

# Landscape Effects Review

## Bendigo–Ophir Gold Project



Prepared for:  
Sustainable Tarras

by

**bridgetgilbert**  
landscape architecture

## Cover image: Central Otago by Rita Angus

*As described by Gregory O'Brien (artist, writer, art curator and as patron of the Eastern Southland Art Gallery):*

"The view from Queensbury towards the Dunstan Range is an elemental proposition, stretching for many kilometres—golden in summer, a dark brown-grey in winter, often snow-clad. The view from Queensbury is one of the many aspects of the summertime province encapsulated by Rita Angus's *Central Otago*.

Importantly, Central Otago does not have a central 'feature' (ie. there is no Mitre Peak)—it is a multi-dimensional, many faceted region. It is an 'environment' with a dazzling array of moods, forms, iconic moments. Both the time of day and the seasons play upon its surfaces, at times gently, at other times violently. Rita Angus's painting is a key work in understanding the region: Central Otago is a matrix of mountain ranges, waterways, ridges and other features. The region has an overall pattern and rhythm which is more important than any singular moment or view (that said, within her wide, holistic vision, Angus does offer such details as the famous tree beside Lake Wanaka; the church at Naseby...) If you dramatically change one part of this landscape, you change the character of the whole, and its collective life-force or *mauri*".

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# 1 Introduction

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- 1.1 Bridget Gilbert Landscape Architecture Limited (**BGLA**) has been requested by Sustainable Tarras to undertake a Landscape Review of an application by Matakanui Gold Limited (**MGL**) under the Fast-track Approvals Act 2024 to develop and establish a 450ha gold mine operation on the western slopes of the Dunstan Mountains within the Shepherds Creek and Rise and Shine Creek valleys (**the proposed development**).
- 1.2 The Site is located within the Dunstan Mountains Outstanding Natural Landscape (**ONL**), triggering consideration of RMA s6(b). The Site also includes several streams, wetlands, and associated tributaries and springs which collectively merit consideration under RMA s6(a). Much of the Site is also protected by a Conservation Covenant, the objectives of which include protecting and enhancing the natural character of the land and maintaining landscape values.
- 1.3 A summary of my expert qualifications experience is attached in **Appendix A**. My relevant experience includes:
- a) the identification of Outstanding Natural Features (**ONFs**) and Outstanding Natural Landscapes (**ONLs**) in a range of regions and districts throughout New Zealand<sup>1</sup>;
  - b) extensive experience as a landscape expert advising Queenstown Lakes District Council in relation to their s6(b) and s7(c) landscapes (in both regulatory and plan making roles);
  - c) experience as an expert advisor in relation to the landscape-related effects of numerous mining, quarrying, and other large-scale infrastructure developments throughout New Zealand;
  - d) experience as a certified RMA Commissioner for Auckland Council; and
  - e) experience with fast-track applications, including as a Panel Member<sup>2</sup>, expert landscape advisor to Panels<sup>3</sup>, expert landscape advisor to Councils, and expert landscape advisor to applicants.
- 1.4 I confirm that my Landscape Review comments have been prepared in accordance with the Environment Court's Code of Conduct for Expert Witnesses as specified in the Environment Court's Practice Note 2023. This Landscape Review is within my area of expertise, except where I state that I rely upon the evidence of other experts. I have not omitted to consider any material facts known to me that might alter or detract from the opinions expressed.
- 1.5 The following documents have been relied on in the preparation of these landscape comments:
- a) The Substantive Application documents, including (but not limited to), the following documents
  - b) B19A and B19B, collectively referred to as the **BML Report**.
  - c) The Assessment of Dunstan Mountains ONL, by BML, dated 14 May 2024 (referred to as the **BML ONL Report**).

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<sup>1</sup> Including: Queenstown Lakes District, Clutha District, Te Tai o Poutini, Tasman, Waitomo District, Whangarei District.

<sup>2</sup> Southland Wind Farm under the FTAA and Kepa Road Apartments under the COVID-19 Recovery (Fast-track Consenting) Act 2020.

<sup>3</sup> The Pitau under the COVID-19 Recovery (Fast-track Consenting) Act 2020; Ayrburn Screen Hub under the FTAA.

- d) G.02, G.07A, G.07B (the ecology and landscape related management plans).
  - e) B.31 Cosgroves Lighting Report.
  - f) A.02B Legal Overview.
  - g) A10 Project Description.
  - h) D.03 The Common Conditions.
  - i) A.05 Acronyms and Glossary, noting that I use the acronyms explained in A.05 throughout my report.
- 1.6 I undertook a site visit in relation to this review on Monday 9 March (evening only) and during the day on Tuesday 10 March 2026. I am familiar with the broader area, having been involved in Central Otago District Plan hearings for land near Lake Dunstan, along with numerous plan change and resource consent processes for land within the Queenstown Lakes District in the broader vicinity of the site.
- 1.7 In the interests of brevity, my comments focus on points of disagreement that are directly relevant to an understanding of the landscape-related effects of the proposal.
- 1.8 I confirm that I have applied the approach to landscape assessment set out in Te Tangi a te Manu (**TTatM**) in preparing my landscape comments (which includes the use of the seven-point effects rating scale recommended in TTatM). I have also undertaken my landscape effects assessment as I would for a development application under the RMA.
- 1.9 My Landscape Comments are structured as follows:
- a) Commentary with respect to the **landscape assessment methodology** applied in the BML Report. This includes the identification of what I consider to be gaps in the BML Report assessment and flawed assumptions underpinning the BML Report effects assessment. I also clarify my approach to 'relevant landscape', comment on the BML Report Visual Simulations and the landscape policy tests that I have relied on for my Landscape Comments in this section of my report.
  - b) A description of the **existing landscape values of the relevant landscape**, focussing on aspects that I consider have been overlooked in the BML Report. This section of my Landscape Comments is structured in accordance with the three dimensions of landscape values (i.e. physical, perceptual and associative values).
  - c) A description of the **existing landscape values of the Dunstan Mountains ONL** that contribute to its 'outstanding-ness' (as required by the relevant landscape policy tests).
  - d) An analysis of the **landscape effects of the proposed development on the relevant landscape**. Again, this section of my Landscape Comments is structured in accordance with the three dimensions of landscape values (i.e. physical, perceptual and associative values). My evaluation of adverse visual amenity effects (relying on the BML Report Visual Simulations) is included in my discussion of effects on the perceptual dimension of landscape values. I draw from the information in the BML Report and my earlier comments to reach the conclusions stated in this section of my report.

- e) An analysis of the **effects of the BOGP on the existing landscape values of the Dunstan Mountains ONL**. I draw from the information in the BML Report, the BML ONL Report and my earlier comments to reach the conclusions stated in this section of my report.
- f) Brief commentary with respect to **natural character effects**.
- g) Drawing from my analysis of landscape and natural character effects, comment with respect to the relevant aspects of the **Bendigo Conservation Covenant**.
- h) Commentary with respect to proposed **D.03 Condition C34** which relates to the landscape and ecology related rehabilitation management plan.

## 2 Executive Summary

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- 2.1 In my opinion, the BML Report landscape assessment (and associated documents), presents some fundamental concerns with respect to the landscape assessment methodology that has informed the effects analysis and conclusions.
- 2.2 I consider the following aspects to be problematic:
  - a) The reliance on a 'site scale' of assessment, with each individual project element evaluated on an element-by-element basis to inform the landscape assessment. In my opinion, the appropriate assessment scale is the 'relevant landscape' (which inevitably takes in the site), with the effects discussion organised by the project's staging.
  - b) What I consider to be important gaps in the description (and evaluation) of the existing (relevant) landscape.
  - c) What I consider to be important gaps in the identification of the landscape values that contribute to the outstanding-ness of the Dunstan Mountains ONL (as set out in the main body of my report).
  - d) Consequential gaps in the evaluation of landscape effects with respect to the relevant landscape and the Dunstan Mountains ONL.
  - e) Reliance on mitigation or rehabilitation strategies that I consider are: misrepresented (e.g. the idea that the new landforms will mimic existing topographical patterns); experimental (e.g. cushionfield and spring annual herb rehabilitation strategy); or suggest questionable practical viability (e.g. localised root zone planting strategy on ELFs).
  - f) Omission of an assessment of the development in terms of the landscape related objectives of the Bendigo Conservation Covenant.
- 2.3 My comments address the various gaps in information outlined above and apply what I consider to be a more appropriate assessment approach.
- 2.4 Relying on that information, together with the aspects of the BML Report and BML ONL Report with which I agree, it is my conclusion that the existing landscape values of the relevant landscape rate towards the higher end of the spectrum.

2.5 With respect to adverse landscape effects in relation to the relevant landscape:

#### *Effects on Physical Attributes and Values*

- a) Relying on the description of landscape modification at section 6.5.2 of the BML Report, it is evident that the BOGP will result in a significant change to the physical attributes and values of the site. In my opinion, the sheer scale, extent and character of landform modification, vegetation removals, stream diversions, and new built development (including roading), along with the uncertainty outlined earlier with respect to vegetation rehabilitation strategies inevitably suggest:

**Year 1-3:** Moderate ('more than minor').

**Year 4-11:** Very High ('significant').

**Year 12-30:** High (assuming the rehabilitation planting techniques are successful) ('significant'), or Very-High if the planting rehabilitation techniques are unsuccessful ('significant').

- b) In terms of physical effects on the relevant landscape, such effects are inevitably reduced due to the moderating influence of scale, suggesting:

**Year 1-3:** Low ('minor').

**Year 4-11:** Moderate-High ('more than minor').

**Year 12-30:** Moderate (assuming the rehabilitation planting techniques are successful) ('more than minor'), or Moderate-High if the planting rehabilitation techniques are unsuccessful ('more than minor').

#### *Effects on Perceptual Values*

- c) In my opinion, the various visual amenity effects discussed in the main body of my report (Under the Visual Simulation discussion) are in a sense 'cumulative' in terms of their influence on perceptual landscape values. By this it is meant that we visually experience a landscape as a sequence or series of vistas, and the combination of those 'visual experiences' (or vistas) shapes our perception of the landscape.
- d) When those various visual amenity effects are combined with my comments with respect to the effects of the BOGP on landscape coherence and naturalness values, the dark night sky values and rural tranquillity and remoteness values (and factoring in what I consider to be existing perceptual values that rate towards the higher end of the spectrum for the relevant landscape), I consider effects on the perceptual dimension of landscape values will be as follows:

**Year 1-3:** Moderate ('more than minor').

**Year 4-11:** High to Very High ('significant').

**Year 12-30:** Moderate (assuming the rehabilitation planting techniques are successful) ('more than minor'), or Moderate-High if the planting rehabilitation techniques are unsuccessful ('more than minor').

### Effects on Associative Values

- e) In my opinion, for these reasons set out in the main body of my report, I consider that effects the effects on the associative landscape values will rate as follows:

**Year 1-3:** Moderate ('more than minor').

**Year 4-11:** High to Very High ('significant').

**Year 12-30:** High (assuming the rehabilitation planting techniques are successful) ('more than minor'), or Very-High if the planting rehabilitation techniques are unsuccessful ('more than minor').

- f) As I explain in the main body of my report, I would like to reserve the opportunity to potentially expand on the effects of the development on the cultural dimension of existing landscape values once I have reviewed any new material that mana whenua may wish to produce.

### Summary of Effects

	Year 1-3	Year 4-11	Year 12-30
<b>Physical Effects</b>			Rehabilitation planting 1 = successful 2 = unsuccessful
Modification (see 6.2)	Moderate ('more than minor')	Very High ('significant')	1 - High ('significant') 2 - Very-High ('significant')
Moderating influence of scale (see 6.3)	Low ('minor')	Moderate-High ('more than minor')	1 - Moderate ('more than minor') 2 - Moderate-High ('more than minor')

	Year 1-3	Year 4-11	Year 12-30
<b>Perceptual Effects</b>			Rehabilitation planting 1 = successful 2 = unsuccessful
<b>Overall</b>	Moderate ('more than minor')	High to Very High ('significant')	1 - Moderate ('more than minor') 2 - Moderate-High ('more than minor')
<b>Visual Simulations</b>	<b>Year 1-3</b>	<b>Year 4-11</b>	<b>Year 12-30</b>
<b>VS1:</b> Thomsons Gorge Road	Low ('minor')	Moderate-High ('more than minor')	1 - Moderate ('more than minor') 2 - Moderate-High ('more than minor').
<b>VS2:</b> Ardgour Road, Lindis Crossing	Low ('minor')	High (significant')	1 - Moderate-High ('more than minor') 2 - High ('significant')
<b>VS3:</b> Māori Point Road	Low ('minor')	High (significant')	1 - Moderate-High ('more than minor') 2 - High ('significant')
<b>VS4:</b> Ardgour Road, Tarras	Low ('minor')	Low-Moderate ('minor')	Low ('minor')
<b>VS5:</b> Jolly Road	Low-Moderate ('minor')	Moderate ('more than minor')	1 - Low-Moderate ('minor') 2 - Moderate ('more than minor')
<b>VS6:</b> State Highway 8A	Low-Moderate ('minor')	Moderate-High ('more than minor')	1 - Moderate ('more than minor') 2 - Moderate-High ('more than minor').

<b>VS7:</b> Pukekowhai Drive, Queensberry	<b>Low-Moderate</b> ('minor')	<b>Moderate-High</b> ('more than minor')	<b>1 - Moderate</b> ('more than minor') <b>2 - Moderate-High</b> ('more than minor').
<b>VS8:</b> State Highway 6	<b>Low-Moderate</b> ('minor')	<b>High to Very High</b> ('significant')	<b>1 - Moderate-High</b> ('more than minor') <b>2 - High</b> ('significant')
<b>VS9:</b> State Highway 8	<b>Low-Moderate</b> ('minor')	<b>Moderate-High</b> ('more than minor')	<b>1 - Moderate</b> ('more than minor') <b>2 - Moderate-High</b> ('more than minor').
<b>VS10:</b> Mount Pisa Road	<b>Low</b> ('minor')	<b>Low-Moderate to Moderate</b> ('minor' to 'more than minor')	<b>1 - Low</b> ('minor') <b>2 - Low-Moderate to Moderate</b> ('minor' to 'more than minor')

	Year 1-3	Year 4-11	Year 12-30
<b>Associative Effects</b>			<b>Rehabilitation planting</b> <b>1 = successful</b> <b>2 = unsuccessful</b>
	<b>Moderate</b> ('more than minor')	<b>High to Very High</b> ('significant')	<b>1 - High</b> ('more than minor') <b>2 - Very-High</b> ('more than minor')

#### *Effects on Dunstan Mountain ONL*

2.6 With respect to effects on the Dunstan Mountains ONL (and relying on my identification of the landscape values that contribute to the outstanding-ness of the Dunstan Mountains in the main body of my report), I consider the proposed development will adversely impact on the following identified landscape values of the ONL (NB the landscape value that is affected is in underlined text).

- a) As a consequence of the extent, scale, and character of landform and hydrological changes, the underlying geology and geomorphology of the landform which is an important feature of this landscape. Schist tors, the gradual movement of soil at higher elevations (solifluction), and intricate network of streams and creeks form legible characteristics which express their formative processes and are highly expressive of the landscape's formative glacial, tectonic, and fluvial processes.
- b) As a consequence of the extent, scale, and character of the adverse effects on the physical, perceptual and associative values, the landscape and scenic values (including the landscape, historic gold mine features and silver tussock grassland) of priority protection areas under the Bendigo Conservation Covenant.
- c) As a consequence of the adverse visual amenity effects of the development: the highly appealing and engaging views to the cohesive mountain sequence from SH6, SH8, Conservation land and Reserve areas, Thomsons Gorge Road and the surrounding low-lying areas (including parts of the Mata-Au Clutha River corridor), in which the distinctive sculptural structure of the landforms and mottled vegetation patterns, combined with the big-sky landscape and planar river terraces associated with the Upper Clutha Valley, makes them highly memorable. At a finer grain, views of heritage elements, patterns and connections add to the appeal.
- d) As a consequence of the scale and prominence of the development: the high naturalness values as a consequence of a general lack of visible structures and modifications which ensures the landform remains largely open and is perceived as natural, with some relatively small-scale, more

localised and limited evidence of gold mining amongst a broader coherent and open mountain backdrop.

- e) Potentially, if the proposed vegetation rehabilitation strategies are unsuccessful, the irregular patterning and proliferation of grey shrubland, exposed rock faces, and scrub in places, adds to the perception of naturalness.
- f) As a consequence of the industrial scale activity and night-time lighting components of the development, the impressions of rural tranquillity and remoteness as a consequence of the very limited level of development.
- g) As a consequence of the industrial scale activity and night-time lighting components of the development, the distinctive and highly legible dark night sky environment as a consequence of the very limited level of development within the ONL and local area.
- h) As a consequence of the loss of heritage landscape features, patterns and connections, the highly accessible and extensive, legible network of identified heritage buildings and features along with tracks, water races and the like, that collectively form a rich and complex heritage landscape throughout the Thomsons Gorge Road area (including the Rise and Shine Creek, Bendigo Creek, and the Aurora Creek catchments). Other noteworthy concentrations of heritage features in the ONL are evident in and around the Bendigo Historic Reserve. As a group, these features connect with the cluster of makeshift towns at the height of gold mining activity near the ONL, including Logantown, Welshtown, and Wakefield, where building remnants are evident today.
- i) As a consequence of the effects discussed in relation to perceptual and associative values, the identity of the Dunstan Mountains as a cohesive, largely undeveloped, and stunning mountain sequence that provides a highly memorable backdrop to Tarras and the surrounding rural river terraces, that is highly valued by the local community and makes an important contribution to their identity and sense of place.
- j) As a consequence of the effects discussed in relation to physical, perceptual and associative values, the inspirational qualities of the Dunstan Mountains (including Thomsons Gorge) for a wide range of artists.

2.7 For these reasons, I do not consider that the development is consistent with relevant landscape policies, including: avoiding inappropriate development; maintaining landscape values; and avoiding exceedance of landscape capacity.

2.8 Further, in thinking about the effects of the development on the Dunstan Mountain ONL, I have asked myself whether, based on my experience of identifying and evaluating a range of ONLs across the country (including instances where quarrying and mining is established): *would the site and local mountain area qualify as ONL once the BOGP is established (including at the time of closure once the rehabilitation strategies are intended to have been successfully completed)?*

2.9 In my opinion, the scale and character of landform modification associated with the goldmine would mean that the Shepherds Creek and Rise and Shine Creek catchments would fail to qualify in terms of 'naturalness' to be considered as a candidate ONL, let alone qualify in terms of 'outstanding-ness'.

2.10 This speaks to the significant and transformative nature of the development with respect to adverse landscape related effects, effectively cutting a swathe of industrial-scale disturbance through the middle of the more natural Dunstan Mountains sequence.

- 2.11 For completeness, I do not consider that the positioning of the BOGP between the peneplain mountain profile to the south, and the more rugged and jagged mountain sequence to the north affords a meaningful moderating influence.
- 2.12 In my opinion, the Dunstan Mountains read and are experienced as a cohesive landform sequence, which like many of our mountain ranges, is characterised by a varied and complex mix of landforms.

#### *Natural Character*

- 2.13 I generally concur with the findings of the BML Report in this regard.

#### *Bendigo Conservation Covenant*

- 2.14 With respect to the Bendigo Conservation Covenant, for the reasons outlined in my discussion of landscape effects with respect to the relevant landscape and the Dunstan Mountain ONL, I do not consider that the BOGP will maintain the landscape values of the covenant area.
- 2.15 More specifically in relation to stated landscape related outcomes for Thomsons Gorge, I do consider that the proposal will maintain the area in its present state, protect the landscape of upper Rise and Shine Creek, the historic gold mining cottages, dams, etc, and the silver tussock grassland.
- 2.16 Relying on the BML Report's evaluation of natural character effects referenced above, I do not consider that the BOGP will protect or enhance the natural character of the covenant area.
- 2.17 For these reasons, I do not consider that the proposal will achieve the landscape related purpose of the Covenant.
- 2.18 I am also of the view that the mapped ONL under Central Otago District Plan would qualify as an ONL at a regional level. My findings in this regard are informed by the following:
- a) my knowledge of the site and broader area (including recent consideration ONF/Ls across the Queenstown Lakes District, the Clutha District and some locations in Southland District);
  - b) consideration of the Proposed Otago Regional Policy Statement Appendix 9 ONL 'criteria'; and
  - c) experience in reviewing ONF/Ls across a range of 'overlapping' district and regional scales (for example, consideration of Waitomo District and Thames Coromandel District ONF/Ls and Waikato Region ONF/Ls).

- 2.19 Relying on my evaluation of landscape effects with respect to the relevant landscape and the Dunstan Mountain ONL, I consider that the BOGP will compromise landscape related values of regional significance.

#### *D.03 Condition 34*

- 2.20 D.03 Condition C34 advises:

*The Consent Holder must implement the Landscape and Ecological Rehabilitation Management Plan ("LERMP") certified as part of the approval of the BOGP pursuant to Section 81 of the Fast-track Approvals Act 2024 and which forms part of the consents.*

*The primary objective of the LERMP is to enable the modified mined landscape to be re-integrated into the Dunstan Mountains Outstanding Natural Landscape. This includes enabling natural systems*

*to be reestablished and ensuring rehabilitated landforms can be absorbed within a broader connected mosaic of native revegetation which reflects the legible transition between the south and north Dunstan Mountains, west of Thomsons Saddle.*

- 2.21 For the reasons outlined in my discussion of landscape effects for the relevant landscape and in relation to the Dunstan Mountains ONL, along with my concerns with respect to some of the assumptions underpinning the BML Report's landscape assessment, I do not consider that the primary objective of the LERMP can be met.

### 3 Landscape Assessment Methodology

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- 3.1 In my opinion, the BML Report poses a number of concerns in terms of landscape assessment methodology which can be loosely summarised under the following subheadings:
- a) Effects assessment structure;
  - b) Approach to the scales used for the landscape effects assessment;
  - c) Gaps in the description and evaluation of the existing environment;
  - d) Consequential gaps in the evaluation of landscape effects; and
  - e) Mitigation assumptions.
- 3.2 This section of my report expands on these matters and also provides brief comment on the Relevant Landscape, Visual Simulations and relevant landscape related policy tests relied on in the preparation of my landscape comments.

#### Effects assessment structure

- 3.3 Drawing from guidance in TTatM<sup>4</sup>, landscape values embrace three overlapping dimensions: physical values, associative values, and perceptual (or sensory) values. Visual amenity values typically sit within the perceptual dimension of landscape values, albeit are influenced by the physical values (i.e. the character and composition of the existing landscape elements) and associative values (i.e. the meaning that the viewer ascribes to the landscape outlook).
- 3.4 As TTatM explains, visual effects are a subset of landscape effects, with visual assessment being a method to help understand landscape effects<sup>5</sup>.
- 3.5 For these reasons, I consider that the approach adopted in the BML Report of assessing landscape effects prior to visual effects would appear to be methodologically questionable. In my opinion, a more methodologically sound approach would be to evaluate visual effects and then move on to evaluate the full spectrum of landscape effects, drawing, in part, from the analysis of visual effects to explain effects in relation to the overlapping dimensions of physical, perceptual, and associative landscape values.

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<sup>4</sup> Refer TTatM, section 4.

<sup>5</sup> TTatM: paragraph 6.08.

- 3.6 I also consider it unusual to describe the mitigation benefits that have been factored into the effects discussion after the effects assessment. In my view, a more useful and logical approach is to describe the mitigation strategy as part of the description of the proposal, which then allows the assessor to clearly reference the influence of the mitigation strategy in the discussion of visual and landscape effects.
- 3.7 Overall, it is my opinion that, collectively, these observations signal an illogical assessment approach which does not, on the face of it, instil confidence. However, I acknowledge that, 'in the end', it is the effects analysis and conclusions that are of key importance to decisionmakers and my comments focus on my areas of disagreement in that regard, albeit applying what I consider to be a more logical structure to my comments (which differs from the 'sequence' applied in the BML Report).

### Approach to the scale of landscape assessment

- 3.8 The BML Report relies on a 'site scale'<sup>6</sup> of assessment structured on an element-by-element (or project component<sup>7</sup>) basis<sup>8</sup> followed by a 'broader landscape unit scale' assessment.
- 3.9 I have found this approach unhelpful in assisting an understanding of landscape effects of the proposed development for the following reasons:
- a) The 'site scale' effectively captures the two valleys in which open cast mining is proposed along with a relatively small footprint on the Ardgor Terraces where mine infrastructure is proposed. The nature of open cast goldmine operations of this scale is such that it will inevitably give rise to significant landscape-related effects at the site scale, during the operational stages of the mine. For this reason, the key focus of a landscape effects assessment for the Bendigo–Ophir Gold Project (**BOGP**) should be the effects at the local landscape scale or what is commonly termed in TTatM, the 'relevant landscape' scale<sup>9</sup>. This includes consideration of physical effects which are confined to the site.
  - b) I also consider the BML Report approach of assessing landscape effects at the 'site scale' structured on an element-by-element (or project component) basis to be unhelpful in assisting an understanding of landscape effects at any scale, given that the project staging description of the development explains that during Year 3-11 (the "mining activity" stage): *"All components of the proposal will be operational during this stage of the project"*<sup>10</sup>. While I appreciate that not every component will be 'active' for the full extent of the mining activity stage, there is no certainty with respect to the duration or timing of the individual activities (which is understandable).
- 3.10 For these reasons, it is, in my opinion, more technically sound to evaluate the effects of the full range of the mining activity components during the operational stage of the mine and to focus an assessment on the effects of the development at the 'relevant landscape' scale.

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<sup>6</sup> Described in the BML Report as being: "in the context of the Rise and Shine and Shepherds Creek catchments encompassing Battery Hill, and the western aspect of Thomsons Saddle". (See page 23.)

<sup>7</sup> BML Report: Table 2 terminology.

<sup>8</sup> Refer BML Report: section 6.5.3.

<sup>9</sup> See TTatM, page 239: Identify the relevant landscape - its spatial extent and context. Relevance means the landscape that enables the effects of the proposal to be best understood.<sup>256</sup> It is not about precise delineation or boundaries. It is thinking about the appropriate scale and context against which to assess effects. This exercise is also iterative. It is normal to revise your assessment as you refine your thoughts and understanding in carrying out the work. For example, it may become evident that the relevant landscape is broader or narrower as you carry out your assessment.

<sup>10</sup> Refer BML Report: page 22.

3.11 I confirm that I have adopted a 'relevant landscape' scale for my effects assessment (which I define shortly).

### Gaps in the BML Report and the BML ONL Report

3.12 In my opinion, there are information gaps in the BML Report and the BML ONL Report that have a bearing on the evaluation of landscape-related effects:

- a) Clarification with respect to the character of development change that it would be reasonable to anticipate in both the ONL and non-ONL parts of the site (as informed by the relevant statutory documents).
- b) The identification of the full spectrum of existing associative values of the relevant landscape and the potential effects of the development on those values. My comments in this regard also reference more recent correspondence on behalf of Kā Rūnaka.
- c) The identification of the full spectrum of existing perceptual values of the relevant landscape and the potential effects of the development on those values.
- d) Identification of the full range of landscape values that contribute to the 'outstanding-ness' of the Dunstan Mountains ONL.
- e) An evaluation of the proposal against the existing Dunstan Mountains ONL landscape values.
- f) An evaluation of the proposal against the Bendigo Conservation Covenant.

3.13 I address these issues in more detail shortly.

### Assessment assumptions with respect to landscape mitigation and rehabilitation

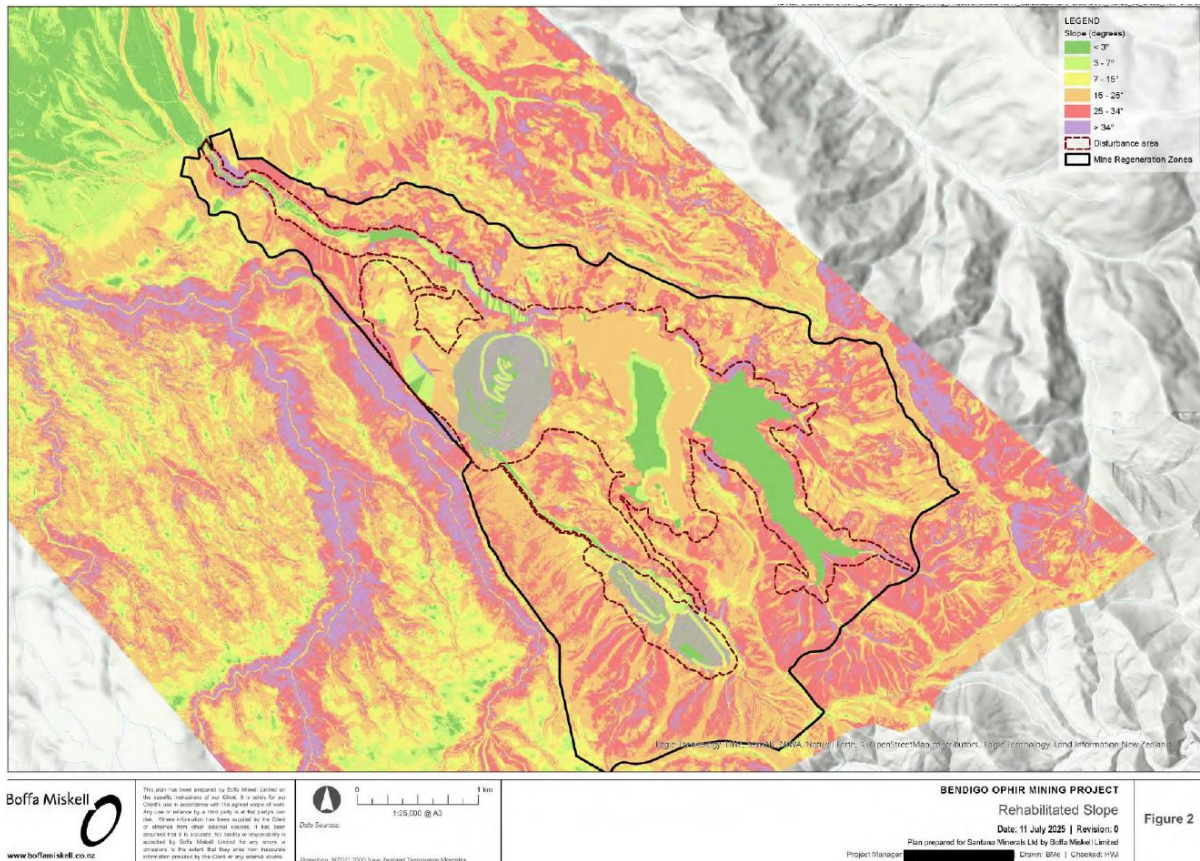
3.14 I also query the practicality and/or reliability of aspects of the landscape mitigation and rehabilitation strategy which, in turn, influence the landscape-related effects conclusions.

3.15 Relying on my experience of large-scale infrastructure projects and knowledge of the growing environment associated with the Central Otago landscape, I have limited confidence in the assessor's reliance on the following landscape mitigation and rehabilitation measures:

- a) The landform design approach which purports to mimic natural slopes<sup>11</sup>. Referencing the Figure 2 Rehabilitated Slope graphic in G.07B (reproduced in **Figure 1** below), which shows the proposed slope profiles in the context of the existing slope profiles in the vicinity of the disturbed area, it is my opinion that the patterning of the various slope 'categories' illustrates that the modified landforms are of a scale and nature that does not reflect or mimic the natural slope profiles in the area. Put another way, the surrounding landforms display highly complex and variable slope profiles, while the disturbed area is characterised by a quite different 'grain' of slope profiles that presents as landforms of considerably reduced complexity and increased homogeneity or uniformity (i.e. the extensive areas of orange and green within the disturbed area). I consider that this discordant character is evident in many of the Visual Simulations (**VS**) relied on in the BML Report (for example, VS 8 View from State Highway 8).

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<sup>11</sup> G.07A: sections 6.2, 9.3.



**Figure 1:** Proposed BOGP Rehabilitated Slopes, Slope Analysis (NB for example, large blocks of orange wash in the centre of the graphic roughly correspond to the WELF and ELF).

- b) The use of an experimental cushionfield and spring annual herb rehabilitation strategy on the WELF which, in time, will inform the revegetation strategy on other engineered landforms (e.g. the SRX-ELF and CIT Pit<sup>12</sup>). The application documents explain that the cushionfield and threatened spring annual herb rehabilitation/mitigation plantings are “untested and speculative”<sup>13</sup> and will be developed through the Applied Research Plan<sup>14</sup>. Given the difficult growing conditions associated with the site more generally<sup>15</sup> and, more specifically, the challenges of establishing vegetation on an engineered landform, this raises uncertainty with respect to the final landcover quality (in terms of landscape values) and appearance of the WELF, SRX-ELF, and CIT Pit. I note that Mr Geoff Rodgers who has extensive experience in the ecology of spring annual herbs (the most threatened element of the DDF vegetation) and the revegetation and enhancement of dryland plant communities also raises serious concerns with respect to the viability of the cushionfield and spring annual herb rehabilitation strategy.
- c) The approach to the progressive rehabilitation planting of nodes of shrub (and larger species) plantings on engineered slopes, which relies on the creation of localised deep root zones into the brown rock ‘substrate’ to provide an appropriate root environment for the planting nodes to establish. While I am aware of such an approach being used on small-scale embankments and

<sup>12</sup> See G.07B.

<sup>13</sup> G.07A: 10.1.

<sup>14</sup> G.07B: E6.

<sup>15</sup> As acknowledged in G.07A 10.1.3.

the like, I consider that the sheer scale of the engineered landforms that are proposed and their sequential method of construction raise doubt with respect to the practicality of such a planting strategy.

- d) More specific reliance on self-established native vegetation across the ELF to assist with the integration of the final landform profile into the broader mountain setting, given the difficult growing environment of the area<sup>16</sup>.
- e) The following section of my comments steps through each of the matters raised above (check), albeit in a slightly different order, as my comments are structured in accordance with what I consider to be a logical sequence for a landscape assessment.

3.16 My effects evaluation that follows has factored in my uncertainty with respect to the mitigation and/or rehabilitation benefits of these various aspects. These concerns are also of relevance in my consideration of the merits of proposed condition D.03 Condition 34 which is addressed at the end of my report.

### Relevant Landscape

3.17 I agree with the inferred extent of the relevant landscape addressed in the BML Report, as effectively guided by the scope of the representative public viewpoints assessed.

### Visual Simulations

3.18 I have reviewed hard copies of the Visual Simulations in the field and confirm that they generally align with landscape assessment best practice, for technical material of this nature<sup>17</sup>. As TTatM explains, visual simulations are useful tools for pictorially depicting proposed developments, going on to set out their limitations, which include matters of relevance to this application:

- a) the static nature and limited field of view of simulations, which is not how we typically visually experience a landscape or place; and
- b) the tendency for photographs to flatten perspective.

3.19 In this instance, I note that many of the Visual Simulations tend to make the site and proposed development look further away from the vantage point than the outlook experienced in real life (as tested in my field work). For this reason, I confirm that my visual effects (and associated landscape effects) evaluation is based on my field work.

3.20 I also note that the majority of the Visual Simulation photographs have been taken in relatively low light conditions when the complex topographical patterns of the Dunstan Mountains are less legible and the mountain slopes read as relatively flat and devoid of shadow. This has the effect of exacerbating the flattening effect described above, making the layering and intricate patterning of ridgeline spurs, localised knolls, steeply incised gullies, and escarpments largely indistinguishable in the photographs. Put another way, the complexity of the mountain landforms is difficult to discern, with the landforms often reading as a continuous or 'single' slope in the photographic image.

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<sup>16</sup> BML Report: 6.5.3.6.

<sup>17</sup> See TTatM: 6.51 to 6.53 re visual simulations.

- 3.21 Relying on my experience of a wide range of light and seasonal conditions<sup>18</sup> across the mountain ranges in Central Otago, I expect that in many other light and/or seasonal conditions, the complex topography or ‘grain’ of the landscape is likely to be considerably more legible than that conveyed in the Visual Simulations, and I note that some of the Site Context Photographs in the BML ONL Report convey this differing visual condition (for example, Site Context Photographs 4 and 13).
- 3.22 I confirm that my visual and landscape effects evaluation has factored in this variation to the legible grain of the landscape as a consequence of light and weather conditions.

### Statutory and Non-Statutory Context and the Landscape-Related Effects Threshold

- 3.23 I consider that the key RMA landscape policy directions of relevance to landscape effects in the ONL portion of the site seek the protection of ONLs from the adverse effects of inappropriate subdivision use and development<sup>19</sup>, the avoidance of exceeding landscape capacity<sup>20</sup>, and the maintenance of the values that contribute to the natural feature or landscape being outstanding (even if those values are not themselves outstanding)<sup>21</sup>. The Central Otago District Plan 4.6.2 sets out the principal reasons for adopting the objectives, policies and methods in relation to landscape and amenity values, explaining that the unique landscape of the Central Otago District which has been identified as an important resource of the District that is renowned internationally underpins the policy approach in this regard.
- 3.24 In my experience, this reflects the landscape sensitivity of such landscapes to development change and typically sets a high bar for development that is appropriate from a landscape effects perspective.
- 3.25 I also note that although the Proposed Otago Regional Policy Statement (**PORPS**) requires the avoidance of exceeding “landscape capacity”, the term is not defined in the PORPS. In my comments on landscape capacity that follows shortly, I have used the definition of landscape capacity set out in the Queenstown Lakes Proposed District Plan (**QLPDP**), which was introduced by the Environment Court<sup>22</sup>:

*Landscape capacity:*

*in relation to an Outstanding Natural Feature or Outstanding Natural Landscape, means the capacity of a landscape or feature to accommodate subdivision and development without compromising its identified landscape values;<sup>23</sup>*

- 3.26 In my opinion, this high bar is compounded by the Bendigo Conservation Covenant (**Covenant**) that applies to part of the site which was established at the time that that broader Bendigo Station landholding was considered as part of the Crown Pastoral Land Tenure Review process. Of relevance to landscape-related effects, the Covenant requires: the protection and enhancement of natural character; and protecting the land as an area representative of a significant part of the ecological character of the Dunstan Ecological District. The Covenant includes an objective to maintain the landscape values of the land as referred to in the “Application for exchange of property rights” submitted to the Commissioner of Crown

<sup>18</sup> i.e. snow, flowering plants etc.

<sup>19</sup> Central Otago District Plan: 4.3.2.

<sup>20</sup> Proposed Otago Regional Policy Statement 2021: NFL-P2 (1).

<sup>21</sup> Ibid: NFL-P2 (2).

<sup>22</sup> Referred to as the Queenstown Lakes *PDP Topic 2 Decisions*.

<sup>23</sup> PQLDP: 3.1B.5.

Lands<sup>24</sup>. The “Application for exchange of property rights” describes the visual and scenic values of the area and identifies three “priority areas for landscape protection”:

- a) the South Dunstan Crest Landscape Priority Area,
- b) Bendigo Hills; and
- c) Upper Bendigo Creek (Rise and Shine Creek).

3.27 The “Application for exchange of property rights” goes on to address Thomsons Gorge:

*“This area of 576 ha will be protected by a conservation covenant under the Reserves Act. The covenant will be designed to maintain the area in its present 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 of shrubland is considered acceptable, along with OSTD. Mining, forestry and tracking.”<sup>25</sup>*

3.28 I also note that the CODP recognises the importance of the tenure review process as a method for protecting significant inherent values including landscape values (at 4.6.1).

3.29 It is my understanding that decision making in relation to changes to the Covenant requires consideration of the purpose of the Covenant and whether the amendment or revocation will compromise values of regional, national or international significance.

3.30 I have factored this relevant statutory policy and Covenant context into my effects evaluation.

## 4 Relevant Landscape: Existing Landscape Values

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### Physical Landscape Values

4.1 Relying on the BML Report, BML ONL Report and the ecology reports, there are high value landforms, hydrological features and ecological features within the site and local area (the relevant landscape), including:

- a) the landforms of Dunstan Mountain range;
- b) the Mata-Au (Clutha River) and complex network of steeply incised stream valleys throughout the range;
- c) the sequence of distinctive alluvial terraces and large escarpments throughout the lower lying land to the north of the Dunstan Range; and
- d) the ecologically significant vegetation communities throughout the Dunstan Mountains.

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<sup>24</sup> E.04 Bendigo Conservation Covenant, C(iii).

<sup>25</sup> Application for Exchange of Property Rights: page 16.

## Perceptual Landscape Values

- 4.2 In addition to the various perceptual characteristics and values discussed in the BML Report and the BML ONL Report, I consider the following perceptual values to merit mention in a description and evaluation of existing perceptual values of the relevant landscape.

### *Dark Night Sky Values*

- 4.3 Relying on my night-time site visit and knowledge of the area more generally, night-time lighting in the vicinity of the site is limited to farm and other rural dwellings/buildings, vehicles using the road network, and relatively modest flashing lights marking pivot irrigation lines.<sup>26</sup> I was interested to discover during my night-time visit that the light glow associated with the townships of Cromwell and Wanaka do not 'interfere' with the dark night sky characteristics of the area.
- 4.4 Overall, it is my impression that the area displays dark night sky values that make it memorable and, in my experience, this can be a specific perceptual attribute that is of value for local residents and visitors.
- 4.5 In this regard, I note Dr Boyle's evidence which advises that the Bendigo-Tarras region is one of the most important and unique areas globally for the public's appreciation of the night sky. Dr Boyle goes on to explain that it is part of only 0.1% of the world's land in which it is possible to see the centre of our milky way galaxy, the Magellanic Clouds (our nearest neighbouring galaxies) and the aurora.
- 4.6 I also note the repeated mention of the dark night sky as a valued characteristics in the various public surveys discussed in Professor Higham's report.
- 4.7 For these reasons, I consider that the dark night sky characteristics of the site and local area merit reference as a noteworthy and valued perceptual characteristic.

### *Rural Tranquillity and Remoteness Values*

- 4.8 In my opinion, the limited level of development within the relevant landscape away from the state highway corridors confers a noteworthy sense of rural tranquillity on those parts of the area. Put another way, away from the busy state highway routes, there is an impression of a more 'rural backwater' character with that impression heightened by the contrast created between the two areas.
- 4.9 Closely linked to this quality, and the dark night sky characteristics described above, is an impression of remoteness evident in those parts of the relevant landscape away from the state highway corridors, and particularly across the Dunstan Mountains. While human modification is evident (for example, grazing, roads, power lines, heritage landscape features, and the exploratory mining activities), the distance of these areas from sizeable settlements, the limited level of built development, and the limited vehicular accessibility to the mountains are important factors in this regard. Further, with the exception of the odd vehicle accessing Thomsons Gorge Road in the evening, all of these existing light sources are located on the lower terraces below and outside of the Dunstan Mountains ONL. This means that the mountains themselves make an appreciable contribution to the night-time impression of remoteness experienced on the more inhabited terraces (to the north), which is also a memorable landscape value in its own right.
- 4.10 Further, in thinking about the effects of the application on perceptual (landscape) values, I am aware that mining activities of this nature in this sort of landscape (i.e. a very dry landscape) can generate appreciable dust plumes which serve to emphasise the presence of the development and alter the

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<sup>26</sup> I am aware that a communications tower was erected breaching the District Plan rules, which has since been taken down.

impression of the landscape. I am not an expert in this field, however consider that it merits consideration for a project of this nature in this specific context.

## Associative Landscape Values

- 4.11 Associative values refer to the “meanings and values we associate with places”.<sup>27</sup> Such associations typically arise over time and out of the relationship between people and place. TTatM explains that other terms sometimes used for this dimension include ‘intangible’, ‘meanings’, ‘place-related’, and ‘sense of place’.<sup>28</sup> In the past (e.g. under WES/<sup>29</sup>), such matters were often captured in landscape assessment under the ‘shared and recognised values’ and the ‘cultural values’ dimensions of landscape.

### *European historical and recreational aspects of associative values*

- 4.12 The BML Report and the Recreation Assessment have identified the European historical and recreational aspects of associative landscape values connected with the site and local area.
- 4.13 I agree with the way that those aspects have been described, with the exception of two matters.
- 4.14 The first relates to what I would describe as the broader and more holistic heritage landscape context associated with the site and local area, which takes in the connections between the various ‘formally’ identified heritage features (i.e. heritage features identified in the District Plan).
- 4.15 Referencing Mr Sole’s report/evidence, I understand this to include the network of a likely camp site, early boundary fence post, prospecting and tailings features, pack track and water race features which are an integral part of the way that the early settlers inhabited and used the landscape and serve to ‘make sense’ of the various identified heritage elements. In a sense, these features are the glue that binds the identified heritage features and collectively confer the impression of a complex and highly legible, rich heritage landscape that is both noteworthy and unique with such values heightened by their accessibility.
- 4.16 The second matter relates to the omission of reference to the planned walking/cycle trail link between Wanaka and Cromwell along the Mata-Au (Clutha River). Relying on my experience of the planning, consenting and operation of numerous walkway and cycle trails in the Otago Region, such facilities are enormously popular and provide a highly valued way, for locals and visitors alike, to experience the more natural landscapes of the region. It is also my experience that planned facilities of this type get built.
- 4.17 In my opinion, this suggests the potential for greater recreational values in the relevant landscape than currently considered in the BML Report.
- 4.18 In addition to the European historical and recreational aspects of associative landscape values, I consider the following associative values to be worthy of mention in relation to the relevant landscape.

### *Landscape identity and ‘sense of place’ values*

- 4.19 I consider that the BML Report has also overlooked the ‘identity’ or ‘sense of place’ dimensions of associative values connected with the site and local area as articulated in the Tarras Community Plan (2023) (TCP). Ms Bachelar describes the development of the TCP, with the first version being written in

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<sup>27</sup> Te Tangi a te Manu (TTatM), paragraph 4.10. Or, as described in *Mount Cass Windfarm* [2011] NZEnvC 384 {300}-[301]: *associative aspects (beliefs, uses, values and relationships) which may change over time*.

<sup>28</sup> TTatM, paragraph 4.23. In the past, such matters were often captured in landscape assessment under the ‘shared and recognised values’ Pigeon Bay factor.

<sup>29</sup> *Wakatipu Environmental Society Inc v Queenstown Lakes District Council* Decision No. C153/2004.

2007 in consultation with the community. The current TCP was published by CODC in 2023 following community consultation that was led by CODC and hosted by Rural Women.

4.20 As the TCP explains:

*A community plan connects and binds people together through their shared values. It sets out what is important to the people of that place and provides a set of objectives and roadmap for positive development and resilience.*

*The aim of this plan is to create a document that articulates and reflects the values, initiative and direction for the wider Tarras community.*

*The development of the Tarras Community Plan has been a community led process, which the Central Otago District Council helped to facilitate. The Plan was developed through listening to and summarising feedback from the people who live, stay or own property in the Tarras area. The comments and sentiment captured in this plan are a direct reflection of the comments and feedback provided through community surveys, workshops and conversations. The Tarras Community Plan represents and is owned by the Tarras Community.*

4.21 The TCP is the outcome of a thorough community process involving two surveys, two workshops and consultation on the draft TCP<sup>30</sup> to produce the final TCP (2023). The TCP expresses the strong pride that the local community share in terms of the area's rich history, wealth of recreational opportunities, and magnificent open mountain vistas.

4.22 Of particular relevance to considering the potential landscape-related effects of the BOGP, the TCP explains:

*The community wants to ensure that the stunning natural environment is maintained and enhanced for future generations. People love the unique landscape with its historic sites and rich gold mining heritage, the bird life, the rivers, as well as the peace and quiet of the surrounding rural area. People love that their rivers, lake and conservation areas are rich with history and right on their doorstep.*

*Silence is valued by many, along with big skies, landscapes, vistas, night skies, wide open spaces and the serenity of the rural space.<sup>31</sup>*

4.23 In my experience, community documents of this nature also demonstrate the strong commitment of the local community to shaping their landscape and community. Put another way, community plans of this type take enormous community effort and prove how deeply and fondly the local community cares about 'their place'.

4.24 This community sentiment with respect to the importance of the natural landscape is also highlighted in Professor James Highham's report for Sustainable Tarras addressing a number of district or region wide surveys, where he comments:

*A 2024 survey of Central Otago residents found that the qualities of life that residents most value about Central Otago were derived from 'Landscapes' and undisturbed 'Natural beauty'. Leisure and recreational values associated with unique landscapes were central to quality of life. These results in relation to landscapes and lifestyle align with CODC data from recent work on a 50 year vision for the district. The adopted Vision recognises that the state of wellbeing in Central Otago is grounded*

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<sup>30</sup> TCP, pages 8 and 9: total of 112 survey responses; total of 48 workshop attendees; total of 14 individual response on the draft TCP.

<sup>31</sup> Ibid: page 21.

*in respect for and protection of the natural environment. The survey results also reflect current regional Destination Management Plans: the Central Otago Destination Management Plan identifies protection of the natural environment and landscapes, maintaining the character of small towns and strong community identity and careful management of growth as key priorities. Documents from the Queenstown district (Queenstown Destination Management Plan and the Queenstown Lakes Spatial Plan) also strongly emphasise the importance of landscapes and environmental protection. There is significant potential for open cast gold mining to be inconsistent with the outcomes that the Destination Management Plans and Spatial Plan seek for Central Otago. These are outcomes that reflect shared community values.*

- 4.25 In my opinion, this consistent messaging with respect to the importance of the natural landscape points to a landscape that has very high shared and recognised values.

#### *Local residents*

- 4.26 Local residents have provided statements expressing their deep and close relationship to the Dunstan Mountains and surrounding rural landscape (including the Mata-Au (Clutha River).
- 4.27 For example, Mr Klahn expresses his strong belief that places like this should be protected so that future generations can experience the same sense of *awe and connection to nature* that people value today.
- 4.28 I refer also to the heartfelt and evocative statement from Ms Suze Keith, prefaced by an extract from Brian Turner's poem, *Just This*.

#### **Deserts, for Instance**

The loveliest places of all  
are those that look as if  
there's nothing there  
to those still learning to look

*(Brian Turner, from Just This, VUP, 2009)*

*To step onto the broad glacial plains of Tarras is to step into the widest sky, the mighty tumult of the Clutha Mata Au, the grandeur of Mount Pisa, the St Bathans Range, Grandview and the awesome Dunstan Mountains. It takes my breath away.*

*By day the light can be flat, almost one dimensional, under a hoar frost, as if you're walking around the largest fridge in the world. The horizons shrink, sounds are muffled and the sun is missing in action. Or it could be the sharpest, clearest blue and gold day, which unavoidably slows my breath, calms my mind, lifts my eyes and heart.*

*By night the land disappears and the sky takes prominence. As has been seen in this period of frequent auroras, the dark sky in Central Otago is of significant value other locals. The visibility of the Milky Way on a clear night in Tarras is simply gobsmacking.*

*To trail alongside the Clutha Mata-Au, well below the plains, is another experience again - the regenerating kanuka, kōwhai, and flaxes, the frequent visitor of the black morph piwakawaka, the roar of the river delivers something quite different. The water mesmerises as the light alters the*

*colours from green to blue to gold rendering the water either immensely appealing or unwelcoming. Saved recordings on my phone reminds me of this beauty when I can't get there in person.*

*The Lindis River gifts us a gentler experience - the swimming hole under the Lindis Bridge provides a safe spot for families to swim, wade, swing, picnic and rest. The Lindis acts as a signpost to me - "Welcome back! Tarras is just around the corner."*

*The scale and remarkableness of this place humbles me. It reminds me that I am simply someone passing through, a mere blip in this landscape. It gifts me something quite indescribable, and I am so very grateful. I am still learning to look.*

- 4.29 In my opinion, this speaks to a high level of shared and recognised values associated with the relevant landscape i.e. this is a landscape that is highly valued by many members of the local community.
- 4.30 In commenting on this aspect of associative values, I acknowledge that a proportion of the local community are likely to be supportive of the proposal and/or are not concerned about potential adverse landscape related effects. I have factored this into my evaluation of effects on associative landscape values.

#### *Value of the Dunstan Mountains as a subject for artists*

- 4.31 In my opinion, the statement provided by Mr Gregory O'Brien (artist, writer, art curator and patron of the Eastern Southland Art Gallery), demonstrates the inspirational qualities of the Dunstan Mountains landscape for a wide range of highly acclaimed members of the New Zealand artistic community: including musicians (e.g. Douglas Lilburn); artists (including, Rita Angus, Trevor Moffitt, Sir Grahame Sydney Micheaul Shepherd, Euan Mcleod, Jenna Packer, Bruce Foster, Gregory O'Brien and Nigel Brown); numerous poets (including Brian Turner, Gillian Turner, James K Baxter and Poet Laureate, Robert Sullivan); numerous photographers (including Tom Field, Laurence Aberhart, Peter Peryer, Bruce Foster and Robim Morrison); filmmakers (e.g. Dame Jane Campion and Sir Peter Jackson); choreographers (e.g. Sue Healey); visual artists (e.g. Neil Driver, Martin Hill and Eric Schusser) and sculptors (e.g. Elizabeth Thomson). i.e. this is a landscape that is so dynamic, cherished and exceptional that artists choose it as a focus point for their work.
- 4.32 In my view, this speaks to what Mr O'Brien describes as "the collective life force or mauri of the landscape" and as he so eloquently explains:

*Anyone who has had the privilege of travelling along the top of the Dunstan Range will know what a powerful presence that landform is—majestic, but also bracing and challenging. Thomson Gorge is the only pass/gorge in that surreal, existentially charged range. The gorge is the only real variation in the geological formation, dropping down from the denuded high-country to its corridor of verdant green slopes, supported by a healthy river.*

*Thomson Gorge feels very much like the heart of the Dunstan Range, with a strong sense of the pre-European past (it was once a travel route for early Māori). As well as attracting cyclists, campers and environmentalists, the journey across through Thomson Gorge has been made in recent years by numerous artists, photographers, filmmakers, writers and others. In making art about the location, all the artists who have engaged with it have celebrated and claimed a place for it in the national psyche and soul.*

- 4.33 It should also be noted that through the recognition of the landscape in the arts, the specific landscape has a much broader sphere of influence than simply the people living and visiting the area.

### *Cultural Landscape Values*

- 4.34 Also of relevance to associative values (albeit also often of relevance to physical and perceptual values) are cultural landscape values.
- 4.35 This matter is addressed in the BML Report, where the assessor advises that a cultural values statement has been prepared for MGL as part of ongoing mana whenua engagement<sup>32</sup>. The BML Report explains: *“It is understood the Central Otago landscape, including the Dunstan Mountains, was once part of a network of traditional travel routes connecting the coastal settlements of Te Waipounamu to Central Otago. This was primarily centred around the Mata-au Clutha River, and was primarily used by Kati Kuri, Ngati Ruahikihiki, Ngati Huirapa and Ngai Tuahuriri”*.
- 4.36 The BML Report goes on to advise that the cultural assessment is “ongoing and informs the landscape character and values assessment where available by mana whenua”.
- 4.37 It is my understanding that:
- a) a Cultural Impact Assessment does not form part of the application documents; and
  - b) Kā Rūnaka have expressed opposition to the application on landscape (and other) grounds<sup>33</sup>.
- 4.38 TTatM explains that *“While it is for tāngata whenua to describe their cultural values, perspectives, and associations with respect to their whenua, a landscape architect should weave such matters—as far as they are known—into a broad understanding and appreciation of a landscape”*<sup>34</sup>.
- 4.39 I do not claim to be an expert in tāngata whenua. For this reason, I would like to reserve the opportunity to potentially expand on the cultural dimension of existing landscape values (and the effects of the proposal on those values) once I have reviewed any new material that emerges as part of this process.

### *Anticipated development change under relevant statutory documents*

- 4.40 I understand that the District Plan to be a community document that reflects the community’s collective values and vision for the area in question and therefore consider this to relevant to considering the effects of a development on associative values.
- 4.41 From a review of Ms Sylvia Allan’s draft comments on the proposal, it is my understanding that the proposed mining development is a very major departure from the District Plan zoning and overlay framework within which it is proposed to be located and has the potential to undermine many of the values expressed in the District Plan.

### *Summary of Existing Landscape Values*

- 4.42 In summary, relying on my discussion of physical, perceptual and associative landscape values, it is my opinion that the landscape values of the relevant landscape rate towards the higher end of the spectrum (i.e. the higher end of the TTatM seven-point scale).

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<sup>32</sup> Cultural Values Statement, prepared by Kai Tahu in 2018. I note that this statement of values is not included in the application documents.

<sup>33</sup> Memorandum of Counsel for Kāti Huirapa Rūnaka Ki Puketeraki, Te Rūnanga O Moeraki, Te Rūnaka O Ōtākou, and Hokonui Rūnanga in Response to Panel Convener Directions, dated 16 January 2026: paragraph 22.

<sup>34</sup> TTatM: 5.45.

## 5 Dunstan Mountains ONL: Existing Landscape Values

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- 5.1 It is well established that to assist with the appropriate management of ONLs, it is necessary to both map the ONL and identify the landscape values that make the area in question outstanding<sup>35</sup>.
- 5.2 The BML Report and the BML ONL Report provide a summary of the landscape values for the Dunstan Mountains ONL. Referencing the above comments in relation to associative and perceptual aspects of the landscape, along with the characteristics and values mentioned in the BML Report and the BML ONL Report, I consider that a number of amendments are necessary to accurately reflect the existing landscape values that make the Dunstan Mountain area outstanding.
- 5.3 With respect to the increased level of detail that I am suggesting is included in the 'Summary' of Landscape Values, I am guided by the extensive body of work that I recently completed (in collaboration with Jeremy Head) on the Priority Area Landscape Schedules (PALS) for Queenstown Lakes District Council.
- 5.4 By way of background, the preparation of the PALS was directed by the Environment Court. The PALS were the subject of extensive landscape expert conferencing at both the Council hearing and appeal stages, which included agreement that a 'Summary of Landscape Values' was inadequate and needed to be supported by a more comprehensive 'Schedule of Landscape Values', for the technical material of this nature to assist with plan implementation. (My emphasis added.) I note that the Environment Court has recently endorsed the Preambles and PALS<sup>36</sup>.
- 5.5 I have inserted in red underlined text, the amendments to the BML Report Summary of Landscape Values that I consider are required to accurately describe the landscape attributes and values that contribute to the 'outstanding-ness' of the Dunstan Mountains ONL and which I consider is better described as a 'Schedule' of Landscape Values:

### Dunstan Mountains ONL: Schedule of Landscape Values

#### Physical Attributes and Values

Highly intact mountain sequence, expressive of its tectonic, and glacial formative processes.

Where the landscape becomes more folded, slopes are predominantly greater than 34° and typically represented by narrow ridgelines viewed along the skyline. More gradual slopes between 3-15° are characteristic of the larger southern plateau and a more confined area to the west of Dunstan Peak. A mix of gentle and steeper incised gullies are also dispersed throughout this mountainous terrain.

Remnant peneplain from the Cretaceous period ~~remains highly legible and~~ forms an extensive summit plateau feature to the south which remains distinct from the more angular mountain forms and summits to the north.

Numerous elevated schist tors, including Haehaeata (Leaning Rock) (1,647 masl); and rocky outcrops.

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<sup>35</sup> For example, NZEnvC 147: *Western Bay of Plenty District Council*.

<sup>36</sup> [2026] NZEnvC 40. The Environment Court Consent Determination addresses the Preambles to the PALS which explains how the PALS are structured, their scope etc and how they are intended to be used by plan users. The confirmed text of each PALS is addressed in a series of associated Consent Determinations from the Court.

Other noteworthy high points include: Dunstan summit (1,667 masl); Dunstan Peak (1,569 masl), Rocky Peak (1,430 masl) and Cloudy Peak (1,526 masl); Mount Horn (1,136 masl) and B10D or Battery Hill (916 masl). Noteworthy low points along the ridgeline include Thomsons Saddle.

Evidence of solifluction within the upper slopes of the mountain range where water saturated soil cannot permeate through the underlying permafrost. This causes the slope to slowly move downwards leaving a distinctive slip on the hillside.

NZ Geopreservation Sites including:

- a) The internationally significant Nine Mile Landslide, with features including landslide scars, lobes, rockfalls and rock topples (towards the southern end of the ONL).
- b) The nationally significant Bendigo Goldfield, which is described as the best example of a large gold mining settlement in the South Island and one of the largest reef mines in Otago (to the west of Thomson Gorge Road); and
- c) The regionally significant Dunstan Mountains summit tors and biotite-bearing schist (in the vicinity of Haehaeata).

Complex network of predominantly unmodified stream valleys, the majority of which tend to remain dry throughout the year, due to the low rainfall, steep topography, and short and small catchments. Modification in the form of bores, water takes, and dams associated with historic goldmining (e.g. Rise and Shine Creek) is evident in places.

Very low annual rainfall (with the Dunstan Mountains recorded as the driest area of Otago and New Zealand), with extreme summer and winter temperatures.

At higher altitudes vegetation including blue tussock (*Poa colensoi*), hard tussock (*Festuca novae-zelandiae*), snow tussock (*Chionochloa rigida*) and extensive alpine cushionfield and herbfield remain present. These are recognised as valuable remnants of historic vegetation within the area.

Within the area and adjoining Bendigo Scenic Reserve is a remnant stand of kanuka valued as one of a few remnants left in Otago associated with former gold mining activity.

Other distinctive vegetation types include:

- a) Patches and drifts of grey shrubland including: matagouri (*Discaria toumatou*) mingimingi (*Coprosma propinqua* var. *propinqua*), and scented tree daisy (*Olearia odorata*).
- b) Native sedges and rushes throughout valley floors.
- c) Relict Kowhai.

Conservation and Reserve land within the ONL includes:

- a) In the vicinity of Lauder Creek (accessed via easements to the east and west of the Dunstan Mountains);
- b) Neine i kura and Ardgour Conservation Areas roughly throughout the upper slopes, roughly in the middle of the ONL (accessed via Thomson Gorge Road);

- c) Two conservation areas in the vicinity of Bendigo, i.e. Bendigo Conservation Area along the upper slopes and the Bendigo Historic Reserve along the western toe slopes adjoining the Upper Clutha Valley (accessed via Thomson Gorge Road);
- d) Dry Creek Conservation Area on the lower slopes to the east of Thomson Gorge Road, adjoining the Upper Clutha Valley; and
- e) Waikerikeri Conservation Area on the lower southwestern slopes below Haehaeata.
- f) The three “priority areas for landscape protection” in terms of landscape and scenic values (including the landscape, historic gold mine features and silver tussock grassland), under the Bendigo Conservation Covenant:
  - i. the South Dunstan Crest Landscape Priority Area.
  - ii. Bendigo Hills; and
  - iii. Upper Bendigo Creek (Rise and Shine Creek).

Access routes in the ONL are limited to the rugged 4-wheel drive route of Thomsons Gorge Road connecting between Manuherikia Valley and the Upper Clutha Valley.

#### **Perceptual Attributes and Values**

~~Panoramic views of a broader mountain backdrop and unobstructed skyline are highly valued and broadly visible throughout the Upper Mata-au/Clutha and Manuherikia catchments.~~

The underlying geology and geomorphology of the landform is an important feature of this landscape. Schist tors, the gradual movement of soil at higher elevations (solifluction), and intricate network of streams and creeks form legible characteristics which ~~express their formative processes~~ are highly expressive of the landscape’s formative glacial, tectonic, and fluvial processes.

Highly appealing and engaging views to the cohesive mountain sequence from SH6, SH8, Conservation land and Reserve areas, Thomsons Gorge Road and the surrounding low-lying areas (including parts of the Mata-Au Clutha River corridor), in which the distinctive sculptural structure of the landforms and mottled vegetation patterns, combined with the big-sky landscape and planar river terraces associated with the Upper Clutha Valley, makes them highly memorable. At a finer grain, views of heritage elements, patterns and connections add to the appeal.

Highly appealing and engaging views from the Manuherikia catchment.

The shifting shadows across open landforms at different times of the day and year form a key dynamic characteristic of this mountain backdrop alongside changing weather patterns and transient influences of winter snowfall and fog that add to the memorability.

~~Rugged kanuka covered promontory along the immediate skyline (part of which falls outside the ONL within Bendigo Scenic Reserve) adjoins the north-eastern end of Lake Dunstan before transitioning into a broader more defined grassland plateau and mountain backdrop above.~~

High naturalness values as a consequence of a ~~g~~General lack of visible structures and modifications which ensures the landform remains largely open and is perceived as natural, with some relatively small-scale, more localised and limited evidence of gold mining amongst a broader coherent and open mountain backdrop.

The irregular patterning and proliferation of grey shrubland, exposed rock faces, and scrub in places, adds to the perception of naturalness.

Impressions of rural tranquillity and remoteness as a consequence of the very limited level of development.

A distinctive and highly legible dark night sky environment as a consequence of the very limited level of development within the ONL and local area.

Important local landmarks and wayfinding features include the Mata-au gorge, Haehaeata and Thomsons Gorge.

#### **Associative Attributes and Values**

Matakinui-Matakanui (Dunstan Mountains) formed part of a traditional travel route between Makarora and Moeraki. The area is recognised as a mahika kai site where weka and tikumu (mountain daisy) were gathered, as well as taramea (wild ~~spaniard~~ Spaniard) which was gathered for its perfume. The Mata au (Clutha River) to the south of this ONL was also significant for gathering tuna (eels), kanakana (lamprey) and kokopu. This section of the river formed part of a traditional travel route, prior to passing through the Matakinui-Matakanui /Dunstan Mountains<sup>37</sup>.

The Bendigo area is renowned for its gold mining history from the mid-1800s. Remnants of this time period are still present today near the settlement of Bendigo. This includes a highly accessible and extensive, legible network of identified heritage buildings and features, along with tracks, water races, and the like, that collectively form a rich and complex heritage landscape throughout the Thomsons Gorge Road area (including the Rise and Shine Creek, Bendigo Creek, and the Aurora Creek catchments). Other noteworthy concentrations of heritage features in the ONL are evident in and around the Bendigo Historic Reserve. As a group, these features connect with the cluster of makeshift towns at the height of gold mining activity near the ONL, including Logantown, Welshtown, and Wakefield where building remnants are evident today.

Several stations including Bendigo, Northburn, Matakanui, Cloudy Peak and Cluden Stations support a strong farming history in the area that dates back to the 1850's when the large Morven Hills Station was formed. This land use is ingrained in the character and shared associations of the landscape.

Identity of the Dunstan Mountains as a cohesive, largely undeveloped, and stunning mountain sequence that provides a highly memorable backdrop to Tarras and the surrounding rural river terraces, that is highly valued by the local community and makes an important contribution to their identity and sense of place.

The Dunstan Mountains are highly valued for their recreational opportunities, including walking, exploring gold mine relics, hunting, tramping, mountain biking, 4WD (including the popular Thomsons Gorge Road route), and horse trekking. Day walks are available near Bendigo in addition to backcountry experiences including within the larger Lauder Basin Conservation Area which is located to the north-east of the ONL.

The Dunstan Mountains (including Thomsons Gorge) are high valued as an inspirational source for a wide range of artists.

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<sup>37</sup> The BML Report advises that this information is sourced from the Kai Tahu (2018) Cultural Values Statement.

- 5.6 In considering potential text changes to the associative landscape values, again, I would like to reserve the opportunity to potentially expand on the cultural dimension of existing landscape values once I have reviewed any new material that emerges as part of the ongoing discussions with mana whenua.

## 6 Relevant Landscape: Landscape Effects

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- 6.1 As signalled earlier, I have structured my assessment of landscape related effects in terms of the stages set out in the BML Report. I note that the BML Report references Year 25 in the summary table of visual effects yet describes the closure stage to be Year 11 - Year 30 and defines Year 30 as the closure time in the summary of landscape effects. For this reason, I have assumed Year 30 to be the correct timeframe reference in this regard.

### Effects on Physical Attributes and Values

- 6.2 Relying on the description of landscape modification at section 6.5.2 of the BML Report, it is evident that the BOGP will result in a significant change to the physical attributes and values of the site. In my opinion, the sheer scale, extent and character of landform modification, vegetation removals, stream diversions, and new built development (including roading), along with the uncertainty outlined earlier with respect to vegetation rehabilitation strategies inevitably suggest:

**Year 1-3:** Moderate ('more than minor').

**Year 4-11:** Very High ('significant').

**Year 12-30:** High (assuming the rehabilitation planting techniques are successful) ('significant'), or Very-High if the planting rehabilitation techniques are unsuccessful ('significant').

- 6.3 In terms of physical effects on the relevant landscape, such effects are inevitably reduced due to the moderating influence of scale, suggesting:

**Year 1-3:** Low ('minor').

**Year 4-11:** Moderate-High ('more than minor').

**Year 12-30:** Moderate (assuming the rehabilitation planting techniques are successful) ('more than minor'), or Moderate-High if the planting rehabilitation techniques are unsuccessful ('more than minor').

### Effects of Perceptual Values (includes Visual Amenity Effects)

- 6.4 My discussion of effects on perceptual values, commences with my analysis of adverse visual amenity effects, using the representative viewpoints relied on the BML Report, and then discusses effects in relation to other aspects of perceptual values which I consider have been overlooked or inadequately addressed in the BML Report.

#### *Visual Amenity Effects*

- 6.5 My discussion of adverse visual amenity effects does not specifically mention the Ardgour Rise. Contrary to advice from the applicant's team in the Panel briefing, the (new) Ardgour Rise route will be visible from many of the vantage points addressed in the Visual Simulations (including state highway vantage points). In my opinion, this route will be visible as a marked landscape change across the mountain slopes which

is out of keeping with the Covenant related conservation objectives applying to the area where it is proposed. I acknowledge that assuming the new route forms a similarly scaled and finished track to the existing Thomsons Gorge Road (ie single lane with gravel surface), appropriate conditions are included addressing batter slope profiles and restoration techniques, the route is not lit and that such outcomes are practically viable (for example, whether it is feasible to successfully integrate cut and fill slopes into the surrounding terrain), the visual effects of this route will, in time, be acceptable. In saying this, I note that the Panel's Request for Information dated 1 April 2026 requests a copy of the document referenced as 'Landscape Effects of Ardgour Rise', being Appendix 3 of the Boffa Miskell – Landscape, Natural Character and Visual Effects Assessment dated 8 August 2025. I reserve the opportunity to comment further on this aspect of the development once I have seen that document.

- 6.6 In addition, my discussion of visual amenity effects consistently references the approximate distance of the viewer from the outer edge of the RAS Pit. This is intended as a useful tool to assist the understanding of the distance of the viewer from the development relative to other vantage points.
- 6.7 Further, because I consider the Year 1-3 stage of the development to be less problematic in terms of adverse visual amenity effects, the following analysis largely focuses on the effects associated with Stages 2 and 3 of the BOGP (i.e. Years 4-30).
- 6.8 With respect to my comments on the nighttime lighting characteristics of the proposal during the active stages of mining, these are in part informed by my observations of lighting set up on site during my site visit on the evening of Monday 9 March, 2026, and as described in the statement by Mr Marc Simpson. I comment more specifically on the effects of the Plant Mine Processing Plant lighting in my discussion of effects on the dark night sky values, however I expect that this glow would also be legible from many of the viewpoints assessed.
- 6.9 I have not specifically addressed adverse effects in relation to views from current and future publicly accessible recreational locations due to time constraints. I note that this is a matter raised in the Panel's Request for Information dated 1 April 2026 and reserve the opportunity to comment on this aspect once I have seen the applicant's response on this matter.

#### Visual Simulation 1: Thomsons Gorge Road

- 6.10 This vantage point (approximately 3.5km from the RAS Pit) relates to users of Thomsons Gorge Road, a popular four-wheel drive scenic route between the Upper Clutha Valley and the Manuherikia Valley and to a range of Conservation Areas. As a high-country scenic route providing access to a range of historic gold mining areas, it is, in my view, reasonable to assume that the majority of viewers will have a reasonably high sensitivity to visible development change of the type anticipated by the proposed gold mine.
- 6.11 The Come-in-Time Pit (CIT) and WELF areas would appear within the main body of the Dunstan Range, while the Topsoil Stockpile, Workers Camp, Administration Buildings, and associated infrastructure on the Ardgour Terraces would occupy the grazed terrace land closer to Thomsons Gorge Road.
- 6.12 From this viewpoint, the various components of the mine would sit within a broader landscape that comprises a mix of more cultural elements (including a transmission line) in the fore- to mid-ground of view, backdropped by the more natural mountain range.
- 6.13 The distinctly engineered bench faces of the CIT Pit, along with the more even and smoothed, modified surfaces of the WELF, would form a discordant contrast with the highly variable landform patterning and mottled vegetation textures of the Range context. In the mid-ground, it is expected that the ancillary mine

development on the Ardgour Terrace would contrast with the scale, intensity, and character of development typically associated with the existing rural land uses prevailing on the terraces.

- 6.14 It is acknowledged that the skyline would remain largely intact and coherent.
- 6.15 At night, the regular movement of lit dumper tracks working across the WELF and pit faces would serve to draw the eye, forming a contrast with the low night-time lighting environment prevailing throughout the surrounding area (and particularly the mountains).
- 6.16 Over the longer term, it is understood that the development area on the Ardgour Terraces would be reinstated to agricultural land-use. Assuming the filling of the CIT Pit and the planting rehabilitation strategies are successful, the resultant mosaic of vegetation would, to some degree, assist with integrating the WELF into the lower and mid-slopes of the Dunstan Range, although the fundamentally incongruous landform grain of the WELF would endure as a discordant element.
- 6.17 Adverse visual amenity effects in relation to VS1 are rated as follows (noting that in my opinion, the relatively limited extent of mine elements visible from this vantage point is tempered by the increased sensitivity of the majority of viewers in this location to development change of this nature):

**Year 1-3:** Low ('minor').

**Year 4-11:** Moderate-High ('more than minor').

**Year 12-30:** Moderate (assuming the rehabilitation planting techniques are successful) ('more than minor'), or Moderate-High if the planting rehabilitation techniques are unsuccessful ('more than minor').

#### Visual Simulation 2: Ardgour Road, Lindis Crossing

- 6.18 Ardgour Road provides a clear appreciation of the transition between the farmed Ardgour Terrace landscape at the foot of the Dunstan Range and the more natural, (although historically modified) landform-dominated slopes above. From this vantage point (approximately 6.5km from the RAS Pit), the irrigated paddocks, homesteads, shelterbelts, and amenity plantings give way to more open terrace slopes before rising into the weathered, scraped, and more rugged hill country that forms the Range's backdrop.
- 6.19 Within this setting, the proposed RAS Pit, CIT Pit, and WELF area would be visible across the lower and mid portions of the Dunstan Range with the Topsoil Stockpile visible on the skyline. The distinctly engineered benched faces of the RAS and CIT Pits, along with the smoother and more uniform surfaces of the WELF, would contrast noticeably with the surrounding hill country. While modest in scale and partly enclosed by the landforms around them, these elements would be elevated and visually conspicuous, particularly in the afternoon when the western sun will increase their definition. Their contrast with the more naturally weathered and complex surfaces of the Range would be apparent, and the worked, almost industrial, character of the pit faces would be clearly legible.
- 6.20 At night, the regular movement of lit dumper tracks working across the WELF and pit faces would serve to draw visual attention, forming a distinct contrast with the low night-time lighting environment prevailing throughout the surrounding area (and particularly the mountains) due to the extent of the active mined area seen in the outlook.
- 6.21 Over the longer term, assuming the filling of the CIT Pit, successful naturalisation of the Topsoil Stockpile, and the planting rehabilitation strategies are successful, the resultant mosaic of vegetation would, to some degree, assist with integrating the WELF into the lower and mid-slopes of the Dunstan Range, although the fundamentally incongruous landform grain of the WELF would endure as a discordant element. The overtly engineered faces of the RAS Pit would also persist, albeit weathering in time.

6.22 Adverse visual amenity effects in relation to VS2 are rated as follows:

**Year 1-3:** Low ('minor').

**Year 4-11:** High (significant').

**Year 12-30:** Moderate-High (assuming the rehabilitation planting techniques are successful) ('more than minor'), or High if the planting rehabilitation techniques are unsuccessful ('significant').

#### Visual Simulation 3: Māori Point Road

6.23 This vantage point corresponds to a working rural landscape context near The Bendigo Terraces (approximately 8.5km from the RAS Pit).

6.24 From this location, the RAS Pit, CIT Pit, WELF, ELF, and the Topsoil Stockpile will be visible, interrupting the open, bare slopes of the Dunstan Range throughout the lower, mid, and upper slopes of the range, at times breaching the skyline (ELF). In my opinion, this arrangement will effectively sever the natural sequence of hill-country landforms as appreciated from this orientation. The overtly engineered benched pit faces of the CIT and RAS pits, in particular, will read as a significant and discordant intrusion to the character and coherence of the surrounding hill country.

6.25 These elements will also be seen in combination with the incongruous smooth form of the WELF and glimpses of the mine infrastructure on the Ardgour Terraces.

6.26 At night, the regular movement of lit dumper tracks working across the WELF, ELF, and pit faces will serve to draw visual attention, forming a distinct contrast with the low night-time lighting environment prevailing throughout the surrounding area (and particularly the mountains) due to the extent of the active mined area seen in the outlook.

6.27 Over the longer term, it is understood that the development area on the Ardgour Terraces would be reinstated to agricultural land-use.

6.28 As for VS2, assuming the filling of the CIT Pit, successful naturalisation of the Topsoil Stockpile, and the planting rehabilitation strategies are successful, the resultant mosaic of vegetation would, to some degree, assist with integrating the ELF and WELF into the mountain slope, although the fundamentally incongruous landform grain of the WELF would endure as a discordant element. The overtly engineered faces of the RAS Pit would also persist, albeit weathering in time, but noting that the extent of the faces visible from this location is greater than that experienced in VS2, albeit at a greater distance.

6.29 Adverse visual amenity effects in relation to VS3 are rated as follows:

**Year 1-3:** Low ('minor').

**Year 4-11:** High (significant').

**Year 12-30:** Moderate-High (assuming the rehabilitation planting techniques are successful) ('more than minor'), or High if the planting rehabilitation techniques are unsuccessful ('significant').

#### Visual Simulation 4: Ardgour Road, Tarras

6.30 In contrast to Viewpoints 1–3, the mining activity areas are reasonably well contained by intervening landform folds and spurs from this orientation (approximately 10.8km from the RAS Pit). The relatively limited extent of visible change is such that the existing visual amenity values associated with the outlook

will remain largely intact, although the night-time lighting associated with mining activity areas will draw visual attention in an otherwise relatively dark environment.

6.31 Adverse visual amenity effects in relation to VS4 are rated as follows:

**Year 1-3:** Low ('minor').

**Year 4-11:** Low-Moderate ('minor').

**Year 12-30:** Low ('minor').

#### Visual Simulation 5: Jolly Road

6.32 From the more distant vantage point of Jolly Road (approximately 13km from the RAS Pit), the proposed mining activity would read as a dispersed sequence of operational areas extending across the lower to mid-slopes of the Dunstan Range. In particular, the RAS pit would become more visually apparent in the, as its exposed faces and stepped benches catch the light. At this distance, the combined activities would read collectively as a broader swathe of modification and disturbance within the larger expanse of the mountain range.

6.33 These elements will also be seen in combination with the incongruous smooth forms of the WELF and ELF.

6.34 At night, the regular movement of lit dumper tracks working across the WELF, ELF, and pit faces will serve to draw visual attention, forming a distinct contrast with the low night-time lighting environment prevailing throughout the surrounding area (and particularly the mountains) due to the extent of the active mined area seen in the outlook.

6.35 As for VS2 and VS3, assuming the filling of the CIT Pit, successful naturalisation of the Topsoil Stockpile, and the planting rehabilitation strategies are successful, the resultant mosaic of vegetation would, to some degree, assist with integrating the ELF and WELF into the mountain slope, although the fundamentally incongruous landform grain of the WELF would endure as a discordant element. The overtly engineered faces of the RAS Pit would also persist, albeit weathering in time, and with distance contributing a moderating influence to at least some degree.

6.36 Adverse visual amenity effects in relation to VS5 are rated as follows:

**Year 1-3:** Low-Moderate ('minor').

**Year 4-11:** Moderate ('more than minor').

**Year 12-30:** Low-Moderate (assuming the rehabilitation planting techniques are successful) ('minor'), or Moderate if the planting rehabilitation techniques are unsuccessful ('more than minor').

#### Visual Simulation 6: State Highway 8A

6.37 From this vantage point (approximately 13.2km from the RAS Pit), the planar and boldly sculpted foreground of the Mata-Au / Clutha River terraces, together with the successive alluvial terraces beyond, forms a distinct plinth at the base of the Dunstan Mountains. From this location, the fore- and mid-ground of view is characterised by open farmland interspersed with shelterbelts, while the hill country above comprises a contrasting mottled sequence of ice sculpted, tectonically disturbed, and weathered ridges and slopes that define the natural landform structure and profile of the Dunstan Mountains.

- 6.38 The RAS and CIT pits, Topsoil Stockpile, ELF, and WELF will be visible, cutting across the lower and mid-slopes of the mountain range. In afternoon sunlight, these visible areas of mining activity would contrast sharply with the highly variable, contextual mountain topography and vegetation patterns.
- 6.39 Although this outlook is seen within the context of a wider landscape that is already shaped by rural production, the discordant appearance of the mine activity areas along with its scale seen across this part of the Dunstan Mountains will read as a jarring swathe of modification and disturbance within the larger expanse of the mountain range.
- 6.40 At night, the regular movement of lit dumper tracks working across the WELF, ELF, and pit faces will serve to draw visual attention, forming a distinct contrast with the low night-time lighting environment prevailing throughout the surrounding area (and particularly the mountains) due to the extent of the active mined area seen in the outlook.
- 6.41 Assuming the filling of the CIT Pit, successful naturalisation of the Topsoil Stockpile, and the planting rehabilitation strategies are successful, the resultant mosaic of vegetation would, to some degree, assist with integrating the ELF and WELF into the mountain slope; although the fundamentally incongruous landform grain of the WELF, in particular, would endure as a discordant element. The overtly engineered faces of the RAS Pit would also persist, albeit weathering in time, and with distance contributing a moderating influence to at least some degree.
- 6.42 Adverse visual amenity effects in relation to VS6 are rated as follows:
- Year 1-3:** Low-Moderate ('minor').
- Year 4-11:** Moderate-High ('more than minor').
- Year 12-30:** Moderate (assuming the rehabilitation planting techniques are successful) ('more than minor'), or Moderate-High if the planting rehabilitation techniques are unsuccessful ('more than minor').

Visual Simulation 7: Pukekowhai Drive, Queensberry

- 6.43 Despite the distance of this viewpoint location from the site (approximately 15.9km from the RAS Pit), its elevated position provides an impressive view out over the Mata-Au (Clutha River) valley, exposing this viewpoint to almost the full sequence of proposed mining activity areas—with the exception of the SRX pit and Processing Plant. From here, the CIT and RAS pits, along with the ELF and WELF, would be discernible. As with other elevated vantage points, the engineered cut faces and visually incongruous vertical planes will stand out against the more naturally weathered and textured landforms of the Dunstan Range.
- 6.44 As for viewpoint 6, although this outlook is seen within the context of a wider landscape that is already shaped by rural production, the discordant appearance of the mine activity areas along with its scale seen across this part of the Dunstan Mountains will read as a jarring swathe of modification and disturbance within the larger expanse of the mountain range.
- 6.45 Again, at night, the regular movement of lit dumper tracks working across the WELF, ELF, and pit faces will serve to draw visual attention, forming a distinct contrast with the low night-time lighting environment prevailing throughout the surrounding area (and particularly the mountains) due to the extent of the active mined area seen in the outlook.
- 6.46 Assuming the filling of the CIT Pit, successful naturalisation of the Topsoil Stockpile, and the planting rehabilitation strategies are successful, the resultant complex patterning of vegetation would, to some degree, assist with integrating the ELF and WELF into the mountain slope, although the fundamentally

incongruous landform grain of the ELF and WELF would endure as discordant elements. The overtly engineered faces of the RAS Pit would also persist, albeit weathering in time, and with distance contributing a moderating influence to at least some degree.

6.47 Adverse visual amenity effects in relation to VS7 are rated as follows:

**Year 1-3:** Low-Moderate ('minor').

**Year 4-11:** Moderate-High ('more than minor')

**Year 12-30:** Moderate (assuming the rehabilitation planting techniques are successful) ('more than minor'), or Moderate-High if the planting rehabilitation techniques are unsuccessful ('more than minor').

#### Visual Simulation 8: State Highway 6

6.48 From the section of SH6 in the vicinity of Viewpoint 8 (approximately 11.3km from the RAS Pit), the proposed mine would generate effects closely aligned with those identified for Viewpoints 3 and 7. However, the visibility and depth of the RAS and CIT pits, along with the WELF and ELF, will be seen within the context of the broader Dunstan Mountain range. The RAS pit, with its stepped benches and horizontal cut faces, would introduce a distinctly artificial skyline. While the modelled view is effectively framed by foreground vegetation, it was my experience during my site visit that more open views of the mountain range sequence devoid of such 'framing' are also available from numerous stretches of the highway.

6.49 Again, although this change will be seen within the context of a working rural landscape across the Bendigo and Mata-Au terraces, the discordant appearance of the mine activity areas along with its scale seen across this part of the Dunstan Mountains will read as a jarring swathe of modification and disturbance within the larger expanse of the mountain range.

6.50 At night, the regular movement of lit dumper tracks working across the WELF, ELF, and pit faces will serve to draw visual attention, forming a distinct contrast with the low night-time lighting environment prevailing throughout the surrounding area (and particularly the mountains) due to the extent of the active mined area seen in the outlook.

6.51 Assuming the filling of the CIT Pit, successful naturalisation of the Topsoil Stockpile, and the planting rehabilitation strategies are successful, the resultant complex patterning of vegetation would, to some degree, assist with integrating the ELF and WELF into the mountain slope, although the fundamentally incongruous landform grain of the ELF and WELF would endure as discordant elements. The overtly engineered faces of the RAS Pit would also persist, albeit weathering in time, noting that the general character of this outlook is available from an appreciable stretch of SH8.

6.52 Overall, the effects of the proposed mine from this viewing 'catchment' would be substantial and enduring.

6.53 Adverse visual amenity effects in relation to VS8 are rated as follows:

**Year 1-3:** Low-Moderate ('minor').

**Year 4-11:** High to Very High ('significant').

**Year 12-30:** Moderate-High (assuming the rehabilitation planting techniques are successful) ('more than minor'), or High if the planting rehabilitation techniques are unsuccessful ('significant').

#### Visual Simulation 9: State Highway 8

- 6.54 This vantage point (approximately 8km from the RAS Pit) affords a southeastern outlook from the state highway that takes in the alluvial terrace margins of Mata-Au (Clutha River), the Bendigo Terrace, and the broad expanse of the Dunstan Mountain range on the visual horizon. As elsewhere along this highway corridor, the more natural, variously bare, and mottled mountain slopes contrast with the more working rural landscape in the fore- and mid-ground of view.
- 6.55 Although the principal pits of the Bendigo–Ophir mining proposal would be screened from this location, the elevated ELF within Shepherds Creek and the WELF and Topsoil Stockpile below Battery Hill will be visible. Some mine buildings near the base of the Shepherds Creek valley would also be seen. During the mining activity stage, these features would extend toward the skyline and would clearly signal the presence of the mine’s disturbance across the more natural mountain slopes.
- 6.56 At night, the regular movement of lit dumper tracks working across the WELF, ELF, and pit faces, along with building lighting, will serve to draw visual attention, forming a distinct contrast with the low night-time lighting environment prevailing throughout the surrounding area (and particularly the mountains) due to the extent of the active mined area seen in the outlook.
- 6.57 Assuming the filling of the CIT Pit, successful naturalisation of the Topsoil Stockpile, and the planting rehabilitation strategies are successful, the resultant complex patterning of vegetation would, to some degree, assist with integrating the ELF and WELF into the mountain slope, although the fundamentally incongruous landform grain of the ELF and WELF would endure as a discordant element.
- 6.58 Adverse visual amenity effects in relation to VS9 are rated as follows:

**Year 1-3:** Low-Moderate (‘minor’).

**Year 4-11:** Moderate-High (‘more than minor’).

**Year 12-30:** Moderate (assuming the rehabilitation planting techniques are successful) (‘more than minor’), or Moderate-High if the planting rehabilitation techniques are unsuccessful (‘more than minor’).

#### Visual Simulation 10: Mount Pisa Road

- 6.59 In a similar vein to Viewpoint 4, the mining activity areas are reasonably well contained by intervening landform folds and spurs from this orientation (approximately 13.4km from the RAS Pit). The Topsoil Stockpile and buildings and infrastructure on the Ardgor Terrace and the ELF will form the more prominent components of the mine, while the upper edges of the CIT pit and the Topsoil Stockpile would be visible, albeit relatively recessive due to the limited extent of these elements that will be seen.
- 6.60 At night, the regular movement of lit dumper tracks working across the ELF and CIT pit faces, along with building lighting, will serve to draw visual attention, forming a distinct contrast with the low night-time lighting environment prevailing throughout the surrounding area (and particularly the mountains) due to the extent of the active mined area seen in the outlook.
- 6.61 Over the longer term, it is understood that the development area on the Ardgor Terraces would be reinstated to agricultural land-use. Assuming the filling of the CIT Pit, successful naturalisation of the Topsoil Stockpile, and the planting rehabilitation strategies are successful, the resultant complex patterning of vegetation would, to some degree, assist with integrating the ELF into the mountain slopes, although the fundamentally incongruous landform grain of the ELF would endure as a discordant element.

6.62 Adverse visual amenity effects in relation to VS10 are rated as follows:

**Year 1-3:** Low ('minor').

**Year 4-11:** Low-Moderate to Moderate ('minor' to 'more than minor').

**Year 12-30:** Low (assuming the rehabilitation planting techniques are successful) ('minor'), or Low-Moderate to Moderate if the planting rehabilitation techniques are unsuccessful ('minor' to 'more than minor').

#### Views for private residential audiences

6.63 In my experience, it is common to carefully consider the effects of mining development of this scale and nature on individual residences in the vicinity of the site, relying on site visits. In some circumstances this results in the offer of off site mitigation measures to address property specific adverse effects.

6.64 As illustrated in BML Report Figure 11, there are numerous residential properties within the local area, and I note that the authors of the BML Report do not appear to have visited any residential properties.

6.65 I consider this to be an important gap in the landscape assessment. However, unfortunately time constraints have not allowed me to visit residential properties in the local area.

#### *Effects on Landscape Coherence and Naturalness Values*

6.66 Relying on my discussion of adverse visual amenity effects outlined above, in my opinion the BOGP will detract from the naturalness values of the relevant landscape. Further, the disruption to the more natural mountain landscape sequence of the mountain range identified in my visual amenity effects discussion, points to a diminishment of landscape coherence values.

#### *Effects on Dark Night Sky Values*

6.67 The discussion of night-time lighting effects in the BML Report is effectively limited to commenting that because the Process Plant Mine Infrastructure (**PPMI**) is located within the contained landform of Shepherds Creek valley, it will remain concealed from external view<sup>38</sup>. I consider that this overlooks the potential effects of lit dumper trucks and potentially other machinery operating across the visually exposed mine activity areas (as described in the analysis of the visual simulations) and nighttime glow characteristics associated with the PPMI during the operational stage of the mine.

6.68 Figure 2 below is a recent photograph of the Macraes Goldmine plant taken by a member of the Sustainable Tarras group (Mr Mark Sinclair). I do not rely on this image as a true representation of a view of Macraes Mine, but rather as a cue to the typical visual characteristics of development of this type. I also appreciate that the Macraes Mine is in a different landscape setting to the BOGP site i.e. at Macraes, the mine plant is considerably more open to the surrounding landscape, whereas at the BOGP, the mine plant is 'contained' within a steep valley landform. However, relying on the evidence of Dr Boyle, I consider the Macraes Mine to be of some relevance with respect to the nighttime 'glow' it creates which I expected to be evident for the BOGP despite the landform containment.

6.69 Relying on the evidence of Dr Boyle, the BOGP will significantly disrupt the existing impression of the Dunstan Mountains as an area of very low night-time lighting that enables a full appreciation of the dark night sky, including the milky way galaxy, the Magellanic Clouds (our nearest neighbouring galaxies) and

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<sup>38</sup> BML Report: page 35.

the aurora australis which I consider to be a significant adverse effect in relation to this dimension of perceptual landscape values, in the context of a landscape that is valued for its dark night sky values.



**Figure 2:** Photograph of Macraes Mine, dated Saturday 7 March, 10.53pm. (Source: M Sinclair).

#### *Effects on Rural Tranquillity and Remoteness Values*

- 6.70 In my opinion, the regular blasting associated with the mining, along with the frequency and duration of truck and other machinery movements in and around the development area, will disturb the impression of rural tranquillity associated with this part of the Dunstan Mountains (and to at least some degree, on the Ardour Terraces), while the area is actively mined.
- 6.71 As explained earlier, closely linked to this quality, and the dark night sky characteristics described above, is an impression of remoteness evident in those parts of the relevant landscape away from the state highway corridors, and particularly across the Dunstan Mountains. Again, it is my view that the sheer scale of development and activity visible during the day and at night-time will significantly detract from the perception of remoteness connected to this part of the Dunstan Mountain range while the mine is operating.

#### *Summary of effects on Perceptual Values*

- 6.72 In my opinion, the various visual amenity effects discussed earlier are in a sense 'cumulative' in terms of their influence on perceptual landscape values. By this it is meant that we visually experience a landscape as a sequence or series of vistas, and the combination of those 'visual experiences' (or vistas) shapes our perception of the landscape.
- 6.73 When those various visual amenity effects are combined with my comments with respect to the effects of the BOGP on landscape coherence and naturalness values, the dark night sky values and rural tranquillity and remoteness values (and factoring in what I consider to be existing perceptual values that rate towards the higher end of the spectrum for the relevant landscape), I consider effects on the perceptual dimension of landscape values will be as follows:

**Year 1-3:** Moderate ('more than minor').

**Year 4-11:** High to Very High ('significant').

**Year 12-30:** Moderate (assuming the rehabilitation planting techniques are successful) ('more than minor'), or Moderate-High if the planting rehabilitation techniques are unsuccessful ('more than minor').

## Effects on Associative Values

6.74 In light of the previously identified gaps in the evaluation of existing associative values, I consider that the BML Report has understated effects in relation to associative landscape values.

6.75 In my opinion, the BOGP will result in:

a) The permanent loss of several important aspects of the heritage landscape fabric associated with the Shepherds Creek and Rise and Shine Creek valleys (as described in Mr Sole's comments), and their 'replacement' with enduring large-scale engineered structures (e.g. RAS Pit, SRX Pit, ELF) that bear no resemblance to the scale and landscape character associated with historic gold mining. On this point, it is not simply the loss of heritage elements, but their replacement with something so incongruous within an historic goldmining heritage landscape that is at issue.

b) The consequential negative impact on:

i. The heritage landscape character as experienced from the new public routes over this section of the Dunstan Mountains (i.e. the realigned route of Thomsons Gorge Road and the new Ardgour Rise routes) and parts of the adjacent DOC land.

ii. The identity of the area as part of Central Otago with a highly legible and accessible early European New Zealand goldmining history.

c) A change in the identity and sense of place of the local area as an area with a stunning natural environment, that is peaceful, with dark night skies, to one which is backdropped by a mountain range severed by a large-scale gold mine operation that evokes an overtly industrial character, including night-time lighting disruption and noise. It is acknowledged that beyond the mine's operational stages, the influence of night-time lighting and noise will diminish and (assuming success) the proposed rehabilitation will assist, to at least some degree, with integrating many of the landform modifications. However, development modification of this scale is, in my view, likely to have an enduring influence on the way that the local community connect with and relate to their more natural landscape setting and the identity of the area more generally. For completeness, I do not consider that the idea of the historic gold mining of the area provides some sort of 'contextual fit' in terms of landscape identity for the BOGP due to the vastly different scale, nature, and character of the proposed goldmine.

6.76 For these reasons (and in light of what I consider to be the high associative values associated with the relevant landscape), I consider that effects the effects on the associative landscape values will rate as follows:

**Year 1-3:** Moderate ('more than minor').

**Year 4-11:** High to Very High ('significant').

**Year 12-30:** High (assuming the rehabilitation planting techniques are successful) ('more than minor'), or Very-High if the planting rehabilitation techniques are unsuccessful ('more than minor').

6.77 As explained earlier, I would like to reserve the opportunity to potentially expand on the effects of the development on the cultural dimension of existing landscape values once I have reviewed any new material that emerges as part of the ongoing discussions with mana whenua.

## Summary of Landscape Effects

	Year 1-3	Year 4-11	Year 12-30
<b>Physical Effects</b>			Rehabilitation planting 1 = successful 2 = unsuccessful
Modification (see 6.2)	<b>Moderate</b> ('more than minor')	<b>Very High</b> ('significant')	1 - <b>High</b> ('significant') 2 - <b>Very-High</b> ('significant')
Moderating influence of scale (see 6.3)	<b>Low</b> ('minor')	<b>Moderate-High</b> ('more than minor')	1 - <b>Moderate</b> ('more than minor') 2 - <b>Moderate-High</b> ('more than minor')

	Year 1-3	Year 4-11	Year 12-30
<b>Perceptual Effects</b>			Rehabilitation planting 1 = successful 2 = unsuccessful
<b>Overall</b>	<b>Moderate</b> ('more than minor')	<b>High to Very High</b> ('significant')	1 - <b>Moderate</b> ('more than minor') 2 - <b>Moderate-High</b> ('more than minor')
<b>Visual Simulations</b>	<b>Year 1-3</b>	<b>Year 4-11</b>	<b>Year 12-30</b>
<b>VS1:</b> Thomsons Gorge Road	<b>Low</b> ('minor')	<b>Moderate-High</b> ('more than minor')	1 - <b>Moderate</b> ('more than minor') 2 - <b>Moderate-High</b> ('more than minor').
<b>VS2:</b> Ardgour Road, Lindis Crossing	<b>Low</b> ('minor')	<b>High</b> (significant')	1 - <b>Moderate-High</b> ('more than minor') 2 - <b>High</b> ('significant')
<b>VS3:</b> Māori Point Road	<b>Low</b> ('minor')	<b>High</b> (significant')	1 - <b>Moderate-High</b> ('more than minor') 2 - <b>High</b> ('significant')
<b>VS4:</b> Ardgour Road, Tarras	<b>Low</b> ('minor')	<b>Low-Moderate</b> ('minor')	<b>Low</b> ('minor')
<b>VS5:</b> Jolly Road	<b>Low-Moderate</b> ('minor')	<b>Moderate</b> ('more than minor')	1 - <b>Low-Moderate</b> ('minor') 2 - <b>Moderate</b> ('more than minor')
<b>VS6:</b> State Highway 8A	<b>Low-Moderate</b> ('minor')	<b>Moderate-High</b> ('more than minor')	1 - <b>Moderate</b> ('more than minor') 2 - <b>Moderate-High</b> ('more than minor').
<b>VS7:</b> Pukekowhai Drive, Queensberry	<b>Low-Moderate</b> ('minor')	<b>Moderate-High</b> ('more than minor')	1 - <b>Moderate</b> ('more than minor') 2 - <b>Moderate-High</b> ('more than minor').
<b>VS8:</b> State Highway 6	<b>Low-Moderate</b> ('minor')	<b>High to Very High</b> (significant')	1 - <b>Moderate-High</b> ('more than minor') 2 - <b>High</b> ('significant')
<b>VS9:</b> State Highway 8	<b>Low-Moderate</b> ('minor')	<b>Moderate-High</b> ('more than minor')	1 - <b>Moderate</b> ('more than minor') 2 - <b>Moderate-High</b> ('more than minor').
<b>VS10:</b> Mount Pisa Road	<b>Low</b> ('minor')	<b>Low-Moderate to Moderate</b> ('minor' to 'more than minor')	1 - <b>Low</b> ('minor') 2 - <b>Low-Moderate to Moderate</b> ('minor' to 'more than minor')

	Year 1-3	Year 4-11	Year 12-30
<b>Associative Effects</b>			<b>Rehabilitation planting</b> <b>1 = successful</b> <b>2 = unsuccessful</b>
	<b>Moderate</b> ('more than minor')	<b>High to Very High</b> ('significant')	<b>1 - High</b> ('more than minor') <b>2 - Very-High</b> ('more than minor')

## 7 Dunstan Mountains ONL: Effects on Landscape Values

7.1 For the reasons discussed above in my analysis of landscape related effects with respect to the relevant landscape, it is my opinion that the BOGP will not maintain the following landscape values that contribute to the outstanding-ness of the Dunstan Mountains ONL (NB the landscape value that is affected is in underlined text):

- a) As a consequence of the extent, scale, and character of landform and hydrological changes, the underlying geology and geomorphology of the landform which is an important feature of this landscape. Schist tors, the gradual movement of soil at higher elevations (solifluction), and intricate network of streams and creeks form legible characteristics which express their formative processes and are highly expressive of the landscape's formative glacial, tectonic, and fluvial processes.
- b) As a consequence of the extent, scale, and character of the adverse effects on the physical, perceptual and associative values the landscape and scenic values (including the landscape, historic gold mine features and silver tussock grassland) of priority protection areas under the Bendigo Conservation Covenant.
- c) As a consequence of the adverse visual amenity effects of the development: the highly appealing and engaging views to the cohesive mountain sequence from SH6, SH8, Conservation land and Reserve areas, Thomsons Gorge Road and the surrounding low-lying areas (including parts of the Mata-Au Clutha River corridor), in which the distinctive sculptural structure of the landforms and mottled vegetation patterns, combined with the big-sky landscape and planar river terraces associated with the Upper Clutha Valley, makes them highly memorable. At a finer grain, views of heritage elements, patterns and connections add to the appeal.
- d) As a consequence of the scale and prominence of the development: the high naturalness values as a consequence of a general lack of visible structures and modifications which ensures the landform remains largely open and is perceived as natural, with some relatively small-scale, more localised and limited evidence of gold mining amongst a broader coherent and open mountain backdrop.
- e) Potentially, if the proposed vegetation rehabilitation strategies are unsuccessful, the irregular patterning and proliferation of grey shrubland, exposed rock faces, and scrub in places, adds to the perception of naturalness.
- f) As a consequence of the industrial scale activity and night-time lighting components of the development, the impressions of rural tranquillity and remoteness as a consequence of the very limited level of development.

- g) As a consequence of the industrial scale activity and night-time lighting components of the development, the distinctive and highly legible dark night sky environment as a consequence of the very limited level of development within the ONL and local area.
- h) As a consequence of the loss of heritage landscape features, patterns and connections, the highly accessible and extensive, legible network of identified heritage buildings and features along with tracks, water races, and the like, that collectively form a rich and complex heritage landscape throughout the Thomsons Gorge Road area (including the Rise and Shine Creek, Bendigo Creek, and the Aurora Creek catchments). Other noteworthy concentrations of heritage features in the ONL are evident in and around the Bendigo Historic Reserve. As a group, these features connect with the cluster of makeshift towns at the height of gold mining activity near the ONL, including Logantown, Welshtown, and Wakefield, where building remnants are evident today.
- i) As a consequence of the effects discussed in relation to perceptual and associative values, the identity of the Dunstan Mountains as a cohesive, largely undeveloped, and stunning mountain sequence that provides a highly memorable backdrop to Tarras and the surrounding rural river terraces, that is highly valued by the local community and makes an important contribution to their identity and sense of place.
- j) As a consequence of the effects discussed in relation to physical, perceptual and associative values, the inspirational qualities of the Dunstan Mountains (including Thomsons Gorge) for a wide range of artists.

- 7.2 For these reasons, I do not consider that the development meets the relevant landscape related RMA policy direction, including: avoiding inappropriate development; maintaining landscape values; and avoiding exceedance of landscape capacity.
- 7.3 Further, in thinking about the effects of the development on the Dunstan Mountain ONL, I have asked myself whether, based on my experience of identifying and evaluating a range of ONLs across the country (including instances where quarrying and mining is established): *would the site and local mountain area qualify as ONL once the BOGP is established (including at the time of closure once the rehabilitation strategies are intended to have been successfully completed)?*
- 7.4 In my opinion, the scale and character of landform modification associated with the goldmine would mean that the Shepherds Creek and Rise and Shine Creek catchments would fail to qualify in terms of 'naturalness' to be considered as a candidate ONL, let alone qualify in terms of 'outstanding-ness'.
- 7.5 This speaks to the significant and transformative nature of the development with respect to adverse landscape related effects, effectively cutting a swathe of industrial-scale disturbance through the middle of the more natural Dunstan Mountains sequence.
- 7.6 For completeness, I do not consider that the positioning of the BOGP between the peneplain mountain profile to the south, and the more rugged and jagged mountain sequence to the north affords a meaningful moderating influence.
- 7.7 In my opinion, the Dunstan Mountains read and are experienced as a cohesive landform sequence, which like many of our mountain ranges, is characterised by a varied and complex mix of landforms.

## 8 Natural Character Effects

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- 8.1 The BML Report explains that natural character values and effects have been considered in terms of the abiotic, biotic and experiential dimensions of natural character, using the TTatM seven-point scale. I agree with this approach to natural character assessment.
- 8.2 The BML Report advises existing natural character values as follows:
- a) For the Shepherds Creek catchment, while the natural character varies across the catchment, Shepherds Creek and its tributaries have a **moderate** level of natural character overall.
  - b) For the Rise and Shine Creek and its tributaries a **low-moderate** level of natural character overall, with areas of higher natural character encountered in the upper reaches.
- 8.3 Natural Character effects are assessed and rated for each catchment as follows:
- a) Overall, effects on the natural character of Shepherds Creek and its tributaries are considered **moderate-high adverse** (which I understand to correspond to a 'more than minor' adverse effect), during startup and mining activity. On closure, this will reduce to **moderate adverse** effects (which I understand to correspond to a 'more than minor' adverse effect) as the tailing storage facility is rehabilitated, the process plant infrastructure is removed, and the constructed wetlands are established.
  - b) Overall effects on the Rise and Shine Creek and its tributaries are considered **neutral** during startup, increasing to **moderate adverse** (which I understand to correspond to a 'more than minor' adverse effect) at the height of mining activity as diversions separate water from active mining activity. Effects will likely reduce to **low moderate adverse** (which I understand to correspond to a 'minor' adverse effect) on completion as diversions are removed. While much of the upper reaches of the valley floor (active bed and margins) will remain intact throughout the project, artificial features such as the SRX pit lakes, and diversion structures will modify the natural path of the upper reaches of the Rise and Shine catchment.
- 8.4 I generally concur with these findings.

## 9 Effects in relation to the Bendigo Conservation Covenant

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- 9.1 For the reasons outlined in my discussion of landscape effects with respect to the relevant landscape and the Dunstan Mountain ONL, I do not consider that the BOGP will maintain the landscape values of the Covenant area.
- 9.2 More specifically in relation to stated landscape related outcomes for Thomsons Gorge, I do consider that the proposal will maintain the area in its present state, protect the landscape of upper Rise and Shine Creek, the historic gold mining cottages, dams, etc, and the silver tussock grassland.
- 9.3 Relying on the BML Report's evaluation of natural character effects referenced above, I do not consider that the BOGP will protect or enhance the natural character of the Covenant area.
- 9.4 For these reasons, I do not consider that the proposal will achieve the landscape related purpose of the Covenant.

- 9.5 I am also of the view that the mapped ONL under Central Otago District Plan would qualify as an ONL at a regional level. My findings in this regard are informed by the following:
- d) my knowledge of the site and broader area (including recent consideration ONF/Ls across the Queenstown Lakes District, the Clutha District and some locations in Southland District);
  - e) consideration of the Proposed Otago Regional Policy Statement Appendix 9 ONL 'criteria'; and
  - f) experience in reviewing ONF/Ls across a range of 'overlapping' district and regional scales (for example, consideration of Waitomo District and Thames Coromandel District ONF/Ls and Waikato Region ONF/Ls).
- 9.6 Relying on my evaluation of landscape effects with respect to the relevant landscape and the Dunstan Mountain ONL, I consider that the BOGP will compromise landscape related values of regional significance.

## 10 Proposed Condition D.03: C34

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### 10.1 D.03 Condition C34 advises:

The Consent Holder must implement the Landscape and Ecological Rehabilitation Management Plan ("LERMP") certified as part of the approval of the BOGP pursuant to Section 81 of the Fast-track Approvals Act 2024 and which forms part of the consents.

*The primary objective of the LERMP is to enable the modified mined landscape to be re-integrated into the Dunstan Mountains Outstanding Natural Landscape. This includes enabling natural systems to be reestablished and ensuring rehabilitated landforms can be absorbed within a broader connected mosaic of native revegetation which reflects the legible transition between the south and north Dunstan Mountains, west of Thomsons Saddle.*

- 10.2 For the reasons outlined in my discussion of landscape effects for the relevant landscape and in relation to the Dunstan Mountains ONL, along with my concerns with respect to some of the assumptions underpinning the BML Report's landscape assessment I do not consider that the objective of the LERMP can be met.

Bridget Gilbert  
Landscape Architect  
B Hort Dip LA ALI FNZILA

## APPENDIX A: EXPERT QUALIFICATIONS EXPERIENCE

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I am a Landscape Architect and Director of Bridget Gilbert Landscape Architecture Ltd, Auckland. I hold the qualifications of Bachelor of Horticulture from Massey University and a postgraduate Diploma in Landscape Architecture from Lincoln College. I am an associate of the Landscape Institute (UK) and a registered member Fellow of the New Zealand Institute of Landscape Architects.

I have practised as a Landscape Architect for over thirty years in both New Zealand and England. Upon my return to New Zealand, I worked with Boffa Miskell Ltd in their Auckland office for seven years. I have been operating my own practice for more than twenty years, also in Auckland.

I am currently an Independent Hearing Commissioner for Auckland Council and have recently served on the Auckland Urban Design Panel (chair endorsement) and the New Zealand Institute of Architects Awards Jury (Auckland and Northland). I am also a member of the NZILA environmental legislation working group and the RMLA.

I was appointed as one of three peer reviewers<sup>39</sup> of *Te Tangi a te Manu* (Aotearoa New Zealand Landscape Assessment Guidelines) (**TTatM**). This work has given me an up-to-date and in-depth insight into landscape assessment best practice.

During the course of my career, I have been involved in a wide range of work in expert landscape evaluation, assessment, and advice throughout Aotearoa, New Zealand.

I have also worked alongside several iwi over the years and have experience of drawing on their knowledge to assist an evaluation of landscape related effects (although do not purport to be a cultural landscape expert).

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<sup>39</sup> The other peer reviewers are Ms Di Lucas and Mr Stephen Brown.