Friday, 5 December 2025

Shay McDonald
Principal Consent Planner
Otago Regional Council
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Private Bag 1954
Dunedin 9054

Dear Shay,

**Bendigo-Ophir Project: Review of Bond Introduction for 2025-2026**

Otago Regional Council (ORC) has engaged Damwatch Engineering Ltd. (Damwatch) to review the Bond Introduction for the Bendigo-Ophir mining project. The proposed approach and quantum of the Bond need to be sufficient to cover the expected costs in the event Matakanui Gold Ltd (Matakanui Gold) fails to undertake the rehabilitation of site disturbance and a period of aftercare mine close.

This review has focused on,

- The adequacy of the information upon which the bond is based for the first year of the project and where additional information is required.
- Assessment of the calculated value of the bond for Year 1.
- Any other matters relevant to the setting of the bond for Year 1 or subsequent years.

Our assessment is primarily based on the following information supplied by Otago Regional Council (review approved by email on 13 November 2026):

- Bendigo-Ophir Gold Project Bond Introduction, 7th May 2025, Lane Associates Ltd.
- Santana Life of Mine Model-f – (Excel spreadsheet Version F dated 6/05/2025 provided by Malcolm Lane as the background to Bond Introduction Appendix A year-by-year rehabilitation estimates.)
- Bendigo-Ophir Gold Project Mine Closure Plan, August 2025, Mine Closure Management Plan Pty Ltd.

The Fast Track Substantive Application Documents were also provided. Where applicable herein documents from the application are referenced.

A project site layout plan identifying the mine components is attached to this letter. To assist in the review of the Bond Introduction a site visit was arranged by Matakanui Gold on 3rd July 2025. This was attended by Andrew Kilby from Damwatch. Observations from the visit are also attached.

## 1. Background

The Bond Introduction describes the approach as to how the bond process is applied and provides estimates for the Bond quantum on an annual basis. The latter are applied during the life of the mine and for a period of aftercare.

Should Matakanui Gold be unable to perform the required reinstatement and rehabilitation, the responsibility for undertaking this work will pass to the Otago Regional Council, Central Otago District Council and potentially the Department of Conservation (the Councils). The Bond therefore must be sufficient to cover the potential costs and risks passing to these bodies.

The general approach to quantifying the Bond for the Project is to:

- Determine the expected scope of works to reinstate and rehabilitate the mine; and
- Determine the likely cost of these works.

The scope of the works required to rehabilitate the mine changes annually as sections of the facility are progressively developed and completed sections rehabilitated. The bond will be reviewed each year by Matakanui Gold. The Mine Closure Plan will be reviewed every three years.

## 2. Review of Mine Closure Plan

The Mine Closure Plan notes *"The BOGP is estimated to have a total operational project life of 31 years, including the pre-development, construction, operation and active closure phases."* The Bond Introduction forecast is projected for 11 years.

A five-year maintenance period following reinstatement is assumed. This is a very short period for monitoring TSF performance and stability. It may be appropriate for early enabling works. It is recommended that a maintenance period of 20 years is applied similar to other Gold Mines in the Region.

The closure outcomes identified by the plan are:

- Engineered landforms (ELFs) will be rehabilitated with design informed by consideration of waste characterisation and ecological and hydrological factors to ensure long term stability;
- To reduce the potential for Neutral Mine Drainage (NMD) generation, overburden will be carefully managed during operations. Layered ELF construction, as well as capping of final slope profiles is planned to minimise the potential for air and water ingress. The current construction methodology recommends that ELFs are constructed in low-height lifts dumping next to a tip-head and dozing over the edge to control segregation;
- During the project life, overburden will be used in the Tailings Storage Facility (TSF) embankment construction in the upper Shepherds valley and otherwise placed in ELFs in Jean Creek and the upper Shepherds valley. SRX and SRE over-burden will be stored in a dedicated ELF in the RAS valley. CIT pit will be backfilled to sit appropriately within the surrounding topography profile. SRE pit will be backfilled and covered by the SRX ELF;

- Tailings (waste fines) will be stored in the engineered tailings storage facility (TSF) in Shepherds Valley. The TSF is designed and will be constructed in accordance with the NZ Dam Safety Guidelines 2024 but will additionally be buttressed by the Shepherds Creek ELF on the downstream side. The final landform will be capped with overburden and topsoil. Water will run onto the surface from the surrounding catchment towards the north valley wall, then west towards the ELF into a diversion channel on the north side of the ELF to Shepherds creek;
- Management plans implemented for relevant environmentally and culturally significant values, and protection of agreed social and cultural heritage values and sites in accordance with Cultural Values Statements and Heritage authorities;
- Implementation of progressive rehabilitation to promote revegetation, and monitoring of rehabilitation to inform closure planning, closure outcomes and refinement of completion criteria;
- Placement of safety bunding or structures around mine pit voids to manage risks associated with inadvertent public access post-closure. Designs will consider the need for ongoing public access associated with existing access agreements with pastoral stations, and stakeholder post-closure access requirements;
- All infrastructure will be removed, except for infrastructure buried more than 1 m below the ground surface, unless agreed with the landowner; and
- Environmental modelling including geochemical, geotechnical, surface water, and groundwater will be undertaken on an iterative basis during the LOM to inform operations, mine planning/design and closure planning to ensure no unacceptable impacts.

## 3. Review of Bond Introduction

*General comments:*

Review of the Bond Introduction assessment is based on the aforementioned documents. The reviewer supports the overall approach by Matakanui Gold and Lane Associates whilst noting the comments herein.

The components of the Bond Introduction are generally in agreement with the Mine Closure Plan. It is noted by both the Bond Introduction and the Mine Closure Plan that the Bond Introduction is based on the information available at the time of preparation which was not finalised. The Bond Introduction further notes that *"A review of the first bonds quantum is expected to be undertaken prior to the start of site works"*. Thereafter the bond costs estimate will be revised annually.

The Bond estimate is understood to be prepared to a P50 level with contingency applied. Reference to an appropriate contingency sum is mentioned but not clarified. The basis for contingency amounts where applied needs to be clearly stated.

The Bond Introduction provides no discussion or basis for discounted cost. Year 1 is presented as a discounted cost in the rehabilitation estimates.

Random checks of numeric calculations of the rehabilitation estimate in Appendix A of the Bond Introduction have been found to be generally satisfactory.

Preliminary bond estimates by year are shown in Figure 1. The yearly estimates are divided by *environmental programmes, site rehabilitation, monitoring* and *management & administration*.

Within site rehabilitation, earthwork related activities make up a significant portion of the costs. In Year 5 circa $11M or 44% on the total bond is related to earthwork activities (fills etc.), with environmental programmes making up to 32%.

Figure 2 and Figure 3 present the distribution of the bond calculation by item/component for Year 1 and Year 5 respectively. In Year 5 the larger portions of the costs are associated with low grade ore transport for disposal (captured under Roads and General), the Main ELF, the TSF and the environmental programmes.

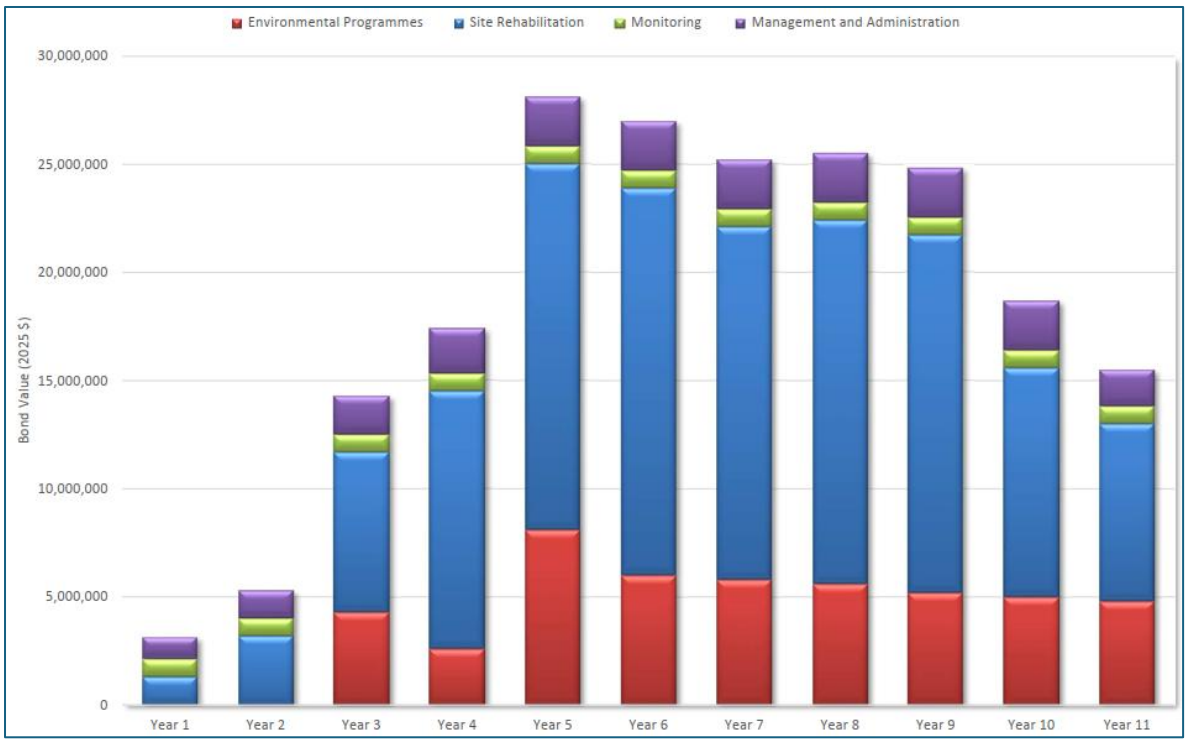



**Figure 1. Preliminary bond estimate by year – reproduced from Figure 4.1. from Bond Introduction report.**

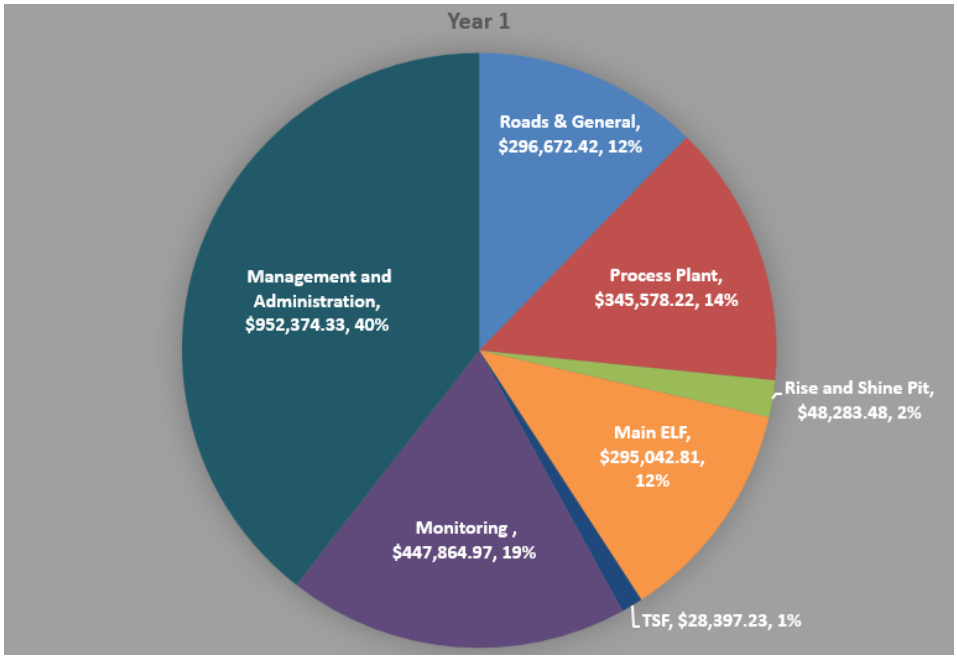



**Figure 2. Year 1 estimate distribution by item/component.**

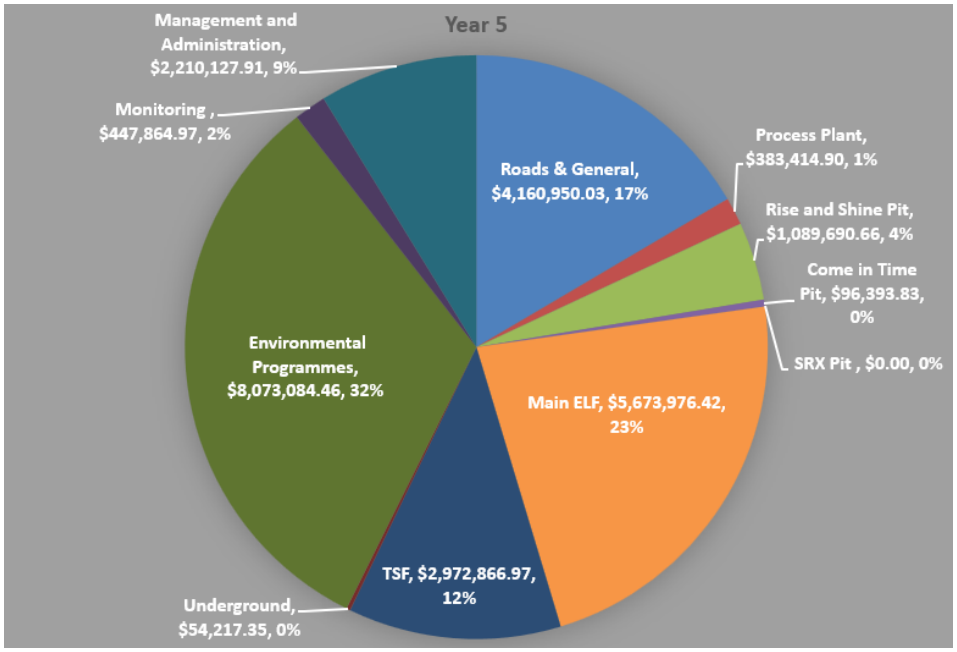



**Figure 3. Year 5 estimate distribution by item/component.**

*Earthwork Related Unit Rates*

Due to the quantities involved the unit rates related to earthworks have potential for cost impact on the overall bond. This becomes more relevant from Year 3 onwards.

The Bond Introduction Appendix B states that the unit rates are based on late 2024 costs, though supporting calculations indicate 2026. Unit rates reflecting 2026 should be confirmed.

Machinery rates within the supporting calculations are in some cases reflective of the expected range but in others underestimated. Inconsistencies in progression of machinery rates (increasing cost with increasing plant size/capacity) should be addressed, e.g., for the replacement road the 30t excavator rate used in calculation is significantly lower than the rates for 20t and 25t excavators.

Bulk Earthwork rates are considered to reflect the efficiencies that would exist under an established mining operation. This is only reasonable if the materials are available on site, require limited processing and have limited transportation with single handling. It is also not known if mining earthmoving plant, staff or materials would be available for the mine closure and rehabilitation works if the Bond was called upon. The assumption should be that these resources will not be available. This would require alternative contracting arrangements to implement the rehabilitation to the same processes and standards. The latter is likely to demand higher unit rates for earthworks.

*Check of rehabilitation areas and volumes*

Random checks of the rehabilitation areas and volumes indicate that the quantities in the Bond Introduction are generally consistent with those in the technical reports. It is reiterated that the Bond Introduction was based on the assumed mine plan at the time of its preparation and that "A review of the first year's bond quantum is expected to be undertaken prior to the start of siteworks."

*Environmental Programmes*

Environmental programmes are introduced from Year 3 onwards.

*The Bond Introduction calculation states that the environmental programme costs are based on initial rates provided by Habitat NZ. However specific detail is not provided and should be in subsequent bond reviews.*

*Groundwater/Water Quality Monitoring*

Groundwater/water quality monitoring costs are noted to have been based on low valuations. Supporting calculations refer to a considerable range in monitoring costs at mine sites across New Zealand. The range indicates that the costs adopted in the Bond Introduction could potentially be two or three times higher. This would for example increase the Year 1 costs by the order of between $450k-$900k. A more detailed assessment is therefore recommended to support calculation of this component.

*Dams and Reservoirs*

Costs for Dam Safety Compliance are not identified or recognised in the Bond Introduction.

Requirements for Dam Safety Compliance are recognised and detailed within the Matakanui Gold Limited Tailings Management Plan (dated 24 July 2025). The latter includes maintaining a specific risk register for the TSF.

The costs for Dam Safety Compliance need to be separately recognised in the Bond Reviews. It is noted that Shepherds TSF is identified in the Tailings Management Plan as a classifiable dam and assessed as a having a High Potential Impact Classification (PIC).

Damwatch's experience is that the cost of a) routine dam surveillance and b) preparing Dam Safety Assurance Programme and documentation has generally increased in all sectors.

## 4. Risk Cost

Risk cost is not included in the Bond Introduction. Formal risk assessment/review needs to be carried through with contingency allowances included as part of the Bond Review.

The Mine Closure Plan has currently identified twenty-two closure risks. These are detailed in the project risk register appended in the plan Appendix F -Closure Risk Register by Greenroad. The assessment date of this risk register is given as 13/09/2024.

The risk register defines the following risk categories,

- High: *"Unacceptable major disruption likely. Different approach required. Priority Management attention required."*
- Significant: *"Unacceptable major disruption likely. Different approach required. Priority Management attention required."* Noting this is the same descriptor as high.
- Moderate: *"Some disruption. Different approach may be required. Additional management attention may be needed."*
- Low: *"Minimum impact. Minimum oversight needed to ensure risk remains low."*

Thirteen residual risks are identified as significant, eight residual risks are identified as moderate and one residual risk is identified as low. The majority of the risks are associated with closure planning and/or closure implementation and/or post closure functions.

Currently the risks within the register are not allocated to risk owners and the effectiveness of mitigation controls are not identified. The risk register otherwise records the risks as acceptable with proposed additional actions identified to strengthen controls. This appears counter intuitive given the risk category definitions. It is however noted that the risk register records the next review date as Q3 2025, i.e., an updated risk register revision is currently due.

Other potential risks may arise through subsequent stages of the project. The period for regular review of the risk register is not explicitly defined. Matakanui Gold propose review of the mine closure plan every three years. Damwatch consider a joint review of the risk register and risk cost included in the Bond every 2 to 3 years through a risk workshop process to be appropriate.

In the absence of risk costs, it is recommended to apply a 15% Design and Contract / Environmental / Operational risk for Year 1.

## 5. Bond Assumptions for the Councils

The Bond is required jointly by Otago Regional Council, Central Otago District Council and potentially the Department of Conservation (the Councils). At this time a single bond is considered. The final consent conditions will define the bond requirements.

It is important the Councils recognise the bond quantum calculation prepared by Matakanui Gold has made assumptions, which if not followed will lead to inefficiencies and hence additional costs to Councils in the event of the Bond being called upon, these assumptions include:

- The Bond will be implemented as one project by one entity not three separate projects, there is an expectation that the Councils will work together.
- The Councils will need to manage the Bond capital value to ensure there are sufficient funds to complete the project in the future, costs are currently discounted to present value. Damwatch recommends the Councils review their ability to manage the Bond amount to deliver the future value expectations based on the adopted discounting approach described.

- The Bond estimate anticipates the Councils, in undertaking the Works, have similar efficiencies in project and contract management as Matakanui Gold, this is a significant assumption given the limited information currently available in the contingency Closure Plan and considering large earthworks projects are not core business for the Councils.
- The Bond assumes that mining resources (plant and labour) will be available should the Bond be called in. If BOMP resources are proposed for use in the Contingency Closure, then a legal agreement to protect supply of these resources needs to be in place as part of the Bond. It is likely that alternative contracting arrangements would be required to implement the rehabilitation to the same processes and standards.
- It is important the Councils are aware of any assumptions by Matakanui Gold in regard to sequencing / priority of closure works. This is not critical in Years 1 and 2 but is important once mining starts in earnest.
- The Councils must have agreement on the strategy to manage an early mine closure particularly for project initiation, strategic planning, consenting strategy, and contract procurement.
- Risk is not dealt with specifically within the Bond calculation, it is currently dealt with under a catchall contingency item. Councils will need to identify and manage the risk cost applied to the Bond as a separate item.

## 6. Conclusions and Recommendation

In relation to the proposed contingency closure plan and Bond quantum for the mine rehabilitation works, we make the following conclusions and recommendations:

i. The scope of work for closure works outlined in the bond introduction appears generally appropriate.

ii. Period of post closure maintenance is proposed as 5 years; this is a very short period for monitoring TSF performance and stability. A 5-year maintenance period may be appropriate for early enabling works in Years 1 and 2. Damwatch recommends that the maintenance period is reviewed and a period of at least 20 years is adopted similar to other Gold Mines in the Otago Region.

iii. No programme for implementing an early closure has been provided in the Bond Review. It is anticipated that time for closure works will increase in successive years as the Project becomes more complex. Damwatch has assumed that the Councils will require time for procurement of contractors, development of contract documents and dealing with legal issues prior to work commencement. Damwatch recommends that Closure programmes are provided including an allowance of one year for procurement time.

iv. No discussion is provided on the approach to Discounted Costs applied to the Bond calculation. Damwatch recommends that the approach and assumptions are clearly discussed and actions required from Councils are clearly identified to achieve successful cash flow requirements for the Bond. We anticipate that there is no discounting in YR 1 and 2 of the Bond calculation.

v. There is no development of the identified risks to provide a risk cost for inclusion in the Bond. Damwatch considers that Councils may be unnecessarily compromised should risk events occur. It is recommended Matakanui Gold and the Councils consider the mechanism applied to ensure adequate budget is available to meet an acceptable risk profile in the Bond estimate for all parties.

vi. In absence of the mine closure plan risk assessment being included in the Bond Introduction it is recommended to add 15 % to the Year 1 bond to cover Design and Contract / Environmental / Operational risk.

vii. The Bond has been developed to a mean estimate level (P50) with an unspecified Contingency applied. We understand that this is an introductory Bond estimate but it would be helpful to understand the estimating approach in detail for future years. We assume the Contingency item allows for unit rate variations to a P80 level and risk cost. With no breakdown this item is very difficult to understand.

viii. The bulk earthworks rate is a significant cost risk for the Councils. The reviewer considers the proposed earthworks rates for both bulk earthmoving and TSF earthworks used in the Bond estimate are within representative unit rates envelopes for these activities in other locations within New Zealand where conditions are favourable. However, there remains a residual risk that the earthworks rate may be greater than that allowed.

ix. The Bond Introduction calculation states that the environmental programme costs are based on initial rates provided by Habitat NZ. Specific detail is currently not provided. This should be detailed in subsequent bond reviews.

x. A more detailed assessment of the groundwater/water quality monitoring costs is recommended to support calculation of this component. This is in recognition of the range in possible monitoring costs that is identified by the Bond Introduction.

xi. Damwatch recommends Matakanui Gold review the allowance for detailed design (including preparation of drawings, CAD models and contract documents) as the amount $13.4k appears very low for this scale of project.

xii. Damwatch recommends a joint review of the risk register and risk cost included in the Bond every 2 to 3 years through a risk workshop process.

xiii. It would be valuable if Matakanui Gold could incorporate a register of reference documents applicable to a Contingency Closure.

## 7. Bond Value Year 1

The proposed Bond Value for Year 1 is $3.1M as presented in the Bond Introduction.

Damwatch has reviewed the costs presented in the Bond Introduction summary applying following assumptions:

- Estimates presented are to P50 level
- P80 level is estimated using multipliers used for similar Bond Early Closure assessments in the Otago Region
- Recommended allowance for Risk costs at 15%
- Recommended allowance for Closure Design costs at 10%
- Recommended allowance for procurement staff related to early closure works

| Item | Unit | Quantity | Unit Rate | Subtotals | P50 | P80 |
|---|---|---|---|---|---|---|
| | | | | | | |
| CLOSURE AND AFTERCARE TOTAL | $ | (without contingency) | | **$2,414,213** | **$2,414,213** | **$2,679,777** |
| | | | | | | |
| Risk Cost Allowance @ 15% | | | | | $362,132 | $401,967 |
| Closure Design Costs @ 10% | | | | | $101,397 | $112,551 |
| Allowance for 1 Years procurement | | | $289,653.08 | | $289,653 | $321,515 |
| | | | | | | |
| **Total** | | | | | | **$3,515,810** |
| **Total excluding prourement and design costs** | | | | | | **$3,081,743** |

**Figure 4. Proposed Bond Value Year 1**

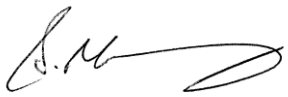
Notwithstanding the discussion of the prior pages, Damwatch considers the general Bond quantum as submitted together with the recommendations above to be adequate to cover the quantum of works identified for an early mine closure in Year 1.

The Bond amount provided is moderate and is not considered to be excessive, there are identified risks and hence there will be a need for careful and efficient management of the capital value of the Bond by all Councils should the Bond be called upon.

Damwatch recommends that a **Bond Value of $3.5M for Year 1** is applied, it is noted that in future years the overall Bond amount will be revised to reflect more certainty around the risk cost and the final consent conditions applied by the Councils. This should allow ORC to progress the fast-track consent for Year 1.

Should you have any questions with respect to this review please contact Damwatch at 04 381 1300.

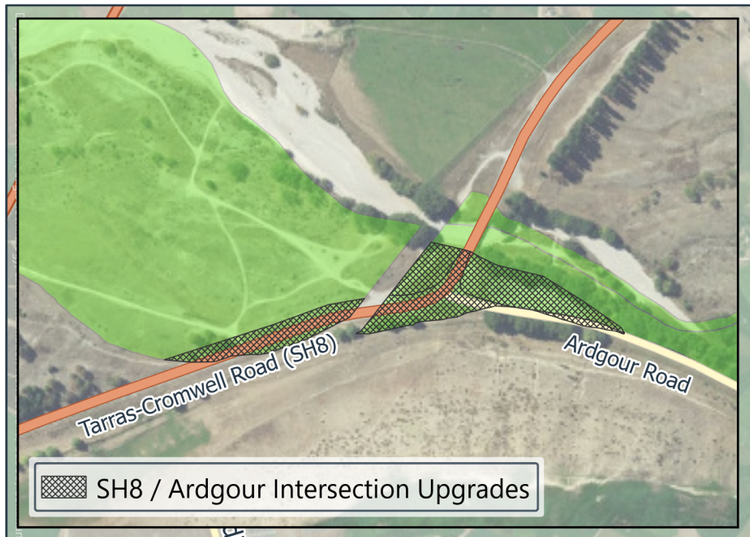
Yours sincerely



Stephen McInerney
Technical Director
**Damwatch Engineering Ltd**

*Attachments:*

- *Project Site Layout – Bendigo Ophir Gold Project*
- *Site Visit Observations*

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Site Access Road

Emulsion Facility

Ardgour Rise Alignment

Borefield

Bendigo Loop Rd

Ardgour Terrace Site

Magazine

Matilda Rise

Haul Roads

Silt Pond

CIT Pit

ELF Sump

Western ELF

RAS Pit

Shepherds ELF

TSF

Blue Mines Rd

SRX Pit

SRE Pit

SRX ELF

0 0.5 1 2 km

- Aggregate Pits
- Ardgour Terrace Site
- Haul Roads
- Mining Pits
- Process Plant Mine Infrastructure
- Shepherds Service Corridor
- Topsoil Stockpiles

Sanctuary Areas
- Ardgour Sanctuary
- Bendigo Sanctuary

TSF and ELF Water Management
- Clean Water Diversion Channel
- Dirty Water Diversion Channel
- Seepage Collection Pipe

Other Infrastructure
- Communications Towers

Base Layer
- DOC Public Conservation Land
- Highway
- Local Roads

NZGD 2000 New Zealand Transverse Mercator | SCALE: 1:30,000 @ A3

**BENDIGO OPHIR GOLD PROJECT**

JOB ID: 24234 | CLIENT: Matakanui Gold Limited | 11/09/2025 | VERSION: 12

**Site Visit Observations - Bendigo-Ophir Gold Project** **3 July 2025**

A site visit was arranged by Matakanui Gold on 3rd July 2025 and attended by Andrew Kilby from Damwatch. The site visit provided opportunity for general sighting across the main components proposed by the project. Selected views are shown in Figure 1 to Figure 7.

Observations from the site visit included the following,

- Topsoil cover is “thin”. Attention to maximizing topsoil stockpiling and protection in advance of rehabilitation is important;
- There are not significant quantities of low permeability soils available on the site. As detailed in the project’s technical reports the rehabilitation capping materials will, to an extent, rely on the generation of fines in weathered schist materials (excavated and handled as part of the works). Ensuring adequate quantities of suitable materials are stockpiled for rehabilitation will need to be monitored;
- Sub-gravel flows could be expected in the stream base, though the narrow exit from the valley may aid monitoring (refer Figure 3).

*Figure 1 Approach to Shepherds creek valley*

*Figure 2 View across Shepherds creek valley – area of proposed process plant mine infrastructure beneath the Ardgour Rise.*

*Figure 3 Shepherds creek valley - view downstream across proposed area of process plant mine infrastructure. Note gravel bed of stream (foreground) and narrowing of valley exist (far ground)*

*Figure 4 View up to the area of the proposed CIT pit*

*Figure 5 View onto RAS Pit area*

*Figure 6 View across proposed area of Main/Shepherds ELF (foreground valley) and TSF (far valley)*

*Figure 7 View across to the SRX pit area*