

07 February 2025

Shay McDonald
Senior Consents Planner
Otago Regional Council
Via email: shay.mcdonald@orc.govt.nz

Dear Shay

RE: Request for further information under section 92(1) of the Resource Management Act 1991 (the Act) – Consent Application Number RM24.184

Further to your letter dated 9 December 2024, we respond to your section 92 request in the table attached to this letter. Additional technical and supporting information is also provided in the documents annexed to the attached table. These include:

- **Annexure 1:** Responses to s92 requests prepared by MWM in respect of geochemistry matters;
- **Annexure 2:** Responses to s92 requests prepared by GHD in respect of surface and groundwater matters;
- **Annexure 3:** Northern Gully Silt Pond Detailed Engineering Report;
- **Annexure 4:** Northern Gully Silt Pond Embankment Construction Report; and
- **Annexure 5:** Responses to s92 requests prepared by Whirika in respect of terrestrial ecology matters, including:
 - a. **Annexure 5a:** Plan showing land cover within the MEEA;
 - b. **Annexure 5b:** Plan showing rare plants within the MEEA; and
 - c. **Annexure 5c:** List of plant species within the MEEA

OceanaGold advises that the Ecological Impact Management Plan (IMP) is being updated to reflect refinement in the management approach to *Orocrambus sophistes*, refinement of the MEEA offset area to reflect improved assessments of the current state at both the MEEA and the sites impacted by the MP4 Project, and other clarifications. The updated IMP will be provided with the updated Assessment of Environmental Effects and proposed conditions in due course prior to notification.

Yours sincerely

A handwritten signature in black ink, consisting of a stylized 'M' followed by a long horizontal stroke that ends in a small upward curve.

Matt Curran
Senior Consenting Advisor
Oceana Gold (New Zealand) Limited

Encl

Attachment 1: OceanaGold (New Zealand) Limited response to Section 92 request in respect of RM24.184

Otago Regional Council s92 request	OceanaGold response
1. Planning	
<p>1.1 Is the new water permit (RM24.184.28) to take and use water from the Frasers West silt pond intended to replace water permit 96810.V3?</p>	<p>No, OceanaGold proposes that RM24.184.28 operates in parallel with 96810.V3. 96810.V3 expires in 2032 and does not include any take limits, therefore exercising RM24.184.28 in parallel will not introduce any new cumulative effects beyond what is already authorised. Should RM24.184.28 be granted for the term sought (or a term that extends beyond 2032) OceanaGold may consider surrendering 96810.V3 prior to its expiry.</p>
<p>1.2 Does OGL intend for the new water permit RM24.184.28 to include the taking of water from the Northern Gully Silt Pond for use in the water management system, or will it rely on existing water permits 2004.083 and 2004.802?</p>	<p>No, there are no changes required to the way in which Northern Gully Silt Pond operates (discussed in response to Q5.6). The relevant consents that provide for operation of Northern Gully Silt Pond endure until 2039.</p>
2. Geotechnical	
<p>No requests for further information</p>	<p>-</p>
3. Air Quality	
<p>No requests for further information</p>	<p>-</p>
4. Geochemistry, Water Modelling, and Groundwater	
<p>4.1 Has any measurement of sulfides been completed across the water quality monitoring and if so, can further discussion be provided regarding sulfide concentrations in groundwater and surface water?</p>	<p>OceanaGold has not undertaken any measurement of sulphides as part of its routine water quality monitoring that is undertaken in accordance with the compliance and monitoring schedules attached to its resource consents. The geochemistry in respect of potential sulphide generation is discussed by MWM</p>

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(refer **Annexure 1**). The primary factor in the potential for sulphide generation is the presence of sulphate in anoxic conditions. OceanaGold does not expect anoxic conditions to be present in any of the sulphate contaminant pathways and therefore sulphide is not an obvious or appreciable contaminant of concern at Macraes.

4.2 What happens to model results if existing areas of high groundwater sulphate concentrations are used as initial concentrations in the model?

A response to this request is provided by GHD (refer **Annexure 2**).

4.3 A transient model was run to compare modelled discharge rates from FRUG to measured rates. What were the findings of this model and how were they incorporated into current modelling?

A response to this request is provided by GHD (refer **Annexure 2**).

4.4 Is the cause of recent discharge from the historic Adit well understood – is it likely to be affected by current mining activities? During my site visit, it was suggested that there could be artifacts of flow through the Northern Gully WRS causing the high sulphate loads. Please justify not including this in the current models.

OceanaGold has a firm understanding of the cause of recent discharges from the historic Golden Point adit. The primary driver of flows through the adit is the level of water in the Round Hill Pit sump. When the pit sump water level exceeds 344.5 mRL a hydraulic connection can occur between the Round Hill Pit and the Golden Point historic underground workings connected to the adit. This hydraulic connection can cause the adit to flow, even during dry periods. In recent months, OceanaGold has worked to lower the Round Hill Pit sump level and it is now below 344.5 mRL and flows through the adit have lessened.

OceanaGold has a new procedure in place to ensure the Round Hill pit sump level is routinely monitored and actively managed to an operational level that is set below 344.5 mRL. Management of the pit sump level will remain an operational water management measure. Potential long-term solutions involve plugging/sealing the opening on the Deepdell Creek side and/or a grout curtain along the ridge line between Round Hill Pit and Deepdell Creek to isolate the adit from Round Hill Pit. Capture of adit seepages and return pumping to the Mine Water Management System is also a feasible option subject to land access, noting that the adit daylightings on land administered by the Department of Conservation as part of the Golden Point Historic Reserve.

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Seepages from NGWRS are accounted for in both the surface and groundwater models. The NGWRS sulphate concentration applied in the contaminant transport model was 1889 mg/L. Groundwater seepage sulphate is accounted for in GHD's model as mass load to Deepdell Creek (GHD, 2024c).

Given seepage from NGWRS is captured in the surface and groundwater model and it is OceanaGold's intention to avoid a hydraulic connection between Round Hill Pit and the adit, it is considered appropriate to exclude potential adit flows from the surface and groundwater model.

4.5 Modelled sulphate plume extents in 400 years are shown to significantly impact Deepdell Creek and for the plumes to extend throughout the mine domain. Minimising compliance exceedances requires augmentation with water from the Camp Creek dam both during mining and long-term (Annexure 4 of s92 FRI response). Given that MWM modelling (Annexure 2 Attachment A) indicates that sulphate concentrations generated by the BRWRS are still high after 500 years, the legacy impacts of the mine will remain long into the future. How can ongoing management of these discharges be maintained so long after the cessation of these consents?

Long-term effects have long been considered by OceanaGold and the potential for these is already realised in the existing environment. The MP4 Project does not raise any new or novel types of enduring adverse effects. Previous developments at the Macraes Gold Project have all considered the potential for long-term effects and the result has been the requirement to establish permanent management solutions or to provide bonds in respect of uncertainties. Where there is potential for adverse effects to occur beyond the consent term, all relevant resource consents include bonding conditions that obligate the consent holder to provide and maintain a bond in favour of the relevant consent authority, the amount of which must (amongst other things) provide for:

- Monitoring for and of any adverse effect of the activity authorised by the consent which may become apparent during or after expiry of this consent; and
- Dealing with any adverse effect on the environment which may become apparent after the surrender or expiry of this consent.

The bond is required to be maintained for a period of 20 years from the expiry or surrender of the relevant consent(s). This mechanism provides for the adverse effects to be monitored and addressed well beyond the duration of the consent such that any unforeseen effects can be identified, or expected effects

can be better characterised and managed or otherwise rectified. This existing approach to bonding is proposed to be utilised for the MP4 consents.

It is also acknowledged that some activities may require resource consents to be renewed on an ongoing basis. For example, where there are enduring discharges of contaminants from detention sumps or pit lakes, unless those discharges are permitted by the relevant plans and regulations, resource consents will be required on an ongoing basis. In those circumstances, the resource consent process enables the adverse effects of those activities to be periodically evaluated and addressed by appropriate conditions. Following closure of the mine, obtaining and implementing those consents may become the responsibility of a Trust or some other long term management vehicle established by OceanaGold to manage its relinquishment of the site after mining has ceased. Nonetheless, in relation to such consents there will remain a consent holder on whom any conditional obligations are enforceable.

OceanaGold also notes that some measures to manage adverse effects on water quality can be developed with a certain level of permanence and automation (e.g. operation of Camp Creek Dam if required, passive treatment systems, and detention sump discharges to receiving waters) such that only routine maintenance is required. That maintenance obligation could be tied to the relevant consents that are required on an ongoing basis or otherwise secured by legal instrument attaching to the relevant land.

Whilst it is acknowledged that modelled sulphate plumes eventually reach the Deepdell Creek via groundwater flows, especially along the reach between the MTI and NGWRS, the impact of this on overall water quality and aquatic ecology is not regarded as 'significant'. Greg Ryder (2024) provides the following conclusions:

- There is not expected to be any changes in the composition of the aquatic fauna of the streams and rivers affected by the MP4 mine expansion;
- Provided GHD's proposed water mitigation options are implemented and managed (GHD 2024), there are no anticipated material changes to the

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OceanaGold response

physical character of the receiving waters as a result of the cumulative effects of the proposed mining expansion; and

- No material changes to the hydrological character of the receiving waters. Predicted short and long-term changes in water quality in Deepdell Creek-Shag River and North Branch Waikouaiti River satisfy default (i.e. conservative) guideline values.

Monitoring of groundwater and surface water during the 20 year bond period will provide an opportunity for the model expectations that inform the above assessment to be verified.

4.6 It seems that a uniform recharge rate of 29.2 mm/year has been applied across the GHD groundwater model. In the process of generating MWM (2024) BRWRS model, it was found that the recharge rate in the FWRS was 74 mm/year. This will make a big difference to predicted loads for contaminants. What is the effect of this higher seepage rate through waste rock stacks on cumulative effects?

A response to this request is provided by GHD (refer **Annexure 2**).

4.7 Given the many assumptions and limitations within the groundwater and surface water models, what specific monitoring and analysis do you recommend to review/validate the model outputs during mine operation and in what timeframes?

GHD outlines additional monitoring that would assist model validation (refer **Annexure 2**). OceanaGold intends to incorporate this additional monitoring into its Water Quality Management Plan when it is updated to reflect the MP4 consents.

Implementation of the additional monitoring will need to be subject to feasibility and options analysis in some instances. For example, flow monitoring in the North Branch Waikouaiti River.

4.8 The GHD (2024) report regarding Coronation assumes that water quality of the overflow from the Coronation Pit Lake through the Trimbells WRS remains consistent and does not deteriorate further before entering the Trimbell silt pond and ultimately Trimbells Gully. Use of source control technologies and treatment has been assumed to prevent and further deterioration of water quality flowing through the Trimbells WRS. What

OceanaGold notes that the potential for seepage flows through Trimbells WRS is a feature of the existing environment and not a potential effect that is expected to be exacerbated by the MP4 Project. As noted in the AEE, Trimbells WRS is an existing WRS and the currently consented closure scenario for Coronation Pit is development of a pit lake. Furthermore, as noted in Section 5.3.2.2 of the AEE, it is reiterated that seepage of pit lake waters through the

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are the realistic limitations of these technologies and what actual deterioration can be expected?

OceanaGold response

Trimbells WRS is not expected to occur during the consent term. Pit lake filling to the level where seepage occurs is expected to take approximately 90 years. Notwithstanding, OceanaGold intends to engineer seepage control structures during the operational phase to ensure appropriate long-term management of seepages, both on water quality and WRS stability.

Potential engineering solutions and the effect of these on water quality outcomes, and the limitations of these are discussed by MWM (refer **Annexure 1**). OceanaGold proposes to undertake feasibility studies and detailed design for the preferred engineering solution during the consent term such that an engineered solution can be implemented as part of Trimbells WRS rehabilitation and closure. On this basis, the assumption that the seepage of Coronation Pit Lake water through the Trimbells WRS does not deteriorate is considered reasonable.

4.9 The section 92 response to Q1.4 states that water from Murphy's silt pond will have passive treatment systems in place to reduce sulphate concentrations by 30%. It does not specify which ones are likely to be used, or address the subsequent need to manage sulfides generated from sulphate reduction. The response recognises that further testing and field trials are required to be able to quantify the water quality improvement that can be achieved by these methods. Further response was provided to Q1.10 regarding treatments in which the Water Quality Management Plan, and its adaptive nature is discussed. This again specifies the need for further testing of passive treatment systems to manage mine water. The WQMP provided as Annexure 1 to the s92 FRI response does not commit to any definite active or passive methods. The implementation timeline does not include any fixed dates, and for the most part provides mitigation options, but does not confirm which have or haven't been used across the site and when they were implemented. Whilst many of the activities have been completed or are nearing completion, there is still no clear timeline or confirmation of which mitigations are to occur. What reductions in contaminants are realistic when the methods are yet to be

The current Water Quality Management Plan (WQMP) for the site (refer Annexure 1 of the first s92 response) includes a number of mitigation options and signals the potential timing of these (refer to Section 10 – Water Quality Mitigation – Implementation Timeline). In most cases, these mitigation options are required to be in place for closure to allow OceanaGold to move away from the active management of site discharges, which primarily involves the capture of seepage and other mine impacted water that would otherwise discharge to the environment and return it via pumping to the Mine Water Management System. This method of managing water quality during the operational phase relies on an extensive network of drains, pipelines, silt/sediment ponds and pumps that have been progressively installed over the life of the mine.

OceanaGold proposes to maintain active management of site discharges during the operational phase to allow for other mitigation options to be reserved for closure when it is more appropriate to implement these. The overall approach proposed to water quality management is therefore consistent with the current WQMP.

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confirmed? Given that the mitigation of effects relies on source control and treatment measures in a Trigger Response Action Plan, can these be provided so that effects can be assessed?

OceanaGold response

The WQMP outlines the following specific operational control measures that are currently in place at the site:

- Capture TTTSF drains and groundwater seepage in silt ponds/sumps. Pump back into the TSF decant pond (refer Table 48);
- Pump WRS runoff and groundwater seepage from Murphys Silt Pond to Frasers Pit (refer Table 51).

In addition to the above:

- OceanaGold is actively managing the level of the Round Hill Pit sump to minimise/prevent discharges from the Golden Point adit (as discussed in response to Q4.4). This management is expected to continue for the operational phase or until a permanent solution to managing the hydrological connection to the Round Hill Pit sump is implemented.
- Discharges from Northern Gully Silt Pond are only permitted during heavy rainfall events. Water is otherwise held in the pond and reused in the mine water management system to prevent its release to the environment. The operation of Northern Gully Silt Pond is described further in response to Q5.3.

In reality, there are numerous opportunities to control the release of water containing contaminants to ensure compliance with in-stream water quality criteria via the existing water management infrastructure. OceanaGold operates and manages this infrastructure in an adaptive way using the follow procedure:

- Water Quality (WQ) data is reviewed monthly to identify and monitor trends in order to be able to respond to potential WQ issues prior to any exceedance of the WQ compliance limits occurring. As part of this analysis data is compared with past data for that site with consideration of fluctuations related to seasonable variations, climatic conditions, and stream flows. The focus of this review is to identify if any results appear unusual or are trending towards levels which may

indicate management action is required to prevent a compliance exceedance.

- Where a trend of concern is identified, the Environmental team start an investigation to determine the source/reason for the result or trend. This may involve undertaking additional monitoring, reanalysis by the lab, further sampling or catchment-based enquiries (e.g. has fertiliser been applied to paddocks etc).
- The investigation will determine whether a management response is required and if so, what type of management response is appropriate. In some circumstances, external water quality experts may also be consulted.
- If a management response is required solutions are tailored based on the environmental conditions of the particular site, compliance limits, past actions which have been undertaken, and contaminant levels/trends. Management actions may involve one or a combination of the following:
 - capturing and pumping of water to the mine water management system;
 - maintenance of existing infrastructure/equipment or upgrading or installation of new infrastructure; or
 - updating water management procedures or undertake additional training relating to water management procedures.
- The management steps undertaken are then documented and followed up with additional monitoring to confirm effectiveness.

An example of this procedure being implemented at Murphy's Creek silt pond is as follows. Discharges from this pond were causing elevated sulphate levels at the downstream monitoring sites, this was identified and a pump and genset was installed to pump the water back to the MWMS. Pump failures causing continued high levels were identified in field monitoring and sampling.



Upgrades were made including mains power installation, telemetered monitoring equipment and alarms, the purchase of spare pumps, regular pump maintenance, weekly field monitoring on top of monthly sampling requirements and the management of freeboard within the pond, especially for dry periods.

A different procedure applies to observed compliance exceedances, as follows:

- Exceedance of instream Water Quality compliance criteria are identified two ways;
 - an exceedance notification email is sent out to specified users by our Environmental database software, once the lab file has imported (automatic process through an email listener); and
 - manual review of lab PDF's issued by Hill laboratories.
- When an exceedance notification is received, a notification detailing the specifics of the exceedance is sent to ORC via email, this is sent to both of the compliance officers and the generic ORC compliance email address.
- An investigation into the cause of the exceedance then commences. This investigation is tailored to the site, and is likely to include things such as infrastructure checks (such as pumps or collection sumps), lab queries or reanalysis, re-sampling, field parameter checks.
- A follow up email to council is then sent within 5 working days to update on either the findings of the investigation or the status of the investigation and any proposed mitigation actions. Management actions may involve one or a combination of the following:
 - Capturing and pumping of water to the mine water management system;
 - Maintenance of existing infrastructure/equipment or upgrading or installation of new infrastructure; or



- Updating water management procedures or undertake additional training relating to water management procedures.
- When further investigation is required this is followed up either as information is available or reported in the monthly ORC-OGL meetings.
- Any progress on mitigation actions is reported to council as those actions are completed.
- If an investigation shows that the exceedance is an erroneous result and resampling confirms this, the investigation is closed out.

Trigger Action Response Plans (TARPs) are typically developed to control the operation of a particular mitigation measure once it is implemented. The current approach to operational water management (as set out above) is difficult to capture in a TARP as the triggers and actions are not clearly definable. Furthermore, OceanaGold is not currently in a position to provide TARPs for the other mitigation options identified in the WQMP that have not yet been implemented on site (e.g. passive treatment systems, flow augmentation etc). These will need to be developed in due course and will control the operation of the mitigation measures to achieve the relevant in-stream compliance criteria.

With regard to passive treatment systems, MWM provides comment on the assumed effectiveness of passive treatment to remove sulphate (refer **Annexure 1**).

4.10 It is difficult to have any certainty that the available groundwater data is representative as the catchments are not presented for all of the locations relative to monitoring bores and activities, and the screen elevations are not documented within any of the assessments. How representative is water quality data available for the model in terms of existing groundwater within each catchment? Can a conceptual model or GIS layers be provided that presents the available monitoring locations and screen elevations relative to activity elevations and catchments?

A response to this request is provided by GHD (refer **Annexure 2**).

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5. Surface Water and Aquatic Ecology	
<p>5.1 Please confirm that the only mitigation assumed for the Deepdell Creek in Appendix F to the application and Annexure 4 of the S92 response is flow augmentation from the Camp Creek Dam? Figures 40 and similar in Appendix F refer to mitigation + flow augmentation. However, based on Section 5.11.2 of Appendix F, the listed mitigations and the water balance model schematic, the flow augmentation is the entirety of the mitigation.</p>	<p>A response to this request is provided by GHD (refer Annexure 2).</p>
<p>5.2 Please provide all raw nutrient and periphyton data from sites on the Deepdell Creek and Murphys Creek.</p>	<p>This data is provided in a directory that is attached to this response.</p>
<p>5.3 In relation to Appendix D of Annexure 4 of the S92 response please provide:</p> <ul style="list-style-type: none"> a) Versions of Table 9-11 without the selected mitigations applied. b) An indication of the extent to which the current proposal contributes to increased 'closure' and 'long term' contaminant concentrations in the absence of mitigations (i.e., are predicted concentrations different from what would be expected with just the implementation of existing consents?). c) Comment on whether the proportional change between the modelled 'mining' concentrations and the 'closure' and 'long-term' concentrations can be applied to the measured current state to provide a better indication of concentrations during those phases for those contaminants where the modelled 'mining' concentrations do not adequately reflect measured current state data. <p>For example, the 'long term' modelled maximum copper concentrations at NB03 are 2.0 times higher than the modelled maximum 'mining' concentration. Applying the proportional</p>	<p>A response to this request is provided by GHD (refer Annexure 2).</p>

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difference between those values to the measured current maximum of 0.005 mg/L results in a long-term maximum concentration of 0.01 mg/L, twice as high as what is predicted by the model.

The reason for this request is that under 5.2 of Annexure 4 of the S92 response it is stated that “‘current’ data can be considered to have a comparable basis to the ‘mining phase’ data”. However, there are cases where the measured current concentration far exceeds the equivalent modelled ‘mining’ concentration presented in Appendix D (e.g. maximum copper concentrations), suggesting the modelled concentrations may be underestimating the adverse effects of the proposal.

5.4 Please provide all raw dissolved copper concentration data for sites on the Mareburn and Golden Bar Creek.

This data is provided in a directory that is attached to this response. It is appreciated that this dataset includes additional data (from the 2023-2024 period) which was not available when the aquatic ecology assessment was completed (Ryder 2024). Greg Ryder has reviewed this full dataset and confirmed that the additional data does not alter his response provided to Q5.10 of the first s92 request.

5.5 Please provide all raw nutrient and periphyton data from sites on the Mareburn.

This data is provided in a directory that is attached to this response. It is appreciated that this dataset includes additional data (from the 2023-2024 period) which was not available when the aquatic ecology assessment was completed (Ryder 2024). Greg Ryder has reviewed this full dataset and confirmed that the additional data does not alter his response provided to Q5.9 of the first s92 request.

5.6 Please:

- a) Provide evidence that Northern Gully silt pond is appropriately sized as assumed in Annexure 4 to the S92 response.

OceanaGold notes that Northern Gully Silt Pond is managed so that it does not overflow, except during periods of high rainfall (refer RM20.424.03). Water is abstracted from the silt pond in accordance with 2004.083 and 2004.802 and used for mineral processing. No changes are proposed to the way in which the silt pond operates.

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- b) Describe the sediment related triggers that will be used to determine whether the further mitigation measures described in Annexure 4 to the S92 response are necessary.
- c) Describe what sediment monitoring will be undertaken to determine whether the mitigation triggers are exceeded.

OceanaGold response

Northern Gully silt pond was constructed in 1993 and has been in operation ever since. A copy of the Detailed Engineering Report and the Construction Report are attached to this response (refer **Annexure 3** and **Annexure 4**, respectively). Section 4.3 of the Detailed Engineering Report indicates that Northern Gully Silt Pond has a capacity of 37,500 m³ and a developed catchment area of 129 ha.

The *Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region* (Auckland Council Guideline Document GD2016/005) is often used as a basis for determining appropriate erosion and sediment control measures. The guidelines suggest the following design criteria for sediment retention ponds:

- On earthwork sites with slopes < 18% and < 200 m in length, design SRPs with a minimum volume of 2% of the contributing catchment area (200 m³ for each ha of contributing catchment)
- On earthwork sites with slopes > 18% or > 200 m in length, design SRPs with a minimum volume of 3% of the contributing catchment area (300 m³ for each ha of contributing catchment)

Northern Gully Silt Pond has a volume equivalent to 2.9% of the contributing catchment. The conditions of 2004.082 require the silt pond to have sufficient capacity to contain at least the initial 24-hour runoff from a rainfall event having a duration of 72 hours and a return period of two years.

The guidelines outlined above are applicable to passive sediment retention ponds with either fixed or floating decants. Bearing in mind that discharges from Northern Gully silt pond are actively managed with the water level frequently drawn down for use in mineral processing thus maximising dead storage¹, Northern Gully Silt Pond is considered to be of a more than adequate

¹ Dead storage is the storage volume of the pond before any decanting occurs.

size to manage the rehandling of waste rock from Northern Gully WRS in addition to runoff from the nearby, largely rehabilitated, catchment.

Because the water level in Northern Gully Silt Pond is actively monitored and managed, and because discharge is only permitted during high flows, there are no current monitoring requirements with respect to sedimentation. With active management of the silt pond continuing it is unlikely that any additional monitoring or management measures will be necessary to manage potential erosion and sedimentation from the rehandling of waste rock from Northern Gully WRS. Any discharge will be managed so as to not cause sedimentation in accordance with condition 14 of RM20.424.03.

It is acknowledged that local erosion and sediment control measures will need to be established around the working area to direct stormwater discharge to the silt pond. These will be developed in accordance with an Erosion and Sediment Control Plan (ESCP) that is consistent with other ESCPs used at the site for similar activities. EGL (2024c) provides an overview of Erosion and Sediment Controls at the site. Specific mitigation measures, monitoring and triggers will be identified during development of that Erosion and Sediment Control Plan having regard to the prevailing strategy for managing of water levels in Northern Gully Silt Pond.

6. Terrestrial Ecology

6.1 It remains unclear how the translocation of *Orocrambus* and its host species can be considered mitigation when it relies on research into its behaviour and interaction with its habitat. Mitigation should not be reliant on research, and it is difficult to see how any weight can be given to the mitigation proposed. Further information is required to support the proposed mitigation.

A response to this request is provided by Whirika (refer **Annexure 5**).

6.2 The remediation of the Golden bar WRS is a significant component of the mitigation package. The OGL response in 2 b) refers to similar remedial

A response to this request is provided by Whirika (refer **Annexure 5**).

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work completed successfully elsewhere. Can you provide examples of this remedial work?

6.3 The proposal to translocate lizards to the MEEA area before the installation of the predator proof fence is not ideal. Clearly this approach is not preferable and leaves the translocated lizards vulnerable to predation. Is it not possible for OGL to review the sequencing of the project so that the fence is installed prior to translocation?

OceanaGold has carefully considered the project sequencing in designing the MEEA and it is not possible to install the predator proof fence prior to lizard translocation for the following reasons.

1. The timeframe required to construct the fence and control predators to target levels is significant (likely over 12 months);
2. The construction of the predator proof fence and the associated predator control represents a significant capital investment (~\$3.5M) and to enable the fence to be established and predators controlled to target levels prior to translocation would require construction to commence prior to resource consents being granted. This represents an unreasonable level of investment risk; and
3. Delaying translocation of lizards until after the predator proof fence is constructed would cause operational continuity issues that put the broader viability of the Macraes Operation at risk.

The selected two staged approach is considered to appropriately balance investment risks with certainty of environmental outcome.

OceanaGold disagrees that the translocated lizards will be vulnerable to predators. In fact, the Intensive Predator Control (IPC) proposal is specifically designed to ensure that translocated lizards are not left vulnerable to predation, and that sufficient protection is provided until the predator proof fence is established and predators controlled within.

By way of further background, the MEEA is required for lizards to be salvaged from the MP4 pit extension and ex-pit fill areas. A Wildlife Act Authority is under application with Department of Conservation (DOC) to allow lizards to be handled so they can be moved to a predator-controlled habitat ahead of the open pit extensions. Due to recent Life of Mine scheduling changes, lizards from Innes Mills area need to be salvaged first ahead of the Stage 9 - 10 pit

extensions starting late Q1 2026. Salvage must occur before the close of the lizard 2025-26 salvage window ending 30 April 2026. Failure to move lizards by this date means the proposed Innes Mills mine extension will be impeded until the salvage window re-opens in October 2026. The proposal is therefore to move lizards into part of the MEEA where predators are controlled to minimum practicable levels via the IPC proposal.

The IPC proposal has been designed by Dr Grant Harper of Biodiversity Restoration Specialists (BRS, 2024). It is designed to control feral cats, stoats, ferrets, hedgehogs rabbits, rats and mice. Predator control will need to be sustained for around six months to reduce the predation risk for lizards. The full MEEA facility will need to be constructed in this timeframe so some costs will go toward ridding the wider MEEA fenced area of predators.

Performance of the effectiveness of the predator control programme will be monitored during and after the IPC phase until the full MEEA area is enclosed with predator proof fencing. This monitoring will need to demonstrate predator numbers in the remaining MEEA are at target levels prior to lizards being introduced. Monitoring for predator incursions will continue for 35 years from establishment of the predator proof fence and the intensity of predator control will be adjusted accordingly to ensure predator numbers remain at target levels.

A detailed LMP has been developed and submitted to DOC. It references the two stage approach and DOC has not identified any concerns with this approach.

6.4 There is a lack of ecological detail associated with the MEEA offset site. This is a fundamental requirement of any offset and directed in the offset guidance documents and regulatory instruments including the DCC 2GP (see 10.9.2 c) NPS-IB and Proposed ORPS (both of which require the data that informs the calculation and the detailed plan). This needs to be documented for the purpose of understanding whether the offset site can achieve a 'like for like' outcome. We understand this work is underway

A response to this request is provided by Whirika (refer **Annexure 5**).

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and should be supplied to council to assist with the review of the proposed offset.

- 6.5 There are multiple issues regarding the long-term permanence, governance, funding and adaptive management that need to be understood to provide confidence that the offset can be implemented effectively in perpetuity. To this end a Biodiversity Offset Management Plan is required that addresses these issues. Clear guidance on matters that should be included in the BOMP is provided in the link <https://www.doc.govt.nz/globalassets/documents/our-work/biodiversity-offsets/offset-management-plans.pdf>

At the outset, OceanaGold recommends applying some caution to the use of the *Guidance on Good Practice Biodiversity Offsetting in New Zealand Biodiversity* document. While it does provide some helpful information, it is now over 10 years old and does not reflect the current legislative and policy framework around biodiversity offsetting. For example, rather than the BOMP providing the framework from which to develop consent conditions, it is OceanaGold's view that the BOMP should be the mechanism by which the consent conditions are implemented. The National Policy Statement for Indigenous Biodiversity 2023 is a more recent policy providing national direction and which must be had regard to under section 104(1)(b)(iii) of the RMA. Furthermore, the NPSIB does not require offsetting to be in perpetuity, instead Appendix 3 principle 6 says an offset is managed to secure outcomes that last at least as long as the impacts and preferably in perpetuity.

The key to acceptable offsetting and compensation is clear and certain conditions which stipulate the outcomes to be achieved, and any specific management actions required to achieve those outcomes. It is these conditions that are ultimately enforceable on the consent holder.

OceanaGold is currently developing a suite of proposed conditions that reflect the proposal outlined in the MP4 Ecological Impact Management Plan (IMP). The proposed conditions will require the development of an offset management plan for the MEEA that will include detail around the methods to achieve the objectives specified in conditions as well as details of monitoring and adaptive management. OceanaGold has commenced drafting of that plan for the MEEA. A draft version of the offset plan will be provided to consent authorities when available after the proposed conditions have been finalised (likely prior to a

hearing for RM24.184). It is reiterated that the IMP forms the basis from which the conditions are being developed.

As set out in in IMP, it is proposed that the MEEA will be actively managed for a period of 35 years. Benefits will endure beyond that period by way of a legal protection mechanism associated with the land on which the MEEA is located. The benefits from the predator removal accrued to lizards over the 35-year timeframe of the offset may begin to erode as maintenance of the predator proof fence by the consent holder will cease at this time, but the benefit of enduring legal protection of their habitat will remain.

The IMP specifies the use of a covenant to provide for the ongoing protection of values secured by the MEEA, however other legal protection mechanisms are available to produce similar outcomes. A summary of available options is provided below.

1. OGL and QEII could register a QEII covenant over the area of the MEEA. This would mean that QEII and any future landowners would be involved with the management and protection of the MEEA post closure.
2. OGL and the Department of Conservation (DOC) could register a DOC covenant over the area of the MEEA. This would mean that DOC and any future landowners would be involved with the management and protection of the MEEA post closure.
3. The land area of the MEEA could be vested in the Waitaki District Council (WDC) as a reserve under the Reserves Act 1977. This would mean that WDC could manage protection of the MEEA post closure and also secure the public access to the MEEA.

4. A special purpose trust could be established. This would allow iwi interests, for example, to be directly represented in the management of the MEEA.

It is intended that the selection of an appropriate mechanism will be undertaken in consultation with the relevant consent authorities and stakeholders post consent being granted. To enable that, OceanaGold's intends to volunteer the following as a proposed condition to ensure an appropriate mechanism is adopted to protect the MEEA beyond the term of the land use consent:

Prior to undertaking any of the indigenous vegetation clearance authorised by this consent or translocating lizards to the Murphys Ecological Enhancement Area the Consent Authority must be provided with written confirmation of the specific enduring legal arrangements that have been agreed to be entered into that provide for the Murphys Ecological Enhancement Area to be retained in perpetuity.

Regarding funding, OceanaGold recognises that there will be a monetary cost associated with managing the MEEA and funds will need to be made available to ensure the management obligations specified in the conditions of consent can be fulfilled. As per the IMP, implementation and ongoing management and monitoring of the MEEA will be the responsibility of OceanaGold as the holder of the consents over the life of the mine. Should OceanaGold close the mine and transfer its consents to another entity (a Trust, for example) it recognises that it will need to provide a funding mechanism to that entity to enable any remaining obligations attaching to those consents to be fulfilled. That is not a matter that needs to be captured in the conditions of consent as the consent authority can be assured that for the term of the consent, there will be a consent holder on whom the conditioned obligations can be enforced.

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OceanaGold intends to place sufficient funds (assuming an appropriate Real Rate of Return) in a bank account or facility to cover the planned activities over the intended management timeframe, which is 35 years as previously stated (Post-closure Fund). The Post-closure fund will be adjusted annually (as currently occurs with OceanaGold's bonds) to ensure that it covers the work required over the remaining management period, including adjustments that track the staging of the physical disturbance for which the MEEA is intended to provide off-setting or compensation. Once OceanaGold ceases operations (mine closure) the funds will be made available to a delegated authority (likely the transferee of consents) who will then be responsible for managing the MEEA to maintain the specified targets for the remainder of the 35-year management term. This approach is not novel and is applied successfully by the Company in other contexts

As a separate matter, any concerns about the consent holder defaulting on its obligations can be addressed by bond conditions, as is currently the case with the OceanaGold's existing consents. The existing bond conditions provide an appropriate framework to apply to any additional consents and OceanaGold accepts that the bond will need to provide for a funding mechanism for the ongoing management of ecological enhancement measures required by the conditions of consent. Notably, the equivalent bond condition for the Deepdell North Stage 3 land use consent includes provision for funding of ecological matters.

The bond not only provides a mechanism to secure funding of ongoing management should the consent holder default on its obligations, it also provides for security of management obligations where the duration of those management obligations exceeds the term of the consent. For example, if for any reason the land use consent for the MP4 project is granted for a term less

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than the 35 years sought, this does not preclude ongoing management of the MEEA beyond the consent term.

Section 109 of the RMA deems any bond to be an instrument creating an interest in the land and may be registered accordingly. i.e. bonds can be registered against the land to act as a covenant running with the land and binding subsequent owners.

We note that an appropriately managed Post-closure Fund may double as a bond and that would be our preference.

In summary, implementation of the MEEA will be the responsibility of OceanaGold with implementation and management costs included in its budgets. Sufficient funding will be made available should OceanaGold transfer its responsibility for management of the MEEA to another entity. The conditions of consent provide a mechanism for the offsetting and compensation obligations to be enforced for the duration of the consent. The existing bonding framework can be utilised to secure management outcomes in the event of default or should the management obligations relating to the MEEA extend beyond the duration of the consent.