

CODC – RC250353
Proposed Alluvial Gold Mine
Luggate – Cromwell Road, Sandy Point

26 June 2026

Peer Review Report



Peer Review Report

Introduction and Purpose

Rough Milne Mitchell Landscape Architects (**RMM**) have been engaged by Central Otago District Council (**CODC**) to peer review the Landscape and Visual Effects Assessment Report (**LAR**) prepared by Mr Mike Moore Landscape Architect of a proposed Alluvial Gold Mine at Luggate Cromwell Road, Sandy Point (**the Site**).

This Peer Review has been prepared by Mr Tony Milne, Fellow Landscape Architect (FNZILA) and Director of RMM. Based on my 25 years' experience in undertaking landscape assessments across Aotearoa New Zealand, including Central Otago for clients in both the public and private sectors, I consider that I have the expertise and experience to review this proposal.¹

The purpose of this peer review is to appraise Mr Mike Moore's LAR, specifically addressing the following aspects:

- Whether the assessment methodology is appropriate and robust.
- Whether the analysis of the landscape context of the Site and its receiving environment accurately describes the landscape's attributes, character and values.
- Whether any key issues or considerations have been missed in the assessment.
- Whether the assessment has correctly interpreted the nature and magnitude of the actual and potential landscape and visual effects.
- Whether the conclusions of the assessment are credible and justifiable.

The preparation of this Peer Review Report follows the guidance in the Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines (**TTatM Guidelines**).² In undertaking my peer review, I have used the same 7-point scale set out in the LAR, page 11, that is consistent with the TTatM Guidelines.

In preparing this peer review report I have:

- Read the LAR, its Graphic Attachment, dated 21 February 2025.
- Undertaken a site visit on 20 April 2026. This included viewing the Site from the viewpoint locations in Mr Moore's LAR.
- Provided input into the Request for Further Information (**RFI**), dated 7 May 2026.
- Read the formal RFI Response including the updated Landscape Plans, Graphic Attachment and Visual Simulations, dated 8 May 2026.
- Read pertinent sections of the Resource Consent Application – Assessment of Environment Effects (**AEE**), prepared by Terramark Ltd, dated 5 December 2025.

For reference, the formatting and headings used in this peer review is consistent with and follows the LAR.

¹ 'Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines'. Tuia Pita Ora New Zealand Institute of Landscape Architects, July 2022. Para 6.57.

² *ibid.* Para 6.57 – 6.63.

Methodology

The methodology of the LAR is appropriate to the scale and nature of the proposal, has generally been prepared in accordance with the concepts and principles set out in the TTatM Guidelines. There are minor aspects of the LAR that do not do what is required, e.g. outlining the degree of amenity experienced from each public place. However, based on my experience, I consider that methodology that Mr Moore has followed is correct.

Policy Provisions

The LAR has correctly identified that the Site is located within the Rural Resource Area and that there aren't any landscape overlays under the Central Otago District Plan (CODP), and that the proposal is a discretionary activity pursuant to Rule 4.7.4.i.

Mr Moore includes an assessment against the relevant CODP provisions later in his assessment, with the following objectives and policies being key to this assessment.

Objective 4.3.3 - Landscape and Amenity Values

To maintain and where practicable enhance rural amenity values created by the open space, landscape, natural character and built environment values of the District's rural environment, and to maintain the open natural character of the hills and ranges.

Policy 4.4.2 – Landscape and Amenity Values

To manage the effects of land use activities and subdivision to ensure that adverse effects on the open space, landscape, natural character and amenity values of the rural environment are avoided, remedied or mitigated through: ...

b. Development which is compatible with the surrounding environment including the amenity values of adjoining properties

The LAR did not mention the site's proximity to the Mata-au Clutha River, which is identified in the Queenstown Lakes Proposed District Plan as an ONF. This was raised in the RFI, with a response provided by Mr Moore.

Receiving Environment - Site and Area Description

The LAR includes a high-level description of the Site and Receiving Environment's landform, landcover, and land use, and relies on the photographs in Figures 1 – 6 to illustrate these landscape attributes. I concur with this high-level description, albeit identifying and quantifying details of these landscape attributes i.e. location of river channels and Kānuka would have been helpful.

The LAR's Introduction states that there is an existing consent for a rural subdivision within the Site but provides no further detail of this. The AEE provides slightly more information as it mentions that RC230386 approved an 8-lot rural-lifestyle subdivision within the 70ha Site and includes the subdivision and building platform layout plan as Figure 12. It is important to highlight this consented development because it demonstrates that the Site can absorb, and is anticipated to, change. I.e. The Site is not intended to be a contiguous area of open pasture nor is it to remain rural in character. Rather the long term character of the Site will become rural lifestyle, that is in keeping with the rural lifestyle properties to the south.

Apart from the above gap in information, I consider that the landscape attributes that contribute to the Receiving Environment and Site's landscape values could be described in more detail. I will not do this

here. Rather, I will add any necessary detail in the landscape values and landscape effects section of my peer review.

Landscape Character and Values

The LAR includes a high-level description of the Site and Receiving Environment's landscape values that summarises the identified attributes and values in the Central Otago Landscape Study and is also based on the high-level description of the landscape attributes. I concur that:

- The Pisa Range and the southern end of the Grandview Range have 'moderate-high' to 'very high' landscape values and are a ONL and SAL, respectively.
- Mata-Au / Clutha River has 'high' to 'very high' landscape values. Within the QLD it is identified as an ONF and despite it crossing the district boundary, its outstanding values do not change.
- The Site and surrounding river terraces display a moderate to moderate-high degree of open space, noting that this will be reduced by the consented 8-lot subdivision.
- The river terraces have a high degree of legibility that contributes to the landforms natural character.

In addition to the above, the Central Otago Landscape Study identifies the Site and its surrounds, beyond the river, as having 'limited sensitivity' being equal to a 'low-moderate' degree of vulnerability. I.e. The Site has a moderate-high ability to absorb change. This is highlighted by the fact that the site is anticipated to contain 8 rural lifestyle lots.

As mentioned, the Site displays a rural character. However, this is anticipated to change to rural-lifestyle once the 8-lot subdivision has been developed.

Proposal

The LAR adequately describes the proposed mining operation and illustrates the 'removal', 'working' and 'rehabilitation' areas on Figure 8. The zig-zag nature of the proposed excavation is better illustrated on Figure 6 of the AEE.

It is important to highlight:

- Unlike most mining operations all material, except for gold, will remain on Site. It is estimated that 1,500,000m³ of material will be 'turned over' on Site.³ With one cubic metre of gold being worth approximately \$3 billion USD, it is assumed that a comparatively small amount of material will be excavated from site. Therefore, rehabilitation back to original ground level will occur relatively quickly.
- Mining will be offset 40m from the riverbank, 5m from the dripline of any Kānuka, 10m from the DoC Reserve.
- The AEE states that the depot will be sited in one of two areas.⁴ Therefore, portacom, containers, and the storage of equipment, machinery and vehicles are not dotted across the Site. For clarity, a condition could specifically state that this, ensuring that storage does not occur in both identified locations.

³ 50ha/500,000m² x 3m deep = 1.5 million cubic metres.

⁴ AEE, Page 8.

- Mining will occur for three years. It will occur for 10 hours per day, Monday – Friday⁵ to align with a typical working week. No operations on weekends or on public holidays.
- Pasture grass will be progressively reinstated as land is rehabilitated. Pragmatically, the establishment of pasture grass during hot, dry summers and cold winters may be difficult. This may lead to an increase in exposed soil, beyond the 210m x 85m area. Noting that ploughing a field is a permitted activity.

Natural Character Effects

Mr Moore has limited his natural character assessment to the river margins as it applicable under RMA Section 6a. His landscape effects assessment considers effects on landform and vegetation, that also contribute to natural character. I see logic in Mr Moore's approach as to reduce repetition.

I agree with Mr Moore that by definition Mata-Au / Clutha River's margin is narrow due to its steep enclosing scarps, highlighted by both exotic and native vegetation. The proposal will be offset 40m from the riverbank. I consider that the 40m offset, the sequential displacement of material, land being rehabilitated in a timely manner and the limited extent of extraction at any one time adequately mitigates the potential adverse effects of mining activities on the natural character of Mata-Au / Clutha River.

Landscape Effects

Mr Moore has separated the Landscape Effects Assessment under two sub-headings Physical Effects and Visual Effects.

Physical Effects

I agree with Mr Moore that the proposal will modify the existing natural floodplain on the terrace landform that the Site is situated. This is due to the displacement of approximately 1.5 million cubic metres of material, and recontouring of landform during the rehabilitation stage. Also, I concur that the mining will be a significant change to the current landform where it is occurring at that specific time. However, it will not be excessive due to the way it will be contained to the defined 1.8ha area.

The proposal will be well contained within the Site. It will not alter the physical attributes of the Mata-Au / Clutha River. Therefore, the proposal will not adversely affect its physical landscape values.

It is important to note that the finer contours of the existing landform can be modified by ploughing that will result in both large areas of exposed soil and would flatten parts of the Site. Also, the consented development enables landform modification by way of building pads, accessways, forecourts, lawns etc. These permitted and consented activities assist with reducing the long-term degree of change resulting from the proposal and the subsequent degree of adverse landscape effects.

Reinstating soil cover and ensuring grass and plant growth is the key mitigation measure to the proposal. Noting that screen planting will be ineffective from most vantage points due to the moving nature of the proposal. The principal concepts of the rehabilitation appear sound, aligning with methodologies I have seen implemented on other projects. However, conservatively, I recommend that half yearly reviews are undertaken to ensure that the intended re-leveling of the soil and grass growth is achieved. And if not, processes can be altered to ensuring rehabilitation occurs as it is currently intended.

Based on the above, I consider that the proposal will have a **moderate degree of adverse effects on the landscape's physical values where the mining is taking place. At a site wide scale, this will**

⁵ AEE, Page 6.

be of a low to low-moderate degree and at a receiving environment scale, this will be of a low degree. Post mining activities, the adverse effects on physical values will be **very low to nil**.

Associative Effects

Te Ao Mārama Inc have provided a neutral submission on the proposed gold mine. Their submission recognises the cultural values of Mata-Au / Clutha River, as appropriately considered in the LAR.

The LAR does not specifically assess the adverse effects on the cultural values of Mata-Au / Clutha River. However, assessment on natural character implies that that adverse effects on other aspects of the river, including cultural values are avoided. This is because the proposal will not alter the physical qualities of the river. Therefore, it is less likely to affect the spiritual values associated with creation traditions, as outlined in Te Ao Mārama's submission. Also, the proposal is well contained to the Site and does not impede access to and along the river beyond current constraints. Therefore, cultural traditions associated with mahika kai networks and historic movement patterns will not be altered.

Recreational associative values within the area include the use of the river by kayakers and boat users and people appreciating the view from Sandy Point. The proposal does not impede access to Sandy Point or along the river. Visual effects are considered below, except from the river. The LAR correctly mentions that the river is enclosed by steep, tall escarpments and vegetation. Therefore, whilst an assessment is not included, it is apparent that the proposal will not be seen from the rivers surface due to topography and vegetation.

Based on the above, I consider that the proposal will have a **very low degree of adverse effects on the landscape's associative values**. Post mining activities, the adverse effects will be nil.

Visual / Perceptual Effects

Based on my desktop analysis and site visit, I concur with the viewing audience identified in Mr Moore's LAR. Therefore, the LAR has correctly considered all potentially affected parties when assessing the actual and potential adverse visual effects of the proposal. I provide commentary on my observations from each public place below.

SH6 and SH8a

I generally agree with the visual effects assessment. In particular, views to the site are fleeting at most (barely discernible from SH8) and road users are more focused on the road or their eye is drawn to the surrounding mountains being the key contributing element to their amenity. Also, due to the moving nature of the proposal, at times the proposal will not be seen from SH6 due to intervening landform and as it progresses, the low-lying viewing angle means that the depth of excavation will not be understood. Rather, it will appear on face value being an area of excavation / land disturbance. Additionally, I agree that post rehabilitation, there will be very little evidence that mining has occurred, noting the removal of exotic trees is a permitted activity. Due to this, I concur with Mr Moore's conclusions that the adverse effects on visual amenity will be of a **low to low-moderate degree reducing to nil post rehabilitation**.

Sandy Point Lookout

I generally agree with the visual effects assessment. In particular, the elevated view, the proximity of the activity and activity itself drawing the eye, all of which will contribute to adverse effects on people's appreciation of the landscape. With the key mitigation measure being the contained nature of the extraction activity and the ongoing rehabilitation. Due to this, I concur with Mr Moore's conclusions that the adverse effects on visual amenity will vary between **very low and moderate degree reducing to nil post rehabilitation**.

Pukerangi Drive

I generally agree with the visual effects assessment, albeit the LAR does not go into enough detail on how visible the Site is. It is apparent that the southern third to half is not visible from Pukerangi Drive. Therefore, the first year to year and half of the three-year proposal will not be seen, which reduces the short-term effects of the proposal. Also, similar to the above, as the excavation progresses, the proximity of the proposal increases and will subsequently reduce the prominence and adverse effects of the proposal. Due to this, I concur with Mr Moore's conclusions that the adverse effects on visual amenity will be of a **low to low-moderate degree reducing to nil post rehabilitation**.

Private Views

The LAR is very light on the analysis, and justification of the assessment findings when considering adverse effects on amenity experienced from the surrounding private properties. This would have assisted with explaining which owners / occupiers of properties will be more adversely affected than others. However, the LAR's more blanket approach describes **adverse effects as nil to moderate-high**, allowing the public to have their say through the public consultation process.

The LAR does not include an assessment of the proposal from the elevated properties within Queensbury to the west, albeit the RFI response outlines that the visual effects assessment from Pukerangi Drive is representative of the effects from these private properties. I disagree with this approach due to the topography, orientation of dwellings and the longevity of views gained from dwellings when compared with road users.

Twenty-two submissions have been received in relation to the proposal, including submissions from Te Ao Marama, New Zealand Transport Agency and Heritage NZ.

In light of Mr Moore not providing a detailed response I highlight the following key points when assessing the actual and potential adverse effects on nearby properties, including all properties, not just limited to submitters:

- The Site is anticipated to contain an 8-lot subdivision. Therefore, the open, rural, paddock is not expected to remain. Rather, it is anticipated to be developed, including construction activities, and will display a rural lifestyle character.
- Prior to the 8-lot subdivision, ploughing the Site is permitted as a farming activity. This could result in up to a 50ha area of exposed soil. Ploughing and tilling of the earth is a typical farming practice within this environment and therefore exposed earth is a regular element within a rural setting.
- The project will take place for no more than three years. Based on on-site observations and a desk top analysis, only half the site can be seen from most nearby properties and / or the mining activity will be seen from more than 1km away, extending to more than 2kms away. Therefore, neighbours may only see the proposal for less than one-and-a-half years and it will form a very small part of their overall outlook.
- On a day-to-day basis, the proposal will occur during 'working hours' on Monday – Friday. Therefore, the mining activity itself will not be seen in the evening, at weekends, or public holidays. Rather, only the excavated area will be seen. In saying this, not having the mine activity occurring during key times when people are home, will reduce the prominence of the excavation area.
- Rehabilitation back to original ground level and the establishment of pasture grass will occur relatively quickly, unlike a standard mine.
- Structures and storage of equipment are located in the less visibly exposed areas, in particular when viewed from the west. Noting that given the current consent for the Site, built form is an expected outcome within the Site.

Therefore, when taking a balanced approach, I consider that the adverse effects on visual amenity will vary between a **nil to a moderate degree**. Noting, that the degree of adverse effects will vary for residents within each property over the three years, i.e. there will be times when the excavation activity is not seen and / or it will form such a small part of the view that it will have a nil – very low degree of effect. Due to this, I do not consider that the degree of adverse effects on the neighbouring properties visual amenity to be unacceptable.

In light of my conclusion, methodologically speaking, I consider that Mr Moore should include an adequately quantified and justified assessment based on viewing distances, length of time the proposal will be seen for (months and years) etc from the submitter's properties. I understand that he may not have access to their properties. However, a reasonably informed assessment can be based on dwelling orientation, topography, vegetation, sightlines, and operational timeframes (day to day and yearly).

Assessment Against the Relevant CODP Provisions

The LAR is very light on the assessment against the relevant objectives and policies, noting that the key points of the assessment are made through the body of the report. Whilst the assessment is brief, I concur with the points made, with the following also important to mention:

- The Site is anticipated to change due to the consented 8-lot subdivision. Therefore, there is no expectation that the Site is to remain open and maintain a rural character. Rather, it is anticipated to be developed, including construction activities, and will display a rural lifestyle character.
- Structures and storage of equipment are located in the less visible exposed areas, in particular when viewed from the west. Noting built form is expected within the site.
- The proposed mining activity will be small in scale as it migrates through the site, temporary with varying levels of visibility and visual effects, and all material and pasture cover will be reinstated.
- Potential adverse effects on Mata-Au will be avoided.

Based on the above and regarding CODP Objective 4.3.3, Policy 4.4.2.b, I consider that the proposal is adequately mitigated to the point that the rural amenity values of the receiving environment will be appropriately maintained. Also, the proposed mine will not have significant adverse effects⁶ on the landscape values of Mata-Au/Clutha River.

Conclusion and Recommendations

I am of the opinion that the Mr Moore's LAR has considered all of the key issues and has correctly interpreted the nature and magnitude when assessing the proposed gold mine. The exception to this is the assessment from private places, which should be covered off in more detail in his evidence.

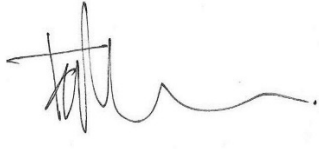
I recommend that at a minimum half yearly reviews are undertaken to ensure that the intended releveling of soil and grass growth is achieved. This will assist with providing assurance that the anticipated rehabilitation occurs as it is currently intended, being the overall key mitigation measure of the proposal.

Apart from the one exception and recommendation, I consider that the conclusions reached are credible and justifiable.

Overall, I consider that the proposed gold mine will have a **low-moderate degree of adverse landscape effects**, with visual effects from the surrounding public places varying between **nil to**

⁶ "The 'Reason' for CODP Standard 4.7.6(J)(b) states that earthworks for mining can have significant adverse effects on landscape values, as well as water quality, soil and land stability."

moderate. These adverse effects will be temporary, lasting no more than three years, and in some instances no more than one year.

A handwritten signature in black ink, appearing to read 'Tony Milne', with a stylized, flowing script.

Tony Milne
Director - Senior Landscape Architect - NZILA (Fellow)
Rough Milne Mitchell Landscape Architects