Courts' Code of Conduct for Expert Witnesses as specified in the Environment Court's Practice Note 2023. These comments are within my areas of expertise. I have not omitted to consider any material facts known to me that might alter or detract from my opinions expressed.
3. I have read a considerable number of the application documents, including the Boffa Miskell landscape reports. I have also read the landscape evidence of Bridget Gilbert prepared for Sustainable Tarras, with which I largely agree and seek not to duplicate.

CONSERVATION COVENANT

4. When he initiated the tenure review process, the owner of Bendigo Station sought my advice with regard to seeking appropriate free-holding and protection regimes for their Crown Pastoral Lease lands.
5. Contributing to the crown's draft proposal in 1993, a broad scale landscape appraisal for the Dunstan Ranges had been undertaken. Priority areas for landscape protection were identified and included Upper Bendigo Creek (Rise and Shine Creek). This Thomson Gorge area of 576 ha was sought to be protected to maintain it in its current state: *'The aim is to protect the landscape of the Upper Rise and Shine Creek, the historic gold mining cottages, dams, etc., and the silver tussock grassland. Patch burning is considered acceptable, along with OSTD⁴. Mining, forestry and tracking would be excluded from the area.'*
6. The process outcome resulted in creation of several Reserves and conservation covenants, plus unencumbered freehold.
7. From the agreement achieved through tenure review, Bendigo Station included extensive private land encumbered with conservation covenants, with two smaller covenant areas having objectives addressing natural character, ecological character, maintaining landscape values, and, maintaining historic values.
8. With respect to the BOGP site, the Rise and Shine covenant area (Sections 11 and 12 SO 24641) involves some 490 ha.⁵

⁴ OSTD . Oversowing and TopDressing, that is applying pasture seed and fertiliser, typically by plane.

⁵ Application A.15 8.9.1.1 pages 523-4

9. The applicants Legal Overview (31 October 2025) addressed at pages 24 – 26 the Reserves Act provisions with regard to the Bendigo Conservation Covenant.
10. As per Figure 8-12: Bendigo Conservation Covenant Area, it shows the entire Rise and Shine covenant as proposed to be revoked. As stated by the Office of Crown Lands (P221\223. 1993), this area was originally negotiated by DOC for a conservation covenant *“to protect landscape and botanical values”*. It was signed off as per the Reserves Act in 2000.
11. As per the 1977 Reserves Act s.77, the objectives can be to *“preserve the natural environment, or landscape amenity, or wildlife or freshwater-life or marine-life habitat, or historical value”*. Almost 50 years later, these attributes together allow for recognition of ‘landscape values’ contemporarily as an interpretation of biophysical, associative and perceptual dimensions of a landscape.
12. To maintain the landscape values as required by the covenant provisions, I consider guidance by TTatM⁶, *“To assess a landscape is to assess its character and values.”* (para. 5.01, page 105). I understand Boffa Miskell have not specifically identified the landscape character or values of the Rise and Shine covenanted area.
13. I note that under the Fast-track Act (FTAA), to revoke a covenant the panel must take in to account the purpose of the covenant and the conservation values it involves.
14. Whilst the criteria specific to this area include the maintenance of the landscape values, I have as yet seen no professional landscape assessment for the Department of Conservation that assesses the potential effects of the proposal specifically on the Rise and Shine covenant area.

LANDSCAPE SITE ANALYSIS

15. I have read the 14 May 2024 report by Boffa Miskell which states in the Executive Summary that it was commissioned by Matakanaui Gold Limited (MGL) *“to assist with the design, planning and management of a proposed mining project and its associated rehabilitation within the Rise and Shine Project Area.”* However, perplexingly and disappointingly, the report does not provide a landscape analysis of the project area. Section 4.0 provides the Method, with *“Desktop research including mapping relevant landscape attributes or dimensions”*.
16. As noted in section 2.0, the LA4 landscape assessment in 2007 that informed the CODP ONLs used an outdated numeric and vulnerability assessment method. I agree with instead utilising methodological guidance from TTatM, to which I provided assistance in drafting.

⁶ *Te Tangi a te Manu, Aotearoa New Zealand Landscape Assessment Guidelines*. Tuia Pito Ora New Zealand Institute of Landscape Architects, July 2022.

17. Section 4.0 describes an appropriate method. However having undertaken the assessment at only the Dunstan Range scale, undertaking 4.1.1 and 4.1.2 has not resulted in identifying the attributes and values of the project area.
18. However the Boffa Miskell Graphic Supplement dated 28 March 2024 has scant information at site scale that would assist those with the design, planning and management of a mine. Instead a dozen maps at 1:250,000, 1:200,000 or 1:150,000 have been downloaded and provided, with Battery Hill (B10D) located on most, and the project site delineated on only the first one. In the hydrology map (Map 9), Bendigo Creek is not even named. Whilst there is a 'Conservation and Reserve Areas' map (Map 10), it includes a QEII National Trust Act Covenant below the Pisa Range opposite, but not the Reserves Act Conservation Covenant on the project site.
19. At a scale of 1:200,000, Maps 12 – 15 show what skylines would be visible from highways in the Upper Clutha and Maniototo. Map 16 maps the theoretical visibility of Battery Hill at 1:150,000.
20. A series of 14 Site Context photos follow which are taken from kilometres away from the site. Neither the maps nor photos contribute particularly to addressing the actual site. They are contextual or merely 'a drive-by approach'.
21. However the site involves an important feature of the Dunstan Range with diverse geomorphology and ecosystems, plus public access and valued cultural, heritage and recreational attributes. Mere overview maps and distant imaging are inadequate methods for landscape architects to contribute to the design, planning and management of a mine proposal.

LAND TYPING

22. Interestingly Boffa Miskell note in section 5.1 and utilise our 1:250,000 Land Type mapping (Map 2), but do not outline the project site on the map, nor include the 1:50,000 map, nor the modelling and chart information that are integral to this land type methodology.⁷
23. Most of the site involves **O 21, the Dunstan Cairnmuir Land Type**. The O 21 model and chart distinguish the various schist bedrock slopes from the entrenched streams and valley floors. It is unclear why Boffa Miskell refer to these bedrock mountain slopes and crests as 'glacial', but perhaps there is confusion with the "periglacial" aspects.
24. In my opinion distinguishing the bedrock country above from the glacial deposition lands below is an important basis for a landscape analysis of the project site. The lower area of the site is on **O 13, Moraine and Fluvial Outwash Land Type**. The glacial deposition terrace lands are an important characteristic of the site and of the context landscape.

⁷ www.LandTyping.nz

25. The site comprises a geomorphologically, ecologically, recreationally, visually, culturally and historically distinctive area of the western Dunstan Range. The junction of the simple southern penepine landforms and the northern ridge and gully complex provides a landmark and destination.
26. Utilising the finer scale land typing and also mapping the landform components of the Project Site would be useful to assist in mine design, planning and management. However there is no evidence that this has as yet been undertaken.

JUNCTION AREA

27. As identified by Boffa Miskell in their 2024 summary, the distinctive north and south areas are *“connected via a lower central saddle which is further defined by a central historic east-west access route associated with Thomson Saddle.”* They state *“the Rise and Shine Project Area forms a local comparatively lower lying folded area to the west of Thomson Saddle and accessible along Thomson Gorge Road.”* However in section 1.0 Introduction indicates their intent is merely to address *“the Dunstan Ranges ONL and high-level actions”*. There is no indication they contribute to the design of the mine. Nor is there recognition of the requirement regarding the landscape of the conservation covenant in the section 3.0 Statutory Context.
28. Addressing the Geology at section 5.2 (pages 7 – 8 and Map 3), I support the recognition of the legible Thomson Gorge Fault and Rise and Shine Shear Zone. These are important attributes forming the distinctive junction feature between the north and south range areas.
29. Addressing the Soils at section 5.4 and Map 5 at 1:50,000, recognition of the differing characteristics of the soils present is useful. Mapping at site scale, to distinguish the semi-arid soils, for example, would assist for mine design, planning and management. Also, addressing landscape character in terms of such mapping would be helpful.
30. Addressing Elevation and Slope at section 5.5, the coarseness in the depiction on Maps 6 and 7, with only 300m contours and 1:150,000 mapping, means that a detailed window to the site is needed to demonstrate the slopes and any gullying as described.
31. Other attributes identified such as land cover, hydrology and heritage also need to be addressed at the site scale to inform the process.
32. Boffa Miskell section 6.0 Landscape Characterisation addresses the full ONL of the Dunstan Ranges, but contributes little to the mine site’s landscape analysis. The north and south character area focus in the study results in inadequate recognition of the junction area between. The distinctive gullying and promontories at the north-south junction are together an important landmark. Yet the assessment method merely inserts only the occasional recognition of a distinctive aspect. The junction area which predominantly encompasses the project site is inadequately assessed for its landscape characteristics and values.

33. However I do note that in section 7.0 the Dunstan Mountains perceptual landscape values include Thomson Gorge as an “important local landmark and wayfinding” feature.
34. Whilst this section recognises that “*creeks form legible characteristics which express their formative processes*”, I have seen no specific landscape analysis of either. Yet these are key aspects of the site and are publicly accessible.
35. Section 6.1 South Dunstan Mountains is also confusing with the ONL being almost entirely mapped within schist mountain country, but paragraph two including the glacial terrace lands below. However an area of the glacial terrace lands below the north-south junction is included in the ONL (refer Maps 1 and 2). A Project Area landscape assessment should address these differences.
36. Considering this assessment prepared by Boffa Miskell almost two years ago, due to its lack of site analysis I find it difficult to comprehend how it would have assisted the mine design, planning and management as sought. Nor would it assist in identifying site specific landscape values to meet the requirement to maintain them within the Rise and Shine Conservation Covenant area.
37. From assessing the ONL along the whole length of the Dunstan Range, and not the site, the Boffa Miskell 2024 **Conclusion**, section 8.0, is difficult to comprehend regarding how the second paragraph would be achieved. The third paragraph recognises this large void. The consequences of not addressing the mountain junction area, and grappling with having done no Project Area landscape analysis, thus proposing as key actions:

- *Protecting the landscape character and integrity of the ‘landscape edges’ that define the two distinctive landscape character areas within this ONL;*
- *Maintain and manage the landscape values encompassing cultural and historic access along Thomson Gorge Road and the associated artefacts from previous mining activities;*
- *Protecting and maintaining the form and integrity of the skyline of Battery Hill (BD10D) which remains apparent within some distant views ...*

But when Battery Hill is a core landform within the Project Area landscape, considered only as a distant skyline attribute is a further consequence of the lack of a site analysis.

Also, the Conservation Covenant of the site has not been recognised, which belittles the stated intent of the final ‘key action’:

- *Protecting the adjacent conservation and reserve areas from adverse effects.*

38. In not assessing the landscape of the delineated Rise and Shine Project Area (Map 1), the 2024 assessment of the ONL by Boffa Miskell appears to largely fail to meet the stated intent “to assist in the design, planning and management of a proposed mining project”.

EFFECTS ASSESSMENT

39. I have read the Landscape, Natural Character and Visual Effects Assessment by Boffa Miskell dated 8 August 2025. The Executive Summary states (para. 3) that “*The location of the proposed open cast mines and consequent modified landforms have been developed in response to the underlying landscape context and its identified values and reduces the potential for any broader scale significant adverse landscape or natural character effects.*”
40. The Site Appraisal is at section 3.6 and visibility at 3.7.
41. To establish, operate and remediate an open pit and underground gold mine under the FTAA Schedule 4(b) requires consideration of ‘*any physical effect on the locality, including landscape and visual effects.*’ I note that at section 4.8 Boffa Miskell recognise the overall Bendigo Conservation Covenant and its objectives, including:
- iii. ‘Maintaining the landscape values of the land as referred to in the “Application for exchange of property rights” submitted to the Commissioner of Crown Lands.’*
42. The Effects assessment section 6.2 seeks to identify landscape values at both the site scale and at the landscape unit scale at the transition between the north and south Dunstan Range areas. Section 6.5 first paragraph notes different types of attributes, but does not include the waters, wildlife or skyscape. I consider as a gap this undermines their effects assessment.
43. Section 6.5.1 recognises some key transient characteristics but ignores the importance of the night sky.
44. Section 6.5.1.2 addresses Site Landscape Values and acknowledges The Site is located at a highly legible transition point between the Range’s peneplain to the south and the ridges and gullies to the north, that Battery Hill separating the Shepherds Creek and Rise and Shine catchments is a key feature, and that the Site has high perceived naturalness.
45. Addressing Landscape Effects within the Site, section 6.5.3 recognises the very large proposed Rise and Shine Pit will interfere with the mid-slopes of Battery Hill, reducing the intactness and coherence of this natural feature whilst also removing public access from the locale. Benching and exposed rock are acknowledged will remain legible features. I agree the landscape effects would be high, and permanent.
46. The array of other pits, tailings storage facility and various infrastructure proposed in the Rise and Shine and Shepherds Creek catchments, along with the relocated public access, would cumulatively have highly significant landscape effects on this important mountain

landscape. To substantially disrupt the landmark valleys and hill between them would have significant adverse effects on the ONL.

47. The junction area cannot be treated as a separate unit. It is the crux within the length of this important Range. It is a major contributor to the overall Range ONL value as experienced from the west and from within, including by recreationists.
48. Considering the physical, associative and perceptual attributes, values and effects, the overall landscape effects of the proposed intrusive and very large scale works would cumulatively result in **high** adverse landscape effects on the Dunstan Range ONL.
49. The site across this junction area is below a major tourist flight path and the works day and night, the very large scale landform disturbance, would be expected to devalue the naturalness of the Range for passengers. Whilst from in and around the Clutha catchment the adverse effects on the important night sky from the artificial lighting (such as associated with structures, vehicles and explosions) would be reduced after closure, most other adverse effects are likely long term.
50. I thus disagree with the Boffa Miskell ratings at 6.5.4 and 6.5.5 of moderate reducing to low-moderate adverse effects.
51. From my understanding of the works and activity as proposed, and the remediation regime proposed to follow, I assess that the proposal would compromise landscape values that are of regional and national importance.
52. I disagree with the Boffa Miskell Conclusion section 8.0 that as the effects would be relatively localised when considering the full extent of the Dunstan Range, that that localisation then reduces them from high to a moderate rating. There is considerable landscape assessment experience and 'case law' that counters such an approach. Whilst an activity may well be very localised, the effects may rate as highly significant on an extensive ONL.
53. I assess the proposal would have high adverse landscape (including visual) effects on the Dunstan Range ONL, which I understand to be a matter of national importance. Rural amenity values would not be maintained or enhanced by the proposal.

EFFECTS ON RISE & SHINE CONSERVATION COVENANT LANDSCAPE VALUES

54. I have considered the provisions of the Reserves Act 1977 and FTAA s. 7, including but not limited to s.7(b) *any physical effect on the locality, including landscape and visual effects*. As per Schedule 6, the revocation of the Rise and Shine conservation covenant and undertaking of the proposed mine works would not maintain the landscape values. I assess the proposal would not meet the requirements of the FTAA, and that revocation, or 'uplifting', of the conservation covenant would not be appropriate.

55. The Rise and Shine covenant area involves an important landscape node. A corridor. A focus. A geomorphic feature complex, and habitat complexity. In addition to the tangata whenua, historic mining, recreational and tourist values of the north-south Dunstan Range junction,
56. A major feature of the Dunstan Range ONL which should not be belittled by addressing it merely as an edge to each character area.
57. Considering Clause 45, I assess that the conservation values of the covenant area, including the physical, associative and perceptual landscape values, are of regional and national significance. I assess that revocation of the covenant to allow for the proposed mine development would significantly compromise those values.
58. Considering the special character in this junction area of the Dunstan Range, including Battery Hill and the embracing valleys, in my opinion revocation of the covenant under Clause 46 and application instead to another area outside would not address maintenance of the landscape values. The conservation covenant area is special. It is different from the rest of the Range in terms of its physical, associative and perceptual landscape values. Aspects of the mine proposal, such as the RAS pit, would permanently significantly compromise the regional and national landscape values present.
59. Covenant revocation or amendment in combination with permitting the mine proposal would not provide the required maintenance of landscape values. In my opinion relocation, offsetting or compensatory measures would be entirely inappropriate. The extensive rehabilitation proposed has no certainty of being achieved or sustained.
60. Signed off on 18 August 2000 under the Reserves Act, the covenant provisions are also to be addressed under the RMA s.104 and the CODP methods.

MITIGATION

61. Boffa Miskell address proposed mitigation measures at section 6.7, the Landscape Mitigation Plan, the Landscape Closure Plan the Landscape and the Ecological Rehabilitation Plan. I have experience with local restoration works and have observed many aspirational plans and their on-site failure. This landscape is very challenging. Along the Dunstan Range consent conditions are regularly observed to not be achieved. The scale and type of works proposed at the mine site are extremely questionable. No reliance should be placed on them as mitigating or remedying measures.