Memorandum

To:	Shay McDonald | Principal Consent Planner		
Organisation:	Otago Regional Council		
Address:	shay.mcdonald@orc.govt.nz		
From:	Nigel Parker | Technical Director, Landscape Architecture		
Date:	1 December 2025	SLR Project No.	860.016776.00001

RE: Bendigo Orphir Mining Project - Landscape Architectural Review

Dear Shay,

1.0 Introduction

As requested, I have undertaken, on behalf of Otago Regional Council (ORC), a review of the submitted landscape architectural documentation for a proposed gold mine in the Sheperds Creek and Rise and Shine Creek valleys of the Dunstan Mountains, Outstanding Natural Landscape (ONL), Central Otago. I have considered potential landscape effects of the proposed application.

Landscape Architectural documents reviewed for this application include the:

- Landscape and Natural Character and Visual Effects Assessment (LNCEA) prepared by Rhys Girvan, Senior Principal, Registered Landscape Architect, and Hannah Wilson Senior Professional, Registered Landscape Architect Boffa Miskell, 8th August, 2025;
- Graphical Supplement prepared by Boffa Miskell, 8th August, 2025;
- Visual Simulations prepared by Boffa Miskell, 8th July 2025 including Appendix 7 Landscape Mitigation and Closure Plans;
- Landscape and Ecological Rehabilitation Management Plan: Part A, by Matakanui Gold Limited, 29th October 2025.

On Tuesday 25th November, 2025 I conducted a visit to the site and the surrounding area. This visit has informed my conclusions. Due to restrictions in time not all viewpoints in the surrounding area were visited, I have therefore made assumptions of degree of effect based on those viewpoints visited and the relative distance to the site of the viewpoints not visited. However, for completeness I would value the opportunity to visit the remainder of the viewpoints in a subsequent visit. This would also remove a potential area of challenge to the below findings.

2.0 Description of Application

In brief, I understand, the application is to construct and operate a gold mine over a thirty (30) year period within the Sheperds and Rise and Shine Creeks. Principal elements of the project include:

- Three (3) open cast mines
- One (1) underground mine
- Three (3) Engineered Landforms
- One (1) Tailings Storage Facility

- Processing Plant Infrastructure, associated smoke stacks and plumes, workers camp, emulsion site, magazine and quarry
- Haulage Roads
- Stream diversions

I understand that rehabilitation of the landscape will occur across the operational life of the mine as various elements of the mine cease to operate.

3.0 SLR Landscape Architecture Peer Review

Through reviewing the submitted documents it is my opinion that for the most part the LNCEA has provided a thorough assessment of the proposed development. It is a complex project. The applicant's landscape architects have provided a comprehensive package including plans and simulations to illustrate the extent of works. However there are material omissions and I outline these below in section 3.2.2.

The existing landscape has been described in sufficient detail with objective intepretation of landscape values provided.

Landscape effects have been assessed over an appropriate timescale, with effects allocated to logical time periods referencing the nominal extent of activity to be found on site during the operational life of the mine and at closure.

In Appendix 1 Methodology Statement, p62 of the LNCEA, the methodology statement notes that the assessment has been conducted in line with Te tangi a te Manu, New Zealand Landscape Assessment Guidelines, July 2022. Whilst not explicitly stated, I have assumed the degree of landscape effect assessed includes the noted and following sub set of visual effects.

3.1 Matters of Agreement

3.1.1 Overall Landscape Effect of the Site to wider Dunstan Mountains ONL

With regard the landscape effect assigned to the wider Dunstan Mountains ONL I provisionally agree with the applicant's landscape architect and have concluded that the **Moderate** degree of adverse effect assigned during years 0 -11 is sound. I am also in agreement that the overall landscape effect to the wider Dunstan Mountains ONL at the point of closure will be **Low Moderate.** In forming this opinion I have balanced the following mitigating and adverse factors:

- That the physical landscape effects are limited to the two valleys of the site;
- That the site is of comparatively small scale within the wider extent of the Dunstan Mountains ONL and receiving environment;
- That perceptual effects to the surrounding area, including visual, are comparatively limited (Noting that this opinion relies on the accuracy of the Visual Simulations and I comment on this below);
- That the overall skyline of the Dunstan Mountains will remain unchanged;
- That the definition between the southern and northern geomorphology of the Dunstan Mountain Ranges will remain legible;

- That Battery Hill and its silhouette on the skyline will remain unchanged and visible from relevant viewpoints;
- That remedial works will be undertaken to the site, including but not limited to, backfilling the Come in Time (CIT) pit, fine earthworks to naturalise and shape the Engineered Landforms, revegetation and restoration.

and the following adverse factors:

- The physical effects to the site including lasting **High** adverse landscape effect;
- The introduction of overtly engineered landforms during construction to an outstanding natural landscape and largely intact mountain sequence;
- Partial removal of the ability to experience the site topography as experienced by iwi in pre - European times and as experienced by European settlers on first discovering gold and the loss of this associative and tangible value.

I note that this opinion is influenced by my current understanding of visual effect and that my opinion may change following clarification and possible additional site visit.

3.2 Matters of Question and Disagreement

3.2.1 Landscape Effect of Elements at the Site Level

It is noted that the applicant's landscape architect has assigned a degree of effect for each of the various elements within the proposed development area. I agree that this is a necessary and appropriate approach. It allows consideration of the different effects, start times and rates of progression for the various elements within the mine.

I am in general agreement with the degree of effect assigned to each of the individual elements. Although I note that some elements, such as the Haulage Roads, have a degree of effect rating less than could be applied from start up to closure depending on the final detail and extent of the cut. The haulage roads are an element that could have **High** adverse landscape effect on the site if, for example, cut is more extensive as a result of higher than anticipated slope instability. This combined with the already considered constant movement of 100 tonne mining trucks, would likely generate a more adverse degree of effect than the **Moderate High** level assessed.

I also note below, my disagreement on the long term effect on associative landscape value at the site level in section 3.2.3.

3.2.2 Overall Degree of Landscape Effect at the Site Level

I note that an overall degree of effect for the site in its entirety has not been provided. In my opinion this is an oversight. Notwithstanding the divided nature of the site, including physical separation of the various elements via terrain and different construction periods, the combined effect of the various elements on the site will have an adverse landscape effect greater than the sum of its parts. This is particularly the case during the main operational period.

Between years 3 - 11 the applicant's landscape architect (on page 39 of the LNCEA) has assessed three substantial elements of the proposal to have a **High** degree of adverse landscape effect and a further four elements to a have a **Moderate High** degree of adverse

landscape effect. Another five elements have adverse effects on the landscape, alongside the above in a comparatively contained area.

In between these elements, during operation, the interstitial spaces will be influenced by the proximity and large scale of these mining elements. Landscape effects to leftover spaces will be associated with a substantial increase in people and activity. Combined, with operational noise from truck movement, blasting and scrapping any sense of tranquillity or remoteness (refer page 12 of the LNCEA for site appraisal) will be removed from the site. While this industrial landscape will only be experienced by the workers and operations staff, the existing tranquil value of the outstanding natural landscape at a site level will be denied to public visitors.

Physical effects will also likely be felt on the interstitial spaces such as by temporary storage, security fences, safety measures, additional turning circles or other unforeseen everyday work activities necessitated by temporary operational expedience. Proposed elements such as topsoil stockpiles, which will be of an industrial scale, above the size of those that might be typically generated by agricultural activity, are not explicitly assessed.

When these elements are taken together, it is my opinion that by not providing an overall degree of effect for the site, physical and perceptual landscape effects are overlooked. A summation of the landscape effects of the various elements and general activity, acting together for each of the three periods assessed would capture these effects.

During the operational period of years 3 - 11 it is my opinion that the overall landscape effect of the proposal to the site will be a **High** adverse effect**.** The values of the site are significantly affected during this period.

3.2.3 Associative Landscape Effect at the Site Level

It is currently possible to generally experience the topography of the site as experienced by iwi in pre - European times and as experienced by European settlers on first discovering gold. Modification has taken place between this time and now however there is currently an immediate and tangible connection of being able to walk through a landscape topography much the same as experienced by the early gold prospectors. The industrial extent of modification proposed to the site landscape will introduce a significant break and reduction of this value. Whilst public access will be restored following the closure of the mine (as noted on page 37 of the LNCEA) this reduction of value will remain. The visceral and historic connection of walking in the exact same place as previous generations of New Zealanders will be lost. I do not agree that this associative effect dissipates to neutral over time as the loss of immediate connection to the landform of the past is permanent. This effect should be added to an overall summation of site level landscape effect.

3.2.4 Recommended Off-setting for High Adverse Landscape Effect and Permanent High Adverse Landscape Effect Introduced to the Site Landscape

The applicant's landscape architect has identified that there will be lasting **High** adverse effect to the site landscape resulting from the Rise and Shine Pit despite site wide remediation and revegetation. It has also been assessed that there will be three elements of **High** landscape effect during operation (refer page 39 of the LNCEA). As outlined above, in my opinion, there is further **High** adverse effect to the site overall during operation due to

the combined extent of modification.

The Rise and Shine Pit has an area of approximately 65ha. It is understood that the location of the pit is determined by the location of the underlying gold seam, and that if the gold seam is to be accessed then the pit must be in this site. I accept that given the large size of the open cast mine it is impractical to refill in entirety. I also accept that the Landscape Mitigation and Closure Plans are an appropriate response to the remediation of the site and that no further opportunity exists on site for further revegetation. To the extent possible I accept that the Landscape and Ecological Rehabilitation Management Plan sets out an appropriate rationale and methodology to achieve remediation and revegetation on the site.

However, the statutory context requires that Outstanding Natural Landscapes are protected and enhanced. The introduction of **High** adverse landscape effect at the closure of operations, generated by the Rise and Shine Pit to the site, despite implementation of the Landscape Mitigation and Closure Plans does not align with these objectives and policies. Nor do **High** adverse landscape effects generated by various elements during operation.

The RMA allows for the off-setting of adverse effects. Fast Track Reviewer Guidance asks Technical Reviewers:

> *"How can it be resolved? Where possible, provide a practical recommendation or condition that would address an issue"*

On this basis I recommend that an area of revegetation be undertaken and covenanted off-site to off-set the operational and residual **High** adverse landscape effects of operations generally and specifically of the Rise and Shine Pit.

I recommend that this revegetation is for an area of 65ha, equal to the area of the Rise and Shine Pit. I recommend that the area of off-set revegetation is planted within the first three years of operation so as to off-set **High** adverse landscape effects generated during the operational period.

I recommend that the location of the off-set revegation is determined by ORC in consultation with stakeholders it deems relevant. The off-set revegetation must be located in Central Otago, and the closer to the site the more appropriate the outcome. Potential locations for the revegetation could be on the Ardgour Station, on other ORC or Central Otago District Council land, Department of Conservation land or on private land through a programme of riparian improvement across the district. The off-set revegetation should be covenanted.

Once location has been determined I recommend that details of revegetation and maintenance are prepared by the applicant's landscape architects and ecologists and submitted to ORC for approval.

3.2.5 Effects to Rural Character - Workers Camp

The introduction of 1.6 ha of built form for the Workers Camp for a 30 year duration within the rural environment is at a scale which reduces the landscape values and amenity of the local rural character. Whilst effects of the proposed built form are comparatively low compared to other elements of the project they, nonetheless, are at a scale incongruent with the wider rural area and are located at the entrance to the project.

The inclusion of mitigation planting for similar increases in built form across the district in the rural zone is a common condition of consent. Likewise condition for buildings to be of a recessive colour is also a common condition of consent.

As such I recommend mitigation planting be incorporated and a detailed landscape plan be submitted for approval by ORC. Appropriate mitigation planting must include mature tree planting at regular and close centres to the perimeter of the workers camp site to enable built form to better assimilate with and maintain rural character. Mitigation planting needn't fully obscure views to built form, but should enable continuance of vegetative dominance. Such an approach would be consistent with the landscape treatment to the nearest built form in this rural enviroment.

I recommend proposed buildings across the site are painted in recessive colours with the exception of safety and statutory markings and signage.

3.2.6 Visual Simulations and Visual Effects

I seek clarification as to how the colour of the exposed faces of the pits, engineered landfills, and stock piles have been determined?

Are the colours illustrated accurate?

As mentioned, I have not had opportunity to visit the majority of viewpoints. I reserve final conclusion on the accuracy of the degree of visual effects assessed until I have done so and until the above questions are clarified. However, based on a desktop review of the LNCEA and the extent of site visit I conducted, and assuming the colours illustrated in the visual simulations are accurate I provisionally do not disagree with the assessed degrees of visual effect.

3.2.7 Landscape and Ecological Rehabilitation Management Plan (LERMP)

The plan is an appropriate performance specification outlining the intent of rehabilitation, revegetation and when this is anticipated to occur for the site. It outlines the overall methodology of acheiving the mitigation proposals illustrated on the Landscape Closure and Mitigation Plans.

It is noted that if the LERMP is succesfully implemented, in the opinion of the applicant's landscape architect **High** adverse landscape effect will still remain at the site level in the form of the Rise and Shine Pit (refer page 39 of the LNCEA). Consequently in section 3.2.4 above I have suggested additional off-set planting to counter this residual effect.

With regard the LERMP, I recommend that six (6) months prior to rehabilitation works commencing on site for each Landscape Management Unit (LMU) professionally prepared detailed plans, schedules, specifications and maintenance proposals are submitted in accordance with the LERMP for review and approval by ORC.

3.2.8 Additional Landscape Plan and Amendment.

It would help illustrate and explain the proposal if the following were undertaken:

- The site boundary is added to the Landscape Mitigation and Closure Plans;
- A seperate plan of the Existing Landscape was prepared, with the outline of proposed elements superimposed on the existing landscape. Each element should be labelled. This would ease the process of understanding the exact footprints of the various

elements and how they interact with the various creeks and valleys.

4.0 Conclusions - Requested Information / Further Clarification

- I provisionally agree with the applicant's landscape architect as to the degree of landscape effect assessed for the proposed site works on the wider Dunstan Mountains ONL.
- I am in general agreement with the degree of effect assigned to each of the individual elements within the site for each of the project stages. I note the possible under rating of the degree of effect of the Haulage Roads depending on finalised detail.
- By not providing an overall summation of landscape effect for the site and by only including assessments of individual elements I am of the opinion that a material omission exists within the assessment. Potential physical and perceptual landscape effects on the site have been overlooked.
- During the operational period of years 3 - 11 it is my opinion that the overall landscape effect of the proposal to the site will be a **High** adverse landscape effect. The landscape values of the site are significantly affected during this period.
- I do not agree that associative landscape effect dissipates to neutral over time as the loss of immediate connection to the historic modified landform is permanent.
- I recommend that an area of revegetation be undertaken off-site and covenanted to off-set the operational and residual **High** adverse landscape effects of operations generally and specifically of the Rise and Shine Pit. I recommend that this revegetation is for an area of 65ha, equal to the area of the Rise and Shine Pit. Once location of off-set revegetation has been determined I recommend that details of revegetation and maintenance are prepared by the applicant's landscape architects and ecologists and submitted to ORC for approval.
- I recommend mitigation planting be incorporated and landscape plan submitted for approval by ORC for the surrounds of the buildings of the worker's camp. Appropriate mitigation planting must include mature tree planting at regular and close centres to the perimeter of the worker's camp site to enable built form to better assimilate with and maintain rural character. Mitigation planting needn't fully obscure views to built form, but should enable continuance of vegetative dominance.
- I recommend proposed buildings across the site are painted in recessive colours with the exception of safety and statutory markings and signage.
- I recommend that six (6) months prior to rehabilitation works commencing on site for each Landscape Management Unit (LMU) professionally prepared detailed plans, schedules, specifications and maintenance proposals are submitted in accordance with LERMP for review and approval by ORC.
- I seek clarification as to how the colour of the exposed faces of the pits, engineered landfills, and stock piles illustrated in the visual simulations have been determined? Are the colours illustrated accurate?
- Could the following be provided for ease of understanding:

  - Landscape Mitigation and Closure Plans with the site boundary added;

  - A seperate plan of the Existing Landscape prepared, with the outline of proposed elements superimposed on the existing landscape. Each element should

be labelled.

- Based on a desktop review of the LNCEA, the extent of my site visit, and assuming the colours illustrated in the visual simulations are accurate I provisionally do not disagree with the applicant's assessed degree of visual effect.

Regards,

SLR New Zealand

Author

Nigel Parker, BLA

Landscape Architect | Technical Director

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