

TO: The Hearings Panel

FROM: Phil Petersen, Dunedin City Council Consents Planner

DATE: 9 June 2025

SUBJECT: **RESOURCE CONSENT APPLICATION**
LUC-2024-126
482 Longdale Road, Hyde
OceanaGold New Zealand Limited

INTRODUCTION

- [1] This report has been prepared on the basis of information available on 9 June 2025. The purpose of this report is to bring relevant information to the attention of the commissioners on the Hearing's Panel for deliberation in making a decision. The Hearing Panel's consideration of the application, and their decision is not bound by any comments made within this report. The Hearings Panel is required to make a thorough assessment of the application using the statutory framework of the Resource Management Act 1991 (the Act) before reaching a decision.
- [2] This report seeks to assess matters most relevant to consideration for the Dunedin City Council, acknowledging the wider context of the proposal. The activity extends across territorial authority boundaries (district boundaries), and most of the land and components of the proposal, and its resulting environmental effects lie within the Waitaki District boundaries. For the above reasons, and to avoid traversing matters which are outside of the ambit of the Dunedin City Council, I have limited the relevant planning document assessments to those relevant to the Dunedin City Council.
- [3] Notwithstanding the above, I acknowledge that the cross-boundary aspects presented by this application require a coordinated assessment of certain matters by Dunedin City Council alongside the Waitaki District Council, and Otago Regional Council. I also recognise that the scope and assessment of these matters is limited by the provisions of the relevant district plan where the activity occurs within the relevant Council's boundaries.
- [4] In preparing this report I record that I am a (resource consents) Planner employed by the Dunedin City Council, and I hold a BAppSci (Hons I) degree in Environmental Management. I am an Associate Member of the NZPI, and have been employed in the practice of planning/resource management for over 14 years.
- [5] In preparing this report I also consider it appropriate to record that I have previously prepared and lodged several resource consent applications¹ as a consultant planner for

¹ Including Deepdell North Stage III Open Pit Mine, Golden Point Underground Mine, Frasers West and Innes Mills Open Pit Mine Extensions, realignment of Macraes-Dunback Road, and others.

the Macraes Mining Project on behalf of the Applicant. I have no conflict of interest with respect to the present application.

- [6] I have visited the project area on many occasions between 2019-2020. The most recent site visit, and the one relevant to the Macraes Phase 4 proposal occurred on 20 June 2024.
- [7] All relevant Application AEE information, including appendices, and further information is available on the Otago Regional Council, and Dunedin City Council websites. The Applicant-proposed conditions have also been appended to this report. The Cultural Impact Assessment (CIA) is available on the Council websites. I recommend this material is made available for reference when reading this report.
- [8] I note that Minute 1 (Directions of the Commissioners) Revised 3 April 2025 directed in paragraph 4(g) that *"The Section 42A Reports should contain a suite of recommended consent conditions, using the conditions provided by OGL as a starting point"*. On this matter, please refer to Appendix 4 of this report for a memorandum explaining that these conditions are intended to be provided at a later date prior to the hearing, and with reasons.

SUMMARY OF RECOMMENDATION

- [9] For the reasons set out in paragraphs 10-12 below, I consider that notwithstanding consent issues identified by the Councils in relation to the overall development of the Macraes Phase 4 project, there is little reason why the proposal subject to LUC-2024-126 should not be granted. As a result, I have concluded that the proposal should be granted.
- [10] I assess that where the proposal occurs within the Dunedin City boundaries that it:
- a. will not result in unacceptable, or more than minor adverse effects.
 - b. is consistent with the relevant provisions of the National Policy Statement for Indigenous Biodiversity 2023 (Amended 2024).
 - c. is consistent with the relevant provisions of the Operative Otago Regional Policy Statement 2019, and the Proposed Otago Regional Policy Statement 2021.
 - d. is consistent with, and not contrary to the relevant provisions of the Partially Operative Dunedin Second Generation District Plan.
- [11] The proposal is considered to be a true exception. Apart from the bundling principle applying non-complying status to the application under the Waitaki District Plan, it is a discretionary activity under the Dunedin Second Generation District Plan, s.127 of the RMA, and the NES-CS².

² Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011.

- [12] Overall, the proposed development has been assessed as not being likely to give rise to any unacceptable adverse effects on those elements of the Rural High Country zone that the Dunedin Second Generation District Plan seeks to protect.
- [13] I acknowledge that my recommendation differs from the Otago Regional Council, and the Waitaki District Council, and that this reflects the limited area and aspects of the proposal that I have jurisdiction to consider.
- [14] An important aspect of my recommendation is that I consider the applicant-proposed conditions are not suitable for a granting decision in any case, and I request that the Councils be allowed time to formulate, and present a suitable set of revised conditions before the hearing, which we can recommend for inclusion in a decision, in the case the consent is to be granted. It is not possible to confirm the recommended conditions as part of the documentation with this report, as current draft council-proposed conditions are provisional, and will be subject to changes informed by the Applicant evidence, and any alterations to the proposal, including offsetting or compensation.³

DESCRIPTION OF PROPOSAL

- [15] OceanaGold (New Zealand) Limited ('The Applicant') has sought resource consents for the wider Macraes Phase 4 expansion project, mostly comprised of mining, and ancillary land use activities within Waitaki District, and resulting in multiple consent requirements for activities including water takes and discharges under the Otago Regional Plan documents.
- [16] I recommend readers of this report refer to Figures 2.2, 3.1, and 3.11 of the application AEE, as well as section 3 of that document for a detailed description of the wider proposal, with specific emphasis on Application AEE Section 3.7 regarding a description of the Coronation (Stage 6) Open Pit Extension, and the backfilling of the Coronation North Open Pit. These are the two main project components located within, or partly within the territorial area of the Dunedin City Council; alongside the more minor toe drain and buttress works proposed for closure of the existing Trimbells waste rock stack (WRS).
- [17] For the convenience of readers of this report, I summarise aspects of the proposal that are relevant to the Dunedin City Council in paragraphs 18-20 below.
- [18] As part of the wider project the applicant proposes several activities located within, or partly within Dunedin City Council boundaries. The proposed activities affecting land within the Dunedin City Council boundaries include extending the Coronation open pit by way of an extension in a southeast direction. Approximately 10% of the area of this proposed Coronation Open Pit extension is estimated to lie within Dunedin City Council boundaries. The proposal also includes:
- Backfilling of the Coronation North Pit (the entirety of which is within Dunedin City Council boundaries) following the completion of the mining currently authorised in that pit. The backfilling final level may not reach the crest of the Coronation North Pit,

³ See the Memorandum to the Commissioners, attached as Appendix 4 of this report.

- Transport of waste rock, and ore respectively in haul trucks to the Coronation North Pit backfilling area, and processing plant,
- If required due to sequencing, some waste rock may be disposed of at existing waste rock stacks (WRS) in the close vicinity, which have consented residual capacity under their existing land use resource consents.⁴
- A small quantity of selected waste material will be used as a downstream toe drain and buttress at the Trimbells WRS seepage outlet near the Māori Hen / Trimbells Creek confluence,
- Activities ancillary to and necessary for the mining, such as storage and use of hazardous substances, large scale earthworks, and soil disturbance of a HAIL site, and
- Rehabilitation, and closure of mined and backfilled areas.

[19] The proposed Coronation Stage 6 Pit has been stated to occur within 2026-2028 via the indicative timelines provided by the applicant⁵, and will result in the following approximate mining/excavation, transport via hauling, and deposition/processing of material:

- Ore 2.2 Mt (Mega tonnes⁶),
- Waste Rock 26.7 Mt, and
- Total movement 28.9 Mt.

[20] The application also seeks variations to the conditions of relevant existing Dunedin City Council Land Use consents, largely to ensure the proposal is compatible with all existing land use consents issued for the wider Macraes mining operations, to standardise public access conditions, and to ensure the stability of the southwest wall of Coronation North Pit is appropriately remediated following further authorised mining and proposed backfilling. The proposal seeks variations to the following relevant Dunedin City Council consents:

- LUC-2013-225 (Coronation)
- LUC-2016-230⁷ and LUC-2013-225A (Coronation North)
- LUC-2019-42 (Coronation North Extension, and Trimbells WRS)

[21] The wider proposal includes ecological enhancement actions intended to offset, and compensate for, residual adverse effects resulting from the overall proposal. These ecological enhancement actions are proposed in the 'Murphy's Ecological Enhancement

⁴ See Application AEE Section 3.7.3, pp. 63 and 64 (Coronation WRS, Coronation North WRS, and Trimbells WRS).

⁵ Application AEE p.75, noting that it also states that *"Full site rehabilitation would commence in 2030 and be complete by approximately 2032."*

⁶ 1 mega tonne (Mt) is 1 million tonnes.

⁷ Noting that the Application AEE, Table 4.1, pp.81 seeks variations to the conditions of (underlined for emphasis) *"LUC-2016-234 and LUC-2013-225A"*. I note that the LUC-2016-234 consent reference appears incorrect and should be LUC-2016-230/B (a s.127 variation of LUC-2016-230 issued 27 Nov. 2019). LUC-2016-234 is an unrelated reference, and LUC-2016-230 was superseded with the issue of LUC-2016-230/B, with LUC-2016-230/A recorded on DCC records as withdrawn.

Area', located within the Waitaki District, and approximately 2.5km WSW of the proposed Golden Bar Waste Rock Stack.⁸

- [22] A copy of the application, including plans of the proposed mining, is available on the relevant Council websites. All references to this application are to the updated version of the application AEE which the Applicant provided to the Council on 18 February 2025.
- [23] The Applicant provided all parties with a set of Applicant-proposed conditions on 30 April 2025. These conditions are appended to this report as Appendix 3.
- [24] On 2 May 2025 the Applicant has also provided the Councils with a Cultural Impact Assessment (CIA) authored by Aukaha on behalf of Kā Rūnaka. The CIA is critical in understanding the cultural / mana whenua effects of the proposal and the Council wishes to thank Kā Rūnaka, and the applicant for providing this document. This CIA is available on the Council websites.

DESCRIPTION OF SITE AND LOCATION

- [25] The resource consent application AEE provides a detailed description of the site and location in pp. 20 – 36, and this was also covered in the Otago Regional Council Notification Report dated 20 March 2025. I agree with and adopt the AEE and ORC Notification report descriptions of the site for the purposes of this report. For additional clarity, I note that the following resource consents for mining have been approved, remain active, and have either been partially or fully given effect to within the Dunedin District:

- LUC-2013-225/A, a variation which superseded LUC-2013-225 (Coronation Open Pit)
- LUC-2016-230/B, a variation which superseded LUC-2016-230 (Coronation North Open Pit)
- LUC-2019-42 (Coronation North Open Pit Expansion, and Trimbells Waste Rock Stack)

HISTORY OF THE SITE/BACKGROUND TO THE APPLICATION

- [26] Where the Applicant's Macraes mining operations have included land within the territorial area of the Dunedin City Council, several resource consents have been issued to date. These are listed within paragraph 25 above.
- [27] The Dunedin City Council compliance and monitoring team has identified several past and ongoing non-compliance issues with existing consents at the applicant's Macraes operations. I acknowledge that the non-compliances are contested by the Consent Holder in many cases. However, the resolution of these compliance issues is not subject of the present application. Therefore, details or reasons for condition non-compliance, whether confirmed or being contested, are not covered in this report.

⁸ The applicant also proposes a new ephemeral wetlands west of Coronation North, within Dunedin City boundaries, and near Innes mills, as offsetting for wetland impacts within Waitaki District.

ACTIVITY STATUS

- [28] Dunedin currently has two district plans: the Operative Dunedin City District Plan 2006, and the Partially Operative Second Generation Dunedin City District Plan 2024 (the “Partially Operative 2GP 2024”, or the “2GP”). Until the 2GP is made fully operative, both district plans need to be considered in determining the proposal’s activity status, and deciding what aspects of the activity require resource consent.
- [29] The activity status of the application is fixed by the rules in place when the application was first lodged, pursuant to Section 88A of the Resource Management Act 1991. However, it is the provisions of both district plans in force at the time of the decision that must be had regard to when assessing the application.
- [30] This resource consent application was lodged on 2 April 2024, when the (now) Partially Operative 2GP 2024 was still the Proposed Second Generation Dunedin City District Plan (“The Proposed 2GP”). More specifically, the version referred to on the DCC website as the (Proposed) “2GP Appeals version – Updated 14 February 2024”.
- [31] Pursuant to Section 88A, this report utilises the provisions in force at the time of lodging in determining the activity status of the application.⁹

Dunedin City District Plan (2006)

- [32] The subject site is within the Rural Zone in the Dunedin City District Plan and is also subject to the High Country Outstanding Landscape Area.
- [33] The rules of the Proposed 2GP relevant to this resource consent application were operative at the time of the consent application being lodged on 2 April 2024, due to no appeals remaining on the relevant Proposed 2GP provisions. Therefore, the relevant rules within the Dunedin City District Plan (2006) must be considered inoperative under RMA s.86F for the purposes of assessing the activity status of this application. Accordingly, the Dunedin City District Plan (2006) does not need to be considered further in assessing the activity status of this application.

Proposed Second Generation Dunedin City District Plan (“Proposed 2GP”)

- [34] The Proposed 2GP was notified on 26 September 2015, and as of 19 August 2024 was made partially operative. At the time of lodging the application, the relevant 2GP rules in the then-proposed plan, the “Proposed 2GP” were considered operative.
- [35] The subject site is within the **High Country (Rural) Zone**, and is subject to the following Mapped Areas:
- Archaeological Alert Layer Mapped Area
 - Taieri Ridge and Mare Burn Mapped Area

⁹ Noting that the activity status would not change due to this distinction, and that the DCC notification report dated 18th March 2025 erroneously referred to the provisions of the ‘Partially Operative 2GP 2024’, and not the ‘Proposed 2GP’, which was the 2GP version correctly applicable at the time of lodging.

[36] Mining is a **discretionary** activity in this location pursuant to Proposed 2GP Rule 16.3.3(15). Assessment guidance is contained within Rule 16.11.2(1)(All discretionary activities), and Rule 16.11.2(4) (Mining),

[37] The Applicant has applied for a resource consent for Earthworks Large-Scale under 2GP Rule 8A.3.2.(3)¹⁰. I acknowledge that the mining proposal and associated ancillary activities will include large volumes of excavation and deposition of earth material and will result in permanent recontouring of the land surface exceeding the relevant Proposed 2GP performance standards for earthworks. However, the Proposed 2GP makes important distinctions between earthworks and mining in the relevant definitions.

[38] The Proposed 2GP definition for earthworks is (underlined for emphasis):

The disturbance and alteration of land surfaces by the re-contouring of land and/or the excavation or deposition of materials including clean fill, soil, or rock.

This definition excludes:

- ...
- *earthworks associated with quarrying or mining, which are included as part of the definition of mining;*

[39] The Proposed 2GP definition for mining is (underlined for emphasis):

The use of land and buildings for the primary purpose of the extraction, winning, quarrying, excavation and associated processing of minerals, sand or aggregates.

[40] I consider that the above definitions exclude earthworks from the earthworks definition when carried out for the primary purpose of mining, and that this includes filling/deposition of waste rock. Accordingly, I consider that earthworks associated with mining do not trigger a resource consent under the Rules within Chapter 8A of the Proposed 2GP. I consider that the excavation and filling of earth, rock, soil is instead captured within Proposed 2GP Rule 16.3.3(15) (Mining). All primary and ancillary earthworks aspects of the proposal within the Dunedin City Council territory, including but not limited to roading and erosion and sediment control, are for the primary purpose of mining. Accordingly, associated activities that would otherwise fit within the earthworks definition, should instead be considered under the mining Rule 16.3.3(15) above.

[41] The Applicant has applied for a resource consent for storage and use of hazardous substances exceeding performance standards of Rule 9.3.4(1)(b), in the quantity and storage requirements proposed for storage and use of explosive magazines that exceed the quantity limit in A6.2.1(3). Under the Proposed 2GP this is a **restricted discretionary** activity pursuant to Rule 9.3.4(4). Matters of discretion are restricted to *effects on health and safety* pursuant to Rule 9.5.3(7)(a).

¹⁰ Application AEE p. 79.

- [42] In the original application AEE lodged on 2 April 2024, the Applicant applied for a resource consent under *“Rule 16.3.4.24 - Indigenous vegetation clearance - large scale in Rural Zones”*¹¹. This consent requirement was queried by the Council in a further information request, seeking to determine how this requirement for a resource consent had been reached via the relevant performance standards. The Applicant clarified in the response to the Council’s request that the rule assessment would be clarified in the updated AEE which was at that stage yet to be provided.
- [43] The subsequent updated application AEE was received by the Council on 18 February 2025, and clarified that the vegetation clearance required for the proposal within the Dunedin City Council boundaries was to be classified as ‘all other vegetation clearance’, a permitted activity pursuant to Rule 16.3.4(23).
- [44] The above classification of the required vegetation clearance in the updated application AEE was reached on the basis that *“The activity complies with all vegetation clearance standards in Rule 16.6.11.”* and *“Notably, the area to be cleared is not”*.¹²
- *“Located within an urban biodiversity mapped areas (16.6.11.1);*
 - *Covered by indigenous vegetation (16.6.11.2);*
 - *Located in a protected area (16.6.11.3) including within a minimum setback from a water body (Rule 10.3.2.2);*
 - *Populated by any protected species (16.6.11.4); or*
 - *Located within a hazard overlay zone or dune system mapped area (16.6.11.5).”*
- [45] The Applicant determined the performance standards in Rule 16.6.11.2 (Requiring that indigenous vegetation clearance complies with Rule 10.3.2.1) would be complied with via the following:
- “There is an estimated 1.84 ha of narrow-leaved tussock grassland in the DCC area, and all except 0.07 ha (700 m²) (area within white dashed line) is within existing Coronation and Coronation North consented footprints. All of the 700m² of tussock grassland is in the Buffer area of the Zone of Influence (ZOI) and will not be removed.”*¹³
- [46] On 10 March 2025, the Council contacted the applicant to clarify imagery in the Trimbells WRS (waste rock stack) closure stability report (Appendix 5 of the application documents). The imagery in figure 6 of that report appeared to contravene the above statements as it depicted what could be interpreted to be additional vegetation clearance of tussock land to construct the proposed toe drain and buttress associated with the Trimbells WRS closure.
- [47] On 12 March 2025, the Applicant provided a response which I summarise as:

¹¹ Noting that the Rule 16.3.4.24 for Storage and use of hazardous substances was erroneous, and the Council always understood that the Applicant’s intent was to apply for indigenous vegetation clearance large-scale, pursuant to Rule 16.3.4.22.

¹² Updated application AEE pp. 79-80, and Appendix 32, Annexure 1, p.14.

¹³ Updated application AEE Appendix 32, Annexure 1, p.13.

- The depicted extent of the proposed toe drain, and buttress should be taken as indicative only,
- This aspect of the proposal still requires a detailed design, and
- In the event that the future detailed design confirms that works beyond the WRS footprint are necessary, the 1,000m² of tussock grassland clearance permitted in this location under Rule 10.3.2.1(c) should be comfortably sufficient to accommodate this.

[48] I agree that any outcome requiring tussock grassland clearance in this location would likely remain within the parameters permitted by Rule 10.3.2.1.

[49] The potential for (indigenous) tussock grassland to be cleared as part of the Trimbells WRS closure does raise the question whether the correct permitted activity rule applicable should be 'All Other Vegetation Clearance' Rule 16.3.4(23) as applied for, or the 'Indigenous Vegetation Clearance Small-Scale' Rule 16.3.4(21). Both rules are permitted activities and are subject to the same performance standards, so I consider that making a distinction in this case is an academic, and unnecessary exercise. I therefore concur that the vegetation clearance within the Dunedin Council boundaries is a permitted activity and that Rule 16.3.4(23) (Other Vegetation Clearance) can be applied in this case.

[50] The Applicant has not applied for any DCC consent to contravene 2GP noise standards. The Proposed 2GP Noise Rule 9.3.6(1)(d) sets permitted activity noise limits in the Rural Zone at property boundaries where there are no noise sensitive activities within 20m of the boundary. Noise sensitive activities include residential activities. The property¹⁴ definition in the 2GP includes records of title in common ownership. In this case the Applicant land ownership extends over a large area of land surrounding the proposed mining operations at Coronation, and Coronation North, and land ownership continues southeast along the haul road beyond where this haul road leaves the Dunedin District. Accordingly, the closest 'property boundary' is several kilometres away, and mining activities conducted within the Dunedin City Council boundaries, (including hauling of waste rock and ore) are not expected to trigger any resource consent requirement for noise pursuant to Rule 9.3.6.

Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 ("the NES-CS")

[51] The Applicant did not apply for a resource consent under this NES for soil disturbance of a HAIL site in the lodged application AEE.

[52] The Council requested that the Applicant provides an assessment of the activity against the regulations of this NES, and received a letter from the Applicant on 5 March 2025 confirming that the Applicant was also applying for a resource consent under Regulation

¹⁴ Property means "Land held by one person, associated persons, company, or trust in one or more Certificates of Title, and managed as one entity".

11 for soil disturbance of a HAIL site not meeting the permitted conditions of Regulation 8(3)¹⁵.

- [53] Because the site is a HAIL site, the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health applies. Regulation 8 of the National Environmental Standard states that for soil disturbance the following conditions must be met:

Disturbing Soil

(3) Disturbing the soil of the piece of land is a permitted activity while the following requirements are met:

(a) Controls to minimise the exposure of humans to mobilised contaminants must—

(i) Be in place when the activity begins:

(ii) Be effective while the activity is done:

(iii) Be effective until the soil is reinstated to an erosion-resistant state:

(b) The soil must be reinstated to an erosion-resistant state within 1 month after the serving of the purpose for which the activity was done:

(c) The volume of the disturbance of the soil of the piece of land must be no more than 25 m³ per 500 m²:

(d) Soil must not be taken away in the course of the activity, except that,—

(i) For the purpose of laboratory analysis, any amount of soil may be taken away as samples:

(ii) For all other purposes combined, a maximum of 5 m³ per 500 m² of soil may be taken away per year:

(e) Soil taken away in the course of the activity must be disposed of at a facility authorised to receive soil of that kind:

(f) The duration of the activity must be no longer than 2 months:

(g) The integrity of a structure designed to contain contaminated soil or other contaminated materials must not be compromised.

- [54] The proposal fails to comply with the above permitted activity conditions for the NES-CS. The details of the non-compliance have not been provided by the Applicant to date. However, I currently assume the non-compliance to include exceedances of the maximum 2-month activity duration, and exceedance of the permitted soil disturbance volumes. The Applicant may wish to confirm how the proposal does not comply with the permitted regulations prior to the hearing.

¹⁵ Refer to the Applicant correspondence received by the relevant councils, on 5 March 2025, and forming part of the suite of notified information.

[55] The proposal fails to comply with the requirements under the National Environmental Standard for controlled and restricted discretionary activities in that a DSI report has not been provided to the Council (I understand a DSI does not currently exist). As a result, the proposal is a **discretionary** activity under Regulation 11 of the National Environmental Standard.

Application to vary conditions of existing resource consent conditions under RMA s.127.

[56] As outlined in the application AEE (Section 4.2.1, pp. 80-84), the proposal seeks variations to the following relevant Dunedin City Council consents to ensure compatibility with the current proposal:

- LUC-2013-225 (Coronation)
- LUC-2016-230¹⁶ and LUC-2013-225A (Coronation North)
- LUC-2019-42 (Coronation North Extension, and Trimbells WRS)

[57] This is a **discretionary** activity pursuant to RMA s127(3)(a).

Overall Application Activity Status

[58] Overall, the application is considered to be a discretionary activity under the provisions of the Proposed 2GP, section 127 of the RMA, and the NES-CS. However, the following points are also relevant:

- a. The applicant has applied the bundling principle to all consents in the application¹⁷.
- b. Regarding the Waitaki District Plan the *“proposed mining activity will not meet Rural Zone Critical Zone Standard 4.5.1 (Noise) because night-time noise levels at the notional boundary of two residential dwellings in the Rural General Zone are predicted to exceed 40 dBA on occasions (due to hauling of waste rock and ore). Following the direction in Section 1.8.4 of the Waitaki District Plan, the proposed Mining Activities located in the Rural Scenic Zone are therefore a non-complying activity.”*¹⁸
- c. Accepted planning practice is that bundling resource consent activities is appropriate where the activities for which consents are being sought overlap to such an extent that they cannot be realistically or properly separated.
- d. In this case the mining and hauling of mined materials¹⁹, (particularly ore) require cross-boundary (district boundary) movements of haul trucks, and in some cases mining activities such as blasting, and excavation/loading, or dumping of waste

¹⁶ Noting that the Application AEE, Table 4.1, pp.81 seeks variations to the conditions of (underlined for emphasis) *“LUC-2016-234 and LUC-2013-225A”*. I note that the LUC-2016-234 consent reference appears incorrect and should be LUC-2016-230/B (a s.127 variation of LUC-2016-230 issued 27 Nov. 2019). LUC-2016-234 is an unrelated reference, and LUC-2016-230 was superseded with the issue of LUC-2016-230/B, with LUC-2016-230/A recorded on DCC records as withdrawn.

¹⁷ Application AEE p. 108. *“As a result of “bundling”, the overall activity status of this application is to be considered be non-complying.”*[Sic]

¹⁸ Application AEE, section 4.1.2, p.78.

¹⁹ The proposed activities which cause the non-complying activity status in the Waitaki District Plan via noise emissions.

rock may require cross-boundary, or ‘on-boundary’ actions. Further, ore mined in the Dunedin District must be hauled to and processed within the Waitaki District at the location of the processing plant, and the layout of the proposal requires that haul trucks return to the Dunedin District as part of this process. Therefore, I consider the mining activities in the Dunedin District cannot function, and would not occur, without the noise contraventions in the Waitaki District.

- [59] Accordingly, I consider that the relevant rules of each district cannot be realistically, or properly separated in this case and the activity status should be bundled.
- [60] A point also worth considering, is that in the past the noise contraventions in the Waitaki District have sometimes been limited to the haul trucks moving across the boundary between the Macraes Mineral Zone, and the Rural Scenic Zone, so have been treated by previous panels as a “minor technical breach”, and a “perverse outcome not in line with the thrust of the plan”. This has resulted in unbundling of non-complying activity noise contraventions from other activities. The non-complying noise rule contravention in the Waitaki District Plan for this proposal is due to night-time noise limit exceedances at the notional boundary of two residential receivers²⁰, so the noise breach in the current case appears to be a substantive contravention of a non-complying rule, rather than a technical breach.
- [61] Accordingly, the proposal is to be processed as a **non-complying** activity overall.
- [62] As a non-complying activity, the permitted activity rules and performance standards of the district plan do not directly apply to the activity. However, they can offer guidance as to the suitability of the proposed activity. I refer readers of this report to the assessments of the permitted baseline beginning below in para. 74.

NOTIFICATION AND SUBMISSIONS

- [63] The Applicant requested that the application is publicly notified²¹.
- [64] No written approvals were submitted with the application. The Applicant has stated in the application²² that they have obtained the written approval of the owner and occupier of 1668 Macraes Road. I note this address is within the Waitaki District, so is not a matter for consideration of the Dunedin City Council.
- [65] In accordance with Section 104 of the Act, where written approval has been obtained from affected parties the consent authority cannot have regard to the effects of the activity on that person.
- [66] The application was publicly notified on 20 March 2025.

²⁰ Application AEE, section 4.1.2, p.78., and Waitaki District Council s.42A report pp.11-12, paras. 18,19.

²¹ Application AEE p. 214 *“OceanaGold requests that this consent application is publicly notified pursuant to s.95A(3)(a) of the RMA.”*

²² Application AEE section 9.3.1, p.220.

- [67] Copies of the application were sent to parties the Council considered might be directly affected by, or have an interest in, the proposal. Submissions closed on 1 May 2025.
- [68] Seven submissions were received by the close of the submission period.
- [69] The Councils received a late, eighth submission on 2 May 2025 from Mr Neil Roy. The Council was informed by the ORC hearings coordinator by email on 9 May 2025 that the hearings panel chair had accepted the late submission. The late submission opposes the application, and relates to several matters including use of incorrect place names, post-mining road reinstatement, lighting, dust.
- [70] No submissions were in support, five submissions were opposed, and three submissions were neutral.
- [71] All received submissions are considered to be relevant to Dunedin City Council, either substantially, or in part.
- [72] The submissions are summarised in the table below, and a full copy of the submissions is attached in Appendix 1.

Name of Submitter	Support/ Oppose	Summary of Submission	Wish to be heard?
Mr Dean Haweturi Parata, and Mr Trevor Hay	Oppose	This submission relates to adverse cultural impacts of the mining operations, describing impacts on Māori heritage, wahi tapu, impacts on greenstone gathering, mahika kai, lizards, and native flora and fauna. The submission does not stipulate a specific outcome sought.	Not stipulated
Director-General of Conservation	Neutral	This submission outlines the various values of the areas, and outlines reasons for submitting as significant adverse effects on terrestrial indigenous fauna, flora, and habitats if consent issued without appropriate conditions. The submission seeks: • To ensure that any consents granted have robust conditions and that measures to address adverse effects including offsetting and compensation will be effective and enduring. • That threatened species with limited distribution do not face any further risk because of this proposal. • That cumulative effects are addressed. • More enforceable, and appropriate conditions, with robust monitoring and compliance. • Best practice for management plans. • That offsetting and compensation for effects on indigenous biodiversity follow the effects management hierarchy, current policy, and best practice;	Yes

		That all management actions included in the effects management package requiring funding are made transparent in the conditions, and consequences for non-compliance are outlined, including in perpetuity for action by third parties where necessary.	
Fire and Emergency New Zealand	Neutral	The specific parts of the application that Fire and Emergency's submission relates to are: - The provision of emergency access (including hardstands) in accordance with the Designers' guide to firefighting operations: Emergency vehicle access (F5-02-GD). - Firefighting water supply and the conditions on fire prevention and how these are implemented	Yes
Otago Fish and Game Council	Neutral	This submission mainly relates to the long-term effects and outcomes of the proposal, including water effects, effects on ecology, and geotechnical stability, especially where in regard to damming of contaminated water. The main relief sought comprises the following; - Greater certainty regarding the implementation of all mitigation measures, including those that may require future consenting or that extend beyond the 35-year maximum consent term permitted by the RMA. - Use of a comprehensive and guaranteed financial mechanism to properly fund and implement very long-term rehabilitation and mitigation activities. - Use of the precautionary principle when making decisions which will influence long-term and perpetual effects.	No
Royal Forest and Bird Protection Society of New Zealand Incorporated	Oppose	The submission relates to: - All matters which adversely affect indigenous biodiversity. - Significant adverse effects on indigenous vegetation, fauna habitat, - Applications inconsistency with regulatory documents including: - RMA Section 6 and 7 - NPS-IB - Proposed RPS - Operative RPS - Uncertainty about the scale of effects. - Inappropriate use of compensation and offsetting for a threatened species (NPS-IB). - Effects on NZ Falcon and pipit and other indigenous birds and species - Uncertainty about the mine's end of life - Cumulative effects on the environment. The submission seeks that the application is declined, but if approved includes significant	Yes

		changes to effects management, mitigation and compensation to account for the significant effects on indigenous species and habitats.	
KĀTI HUIRAPA RŪNAKA KI PUKETERAKI, TE RŪNAGA O MOERAKI, AND TE RŪNAKA O ŌTĀKOU (Kā Rūnaka)	Oppose	The submission relates to: • Management of long-term environmental effects, and uncertainty of these effects, including land restoration requirements, and offsetting and mitigation. • Biodiversity effects. • Landscape, and visual amenity effects. • Cultural effects, described as adverse effects on mana whenua values, land, taoka species, and wahi tipuna. • Economic effects on the Rūnaka • Concern regarding who will assume management and financial responsibility for long term environmental restoration and management. • Views that the application has not included adequate consultation with iwi, and does not appropriately deal with the matter of climate change, and potential implications of climate change.	Yes
Mr Richard Geels	Oppose	The submission relates to adverse effects of noise, air and light pollution, and opposes location of new tailings close to private dwellings.	Yes
Mr Neil Roy	Oppose	The submission relates to adverse effects of lighting, incorrect names of roads and other locations, salvage and display of historical mining items, adverse access effects resulting issues with public access on Golden Point Road despite existing consents requiring this to be facilitated, and adverse effects on access regarding Matheson Road reinstatement, adverse effects on grazing/rural productivity resulting from poor quality of rehabilitated land, inadequate location of dust gauges, inadequate weed control not complying with existing conditions.	Not stipulated

ENVIRONMENTAL EFFECTS OF ALLOWING THE ACTIVITY

[73] Section 104(1)(a) of the Act requires that the Council have regard to any actual and potential effects on the environment of allowing the activity. 'Effect' is defined in Section 3 of the Act as including-

- a) Any positive or adverse effect; and
- b) Any temporary or permanent effect; and
- c) Any past, present, or future effect; and
- d) Any cumulative effect which arises over time or in combination with other effects—regardless of the scale, intensity, duration or frequency of the effect, and also includes –
- e) Any potential effect of high probability; and

f) Any potential effect of low probability which has a high potential impact.

Permitted Baseline

- [74] An important consideration for the assessment of effects is commonly referred to as the permitted baseline assessment. The purpose of the permitted baseline assessment is to identify the non-fanciful effects of permitted activities and those effects authorised by resource consent to better quantify the degree of the effects of the proposed activity. Effects that do not exceed those allowed within the permitted baseline can be disregarded in the effects assessment of the activity, noting this is at the discretion of the consent authority.
- [75] In this case there no permitted baseline relating to mining land use activities in the Rural Zone, due to Rule 16.3.3(15) making all mining activities a discretionary activity where located outside of a Residential Transition Overlay Zone, and not within other relevant overlay zones²³.
- [76] The permitted baseline for hazardous substances quantity limits and storage requirements comprises *"25kg of Industrial explosives (e.g. TNT) and all other 1.1."*
- [77] The permitted baseline above should be considered in the context of the wider site crossing territorial boundaries, where there are existing resource consents authorising the use of hazardous substances at a much larger scale. However, I consider the above 2GP permitted baseline has little use in determining the appropriateness of the activity in this context. It is impractical to assess the comparable effects of the baseline with very similar activities as those consented elsewhere on site, therefore it shouldn't be applied to this proposal.
- [78] The NES-CS regulations provide a permitted baseline for soil disturbance on HAIL sites that includes:
- controls to minimise the exposure of humans to mobilised contaminants must—
 - (i) be in place when the activity begins:
 - (ii) be effective while the activity is done:
 - (iii) be effective until the soil is reinstated to an erosion-resistant state:
 - the soil must be reinstated to an erosion-resistant state within 1 month after the serving of the purpose for which the activity was done:
 - the volume of the disturbance of the soil of the piece of land must be no more than 25 m³ per 500 m²:
 - soil must not be taken away in the course of the activity, except that,—

²³ Such is the case with this proposal being outside any ONL, SNL, NCC, ONF, ONCC/HNCC, or an ASBV as defined in the 2GP.

(i) for the purpose of laboratory analysis, any amount of soil may be taken away as samples:

(ii) for all other purposes combined, a maximum of 5 m³ per 500 m² of soil may be taken away per year:

- soil taken away in the course of the activity must be disposed of at a facility authorised to receive soil of that kind:
- the duration of the activity must be no longer than 2 months:
- the integrity of a structure designed to contain contaminated soil or other contaminated materials must not be compromised.

[79] I consider that this NES-CS permitted baseline is of little assistance in assessing the appropriateness of the effects of the activity, as the details of the activities non-compliance with the NES regulations are unknown. My current 'assumptions' are that the volumes will be exceeded by an unknown margin, and that the activity will exceed the 2-month duration limit.

Receiving Environment

[80] The receiving environment is described in the consent application AEE²⁴ and consider this to be accurate and useful, particularly regarding identifying residential receivers. However, this section of the application does largely focus on the aquatic receiving environment so isn't as relevant to DCC assessments. I refer readers to the ORC notification report for a detailed description of the existing environment, particularly within sections 6.2, 6.3, 6.4, and 6.8 for descriptions that are relevant to DCC assessments. I consider this to be adequate for the purposes of this report, and therefore agree with and adopt these descriptions.

Matters of Discretion

[81] In this case the Council's discretion is not technically restricted, due to the non-complying status applied to the application under the bundling principle²⁵.

RMA s.104 assessment

Assessment of Effects s.104(1)(a)

[82] Paragraphs 83 – 88 below set out methodologies and other information relevant to the following effects assessments.

[83] Due to the joint processing of the application by three Councils, I acknowledge the potential for 'double-handling' of effects matters, and resulting inefficiencies. To avoid this to the extent possible for a proposal of this nature, mitigations have been discussed

²⁴ Application AEE, Section 2.3 Zoning and land use.

²⁵ Refer to paragraphs 58-61 of this report above.

and implemented by the relevant Councils for assessment of effects of the proposal from early in the assessment process, since the application was lodged:

- a. The same technical expert services for peer review and assessment have been jointly engaged, or engaged by one Council on behalf of the relevant councils where possible. These include:
 - Mr Colin Macdiarmid, Geotechnical Team Leader at GeoSolve, who was engaged by ORC on behalf of all the Councils for geotechnical assessment services.
 - Mr Glenn Davis, Managing Director e3 Scientific, who was engaged by ORC on behalf of all councils for terrestrial ecology/biodiversity services.
 - Mr Philip Blakely, Blakely Wallace Associates, who was engaged by WDC on behalf of both that Council and DCC for landscape architecture services.
 - Mr Peter Woods, DCC hazardous substances compliance officer, who provided assessment for both DCC and the District Council regarding storage and use of hazardous substances contravening district plan rules in both Waitaki and Dunedin.

[84] I note that the ORC notification report states that, out of caution, and for several other reasons²⁶ that ORC assesses terrestrial ecology/ terrestrial indigenous biodiversity effects which occur outside of the beds and banks of wetlands, rivers, and lakes. This ORC involvement in assessment of terrestrial ecology alongside the WDC and DCC is welcomed as it can only add to the rigour of such assessments, and these matters are central to assessing the proposal.

[85] This effects assessment is limited to assessing effects of the proposal where they occur within the Dunedin City boundaries. However, in the case of the terrestrial ecology effects assessments, this section also considers parts of the proposal which are located within Waitaki District. These aspects of my assessment are intended to assist the hearings panel in making any assessments about the wider proposal alongside the other Council s.42A reports, but are also somewhat out of necessity as none of the expert technical terrestrial ecology assessments in the Application documents, or in the attached Council evidence separate the effects of the proposal (adverse effects or otherwise) into those that occur within the relevant territorial area of each Council.

[86] The assessment of the effects of mining activities is guided by 2GP Rule 16.11.2(4), noting that the unrestricted discretionary status of the proposal under the 2GP rules does not restrict matters for discretion.

[87] Rule 16.11.2(4) states:

Relevant objectives and policies (priority considerations):

²⁶ ORC Notification Report Section 9.9, pp. 86.

- b. Objectives 2.2.2, 16.2.2, 16.2.3, 16.2.4, 5.2.1.*
- c. Policies 2.3.1.2, 2.3.1.8, 2.3.1.9*
- d. Any adverse effects on the amenity of residential activities on surrounding properties will be avoided or, if avoidance is not practicable, adequately mitigated (Policy 16.2.2.5).*
- e. Adverse effects on rural character and visual amenity from large scale development will be avoided or minimised as far as practicable (Policy 16.2.3.5).*
- f. There is reasonable certainty that land will be restored or rehabilitated to an acceptable standard with respect to landform and to enable a return to productive, recreational or conservation use as soon as possible (Policy 16.2.3.4).*
- g. The mining activity is located on highly productive land due to operational requirements and there are no practicable alternative locations (Policy 16.2.4.2.b).*
- h. See Section 9.7 for guidance on the assessment of resource consents in relation to Objective 9.2.2 and effects related to public health and safety.*

Potential circumstances that may support a consent application include:

- i. The activity will be set back a sufficient distance from its own property boundaries to avoid or adequately mitigate any adverse effects from noise, odour, dust, contaminants or visual effects on surrounding properties.*
- j. For mining sand from dunes or beaches, there will be no significant impact on the look of the area.*
- k. Management plans or other mitigation measures will be used to adequately manage any adverse effects from dust, vehicle movements and operating noise on surrounding properties.*
- l. There will be no adverse effects in terms of land instability.*

General assessment guidance:

- m. In assessing effects on amenity, Council will consider the effects of vehicle movements on the site as well as any significant changes to the number or nature of vehicle movements on the adjoining road.*
- n. In assessing an application for mining, Council will consider:*
 - i. the functional and operational needs of mining, particularly when considering what is 'practicable' in terms of policies 16.2.2.5, 16.2.3.5 and 16.2.4.2; and*
 - ii. the transport benefit of locating close to where the product of mining is required.*

- o. In assessing effects on rural character values and amenity, Council will consider whether any proposed restoration or rehabilitation measures will ensure that final landforms:*
 - i. screen or enhance the view of excavated faces from surrounding public and residential viewpoints through appropriate landscaping, plantings or siting of public amenities; and/or*
 - ii. minimise evidence of landfills or mining activity by blending final contours with surrounding landforms to achieve as natural appearance as possible, and by providing for the establishment of vegetation cover appropriate to the local character.*
- p. In determining whether land is 'highly productive land', Council will consider its LUC classification, the high class soils mapped area (HCS), as well as any other evidence related to productive values. The expectation is that land in the HCS and/or that has a LUC 1-3 classification will be considered 'highly productive land'. Note that information about the LUC classification is provided on the Landcare Research website LUC 1-3 areas are shown on the Data Map.*

Conditions that may be imposed include:

- q. Controls on overall waste volumes for landfills.*
- r. Restrictions on aggregate processing activity for mining.*
- s. A requirement for buffer areas and bunds.*
- t. For quarries, a quarry management plan addressing noise, dust and other amenity effects.*
- u. A site restoration or rehabilitation plan and/or bond to provide for site restoration or rehabilitation.*

Relevant guidance from other sections (priority considerations):

- v. See Section 10.7 for guidance on the assessment of resource consents in relation to Objective 10.2.1 and effects related to biodiversity values.*
- w. (Remaining guidance not relevant).*

[88] The effects of the applicant-proposed variations to the existing district council consent conditions are assessed within the transportation effects assessment as they are considered to have no effects outside of that matter within the Dunedin City Boundaries.

Positive Effects

Applicant Assessments

[89] Positive economic effects of the proposal in terms of revenue, expenditure, direct and indirect employment, and associated social benefits at a national, regional, and local/district scale are outlined in the Application AEE²⁷, and are based on information

²⁷ Application AEE, pp. 111 -114.

contained within Appendix 25 of the Application documents, being an economic impact assessment of the proposal by Brown Copeland & Co.

Submissions

- [90] The submission by Kāti Huirapa Rūnaka ki Puketeraki; Te Rūnanga o Moeraki; and Te Rūnaka o Ōtākou (Kā Rūnaka) states that the submission relates to “economic effects on Kā Rūnaka”. The submission does not elaborate on this further and Kā Rūnaka may seek to explain this further in any written evidence provided prior to the hearing, or by speaking at the hearing.

Council Assessments

- [91] The Councils have not engaged any independent expert to peer review the expert assessment of the economic benefits of the proposal. I acknowledge the above Council uncertainty about Kā Rūnaka’s submission on the matter, and would like to understand this matter to a better degree, in order to provide some analysis of these effects. Notwithstanding the Council’s uncertainty about the submission aspects, I note that a significant proportion of the Macraes Mining Project staff live within the Dunedin City boundaries. In the absence of any evidence to the contrary I agree with and adopt the application assessment of the proposal’s significant positive economic, and associated social effects.

Effects on Terrestrial Indigenous Biodiversity, and Ecology

Applicant Assessments

- [92] The Applicant commissioned Ahika Consulting (Now known as Whirika Consulting), to carry out assessment of project impacts on vegetation and avifauna and to outline impact management actions. These assessments are within Application AEE Appendix 15 (Ahika Assessment of Effects on Vegetation & Avifauna), and Application AEE Appendix 16 (Whirika Ecological Impact Management Plan). Whirika Consulting also provided the Applicant with further information to provide to the Councils within Application AEE Appendices 32 and 33.
- [93] The Applicant commissioned Bioresearches to provide assessments of effects on lizards. The resulting report is found within Application AEE Appendix 17 (Bioresearches Herpetofauna Survey and Assessment). Bioresearches was also commissioned by the Applicant to provide a Lizard Management Plan. This management plan is found within Application AEE Appendix 18.
- [94] The Applicant commissioned Bioresearches to provide assessments of effects on terrestrial invertebrates. The resulting report is found within Application AEE Appendix 19 (Bioresearches Invertebrate Survey & Assessment).
- [95] The Application AEE summarises and presents information from the above documents in Section 5.6, and provides the following summary (prior to ecological management actions):

“For the most part, the MP4 Project is assessed as having a low or moderate effect on the terrestrial ecological features. The exceptions to this are:

- An adverse effect on three ephemeral wetlands at Coronation 6 which is assessed as a very high impact;*
- Adverse effects on tussockland, desert broom, NZ falcon, pipit and potentially the moth *Orocrampus sophistes*, if its presence is confirmed, at Golden Bar which are assessed as a high impact; and*
- Adverse effects on native lizards which are assessed as having a high impact.*

These effects will be managed using the effects management hierarchy, as outlined in the Ecological Impact Management Plan and discussed further in Section 6 of this AEE.”²⁸

[96] The Application AEE outlines that the overall level of effect on terrestrial ecology will comprise a no net loss outcome²⁹, and preferably, a net gain in indigenous biological diversity for those components which are being offset over 10 years³⁰ once measures such as the Murphy’s Ecological Enhancement Area (MEEA), offsets, and other management actions in Section 6 of the Application AEE are implemented, completed, and are subject to ongoing management.

[97] The Application AEE includes information regarding environmental management actions proposed to manage terrestrial ecology effects of the proposal in Section 6. I do not repeat these in detail in this report but refer readers to this reference³¹, the Application AEE Section 6.3, pp. 192-206, and Appendices 16, and 18 for details of the following:

- Avoidance measures, including siting of waste rock stacks (WRS), roads, and other infrastructure.
- Remediation measures, including WRS lizard habitat, and tussock rehabilitation, new pit lakes, rehabilitation of exotic vegetation communities inhabited by lizards; and planting the Coronation Spillway with narrow-leaved tussock grasses and *Celmisia hookeri* plants.
- Mitigation measures including dust, fire, accidental spill, and noise management, weed surveillance, erosion and sediment controls, rescue/salvage and transfer of rare plants, threatened invertebrates, lizards, and if required, host plants for *Orocrampus sophistes*.

[98] Sections 6.3.4, 6.3.6, 6.3.7, 6.3.8, and 6.3.9 of the Application AEE respectively provide summary details of:

²⁸ Application AEE section 5.6, pp. 144-145. See p. 145 for quoted statement.

²⁹ Application AEE Table 5.5, p. 169.

³⁰ Application AEE Section 6.3.4, p 196.

³¹ Application AEE Table 6.1, pp 170-180.

- Management of residual adverse effects on tussockland, riparian vegetation, lizards and lizard habitat, birds and bird habitats, and invertebrate habitat via offsetting. The proposed offsetting includes a shrubland offset, a tussockland offset, and creating an Ecological Enhancement Area.
- Establishment of the Murphys Ecological Enhancement Area (MEEA).
- Offsetting actions at the MEEA including predator fencing, legal protection in perpetuity, funding to support the management over the term of the offset (including ecological oversight), an Ecological Enhancement Area Management Plan.
- Ecological Compensation including predator control, a lizard enhancement project, Rock Tor Replacement, a bird enhancement project, research into invertebrate community response to habitat protection.
- Rehabilitation, on the understanding that general mine rehabilitation may provide additional biodiversity benefits that are not otherwise quantified or accounted for.

[99] The Application AEE Appendix 15 (Ahika Assessment of Effects on Vegetation & Avifauna)³² provides information on cumulative effects on vegetation and avifauna, including that over 30+ years the Applicant's mining projects have impacted *"approximately 2,150 ha of land, of which an unknown proportion was indigenous vegetation"*, and that each project has implemented an impact management procedure to address project effects, and minimise the environmental impact. The Appendix 15 report also goes on to state:

"These cumulative effects have reduced the extent and quality of the indigenous vegetation communities and habitats for indigenous fauna, but quantifying the extent of these effects is difficult to measure beyond the changes in extent of vegetation communities reported in Section 6.1.1."

[100] Application AEE Appendix 15 Section 6.1.1³³ outlines the ecological impacts of the Coronation Pit extension (Coronation stage 6) as:

"the clearance and permanent removal of habitat probably used for breeding by an unknown number of pairs of pipit (At Risk - Declining), possibly used for feeding by 1-2 pairs of banded dotterel and which provides habitat for the Not Threatened brown creeper and grey warbler. The habitats that will be removed are potential hunting and breeding habitat for the Threatened - Nationally Vulnerable falcon."

"the clearance and permanent removal of approximately 2.8 ha of semi-natural or indigenous vegetation and 2.8 ha of exotic vegetation outside of the mapped consent area. In addition, there may be some effect on the surrounding vegetation resulting from project activities extending up to 100 m beyond the project area and outside of

³² p. 118.

³³ p.79.

the mapped consent extent on 6.2 ha of indigenous vegetation and 1.1 ha of exotic vegetation.”

“the permanent loss of 2.7 ha of narrow-leaved tussock grassland with some effect such as deposition of dust on the 4.9 ha in the buffer area.”

- [101] The Appendix 15 report does not differentiate between the Coronation impacts occurring within the territorial areas of Dunedin City, and Waitaki District in Section 6.1. I note that these vegetation impacts such as the loss of narrow leaved tussock land will likely occur entirely outside of the Dunedin City Council boundaries, while avifauna impacts (excluding the impacts in Paragraph 100 above which are in Waitaki District) such as temporary displacement during mining may occur within either district, where any mining/waste rock activities such as the construction of the Coronation North Backfill are occurring.
- [102] The application AEE provides a cumulative effect assessment for terrestrial ecology on p. 169, stating that the cumulative effects of the proposal will comprise no net loss. I do not understand how this assessment of the overall level of cumulative effects on terrestrial ecology has been reached in the context of the varied success of past and present management actions for rehabilitation, offsetting, and compensation under previous consents. However, I do assume that the success of ecological management actions are relied upon to reach the Applicant’s conclusion.
- [103] The Applicant has drafted a set of proposed conditions for the WDC and DCC consents, including many to manage the adverse effects of the proposal where they relate to terrestrial indigenous biodiversity. The applicant provided these proposed conditions to the Councils shortly after the close of submissions, on 30 April 2025 (See Appendix 3 attached to this report).

Submissions

- [104] Four submissions focussed on the adverse effects of the proposal on terrestrial ecology/ indigenous biodiversity. The relevant submissions are those from Kā Rūnaka, Royal Forest and Bird Protection Society of New Zealand Incorporated, Mr Dean Haweturi Parata and Mr Trevor Hay, and the Director-General of Conservation.
- [105] I acknowledge that the relevant submissions were written in the context that no proposed conditions had yet been made available by the applicant, and accordingly were not available to submitters for the purpose of informing details of how management of adverse terrestrial ecology effects would be achieved.
- [106] The Kā Rūnaka submission states that the submission relates to the following matters, which I consider are associated with the effects on Terrestrial Indigenous Biodiversity, and Ecology:

- a. Impacts on biodiversity*
- b. Land restoration requirements and certainty;*
- c. Durability and sustainability of proposed offsets and mitigation;*

[107] The submission does not provide specific reasons why the above effects are inappropriate or otherwise seek to describe the level of effects resulting from the proposal, but does appear to rely on a stated³⁴ lack of detailed information, and lack of a credible long term environmental management plan backed by appropriate consent conditions, and relevant long term environmental safeguards in opposing the consents sought.

[108] The Royal Forest and Bird Protection Society of New Zealand Incorporated (Forest and Bird) Submission provides the following statements on relevant effects:

“The effects on indigenous vegetation and the habitat of indigenous fauna are too significant and therefore inappropriate.

There is also considerable uncertainty about the extent of ecological effects, which risks greater adverse impacts on indigenous biodiversity and freshwater than currently assessed.

*The reliance on offsetting and compensation is not appropriate in the case of effects on the threatened moth species *Orocrambus sophists*, and” [sic]³⁵*

[109] The remainder of Forest and Bird’s submission focuses largely on policy rather than effects matters so is discussed within later sections of this report.

[110] The Mr Dean Haweturi Parata and Mr Trevor Hay submission states that:

“they have wiped out 90 % Native lizards and skinks habitat - change the topographical landscape ruining native flora and fauna” [Sic]

[111] This submission does not elaborate any further on these matters.

[112] The Director-General of Conservation’s (DOC) submission states that *“The Proposal could potentially have significant adverse effects on the environment without the application of appropriate conditions, in particular on terrestrial indigenous fauna, flora, habitats, and freshwater ecosystems and species.”* And notes that:

“without a set of conditions, it is not clear how OGL will manage the effects of this proposal.”³⁶

(DOC) “seeks to ensure that any consents granted have robust conditions and that measures to address adverse effects including offsetting and compensation will be effective and enduring”³⁷

[113] The DOC submission does not make further assessment of terrestrial indigenous biodiversity, and ecology effects but does seek that the following requirements are made to address these effects (If the consent authorities are minded granting the applications):

³⁴ Kā Rūnaka submission para. 13.

³⁵ Forest and Bird Submission, para. 1

³⁶ DOC submission para. 11.

³⁷ DOC submission para. 9.

- *“management plans follow best practice;*
- *offsetting and compensation for effects on indigenous biodiversity follow the effects management hierarchy, current policy, and best practice”*

[114] I have considered the above relevant submissions, as they relate to effects on terrestrial ecology, indigenous biodiversity.

Council Assessments

[115] The information provided with the application documents appears to include some inconsistencies regarding the areas of certain vegetation communities affected by the proposal. This matter and the reason for the inconsistencies is discussed within the ORC notification report³⁸ and is not revisited in this report on the instruction of Minute 1 from the Commissioners, apart from acknowledging that the relevant areas affected may need be considered approximate to a certain degree. This matter does not affect the assessments of adverse effects within the Dunedin City boundaries to any great degree, due to the adverse terrestrial ecology/indigenous biodiversity effects of the proposal being overwhelmingly located within the Waitaki District.

[116] The adverse terrestrial ecology/indigenous biodiversity effects of the proposal mostly occur within the Waitaki District. This is due to the relevant project components having little or no direct (clearance) impacts on indigenous vegetation communities where they occur within Dunedin City boundaries, due to the following reasons:

- a. The project footprint of the proposed Coronation stage 6 Pit Extension is mostly within the Waitaki District boundaries, and where located within the Dunedin City boundaries, is within the previously mined footprint of existing and completed Coronation Pit stages.
- b. The project footprint of the proposed Coronation North Pit backfill is within the existing, and as I understand it, yet-to-be-completely mined footprint of the Coronation North Pit, and consented extensions.
- c. The project footprint of the proposed Trimbells WRS toe drain and buttress is overwhelmingly within the footprint of the existing Trimbells WRS, noting that a small area of proposed footprint ‘may’ extend out of the existing footprint due to the indicative nature of the design currently available. The applicant has indicated that detailed design is yet to occur. Accordingly, the final detailed design ‘may’ require a small amount of tussock land clearance.

[117] The applicant has not separated the ecological effects of the proposal by which territorial area within which they occur. While it is possible to do this, it has not been considered necessary by any of the relevant Councils to date.

[118] Mining land use activities do not have a relevant permitted baseline. I therefore consider that any indigenous vegetation clearance of tussock land for the Trimbells WRS closure

³⁸ ORC notification report, p. 86, Section 9.9.1

component of the proposal which might otherwise be within the permitted baseline allowable in Rule 10.3.2.1(c)(ii) for indigenous vegetation clearance (1,000m²) should not be applied. The Dunedin City Council has discretion in applying the permitted baseline and for the above reasons I have not applied it to my assessment.

[119] The Councils have commissioned peer reviews of the above application information, and independent assessment of the above relevant terrestrial ecology/indigenous biodiversity matters by Mr Glenn Davis of E³ Scientific. The preliminary comments and findings of Mr Davis were integrated into Council requests for further information as outlined in the DCC notification report³⁹, and the ORC notification report⁴⁰, and the applicant responded via two main tranches of further information prior to notification of the application.

[120] Mr Davis's substantive peer review in his independent evidence is attached to this report within Appendix 2, and includes the following findings:

- a. There is some uncertainty regarding the effects of the proposal in terms of their magnitude resulting from insufficient analysis of the extent of vegetation communities or prevalence of species.⁴¹
- b. The magnitude of effect is considered by Mr Davis to be higher than that estimated by Ahika due to ~2,150 ha of existing (cumulative) disturbance by the mine, and the project expansion occurs within land environments with less than 20% indigenous vegetation cover remaining.⁴²
- c. Mr Davis agrees with Ahika and Bioresarches that the indigenous communities within the MP4 project footprint meet the significance matters set out under the WDC and DCC district plans, the NPS-IB and the proposed Otago Regional Policy assessment criteria. Mr Davis also considers the tussock land within the Golden Bar mine pit extension and Golden Bar waste rock stack footprints meets the above representative criteria.⁴³
- d. Mr Davis notes discrepancies between the ecological assessments within the Ahika report in that it assesses overall that it will have a low to moderate effect on most of the terrestrial ecological features, but that this does not align with the moderate to very high level of effect on ecological values associated with the disturbance of tussocklands, shrublands and wetlands and rock tors.⁴⁴
- e. The proposed mitigation measures to address zone-of-influence effects of the mining activities on terrestrial ecology (such as noise and dust) via management plans etcetera are acknowledged and identified as being acceptable to address post-consenting, via finalisation and update of these plans for certification.⁴⁵

³⁹ DCC Notification Report pp. 2-3.

⁴⁰ ORC Notification Report pp. 94-95.

⁴¹ Evidence of Mr Davis para. 3.27 (lizard population estimates), and para. 4.4.

⁴² Evidence of Mr Davis para. 4.4.

⁴³ Evidence of Mr Davis para. 4.8.

⁴⁴ Evidence of Mr Davis para. 4.9.

⁴⁵ Evidence of Mr Davis para. 5.2.

- f. The identification and rescue of locally important plants from within the mine footprint is supported by Mr Davis. He considers monitoring of success will be important to ensure it is successful in achieving objectives.
- g. The proposed rescue of the threatened moth *O. sophistes* is supported⁴⁶, however this will require careful management to ensure the survival of the removed tussock grassland and any moths, and will need to link back to earlier required survey work. Mr Davis considers that moving the moth-containing tussocks once would be preferable to keeping these in a temporary storage location.
- h. Work proposed to remediate effects on lizards, such as creation of rocky habitat on the margins of WRS is generally supported. Mr Davis suggests addition of indigenous vegetation which supports lizard populations.⁴⁷
- i. The significant timeframes (50-100 years) which are typically involved in establishing tussock grasslands are identified as problematic from a monitoring perspective for rehabilitation of the WRS, due to mine closure likely being well before that.⁴⁸ Mr Davis also recommends that additional detail is required in the Environmental Management Plan (EMP) regarding density of planting, number of plants and size of plants to be used in the remedial work will be helpful, as well as detail on performance measures, monitoring (including monitoring methods) and adaptive management (such as replanting).⁴⁹
- j. Remedial work involving exotic vegetation is also supported as this can assist lizard populations.⁵⁰
- k. Mr Davis supports the restoration of Coronation Spillway with snow tussock and *Celmisia hookeri*, but like point i. above, also recommends that additional detail is provided regarding density, and performance measures.⁵¹
- l. Mr Davis considers that the offsetting proposed in the form of the Murphys Ecological Enhancement Area (MEEA) can address residual adverse effects to achieve a no-net-loss outcome if the objective offsetting gains are achieved. He also notes that planting of tussocks, and shrublands is an available method to achieve the objectives.⁵²
- m. A detailed characterisation (baseline survey) of the offset sites is required to accurately determine the success of the offset, and has not yet been carried out.⁵³

⁴⁶ Noting that Whirika classifies it as mitigation (Application Appendix 16 Whirika), and Mr Davis lists it under mitigation in his evidence (para. 5.5).

⁴⁷ Evidence of Mr Davis para. 5.8. - *Melicytus alpinus* and *Coprosma* spp.

⁴⁸ Evidence of Mr Davis para. 5.9.

⁴⁹ Evidence of Mr Davis para. 5.10.

⁵⁰ Evidence of Mr Davis para. 5.12.

⁵¹ Evidence of Mr Davis para. 5.13.

⁵² Evidence of Mr Davis paras. 5.15-5.16, 5.18.

⁵³ Evidence of Mr Davis para. 5.21.

- n. The offsets proposed are generally supported, with the exceptions discussed above to make it more acceptable. The ephemeral wetland offset is not supported, and an alternative wetland offset proposal for consideration of the Applicant is suggested in the Council-conditions.⁵⁴
- o. The compensation proposed includes a predator proof fence to protect lizards. This is supported by Mr Davis and considered to meet most of the NPS-IB principles. However, Mr Davis goes on to state that *“the level of information supplied in the application is sufficient to provide the council with confidence that long term outcomes will be achieved”*, and he is *“particularly interested in understanding OGLs proposal for the long term governance and funding to ensure the uplift in lizard numbers is maintained over the long term and preferably in perpetuity.”*⁵⁵ Mr Davis also considers this predator proof fence will reduce prey of NZ Pipit and other birds present within the enclosure and may therefore lead to an increase in the population of NZ Pipit, compensating for proposed loss of habitat.⁵⁶
- p. Rock tor compensation for lizard losses that cannot be otherwise managed in accordance with the effects management hierarchy is less supported by Mr Davis, and he agrees with Whirika about the lack of certainty, and considers that this creates issues against Principle 2 of the NPS-IB.⁵⁷ Mr Davis acknowledges it is problematic due to no information on their effectiveness being available. However, he also considers the proposed tors are likely to be beneficial to lizards in the MEEA, and do have some merit.⁵⁸
- q. A research element of the compensation with respect to the ‘threatened – nationally vulnerable’ invertebrate *Orocrambus sophistes* is also considered by Mr Davis. The benefits this research might provide in terms of knowledge around its conservation are supported. However, Mr Davis identifies this compensation as being inappropriate against principles of the NBS-IB, and the equivalent provisions in the RPS⁵⁹.
- r. In addition to the above positions, Mr Davis agrees with several submitter points⁶⁰ including that the application lacks a long-term plan for environmental management backed by appropriate consent conditions, and the cumulative effects of the proposal are not well addressed.

⁵⁴ Evidence of Mr Davis para. 5.22, noting that wetland effects matters are for consideration by ORC.

⁵⁵ Evidence of Mr Davis para. 5.32.

⁵⁶ Evidence of Mr Davis para. 5.28.

⁵⁷ Specifically, Principle 2(b) of NPS-IB Appendix 4, outlining that biodiversity compensation is not appropriate when effects on indigenous biodiversity are uncertain, unknown, or little understood, but potential effects are significantly adverse or irreversible;

⁵⁸ Evidence of Mr Davis para. 5.34.

⁵⁹ Specifically, the Otago Regional Policy Statement 2019, Policy 5.4.6A, and the proposed Otago Regional Policy Statement 2021, Appendix 4, Principle 2

⁶⁰ Evidence of Mr Davis paras. 6.2-6.8.

s. Mr Davis reviewed the proposed consent conditions provided by the Applicant and has provided several comments on these as summarised below:

- The consent conditions do not adequately set out details associated with specific project objectives, programme schedules, implementation measures, performance metrics, monitoring methodologies and monitoring frequency, and it is the intention for this information to be provided in an Ecological Management Plan should the consent be granted. These above matters should rather be understood now as they assist with understanding of the effort required to achieve the project objectives.⁶¹
- The lack of ecological baseline establishment via the applicant proposed conditions would not allow appropriate measurement of offsetting or compensation.⁶²
- The applicant-proposed flexibility on requiring the predator proof fence would jeopardise meeting the lizard uplift objectives.
- The lack of condition detail on governance and funding arrangements for the proposed legal protection of the MEEA does not provide the council confidence that gains in perpetuity can be achieved long past the mine closure, and the applicant should at least provide information on how these areas will be provided with legal protection to ensure that management will be appropriately carried out beyond the life of the mine.⁶³

[121] The above provides an overview of the main findings of the review and evidence of Mr Davis regarding effects on terrestrial indigenous biodiversity, and ecology.

[122] I add that any offsetting or compensation action that would take *“longer than the consent period or, as appropriate, a longer period (but not more than 35 years)”*⁶⁴ to achieve the gain or maturity of indigenous biodiversity at any offset or compensation site does not meet the NPS-IB time lag principle. Therefore, all offsetting and compensation and compensation objectives would need to be complete with full gain or maturity targets achieved within 35 years (approximately 2061 for any project impacts occurring in 2026) for the action to be in accordance with this principle. The significant timeframes (50-100 years) which are typically involved in establishing tussock grasslands⁶⁵ may be problematic in this proposal’s offsetting context if not adequately supplemented by additional planting, or if the offsetting areas aren’t managed well. However, Mr Davis considers it is achievable.

[123] Notwithstanding Mr Davis’s agreement that the replacement tors structures likely do have some merit in terms of lizard benefit, I understand this lizard compensation proposed is

⁶¹ Evidence of Mr Davis para. 7.2.

⁶² Evidence of Mr Davis para. 7.3.

⁶³ Evidence of Mr Davis paras. 7.4 – 7.6.

⁶⁴ NPS-IB Appendices 3 and 4, Principle 8 – Time lag.

⁶⁵ Evidence of Mr Davis para. 5.9.

unsupported by any scientific data around its effectiveness. They therefore would also not appear to meet the NPS-IB compensation principle for science⁶⁶.

- [124] The scale of the proposal and the significance of several habitats and species affected⁶⁷ suggests the actual or potential effects might be found to be unacceptably high if the available effects management hierarchy actions are not successfully executed. I therefore consider it appropriate to adopt a precautionary approach based on good practice established in overarching documents such as the NPS-IB, both when assessing the effects of the proposal, and when recommending appropriate consent conditions to ensure that effects management is successful.
- [125] Appendices 3 and 4 of the NPS-IB provide principles which should be adhered to when using offsetting and compensation measures to manage the effects of this proposal on terrestrial indigenous biodiversity, and ecology.
- [126] The Councils have attempted to integrate the clear national direction provided by the NPS-IB in making proposed amendments to the Applicant-proposed conditions to address effects on indigenous biodiversity, while acknowledging that adherence to all principles may not be practicable in each case, and acknowledging that it is the Applicant's discretion to propose or agree to offsetting and compensation measures, and to demonstrate to consenting authorities that they are appropriate.
- [127] I have also considered the cumulative terrestrial ecology effects of the proposal, and this is outlined below.
- [128] The concept of cumulative effects, as defined in *Dye v Auckland Regional Council & Rodney District Council* [2001] NZRMA 513, is:
- "... one of a gradual build up of consequences. The concept of combination with other effects is one of effect A combining with effects B and C to create an overall composite effect D. All of these are effects which are going to happen as a result of the activity which is under consideration".*
- [129] Similarly, some effects may not presently seem an issue, but after having continued over time those effects may have significant impact on the environment. In both scenarios, the effects can be considered to be 'cumulative'.
- [130] I consider that cumulative terrestrial ecology effects do not appear to be well understood or accounted for in the context of the current proposal. While acknowledging the application AEE assessment of this matter⁶⁸, I am unclear how this assessment on cumulative effects on terrestrial fauna species, and habitats over the life of the mine and including this proposal has been reached, or how it has been determined with any reasonable level of certainty by the Applicant to comprise no-net-loss.

⁶⁶ NPS-IB Appendices 4, Principle 11 – Science, and mātauranga Māori.

⁶⁷ As outlined in the Ahika Assessment of Effects on Vegetation & Avifauna, and the Bioresarches Herpetofauna Survey and Assessment.

⁶⁸ See Application AEE p.169

- [131] The Ahika report comprising Appendix 15 of the application acknowledges that cumulative (terrestrial ecology) effects are difficult to discern for the Macraes mining operations, and that of the total approximately 2,150 ha of land impacted it is unknown how much of this comprised indigenous vegetation. I acknowledge that a comprehensive assessment in this case would be a large undertaking and limited by past lack of baseline ecological surveys.
- [132] I am not certain whether cumulative assessments for terrestrial ecology effects strictly need to be completed across the whole mine site, but I do consider that assessment of these aspects is lacking in the case of this proposal, as is likely also the case for preceding proposals, and this creates uncertainty. Given the land area involved over more than 30 years of mining projects and what is assumed to be an incomplete record of the land baseline condition, the feasibility of determining cumulative terrestrial ecological effects in a meaningful way may be impractical.
- [133] I consider that the above uncertainty regarding cumulative effects provides additional reason to adopt a precautionary approach which is based on good practice, and which does not risk making any cumulative effects worse.
- [134] Regarding a relatively minor issue, I consider that the current uncertainty whether the Trimbells WRS closure proposal will result in additional tussock clearance, and any relevant adverse ecological effects that would result should it be cleared can be appropriately addressed by a condition that requires that prior to commencing that part of the proposal, that at the time of the detailed design is reported to the Councils, and any required tussock loss which becomes apparent is integrated into the proposed offsetting calculations for tussock land, and the relevant management plans for council certification. I consider that the above approach is appropriate given the small area of additional tussock land that may need to be cleared, and the possibility the clearance will not be required.
- [135] I have reviewed the draft WDC/DCC condition set proposed by the Applicant primarily in collaboration with the relevant Waitaki District Council and Otago Regional Council processing planners, and with assistance from the Waitaki and Dunedin Council RMA Compliance Teams, and biodiversity staff in terms of identifying aspects of existing resource consent conditions that should not be repeated. This is due to ongoing compliance difficulties and/or disagreement that has been experienced between the Applicant and the relevant councils regarding condition interpretation and implementation.
- [136] The application documents, the evidence of Mr Davis, and submissions have also been considered and integrated into Council assessments of the Applicant-proposed conditions.
- [137] Aspects of the applicant-proposed draft terrestrial ecology conditions that have been identified as requiring amendment include, but are not limited to:
- a. Require baseline surveys of relevant areas to be set aside and managed for ecological offsets or compensation, so that management outcomes of these areas can be effectively measured against performance objectives.

- b. Replacing the word 'shall' with 'must' throughout to leave no doubt as to the mandatory nature of the condition requirements (this is not limited to terrestrial ecology).
- c. Defining additional key terms, such as pest, predator, zero percent population density.
- d. Including an overarching ecological objective of the Environmental Management Plan (EMP) to reduce any time delay between adverse environmental effects of the proposal, and the commencement and completion of environmental actions to manage those effects.
- e. Requiring that the EMP, and the underlying substantive environmental management plans stipulate detailed timelines for commencement and completion of environmental actions, and that these are updated as necessary via annual reporting on progress.
- f. Require that conditions relating to permanent adverse effects are appropriately managed by ecological actions in perpetuity.
- g. The review of each offset and compensation area 2 years after implementation of the relevant management plan actions may need to be repeated and informed by adaptive management processes if outcomes are not on a trajectory to be met within the specified time frames.
- h. Making the offsetting and compensation objectives and targets clear and measurable, and requiring that offsetting and compensation net gains are achieved within the time lag principles of the NPS-IB (no more than 35 years).
- i. Fencing of areas to exclude stock is also accompanied by active management of these areas to exclude stock and pests, and fencing is of a certain standard.

[138] Any conditions which the Council's would recommend with a consent decision should it be granted would incorporate the above identified amendments so that proposal effects on terrestrial ecology/indigenous biodiversity are more appropriate, and so that a decision maker can have greater certainty that actions taken by the consent holder within the effects management hierarchy will have a greater possibility of success.

[139] Notwithstanding the above identified issues, I acknowledge that the terrestrial ecology matters are complex; as is typical for a project of this nature, and that a degree of flexibility may be required if projects such as this are to be contemplated. As to what degree of flexibility is acceptable, that remains a key question at the heart of assessing this proposal.

[140] I consider that the effects of the proposal within the Dunedin City boundaries will be no more than minor when considering the effects under s104(1)(a), and (ab)⁶⁹.

⁶⁹ Noting that under s104(1)(ab) the Applicant has proposed offsetting and compensation measures to address the adverse effects of the proposal on terrestrial ecology, and would need to agree to or propose any offsetting or compensation measures put forward as being more appropriate by the

[141] In making the above statement, I limit my assessment of adverse effects to those which occur within the territorial area of the Dunedin City Council, and acknowledge that the wider effects of the proposal on terrestrial ecology/ indigenous biodiversity may exceed a minor level as outlined in the respective Waitaki District Council, and Otago Regional Council s.42A reports.

Cultural Effects

Applicant Assessments

[142] The application AEE has acknowledged that Kā Rūnaka are the appropriate assessors of the relevant cultural values, and effects on these values at the site as a result of the proposal. Accordingly, prior to lodging a resource consent application the Applicant engaged with Aukaha who act on behalf of Kā Rūnaka to commission a Cultural Impact Assessment (CIA). The Aukaha-authored CIA was provided to the Councils on 2 May 2025.

[143] Notwithstanding the above reference to the CIA which was unavailable at the time of lodging the application, the application AEE provides a brief overarching statement equating to an argument that the effects of the proposal on cultural values are likely to be no more than minor as far as they align with the effects of the proposal on water quality, and adverse effects on ecological values and indigenous biodiversity, and taking into account the proposed effects management actions within the mitigation hierarchy.⁷⁰

Submissions

[144] The relevant submission is from Kā Rūnaka. This submission makes several statements on the cultural effects of the proposal:

“Significant impacts on mana whenua values for wai Māori, whenua, taoka species, and wāhi tīpuna have arisen from the existing mining and associated activities. These impacts are a source of mamae for Kā Rūnaka. The Application and associated expansion of activities will result in even greater, broader, and further effects on mana whenua values, particularly in relation to wai Māori, whenua, taoka species, and wāhi tīpuna.”

Council Assessments

[145] In this context I acknowledge that this assessment of cultural effects is limited to those effects on mana whenua / takata whenua values.

[146] I acknowledge the statements of Kā Rūnaka’s submission, and consider this in the context of the CIA authored by Aukaha on behalf of Kā Rūnaka. The submission and the CIA are not incompatible. However, I consider that the CIA is the most complete information to use in providing and informing assessments of cultural effects, and to give effect to Te Tiriti. Like the Applicant, I acknowledge that Kā Rūnaka are most appropriately positioned

Councils for these to be considered by a decision maker, and that further assessment of the current applicant proposed offsetting and compensation measures under s104(1)(b) occurs later in this report under the relevant document policy assessments.

⁷⁰ Application AEE, p.162.

to make assessments on cultural effects. Accordingly, I defer to their position on these matters.

[147] Much of the CIA refers to matters within the ambit of the Regional Council when describing cultural impacts, those matters being water quality and aquatic ecology. However, the CIA also makes several references to cultural effects resulting from the impacts of the proposal that are matters within the district council's responsibilities:

- a. Terrestrial ecology values including effects on lizards (korero gecko, tussock skink, southern grass skink, and McCann's skink), birds, insects, and loss of taoka-species, and taoka-species habitat such as tussock grassland.
- b. Landscape and visual effects, including exclusion of mana whenua as a receptor.
- c. Cumulative effects.

[148] The CIA states that damage or removal of former habitat of lizards such as Otago and grand skinks, or species not yet found will impact on future recovery of species.

[149] The CIA makes recommendations to manage the above effects should the consents be granted, and the relevant recommendations are summarised as:

- a. Any proposed replacement habitat should be of the same or higher quality as the lost habitat it is rehabilitating or offsetting, with regular ecological monitoring and adaptive management in place.
- b. Kā Rūnaka wishes to be involved in environmental management actions to address effects.

[150] I acknowledge the above and consider that cultural effects resulting from impacts within Dunedin City Council's responsibilities may be acceptable if conditions are recommended to give effect to the above Kā Rūnaka recommendations, as these do not appear unreasonable.

[151] I also acknowledge that Kā Rūnaka and the Applicant may wish to reach a separate agreement via post-CIA consultation, a memorandum of understanding, or other process to agree on appropriate conditions to manage cultural effects (including inclusion of matauranga maori, and takata whenua involvement with ecological management). I note that this would need to occur within timeframes helpful to the hearings panel, and would ideally occur prior to the hearing.

[152] Accordingly, placeholder conditions are recommended to this effect by the Applicant, with the expectation that the Applicant and Kā Rūnaka will reach agreement on what form conditions relating to cultural effects (and other matters that affect cultural values) should be and will communicate this to the hearings panel in due course.

Effects on Landscape, Visual Amenity and Rural Character Values

Applicant Assessments

[153] The Applicant commissioned a landscape and visual assessment report of the proposal by Mr David McKenzie of WSP. This report is attached to the application AEE as Appendix 27a. This is supplemented by visual simulations, photographs and viewpoint plans within the application AEE Appendix 28a. This report arrived at the following conclusions:

- *It is concluded that, on balance, any potential adverse landscape effects of the proposed Golden Bar WRS is 'Moderate' as it alters the skyline where it is located. For other aspects of the MP4 Proposal any potentially adverse landscape effects will be 'Low'.*
- The adverse visual effects will be nil to low for other MP4 components, while Golden Bar will result in moderate to moderate-low, or nil adverse visual effects.

[154] The application AEE, based on the above expert assessments arrives at the conclusions that the:

- i. Landscape effects of the proposal, (excluding Golden Bar WRS, which is not relevant to DCC assessments and will result in moderate effects) will be low.⁷¹
- ii. Visual effects of the proposal, (excluding Golden Bar WRS, which is not relevant to DCC assessments and will result in moderate to moderate-low effects) will no more than low.⁷²
- iii. Cumulative landscape and visual amenity effects of the proposal will be less than minor.⁷³

Submissions

[155] Kā Rūnaka includes landscape, and visual amenity effects comments in their submission. The information in the submission regarding these matters is limited to stating that the submission relates to these matters.

Council Assessments

[156] The WDC and DCC engaged a peer review of the Applicant landscape and visual information by Mr Philip Blakely of Blakely Wallace Associates. Mr Blakely's review report is summarised as agreeing with the WSP assessment methodology, and assessments of effects, and is not attached to this report.

[157] Assessment of rural character effects is required by 2GP Rule 16.11.2(4)(n) (priority considerations), specifically this states:

"(n) In assessing effects on rural character values and amenity, Council will consider whether any proposed restoration or rehabilitation measures will ensure that final landforms:

⁷¹ Application AEE p. 155

⁷² Application AEE p. 156

⁷³ Application AEE p. 168

- i. *screen or enhance the view of excavated faces from surrounding public and residential viewpoints through appropriate landscaping, plantings or siting of public amenities; and/or*
- ii. *minimise evidence of landfills or mining activity by blending final contours with surrounding landforms to achieve as natural appearance as possible, and by providing for the establishment of vegetation cover appropriate to the local character.”*

[158] I acknowledge that the proposed mining within the Dunedin City boundaries is located within an existing area of mining (Coronation Pit, Coronation North Pit, Trimbells Waste Rock Stack), surrounded by relatively remote areas of extensive farming properties. This existing environment context is important to forming a view on the rural character effects of the proposal.

[159] The proposed conditions requiring progressive rehabilitation of mining features, natural contouring of waste rock stacks, and the plans for closure will still leave evidence of mining in terms of the pit lake(s), however the proposal will also return the ground levels of the Coronation North Pit to match the levels of the surrounding land more closely through the proposed backfilling.

[160] I also consider the expansive landscape which strongly influences rural character in the High Country Rural Zone and the relatively small scale of the Coronation, and Coronation North proposal in that context. For the above reasons, and also using the expert visual and landscape effects assessments as somewhat of an analogue regarding how this proposal might affect rural character, I consider the effects on the rural character of the High Country Rural Zone will be acceptable and no more than minor once rehabilitation is complete.

[161] I recommend an amendment to the Applicant-proposed consent conditions which seek to reduce unanticipated effects on Landscape, Visual Amenity and Rural Character Values. These can be summarised as requiring that comparative images of completed waste rock stacks alongside design imagery from established viewpoints are provided to the Councils so that any irregularities such as terracing or other deviation from consented design of landform shape or skyline can be identified and remediated if necessary (prior to revegetation).

[162] I consider that the proposal effects on Landscape, Visual Amenity and Rural Character Values will be acceptable when carried out in accordance with the Council-proposed conditions.

Transportation Effects

[163] Given the ease with which roading matters can be separated between DCC and WDC in this case, I have only considered roading matters where they fall within Dunedin City boundaries and leave all other roading matters (such as the realignment of Golden Bar Road) for consideration of WDC. For traffic generation, it is not as practicable to separate these effects, and I have considered traffic effects within both Council areas, but only as far as they relate to the areas of the proposal within Dunedin City boundaries (such as

mining in the Dunedin area of the Coronation Pit extension, that by necessity has to haul ore into the Waitaki District for processing, and hauling of waste rock from all parts of the Coronation Pit extension to the Coronation North Pit backfilling).

- [164] This section covers assessment of the effects of the applicant proposed variations to existing district council consent conditions.

Applicant Assessments

- [165] The Applicant proposes to vest a new road reserve for Matheson Road within Dunedin City boundaries where it will traverse part of the Trimbells WRS, and to form a dry weather four-wheel drive track within this route⁷⁴.
- [166] The application AEE includes an expert assessment by Tim Kelly Transportation Planning Limited in Appendix 24, and relies on this to assess effects of the proposal on roading and traffic matters. By virtue of the layout of the mining operations relative to the DCC boundaries, most of the application assessments are only relevant to WDC.
- [167] The Transportation assessment report in Appendix 24 outlines that under typical site mining operations:

*Between 1,000 to 5,000 tonnes of ore would be transported each day from the pit to the processing plant. Each ore haul truck carries approximately 100 tonnes of ore, typically resulting in around 10-50 return movements (20-100 one-way movements) daily.*⁷⁵

- [168] A key consideration covered is that the proposal will not increase mining vehicle movements from what have typically occurred from existing mine projects. It will also not increase staff numbers associated with the operation of the overall mine, so vehicle movements to the site on external roads should theoretically remain unchanged.
- [169] The application AEE considers the adverse effects of the proposal on roading, and traffic will be less than minor.

Submissions

- [170] Mr Neil Roy provided a submission which related to roading matters. The relevant part of this submission relating to roading matters in the Dunedin District are reproduced here:

“The temporary roadway north-west of Coronation mine appears to be overrun by mining. There was a locked gate onto its entrance west of the Sisters Peaks summit that was open after my complaint. The mine bypass may be seldom used but is it omitted from the Coronation extension?”

The proposed road line for Matheson Road on Taieri Ridge across land in Coronation mine site is also missing from maps. Documents have a planned no exit road venturing onto Coronation mine site at its completion but it does not link with Matheson Road

⁷⁴ See applicant proposed condition 15.5.

⁷⁵ Tim Kelly Transportation Planning Limited, Appendix 24, p.6.

either east or west on its pre mining route. When Coronation mine was applied for the hearing panel gave approval to my submission on the continuation of Matheson Road. When mining is completed. I am unaware of anything that may have removed Matheson Road from a feasible 4WD road line along Taieri Ridge that should be negotiable at least for dry weather conditions.”[Sic]

[171] I have considered this part of the submission against the proposal roading map attached to the WDC and DCC Consent conditions and note:

- a. I do not identify any temporary roadway northwest of the Coronation mine – the road in this area appears to be a haul road.
- b. The Applicant, or Mr Roy may have further information regarding the complaint in question about a locked gate.
- c. I understand the proposed road line for Matheson Road (post-mining) on Taieri Ridge is coloured purple on Figure 4.1, Proposed Roding Requirements at the Coronation Mining Area ⁷⁶, and will connect the existing east and west sections of Mathesons Road (itself currently a 4WD track) through the mine site.
- d. The applicant has proposed conditions that give effect to the continuation of Matheson Road (condition 15.7) as described by the submission.

Council Assessments

[172] I have considered the application assessments, including the report by Mr Kelly, and have considered the submission which relates to transportation and roading matters.

[173] I consulted with the DCC Transportation Department (Mr Reese Martin, Transportation Planner/Engineer) regarding the proposed vesting of a new road reserve for Matheson Road within Dunedin City boundaries where it will traverse part of the Trimbells WRS, and to form a dry weather four-wheel drive track within this route. The DCC Transportation Department has considered the Consent Order resulting from ENV-2014-CHC-002, which sets out a condition on an earlier Coronation consent (DCC reference LUC-2013-225) to be:

“13.3 Within 6 months of pit excavations ceasing, the consent holder shall define and vest to the respective Councils a legal road of no less than 20m wide that approximately follows the red line shown on the annexed Figure 3 CORONATION - MATHESON ROAD (dated 27 February 2014). Depending on the extent of pit excavations, the road may be south or west of that red line to be nearer the edge of the pit excavation. The road shall be unformed, but prior to vesting, shall be graded to a standard enabling it to be used as a fine weather track for four wheel drive vehicles. The consent holder shall not have any ongoing responsibility to maintain the track or any form of public access along this unformed road as a consequence of this grading.”

⁷⁶ Application AEE, p. 84

- [174] In light of the above and the currently proposed condition, Mr Martin's only comment beyond accepting the condition as proposed was a request for an advice note giving effect to the following would provide clarity:

"DCC will not be liable for the maintenance of the Post Mining Matheson Legal Road alignment once completed given that it is unlikely that the 4x4 track previously within the existing Matheson legal road alignment was ever maintained by DCC in the past and should be considered a privately maintained access track on a legal road."

- [175] Regarding the Applicant's road stopping conditions, Mr Martin had no concerns as these merely refer to the stopping process should it be required. In light of the above I consider that the effects of the proposal on roading matters are acceptable, and no more than minor.
- [176] As noted above, the proposal appears to address Mr Roy's Matheson Road concerns, but if this is not the case Mr Roy is encouraged to make this known via forthcoming avenues available to submitters (written evidence prior to the hearing within the timeframes noted by the hearings panel in minutes, or by appearing at the hearing).
- [177] Regarding traffic effects of the proposal within the Dunedin City boundaries, these are not considered to be any greater than those created by previous activities at Coronation and Coronation North. Additionally, I understand that any public roads in the vicinity of active mining operations at Coronation and Coronation North are not open to the public during mining activities. Lastly, there is not understood to be any need for access to this area outside of mining associated traffic.
- [178] I recommend a condition which satisfies the request by the FENZ submission that mine roads are able to accommodate emergency vehicles via the appropriate design standards. I understand that all mining haul roads, and the internal mine site access roads would comfortably meet this standard. If not, the Applicant may wish to provide further comment. This recommended condition is not intended to apply to four-wheel drive tracks.
- [179] Applicant proposes to update the relevant conditions on LUC-2013-225 (Coronation), LUC-2016-234 and LUC-2013-225A (Coronation North), and LUC-2019-42 (Coronation North Extension) so that they are compatible with the current proposal's conditions.
- [180] I do see the requirement to do this via Section 127 applications should this current consent be granted, otherwise it will not be possible to comply with all consent conditions. I agree with the applicant that the effects on these condition variations would not be additional to the current proposal. However, should this current application be granted, I consider that the wording used in the relevant roading conditions on these existing consents should reflect what the Councils have determined under the current process, including the geotechnical input for factors of safety where factors of safety apply to publicly accessible roads. This wording will be communicated by the Councils in subsequent council-proposed district consent conditions when these are provided to all parties, in accordance with the memorandum provided with this report in Appendix 4.

[181] I consider the transportation effects of the proposal will be no more than minor.

Noise Effects

Applicant Assessments

[182] The applicant has not applied for a resource consent to contravene the noise performance standards of the Partially Operative Second Generation Dunedin District Plan (2GP), and as outlined in the rule assessments of this report, I consider no consent is required.

Submissions

[183] The submission by Mr Richard Geels covers noise and other effects relevant to DCC assessments, however, it relates specifically to *the “extension and use of Frasers Pit, and other activities close to residential dwellings”, and “new locations for tailings”*.

[184] The Frasers Pit, and tailings activities are located well away from the Dunedin City boundaries, and will be addressed by the Waitaki District Council noise assessments.

Council Assessments

[185] As outlined in the rule assessments of this report, the proposal is anticipated to meet the permitted activity standards of the Partially Operative Second Generation Plan (2GP) where noise is emitted within the Dunedin City boundaries. Accordingly, noise effects of the proposal that are considered to be within the permitted baseline within the Dunedin City area do not need to be considered further under the 2GP, and will be less than minor on any relevant receiver.

[186] The Waitaki District Council s.42A report assesses noise emitted by the proposal as a result of mining activities in that District. The proposal noise emissions in that district will contravene the relevant Waitaki District Plan performance standards for noise in regard to two residential receivers. As outlined earlier in this report there is a need to bundle application overall activity status with the Waitaki District Plan non-complying activity status. However, I consider that this report can remain silent on assessment of effects in that district and leave that to the assessment of the Waitaki District Council.

Air Blast and Vibration Effects

Applicant Assessments

[187] The Applicant commissioned an expert assessment report of these effects by Mr Nick Elith of TechNik Limited. This is attached to the Application AEE as Appendix 26. The findings of this report are that the air blast and vibration effects of mining in the Coronation Pit as part of this proposal will be within acceptable guidelines when measured at the closest relevant receiver. In this case this is the C Howard residence located on Horse Flat Road, and approximately 2250m from the Coronation Stage 6 Pit.

[188] While the effects are likely to be acceptable, the applicant outlines several mitigation measures available if required

Submissions

[189] No submissions were received which related to air blast or vibration effects.

Council Assessments

[190] I have only considered Air Blast and Vibration Effects matters where components of the proposal fall within Dunedin city boundaries, and leave assessment of all other components of the proposal outside of these boundaries (such as Frasers, Innes Mills, and Golden Bar) for the consideration of the Waitaki District Council.

[191] I consider that the air blast and vibration effects resulting from mining at the Coronation Pit Extension are well understood, and will be no more than minor.

Lighting Effects

Applicant Assessments

[192] No applicant assessments were provided.

Submissions

[193] Two submissions were received which mentioned these effects. One was from Mr Geels, whose residence is located well within the Waitaki District so his concerns on this matter are not relevant to my assessments. The other is Mr Roy, who is understood to have previously resided in a dwelling that is closer to Dunedin City boundaries (near the western end of Horse Flat Road so still a significant distance away from these boundaries). I consider he would not be likely to be affected by modern and well managed lighting from the Coronation mining area except perhaps being able to see lighting reflected on overhead clouds, or potentially lighting from hauling.

Council Assessments

[194] I acknowledge that this is not my area of expertise, but in the absence of any expert input make assessments based on established practice with lighting where it has been a subject of previous Macraes resource consent decisions. I consider that effects of light spill can be managed by compliance with a condition requiring that lighting is directed as far down towards the ground as practicable when being used so as to still be effective, and has shields fitted to only illuminate the relevant area. I consider this will be sufficient to appropriately alleviate any adverse effects, while still providing adequate lighting for the proposal. I do not consider lighting effects of vehicle headlights can be alleviated except perhaps using bunds (which are already in use in places at the site for noise attenuation), or strategically placed barriers at high points on the haul roads if it is considered that mitigation may be required. I consider lighting effects to be no more than minor, but also acknowledge relatively some simple mitigations could be carried out.

Geotechnical, Land Stability Effects

[195] I have only considered geotechnical and land stability matters where components of the proposal fall within Dunedin City boundaries and leave assessment of all other

components of the proposal outside of Dunedin (such as Frasers, Innes Mills, and Golden Bar) for the consideration of the Waitaki District Council.

Applicant Assessments

[196] The applicant commissioned reports informing geotechnical design and assessment for the relevant mining activities. These reports were authored by Engineering Geology Limited (EGL), and Pells Sullivan Meynink (PSM), and are attached to the Application AEE as:

- a. Appendix 5 - EGL (2024b) Trimbells Waste Rock Stack Closure Stability Assessment
- b. Appendix 6 - PSM (2024a) Macraes Phase 4 Consenting – Project Element 4.3.2 Open Pit Extensions
- c. Appendix 7 - PSM (2024b) Macraes Phase 4 Consenting – Project Element 4.3.2 Open Pit Stability Assessment for Frasers TSF
- d. Appendix 10 - EGL (2024c) Macraes Phase 4 Project - Erosion and Sediment Control Report

[197] Summaries of the Pit wall stability assessments are provided in the Application AEE within section 5.3.1. Key aspects are as follows:

- a. *“Overall, PSM concluded that for each of the proposed pit expansions, FoS for highwalls with typical hard rock conditions are generally greater than 1.5. Where potential highwall instabilities have been identified, the failure extents are contained within the immediate bounds of the respective pits and do not present a risk to the wider environment at closure.”⁷⁷*
- b. Where any potential instabilities are identified, these are contained to within the immediate pit environments, and *“Any rapid movement is likely to initiate prior to pit lake filling where a change in condition has occurred, such as active mining, blasting or rapid water ingress. Block sliding along adversely oriented geological structures is a known instability within the open pits at Macraes, and OceanaGold actively manages such instability during mining through routine geotechnical mapping, stability monitoring and Trigger Action Response Plans (“TARPs”) via the site’s geotechnical principal hazard management plan”.*⁷⁸
- c. Allowing closed pits to fill with water generally increases stability, and if failure did occur this is more likely expected to be a gradual event that would not cause waves to occur.
- d. The pit walls’ stability under a 1:2,500 Annual Exceedance Probability (“AEP”) earthquake (low probability strong ground shaking) has been modelled and

⁷⁷ Application AEE p. 114.

⁷⁸ Application AEE p. 114.

shows potential for scarping to occur outside of the pit walls. This is noted by PSM to likely occur on natural slopes in the area under such conditions.⁷⁹

- [198] The Applicant proposes to continue using the same geotechnical slope management framework, which utilises several listed methods. The Applicant considers this to be appropriate management.
- [199] The Applicant acknowledges that “some ongoing deformation, such as tension cracking, slumping, ground loss could occur behind the pit crest post-closure”⁸⁰. I assume this is a risk that applies to all pits.
- [200] The Applicant adopts PSMs recommendation to define a strip of land / zone of influence around the crest of the combined pits to isolate hazards associated with ground movement and falling from height. Post closure fencing is proposed as a condition of consent, as per existing consents, with the appropriate exclusion zones to be determined by future geotechnical assessment.
- [201] Specific mention is made of Coronation North Pit, and its existing instabilities. The key aspect about this existing pit (which is still subject to consented mining to be completed prior to the proposal) is that it will be backfilled as part of the current proposal, and this action will remediate the current instabilities *“to achieve a FoS for the southwest pit slope of at least 1.0 under Maximum Design Earthquake seismic loading prior to site decommissioning.”*
- [202] Summaries of the waste rock stack stability assessments are provided in the Application AEE within section 5.3.2. Key aspects are as follows:
- a. Any use of Trimbells WRS will remain in accordance with its consented design to ensure the discharges of waste rock do not give rise to any new geotechnical risks.⁸¹
 - b. The subsequent pit lake in the proposed Coronation Pit extension after closure will result in approximately 20m water depth locally impounded against Trimbells WRS, and will later cause seepage through this WRS to Trimbells Gully Creek. This impoundment and seepage feature is not new, and is part of the future environment authorised under existing consents.
 - c. The above has led to the applicant to propose EGL’s recommendation that *“a toe drain and filter buttress is designed and constructed at the downstream toe of the WRS with slope rehabilitation and foundation soils removed prior to its placement.”*⁸²

⁷⁹ Application AEE p. 115.

⁸⁰ Application AEE p. 115.

⁸¹ Application AEE p. 117.

⁸² Application AEE pp. 117-118, noting that the applicant *“may also consider constructing a low permeability facing layer on the upstream face of Trimbells WRS as part of its eventual rehabilitation to minimise seepage of Coronation Pit Lake water through the WRS. The preferred engineering solution needs to consider both the stability objectives discussed here and the water quality objectives”* *“This will require feasible options assessments and detailed design to occur during the consent term”*.

- d. The proposal *“will utilise existing WRS storage capacity at Frasers WRS, Coronation WRS and Coronation North WRS. Any use of these facilities will remain within their already consented parameters such that the proposed discharges of waste rock to land at these locations does not give rise to any additional geotechnical risks.”*

[203] The Applicant provides a summary of all the geotechnical and land stability assessments (including those within the Dunedin City area) and considers that the measures proposed will be sufficient to ensure that any adverse effects will be less than minor during the operational and post-closure phases.

Submissions

[204] One submission received relates to geotechnical/land stability matters, and this is the submission from The Otago Fish and Game Council.

[205] This submission lays out concern regarding whether the factors of safety performance standards being applied to the completed works (especially where they retain contaminated water) are appropriate given the permanent/long-term nature of the works after mine closure, and the seismic risks posed in New Zealand. The submitter expresses concern given the magnitude of environmental effects if any of these structures were to fail or require remedial action in the long term, and calls for the precautionary principle to be applied.

Council Assessments

[206] The Applicant geotechnical reports were independently peer reviewed on behalf of the Councils by Mr Colin MacDiarmid.

[207] Mr MacDiarmid’s substantive peer review and independent evidence is attached to this report within Appendix 2, and includes the following findings regarding pits:

- a. Overall, there are no concerns about the PSM modelling of pit stability, general conclusions, or recommendations.⁸³ The applicant assessments are considered to be robust, and it is considered that geotechnical effects can be mitigated.
- b. The proposed exclusion zone mitigation to deal with the risk of instability beyond all pit crests, and to achieve a factor of safety of 1.5 outside the exclusion zones is considered acceptable. Mr MacDiarmid notes that the exclusion zones are to be confirmed later, are likely to be 100m - 150m, and are considered a reasonable mitigation (notwithstanding the practicalities of maintaining an exclusion zone in perpetuity, such as maintenance of fencing and signs).⁸⁴
- c. Mr MacDiarmid notes that pit wall stability could be improved considerably using further buttressing (backfilling).

⁸³ Evidence of Mr MacDiarmid, para 13.

⁸⁴ Evidence of Mr MacDiarmid, para. 14.

- d. Additional assessment is recommended to assess the exclusion zone once additional data and review is available during operations.
- e. A minimum backfilling level for the Coronation North Pit is recommended to ensure long term stability of this pit.

[208] Mr MacDiarmid regards the WRS assessments are robust and any effects can be mitigated. No concerns remain about seepage effects on the stability of Trimbells WRS, and the toe drain proposed is considered a sensible precaution.⁸⁵

[209] Mr MacDiarmid agrees with the erosion and sediment control actions proposed by the applicant and considers the conditions regarding these matters will be adequate.⁸⁶

[210] Mr MacDiarmid has made several recommendations regarding the conditions proposed by the applicant and these are covered in paragraphs 38 – 47⁸⁷ of his evidence. These comments are summarised as:

- a. An additional requirement for the Site Decommissioning Plan comprising *“Peer-reviewed findings of a geotechnical assessment that indicates the minimum backfill level required within the Coronation North pit required to achieve a minimum Factor of Safety for the southwest pit slope of 1.0 under Maximum Design Earthquake seismic loading and a minimum Factor of Safety for the southwest pit slope of 1.5 under static loading”*, to be submitted to the councils as part of the site decommissioning plan (an additional clause to Condition 5.1).
- b. That that proposed condition 12.2 be extended to include situations where additional rock is proposed onto existing waste rock stacks (Such as Trimbells WRS), so include such wording as: *“A design report shall be prepared for each new waste rock stack, for any modifications to existing waste rock stacks and for waste rock pit backfill by a suitably qualified geotechnical engineer or engineering geologist.....”*
- c. Avoiding interpretation issues of what constitutes a ‘design to avoid catastrophic failure’ by adding a design requirement in condition 12.1, requiring that WRS are designed to have a minimum factor of safety of 1.5 under static loading.
- d. Regarding pit lakes, the following revised clause is suggested for condition 14(c):

“Details of the long term pit wall stability including definition of an exclusion zone around the pit where the factor of safety at the time of closure is less than 1.5. The stability assessment should be carried out by a suitable qualified engineer and subject to peer review.”

⁸⁵ Evidence of Mr Macdiarmid, para. 23.

⁸⁶ Evidence of Mr Macdiarmid, paras. 33-34.

⁸⁷ Noting several of these paragraphs relate to project components outside of Dunedin District, or to ORC conditions so are not covered here.

- e. Mr MacDiarmid's view for roading stability is that if a road is accessible to the public, if the current factor of safety is less than 1.5, the risk is unacceptable. Condition 15. should therefore have the following wording added:

"the stability assessment should be carried out by a suitably qualified and experience geotechnical engineer. The Consent Holder should contact WDC immediately if there are any areas of the public road where the existing Factor of Safety is less than 1.5 to agree immediate steps to be taken."

- f. For condition 15.10, Mr MacDiarmid's view is that the requirement for a Geotechnical Management Plan should be a default position in the case of roads open to the public roads where they are in proximity to a deep pit, and that the inherent uncertainty in slope stability analysis should lead to a requirement for some form of management plan in these cases irrespective of the stability factor of safety analysis results.

[211] The above completes the summary of Mr MacDiarmid's peer review evidence.

[212] I consider that the geotechnical, and land stability effects of the proposal will be appropriately managed to be no more than minor, where carried out in accordance with consent conditions that adopt the recommendations of Mr MacDiarmid.

Effects on Risk from Natural Hazards

Applicant Assessments

[213] The applicant does not directly address this matter, beyond in so far as assessment of geotechnical stability includes seismic risk assessments.

Submissions

[214] There are no submissions on this matter.

Council Assessments

[215] Section 6(h) of the Resource Management Act 1991 requires the Council to recognise and provide for the management of significant risks from natural hazards, as a matter of national importance.

[216] The assessment of the risk from natural hazards requires a combined assessment of:

- (a) the likelihood of natural hazards occurring (whether individually or in combination); and*
- (b) the material damage to land in respect of which the consent is sought, other land, or structures that would result from natural hazards; and*
- (c) any likely subsequent use of the land in respect of which the consent is sought that would accelerate, worsen, or result in material damage of the kind referred to in paragraph (b).*

[217] The site is annotated in the Dunedin City Council Hazards Register as being subject to the following mapped natural hazard in the area of the Coronation North Pit:

Hazard ID: 11157, Class: Land Stability - Land Movement, Subclass: Unknown Landslide Movement Geology

[218] I consider that land instability as a natural hazard is addressed specifically, and sufficiently as part of the geotechnical / land stability assessments carried out for this proposal, and that further assessment of this as a risk from natural hazards is not required. The site is not subject to any other natural hazards register mapped layers, or plan overlays such as for flooding.

[219] It is therefore considered that there are no significant risks from natural hazards that need addressing as part of this application.

Heritage Effects

Applicant Assessments

[220] The Applicant provides assessment of these matters informed by a heritage assessment by Origin Consultants Limited (attached to the Application AEE as Appendix 23). This assessment identifies a fence line dating from the 1880s located within the footprint of the proposed extension of Coronation Pit. The fence line does not extend to within the Dunedin City boundaries⁸⁸, and an archaeological authority will be sought from Heritage New Zealand Pouhere Taonga for removal of the required section of fence. The Applicant has proposed a condition requiring that the remaining sections of fence are restrained, and considers that the effects on historic heritage will be less than minor.

Submissions

[221] There are no submissions on the fence. I note that Mr Neil Roys submission includes heritage matters. However, I acknowledge these comments relate to items/locations within the Waitaki District, except where the submission relates to the correct naming of Trimbells Gully.

Council Assessments

[222] My opinion is that the naming of Trimbells Gully doesn't relate to an environmental effect of the proposal and therefore does not need to be assessed, but acknowledge that alternative opinions may be expressed on this. I consider that adverse heritage effects of the proposal will be acceptable and no more than minor.

Hazardous Substances Effects

Applicant Assessments

⁸⁸ See Origin Report, application Appendix 23, figure 4.

[223] The application AEE⁸⁹ provides information regarding hazardous substances storage and use, and outlines its current practices, including its hazardous chemicals register, and its Principle Hazards Management Plan for Hazardous Substances (provided within the Application Appendix 32.

[224] The Applicant considers that the effects of its use of hazardous substances will be appropriately managed and will have effects that are less than minor.

Submissions

[225] There are no submissions relating to this matter.

Council Assessments

[226] The DCC and WDC jointly utilised Mr Peter Woods (DCC hazardous substances compliance officer) to review the information available and provide comment. Mr Woods considered that the documents provided by the applicant were fit-for-purpose and had a high level of detail, and that the proposal is also essentially a continuation of existing consented hazardous substances activities at site in that context. Accordingly, I consider that the any effects from the storage and use of hazardous substances, including health and safety effects, will be no more than minor.

Effects on Human Health (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011)

Applicant assessments

[227] The proposal will include soil disturbance of confirmed HAIL sites. The Dunedin City Council, and Waitaki District Council raised this matter with the Applicant on 4 March 2025. This matter was confirmed by the Applicant in a letter provided to the Councils on 5 March 2025⁹⁰, noting that in this letter a resource consent was applied for by the Applicant, and that the following statements were provided by the applicant:

“The disturbance of soil will occur in direct connection with the continuation and expansion of the existing HAIL activity at the site and will not pose a risk to human health. This is a scenario that is not contemplated by the NES Soil and in the past resource consents have been granted for activities involving soil disturbance within existing mining areas without consideration of the NES Soil.”

“This application does not result in any additional adverse effects on the environment or the need for any additional mitigation measures beyond those already discussed in the MP4 Project Assessment of Environmental Effects.”

Submissions

[228] There are no submissions relating to this matter.

⁸⁹ Application AEE, p. 161.

⁹⁰ And this was included in information notified.

Council Assessments

- [229] I agree with the applicant that resource consents for previous proposals at the site have been issued without having regard to the (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011).
- [230] The lack of information as to how and to what degree the current proposal doesn't meet any relevant performance standards in the NES makes assessment of the actual, or potential effects on human health more difficult. The applicant may wish to provide an assessment of performance standards within Regulation 8(3) of this NES to provide more clarity for decision makers.
- [231] I consider that the Dust Management Plan utilised at the site is relevant to mitigating any adverse effects as this plan seeks to mitigate the release of dust through several measures. I also assume that several of the relevant contaminants resulting from mining are more or less the same as those present in the parent rock material on site, so may reflect background levels. However, I acknowledge this is not my area of expertise and may benefit from expert input by a SQEP (contaminated land). The applicant may wish to consider this to adequately address any remaining uncertainties.
- [232] In this scenario, the current proposal is assumed to have similar effects on human health as past mining activities (from soil disturbance), but I also acknowledge that past mining activities appear have been inconsistent in terms of whether this matter was considered at all, so information on which to base assessments is lacking. I currently consider that the potential effects on human health are likely to be acceptable in accordance with the statement of the Applicant outlined on page 236-237 of the application AEE⁹¹. However, given potential effects on human health I consider that it may be appropriate for the studies referenced by the Applicant in the AEE are available by the Applicant so that this matter can be better concluded with some certainty.

Effects Assessment Conclusion

- [233] After considering the likely effects of this proposal above, overall, I consider the effects of the proposal can be appropriately mitigated by conditions of consent so as to be no more than minor.

OFFSETTING OR COMPENSATION MEASURES ASSESSMENT

- [234] Section 104(1)(ab) of the Resource Management Act 1991 requires that the Council have regard to any measure proposed or agreed to by the applicant for the purpose of ensuring positive effects on the environment to offset or compensate for any adverse effects on the environment that will or may result from allowing the activity.
- [235] Offsetting or compensation measures have been proposed by the applicant. This means the Hearings Panel must have regard to the positive effects of these measures. These are

⁹¹ *"Extensive studies associated with mining on-site to date have demonstrated that the human health effects of extracting ore from the ground on the site, and subsequent disposal, are able to be controlled adequately using established on-site methodologies and rehabilitation so that human health is protected appropriately."*

assessed as the measures outlined within the consent application and applicant-proposed conditions, and summarised below.

- [236] I note here that offsetting and compensation actions proposed by the applicant are not understood to account for adverse impacts of the activity occurring within the Dunedin City boundaries, and the below assessments are made to assess the hearing panel who are assessing the wider proposal.
- [237] The Murphys Ecological Enhancement Area (MEEA) is the core area where offsets are to be implemented as set out in the Applicant-proposed conditions, and to offset various flora and fauna residual effects. This area is located within Waitaki District.
- [238] The applicant also proposes measures which can be described as compensation in the form of the predator proof fencing to protect and compensate for impacted lizard populations, *Orocrampus sophistes* research, construction of rock structures to compensate for loss of 12 rock tors (which are important lizard habitat).
- [239] As covered in the terrestrial ecology effects assessment section of this report, several issues with the offsetting and compensation have been identified in terms of the provisions of the NPS-IB, and the Regional Policy statements. The first and foremost issue is that *Orocrampus sophistes* has a 'threatened – nationally vulnerable' threat classification status and therefore compensation is not appropriate under the:
- a. NPS-IB Appendices 4: Principles for biodiversity compensation, principle 2(a)) as the moth is vulnerable. *"Examples of biodiversity compensation not being appropriate include where: (a) the indigenous biodiversity affected is irreplaceable or vulnerable;"*.
 - b. Proposed Otago Regional Policy Statement 2021, Appendix 4 (APP4) Principle 2(a) *"Examples of biodiversity compensation not being appropriate include where: (a) the indigenous biodiversity affected is irreplaceable or vulnerable;"*
 - c. Operative Otago Regional Policy Statement 2019 Policy 5.4.6A(a)(ii)(2) – *"Consider indigenous biological diversity compensation when the residual adverse effects will not result in Removal or loss of viability of habitat of a threatened or at risk indigenous species of fauna or flora under the New Zealand Threat Classification System ("NZTCS");"*
- [240] The moth research might be considered beneficial compensation if it produces beneficial knowledge, but the above provisions classify it to be inappropriate, and suggest it should not be considered as proposed.
- [241] I note the relocation/rescue of the moth via transplanted tussocks is considered to be mitigation,⁹² so is not included in this above assessment.
- [242] Another issue with the terrestrial ecology/ indigenous biodiversity compensation proposed is that the lizard effects compensation in the form of the tor/rock stack re

⁹² Whirika Macraes Phase 4 Project Impact Management Plan, Application AEE Appendix 16, Section 10.3.9

construction is inconsistent with Principle 2(b) of NPS-IB Appendix 4, outlining that biodiversity compensation is not appropriate when effects on indigenous biodiversity are uncertain, unknown, or little understood, but potential effects are significantly adverse or irreversible;

[243] As outlined above in the terrestrial ecology/ indigenous biodiversity assessments of effects, the use of rock stacks to compensate for loss of “irreplaceable” tors is based on no known evidence that they are effective. I also understand that Kā Rūnaka have not been involved in design of this compensation action. Accordingly, this compensation would not meet the following:

- a. NPS-IB Appendices 4: Principles for biodiversity compensation, Principle 11(a) - The design and implementation of biodiversity compensation is a documented process informed by science, and mātauranga Māori.
- b. Proposed Otago Regional Policy Statement 2021, Appendix 4 (APP4) Principle 11 - The design and implementation of biodiversity compensation is a documented process informed by science, and mātauraka Māori.

OBJECTIVES AND POLICIES ASSESSMENT

[244] The following objective and policy assessments are limited in that they assess the proposal within Dunedin City boundaries only. I acknowledge that consideration of the wider proposal outside of Dunedin City boundaries would likely reach differing assessments.

Assessment of the Objectives and Policies of the NPS-IB (Section 104(1)(b)(iii))

[245] The most relevant objectives and policies of the NPS-IB are assessed below.

[246] The objective of the National Policy statement is

(a) to maintain indigenous biodiversity across Aotearoa New Zealand so that there is at least no overall loss in indigenous biodiversity after the commencement date; and

(b) to achieve this:

(i) through recognising the mana of tangata whenua as kaitiaki of indigenous biodiversity; and

(ii) by recognising people and communities, including landowners, as stewards of indigenous biodiversity; and

(iii) by protecting and restoring indigenous biodiversity as necessary to achieve the overall maintenance of indigenous biodiversity; and

(iv) while providing for the social, economic, and cultural wellbeing of people and communities now and in the future.

[247] The proposal effects on indigenous biodiversity within the Dunedin City boundaries are very limited so I consider that all aspects of this objective will be achieved.

[248] The most relevant policies of the NPS-IB are reproduced below, with assessment in turn:

Policy 1: Indigenous biodiversity is managed in a way that gives effect to the decision-making principles and takes into account the principles of the Treaty of Waitangi.

Policy 2: Tangata whenua exercise kaitiakitanga for indigenous biodiversity in their rohe, including through: (a) managing indigenous biodiversity on their land; and (b) identifying and protecting indigenous species, populations and ecosystems that are taonga; and (c) actively participating in other decision-making about indigenous biodiversity.

[249] The applicant has engaged with the relevant Kā Rūnaka to date and will need to continue to engage via these processes so that the proposal meets the above provisions and provide the decision makers with the relevant outcomes from that process so that conditions can be imposed which reflect these requirements, if appropriate. I note that Kā Rūnaka have submitted on the proposal and commented that their ability to participate is hindered. As far as can be assessed at this time, the proposal is considered to be mostly consistent with this proposal, noting that certain aspects will need further time and effort by the applicant prior to the end of the consenting process to reach a fully consistent assessment.

Policy 3: A precautionary approach is adopted when considering adverse effects on indigenous biodiversity.

Policy 8: The importance of maintaining indigenous biodiversity outside SNAs is recognised and provided for.

[250] The adverse indigenous biodiversity effects within the Dunedin City boundaries are very limited so I consider that a precautionary approach has been adopted to the degree necessary to be consistent with Policy 3, and that the inherent lack of effects within the Dunedin City boundaries is consistent with Policy 8.

Policy 5: is managed in an integrated way, within and across administrative boundaries.

[251] I consider that the proposed effects management of this proposal, and it being subject to a jointly notified consent process, mean that the administrative boundaries do not adversely affect integrated management of Indigenous biodiversity. An example of this is proposed wetland impacts within the Waitaki District (Coronation Pit extension) being proposed to be addressed by a replacement wetland within the Dunedin City boundaries.

Policy 10: Activities that contribute to New Zealand's social, economic, cultural, and environmental wellbeing are recognised and provided for as set out in this National Policy Statement.

- [252] The proposal generally meets the attributes of this policy in the benefits that it provides, so can be recognised and provided for accordingly within this NPS. This proposal is considered to be consistent with this policy.
- [253] Principles of this NPS for consideration of offsetting and compensation are included within Appendices 3 and 4 of the NPS respectively. I have assessed the proposal against these principles above in the relevant terrestrial ecology effects assessments, and above in the immediately prior section on offsetting or compensation.
- [254] As outlined above the compensation proposed by the applicant does not meet the requirements for appropriateness and should not be considered to be acceptable compensation as proposed.
- [255] Notwithstanding the above issues with the compensation as part of the wider proposal in how it doesn't meet the principles of this NPS, I consider that where the proposal is located within Dunedin City boundaries, it is consistent with the objective, and policies of this NPS.

Assessment of Objectives and Policies of the Regional Policy Statements (Section 104(1)(b)(iv))

Operative Otago Regional Policy Statement 2019

- [256] The most relevant objectives and policies of the Operative Otago Regional Policy Statement 2019 are assessed below.

Objective 2.2 Kāi Tahu values, interests and customary resources are recognised and provided for

- [257] I consider that the proposal goes some way to being consistent with this objective. Noting I also understand that the applicant's consultation with Kā Rūnaka is ongoing, and it is unclear whether this process will result in the proposal being consistent with this objective or its underlying policies (which are not reproduced here).

Objective 3.1 The values (including intrinsic values) of ecosystems and natural resources are recognised and maintained, or enhanced where degraded.

Policy 3.1.9 Ecosystems and indigenous biological diversity.

Policy 3.2.2 Managing significant indigenous vegetation and habitats.

- [258] I consider that the proposal is consistent with the above objective and policies because the adverse indigenous biodiversity effects within the Dunedin City boundaries are very limited.

Objective 4.1 Risks that natural hazards pose to Otago's communities are minimised.

Objective 4.6 Hazardous substances, contaminated land and waste materials do not harm human health or the quality of the environment in Otago.

Policy 4.6.2 Use, storage and disposal of hazardous substances.

- [259] I consider that the proposal is consistent with the above objectives and policy, in that the proposal has carried out geotechnical assessments to minimise risk of slope failures as a result of seismic events, and will provide increased pit wall stability to Coronation North Pit by backfilling. The proposal will utilise hazardous substances while avoiding harm to human health or the environment. This will be achieved by the well-established management regime at the site for hazardous substances.

Objective 5.3 Sufficient land is managed and protected for economic production

Policy 5.3.1 Rural activities - Manage activities in rural areas, to support the region's economy and communities, by:

a) Enabling primary production and other rural activities that support that production;

b) Providing for mineral exploration, extraction and processing;...

Policy 5.3.4 Mineral and petroleum exploration, extraction and processing -Recognise the functional needs of mineral exploration, extraction and processing activities to locate where the resource exists.

- [260] I consider that the proposal is to be provided for, and is consistent with the above objective and policies, in that it provides for mineral extraction and processing, and is land utilised for economic production. The proposed activity has a functional need to be located where it can access the resource.

Objective 5.4 Adverse effects of using and enjoying Otago's natural and physical resources are minimised.

- [261] I consider that the adverse environmental effects resulting within Dunedin City boundaries are appropriately minimised and assess the proposal is consistent with this objective.

Policy 5.4.6 Offsetting for indigenous biological diversity Consider indigenous biological diversity offsetting, when.....

Policy 5.4.6A Biological Diversity Compensation Consider the use of biological diversity compensation...

- [262] The above provisions are very relevant to the wider proposal, but are not relevant to address any effects of the proposal within Dunedin City boundaries. Accordingly, I consider the proposal to be consistent with the above provisions in as far as I can assess it within Dunedin City boundaries.

Policy 5.4.8 Adverse effects from mineral and petroleum exploration, extraction and processing Manage adverse effects from the exploration, extraction and processing of minerals and petroleum, by....

- [263] Within the Dunedin City boundaries the proposed Coronation Pit extension is located within an existing pit area, and waste rock resulting from this is proposed to be used to

back fill the existing Coronation North Pit. Accordingly, the proposal will manage adverse effects by avoiding areas of indigenous vegetation, and is consistent with all subclauses within Policy 5.4.8(a) where applicable.

Proposed Otago Regional Policy Statement 2021

[264] I have assessed the proposal against the most relevant provisions of the Proposed Otago Regional Policy Statement 2021 and have outlined key assessments below.

MW-O1 Principles of Te Tiriti o Waitangi

The principles of Te Tiriti o Waitangi are given effect in resource management processes and decisions, utilising a partnership approach between councils and papatipu rūnaka to ensure that what is valued by mana whenua is actively protected in the region.

MW-P3 Supporting Kāi Tahu hauora

The natural environment is managed to support Kāi Tahu hauora by:

(1) recognising that Kāi Tahu hold an ancestral and enduring relationship

....

IM-P3 – Providing for mana whenua cultural values in achieving integrated management

Recognise and provide for the relationship of Kāi Tahu with natural resources by:

(1) enabling mana whenua to exercise rakatirataka and kaitiakitaka,

...

[265] I assess that the CIA sought by the Applicant and provided to the Councils, and the ongoing consultation process will allow the resource management processes and decisions to take into account Te Tiriti – provided that information regarding consultation processes and outcomes are provided to all parties. The above objective appears directive of councils so in the case this proposal requires that councils give effect to the principles in making decisions.

[266] I understand that many of the current concerns of Kā Rūnaka regarding this proposal and its effects on their wellbeing are caused by environmental effects occurring outside of Dunedin City boundaries. Accordingly, MW-P3 and IM-P3 possibly have little relevance to Dunedin City Council assessments as the CIA in sections 3.3 and 3.4 does not appear to express concerns regarding Coronation effects that are not either regarding water, or as a result of indigenous vegetation clearance (that does not occur within Dunedin City Boundaries).

[267] I can assess with some certainty that the proposal would not be inconsistent with MW-P3 as Kā Rūnaka views were sought by the applicant prior to applying for the proposal in

requesting a CIA. The degree of consistency with MW-P3 and IM-P3 is less certain as it appears that Kā Rūnaka's ability to exercise rakatirataka and kaitiakitaka, or other roles and relationships outlined in these policies have not yet been provided for by the Applicant in proposed management actions, or conditions.

- [268] I consider that the most relevant policy provisions to assessing the biodiversity aspects of the proposal under the overarching ECO-01-03 indigenous biodiversity objectives to be ECO-P2, ECO-P3, ECO-P4, ECO-P5A and ECO-P6⁹³.

ECO-01 – Indigenous biodiversity

Otago's indigenous biodiversity is healthy and thriving and any overall decline in condition, quantity and diversity is halted.

- [269] The proposal effects on indigenous biodiversity within the Dunedin City boundaries are very limited so I consider that all aspects of this objective will be achieved.

ECO-P2 – Identifying significant natural areas and taoka

Identify and map:

- (1) the areas of significant indigenous vegetation or significant habitat of indigenous fauna that qualify as significant natural areas using the assessment criteria in APP2 and in accordance with ECO-M2, and*
- (2) where appropriate, indigenous species and ecosystems that are taoka, including those identified by mana whenua as requiring protection, in accordance with ECO-M3.*

- [270] The Applicant has correctly identified and mapped the relevant areas of significant indigenous vegetation or significant habitat of indigenous fauna to be consistent with Policy ECO-P2.

ECO-P3 – Protecting significant natural areas and taoka

Outside the coastal environment, and except as provided for by ECO-P4 and ECO-P5A, protect significant natural areas and indigenous species and ecosystems that are taoka by: (1) first avoiding adverse effects that result in: (aa) loss of ecosystem representation and extent,...

ECO-P4 – Provision for new activities

Outside of the coastal environment, maintain Otago's indigenous biodiversity by following the sequential steps in the effects management hierarchy (in relation to indigenous biodiversity) when making decisions on plans, applications for resource consent or notices of requirement for the following activities in significant natural

⁹³ All of these policies appear to be under appeal.

areas, or where they may adversely affect indigenous species and ecosystems that are taoka that have been identified by mana whenua as requiring protection:

...

(1A) the development, operation and maintenance of mineral extraction activities that provide a significant national public benefit that could not otherwise be achieved within New Zealand and that have a functional need or operational need to locate within the relevant significant natural area(s) or where they may adversely affect indigenous species or ecosystems that are taoka, and there are no practicable alternative locations,

...

ECO-P6 – Maintaining indigenous biodiversity

Outside the coastal environment and excluding areas protected under ECO-P3, manage Otago's indigenous biodiversity by:

(1) applying the effects management hierarchy (in relation to indigenous biodiversity) to manage significant adverse effects on indigenous biodiversity), and

(2) requiring the maintenance of indigenous biodiversity for all other adverse effects of any activity, and

(3) ...

[271] I note that ECO-P3 (Protecting significant natural areas and taoka) outlines requirements to be followed to protect these matters, but appears to exempt situations provided for by ECO-P4. In as far as the proposal may be considered relevant to ECO-P3, and ECO-P4 in the Dunedin City boundaries, I assess it is consistent with both of these policies by avoiding adverse effects through the location of the pit extension, and backfilling of an existing pit, and using remaining consented capacity in existing waste rock stacks.

[272] In this case within Dunedin City Boundaries the proposal does appear to follow the sequential steps of the effects management hierarchy, in that it avoids impacting undisturbed area of indigenous vegetation within the Dunedin City boundaries, and proposes mitigation methods to reduce impacts on surrounding areas not subject to disturbance, so is consistent with ECO-P4, and therefore is also considered to be consistent with Policy ECO-P6 – Maintaining indigenous biodiversity.

HAZ-NH-O1 – Natural hazards

Risks to people, communities and property from natural hazards within Otago are maintained where they are acceptable, and managed to ensure they do not exceed a tolerable level.

[273] I consider the proposal is consistent with Objective HAZ-NH-O1 (Natural hazards), as the proposal has carried out geotechnical assessments and design to minimise risk of slope

failures as a result of seismic events, and will provide increased pit wall stability to Coronation North Pit by backfilling.

Assessment of Objectives and Policies of the District Plan (Section 104(1)(b)(vi))

[274] In accordance with Section 104(1)(b) of the Resource Management Act 1991, the objectives and policies of the Operative Dunedin City District Plan and the Partially Operative Second Generation District Plan 2024 (the 2GP) are taken into account in assessing this application.

[275] The 2GP was made partially operative on 19 August 2024. No consideration of the objectives and policies of the District Plan 2006 is required unless the proposal relates to the very few specific provisions and identified areas of the 2GP that remain subject to an appeal. In this instance, none of the appeals are considered relevant to this application so the Operative District Plan objectives and policies are not assessed.

[276] I note here that as the proposal is currently bundled as a non-complying activity overall, assessments of this proposal under the 2GP are required to assess whether the activity is contrary or not to the objectives and policies, so that s104D assessments can be made in the event that the hearings panel determine that the application should remain bundled.

Partially Operative Second Generation Dunedin District Plan 2024

[277] The following 2GP objectives and policies are considered to be relevant to this application and are assessed against the proposal in turn.

[278] I note that the 2GP guidance on the assessment of resource consents in Rule 16.11.2(4) outlines that assessment of Objectives 2.2.2, 16.2.2, 16.2.3, 16.2.4, 5.2.1., and Policies 2.3.1.2, 2.3.1.8, 2.3.1.9 are priority considerations for assessing mining activities. I have perused Objective 2.2.2 and 5.2.1, and consider these to have no relevance in the scenario of this proposal. Similarly, Policies 2.3.1.2 and 2.3.1.9 are unrelated to the circumstances of this application, and the activity within Dunedin City boundaries subject of LUC-2024-126. However, I have assessed the proposal in relation to Objectives 16.2.2, 16.2.3, and 16.2.4, and Policy 2.3.1.8.

[279] Policy 2.3.1.8 in the strategic direction section is specifically about mining activity. Accordingly, this policy and the associated, overarching Objective 2.3.1 are assessed below.

Objective 2.3.1 Land and Facilities Important for Economic Productivity and Social Well-being

Land, facilities and infrastructure that are important for economic productivity and social well-being, which include industrial areas, major facilities, key transportation routes, network utilities, and productive rural land:

a. are protected from less productive competing uses or incompatible uses, including activities that may give rise to reverse sensitivity; and

b. in the case of facilities and infrastructure, are able to be operated, maintained, upgraded and, where appropriate, developed efficiently and effectively.

[280] Objective 2.3.1 above is broad in that it includes any land that is important for economic productivity. This proposal has limited strict relevance to the overarching objective however and is not assessed further.

Policy 2.3.1.8 Recognise the economic and social importance of access to mineral resources through:

- a. using scheduled activities rules for quarries and sand mines that are reliant on these rules from the Dunedin City District Plan (2006) or, as appropriate, for quarries that might otherwise need to establish or rely on existing use rights, with appropriate controls including, but not limited to, maximum annual extraction limits based on existing operations; and*
- b. rules that provide for mineral prospecting, mineral exploration and new or expanded mining activities in rural zones while managing adverse effects on the environment; and*
- c. policies and assessment rules that encourage the consideration of the functional and operational needs of mining activities, including the need for mining to locate where resources are available, and that encourage consideration of the transport benefit of locating mining close to where the product of mining is required.*

[281] Policy 2.3.1.8 seeks to recognise the importance of access to minerals for economic and social reasons. The 'methods' that are outlined to achieve the policy under the overarching objective are directive to the council in writing planning documents. However, I consider that the proposal is consistent with, and not contrary to the intent of this policy, which is to recognise the importance of mining, and to be enabling of it, specifically in rural areas such as the location of the proposal.

Objective 6.2.3 Land use, development and subdivision activities maintain the safety and efficiency of the transport network for all travel modes and its affordability to the public.

[282] The parts of the proposal within the Dunedin City boundaries are located in a relatively isolated area away from the roading network, and the proposal utilises many internal roads and tracks which are not open to the public. The proposal will vest a new section of formed legal road to a 4WD track standard with DCC, and the transportation department is accepting of this. The Applicant has also provided an expert assessment of transportation matters with the application, and the Council has reviewed these documents and considers for the above reasons. Accordingly the proposal (as far as it is relevant) is considered to be consistent with, and not contrary to the above transportation provision.

Policy 9.2.2.1 Require activities to be designed and operated to avoid adverse effects from noise on the health of people or, where avoidance is not practicable, ensure any adverse effects would be insignificant.

Policy 9.2.2.6 Only allow mining or mineral exploration where any adverse effects from air blast and vibration on people's health and safety or on surrounding properties are avoided or, if avoidance is not practicable, no more than minor.

- [283] The proposal will meet the permitted standards for noise within the Dunedin District and is located several kilometres from the nearest residential receiver located on Horse Flat Road in Waitaki District so effects of noise, air blast and vibration are considered to be consistent with, and not contrary to the above provisions.

Policy 9.2.2.10 Require hazardous substances to be stored and used in a way that ensures residual risks of adverse effects on the health and safety of people are managed to acceptable levels.

- [284] As outlined in the effects section of this report, this aspect is considered to be well managed. I consider that the proposal will be consistent with, and not contrary to the above provision.

Policy 9.2.2.14 Activities on land that has a history of land use that may have resulted in contamination are managed in accordance with the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011, including by:

- a. at the time of subdivision, land use or when land development activities involving soil disturbance take place, identifying and assessing risk to human health from contaminants in soil, where practicable; and*
- b. if necessary based on the intended use of the land, remediating or managing the contaminants to make it safe for human use.*

- [285] The applicant has provided information that allows me to assess that the proposal will likely not be contrary to the above provision. I do not consider that the application is contrary to this NES-CS/HAIL provision of the 2GP, noting that further information may be made available by the applicant at a later date to enable further assessment of this provision.

Objective 10.2.1 Biodiversity values are maintained or enhanced, including by protecting areas of significant indigenous vegetation and the significant habitats of indigenous fauna.

Policy 10.2.1.1 Only allow land use, development and city-wide activities where biodiversity values are maintained or enhanced.

- [286] I consider that the proposal will be consistent with, and not contrary to the above provisions within the Dunedin City boundaries in that the Applicant has outlined measures to avoid, remedy, mitigate, offset, and compensate for adverse effects so that no net loss is achievable, and the measures can maintain these biodiversity values.

[287] Policy 10.2.1.X is a general policy applicable to activities that do not meet the listed activity-type carve outs provided in Policy 10.2.1.Y. As the proposal is for mining, Policy 10.2.1.Y is applicable and Policy 10.2.1.X is not.

[288] Policy 10.2.1.Y is a key policy for this proposal and states:

Only allow new roads or additions or alterations to existing roads (roads of national or regional importance only), buildings and structures that form part of rail infrastructure, airport activities, port activities, network utility activities, mining, mineral prospecting and mineral exploration, and any activities ancillary to these, including earthworks and vegetation clearance, to locate in areas of indigenous vegetation and/or habitats of indigenous fauna that meet the significance criteria in Policy 2.2.3.2, including but not limited to scheduled Areas of Significant Biodiversity Value (ASBVs), where all of the following are met:

- a. the activity has a functional need or operational need to locate in the area; and*
- b. ... (not relevant – relates to the coastal environment)*
- c. outside the coastal environment, adverse effects on the values that contribute to the significance of the area are:*
- d. avoided or, if avoidance is not practicable, remedied or mitigated as necessary to maintain the significance of the area; and*
- e. where adverse effects on these values cannot practicably be avoided, remedied or mitigated, biodiversity offsetting is proposed in accordance with Policy 2.2.3.6; and*
- f. for residual adverse effects that cannot practicably be avoided, remedied, mitigated or offset, environmental compensation is proposed in accordance with Policy 2.2.3.7; and*
- g. adverse effects on other biodiversity values of significant areas of indigenous vegetation and/or habitats of indigenous fauna are avoided or minimised as far as practicable, including through biodiversity offsetting that is proposed in accordance with Policy 2.2.3.6, or environmental compensation that is proposed in accordance with Policy 2.2.3.7.*

[289] I have noted the Applicant assessment of this policy on Pages 273 – 274 of the AEE. My assessment of the above policy is as follows:

- a. The Coronation Pit has a functional need to be located as proposed in order to access the resource. The Coronation North Backfilling has a functional need to be located within the relevant pit so that it stabilises the pit.
- b. Regarding c – d of this policy the relevant hierarchy order is followed.
- c. Regarding e – g, the Applicant's proposal is considered to be consistent with these parts of the policy in theory. However, I consider that the Council- recommended changes to those conditions proposed by the applicant would ensure that the

outcomes would be more likely to meet the offsetting and compensation requirements in practice.

- d. I do not consider that the proposal is contrary to this policy and consider it to be generally consistent within Dunedin City boundaries, when carried out in accordance with Council recommendations.

Objective 16.2.1 - Rural zones are reserved for productive rural activities and the protection and enhancement of the natural environment, along with certain activities that support the well-being of communities where these activities are most appropriately located in a rural rather than an urban environment

- [290] Mining is an activity that is most appropriate outside of urban environments and I consider that the proposal is consistent with and not contrary to the above objective.

Objective 16.2.2- The potential for conflict between activities within the rural zones, and between activities within the rural zones and adjoining residential zones, is minimised through measures that ensure:

- (a) the potential for reverse sensitivity in the rural zones is minimised;*
- (b) the residential character and amenity of adjoining residential zones is maintained; and*
- (c) a reasonable level of amenity for residential activities in the rural zones.*

Policy 16.2.2.5 Only allow rural tourism - large scale, rural research - large scale (outside the Invermay Farm mapped area), rural contractor and transport depots - large scale, community and leisure - large scale, healthcare, sport and recreation, veterinary services, visitor accommodation, cemeteries, crematoriums, intensive farming, domestic animal boarding and breeding (including dogs), rural industry, mining, service stations, or landfills where adverse effects on the amenity of residential activities on surrounding properties will be avoided or, if avoidance is not practicable, adequately mitigated.

- [291] The activity is not close to any residential receivers within the Dunedin City boundaries, or close to any residential zone so I consider that the proposal is consistent with, and not contrary to the above objective and policy.

Objective 16.2.3 The rural character values and amenity of the rural zones are maintained or enhanced, elements of which include:

- a. a predominance of natural features over human made features;*
- b. a high ratio of open space, low levels of artificial light, and a low density of buildings and structures;*
- c. buildings that are rural in nature, scale and design, such as barns and sheds;*
- d. a low density of residential activity, which is associated with rural activities;*

- e. a high proportion of land containing farmed animals, pasture, crops, and forestry;*
- f. extensive areas of indigenous vegetation and habitats for indigenous fauna; and*
- g. other elements as described in the character descriptions of each rural zone located in Appendix A7.*

[292] As outlined in the assessments of effects, I consider that the main elements of the Rural High Country Zone ascribed above will be maintained once the proposal is rehabilitated. The proposal will be consistent with, and not contrary to this Objective.

Objective 16.2.4 The productivity of rural activities in the rural zones is maintained or enhanced.

Policy 16.2.3.4 Only allow mining and landfills where there is reasonable certainty that land will be restored or rehabilitated to an acceptable standard with respect to landform and to enable a return to productive, recreational or conservation use as soon as possible.

Policy 16.2.3.5 Only allow intensive farming, rural tourism - large scale, rural industry, rural research - large scale (outside the Invermay Farm mapped area), rural contractor and transport depots - large scale, mining and landfills where adverse effects from large scale development on rural character and visual amenity will be avoided or minimised as far as practicable.

[293] I consider that the rehabilitation requirements will allow the above objective and policies to be met by the proposal over time should these be carried out to a reasonable level of completion, and within a reasonable timeframe. The proposal will be consistent with, and not contrary to the above provisions.

[294] I note the proposal is not located on highly productive land so assessment of Policy 16.2.4.2.b is not required.

Overall Objectives and Policies Assessment

[295] Having regard at the relevant objectives and policies individually, and considering these in an overall way, the above assessment indicates that the application is consistent with, and will not be contrary to those provisions.

DECISION MAKING FRAMEWORK

Part 2 Matters

[296] It is considered that there is no invalidity, incomplete coverage or uncertainty within the Partially Operative Second Generation District Plan 2024. However, the Proposed Operative Regional Policy Statement 2021 remains subject to unresolved Environment Court appeals on a large number of provisions relevant to this proposal. Accordingly, out

of an abundance of caution, and for completeness, I have also considered Part 2 of the Resource Management Act 1991 below.

[297] Section 5 of the RMA Part 2 is its purpose, and this is to “*promote the sustainable management of natural and physical resources*”. Sustainable management in this case means “*managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while:*

- a. sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*
- b. safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and*
- c. avoiding, remedying, or mitigating any adverse effects of activities on the environment.”*

[298] I consider that insofar as the effects of the proposal are located in the Dunedin District, the proposal will be consistent with section 5, as the proposal will allow for significant positive economic and resulting social effects enabling the wellbeing of people and communities, and appears to result in acceptable adverse effects on the environment that will be adequately managed.

[299] Section 6 covers matters of national importance. In this case the following matters are considered particularly relevant:

(c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna: and

(e) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga.

[300] Section 6 requires that these matters shall be recognised and provided for by all persons exercising functions and powers under the RMA. I consider that within Dunedin City boundaries the significant habitats of indigenous fauna, and significant indigenous vegetation are adequately recognised in that they are avoided by the proposal. I consider that the Applicant has gone some way towards recognising and providing for the matters in (e) via the process to seek a CIA, and based on the information available at the time of writing appears to be attempting to move these issues forward via the applicant-Rūnaka discussion process. Notwithstanding the above, there are Rūnaka concerns that remain unresolved and these are reflected in the CIA, and the Kā Rūnaka submission. In as far as the environmental issues are understood to cause the cultural concerns, and in light of the limited environmental effects within the Dunedin District, I consider that the proposal can be considered consistent with Section 6(c) and (e).

[301] I consider that in regard to the activity within the Dunedin City area, the proposal has particular regard to the relevant matters in Section 7, and in light of the CIA sought by the Applicant, and the ongoing consultation process will take into account Te Tiriti; thereby being consistent with Section 8 of Part 2 of the RMA.

- [302] I consider that when limiting assessments to the Dunedin City boundaries, the proposal achieves the purpose and principles of Part 2 of the RMA. I acknowledge that valid alternative assessments on these matters may be reached when considering the wider proposal outside of Dunedin City boundaries.

Section 104D

- [303] Section 104D of the Act specifies that a resource consent for a non-complying activity must not be granted unless the proposal can meet one of two limbs. The limbs of Section 104D require either that the adverse effects on the environment will be no more than minor, or that the application is for an activity which will not be contrary to the objectives and policies of either the relevant plan or the relevant proposed plan.
- [304] As discussed above in the assessment of effects, it is considered that the adverse effects of the proposal will be no more than minor where they occur within Dunedin City boundaries. I note that offsetting and compensation (positive effects) cannot be assessed under assessments for Section 104D, but that they are not required to reach this conclusion within the Dunedin City boundaries as the terrestrial ecology/biodiversity adverse effects within Dunedin District boundaries remain no more than minor.
- [305] Overall, I consider that the actual and potential effects associated with the proposed development will be able to be mitigated by imposing consent conditions so as to be no more than minor and therefore the first 'gateway' test of Section 104D is met. Only one of the two tests outlined by Section 104D need be met in order for Council to be able to assess the application decision under Section 104 of the Act.
- [306] In order for a proposal to fail the second test of Section 104D, it needs to be contrary to the objectives and policies of the Partially Operative Second Generation District Plan 2024. In order to be deemed contrary, an application needs to be repugnant to the intent of the Partially Operative Second Generation District Plan 2024 and abhorrent to the values of the zone in which the activity was to be established. It is noted that in this instance, the proposal is assessed as being consistent with the relevant objectives and policies of the Rural Zone, Transportation, Natural Environment, and Hazards Sections of the Partially Operative Second Generation District Plan 2024. The proposed development is therefore considered to also satisfy the second 'gateway' test outlined by Section 104D.
- [307] In summary, the application passes both the threshold tests in Section 104D of the Act and therefore, in my opinion, it is appropriate for the Committee to undertake a wider assessment of the application in accordance with Section 104 of the Act. In turn, consideration can therefore be given to the granting of the consent.

Section 104

- [308] Section 104(1)(a) states that the Council must have regard to any actual and potential effects on the environment of allowing the activity. This report assessed the environmental effects of the proposal and concluded that the likely adverse effects of the proposed development overall will be minor in terms of the activity located in the Dunedin City boundaries and can be adequately avoided remedied or mitigated provided recommended conditions of consent were adhered to.

- [309] Section 104(1)(ab) requires the Council to have regard to any measure proposed or agreed to by the applicant for the purpose of ensuring positive effects on the environment to offset or compensate for any adverse effects.
- [310] This report concludes within Paragraphs 234-243 that certain aspects of the proposed compensation and offsetting are not appropriate. However, the assessment of effects within the Dunedin City boundaries does not need to rely on these proposed positive actions to be considered acceptable, and these compensation and offsetting actions proposed are to address project impacts within Waitaki District.
- [311] Section 104(1)(b)(iii) requires the Council to have regard to any relevant national policy statement. In this report it was concluded that the application is consistent with the relevant objectives and policies of the National Policy Statement for Indigenous Biodiversity 2023 (Amended 2024).
- [312] Section 104(1)(b)(v) requires the Council to have regard to any relevant regional policy statement. In this report it was concluded that the application is consistent with the relevant objectives and policies of the two Regional Policy Statements for Otago.
- [313] Section 104(1)(b)(vi) requires the Council to have regard to any relevant objectives and policies of a plan or proposed plan. This report concluded that the application would be consistent with the key objectives and policies relating to the Partially Operative Second Generation District Plan 2024.

Other Matters

- [314] Section 104(1)(c) requires the Council to have regard to any other matters considered relevant and reasonably necessary to determine the application.
- [315] Case law indicates that for the Council to grant consent to a non-complying activity, the application needs to be a 'true exception', otherwise an undesirable precedent may be set and the integrity of the Partially Operative Second Generation District Plan 2024 may be undermined.
- [316] In this regard, I do not consider that the proposed activity represents a challenge to the integrity of the Partially Operative Second Generation District Plan 2024 under which the decision is being assessed, as it is only non-complying in this instance due to bundling with the Waitaki District Plan contraventions, and would otherwise comprise a discretionary activity under the Rules of the Proposed 2GP under which it was lodged.
- [317] For the above reasons, I consider that approval of the proposal will not undermine the integrity of the Plan. I therefore do not consider that the Committee needs to be concerned about the potential for an undesirable precedent to be set in this regard.
- [318] The Application AEE examines alternatives⁹⁴. The project aspects within Dunedin City boundaries do not have any alternative assessed apart from underground mining⁹⁵. However, I consider that the Coronation Pit extension portion within Dunedin City

⁹⁴ Application AEE pp. 207-208

⁹⁵ Which is stated to be economically unfeasible, Application AEE p. 208, Section 7.2.1

boundaries and the backfilling of waste rock into the Coronation North pit do not cause significant adverse effects and therefore consideration of alternatives is not strictly required. As these proposal aspects appear to be a relatively preferred option in terms of effects, I consider that further consideration of alternatives should not be suggested in this case, except if it might result in reduced adverse effects outcomes within Waitaki District.

CONCLUSION

[319] Having regard to the above assessment, I recommend that the application be granted, but only subject to appropriate conditions which cannot be finalised for recommendation until a later date prior to the hearing, when Applicant evidence is available.

RECOMMENDATION

[320] *Pursuant to Part 2 and Sections 34A(1), 104, 104B, 104D, and 127(1) of the Resource Management Act 1991, the Dunedin City Council grants the proposal for a non-complying activity at 482 Longdale Road, Hyde, being the following activities in so far as they relate to the land within the territorial area of Dunedin City:*

Gold mining operations involving:

- (a) The extraction of minerals and overburden by mechanical means from the expanded open pits shown as Coronation Pit, Golden Bar Pit, and Innes Mills Pit on Maps 1-3, respectively, attached to and forming part of this consent;*
- (b) The transport, treatment and processing of minerals extracted from the expanded Coronation Pit, Golden Bar Pit, and Innes Mills Pit;*
- (c) The stacking, deposit and storage of substances considered to contain any mineral from the expanded Coronation Pit, Golden Bar Pit, and Innes Mills Pit;*
- (d) The deposit of waste rock produced by the expanded Coronation Pit within the Coronation North Pit, Coronation Waste Rock Stack, Coronation North Waste Rock Stack and Trimbells Waste Rock Stack shown on Map 1 annexed;*
- (e) The excavation of waste rock from the Northern Gully Waste Rock Stack;*
- (f) The deposit of waste rock produced by the expanded Golden Bar pit at the expanded Golden Bar Waste Rock Stack shown on Map 3 annexed;*
- (g) The deposit of waste rock produced by the operation centred on the following grid references: Frasers East Waste Rock Stack (NZTM 1402258E 4972772N), Frasers West Waste Rock Stack (NZTM 1400757E 4970734N), and Frasers South Waste Rock Stack (NZTM 1402065E 4971366N);*
- (h) The deposit of waste rock from the operation into the open pits as shown on Maps 1-3 annexed;*
- (i) The construction and maintenance of the Frasers Tailings Storage Facility, which includes the Frasers Backfill embankment, centred at NZTM 1398891E 4973180N, and as shown on Map 5 annexed; and the deposition or discharge of tailings, process water and associated by-products from the Macraes ore Processing Plant into the tailings storage facility;*

- (j) *The re-establishment, maintenance and use of a haul road from Golden Bar Pit to the ore Processing Plant;*
- (k) *The maintenance and use of a haul road from Coronation North Pit to the ore Processing Plant;*
- (l) *The use of two haul road crossings (approximately centred at grid reference NZTM 1397100E 4975800N Horse Flat Road and NZT 1398200E 4974200N Golden Point Road);*
- (m) *The use and storage of diesel, explosives and associated detonation materials;*

A variation of the consent conditions of:

- (a) *LUC-2013-225 (Coronation)*
- (b) *LUC-2016-230B96 and LUC-2013-225A (Coronation North)*
- (c) *LUC-2019-42 (Coronation North Extension, and Trimbells WRS)*

[321] That should the Hearing Panel exercise its discretion under section 104D to grant consent, that the conditions recommended by the Council, and which will be provided at a later date in accordance with the memorandum accompanying this report (Appendix 4), should be imposed.

REASONS FOR RECOMMENDATION

[322] Provided that a Council-recommended set of conditions of consent are implemented, I consider that the likely adverse effects of the proposed activity can be adequately mitigated and will be no more than minor within the Dunedin City boundaries.

[323] I assess that where the proposal occurs within the Dunedin City boundaries that it:

- a. is consistent with the relevant provisions of the National Policy Statement for Indigenous Biodiversity 2023 (Amended 2024).
- b. is consistent with the relevant provisions of the Operative Otago Regional Policy Statement 2019, and the Proposed Otago Regional Policy Statement 2021.
- c. is consistent with, and not contrary to the relevant provisions of the Partially Operative Dunedin Second Generation District Plan 2024.

[324] As the proposal is considered likely to give rise to adverse effects that will be no more than minor within the Dunedin City boundaries, and will not be contrary with the objectives and policies of the Partially Operative Second Generation District Plan 2024,

⁹⁶ Noting that the Application AEE, Table 4.1, pp.81 seeks variations to the conditions of (underlined for emphasis) "LUC-2016-234 and LUC-2013-225A". I note that the LUC-2016-234 consent reference appears incorrect and should be LUC-2016-230/B (a s.127 variation of LUC-2016-230 issued 27 Nov. 2019). LUC-2016-234 is an unrelated reference, and LUC-2016-230 was superseded with the issue of LUC-2016-230/B, with LUC-2016-230/A recorded on DCC records as withdrawn.

the proposal is considered to meet both 'limbs' of the Section 104D 'gateway test'. Consideration can therefore be given to the granting of consent to the proposal.

[325] The proposed changes to certain conditions of existing resource consents to make these consents compatible with this proposal are considered to result in acceptable effects, and effects that are not additional to the current proposal.

[326] The proposal is considered to be a true exception as apart from the bundling principle causing the non-complying status of the application under the Waitaki District Plan to apply, it is a discretionary activity under the Partially Operative Second Generation District Plan 2024, s.127 of the RMA, and the NES-CS⁹⁷.

[327] Overall, the proposed development has been assessed as not being likely to give rise to any unacceptable adverse effects on those elements of the Rural High Country Zone that the Partially Operative Second Generation District Plan 2024 seeks to protect.

Report prepared by:

Report checked by:



Phil Petersen
Planner
Date 9 June 2025

Campbell Thomson
Senior Planner
Date 9 June 2025

⁹⁷ Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011.

APPENDIX 1:
SUBMISSIONS RECEIVED

From: [Dean Parata](#)
To: [Shay McDonald](#)
Subject: serious environmental breaches by macraes /oceana gold unreported
Date: Wednesday, 2 April 2025 12:52:52 p.m.

tena koe shay

all i ask is you take this email very seriously.

BACKGROUND; I am part of a very dedicated amateur team that has been monitoring these mining co's for thirty years...i also whakapapa as senior ngaitahu line to the area being mined;;;;;;my tribe appointed me to safe guard our customary rights under the un charter for indigenous people;;;;;;customary lore and law.

we are filing legal N.O.P. -SOC -and Affidavits 20 th april as the Tenure on the Illegal Mining licence the `stole` runs out in May this year.....

RED FLAGS; Recent Audits showed blatant breaches of RMA and QE2 Covenants with no sanctions.....these audits were under reported.....we have FACTUAL EVIDENCE BACKED BY LEGAL AUTHORITY BREACHES EVIDENCE TO PROVE

the CORPORATE BREAK means they have no statutory obligations to clean up.

this also done away with the MINING INSPECTORS so no watch dogs.

they monitor their own water tests and have not reported the ARSENIC LEVELS we found.

they stole/t hays mining licence/his land/his heritage as 5th generation settler who ancestors arrived 1838 by evil means which we can now prove outright - slam dunk

they have wiped out 90 % Native lizards and skinks habitat - change the topographical landscape ruining native flora and fauna

worst of all they have wiped out our WAHI TAPU [Sacred Areas] UNACCEPTABLE - t hays mining licence protected the areas under 1971 mining act [californian model] he also holds mineral licence and crown priority.....

the inference is they are out of control and are that arrogant they don't care,

this is not going away because this govt is pushing to increase mining by 300%

1971 MINING ACT -CROWN MINERALS ACT 1971 - LAND TRANSFER ACT 2017 - BREACHED

Pls acknowledge you have received this email in person.....not your minions

we are coming together in chch 10th april till we file 20th april so we are available to share evidence

mate wa

kind regards

dean parata [co ordinator - amrac group]

This is a Submission on (a) limited notified/publicly notified resource consent application/s pursuant to the Resource Management Act 1991.

Submitter Details:
(please print clearly)

Full Name/s:

Dean Haweturi Parata
TREVOR HAY

Postal Address:

[REDACTED]

Post Code:

7473

Phone number:

Business:

A.S.H

Private:

— private

Mobile:

[REDACTED]

Email address:

[REDACTED]

I/we wish to ~~SUPPORT~~ OPPOSE submit a ~~NEUTRAL~~ submission on (circle one) the application of:

Applicant's Name:

Oceana Gold

And/or Organisation:

MACRAES MINING

Application Number:

Location:

Macraes flat - Palmerston South

Purpose:

GOLD MINING

The specific parts of the application/s that my submission relates to are: (Give details)

CORPORATE BREAK - not statutorily
obliged to CLEAN UP - GOT RID OF
INSPECTORATE - Self Covering - No Watchdogs
TEST THEIR OWN WATER SAMPLES

My/Our submission is (include: whether you support or oppose the application or specific parts of it, whether you are neutral regarding the application or specific parts of it and the reasons for your views).

My MAORI HERITAGE HAS BEEN
DESICRATED - ONE OF OUR
CUSTOMAY - THREE SISTERS HAS
BEEN DESTROYED. —
THESE ARE GREENSTONE AND
FOOD GATHERING SITES - SUPPOSED
TO BE PROTECTED BY UNCharter

Thank you for your time.

I/We seek the following decision from the consent authority (give precise details, including the general nature of any conditions sought)

I am senior line NGAITAHU
THAT GOLD MINE IS DESTROYING
OUR CULTURE - OVERSTEPPED
THEIR BOUNDRIES FOR GOLD
ABSOLUT CORRUPTION - CORRUPTS
ABSOLUTELY

I/we:

- ☐ Wish to be heard in support of our/my submission
☐ Not wish to be heard in support of our/my submission

THEY GOT TO GO

If others make a similar submission, I/we will consider presenting a joint case with them at a hearing.

- ☒ Yes
☐ No

TAFF HAY

HOMER

I, ~~am~~ am not (choose one) a trade competitor* of the applicant (for the purposes of Section 308B of the Resource Management Act 1991).

*If trade competitor chosen, please complete the next statement, otherwise leave blank.

I, ~~am~~am not (choose one) directly affected by an effect as a result of the proposed activity in the application that:

- a) adversely affects the environment; and
b) does not relate to trade competition or the effects of trade competition.

I, ~~do~~do not (choose one) wish to be involved in any pre-hearing meeting that may be held for this application.

I ~~do~~do not request* that the local authority delegates its functions, powers, and duties to hear and decide the application to 1 or more hearings commissioners who are not members of the local authority.

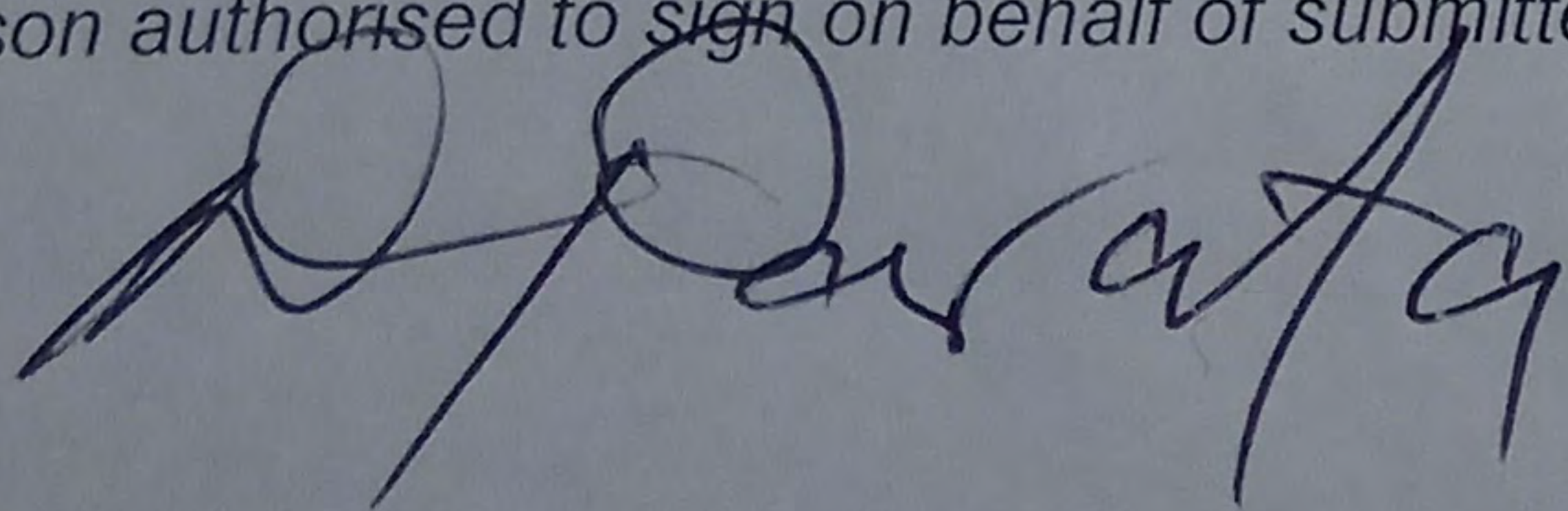
THE POLICE

I have/have not served a copy of my submission on the applicant.

email form was not
accepted

Signature/s of submitter/s

(or person authorised to sign on behalf of submitter/s)



(Date)

Last Day
by
midnight
tonight
1st MAY 2025

Form 13: Submission on application concerning resource consent**Resource Management Act 1991**

To: Otago Regional Council
Waitaki District Council
Dunedin City Council

Name of submitter: Director-General of Conservation (the **Director-General**)

This is a submission on applications from **Oceana Gold (New Zealand) Limited (OGL, the Applicant)** for resource consents.

Description of activity: **Otago Regional Council RM24.184:** Site wide expansion of mining activities at Macraes Gold Mine, for resource consents under the following statutory documents:

- Regional Plan: Water for Otago
- Regional Plan: Waste for Otago
- Regional Plan: Air for Otago
- Resource Management (National Environmental Standards for Freshwater) Regulations 2020

Waitaki District Council 201.2024.2373: To expand various parts of the existing gold mine at Macraes, including extension of three open pits and their associated backfills and Waste Rock Stacks; tailings disposal; minor realignment of the Golden Bar Road; rehandling of waste rock; ancillary features; activities associated with the mitigation, remediation, and offsetting of the effects of the above activities (via the Murphys Ecological Enhancement Area); and subsequent variations to existing relevant consents including LUC 201.2011.35; 201.2013.360, 201.2016.779; 201.2022.2047; 07/63, 96/98.

Dunedin City Council LUC-2024-126 Extension of mining in the Coronation Pit comprising an ore and waste rock total of 28.9Mt. Back filling of the Coronation North Pit, storage and use of various hazardous substances, large scale earthworks, soil disturbance of a HAIL site, and variations of several existing resource consent conditions to accommodate the proposal.

Trade competition: I am not a trade competitor for the purposes of section 308B of the Resource Management Act 1991

My submission relates to: The whole of all applications

My submission is: I seek to ensure that if consents are granted the conditions are appropriate and enforceable; management plans follow best practice; offsetting and compensation for effects on biodiversity follow the effects management hierarchy, current policy, and best practice; there is robust monitoring and compliance; management actions included in the effects management package are funded, implemented, monitored, and subject to consent consequences to incentivise compliance; and this current development can be managed in an integrated manner in terms of the long-term overall mine development.

The Director-General's interest in the Applications

1. The Director-General of Conservation has all the powers reasonably necessary to enable the Department of Conservation (**DOC**) to perform its functions.¹ The Conservation Act 1987 (the **CA**) sets out DOC's functions which include (amongst other things) management of land and natural and historic resources for conservation purposes, preservation so far as is practicable of all indigenous freshwater fisheries, protection of recreational freshwater fisheries and freshwater fish habitats and advocacy for the conservation of natural resources and historic heritage.² Section 2 of the CA defines 'conservation' to mean '*the preservation and protection*

¹ Refer section 53 Conservation Act 1987

² Conservation Act 1987, section 6.

of natural and historic resources for the purpose of maintaining their intrinsic values, providing for their appreciation and recreational enjoyment by the public, and safeguarding the options of future generation’.

2. DOC is also the Crown management agency responsible for processing applications under the Wildlife Act 1953 and I understand that approvals under that Act may be required for the Proposal prior to construction commencing. DOC is also the Crown management regulatory agency for fish passage under the Freshwater Fish Regulations (1983).

Reasons for the Director-General’s submission

3. The Proposal could potentially have **significant adverse effects** on the environment without the application of appropriate conditions, in particular on terrestrial indigenous fauna, flora, habitats, and freshwater ecosystems and species.
4. The decisions sought in my submission are required to ensure that, the decision-maker:
 - a. recognises and provides for the matters of national importance listed in Section 6 of the Resource Management Act 1991 (the **Act**); and
 - b. has particular regard to the intrinsic values of ecosystems as required in Section 7(d) of the Act.
 - c. has regard to the National Policy Statement for Indigenous Biodiversity and the National Policy Statement for Freshwater Management.

Background

5. DOC has been involved in the various stages of development at the Macraes gold mine since its inception in the 1980s. OGL has consistently consulted with DOC when developing proposals, and has amended proposals as a result of that consultation. DOC has submitted on consent applications for most stages, generally seeking to ensure that conditions are appropriate and ecological impacts are adequately addressed.
6. This approach includes the current proposal, where pre-application consultation has included a series of meetings, interim updates, and site visits.
7. I commend OGL for continuing that positive collaborative approach.
8. However, it is also the case that recent compliance reviews by the three consent authorities have shown shortcomings in the implementation of previous consent requirements. This

unfortunately means that impacts on conservation values have often not been addressed as required under consent conditions.

9. DOC wishes to continue to work proactively with OGL, but also seeks to ensure that any consents granted have robust conditions and that measures to address adverse effects including offsetting and compensation will be effective and enduring.
10. The following comments focus on those matters, and I anticipate that DOC may continue to be involved in further iterations of reporting and conditions prior to hearing.
11. Currently, without a set of conditions, it is not clear how OGL will manage the effects of this proposal.
12. For completeness, I note that DOC is also engaged in the current review of the Waitaki District Plan, including the relevant provisions which will apply to the Macraes gold mine.

Conservation values which could be affected by this proposal

13. The area of the Macraes mine is home to a wide range of indigenous vegetation and fauna, including At Risk and Threatened species, some of which are endemic to the Otago region. There are also rare and threatened ecosystem types. Although the current proposal would largely occur within 'brownfield' areas, (i.e. land where some form of mining activity has already occurred), many of those indigenous values remain, and are potentially affected by the proposed development.
14. These values include:
 - Habitat for native lizards, including the At Risk species Tussock skink and Kōrero gecko;
 - 12 native fish species, including Taieri flathead galaxias (Threatened - Nationally Vulnerable), tuna / shortfin and longfin eels (longfin At Risk – Declining);
 - Large endemic parastacid invertebrate - kōura/freshwater crayfish (At Risk – Declining);
 - Tuna (shortfin and longfin eel) and kōura are considered Taonga, of significant cultural importance to tangata whenua, and as mahika kai;
 - Freshwater quality, extent, and natural form and function;
 - Habitat for native birds;
 - Terrestrial and freshwater invertebrates, potentially including the Threatened - Nationally Vulnerable moth species *Orocrambus sophistes*;

- Indigenous vegetation (mainly tussock, shrubland, riparian and wetland species, including some At Risk and Naturally Uncommon species). The area supports a diverse range of native flora, with at least 350 documented native plant species, many of which are endemic to the area;
 - Wetlands, including ephemeral wetlands which are a Critically Endangered ecosystem type;
 - Significant heritage values, including European, Polynesian and pre-human sites;
 - There are also Public Conservation Land and conservation covenant areas in the vicinity of the proposed development.
15. It is important to recognise that the effects of this development cannot be treated in isolation as they will be cumulative to the effects of existing mine development. Also, given the presence of threatened species with limited distribution, there should be an absolute bottom line of not increasing the risk to any of these species.

Management of effects

16. The Applicant's Assessment of Effects on the Environment proposes a range of measures to address effects.
17. For sedimentation and other contaminant discharge effects on water quality, various measures are proposed to reduce the volume and contamination levels of discharges, which will reduce the direct effects.
18. For fish passage (especially for tuna), measures will need to comply with the National Policy Statement for Freshwater Management and the National Environmental Standard for Freshwater. Note that if fish passage is not provided, separate approval would be required under the Freshwater Fisheries Regulations 1983.
19. However, for ecological effects the AEE largely relies on offsetting or compensation measures away from the impact sites, as the nature of mining means there is little ability to avoid, remedy, or mitigate effects on-site. These measures include creation of new wetland and stream habitat to make up for loss of freshwater extent and values, and ecological offsetting and compensation measures at the Murphys Ecological Enhancement Area (MEEA) to address loss of terrestrial ecological values. It also includes some salvage and relocation of affected fish, birds, and lizards.

20. The approach taken for managing effects is heavily reliant on the conditions of consents, and the content of management plans. Although the notified application included some proposed management plans (Ecological Impact Management Plan and Lizard Management Plan), it did not include the Ecological Enhancement Area Management Plan (EEAMP); which contains details of the offset and compensation package, nor consent conditions that those plans would operate under.
21. Resource consent conditions requiring a management plan should have a clear objective and appropriate performance standards in the conditions to enable subsequent management plans to be implemented effectively. As those conditions were not available at the time of preparing this submission, I have not been able to consider whether they will be appropriate.
22. The Cultural Impact Assessment for the proposal was also not available at the time of submissions, and it is unclear what effects the development will have on cultural values.
23. In summary, this means that at the time of lodging this submission there can be no certainty that the combination of conditions and management plans will be able to adequately address effects on the environment.
24. This applies to both the direct effects of this development, and the cumulative effects which arise in conjunction with the existing mine operation.
25. It is also unclear how well the proposed measures will integrate into the management of the overall operation – this is particularly an issue in terms of lizard management, where a long-term approach across the entire development is required.

Wildlife Act Authority

26. I note that separate approvals will be required under the Wildlife Act 1953 where the development could impact on protected native lizards. As I understand the OGL proposals, those approval applications will come after consideration of the resource consents. It will therefore be important that relevant consent conditions and the Lizard Management Plan are consistent with the requirements of the Wildlife Act.

Decision sought

27. I seek the following decision from the Councils:
28. If the consent authorities are minded to grant the applications, that they impose the following requirements:

- the conditions are appropriate and enforceable;
- management plans follow best practice;
- offsetting and compensation for effects on indigenous biodiversity follow the effects management hierarchy, current policy, and best practice;
- there is robust monitoring and compliance;
- all management actions included in the effects management package requiring funding are made transparent in the conditions, and consequences for non-compliance are outlined, including in perpetuity for action by third parties where necessary; and
- the effects of this current development are managed in a coordinated way with the long-term overall mine development.

29. I also seek such alternative and/or additional relief as may be necessary and appropriate to address my concerns.

I do wish to be heard in support of my submission.

If others make a similar submission, I will consider presenting a joint case with them at a hearing.



Gabriel Davies

Manager Operations

Coastal Otago

Acting pursuant to delegated authority on behalf of Penny Nelson, Director-General of Conservation³

Date: 1 May 2025

Address for service:

³ Note: A copy of the Instrument of Delegation may be inspected at the Director-General's office at Conservation House / Whare Kaupapa Atawhai, 18/32 Manners Street, Wellington 6011

Attn: Murray Brass, Senior RM Planner

mbrass@doc.govt.nz and cc to: RMA@doc.govt.nz

027 213 3592

Department of Conservation

PO Box 5244

Dunedin 9054

cc: socialperformance.macraes@oceanagold.com

Submission Form 16 to the Otago Regional Council on consent applications

This is a Submission on (a) limited notified/publicly notified resource consent application/s pursuant to the Resource Management Act 1991.

Submitter Details:

(please print clearly)

Full Name/s: Arlia O'Sullivan (on behalf of Fire and Emergency New Zealand)

Postal Address: ANZ Centre Level 2/267 High Street, Christchurch Central City, Christchurch 8011

Post Code: 8011

Phone number: Business: +6433743199

Private:

Mobile:

Email address: arlia.osullivan@beca.com

I/ we wish to **SUPPORT / OPPOSE** / submit a **NEUTRAL** submission on (circle one) the application of:

Applicant's Name: Fire and Emergency New Zealand

And/or Organisation:

Application Number: RM24.184

Location:

Purpose:

The specific parts of the application/s that my submission relates to are: *(Give details)*

Please refer to PDF submission

My/Our submission is *(include: whether you support or oppose the application or specific parts of it, whether you are neutral regarding the application or specific parts of it and the reasons for your views).*

Please refer to PDF submission

I/We seek the following decision from the consent authority (*give precise details, including the general nature of any conditions sought*)

Please refer to PDF submission

I/we:

- ☐ Wish to be heard in support of our/my submission
☐ Not wish to be heard in support of our/my submission

If others make a similar submission, I/we will consider presenting a joint case with them at a hearing.

- ☐ Yes
☐ No

I, **am/am not** (choose one) a trade competitor* of the applicant (for the purposes of Section 308B of the Resource Management Act 1991).

**If trade competitor chosen, please complete the next statement, otherwise leave blank.*

I, **am/am not** (choose one) directly affected by an effect as a result of the proposed activity in the application that:

- a) adversely affects the environment; and
b) does not relate to trade competition or the effects of trade competition.

I, **do/do not** (choose one) wish to be involved in any pre-hearing meeting that may be held for this application.

I **do/do not** request* that the local authority delegates its functions, powers, and duties to hear and decide the application to 1 or more hearings commissioners who are not members of the local authority.

I **have/have not** served a copy of my submission on the applicant.



Signature/s of submitter/s

(or person authorised to sign on behalf of submitter/s)

1/05/2025

(Date)

Notes to the submitter

If you are making a submission to the Environmental Protection Authority, you should use [form 16B](#).

The closing date for serving submissions on the consent authority is the 20th working day after the date on which public or limited notification is given. If the application is subject to limited notification, the consent authority may adopt an earlier closing date for submissions once the consent authority receives responses from all affected persons.

You must serve a copy of your submission on the applicant as soon as is reasonably practicable after you have served your submission on the consent authority.

Privacy: Please note that submissions are public. Your name and submission will be included in papers that are available to the media and the public, including publication on the Council website. Your submission will only be used for the purpose of the notified resource consent process

If you are a trade competitor, your right to make a submission may be limited by the trade competition provisions in [Part 11A](#) of the Resource Management Act 1991.

If you make a request under [section 100A](#) of the Resource Management Act 1991, you must do so in writing no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

You may not make a request under section 100A of the Resource Management Act 1991 in relation to an application for a coastal permit to carry out an activity that a regional coastal plan describes as a restricted coastal activity.

Please note that your submission (or part of your submission) may be struck out if the authority is satisfied that at least 1 of the following applies to the submission (or part of the submission):

- it is frivolous or vexatious:
- it discloses no reasonable or relevant case:
- it would be an abuse of the hearing process to allow the submission (or the part) to be taken further:
- it contains offensive language:
- it is supported only by material that purports to be independent expert evidence, but has been prepared by a person who is not independent or who does not have sufficient specialised knowledge or skill to give expert advice on the matter.

The address for service for the Consent Authority is:

Otago Regional Council, Private Bag 1954, Dunedin, 9054
or by email to submissions@orc.govt.nz

Form 13

Submission on application concerning resource consent that is subject to public notification by consent authorities

Section 95A Resource Management Act 1991

To: Dunedin City Council, Waitaki District Council and Otago Regional Council

Name of submitter: Fire and Emergency New Zealand

This submission is on resource consent applications by Oceana Gold (New Zealand) Limited to Dunedin City Council (**DCC**) (LUC-2024-126), Waitaki District Council (**WDC**) (201.2024.2373) and Otago Regional Council (**ORC**) (RM24.184) for 34 new or replacement resource consents and s127 variations to 20 existing consents to authorise activities associated with the site wide expansion of mining activities at 'The Macraes Gold Mine', Golden Point Road, Macraes.

Fire and Emergency New Zealand (**Fire and Emergency**) is not a trade competitor for the purposes of section 308B of the Resource Management Act 1991 (**RMA**).

Fire and Emergency are neutral to this resource consent application, subject to the relief sought in this submission.

The specific parts of the application that Fire and Emergency's submission relates to are:

- The provision of emergency access (including hardstands) in accordance with the Designers' guide to firefighting operations: Emergency vehicle access (F5-02-GD).
- Firefighting water supply and the conditions on fire prevention and how these are implemented.

Fire and Emergency's submission is:

Firefighting water supply

In achieving the sustainable management of natural and physical resources under the RMA, decision makers must have regard to the health and safety of people and communities. Furthermore, there is a duty to avoid, remedy or mitigate actual and potential adverse effects on the environment.

The risk of fire represents a potential adverse effect of low probability but high potential impact. Fire and Emergency has a responsibility under the Fire and Emergency New Zealand Act 2017 to provide for firefighting activities to prevent or limit damage to people, property and the environment. As such, Fire and Emergency monitors development occurring under the RMA to ensure that, where necessary, appropriate consideration is given to fire safety and operational firefighting requirements.

In order for Fire and Emergency to achieve their principal objective which includes reducing the incidence of unwanted fire and the associated risk to life and property, protecting and preserving life, and preventing or limiting injury, damage to property land, and the environment, Fire and Emergency requires adequate water supply be available for firefighting activities; and adequate access for developments to ensure that Fire and Emergency can respond to emergencies.

The provision for adequate water supply is therefore critical. It is important to Fire and Emergency that any new or change in land use has access to adequate water supply (whether reticulated or non-reticulated). This essential emergency supply will provide for the health, safety and wellbeing of people and the wider community, and therefore contributes to achieving the purpose of the RMA.

The application states that to mitigate / manage the potential for accidental fire, fire avoidance protocol and a rapid response to any suspected fires will be in place. Specific measures are not specified however, recommended monitoring / future actions include 'maintaining Macraes Gold Operation emergency response capability' and 'a condition regarding fire prevention'. How these will be implemented, and the condition of consent is not included in the application documents and given the scale of this activity, this presents a risk to Fire and Emergency, should appropriate fire risk mitigation / management measures not be included as part of any decision.

Water from the Macraes Mine Water Management System (MWMS) may be used to support ancillary mining activities including fire suppression. It will also be important that the appropriate hardstands are provided, based on the unspecified firefighting water supply source.

Emergency vehicle access

In terms of access, the condition changes are primarily relating to public access and roading in the vicinity of the Coronation Mining Area. Each existing land use consent for Coronation Mining Area includes different public access and roading conditions.

The Macraes Phase 4 (MP4) project has the potential to generate effects upon the operation of the road network given the realignment of a small section of Golden Bar Road from the intersection of the Macraes-Dunback Road. This will remove a section of Golden Bar Road approximately 730m in length and replace it with a road section approximately 160m shorter, with an intersection at Macraes Road. The proposed realignment of this section of Golden Bar Road will not restrict emergency access between Macraes Road and Golden Bar Road to the south, and the changes are likely to have a negligible impact upon travel times in this area.

The application indicates that the geometry of the new road alignment will comply with current Austroroads standards and Waka Kotahi NZTA standards and requirements. These standards provide guidelines for road design, including carriageway widths, which vary based on road classification. While it could be reasonably anticipated that all roads would be constructed to accommodate a fire appliance due to the nature of the activity, there is minimal information provided in relation to the internal roads including dimensions, gradients, curvature which presents a risk to Fire and Emergency operations.

In the absence of specific details on the internal roads, Fire and Emergency request that changes to the roads/internal roads have a minimum carriageway width of 4m, a gradient not steeper than 1:6, and a curvature as outlined in the Designers' guide to firefighting operations – Emergency vehicle access (F5-02 GD).

Future implications

OceanaGold states in its application that it intends to provide the consent authorities with a suite of proposed conditions prior to the applications being heard. These may cover fire risk management and be of interest to Fire and Emergency.

Fire and Emergency seek the following decision from the consent authority:

- Fire and Emergency request that changes to the roads/internal roads have a minimum carriageway width of 4m, a gradient not steeper than 1:6, and a curvature as outlined in the Designers' guide to firefighting operations – Emergency vehicle access (F5-02 GD).
(<https://www.fireandemergency.nz/assets/Documents/Business-and-Landlords/Building-and-designing-for-fire-safety/F5-02-GD-FFO-emergency-vehicle-access.pdf>)
- Fire and Emergency request that, should consent be granted, that fire prevention conditions are included as conditions of consent.
- Fire and Emergency request that they are provided with a full suite of conditions prior to the applications being heard.

Fire and Emergency wish to be heard in support of its submission. If others make a similar submission, Fire and Emergency will consider presenting a joint case with them at the hearing.

Fire and Emergency do not request, pursuant to section 100A of the Act, that you delegate your functions, powers, and duties to hear and decide the application to 1 or more hearings commissioners who are not members of the local authority.



Signature of person authorised to sign on behalf of
Fire and Emergency New Zealand

Date:	1/05/2025
Electronic address for service of person making submission:	arlia.osullivan@beca.com
Telephone:	+64 3 374 3199
Postal address:	ANZ Centre Level 2/267 High Street, Christchurch Central City, Christchurch, 8011
Contact person:	Arlia O'Sullivan

Submission Form 16 to the Otago Regional Council on consent applications

This is a Submission on (a) limited notified/publicly notified resource consent application/s pursuant to the Resource Management Act 1991.

Submitter Details:

(please print clearly)

Full Name/s ☐ The Otago Fish and Game Council

Postal Address ☐ PO Box 76, Dunedin

Post Code ☐ 9016

Phone number ☐ Business ☐ 03 477 9076

Private ☐

Mobile ☐

Email address ☐ otago.planning@fishandgame.org.nz

I/ we wish to **SUPPORT / OPPOSE** / submit a **NEUTRAL** submission on (circle one) the application of ☐

Applicant's Name:

And/or Organisation ☐ Oceana Gold (New Zealand) Limited

Application Number ☐ RM24.184

Location ☐ Macraes Gold Mine at or about NZTM 2000 E1400818 N4972370

Purpose ☐ The Macraes Phase Four (MP4) site wide expansion of mining activities at the Macraes Gold Mine

The specific parts of the application/s that my submission relates to are ☐ (Give details)

The whole application.

My/Our submission is (include: whether you support or oppose the application or specific parts of it, whether you are neutral regarding the application or specific parts of it and the reasons for your views).

Please see the attached submission.

I/We see ☐ the following decision from the consent authority (*give precise details, including the general nature of any conditions sought*)

Please see the attached submission

I/we ☐

- ☒ ~~Wish to be heard in support of our/my submission~~
☐ Not wish to be heard in support of our/my submission

If others make a similar submission, I/we will consider ☐ presenting a joint case with them at a hearing.

- ☐ Yes
☒ ~~No~~

I, am/am not (choose one) a trade competitor of the applicant (for the purposes of Section 308B of the Resource Management Act 1991).

**If trade competitor chosen, please complete the next statement, otherwise leave blank.*

I, am/am not (choose one) directly affected by an effect as a result of the proposed activity in the application that

- a) adversely affects the environment and
b) does not relate to trade competition or the effects of trade competition.

I, ~~do/do not~~ (choose one) wish to be involved in any pre-hearing meeting that may be held for this application.

I ~~do/do not~~ request that the local authority delegates its functions, powers, and duties to hear and decide the application to 1 or more hearings commissioners who are not members of the local authority.

I have/have not served a copy of my submission on the applicant.



Signature/s of submitter/s
(or person authorised to sign on behalf of submitter/s)

1 May 2025

(Date)

Notes to the submitter

If you are making a submission to the Environmental Protection Authority, you should use [form 16B](#).

The closing date for serving submissions on the consent authority is the 20th working day after the date on which public or limited notification is given. If the application is subject to limited notification, the consent authority may adopt an earlier closing date for submissions once the consent authority receives responses from all affected persons.

You must serve a copy of your submission on the applicant as soon as is reasonably practicable after you have served your submission on the consent authority.

Privacy: Please note that submissions are public. Your name and submission will be included in papers that are available to the media and the public, including publication on the Council website. Your submission will only be used for the purpose of the notified resource consent process.

If you are a trade competitor, your right to make a submission may be limited by the trade competition provisions in [Part 11A](#) of the Resource Management Act 1991.

If you make a request under [section 100A](#) of the Resource Management Act 1991, you must do so in writing no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

You may not make a request under section 100A of the Resource Management Act 1991 in relation to an application for a coastal permit to carry out an activity that a regional coastal plan describes as a restricted coastal activity.

Please note that your submission (or part of your submission) may be struck out if the authority is satisfied that at least 1 of the following applies to the submission (or part of the submission):

- it is frivolous or vexatious
- it discloses no reasonable or relevant case
- it would be an abuse of the hearing process to allow the submission (or the part) to be taken further
- it contains offensive language
- it is supported only by material that purports to be independent expert evidence, but has been prepared by a person who is not independent or who does not have sufficient specialised knowledge or skill to give expert advice on the matter.

The address for service for the Consent Authority is:

Otago Regional Council, Private Bag 1954, Dunedin, 9054
or by email to submissions@orc.govt.nz



1 May 2025

Otago Regional Council

Private Bag 1954

Dunedin. 9054

submissions@orc.govt.nz

Submission on Application by OceanaGold – RM24.184

This submission is provided on behalf of the Otago Fish and Game Council (**Fish and Game**). For additional information please contact Ian Hadland using the details below.

Submitter Details

Submitter: The Otago Fish and Game Council

Contact person: Ian Hadland, Chief Executive

Email: otago.planning@fishandgame.org.nz

Office phone: 03 477 9076

Postal address: PO Box 76, Dunedin 9016

Summary of relief sought

- [1]** Given the concerns raised in this submission, Fish and Game seeks the following relief:
- a. Water quality compliance limits should be established that are protective of aquatic ecosystems and sports fisheries. As noted by the Regional Council's consent officer, the current compliance limits set a low bar that allows for significant adverse effects.
 - b. Certainty regarding the implementation of all mitigation measures, including those that may require future consenting or extend beyond the 35-year maximum consent term permitted by the RMA.
 - c. A comprehensive and guaranteed financial mechanism should be established to ensure that all rehabilitation and mitigation activities will be properly funded and implemented over the extremely long timeframes involved (200+ years and into perpetuity).
 - d. In the face of dramatic uncertainty over timeframes that affect countless future generations, the precautionary principle should be applied when making decisions about long-term and perpetual effects.

- e. any decision must support the achievement of the freshwater visions in the Regional Policy Statement that require healthy freshwater ecosystems by 2040 in the Dunedin and Coast FMU and by 2050 in the Taieri FMU.
- [2] Where serious issues raised in this submission are found to be outside the scope of the Phase 4 application, Fish and Game encourages the Regional Council to engage with OceanaGold as necessary to resolve them in the interests of the public.

Background

- [3] Fish and Game is the statutory manager of sports fish and game bird resources within Otago. It holds functions and responsibilities set out in the Conservation Act 1987. The organisation's functions include managing, maintaining and enhancing the sports fish and game resources of Otago in the recreational interests of anglers and hunters; representing the interests and aspirations of anglers and hunters in the statutory planning process; and advocating the interests of the Council, including its interests in habitats. This submission has been developed in line with these functions.
- [4] As required by the Conservation Act 1987, Fish and Game has prepared a Sports Fish and Game Management Plan for Otago¹, which has guided the development of this submission. This document describes the sports fish and game bird resources in the region and outlines issues, objectives and policies for management over the period. The document may be useful for decision makers when considering this application.
- [5] It is important to raise that Fish and Game operates a hatchery at the Macraes Mine site in partnership with OceanaGold, using water pumped up to the mine site to raise fish before it is used in mine processes. This partnership has been productive for many years and the fish grown in the site support community events such as Take a Kid Fishing days. The fish are also used to create stocked fisheries where wild fishing opportunities are lacking, for example to serve the Dunedin population within the city itself at the Southern Reservoir, Tomahawk Lagoon or (slightly further out) at Sullivans Dam. This submission has been written without influence by Fish and Game's partnership and is restricted to the adverse effects on the environment which affect fisheries and licence holders.
- [6] Fish and Game submits in a neutral capacity, with the aim of highlighting key issues that we hope will be addressed in a decision.
- [7] The final piece of background that Fish and Game would like to raise is in relation to the freshwater visions for affected waterbodies. Appeals affecting LF-FW-01A and LF-VM-04 and

¹ Otago Fish and Game Council. 2015. *Sports Fish and Game Management Plan for Otago Fish and Game Region 2015 - 2025*. Dunedin: Otago Fish and Game Council.

LF-VM-05 in Otago Regional Policy Statement 2021 have been resolved and therefore these provisions, which set out visions to be achieved by set dates, should be considered for this application with substantial weight, as they are designed to give effect to the National Policy Statement for Freshwater Management 2020. Among the many achievements for these visions is that by 2040 in the Dunedin and Coast FMU and 2050 in the Taieri FMU, freshwater ecosystems must be healthy.² This is envisioned in the National Objectives Framework to be accompanied by a series of objectives, attributes and target attributes in regional plan to implement the objectives but, given the government's delay in notifying such plans, this is not currently available. Fish and Game instead submits that these consents should be considered against the question: how will this consent support the achievement of the relevant freshwater visions.

Sports Fish and Game Values

- [8] Macraes Mine is located in the headwaters of the Taieri, Waikouaiti and Waihemo Shag Rivers.
- [9] All three of these rivers host brown trout sports fisheries in their mainstems. These fisheries are supported by the habitat of the catchment, such as the quality and quantity of water from tributaries. Below is a summary of information on these three fisheries from the National Anglers Survey and the Otago Sports Fish and Game Management Plan 2015.

Fishery	Angler use³	Significance	Setting	Activity	Users
Taieri River Mainstem ⁴	9,579 – 27,523	A regionally important area for sports fish, game and for angling and hunting	Rural	Fly, spin, bait, hunt	Local, regional, national, junior, commercial
Waihemo Shag River	750 – 1,060	A regionally important trout fishery and habitat	Rural	Fly, spin, bait, hunt	Local, regional, junior
Waikouaiti River	630 – 2,630	This river sits on the border between a locally and regionally significant fishery on the basis of angler use. Its key attributes include: a fishery composed of both sea run and river resident trout; the ability to catch trophy fish; its proximity to a large centre of population (Dunedin) and a growing local population. It is one of a few sizeable and fishable East Coast	Rural	Fly, spin, bait, hunt	Local, junior

² See LF-FW-O1A(1)

³ Numbers cited are the minimum and maximum total use, including error, listed in the NAS between the 1994/1995 and 2021/2022 seasons.

⁴ The NAS breaks this mainstem reporting down further into 4 sections: above Kokonga, Kokonga to Outram, blow Outram and undefined river mainstem.

Statutory managers of freshwater sports fish, game birds and their habitat

rivers between Dunedin and Oamaru
is also a consideration (the other
three are the Waianakarua, Kakanui
and the Shag River).

- [10] Based on its knowledge as the regulator of sports fisheries, Fish and Game would narratively characterise the three fisheries in relation to the Phase 4 proposal as such:
- a. Taieri: a varied fishery which provides lowland fishery values that are used by a majority of people downstream of the Mare Burn. Usage is large for a lowland river and the proximity to the Dunedin population centre makes it more accessible to the public. People have reported being turned off by the level of pollution in the lower river.
 - b. Waikouaiti: description provided in table is accurate. Fish and Game staff have grown increasingly concerned in recent years with the degradation of water quality and the amount of algal growth that has been observed during summer.
 - c. Waihemo Shag: Similar characteristics to the Waikouaiti although there are fewer reports of water quality concerns by anglers. It is widely considered to be gravel deficient due to excessive historic gravel extraction.
- [11] In all catchments, Fish and Game does not expect the range of sports fish to extend far into the smaller tributaries close to the mine site. Sports fish will be present in the main stems of each of the catchments (including the North Branch of the Waikouaiti River) and a short way up the larger tributaries – the Mare Burn and Deepdell Creek. This is broadly supported by the ecological information presented by the applicant.
- [12] As a result, the application's main impact on sports fisheries will be through the discharge of contaminants and flow on ecological effects which may affect trout populations. In the Taieri and Waikouaiti particularly, these are likely to combine with other water quality issues to create cumulative effects.
- [13] Fish and Game anticipates little impact on game birds. They will be impacted by loss of habitat at mine site where vegetation and wetlands are removed. This will mainly affect paradise shelduck / pūtangitangi (*Tadorna variegata*) as few other waterfowl will range into the highland headwaters. As a common species, the amount of habitat supporting paradise shelduck that may be lost is not a major concern to Fish and Game.

Impacts on sports fisheries

- [14] Fish and Game understands that the nature of the discharges of contaminants under Phase 4 is that they will continue largely as they have over the life of the mine until its closure, then

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ramp up over long to very long timeframes as the mine pits fill and become lakes, increasing their seepage loss and, for some, overflowing into water bodies.

- [15] Fish and Game understands that the Notification Report Author and the applicant are in broad agreement about the adverse effects of the discharge on aquatic life and ecosystems. However, the Notification Report Author helpfully notes some substantial caveats to this in her report:⁵

“I would qualify this conclusion by reinforcing that the effects on aquatic ecology rely on future water quality being as predicted i.e. that contaminants generally remain below relevant water quality guidelines that are protective of ecological health. This future water quality is as predicted by models, which assumed that a number of important mitigation measures are implemented, particularly in the NBWR catchment. As noted in previous sections, some of these mitigation measures are not in place, may require additional resource consents to implement, and would require ongoing management to verify that they are as effective as expected. This introduces some uncertainty. The Applicant has stated that they will return seepage water to the mine water management system as required to remain within the existing compliance limits. Collecting and recycling mine impacted water is a sensible action; however, only ensuring that water quality remains below existing compliance limits is a very low bar, as these limits allow for significant adverse effects.” (my emphasis added)

- [16] Fish and Game submits that the Notification Report Author’s caveats show clear issues that should be resolved in a decision, as they will be determining factors in the mine’s adverse effects in Phase 4 and into the next centuries.
- [17] We understand that there may be complicated scope issues with these issues as they will be influenced to some degree by existing consents. We raise the issues plainly in this submission and trust that the decision will appropriately deal with the question of scope.
- [18] Where serious issues raised here are found to be outside the scope of the Phase 4 application, we encourage the Regional Council to engage with OceanaGold as necessary to resolve them in the interests of the public.
- [19] In the remainder of this submission, Fish and Game will present a short description of issues related to each of the Notification Report Author’s caveats.
- a. A reliance on monitoring: over the life of Phase 4 and into the future, someone will need to be present to ensure that the modelled water quality outcomes and expected discharge rates hold true and action will need to be taken if they do not. Given the timeframes involved are extremely long – 200+ years in some cases – the entity which

⁵ Notification report section 9.8.3, pg 85.

does this will need to be exceptionally well funded, both to be present throughout that timeframe and to step in with what could be expensive remedial work as needed.

- b. Future mitigation is required, some of which requires future consenting: the Notification Report Author states that:⁶

“The WGA peer review stated that through the modelling process it became clear that the discharge of water in areas of the NBWR catchment impacted by mining would lead to unacceptable downstream water quality outcomes.

By implementing a selected range of mitigation measures within the catchment (as in the mitigation scenario), the risk of compliance exceedance is significantly reduced with concentrations of sulphate, Nitrate N, Ammoniacal N and copper below the stated compliance limits. Elevated arsenic at compliance location NB03 is a result of the Golden Bar pit spill and could be managed by controlled discharge (during high flows) and/or treatment (e.g. dosing the pit lake with Ferric Chloride). As in the Shag River catchment, modelled concentrations of iron are primarily a result of the assumed basecase water quality and modelled exceedances of iron are likely conservative and significantly overstated. Ryder states that for mining and long-term scenarios, virtually all modelled contaminants at all surface water compliance sites meet the ANZ default guidelines for 95% species protection. Copper is modelled to exceed the ANZG 95% DGV at NBWRRF and NB03 in the long-term phase even in the selected mitigation scenario.”

In addition to this, in section 8.4 the Notification Report Author describes some of these activities and notes that several “... are not expected to occur for more than 35 years i.e. outside the maximum term allowable by the RMA.”

On pg 82 she provides her opinion that:

“... limited weight should be given to the ‘selected mitigation’ scenario in the NBWR catchment, because some of the mitigation measures would require authorisation by additional resource consents and the efficacy of, for example, the passive treatment systems, would require trials or further feasibility studies. The Applicant states that until the mitigation measures are in place they will pump seepage back to pits to ensure compliance with existing water quality compliance criteria. This is not the same as saying they will pump water back to ensure compliance with guidelines protective of good water quality or ecological health. Therefore, until the mitigations are in place

⁶ Notification report section 9.7.1, pg 79.

I consider that there is potential for more than minor adverse effects on water quality in the NBWR Catchment.

From this, Fish and Game understands that the Phase 4 activities will result in unacceptable water quality outcomes in the NBWR and several of the mitigations required to avoid this cannot be guaranteed in a present-day decision as their term would exceed 35 years or require further trials.

For the NBWR, the alternative of pumping water indefinitely seems equally uncertain, as it would require constant expenditure over many hundreds of years or more.

In the face of unacceptable environmental impacts, the public deserves certainty that the required actions will take place.

- c. Existing compliance limits set a low bar that allow for significant adverse effects: The Notification Report Author on pg 81 asserts that, in relation to water quality,

“Compliance with existing consent limits does not speak to the magnitude of effects and is simply an indication that the numerical thresholds that apply to other consents affecting the catchments can be complied with. In fact, the current compliance limits provide for significant adverse effects.”

This sentiment is repeated in the Notification Report Author’s quote the beginning of this submission’s paragraph 15.

It’s not clear to Fish and Game exactly what the significant adverse effect that is being referred to is; however, given the conclusion it is worrying. The above statement was made in relation to water quality, so if that has flow on effects for aquatic life, then Fish and Game submits that Resource Management Act section 107 should be a consideration. We note that the Notification Report Author characterises the adverse effects on aquatic life in the NBWR as more than minor but does not give an indication of the scale above the ‘minor’ mark. Significant adverse effects on aquatic life is one outcome that could be inferred from her statement.

This discussion also needs to be cognisant of the mine’s very poor compliance record for adhering to water quality limits in recent years. The Notification Report contains a statement from Principal Compliance Specialist Rachael Brennan:⁷

“... There were 37 exceedances of water quality limits at 11 monitoring sites during the past 5 years. Of these 13 were significant exceedances attributed to current mining operations. The exceedances were investigated, and the source identified, with additional monitoring and mitigation undertaken by Oceana Gold. The results of recent monitoring show an improvement, with a

⁷ Notification report section 7.3, pg 47 & 48.

couple of sites still showing moderate exceedances of limits but reducing. Oceana Gold continues regular dialogue with the Otago Regional Council to ensure progress toward consent compliance continues.”

Fish and Game is not confident that simply relying on existing compliance limits which are not currently being met and may allow for significant adverse effects will assist to achieve the healthy ecosystem aspects of freshwater visions for the Taieri and Dunedin and Coast FMUs. It may be that stricter consent limits are required, alongside a stricter compliance regime.

- d. The rehabilitation timeframes are incomprehensibly long and difficult to manage with certainty: The rehabilitation plan for the mine extends many hundreds of years and into perpetuity. Each of the caveat related issues raised so far interact with this fundamental question: who will guarantee responsibility for the rehabilitation work? Modelling must be verified, pumping must be undertaken, compliance limits met and, if something goes wrong, remedial action must be taken. This must all occur in the context of unpredictable change across timeframes that span dozens of generations and into perpetuity.

In so many cases around the world and in New Zealand, the public has ended up taking on the burden of rehabilitation of mining sites because this process has gone wrong. It is critical that this does not happen in this case.

It is also important to consider geotechnical stability through this lens. Being a mine in the headwaters of three large catchments that holds contaminated water in dams, the consequences of dam failure are extremely serious. Fish and Game are not geotechnical experts but to us a laypeople, the task of maintaining pit stability in an earthquake prone country into perpetuity seems daunting and costly. Similarly, the Regional Council’s geotechnical reviewer questioned the practicality of this, as reported by the Notification Report Author:⁸

“Generally, there is a risk of instability in pits post-closure, and the proposal to mitigate this risk via exclusion zones to ensure FoS of 1.5 outside the exclusion zone is considered reasonable from a geotechnical perspective, but Mr Macdiarmid notes that the practicalities of maintaining this in perpetuity should be considered by others.”

When considering the long term and very long term adverse effects of this application and the cumulative impacts of the mine as a whole, Fish and Game submits that the decision maker should be very certain that there is an extremely robust mechanism to

⁸ Notification report section 9.4.2, pg 59.

ensure any proposed rehabilitation work – including future adaptive management actions which are not now currently known – will actually be undertaken.

With that said, Fish and Game is not clear exactly how this could be achieved on a project which spans hundreds of years and into perpetuity, affecting countless future generations. In the face of such dramatic uncertainty, it may be that adopting the precautionary principle would be a helpful place to begin.

Statutory managers of freshwater sports fish, game birds and their habitat

Otago Fish & Game Council

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Submission on application
no. RM24.184 Oceana Gold
(New Zealand) Limited –
Macraes Mine that is
subject to public
notification by Otago
Regional Council



Pursuant to the Resource Management
Act 1991

Form 13

01 May 2025

To: Otago Regional Council

Private Bag 1954

Dunedin 9054

New Zealand

By email: submissions@orc.govt.nz

Name of Submitter: Royal Forest and Bird Protection Society of New Zealand Incorporated
(Forest & Bird)

Application

This is a submission on an application from Oceana Gold (New Zealand) Limited for resource consents and change of conditions of existing resource consents to enable the Macraes Phase Four site wide expansion of mining activities at the Macraes Gold Mine, Otago.

The application seeks resource consents under the:

- Regional Plan: Water for Otago
- Regional Plan: Waste for Otago
- Regional Plan: Air for Otago
- Resource Management (National Environmental Standards for Freshwater Regulations) 2020

Consents required from ORC include 34 new resource consents as well as section 127 variations to 20 existing resource consents. Using the bundling method, the application has been assessed as a non-complying activity¹.

The consents are required to enable the Macraes Phase Four (MP4) project. For brevity, the proposed activities are described in the applicant's application, Assessment of Environmental Effects and supporting technical documents along with the descriptions in sections 7.2 and 8.2 of the Otago Regional Council Notification Recommendation Report. They are not repeated in our submission.

Trade competition declaration

Forest & Bird are not a trade competitor for the purpose of section 308B of the Resource Management Act 1991.

The parts of the application that Forest & Bird submission relates to:

All activities proposed which will result in an adverse effect on indigenous biodiversity and the health and wellbeing of water bodies and freshwater ecosystems.

¹ As described in section 8.5 of the Otago Regional Council Notification Report.

Summary of submission

Forest & Bird opposes the application in full because:

- The application will result in significant adverse effects on indigenous vegetation, fauna habitat, wetlands, and freshwater ecosystems.
- The application is inconsistent with the relevant statutory framework, including:
 - Section 6 and 7 of the Resource Management Act 1991 (**'the Act'**)
 - The National Policy Statement for Freshwater Management 2020 (updated October 2024) (**'NPS-FM'**)
 - The National Policy Statement for Indigenous Biodiversity 2023 (updated October 2024) (**'NPS-IB'**)
 - Proposed Otago Regional Policy Statement 2021 (**'proposed RPS'**)
 - Operative Otago Regional Policy Statement 2019 (**'operative RPS'**)
 - Otago Regional Plans
- There is substantial uncertainty about the scale of effects.
- The use of biodiversity compensation for the threatened moth species is inappropriate under the NPS-IB.
- The health and wellbeing of freshwater bodies and freshwater ecosystems are not adequately prioritised in accordance with the NPS-FM.
- Effects on specified highly mobile species like the NZ Falcon and pipit and other indigenous birds and species are not sufficiently mitigated.

The Royal Forest & Bird Protection Society of New Zealand Incorporated (Forest & Bird)

1. Forest & Bird is New Zealand's largest and oldest non-government conservation organisation. For almost one hundred years, Forest & Bird has been giving a voice to nature on land, in freshwater and at sea, on behalf of its many members and supporters. Volunteers in fifty Forest & Bird branches throughout Aotearoa New Zealand carry out conservation and biosecurity projects in their communities including weed control, restoration and pest trapping.
2. Forest & Bird's constitutional purpose is:
To take all reasonable steps within the power of the Society for the preservation and protection of the indigenous flora and fauna and the natural features of New Zealand.

3. In support of that purpose, Forest & Bird regularly participates in resource management processes at the national, regional, and district level including making submissions on resource consent applications.

What has informed our submission

4. Forest & Bird have relied on Otago Regional Council's Notification Report - Titled: 'ORC Notification Recommendation Report', Subject: 'Application RM24.184 by Oceana Gold (New Zealand) Limited for various consents relating to the Macraes Phase Four mine expansion.', dated 20 March 2025 to inform our submission. We have relied upon the report because it is based upon the findings of independent peer reviews of the application, technical reporting and further information submitted by the applicant to Council. We refer to the report in our submission as 'the Notification Report'.

Our submission is:

1. Forest & Bird oppose the application to enable MP4 because:
 - a. the effects on indigenous vegetation and the habitat of indigenous fauna are too significant and therefore inappropriate, and
 - b. The extent of impact on wetland values and areas are unacceptable, given the habitat they provide for indigenous fauna, and
 - c. The application is inconsistent with relevant higher order planning documents, including the NPS-IB, NPS-FM and the proposed and operative RPS, and Otago Regional Plans, and
 - d. There is also considerable uncertainty about the extent of ecological effects, which risks greater adverse impacts on indigenous biodiversity and freshwater than currently assessed.
 - e. the reliance on offsetting and compensation is not appropriate in the case of effects on the threatened moth species *Orocrambus sophists*, and
 - f. The ongoing uncertainty the mine's end of life will continue ongoing social and cultural impacts, and
 - g. The mine's existing activities combined with this application and future applications for expansions and extending the lifetime of the mine will result in cumulative effects on the environment.
2. In the sections below, we expand on why this is our position.

Significant adverse effects on terrestrial indigenous biodiversity

1. The Otago Regional Council and Department of Conservation's recent reporting² demonstrated that Otago is one of New Zealand's most ecologically diverse regions of New Zealand, with many regionally threatened, at risk and in some cases regionally extirpated and extinct species.
2. The Notification Report describes the indigenous biodiversity in the zone of impact (ZOI). In summary, the ZOI contains a range of indigenous vegetation types, ephemeral and other natural inland wetlands, riparian vegetation, wetland/riparian mosaics, shrubland, and tussock land. These habitats support 128 indigenous plant species, of which 14 are either nationally At Risk, Data Deficient, or locally uncommon, along with 10 indigenous bird species, including one Threatened, two At Risk species and specified highly mobile fauna.
3. Within the ZOI, there is approximately 90 hectares of suitable or potentially suitable habitat for both lizards and invertebrates. The lizard population is estimated to be in the high thousands, while the invertebrate community is also substantial and includes the threatened moth species *Orocrambus sophistes*.
4. The indigenous vegetation communities occur within three threatened land environments. Notably, the ephemeral wetlands in the Coronation area represent a critically endangered, naturally uncommon ecosystem.
5. Overall, the tussock land, shrubland, wetland, riparian, and ephemeral wetland communities within the project area are recognised as significant under the partially operative and proposed Otago Regional Policy Statement and the Waitaki District Plan. These areas would also meet the criteria for Significant Natural Areas (SNAs) under the NPS-IB.
6. At section 9.9.3 of the Notification Report Ms. McDonald explains:
It is evident that the proposal will have more than minor adverse effects on terrestrial ecology even after measures to minimise or remedy effects are considered. In particular, there will be a high level of effect on tussock grassland, lizards, invertebrates, and some bird

² See Conservation Status of Indigenous Vascular Plants in Otago, March 2025; Regional Conservation Status of Birds in Otago, February 2025; Conservation status of reptile species in Otago Report, August 2024; Conservation Status of Bat Species in Otago, August 2023; Conservation Status of Otago's Amphibians Report, April 2024; Conservation status of selected fungal taxa in Otago, October 2024;

species, and a very high level of adverse effect on ephemeral wetlands in the Coronation area, which are critically endangered natural ecosystems. [...] The majority of effects will occur in the Golden Bar area, and most of these will have a high level of adverse effect. Additionally, a substantial proportion of the affected areas are classified as LENZ and Significant Natural Areas.

7. In addition, she notes that loss of vegetation will result in loss of habitat for the New Zealand falcon, pipit, harrier hawk, spur-winged plover and paradise shelduck. The pipit and New Zealand Falcon are identified in Appendix 2 of the NPS-IB as specified highly mobile fauna.
8. SNAs must be protected from adverse effects by avoiding and managing adverse effects from use and development in accordance with: section 6(c) of the Act, Policy 7 of the NPS-IB, Policy 3.2.2 of the operative Otago RPS, and ECO-P2 of the proposed Otago RPS. Indigenous biodiversity outside of SNAs must be maintained in accordance with section 7(f) of the Act, Policy 8 of the NPS-IB, Policy 3.19 of the operative RPS, and Policy ECO-P6 of the proposed RPS.
9. The application will result in the loss of indigenous biodiversity, including threatened and at-risk indigenous vegetation, birds, invertebrate, lizards, naturally uncommon ecosystems, and land environments. This is contrary to the requirements of the NPS-IB, operative and proposed RPS, and sections 6 and 7 of the Act and amounts to significant adverse effects on indigenous biodiversity.
10. In addition, the NPS-IB requires areas outside SNAs that support specified highly mobile fauna are managed to maintain their populations across their natural range³. It also requires regional councils to manage the adverse effects of new subdivision, use, and development on highly mobile fauna areas, in order to maintain viable populations of specified highly mobile fauna across their natural range⁴.
11. As proposed, the application does not protect populations of these highly mobile fauna because it results in habitat loss and fragmentation, which Policy 15 and Clause 3.20 of the NPS-IB seek to avoid.

³ Policy 15 of the NPS-IB

⁴ Clause 3.20 of the NPS-IB

Loss of natural inland wetland extent and values

12. The application will result in the loss of extent and values of natural inland wetlands present within the application site, which is contrary to the directive to avoid such loss under the policy 6 of the NPS-FM and Policies 3.1.1 and 3.2.16 of the operative RPS, and policy LF-FW-O9 of the proposed RPS.
13. Ms McDonald describes the activities proposed through the application. She describes permanent loss, hydrological changes, loss of vegetation all of which result in loss of habitat for local bird populations at section 9.9 of her report.
14. These effects are contrary to section 6 of the Act, the NPS-FM and NPS-IB as it will result in wetland extent and values, which support indigenous biodiversity within them.

Reliance on uncertain and incomplete assessments and unproven mitigation

15. Forest & Bird are concerned about the level of uncertainty within the effects assessments on water quality and quantity, aquatic ecology and indigenous biodiversity.
16. For water quantity and quality, this uncertainty is described in the Notification Report (at pages 64, 65, 66, 73 and 82), where she summarises concerns and queries raised by Ms Badenhop in her technical review and audit, including:
 - a. A lack of clarity around the calibration data for groundwater models, particularly whether the water level inputs were based on one-off measurements or representative statistical values.
 - b. Climate change being factored into the surface water modelling but excluded from groundwater modelling.
 - c. GHD recommended more extensive groundwater monitoring (including both quality and levels) using existing and new bores, particularly along the predicted contaminant plume pathways. This would allow better model calibration and provide greater confidence in effect predictions. However, the Applicant has not confirmed they will carry out this monitoring.

- d. Additional monitoring was also recommended in the wider area surrounding the proposed pit extension and WRS, and in the catchments of McCormicks Creek and Murphys Creek, both before and during mining. Again, there is no indication the Applicant has committed to this work.
 - e. The very low predicted risk (<1% probability) of sulphate and nitrate-nitrogen exceedance at monitoring points MB01 and MB02 post-closure is contingent on the indefinite retention of the Trimbells and Maori Hen silt ponds. Since future plans for these ponds are unclear, the reliability of this prediction is uncertain.
 - f. There are further uncertainties related to assumptions about the Trimbells WRS. Specifically, it is assumed that water quality will not degrade as it passes through the WRS. Although the Applicant has committed to installing engineering measures such as a toe drain, buttress, and potentially an advective barrier, the actual effectiveness of these measures in preventing oxygen ingress and subsequent contaminant release remains to be demonstrated.
 - g. Lastly, the GHD and Ryder assessments do not appear to incorporate the proposed additional mining in Coronation North. It remains unclear whether these assessments accounted for the pit's existing state or assumed full mining under the existing (soon expiring) consent. As a result, current predictions may not reflect the full extent of proposed activity.
17. On page 85 of the Notification Report, Ms McDonald concludes that effects on aquatic ecology are likely to be no more than minor. However, she notes this finding is contingent on future water quality aligning with modelled outcomes — specifically, that contaminant levels stay below ecological thresholds. These predictions depend on key mitigation measures being implemented, especially in the NBWR catchment. Since some of these measures are not yet in place, may require further consents, and will need active management to maintain effectiveness, there remains a degree of uncertainty about whether the assumed ecological and water quality protection will be realised. This fails to prioritise the health and wellbeing of waterbodies and maintain indigenous biodiversity in line with the NPS-FM, NPS-IB and operative and proposed RPS.
18. At page 87, Ms McDonald highlights inconsistencies across the various terrestrial ecology reports regarding the scale of vegetation, habitat, and fauna affected by the proposal. She notes that this variation partly stems from the inherent difficulty in measuring such features

precisely. As a result, the figures presented in assessments should be considered approximations. This introduces a level of uncertainty about the full extent of ecological impacts. The potential effects on indigenous biodiversity are uncertain but may be significant or irreversible. A precautionary approach is therefore required under Policy 3 of the NPSIB. As proposed, the application does not adopt a precautionary approach.

19. The level of uncertainty inherent in the application and as described above is at an unacceptable level to grant consent. Given the indigenous biodiversity and freshwater ecosystems within the zone of impact it is crucial the effects envelope, effects management and mitigation methods are well understood.

Inappropriate use of biodiversity compensation

20. The applicant is proposing to provide biodiversity compensation for more than minor residual effects on the threatened moth⁵ known to be present in the zone of impact. As described at page 96 of the Notification Report, the NPS-IB and proposed and operative RPS describe when biodiversity compensation is not appropriate.
21. The applicant is required to manage effects on indigenous biodiversity by applying the effects management hierarchy.
22. Clause 1.6 of the NPS-IB defines the effects management hierarchy. It requires a sequential approach to managing adverse effects on indigenous biodiversity from activities. It requires that adverse effects are:
- a. Avoided where practicable, then
 - b. Where they cannot be avoided, minimised where practicable, then
 - c. Where they cannot be minimised, remedied where practicable, then
 - d. If more than minor residual adverse effects remain after avoidance, minimisation and remediation, biodiversity offsetting is provided where possible, then
 - e. Where biodiversity offsetting of more than minor residual adverse effects is not possible, biodiversity compensation is provided, then
 - f. If biodiversity compensation is not appropriate, the activity itself is avoided.

⁵ *Orocrambus sophistes*

23. Clause (2) of Appendix 4 of the NPS-IB sets out when biodiversity compensation is not appropriate. It is not appropriate when the indigenous biodiversity affected is irreplaceable or vulnerable. The moth species is threatened therefore biodiversity compensation is not appropriate under the NPS-IB and the activity itself should be avoided in accordance with applying the effects management hierarchy.
24. Policy 5.4.6A of the Operative RPS is to only consider biological diversity compensation when adverse effects cannot be avoided, remedied, mitigated or offset and the residual adverse effects will not result in:
- a. Removal or loss of viability of habitat of a threatened or at risk indigenous species of fauna or flora under the New Zealand Threat Classification System (“NZTCS”);
 - b. Removal or loss of viability of an originally rare or uncommon ecosystem type that is associated with indigenous vegetation or habitat of indigenous fauna;
25. Appendix 4 of the proposed RPS states when biodiversity compensation is not appropriate including (e) ‘removal or loss of viability of the habitat of a Threatened indigenous species of fauna or flora under the New Zealand Threat Classification System (Townsend et al, 2008).’
26. Vegetation loss, which provides habitat for the moth is proposed through the application. Thus, the compensation cannot be considered. We also question whether compensation is available to the applicants for a) loss of habitat for the NZ Falcon or pipit which are classified in Appendix 2 of the NPS-IB as threatened and at risk, and b) loss of vegetation and ephemeral wetlands given these uncommon ecosystem types.
27. Forest & Bird are concerned that because the applicant has not identified where compensation is not appropriate and avoided effects that cannot be compensated for, the effects management hierarchy has not been applied correctly for other effects on indigenous biodiversity and freshwater ecosystems on site. This requires careful assessment and consideration moving forward.

Adverse effects on the health and well being of water bodies and freshwater ecosystems

28. Ms McDonald describes changes in flow or water quality can adversely impact aquatic flora or fauna through physical changes to instream habitat or through toxicity effects.

29. At section 9.7.3 of her Notification Recommendation Report, Ms McDonald describes the potential adverse effects on water quality. She concludes that most contaminants are anticipated to remain below guideline thresholds that protect ecological health.
30. However, she identifies two exceptions: elevated copper levels at site GB01 in the Clydesdale Stream, and at the NBWRRF site, where copper could also cause more than minor toxic effects if proposed mitigation measures are not put in place or do not perform as expected.
31. Ms McDonald also raises concerns about the reliance on the 'selected mitigation' scenario for the NBWR catchment. She notes that some of the proposed measures would require additional resource consents, and that the effectiveness of others—such as passive treatment systems—remains uncertain without further testing or feasibility assessment. While the Applicant has indicated they will temporarily redirect seepage back into pits to meet current compliance standards, Ms McDonald points out that this does not necessarily guarantee compliance with water quality guidelines aimed at protecting ecological health. Accordingly, she considers there is a risk of more than minor adverse effects on water quality in the NBWR catchment until the full suite of mitigation measures is both authorised and effectively implemented.
32. More than minor effects arising from copper contaminants and from uncertainty of mitigation measures is not consistent with maintaining the health and wellbeing of water bodies and freshwater ecosystem health in line with Policy 5 of the NPS-FM, Policy 3.1.1 of the operative RPS and Objective LF-WAI-O1 and Policy LF-WAI-P1 of the proposed RPS.

Social and cultural impacts

33. Whilst we acknowledge the economic benefits of the mine, the reality is granting consent will perpetuate the ongoing uncertainty around the mine's closure and end of life that impacts the cultural and social wellbeing of the area.

Cumulative effects

34. Forest & Bird are concerned that existing mine activities, already consented activities, and this application will result in cumulative effects on indigenous biodiversity. We submit the cumulative effects must be assessed and avoided, remedied and mitigated. Because of the uncertainty around cumulative effects on indigenous biodiversity and the potential for significant and irreversible effects, a precautionary approach should be taken when managing the cumulative effects in accordance with Policy 3 of the NPS-IB.

Decision sought

35. Forest & Bird seek the following decision from Otago Regional Council:

- a) Decline the application in full

If the council is minded to approve the application:

- i) Include significant changes to effects management, mitigation and compensation to account for the significant effects on indigenous species and habitats.

Hearing options

Forest & Bird wish to be heard in support of this submission.

Forest & Bird would consider presenting a joint case with others making a similar submission.

Delegation to hear and decide

Forest & Bird request/~~do not request~~*, pursuant to section 100A of the Act, that you delegate your functions, powers, and duties to hear and decide the application to 1 or more hearings commissioners who are not members of the local authority.



Date: 01 May 2025

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Telephone: 027 279 2500

Postal address: PO Box 631, Wellington 6140

Contact person: Chelsea McGaw - Regional Conservation Manager, Otago and Southland

SUBMISSION ON APPLICATION CONCERNING RESOURCE CONSENT

Under the Resource Management Act 1991

TO: OTAGO REGIONAL COUNCIL; WAITAKI DISTRICT COUNCIL; DUNEDIN CITY COUNCIL

SUBMITTER: KĀTI HUIRAPA RŪNAKA KI PUKETERAKI, TE RŪNAGA O MOERAKI, AND TE RŪNAKA O ŌTĀKOU

1. This is a submission on an application from OceanaGold (New Zealand) Ltd (**OGL**) for a range of resource consents to enable the construction, operation, and activities comprising the Macraes Phase Four Project (**MP4**) (the **Application**).
2. The Application is set out in the Assessment of Environmental Effects submitted to the Councils.
3. This submission is made by:
 - (a) Kāti Huirapa Rūnaka ki Puketeraki;
 - (b) Te Rūnanga o Moeraki; and
 - (c) Te Rūnaka o Ōtākou.
4. This submission refers to Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Moeraki, and Te Rūnaka o Ōtākou as "**Kā Rūnaka**".
5. Kāti Huirapa Rūnaka ki Puketeraki are recognised as mana whenua in the Application area. Te Rūnaka o Moeraki and Te Rūnaka o Ōtākou are also affected by the Application.
6. Kā Rūnaka is not a trade competitor for the purposes of section 308B of the Resource Management Act 1991.
7. Kā Rūnaka is directly affected by elements and effects of the Application that:
 - (a) adversely affects the environment; and
 - (b) adversely affects cultural values.
8. Kā Rūnaka considers that the assessment of effects in the Assessment of Environmental Effects (**AEE**) provided by the applicant does not adequately address the magnitude, severity, and ongoing impact of the effects arising from the Application.
9. Furthermore, the conclusions contained in the Application regarding the effects arising from the Application have been reached without an assessment of the cultural impacts of the project endorsed by Kā Rūnaka. It is not possible for the Applicant to conclude that the effects are of an acceptable level without cultural input into their assessment. Therefore, the basis for the AEE is flawed and the conclusions reached under that framework are similarly flawed.

10. The specific parts of the Application that Kā Rūnaka's submission relates to are:
 - (a) Effects on water quality arising from the Application, including cumulative effects;
 - (b) Provision for appropriate and meaningful management of long term environmental effects;
 - (c) Uncertainty of ongoing and long term nature of effects;
 - (d) Impacts on biodiversity;
 - (e) Impacts on landscape values;
 - (f) Visual amenity effects, including perceived effects;
 - (g) Cultural effects;
 - (h) Land restoration requirements and certainty;
 - (i) Economic effects on Kā Rūnaka;
 - (j) Durability and sustainability of proposed offsets and mitigation; and
 - (k) Inadequate mitigation of all above effects.
11. Significant impacts on mana whenua values for wai Māori, whenua, taoka species, and wāhi tipuna have arisen from the existing mining and associated activities. These impacts are a source of mamae for Kā Rūnaka. The Application and associated expansion of activities will result in even greater, broader, and further effects on mana whenua values, particularly in relation to wai Māori, whenua, taoka species, and wāhi tipuna.
12. The ORC Notification Recommendation Report (20 March 2025) contains detailed assessments of potential adverse environmental effects. The Report also recognises (Chapter 9.12) that the relationship of Kai Tahu Runaka with the catchments affected by adverse effects is a matter of national importance that must be recognised and provided for in the management of natural and physical resources. The ORC Report also notes (chapter 9.12) that "the mining activities proposed set in train adverse effects that may endure for many generations to come".
13. In the absence of:
 - (a) Further detailed information on the matters outlined in paragraph [10]; and
 - (b) A credible long term environmental management plan backed by appropriate consent conditions and relevant long term environmental safeguards

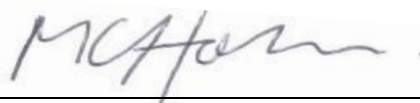
Kā Rūnaka has little choice but to oppose the consents sought.

14. In addition to the above, Kā Rūnaka:

- (a) says that the Application will not enable, nor will it support, their whānau, their whenua, their waimāori, their waitai, their tamariki, their mokopuna, and all future generations, to flourish;
- (b) has concern regarding past record of OGL in relation to compliance with conditions and operating requirements, particularly in the context of the significant levels of effects and the long timeframe of effects arising in relation to the Application. A particular concern is who will assume technical management and financial responsibility for long term environmental restoration and management (including compliance obligations) once mining operations cease. From a cultural and environmental impact viewpoint, it will be crucial that comprehensive provision is made in any conditions of consent for post-mining environmental protection and management, including recognition and action with respect to any related cultural matters;
- (c) considers that the representations made in the AEE regarding ongoing consultation and involvement lack relevant context. The Applicant has progressively consented the expansion of the Macraes Gold Project and updated the current Application. Kā Rūnaka was provided the updated Application and technical information for MP4 Stage 3 in March 2025. The incremental consenting of MP4 and revision of the technical information for the current Application has hindered the ability of Kā Rūnaka to holistically assess the cumulative impacts of this complex Project. This does not fulfil the parameters of appropriate consultation, nor recognise the role of iwi as kaitiaki with strong connections to the whenua in which this mine is operating and seeks to expand; and
- (d) does not consider that the Application appropriately deals with climate change, and potential implications arising.

15. Kā Rūnaka wish to be heard in the hearing in support of this submission.

DATE: 1 May 2025



**Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnaga o
Moeraki, and Te Rūnaka o Ōtākou**

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Contact person:

Nicole Buxeda

Neil Roy submission on Oceana Gold Ltd application for mining extension.

Neil J. Roy

60 Tiverton Street Palmerston, 9430

email: *margaret-neil-roy@xtra.co.nz*



I am now retired to Palmerston from a Moonlight farm with our home five kms from Macraes. I support mining in the area but am perturbed by items in the extension documents that include incorrect road and place names. inefficient land restoration, dubious after mining roading in the Coronation precinct and negative responses on some earlier consent conditions. I was a Waihemo County councillor and on the panel at the first consent hearing for to gold mine around Macraes in 1988 and remained on the panel at later hearings as a Waitaki District councillor until 1998. I agreed with the decisions we made but the proposed outcomes of land after mining have not always been accomplished. OceanaGold has at its own accord manipulated or ignored some conditions applied in later consents. If authorities have considered these discrepancies, I am not aware any council approval on the outcomes. My reaction is to elaborate on them at a future hearing which this submission will include.

The mine workshop precinct is visible six kms away from our old home. Although suppressed by lights around the house the entrance is marginally illuminated by lights from there. Applications indicated night lighting from sites including Deepdell and Coronation mines would be invisible from places like our old home. Due to higher altitudes the locality has superior astrological clarity so I purchased a telescope to enhance my star gazing. The glow from lights at Deepdell and Coronation mines has a detrimental effect on observing the night sky so the predictions were misleading.

My aggravation is aroused by some erroneously place names the company, consent report compilers, newspapers and printed articles have used. From the initial surveying of the township in 1876, Certificates of Title for sections identified their location as Town of Macraes. As some ill-informed individuals had falsely used, in 2011 Waitaki D.C. officers altered a township road sign to Macraes Flat I objected to the changed road sign so after unsatisfactory dialogue with council personal I submitted to the N.Z, Geographic Board who after the advertised procedure decided at a meeting to uphold the Macraes name. Why should there now be deviations? Oceana Gold and an application document refer to mining at Macraes and the settlement of Macraes Flat. There is no mining at Macraes township but mining occurs at Macraes Flat so these names should be swapped.

Rather than being at Macraes the location of Coronation mine should be on Taieri Ridge as apart from a waste rock stack and more recent extensions Coronation mine is on Dunedin City side of the Waitaki District boundary.

Marked on maps as Trimbells Creek, my understanding is its origin name was Trembles Gully. In times long gone Trembles was an ailment where infected sheep would prosper if left unmolested but any mustering would induce a state of trembling that withheld their mobility. Numerous sheep with this complaint grazed at this location on Deepdell Station so the area was consequently identified as Trembles Gully. My grandfather and several others went there with horse drawn drays to slaughter the affected sheep and retrieve their skins. To complete the task, they camped out on a very frosty night and used the fresh skins as bedding but when the skins overheated them they spent some time cooling off in the tussocks.

A comment has Macraes Road on SH 87 between Middlemarch and Hyde. Hyde-Macraes Road commences at SH 87 so this data is inaccurate. Flows in coal creek and mare burn should be Coal Creek and Mareburn and mentioned on page 107 in Leaseholder is Filiburn but it should be Fillyburn.

Documents on the mining application and various printings have falsely located Oceana Gold mines as being in North Otago. From the coast at Shag Point the long-established southern boundary of North Otago follows the summits of Horse Range, Kakanui Range and Hawkdun Range. Most of Waihemo County became part of Waitaki District after the mining proceed began in the late 1980s but mining was never in North Otago. If it is necessary East Otago should replace it deleting North Otago.

On recent maps the road meeting Macraes Road across from the tailing impoundment is Hocking Road but it really is Cranky Jims **Gully** Road. The name source was a rather eccentric miner they nicknamed Cranky Jim who in the 1870s worked in the nearby gully. Waitaki D C had the road signed as Cranky Jims **Creek** Road but the road did not initially cross the creek so Cranky Jims Gully Road is historic, authentic and accurate.

A kilometre from Cranky Jims Gully Road the unformed Hocking Road linked Shag Valley and Macraes Flat. The road name was derived from Francis and Mary Hocking residing at Dunback who land holders of adjacent sections. A fence above a steepish slope now blocks the realigned entrant from Macraes Road so no road signage is necessary.

Previously granted consents for additional mining beside Golden Point and Horse Flat Roads made the conditioned ridgetop tussock reserve no longer publicly accessible. It is much smaller than documents portrayed and I have doubts if any plantings have survived. Will the reserve always remain there?

Replacing Eddie Gaytan's waterwheel to near his mine site was a condition from several years ago. The two worded surname came from Eddie's father Louis Gay Tan who returned to China. There is now mown grass and tree plantings beside what is now Golden Bar Road. Where is the waterwheel?

A condition requiring old gold sluicing equipment in the dredge hole to be salvaged and displayed nearby beside Macraes Road. It has remains where it was with its disintegrations becoming more obvious. An insignificant feature was installed that ignores the now historic sluicing gear but why does it remain abandoned. Mining does not affect two of these so-called sight seers' attractions why have the conditions not been implemented?

Due to conditions Golden Point Road is supposed to be conveyable to public traffic with heavy mine vehicles delayed during this process. Depending on who the gate keepers are I have been turned back on some occasions from both ends of the controlled road. Although unsurveyed about 120 years ago the rated land it passes through having its area slightly reduced when the road was formed so it is a public thoroughfare Gate keepers told me to backtrail and take Macraes and Horse Flat Roads but the extra distance is equivalent to travelling to Dunedin from Macraes Road by taking SH 85 over The Pigroot to Maniototo and continue via Alexandra and Milton to Dunedin. Few OGL staff would be enthused using this significantly longer alternative.

Documents on Frasers Waste Rock Stack Water Compliance Site has the culvert mapped as a ford. This culvert floods flow over on Nth Branch Waikouaiti River on Ross Road was constructed at the boundary in the early 1980s by Waihemo and Silverpeaks Counties. There is now has an illegally locked gate beside this site on Ross Road near the old China Flat gold diggings but it should be properly identified as a culvert.

The temporary roadway from Matheson Road descending the ridge to Horse Flat Road across from Deepdell North Pit may be infrequently used but why does not appear on any mine extension maps.

The temporary roadway north-west of Coronation mine appears to be overrun by mining. There was a locked gate onto its entrance west of the Sisters Peaks summit that was open after my complaint. The mine bypass may be seldom used but is it omitted from the Coronation extension?

The proposed road line for Matheson Road on Taieri Ridge across land in Coronation mine site is also missing from maps. Documents have a planned no exit road venturing onto Coronation mine site at its completion but it does not link with Matheson Road either east or west on its pre mining route. When Coronation mine was applied for the hearing panel gave approval to my submission on the continuation of Matheson Road. When mining in the area is completed. I am unaware of anything that may have legitimately removed Matheson Road from a feasible 4WD road line along Taieri Ridge that should be negotiable at least for dry weather conditions.

By the application post mining rehabilitation of mined areas, waste rock stacks, and tailings impoundments into stock grazing pastures would be comparable with what existed before mining altered the landscape. This has been dealt with in previous consent hearings but those contemplating the outcome of the applications can only guess as to its future accuracy.

My farming at Moonlight required provision for stock grazing on land varying from the Deepdell Creek gorge to the tops of Taieri Ridge. it encompassed two now freeholded quarry reserves on schist or basalt rock and surrounded Shark Hill quarry but contained many hectares of the best farmland in the Macraes Flat, Moonlight and Nenthorn environment.

higher productive grass species established following cultivation or spraying and direct drilling after several years become overwhelmed by poorer grazing varieties including brown top, sweet vernal and yorkshire fog so re-establishment is necessary to maintain the stock carrying capacity.

Disregarding underlying rock, the steeper slopes on waste rock stacks have and surrounds of tailings impoundments cannot be cultivated or direct drilled so what was initially sown will be diminished by inferior species. In late March we travelled along Golden Bar Road but stopped to watch a large bulldozer spreading soil down the slope on Frasers Waste Rock Stack. It contained numerous rocks but consent reports indicated this was comparable with soil the replaced pastures grew in. It seems indisputable that pasture rehabilitation predictions will not equate to what eventuates.

The wind speed diagram identifies the Vickery house at Hyde Street in Macraes but this family has not resided there for 30 or more years. The map is decades outdated which jumbles those who now live in Hyde Street so it is logical for documents to use current maps.

A report indicates removal of the wind gauge beside Macraes Road that measures a similar volume of dust as another gauge close to Redbank Road that is less than a kilometre away. The site of this gauge is not prone to mine dust as its prevailing winds to it do not blow across the mined areas or from waste rock stacks. This would occur if the gauge was placed beside Macraes Road near the haul road overbridge and closer to Innes Mills Pit. That would give a fairer reading of dust created by the mining process.

Controlling invasive weeds on mine property is dealt with but clumps of broom and gorse are conspicuous on Tipperary Tailings Impoundment and waste rock stacks so what is stipulated in consent conditions is not being adequately attended to. What is supposed to happen by conditions should be attended to by the mining company and approved by the authorities.

Submission Form 16 to the Otago Regional Council on consent applications

This is a Submission on (a) limited notified/publicly notified resource consent application/s pursuant to the Resource Management Act 1991.

Submitter Details:
(please print clearly)Full Name/s: Richard GeelsPostal Address: [REDACTED]Post Code: [REDACTED]

Phone number: Business: _____ Private: _____

Mobile: [REDACTED]

Email address: _____

I/ we wish to **SUPPORT** **OPPOSE** / submit a **NEUTRAL** submission on (circle one) the application of:

Applicant's Name: Oceana GoldAnd/or Organisation: Macraes Gold mineApplication Number: RM 24.184Location: Macraes flatPurpose: Mining

The specific parts of the application/s that my submission relates to are: (Give details)

Noise, air and water, light
pollution

My/Our submission is (include: whether you support or oppose the application or specific parts of it, whether you are neutral regarding the application or specific parts of it and the reasons for your views).

oppose the extension and use
of Grazers pit - / and, or other
activities close to private dwellings.

I/We seek the following decision from the consent authority (give precise details, including the general nature of any conditions sought)

consideration of new location
for tailings, as these are
very close to private dwellings
causing noise, dust and light pollution

I/we:

- ☒ Wish to be heard in support of our/my submission
☐ Not wish to be heard in support of our/my submission

If others make a similar submission, I/we will consider presenting a joint case with them at a hearing.

- ☒ Yes
☐ No

I, am/am not (choose one) a trade competitor* of the applicant (for the purposes of Section 308B of the Resource Management Act 1991).

**If trade competitor chosen, please complete the next statement, otherwise leave blank.*

I, am/am not (choose one) directly affected by an effect as a result of the proposed activity in the application that:

- a) adversely affects the environment; and
b) does not relate to trade competition or the effects of trade competition.

I, do/do not (choose one) wish to be involved in any pre-hearing meeting that may be held for this application.

I do/do not request* that the local authority delegates its functions, powers, and duties to hear and decide the application to 1 or more hearings commissioners who are not members of the local authority.

I have/have not served a copy of my submission on the applicant.

R. B. Geels
Signature/s of submitter/s

(or person authorised to sign on behalf of submitter/s)

1/4/25

(Date)

APPENDIX 2:

COUNCIL OFFICER EVIDENCE

BEFORE A HEARINGS PANEL APPOINTED BY THE OTAGO REGIONAL COUNCIL

IN THE MATTER OF the Resource Management Act 1991 (“the Act” or “the RMA”)

AND

IN THE MATTER OF Applications RM24.184 to the Otago Regional Council (ORC),
201.2024.2373 to the Waitaki District Council (WDC and LUC
2024-126 to the Dunedin City Council (DCC) by Oceana Gold
(New Zealand) Limited for various consents relating to the
Macraes Phase Four mine expansion

**STATEMENT OF EVIDENCE OF GLENN ALISTER DAVIS ON BEHALF OF OTAGO
REGIONAL, WAITAKI DISTRICT, AND DUNEDIN CITY COUNCILS**

6 June 2025

1. INTRODUCTION, QUALIFICATIONS AND EXPERIENCE

Qualifications and experience

- 1.1 My full name is Glenn Alister Davis.
- 1.2 I am a Director and Principal Environmental Scientist of e3Scientific Limited. I have been in this position since 2007. I have over 25 years' postgraduate work experience in environmental management and hold a BSc in Ecology and MSc in Geography.
- 1.3 I have worked as a professional ecologist in Otago and Southland since 2007. During this time, I have completed ecological investigations for a wide range of projects for the tourism, agricultural, forestry, mining and land development sectors and a provided ecological support to regional and territorial authorities through plan change, technical review and compliance work.

Involvement in the Consent Application

- 1.4 In April 2024 I was engaged by Otago Regional Council (ORC) to undertake a technical review of ecological assessments undertaken to support the Oceania Gold Limited (OGL) proposal to expand the extent of the Macraes gold mine. The expansion is known as the Macraes Phase 4 mine expansion (MP4).
- 1.5 To assist my review of the application I visited the site on two occasions. My first visit was on the 20th June 2024 where I viewed the proposed mine extension areas. I also visited the site on the 25th November 2024 to view the proposed Murphys Ecological Enhancement Area (MEEA).
- 1.6 My technical review of the ecological effects of the application consisted of reviewing the following documents:
 - a) Macraes Phase 4 Project. Resource Consent Application and Assessment of Environmental Effects. OGL 28 March 2024.
 - b) Appendix 15: Ahikā - Assessment of Effects on Vegetation & Avifauna.
 - c) Appendix 16: Ahikā - Macraes Phase 4 Project – Ecological Impact Management Plan. I note this document was amended with the new document dated 17 February 2025.
 - d) Appendix 17: Bioresearches - Herpetofauna Survey & Assessment – Macraes MP4.
 - e) Appendix 18: Bioresearches - Lizard Management Plan – Macraes MP4 Projects.
 - f) Appendix 19: Bioresearches - Invertebrate Survey & Assessment – Macraes MP4.
- 1.7 In reviewing the ecological assessments, I was asked to identify areas of additional information that would assist the Councils understanding of the MP4 expansion. I

provided a series of questions to the ORC that were subsequently incorporated into a s92 request. OGL provided further information to the ORC in response to the s92 request in two responses in August 2024 and February 2025. The additional information provided by OGL that I have reviewed is provided in the following documents:

- a) MP4 consent application – s92 requests for additional information from DCC and WDC. Prepared by Ahika dated 24 August 2024.
- b) Responses to s92 requests prepared by Bioresarches in respect of terrestrial ecology matters. This also included an updated Lizard Management Plan dated 30 July 2024.
- c) Clarifications on s92 responses, MP4 project. Prepared by Whirika Consulting dated 5 February 2025.
- d) MP4 ORC further information response – Planning and overarching responses dated 7 February 2025.

- 1.8 I have reviewed all of the terrestrial ecology documentation to inform my statement of evidence. In addition, I note that OGL shared the Whirika Geographic Information System information which enabled a more detailed review of the vegetation mapping undertaken.
- 1.9 I have also reviewed Ms Shay McDonald's Notification Report prepared on behalf of the Otago Regional Council.

Expert Witness Code of Conduct

- 1.10 I confirm that I have read the Expert Witness Code of Conduct set out in the Environment Court's Practice Note 2023. I have complied with the Code of Conduct in preparing this evidence and agree to comply with it while giving oral evidence before the Hearings Panel. This evidence is within my area of expertise, except where I state that I am relying upon the specified evidence of another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.
- 1.11 I note that statistical analysis undertaken to predict lizard populations is not in my area of expertise. For the purpose of my assessment I accept that the predicted lizard populations provide a reasonable basis for understanding the number of lizards that may be affected by the mine expansion.

2. SCOPE OF EVIDENCE

2.1 The scope of my ecological evidence includes:

- Section 3: Review of the characterisation of ecological values.
- Section 4: Review of the assessment of ecological effects.
- Section 5: Review of mitigation, remediation, offset and compensation measures.
- Section 6: Review of submissions.
- Section 7: Review of consent conditions.

3. CHARACTERISATION OF TERRESTRIAL ECOLOGICAL VALUES

3.1 The terrestrial ecological values within the various project components (PC's) of the MP4 expansion were undertaken by two ecological consultancies Whirika Consulting (formerly Ahika) and Bioresearches. Whirika has characterised vegetation and avifauna values while Biosciences assessed the herpetological and invertebrate values. The following evidence sets out my opinion on the ecological work completed to describe the ecological values of the site. My opinions are based on both a review of the reports and the two site visits I completed.

Ecological Context

3.2 Section 5 of the Whirika Assessment of Effects on Vegetation and Avifauna summarises the ecological setting providing helpful information on the project areas geology and landforms. It also presents information on the likely prehuman vegetation and describes the disturbance that has affected the condition of the vegetation cover today. The information provided shows that much of the Macraes Ecological District is highly modified with 75% of the district dominated by exotic vegetation. It also shows that most of the remaining vegetation is also modified from the predicted original dryland forest and shrubland cover to a short tussock grassland and subalpine tall tussock with areas of forest and shrubland.

3.3 The loss of indigenous vegetation cover is supported by the threatened environment classification (TEC) undertaken by Manaaki Whenua Landcare Research 2014 (MWLR) which shows that much of the MP4 project components lie within LENZ (Land Environments New Zealand) environments that have less than 20% indigenous vegetation cover remaining. The 20% threshold is an important figure as it is at this point that biodiversity loss can accelerate, therefore highlighting the importance of the remaining biodiversity within these depleted environments.

- 3.4 Despite the loss of indigenous vegetation within the Macraes area the remaining indigenous vegetation continues to support diverse indigenous plant assemblages as shown by the 128 indigenous species recorded by Whirika botanists during the survey of the MP4 project area. Whirika notes that the diversity is suppressed compared to indigenous vegetation communities in the wider landscape due to the influences of pastoral and mining activity.
- 3.5 I consider the general ecological information provided accurately reflects the ecological context of the site and is a sound basis to support the proposed MP4 mine expansion ecological effects assessment.

Vegetation

- 3.6 The methods undertaken to describe the vegetation are set out in section 4.4.1 of the Ahika Assessment of Effects on Vegetation and Avifauna. The vegetation was surveyed over two days on the 24 April & 5 May 2022 with vegetation communities, plant species and plant species abundance recorded as the areas of disturbance were traversed. OGL supplied the ORC with GPS information on the survey routes walked and the waypoints of plant species that are on the Department of Conservation threatened plants list.
- 3.7 Using the botanical information collected and aerial photographic interpretation Whirika has mapped the vegetation communities within the Zone of Interest (ZOI) of each project component. The vegetation community mapping is presented in Figures 7 – 9 of the report and areas of disturbance within the project components provided in Table 5 of the Ahika report.
- 3.8 The mapping shows the MP4 footprint covers an area of 280.8 ha, however 196 ha of this area is within existing mine workings and a further 50 ha contains felled pine forest, improved pasture and rough pasture. The total area of indigenous communities is estimated at 35.3 ha and is dominated by tussockland with small areas of rock tor, shrubland, riparian vegetation and ephemeral wetland. Most of the indigenous vegetation disturbance occurs within the deposition of waste rock in the Golden Bar waste rock stack and the extension of the Golden Bar mine pit. Whirika notes that the tussockland community is not classified by Singers and Rogers as a naturally occurring community and is best described as an analogue of AL1: Narrow-leaved and slim snow tussock tussockland shrubland. I agree with this interpretation although it should be recognised that modified communities are important in the maintenance of biodiversity even if vegetation community range extension and species assemblages vary from the original community.
- 3.9 The Whirika report identifies that there is some disturbance to ephemeral wetlands

and wetlands in the footprint and buffer of the Coronation 6 extension and the buffer of the Innes Mills and Golden Point realignment. Wetlands are uncommon and a National Priority for Protection while ephemeral wetlands are also listed by as a threatened naturally uncommon ecosystem that is Critically endangered in accordance with Holdaway *et al.* (2012).

- 3.10 The survey work identified a total of 128 indigenous species although I note a discrepancy in the number listed in Table 6 where the total species number is 101. The Ahika report identifies a total of 14 plant species recorded within the ZOI that are listed as “at risk – declining”, ‘at risk naturally uncommon’ or data deficient. Some of the species have had a status change in 2023. I record these below to ensure the data is up to date with the most recent assessment on the threat status of plant species.

Species	Ahika Report	2023 Threat Status
<i>Discaria toumatou</i>	At Risk – Declining	Not threatened
<i>Juncus distegus</i>	At Risk – Naturally Uncommon	Not threatened

- 3.11 In summary, I consider the flora and vegetation is well described and mapped accurately and can be relied upon for the purpose of assessing the effects of the proposed MP4 expansion.

Avifauna

- 3.12 The methods undertaken to collect avifauna information consisted of a single walk through of the Innes Mills, Golden Bar and Coronation project components in April and May 2022. Ahika considers a more intensive sampling effort such as 5- minute bird counts was not required given the low species diversity and low abundance of birds. While I consider this approach was reasonable for the site, it would have been helpful to complete additional survey work during different times of the day and year in order to get a better understanding of the variability of species present and bird abundance.
- 3.13 The bird survey recorded a total of 23 bird species within the ZOI. Ten of the species recorded are indigenous. I concur with the Ahika report that bird species and numbers are typically low in this environment due to the lack of forest cover and degraded wetland habitat.
- 3.14 A total of 3 bird species are listed as threatened (eastern falcon) or at risk (NZ pipit and banded dotterel).

- 3.16 In summary, I consider the bird species recorded would be expected in this environment and it is unlikely further survey effort would significantly alter the characterisation of the avifauna exposed to the MP4 expansion.

Invertebrates

- 3.17 Bioresarches completed a survey of invertebrates through installation of nine Heath moth traps in project components that contained indigenous vegetation that was most likely to support invertebrates such as the tussocklands, riparian vegetation and wetlands in the Golden Bar Pit, Golden Bar waste rock stack, Golden Bar road realignment and the Coronation 6 Pit. In addition, a further 5 light traps were installed into nearby covenants to provide a comparison with the MP4 expansion areas. The location of the light trapping is provided in Appendix 1 of the Bioresarches report.
- 3.18 Light trapping was also supported by sweep netting through tussocklands, riparian vegetation and wetlands. In addition, hand searches and visual observation was also undertaken. The location of this work does not appear to be provided in the reports.
- 3.19 Bioresarches clearly sets out the limitations of the invertebrate survey work and states that there were time constraints to complete the work and that surveys were not completed during Spring or Summer when temperatures are warmest and species composition and abundance is at its peak.
- 3.20 Section 3.2.3 sets out the survey results of the invertebrate assemblage collected through the various light trapping, sweep netting and hand searches. The sampling effort yielded a total of 748 individual specimens, and these were classified into 56 taxonomic units at either the genus or species level.
- 3.21 The taxonomic analysis recorded one threatened moth specimen, *Orocrambus sophistes* from a light trap installed in the Golden Bar waste rock stack.
- 3.22 I find the invertebrate survey raises a number of questions regarding the ecological values of tussockland (and possibly other communities) in the Golden Bar mine pit expansion and the Golden Bar waste rock stack. Firstly, *Orocrambus sophistes* a 'threatened – nationally vulnerable' moth species has been recorded. Understanding if this specimen is part of a wider population is required to draw a conclusion on the ecological value of the vegetation and habitat it was recorded within. Secondly, the work completed was not undertaken during the best time of the year for sampling which suggests the identified taxa is likely to be significantly reduced from the taxa that would be affected by mine expansion activity. It is possible that other at risk or threatened species may be present which should be

characterised to support the assessment of effects.

Herpetofauna

- 3.23 Bioresearches completed a desktop analysis of the habitats across the MP4 project to assist with focusing on the areas of that provided the best habitat for the skinks and geckos. This work resulted in the survey effort focusing on the Coronation 6 Pit extension, Golden Bar road realignment, Golden Bar mine pit extension and Golden Bar waste rock stack.
- 3.24 Bioresearches completed a survey of lizards across habitats within the MP4 expansion during two systematic search efforts from the 2-4 April 2022 and the 18-20 April 2022. The search effort included rock scanning, habitat searches and opportunistic encounters as set out Section 3 of the Herpetofauna Survey report. Bioresearches provided useful information on the limitations of the survey methodology and specifically mentioned the timing of the survey effort being at the end of the generally accepted lizard season. Furthermore, time constraints meant the survey was limited to systematic searches rather than employing other standard survey methods such as pitfall traps, Gees minnow traps or artificial cover objects (ACOs).
- 3.25 Since the work completed in April 2022, Bioresearches have undertaken further survey work in April 2024 in an effort to gain a deeper understanding of lizard abundance within the MP4 expansion area. This work has been used to support modelling of populations and therefore assist in the characterisation of the number of individuals that may be affected by the MP4 mine expansion work.
- 3.26 The survey work completed has recorded three lizard species present within the MP4 project area and includes the at 'risk – declining' korero gecko (*Woodworthia "Otago/Southland large"*), tussock skink (*Oligosoma chionocholescens*) and not threatened McCanns skink (*Oligosoma maccanni*).
- 3.27 The assessment notes that a further 4 skink and gecko species have been recorded immediately surrounding the MP4 project with two of these species Otago skink (*Oligosoma otagense*) and grand skink (*Oligosoma grande*) listed as 'threatened – nationally endangered' and two species Herbfeld skink (*Oligosoma murihiku*) and Otago green skink (*Oligosoma aff. chloronoton "Eastern Otago"*) listed as 'at risk – declining'.
- 3.28 Bioresearches completed further assessment to assist in the characterisation of lizard species abundance within the various project components of the MP4 project. The results are set out in section 3 of the amended Lizard Management Plan (LMP)

dated 30 July 2024. This work utilised 3 methods to estimate possible numbers of lizards that may be disturbed by the MP4 expansion. The results are provided in Table 4.5 of the LMP and show the total number of lizards within the impact area ranging from 18,744 lizards using the in density extrapolation method to over 100,000 lizards in the N-mixture modelling. Biosearches is of the view that the density extrapolation method underestimates lizard numbers and the total probably ranges from 26,387 to 111,559. The work clearly shows the habitat within the MP4 impact area is important ecologically for the species recorded.

- 3.29 For additional context it is important to highlight that there is significant variability in the skink species abundance with the not threatened McCanns skink estimated to make up 65-70% of the total lizard population and the 'at risk-declining' korero gecko and tussock skink making up the remaining 30-35%.
- 3.30 Notwithstanding the limitations of the initial survey methodology, I consider the herpetofauna work completed as a whole provides the assessment with a reasonable understanding of the lizard species present and some understanding of the possible lizard abundance across the MP4 impact area.

Summary

- 3.31 In summary, I find the ecological values of the site are well understood for vegetation, birds and lizards. The invertebrate information is weaker and lacks detail largely due to the limitations of the timing of the survey and any understanding of the relevance of the finding of a single specimen of the nationally threatened moth *Orocrambus sophistes*.

4. ASSESSMENT OF ECOLOGICAL EFFECTS

- 4.1 Ahika and Biosearches have undertaken ecological effects assessments utilising the approach set out in the EIANZ Ecological Impact Assessment Guidelines. This approach has two core elements to assess effects including assigning a value to ecological features and assigning a magnitude of effect. The robustness of the EIANZ impact assessment guidelines is debated by professional ecologists but it remains the only nationwide guidance to support ecological impact assessments in New Zealand and I consider it offers an appropriate framework for the assessment of effects of the MP4 mine expansion proposal.
- 4.2 The ecological assessment uses all of the tools available to ecologists to consider the value of vegetation communities and species that may be impacted. Section 4.6 of the report sets out the matters of ecological importance that have been considered in assigning ecological value.

- 4.3 I have reviewed the assignment of ecological values to the various ecological features within the MP4 footprint. These matters are traversed in section 6 of the Ahika report and summarised in Table 9 of the report. I agree with the Ahika assessment of ecological importance.
- 4.4 While I agree with the assignment of ecological values there is a reasonable amount of uncertainty regarding the magnitude of effect. This is acknowledged in the Ahika report where it addresses confidence in the magnitude of effect assessment. In many cases the confidence in the assessment is characterised as moderate or moderate-low. Additional analysis would have been helpful to understand the extent of vegetation communities or prevalence of species in order to reach a stronger conclusion on the magnitude of effect. An example would be to have completed some analysis on the distribution and number of ephemeral wetlands on OGL property to provide some local context regarding the wetland loss compared to the wetlands remaining in the nearby environment. Without this level of work I consider the magnitude of effect of the MP4 footprint is higher than estimated by Ahika. This view is based on the 2000 ha of disturbance associated with the existing Macraes mining operation and that much of the project expansion occurs within land environments with less than 20% indigenous vegetation cover remaining.
- 4.5 With respect to the overall level of ecological effect, I consider the effects at the Golden Bar mine pit extension and Golden Bar waste rock stack are high prior to implementation of remedial, offset and compensation measures. This view is based on the direct (development footprint) and indirect effects (buffer area) of 69 ha of high value tussockland, shrubland, rock tor and riparian vegetation that supports a range of bird, lizard and invertebrate values some of which are at risk or threatened species.
- 4.6 In addition to the above I agree with the Ahika assessment that there will be a Very High level of effect associated with the loss of ephemeral wetlands associated with the Coronation 6 pit extension.
- 4.7 The assessment also addresses the significance assessment criteria set out in the WDC and DCC District Plans, the National Policy Statement – Indigenous Biodiversity (NPS-IB), the Partially Operative Otago Regional Policy Statement (POORPS) and the proposed Otago Regional Policy Statement (pORPS).
- 4.8 With respect to the assessment of significance I agree with the Ahika and Bioresearches assessments that the indigenous communities within the MP4 project footprint meet the significance matters set out under the WDC and DCC District Plans, the NPS-IB, POORPS and the pORPS assessment criteria. This is

well summarised in Table 8 of the Ahika report. I would note that I also consider the tussockland within the Golden Bar mine pit extension and Golden Bar waste rock stack also meets the representative criteria.

- 4.9 In summary the ecological effects assessment has identified that the MP4 project will have a moderate to very high level of effect on ecological values associated with the disturbance of tussocklands, shrublands and wetlands and rock tors. This finding is not consistent with general comment made in the Ahika report where it states *“Overall, the MP4 project is assessed as having a low to moderate effect on most of the terrestrial ecological features”*. I do not consider this statement accurately reflects the Ahika assessment especially considering the largest area of effect is associated with tussockland, rock tors and riparian vegetation in the Golden Bar WRS and mine expansion. These areas are the largest project components of the MP4 project with respect to direct and indirect effects on indigenous vegetation and habitat and supports at-risk plant species, threatened invertebrates, high numbers of lizards and the at-risk NZ pipit.
- 4.10 While I disagree with the general characterisation of the mine expansion causing a “low to moderate effect” I agree with Ahika’s view that an extensive suite of mitigation, remediation, offset and compensation measures are required to mitigate the effects of the mine expansion as set out in the Whirika Consulting (2025) Macraes Phase 4 Project Impact Management Plan V3 (IMP).

5. REVIEW OF MITIGATION, REMEDIATION, OFFSET AND COMPENSATION MEASURES

- 5.1 The Whirika IMP sets out an extensive suite of mitigation, remediation, offset and compensation measures. I discuss these matters below.

Mitigation

- 5.2 Dust, noise, sediment deposition, accidental spills and fire effects are all identified as matters that should be mitigated to reduce ecological effects. The methods of control are not detailed in the IMP but this information will be included in the proposed Ecological Management Plan or related Management Plans such as an Erosion and Sediment Control Plan. I agree that these are all matters that can be specified post consenting within the EMP.
- 5.3 Importation of weeds is recognised as a risk to biodiversity in the vicinity of the mining area. The IMP sets out a mitigation strategy to monitor and remove new environmental weeds. I concur with the approach set out in the IMP.

- 5.4 The mitigation package includes the rescue of locally important plants within the mine expansion footprint and increasing the population of the rescued species in accordance with proposed consent condition 24. I support this initiative and concur that this mitigation is a positive step in minimising effects on the identified species. Monitoring of performance will be critical to confirm the objectives are achieved. Adaptive management should also be incorporated into the EMP should the translocation and planting efforts not meet the survival and growth rates set out in the draft condition 24.3. This should include supplementing any losses with planting of nursery grown plants such that the objective of consent condition 24 is achieved.
- 5.5 Rescue of the threatened invertebrate *Orocrambus sophistes* is proposed through the removal of host plants, stockpiling and caring for the plants within an area of existing tussock grassland and subsequently replanting the tussock grassland back onto the Golden Bar WRS. In principle I support the proposed mitigation through the excavation of tussock grassland and subsequent re-establishment. I have overseen tussock grassland excavation and re-establishment on other projects and I can confirm successful outcomes for the tussock component of the community can be achieved. Notwithstanding this point, the work will need to be carefully managed to ensure the survival of the vegetation to give the moth a chance of surviving the translocation process. A detailed methodology for translocating the vegetation needs to be prepared to set out the vegetation to be excavated, the location where it will be stockpiled, length of time it will be stockpiled and the management of the vegetation once placed back into the ground. In addition, a detailed monitoring programme will be required to assess the performance of the translocation work to determine if the threatened moth survives the translocation process. Additional information regarding the extent of the tussock grassland translocation will need to be provided which will need to link back to further invertebrate survey work regarding the *Orocrambus sophistes* population.
- 5.6 With respect to translocation of tussockland to support the threatened moth, my preference would be for OGL to find a site whereby only one movement of the vegetation is required, rather than a subsequent movement back onto the WRS.
- 5.7 The salvage of lizards from the mine expansion area and translocation introduction into the MEEA is a mitigation measure to minimise effects on the lizard populations. This will be undertaken in accordance with the Lizard Management Plan and any conditions required through the application of the Wildlife Act Authority. I concur that salvaging lizards is necessary to mitigate effects on lizard populations.

Remediation

- 5.8 A range of remedial measures are proposed to further mitigate effects of the mine expansion.
- 5.9 The proposal to place larger aggregate and boulders on the margins of WRS's is supported given there is anecdotal evidence that lizards will colonise this habitat. To encourage colonisation, I recommend that restoration planting with suitable plant species such as *Melicytus alpinus* and *Coprosma* spp. is incorporated into this remedial effort.
- 5.10 OGL proposes a significant planting project to restore 23 ha of the 48 ha of the Golden Bar WRS to 80% tussock grassland cover. Evidence to show OGLs successful delivery of ecological restoration projects would be helpful to provide council with confidence the objectives of the restoration can be achieved. I am however familiar with similar scale successful restoration projects in Otago, although not specifically utilising tussock grassland species. That being said, I have no reason to consider tussock grassland could not be re-established on a WRS. I do note that it will take a long time for the community to resemble a natural tussock grassland with the a range of intertussock species present. This is acknowledged by Whirika Consulting who suggest it will take 50 – 100 years for this to occur.
- 5.11 Some detail regarding the remedial work including the density of planting, number of plants and size of plants to be used in the remedial work is provided in the IMP. However, more detail on performance measures, monitoring (including monitoring methods) and adaptive management (such as replanting) will need to be supplied to support the councils monitoring of remedial performance.
- 5.12 Should the restoration be successful, I agree with Whirika that additional benefits will arise from the vegetation cover and food supply the vegetation will provide with lizards, birds and invertebrates colonising the restored WRS.
- 5.13 Rehabilitation of exotic vegetation is proposed as remedial work to support lizards and birds (notably NZ pipit) that inhabit these environments. I support this work and can confirm that exotic vegetation is readily established on Macraes mine WRS's. I understand the area of exotic vegetation directly lost as a result of the mine extension is 45 ha (page 7 of the Whirika Consulting IMP) and OGL proposes to rehabilitate an equivalent area which is approximately 45 ha as set out on page 7 of the Whirika Consulting IMP. This should be incorporated into the Ecological Management Plan.

- 5.14 The final remedial measure proposed is the restoration of Coronation Spillway with snow tussock and *Celmisia hookeri*. Again, I support this measure but detail regarding the density of planting, plant numbers, performance metrics, adaptive management all need to be documented to ensure performance can be monitored accurately.
- 5.15 In summary, the mitigation and remedial work proposed is designed to minimise some of the ecological effects associated with the MP4 project. However, even if the mitigation and remedial measures are successful in achieving project objectives a range of ecological effects remain including the effect on lizard populations, loss of rock tors, riparian vegetation and shrubland, loss of wetlands including ephemeral wetlands and the potential loss of the nationally threatened *Orocrambus sophistes*. The residual ecological effects are well set out in the Whirika Consulting IMP and I agree that further measures to minimise effects are required. The OGL approach to addressing the residual effects is through the development of an offset and compensation package which I discuss below.

Offsets

- 5.16 Whirika has identified that subsequent to proposed mitigation and remedial measures a range of residual ecological effects will need to be offset or compensated. I agree that these are the only measures available to further reduce the residual effects of the development. I have reviewed the characterisation of the residual effects provided in Table 2 of the IMP. While it is difficult to accurately estimate residual effects given the uncertainty of the success of the mitigation and remedial work proposed, I consider the residual ecological effects on tussockland, shrubland and wetlands is appropriately characterised.
- 5.17 The Murphys Ecological Enhancement Area (MEEA) is the core area where offsets will be utilised to minimise the ecological effects of the MP4 project. The MEEA includes the installation of a stock exclusion fence over a 45 ha area with the objective of supporting the natural regeneration of tussock grassland that currently has a percentage cover of approximately 15% according to the Whirika report. In addition, the stock proof fence will include restoration planting to offset effects on shrubland directly affected by the Golden Bar WRS and indirectly effected by the Golden Bar WRS, Golden Bar mine Pit and the Golden point Backfill buttresses. The objectives of the offset with respect to the tussockland and shrublands are well set out in the IMP. Providing the objectives are achieved I consider the offsets can provide ecological enhancement that can achieve a no-net-loss ecological outcome. I do note that the Whirika Consulting IMP proposed a predator proof fence around 45 ha to exclude mammalian predators to benefit lizards and birds. The

size of the predator proof fence has been reduced in the consent conditions but the rationale for the size reduction has not been provided in the IMP. I discuss this further in the Compensation section below. On this point,

5.18 I have visited the MEEA offset site and I concur with Whirika that it appears to be well situated for the purpose of achieving the proposed offset. Notwithstanding that limited information is provided with respect to tussock establishment in the Macraes area following stock exclusion, in principle I agree that it should support the natural regeneration of tussock on the site. I also note that should this not be the case OGL has committed to supplementing natural regeneration with planting of tussock which can support the project objective of achieving 50% tussock cover. I therefore consider the offset can achieve the objectives to significantly increase tussock cover and in doing so can meet many of the core principles of offsetting set out in the NPS-IB such as:

- achieving a net gain,
- achieving additional gains above and beyond that would occur without the installation of the stock exclusion fence
- unlikely to displace existing biodiversity (leakage)
- likely to achieve long term gains
- likely to see the gains within the duration of the consent
- monitoring of offset progress will be undertaken and therefore transparency of project implementation should be achieved.

I note I am not able to comment on the engagement process with mātauranga maori, tangata whenua or other stakeholders which are important principles under the NPS-IB.

5.19 The IMP provides detail on the objectives of the tussockland offset and I agree monitoring of both tussock cover and intertussock indigeneity do appear to be well considered in order to document the progress toward achieving the tussockland offset objectives.

5.20 With respect to the shrubland offset, I consider further detail on planting density and plant numbers along with the performance metrics, monitoring and adaptive management is required to assist with monitoring the shrubland offset performance.

5.21 In addition, I note that the applicant does not appear to have completed a detailed ecological characterisation of the offset site. Without establishing baseline

ecological conditions using a repeatable methodology it will not be possible to accurately monitor the performance of the offset/compensation site. Given this information has not been included in the consent application the consent conditions will need to be drafted to ensure this work is completed prior to commencing the project and prior to receiving salvaged lizards. This will need to be completed to accurately set out the baseline ecological values that the offset (and compensation) monitoring will be assessed against. This will need to be incorporated into the consent conditions and should be subject to council review.

- 5.22 Construction of ephemeral wetlands are proposed to offset the effects on ephemeral wetlands associated with the expansion of Coronation Pit 6. The offset proposal is to create 0.3 ha of ephemeral wetlands on a flat sloping exotic grassland dominated spur on the Taieri Ridge, approximately 3.5 km west of the Coronation Pit. No evidence that sets out case studies of ephemeral wetland construction is provided in the application and I am not aware of any examples of ephemeral wetlands being construction in New Zealand. The Whirika IMP sets out a process for the construction of ephemeral wetlands however I consider this approach to be experimental given the proposal to infill excavated areas with excavated peat. The hydrology of excavated peat is likely to be very different to insitu peat that has established over a long time period (hundreds of years). I therefore consider ephemeral wetland construction is experimental, and I have concerns that it will be difficult to achieve an outcome that adequately offsets the effect of the wetland loss.
- 5.23 An alternative to construction of ephemeral wetlands could be to enhance degraded wetlands that may be present in the nearby landscape. This could involve the mapping ephemeral wetlands on OGL land, completion of botanical assessments to assess ecological condition and identify 0.3 ha of degraded wetlands that a restoration plan could be developed for.
- 5.24 Two wetlands within the Innes Mills Stage 10 buffer are expected to be dewatered as a result of the mine expansion. Little detail on the process for establishing the wetland is provided. It may be possible to achieve the wetland offset however, the process for achieving this is not well documented in the application or in the consent conditions. In my view, it may be better to find degraded wetlands of a similar area and enhance the wetlands with ecologically appropriate species rather than creating a new wetland.
- 5.25 In summary I generally support the offsets proposed with the exceptions discussed above, particularly with respect to the ephemeral wetland offset. I note the IMP sets out the framework for the Ecological Enhancement Area Management Plan (EEAMP) and includes all of the elements that I would expect to see in a document that directed the project implementation. I am of the view that for a project of this

scale this document should have been part of the consent application package as it will include critical information to assist with the assessment of effects and provide council with confidence that the objective of the offsets can be achieved. I note that I have requested this information from OGL through the s92 process, however this was not provided. Without this information, drafting of consent conditions becomes very important and very difficult to ensure the project commitments and performance objectives are captured accurately and monitored effectively over the life of the project which is likely to extend beyond the life of the mine.

Compensation

- 5.26 The Whirika Consulting IMP sets out a number of ecological effects that cannot be offset given the difficulties in determining lizard and invertebrate populations. Without this understanding it is very difficult to meet the principles of offsetting especially with respect to understanding baseline populations but also gathering accurate population data to monitor if the objectives of the compensation are being achieved.
- 5.27 With respect to the expected significant loss of lizards due to the mine expansion, OGL proposes to establish a predator proof fence around part of the MEEA to support the existing population and provide habitat for lizards captured during lizard salvage efforts prior to commencement of mine expansion activities. The Whirika Consulting IMP proposed a 45 ha predator proof fence compensation measure to exclude mammalian predators and support lizards and birds within the predator exclusion zone. I note this was not consistent with information in Table 9.1 of Appendix II of the Bioreserches LMP where it was estimated that a 71.1 ha area would need to be established to eradicate target pest species and for this area to be maintained at zero.
- 5.28 Based on the consent conditions proposed by OGL I understand OGL has reduced the scale of the predator proof fence and may also be contemplating alternative predator control rather than the installation of the predator proof fence. The wording of the consent conditions also indicates the predator proof fence or predator control work will be undertaken in stages and it may also occur in various locations.
- 5.29 With respect to the method of predator control, I consider the installation of a predator proof fence is required to adequately compensate for the high number of lizards that could be affected by the MP4 project. I do not consider there are any credible alternatives to achieving the required uplift in lizard populations necessary.

- 5.30 The proposed consent conditions indicates that compensation for the loss of lizards is proposed to be staged based on the progression of the mine expansion. Providing the predator exclusion program achieves an uplift in lizard numbers commensurate with the number of lizards lost, staging of the work appears a reasonable approach.
- 5.31 In my opinion the installation of a predator proof fence is the most secure approach to achieving uplift in lizard numbers to compensate for the lizards lost. In light of the difficulty in accurately monitoring lizard populations a predator proof fence provides more confidence that a positive outcome can be achieved. It also meets most of the principles of the biodiversity compensation principles under the NPS-IB. Regarding the biodiversity compensation principles, I am of the opinion that lizards that are listed as 'at risk – declining' are not irreplaceable or vulnerable under clause (2) (a) of the NPS IB and the PORPS. A definition of vulnerable is not provided in either policy document. However, according to the Conservation status of New Zealand reptiles (Hitchmough et. al, 2021) the at risk – declining lizard species have very large populations and a low to high ongoing or predicted decline. Based on the current large populations of the at risk - declining species, I do not consider these species are vulnerable for the purpose of assessment against the compensation principles in the PORPS or the NPS-IB.
- 5.32 Notwithstanding the above commentary regarding the compensation gained through installation of a predator proof fence, I do not consider the level of information supplied in the application is sufficient to provide the council with confidence that long term outcomes will be achieved. I am particularly interested in understanding OGLs proposal for the long-term governance and funding to ensure an uplift in lizard numbers is maintained over the long term and preferably in perpetuity. This is a core matter that needs to be addressed under the NPS-IB and the PORPS and the application is lacking the necessary detail to understand how the compensation measure will be managed over the long term.
- 5.33 In addition, I note that the compensation does not appear to meet all of the principles in the NPS-IB particularly with respect to mātauranga maori or engagement with tangata whenua and other stakeholders.
- 5.34 Rock tor replacement is proposed as a compensation measure to further support lizards and invertebrates in the MEEA as compensation for the loss of 12 rock tors in the MP4 mine expansion. As stated in the Whirika report, the effectiveness of the rock tors are unknown and the loss of the 12 rock tors irreversible or irreplaceable as stated in section 4.4 of the Bioresarches herpetofauna survey report. I therefore do not consider the replacement of rock tors as proposed meets principle (2) (b) of the NPS-IB i.e effects of compensation on indigenous

biodiversity are uncertain, unknown, or little understood, but potential effects are significantly adverse or irreversible. Notwithstanding the lack of evidence supporting rock tor replacement, in principle I support the measure in an attempt to provide additional habitat for lizard species.

- 5.35 Installation of the predator proof fence is likely to reduce predators of NZ Pipit and other birds present within the enclosure and may lead to an uplift in the population. I agree that this is a positive outcome and may compensate for the loss of habitat, particularly within the Golden Bar WRS and mine expansion areas.
- 5.36 The compensation package also includes a research element with respect to the threatened invertebrate *Orocrambus sophistes*. I support the proposed research work set out in the Whirika report as this would contribute important information to the conservation of this rare species. However, the use of compensation to mitigate effects on threatened species is not consistent with the compensation provisions in the Proposed Otago Regional Policy Statement (PORPS) or the NPS-IB assuming threatened species are considered 'vulnerable' under Principle 4(2)(a). Given the policy setting, mitigation or remedial efforts appear to be the only approach available to minimise effects on a threatened species. I am of the view that it may be possible to mitigate or remediate the effects on the threatened moth species however the information supplied in the consent application is not sufficient to develop a mitigation or remedial strategy. Information regarding the presence, distribution and biology of the moth will all be required to enable a mitigation package to be considered further.
- 5.37 In summary, OGL has developed an extensive suite of measures to mitigate, remediate, offset and compensate the ecological effects associated with the MP4 mine expansion. I support the intent of the measures however I consider there is a lack of detail in the application to give council confidence that the ecological effect minimisation objectives will be achieved and there is also concern that compensation measures are not consistent with policy settings in the PORPS and NPS-IB. Furthermore, mitigation measures will require long-term management that will most likely extend past the life of the mine. The governance and funding mechanisms required to support long term management needs greater certainty to provide confidence the mitigation package as a whole can be delivered effectively over the long-term.

6. REVIEW OF SUBMISSIONS

6.1 I have reviewed the submissions received on the application. My comments on points relevant to terrestrial ecology are below.

6.2 The submission from **Ka Runaka** raises the following concerns:

- (a) The application lacks a long-term environmental management backed by appropriate consent conditions.
- (b) Concern regarding who will be responsible for implementation of the long term environmental management post mine site closure.

6.3 I have the same concerns and I have highlighted the lack of long term management of the MEEA as a central issue that is currently not well addressed by the applicant. This issue is a challenge as the mitigation package will require ongoing management post mine closure.

6.4 The submission from the **Department of Conservation** raises the following concerns:

- (a) Cumulative effects of the development should be considered with respect to the existing mine site development.
- (b) There should be a bottom line of not increasing risk to threatened species.
- (c) The approach taken to managing ecological effects relies on conditions of consent and management plans that were not drafted at the time of DOC preparing its submission.
- (d) The consent conditions and management plans need to account for the direct effects of the development and the cumulative effects that arise in conjunction with the existing mine operation.

6.5 I agree with the matters raised in the DOC submission as set out in my evidence above. In particular I don't consider cumulative effects of the mine site are well addressed.

6.6 The submission from **Forest and Bird** raises the following concerns:

- (a) Effects on indigenous vegetation and habitat is significant and therefore inappropriate;
- (b) Effects on wetland values are unacceptable;
- (c) Inappropriate use of biodiversity compensation given the presence of the nationally threatened invertebrate *Orocrambus sophistes*
- (d) Cumulative effects not well addressed.

- 6.7 I agree with most of the matters raised in the Forest and Bird submission, especially with respect to wetland values and compensation associated with a threatened species. I do not consider the proposed approach to offset effects on ephemeral wetlands is appropriate on the basis that it is unproven. Compensation is also not available to address residual effects on threatened species in accordance with policy settings in the PORPS.
- 6.8 I am of the opinion that it is appropriate to consider the offset and compensation package proposed to mitigate effects on tussock grasslands, shrubland, riparian vegetation and lizards as I consider it is more likely that a positive outcome can be achieved.

7. REVIEW OF CONSENT CONDITIONS

- 7.1 I have completed a review of the proposed consent conditions alongside representatives for the Waitaki District Council, Dunedin City Council and Otago Regional Council. Notwithstanding the reservations I have with the mitigation suite set out in section 6 of my evidence, I support the proposed amendments that seek to strengthen the conditions such that the applicant and councils have clarity on the work programme required to implement the proposed suite of mitigation measures. Notwithstanding the proposed amendments to the consent conditions, I have a number of concerns and provide the following comments.
- 7.2 The consent conditions provide a framework for implementing the extensive range of mitigation, remediation, offset and compensation measures proposed to mitigate the ecological effects of the MP4 mine expansion. Details associated with specific project objectives, programme schedules, implementation measures, performance metrics, monitoring methodologies and monitoring frequency are not set out in the consent conditions, rather it is the intention for this information to be provided in an Ecological Management Plan should the consent be granted. These matters are important as they assist with understanding the effort required to achieve the project objectives while also providing council with an understanding of the level of council monitoring required. Under the application these matters will need to be addressed through detailed liaison with council should consent be granted.
- 7.3 Under the proposed consent conditions there is currently no requirement to complete detailed ecological baseline surveys to characterise the offset and compensation sites. This work is necessary to enable accurate monitoring of offset and compensation measures against performance objectives. This requirement has been included in the amended consent conditions.

- 7.4 The OGL consent conditions provide flexibility regarding the control of predators in offset and compensation areas. As set out in my evidence I consider a predator proof fence will be required to achieve the uplift in lizard numbers necessary to compensate for the predicted loss of lizards.
- 7.5 Consent condition 23.1 is a placeholder condition to allow the applicant time to arrange a covenant over land subject to the offset and compensation measures set out in conditions 22.1 – 22.3. This is a fundamental element of the consent to ensure that the objectives of the offset and compensation measures are achieved in the long term and ideally in perpetuity. Understanding the governance and funding arrangements for the covenant should be understood to give the council confidence gains in perpetuity can be achieved long past the mine closure. My view is supported by the Guidance on Good Practice Offsetting in New Zealand (DOC, August 2014):
- “It is good practice to develop and submit with a resource consent application a BOMP that clearly communicates objectives and methods, key roles and responsibilities, adaptive management and monitoring processes and provisions for stakeholder participation. The success of the offset depends on ensuring that an effective institutional structure is in place, that financial flows are sufficient and that systems are in place to ensure that the offset objectives are achieved”.*
- 7.6 I consider the applicant should provide at the very least some credible options for who is likely to be responsible for governance and funding the management of the MEEA post mine closure.

Glenn Davis

29 May 2025

BEFORE A HEARINGS PANEL APPOINTED BY THE OTAGO REGIONAL COUNCIL

IN THE MATTER OF the Resource Management Act 1991 (“the Act” or “the RMA”)

AND

IN THE MATTER OF Applications RM24.184 to the Otago Regional Council (ORC), 201.2024.2373 to the Waitaki District Council (WDC and LUC 2024-126 to the Dunedin City Council (DCC) by Oceana Gold (New Zealand) Limited for various consents relating to the Macraes Phase Four mine expansion

**STATEMENT OF EVIDENCE OF COLIN MACDIARMID ON BEHALF OF
OTAGO REGIONAL, WAITAKI DISTRICT, AND DUNEDIN CITY COUNCILS**

3 June 2026

Introduction

- 1 My full name is Colin Macdiarmid. I am a Principal Geotechnical Engineer at GeoSolve Limited, a specialist geotechnical consultancy based in Otago.
- 2 I am a Chartered Professional Engineer and hold the following qualification and memberships.
 - (a) MEng Civil Engineering with Geology, University of Glasgow (1st);
 - (b) Chartered Member of the Institute of Professional Engineers New Zealand (CMEngNZ);
 - (c) Member Institution of Civil Engineers UK (MICE);
 - (d) Chartered Professional Engineer UK and New Zealand (CPEng).
- 3 I have over 25 years' experience as a geotechnical engineer, working in New Zealand, Australia, the United Kingdom and various other countries worldwide.
- 4 I have worked on a number of similar projects, including several assessing slope stability in similar schist terrain across Otago. I have also been geotechnical peer reviewer for the ORC on several other mining and quarrying applications. I have prepared and presented expert geotechnical evidence previously at Council hearings and various courts.
- 5 I have visited the site on the 11th June 2024 and viewed all the proposed pit extensions and the proposed waste rock stack locations.

Code of Conduct Statement

- 6 Although this is not a hearing before the Environment Court, I record that I have read and agree to and abide by the Environment Court's Code of Conduct for Expert Witnesses as specified in the Environment Court's Practice Note 2023. This evidence is within my area of expertise, except where I state that I rely upon the evidence of other expert witnesses as presented to this hearing. I have not omitted to consider any material facts known to me that might alter or detract from the opinions expressed.

Scope of Evidence

- 7 My evidence will address the following in relation to the consent items:
- (a) Stability of the open pit extensions proposed under static and seismic loading and the potential for long term instability beyond the slope crests.
 - (b) Stability of the waste rock stacks proposed under static and seismic loading.
 - (c) Stability of the proposed tailings storage facility within the disused Fraser's Pt.
 - (d) Erosion and sediment control.
- 8 My evidence is based on review of the following documents supplied by the applicant:
- (a) AEE
 - (b) PSM (2024a) Project Element 4.3.2: Open Pit Extensions updated report dated 15 August 2024.
 - (c) WSP (2024) Frasers Backfill Stage 2 Design To Support Resource Consent Application
 - (d) PSM (2024b) Project Element 4.3.2: Open Pit Stability Assessment For Frasers TSF
 - (e) EGL (2024a) Oceana Gold (New Zealand) Limited Frasers Tailings Storage Facility – Stage 1 And Stage 2 Tsf Peer Review Comments
 - (f) EGL (2023) Golden Bar Waste Rock Stack – Stage 2 Design Report
 - (g) EGL (2024b) Trimbells Waste Rock Stack Closure Stability Report
 - (h) EGL (2024c) Erosion and Sediment Control Report
 - (i) PSM RFI Response dated 15 August 2024
 - (j) EGL RFI Response dated 23 August 2024
- 9 I have supplied 2 reports on the consent application, an initial audit of the above documents in June 2024 and then a further review of the RFI

responses in November 2024. These documents should be read in conjunction with this evidence.

Review of the Stability of Open Pit Extensions at Innes Mills Pit, Coronation Pit, Golden Bar Pit, Coronation North Pit and Frasers Pit

- 10 PSM (2024a) (2024b) provide an assessment of the stability of the open pit extensions proposed.
- 11 I provided initial comments on the report and the assessment of effects in my report dated 18th Jun2 2024.
- 12 PSM responded to my comments in their RFI response.
- 13 Overall, I had no concerns around the modelling of pit stability carried out by PSM and their general conclusions and recommendations.
- 14 There is a risk of instability in areas beyond the pit crest in all the pits post-closure and this risk is proposed to be mitigated through the creation of exclusion zones to ensure the factor safety (FOS) is 1.5 outside the exclusion zone. This FOS is appropriate as slopes with FOS above this have an acceptably low risk of failure. The exclusion zones are to be confirmed at a later stage, but are likely to range from 100 to 150 m. From a geotechnical perspective this is a reasonable mitigation (although the practicalities of this in perpetuity should be considered by others e.g. ongoing maintenance of any fences, signage etc.).
- 15 It should be noted that the pit stability could be improved considerably by buttressing the pit walls on completion with waste rock. This is proposed for the Coronation North pit and to a lesser extent for the Coronation and Golden Bar pits and there is no technical reason this could not be adopted for the other pits.
- 16 We note that additional assessment is recommended to assess the exclusion zone once additional investigations and review of batter stability during operations has been carried out.
- 17 It is worth noting that 2 public roads are within 100 m of the pits, which is within the preliminary offset distance. As these roads are used by the public, my view is that these roads should ideally have a minimum FOS of 1.5 at all times during the operation of the mine and this should be reflected in the consent conditions. The applicant has proposed a condition on this matter, which I discuss below.
- 18 There is significant ongoing instability in the existing Coronation North pit that extends several hundred meters from the pit . The proposed

backfill of the pit should buttress any unstable ground on mine closure. I raised some queries around this aspect which PSM responded to in their RFI response with additional comment and analysis. To ensure the long term stability of this pit a minimum level of backfill is required at the time of closure.

- 19 Overall, the assessments carried out are robust and any geotechnical effects can be mitigated. I have provided comment on the applicants proposed conditions later in this evidence.

Waste Rock Stacks

- 20 EGL have provided assessments of the proposed Golden Bar and Trimbell Waste Rock Stacks.
- 21 On review of the initial reporting, I had some queries around aspects of the seismic loading used for the analysis and also regarding some of the soil strength parameters used for the analysis.
- 22 EGL provided a detailed responses to my queries which justified the inputs used in their analysis and resolved any concerns I had.
- 23 The Trimbell WRS will provide some damming of the water in the Coronation Pit, however as the WRS is very wide, I have no concerns that seepage through the WRS could result in an instability through internal erosion. A drain is proposed at the toe to control this seepage and I would concur that this is sensible precaution.
- 24 Overall, the geotechnical assessments carried out to date are robust and any geotechnical effects can be mitigated. I have provided comments on the applicants proposed conditions later in this evidence.

Frasers Tailings Storage Facility

- 25 The proposal is to raise the currently consented tailings storage facility within the disused Fraser's Pit. WSP have provided an assessment of this storage facility.
- 26 The report fully explains all data inputs and they are considered appropriate.
- 27 Seepage and stability analysis are carried out. Both are considered appropriate.

- 28 The dam has been designed in accordance with current good practice. The dam has been categorised as low PIC, which seems reasonable given that it is contained entirely within a pit.
- 29 A full risk assessment has been carried out for the lifetime of the dam and there are no credible geotechnical failure modes. It should be noted that there is a risk identified that water stored within the dam is lost to the historic FRUG (underground mine). This should be considered by the groundwater expert.
- 30 Post closure the dam will be fully submerged within the pit, hence there are no external geotechnical effects.
- 31 The design and report have been peer reviewed by EGL.
- 32 Overall, the geotechnical assessments carried out for this facility are considered appropriate and robust.

Erosion and Sediment Control

- 33 An ESC assessment is provided in the EGL report. The report is at a high level and recommends that detailed ESCPs are developed during the construction of the MP4 works where required.
- 34 I have reviewed the consent conditions for the various elements where erosion and sediment control could be an issue and am satisfied that these aspects are adequately covered by the proposed conditions.

Response to Submitters

- 35 I have reviewed the submissions on the consent. Most submitters have not mentioned geotechnical issues.
- 36 Fish and Game have similar concerns to those I have raised above regarding the maintenance of the slope stability exclusion zone in perpetuity.

Review of Proposed Consent Conditions

- 37 I have been provided a copy of the applicants draft consent conditions which I have reviewed with respect to geotechnical matters.

MacRaes Phase 4 Project – Proposed District Council Land Use Consent Conditions

- 38 I would suggest that an additional condition be added to draft condition 5.3. The landslide at the Coronation North pit that has been triggered

by previous mining and extends a significant distance from the pit and further regression of this slip could happen over time if it is not adequately stabilised during the backfilling. Therefore, in my opinion an exclusion zone is not considered appropriate in this instance. The backfill level of 600 mRL proposed by the applicant is sufficient to stabilise the landslide, but a lower backfill level may also be appropriate. I would suggest that an additional requirement for the Site Decommissioning Plan is added to Condition 5.3

(a) *Peer-reviewed findings of a geotechnical assessment that indicates the minimum backfill level required within the Coronation North pit required to achieve a minimum Factor of Safety for the southwest pit slope of 1.0 under Maximum Design Earthquake seismic loading and a minimum Factor of Safety for the southwest pit slope of 1.5 under static loading.*

39 Draft conditions 12.1 and 12.2 relate to the stability of waste rock stacks.

40 For condition 12.1 I suggest that a minimum Factor of Safety of 1.5 under static loading is a requirement of the consent as the current condition is open to interpretation in particular what constitutes a “catastrophic failure”. Suggested revised condition 12.1:

(a) Waste rock stacks and waste rock pit backfills must be designed in accordance with industry best-practice, and to withstand a 1-in-2500 annual-exceedance-probability earthquake without catastrophic failure, noting that some deformation is allowable provided the structure retains a state of long-term stability post event. Additionally, all waste rock stacks must be designed to have a minimum factor of safety of 1.5 under static loading.

41 I would recommend that proposed condition 12.2 be extended to include situations where additional rock is proposed onto existing waste rock stacks i.e. *A design report shall be prepared for each new waste rock stack, for any modifications to existing waste rock stacks and for waste rock pit backfill by a suitably qualified geotechnical engineer or engineering geologist.....*

42 Draft conditions 13.1 and 13.2 relate to the Frasers tailings storage facility. I would suggest that a peer review of the design report referred to in draft condition 13.2 is made a condition of consent. The feasibility report provided with the application has been peer reviewed and it seems appropriate to continue this level of review for the detailed design of the structure given its size and relative complexity.

43 Draft conditions 14.1 to 14.3 relate to the pit lakes. Clause 14.2 (c) relates to the long term pit wall stability. I would suggest that the requirements in relation to this are expanded. Suggested revised clause 14.2(c):

- (a) *Details of the long term pit wall stability including definition of an exclusion zone around the pit where the factor of safety at the time of closure is less than 1.5. The stability assessment should be carried out by a suitable qualified engineer and subject to peer review.*

44 Draft conditions 15.8 to 15.12 relate to road stability. I would suggest the following changes to these conditions:

- (a) For Condition 15.8, The following should be added *“the stability assessment should be carried out by a suitably qualified and experienced geotechnical engineer. The Consent Holder should contact WDC immediately if there are any areas of the public road where the existing Factor of Safety is less than 1.5 to agree immediate steps to be taken.”* My view is that given the road is accessible to the public if the current factor of safety is less than 1.5, the risk is unacceptable and some immediate mitigation is required e.g. daily visual monitoring, movement alarms etc.
- (b) For Condition 15.10 I would remove the requirement to have the GSMP triggered by a calculated factor of safety i.e. delete the first part of the condition up to 1.0. Given the proximity of the public roads to a deep pit and the inherent uncertainty in slope stability analysis, in my opinion some form of management plan is required for the public roads irrespective of the analysis results. The complexity of the management plan can be related to the factor of safety i.e. where the calculated factor of safety is relatively high the management plan can be relatively simple.

Coronation North

45 RM24.184.11 Proposed condition 8: Add text *“All final slopes of the Coronation North and Trimbells Waste Rock Stack must have a minimum factor of safety against instability of 1.5 under static loading.”* This is to be in line with the EGL assessment reports provided in the application.

Coronation Pit Extension

- 46 RM24.184.08 draft condition 8: Add text "*All final slopes of the Coronation Rock Stack must have a minimum factor of safety against instability of 1.5 under static loading.*" This is to be in line with the EGL assessment reports for other waste rock stacks provided in the application.

Fraser Tailings Storage Facility and Innes Mills Pit

- 47 RM24.184.03 draft condition 4. I would suggest that the design of the tailings dam be subject to a peer review as this is in line with the application reporting and good practice for such a structure.

Golden Bar Pit and Waste Rock Stack

- 48 RM24.184.23 Proposed condition 9: Add text "*All final slopes of the Golden Bar Waste Rock Stack must have a minimum factor of safety against instability of 1.5 under static loading.*" This is to be in line with the EGL assessment reports provided in the application.



Colin Macdiarmid

3rd June 2025

APPENDIX 3:

**APPLICANT-PROPOSED
CONDITIONS**

DISTRICT

CONSENT

MACRAES PHASE 4 PROJECT – PROPOSED DISTRICT COUNCIL LAND USE CONSENT CONDITIONS



Condition

Activities

Pursuant to the Resource Management Act 1991, the Waitaki District Council and Dunedin City District Council grants its consent to Oceana Gold (New Zealand) Limited for gold mining operations involving:

- (a) The extraction of minerals and overburden by mechanical means from the expanded open pits shown as Coronation Pit, Golden Bar Pit, and Innes Mills Pit on Maps 1-3, respectively, attached to and forming part of this consent;
- (b) The transport, treatment and processing of minerals extracted from the expanded Coronation Pit, Golden Bar Pit, and Innes Mills Pit;
- (c) The stacking, deposit and storage of substances considered to contain any mineral from the expanded Coronation Pit, Golden Bar Pit, and Innes Mills Pit;
- (d) The deposit of waste rock produced by the expanded Coronation Pit within the Coronation North Pit, Coronation Waste Rock Stack, Coronation North Waste Rock Stack and Trimbells Waste Rock Stack shown on Map 1 annexed;
- (e) The excavation of waste rock from the Northern Gully Waste Rock Stack;
- (f) The deposit of waste rock produced by the expanded Golden Bar pit at the expanded Golden Bar Waste Rock Stack shown on Map 3 annexed;
- (g) The deposit of waste rock produced by the operation centred on the following grid references: Frasers East Waste Rock Stack (NZTM 1402258E 4972772N), Frasers West Waste Rock Stack (NZTM 1400757E 4970734N), and Frasers South Waste Rock Stack (NZTM 1402065E 4971366N);
- (h) The deposit of waste rock from the operation into the open pits as shown on Maps 1-3 annexed;
- (i) The construction and maintenance of the Frasers Tailings Storage Facility, which includes the Frasers Backfill embankment, centred at NZTM 1398891E 4973180N, and as shown on Map 5 annexed; and the deposition or discharge of tailings, process water and associated by-products from the Macraes ore Processing Plant into the tailings storage facility;
- (j) The re-establishment, maintenance and use of a haul road from Golden Bar Pit to the ore Processing Plant;
- (k) The maintenance and use of a haul road from Coronation North Pit to the ore Processing Plant;
- (l) The use of two haul road crossings (approximately centred at grid reference NZTM 1397100E 4975800N Horse Flat Road and NZT 1398200E 4974200N Golden Point Road);
- (m) The use and storage of diesel, explosives and associated detonation materials;



Condition

- (n) The construction and use of temporary buildings;
- (o) The de-commissioning, rehabilitation, de-construction or dismantling of the mine and of any structures and works resulting from activities set out in paragraphs a-j above;
- (p) The realignment of part of Golden Bar Road as shown on Map 4 annexed;
- (q) The construction, operation and maintenance of silt ponds and erosion and sediment control facilities necessary for controlling runoff from the mining operation;
- (r) The formation of pit lakes in Coronation Pit, Coronation North Pit, Frasers Pit, Innes Mills Pit, Golden Point/Round Hill Pit and Golden Bar Pit;
- (s) Activities to offset and compensate for the adverse effects of the above activities.

The duration of this consent shall be 35 years.

DEFINITIONS

"Act" means the Resource Management Act 1991, and includes all amendments to the Act, and any enactments made in substitution for the Act

"Project Overview and Annual Work and Rehabilitation Plan" means the Project Overview and Annual Work and Rehabilitation Plan required by Condition 3.

"Building" means any temporary or permanent structure.

"Building Work" means work for or in connection with the construction, alteration, operation, demolition or removal of a building and includes site work.

"Councils" means the Waitaki District Council and the Dunedin City Council and includes its successors, and also includes any person to whom the consent authorities delegate or transfer any of its functions, powers and duties as a consent authority under the Act.

"Disturbed Land" means any land where the soil has been removed or modified and includes any waste rock stacks, or any other structures that have not been rehabilitated with soil and vegetation;

"Exploration" means any activity undertaken for the purpose of identifying mineral deposits or occurrences and evaluating the feasibility of mining particular deposits or occurrences of one or more minerals; and includes any drilling, dredging, or excavations (whether surface or subsurface) that are reasonably necessary to determine the nature and size of a mineral deposit or occurrence; and "to explore" has a corresponding meaning.

"Heavy Vehicle" means a vehicle with a gross vehicle mass of more than 3,500 kilograms.

"Landscape Architect" means a professional member of the New Zealand Institute of Landscape Architects Inc or equivalent body.



Condition

"Life of the Macraes Gold Project" means the period ending when all mining operations at Macraes cease.

"Macraes Ecological District" means the area described by the Department of Conservation (James Bibby), 1997: Macraes ecological district: survey report for the Protected Natural Areas Programme, ISBN 0478019254, 9780478019254 and as also defined in McEwen, W.M. (1987): Ecological regions and districts of New Zealand, incorporating third revised edition in four 1:500 000 maps (Part 4). New Zealand Biological Resources Centre publication No. 5. 125p + maps.

"Mining" means to take, win, or extract, by whatever means, a mineral existing in its natural state in land, or a chemical substance from that mineral, for the purpose of obtaining the mineral or chemical substance; but does not include prospecting or exploration; and "to mine" has a corresponding meaning.

"Mining Operations" means operations in connection with mining, exploring, or prospecting for any mineral, gold, including –

- (a) The extraction, transport, treatment, processing, and separation of any gold mineral; and
- (b) The construction, maintenance, and operation of any works, structures, and other land improvements, and of any machinery, and equipment, connected with such operations; and
- (c) The removal of overburden by mechanical or other means, and the stacking, deposit, storage, and treatment of any substance considered to contain any mineral; and
- (d) The deposit or discharge of any mineral, material, debris, tailings, refuse, or wastewater produced from or consequent on, any such operations; and
- (e) The doing of all lawful acts incidental or conducive to any such operations – when carried out at or near the site where the mining, exploration, or prospecting is carried out.

"ORC" means the Otago Regional Council and includes its successors, and also includes any person to whom the council delegates or transfers any of its functions, powers and duties under the Act

"Prospecting" means any activity undertaken for the purpose of identifying land likely to contain exploitable mineral deposits or occurrences; and includes:

- (a) Geological, geochemical, and geophysical surveys;
- (b) The taking of samples by hand or hand held methods; and
- (c) Aerial Surveys, -

and "to prospect" has a corresponding meaning.

"Site work" means work on a building site, including earthworks, preparatory to or associated with the construction, alteration, demolition or removal of a building.

"Structure" includes a dam and a waste rock stack.



Condition

"Supporting documents" means the supporting documents listed as Appendices 1-33 attached to the application date 28 March 2024 (Updated 18 February 2024), and also includes all other material (including statements of evidence and submissions) provided by the applicant to the consent authorities in support of the application for the consent.

"Rehabilitation objectives and terms" means the rehabilitation, objectives and terms set out in Condition 4.

"Works" includes any excavation, drilling and includes a road.

General Conditions

- 1.1 This consent shall be exercised substantially in accordance with the Macraes Phase 4 Project application for resource consent lodged to, and receipted by, the Councils on 2nd April 2024, including the Assessment of Environmental Effects and all Supporting Documents (which are deemed to be incorporated in, and form part of this consent), except to the extent that any condition in this consent is inconsistent with such material. If there is an inconsistency the conditions and terms of this consent shall prevail.
- 1.2 Pursuant to Section 125(1) of the Resource Management Act 1991 this consent shall lapse on the expiry of five years after the date of issue of the consent unless the consent is given effect to before the end of that period or upon application in terms of Section 125 (1) (b) of the Act, the Councils may grant a longer period of time.
- 1.3 The Consent Holder shall notify the Councils in writing of the first exercise of this consent.
- 1.4 In the event of any non-compliance with the conditions of this consent, the Consent Holder shall notify the Councils within 24 hours of the non-compliance being detected. Within five working days the Consent Holder shall provide written notification to the Councils providing details of the non-compliance. This notification will at a minimum include an explanation of the cause of the non-compliance, the steps taken to remedy the situation and steps taken to avoid any future occurrence of the non-compliance.
- 1.5 The Councils may, in accordance with sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions in the last week of March in any year:
for the purposes of
 - (a) Dealing with any adverse effect on the environment (including cultural values) which may arise from the exercise of this consent and which is appropriate to deal with at a later stage, or which become evident after the date of commencement of the consent; and



Condition

- (b) Ensuring the conditions of this consent are appropriate.

- 1.6 Prior to the expiry of this consent, the Consent Holder shall ensure that all rehabilitation and everything necessary to comply with the conditions of this consent has been completed.

Advice Note: *in addition to the fees payable for the processing of this application, where further site inspections are required to monitor compliance with any of the conditions, the Councils may render an account to the Consent Holder for additional monitoring fees at the rate prescribed in the Annual Plan on the basis of time involved.*

2. Location of Various Mining Activities

- 2.1 The Innes Mills Pit, Coronation Pit, Golden Bar Pit and associated waste rock storage areas, Frasers Tailings Storage Facility, realignment of Golden Bar Road and other ancillary mine features connected with the Macraes operation shall not materially exceed those footprints shown on the maps annexed. The corridor for the deviation of Golden Bar Road is shown on Map 4 annexed.

3. Project Overview and Annual Work and Rehabilitation Plan

- 3.1 The Consent Holder shall submit a Project Overview and Annual Work and Rehabilitation Plan to the Councils by 31 March each year that will cover the upcoming year (1 July to 30 June). The Consent Holder may, at any time, submit to the Councils an amended Project Overview and Annual Work and Rehabilitation Plan. The Project Overview and Annual Work and Rehabilitation Plan shall include, but not be limited to:
- (a) A description and timeline of intended mining activities for the duration of mining operations including a plan showing the location and contours of all existing and proposed structures at completion of mining;
 - (b) A description (including sequence, method and form) of mining operations, monitoring and reporting carried out in the last 12 months;
 - (c) A detailed description (including sequence, method and form) of all mining operations, monitoring and reporting, not covered by a separate management plan intended to be carried out in the next 12 months;
 - (d) An explanation of any departure in the last 12 months from the previous Project Overview and Annual Work and Rehabilitation Plan;
 - (e) Plans showing the contours (at 5 metre intervals) and footprints of all works and structures and any proposed changes at the end of the next 12 months;



Condition

- (f) A description and analysis of any unexpected adverse effects on the environment that have arisen as a result of the exercise of the consent in the last 12 months and the steps taken to deal with it and the results of those steps;
- (g) A description and analysis of any non-compliance with any conditions of consent that have occurred in the last 12 months and the steps that were taken to deal with it and the results of those steps;
- (h) A full report describing and evaluating the mitigation measures used in the last 12 months and any that are proposed to be implemented in the next 12 months. This should detail where further mitigation is proposed or has been undertaken as a result of a non-compliance event and/or any adverse effects on the environment;
- (i) A summary description of all Management Plans and Manuals required under this land use consent and any resource consents issued by ORC and details of any review or amendment of any of the Management Plans or Manuals;
- (j) An overview of the monitoring and reporting programme for the previous 12 months and any changes proposed for the next 12 months;
- (k) A detailed section on rehabilitation including, but not limited to the following
 - i. The total area of disturbed land in the mine site, yet to receive rehabilitation and indicative rehabilitation dates for various areas of the mine site;
 - ii. The area of additional disturbed land in the coming year that will require future rehabilitation;
 - iii. The area of disturbed land rehabilitated in the previous year;
 - iv. The area of disturbed land proposed to be rehabilitated in the coming year;
 - v. A description of rehabilitation planned for the life of mine at the site;
 - vi. A description of proposed rehabilitation methods for any area, including proposed topsoil to be stripped and stockpiled, surface pre-treatment and re-use of topsoil on finished areas in the next 12 months;
 - vii. The details of the location, design (including shape form and contour) and construction of all permanent structures;
 - viii. Drainage details for any disturbed land and recently rehabilitated areas;
 - ix. Details of any vegetation to be used as part of rehabilitation for the next 12 month period; and
 - x. Detailed results of any revegetation trials.
- (l) A description of any rehabilitation problems encountered and the steps being taken to resolve these problems;



Condition

- (m) An up to date and detailed calculation of the cost of dealing with any adverse effects on the environment arising or which may arise from the exercise of this consent;
- (n) An up to date and detailed calculation of the costs of complying with all rehabilitation conditions of this consent;
- (o) An up to date and detailed calculation of the costs of any monitoring required by the conditions of this consent;
- (p) A contingency closure plan describing in detail the steps that would need to be taken if mining operations stopped in the next 12 months in accordance with Condition 23; and
- (q) Any other information required by any other condition of this consent and any related consent.

3.2 Each year the Consent Holder shall provide the Chair of Macraes Community Incorporated, Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Ōtākou and Te Rūnanga o Moeraki with a copy of each Project Overview and Annual Work and Rehabilitation Plan.

3.3 The Project Overview and Annual Work and Rehabilitation Plan for this consent may be combined with any Project Overview and Annual Work and Rehabilitation Plan required by any other consent held by the Consent Holder for mining operations at Macraes Flat.

3.4 The Consent Holder shall provide the Councils with any further information, or report, which the Councils may request after considering any Project Overview and Annual Work and Rehabilitation Plan. This information or report shall be provided in the time and manner required by the Councils.

3.5 The Consent Holder shall exercise this consent in accordance with the Project Overview and Annual Work and Rehabilitation Plan.

3.6 The Consent Holder shall design and construct all permanent earthworks to the form shown in the Project Overview and Annual Work and Rehabilitation Plan.

Rehabilitation

4.1 The rehabilitation objectives to be achieved by the Consent Holder are:

- (a) To ensure short and long term stability of all structures and works and their surrounds;
 - (b) To avoid maintenance after completion of rehabilitation requirements;
-



Condition

- (c) To protect soil from erosion and to protect water from contaminants affected by mining operations;
- (d) To stabilise and rehabilitate the banks and surrounds of any waterbodies;
- (e) To return land as closely as possible to its original condition, including any exotic pastoral and indigenous species appropriate to the area; and
- (f) To visually integrate finished structures, land-forms and vegetation into the surrounding landscape so they appear to be naturally occurring features; and,
- (g) To control invasive environmental weeds, including wilding conifers, in the Disturbed Land for the Life of the Macraes Gold Project.

Earth Shaping and Visual

- 4.2 The Consent Holder shall locate, form and shape all earthworks so that their profiles, contours, skylines and transitions closely resemble and blend with the surrounding natural landforms. If earthworks cannot be fully naturalised, the Consent Holder shall minimise the extent of their visibility and maximise their integration into the surroundings.
- 4.3 The Consent Holder shall use a Landscape Architect in the planning and design of all permanent earthworks and structures.

Waste Rock Stacks

- 4.4 The Consent Holder shall design and construct the waste rock stacks in accordance with the following principles:
- (a) Slopes shall be suitably concave or convex in cross-profile to match nearby natural slopes;
 - (b) Slope gradients shall be no steeper than nearby natural surfaces
 - (c) Transitions between natural and formed surfaces shall be rounded and naturalised;
 - (d) Contours should be curvilinear in plan form, in keeping with original natural contours in that area;
 - (e) The skyline shall be variable and curved, simulating natural skylines;
 - (f) New landforms shall be aligned and located so they seem to continue, not cut across, existing landscape patterns; and
 - (g) Silt ponds shall be removed and the site rehabilitated or be converted to stock water drinking ponds following completion of mining operations and rehabilitation



Condition

4.5 Where practicable the waste rock shall be backfilled into pits in order to minimise the size of waste rock stacks.

Soil

4.6 The Consent Holder shall, as far as practicable, stockpile soil from any disturbed land, unless the soil is required to be left in place to protect water and soil values.

4.7 All salvaged soil shall be used on disturbed land for rehabilitation purposes.

Revegetation

4.8 The Consent Holder shall in accordance with the rehabilitation objectives, undertake progressive rehabilitation of disturbed land as operational activities allow. It shall be revegetated with:

- (a) Exotic pastoral species; or
 - (b) Tussock species which are as far as practicable sourced from the Macraes Ecological District;
 - (c) Shelter trees provided the following are not planted:
 - i. Lodgepole pine (*Pinus contorta*)
 - ii. Scots pine (*Pinus sylvestris*)
 - iii. Corsican pine (*Pinus nigra*)
 - iv. Dwarf mountain pine (*Pinus uncinata*)
 - v. Mountain pine (*Pinus mugo*)
 - vi. Douglas fir (*Pseudotsuga menziesii*)
 - vii. All larches (*Larix species*)
 - viii. All alders (*Alnus species*)
-



Condition

- ix. All willows (*Salix species*)
- x. Sycamore (*Acer pseudoplatanus*)

(d) Indigenous species which are as far as practicable sourced from the Macraes Ecological District.

Details of area, density and methods of planting shall be set out in the Ecological Management Plan required under Condition 18.

4.9 The outcomes of the monitoring carried out in accordance with condition 4.11(e) shall be reported in the Annual Ecology Report required under Condition 19.1.

4.10 The Consent Holder shall maintain vegetation cover on revegetated land until the expiry of this consent and ensure that the vegetation, including any vegetation established on disturbed land, shall be self-sustaining after expiry.

Soil and Vegetation Monitoring

4.11 At three yearly intervals, the Consent Holder shall complete a review of all soil and pasture on land that has been rehabilitated. The first review shall be no later than the third anniversary of the commencement of this consent. The review shall include, but not be limited to, the following:

- (a) Monitoring for ground cover, species components, plant nutrition status, soil organic matter and concentrations of exchangeable nutrients in the soil;
- (b) Analysis and interpretation of the monitoring results by a suitably qualified soil or agricultural scientist;
- (c) Evaluation of the vegetation and its potential to be self-sustaining for pastoral farming after mining ceases; and
- (d) Any necessary recommendations for future rehabilitation, including plant species or varieties to be used, cultivation and seeding methods to be introduced, or fertilisers to be used.

A copy of the review will be forwarded to the Councils and Department of Conservation within three months of the review being completed.

Site Decommissioning and Closure

5.1 The Consent Holder shall submit to the Councils a Site Decommissioning Plan, not less than 12 months before completion of the operations.



Condition

5.2 The Site Decommissioning Plan shall be prepared in consultation with takata whenua, Macraes Community Development Trust and Macraes Community Incorporated.

5.3 The Site Decommissioning Plan shall include but not be limited to:

- (a) A plan(s) showing the final design and intended contours (at 5 metre intervals) of all permanent structures and works, including but not limited to, waste rock stacks, permanent earthworks, tailings storage facilities, dam embankments, water storage reservoirs, pit lakes, water bodies, roads or other works which under this consent or any related consent are authorised or required to remain after the relevant consents expire;
- (b) A summary of rehabilitation completed to date, and details of rehabilitation required to fulfil the conditions of this consent and any related consents;
- (c) Details on infrastructure to be decommissioned, such infrastructure may include buildings, plant, and equipment;
- (d) Details of specific infrastructure to remain on-site post-closure. Such infrastructure may include buildings, plant, equipment and any monitoring structures required by this consent and any related consent to remain after the expiry of the consents;
- (e) Details of management, any ongoing maintenance, monitoring and reporting proposed by the Consent Holder to ensure post-closure activities are carried out in accordance with the conditions of this consent;
- (f) Details on the decommissioning of any infrastructure associated with existing art works, heritage sites, tracks and interpretation signage;
- (g) Details of measures to protect public safety, including any fencing yet to be completed;
- (h) Peer-reviewed findings of a geotechnical assessment undertaken for the purpose of determining appropriate exclusion zones around the open pits.
- (i) The costs of complying with (a)-(f) above.

5.4 The Consent Holder shall remove all buildings, plant and equipment (whether attached to the land or not) listed in the Site Decommissioning Plan for removal. This condition does not apply to:

- (a) Any waste rock stacks, permanent earthworks, tailings storage facility, silt ponds, waterbody, road or other works and any associated plant and equipment which under this or any other resource consent is permitted or required to remain after decommissioning or after this consent expires;
- (b) Any structure which cannot be safely removed following reasonable attempts to do so;
- (c) Any monitoring structure required by this or any other resource consent to remain after the expiry of this consent.



Condition

Cultural Matters

6.1 [Placeholder]

OceanaGold is yet to receive a final Cultural Impact Assessment for the Macraes Phase 4 Project. On receipt of the final Cultural Impact Assessment, OceanaGold will consider whether any specific conditions are required to address matter raised.

Complaints

7.1 The Consent Holder shall maintain a record of any complaints received regarding their operation. The register shall include, but not be limited to:

- (a) The date, time, location and nature of the complaint;
- (b) The name, phone number, and address of the complainant, unless the complainant elects not to supply this information;
- (c) Action taken by Consent Holder to remedy the situation and any policies or methods put in place to avoid or mitigate the problem occurring again.

7.2 The register of complaints shall be incorporated into the Project Overview and Annual Work and Rehabilitation Plan required by Condition 3 of this consent and provided to the Councils on request.

8. Blasting and Vibration

8.1 The Consent Holder shall ensure that blasting practices minimise air and ground borne vibration. Fly-rock shall be minimised and all blasting procedures shall be carried out so as to ensure the safety of employees and the public. No blasting shall occur when the weather is unsuitable.

8.2 The location and time of blasting shall be posted daily at all the main mine entrances and advised to employees by daily email.

8.3 Blasting shall be restricted to within the following hours:

Monday to Friday 9.00am to 5.30pm

Saturday and Sunday 10.00am to 4.30pm



Condition

8.4 Details of blasting method, strength of the blast and time of blast shall be entered into a record kept for that purpose and shall be available to the Councils on request. This information shall also be included in the monitoring report, required under Condition 10.

8.5 Vibration due to blasting or any other activity associated with the mining operation, when measured at any point within the notional boundary of any dwelling not owned by the Consent Holder, or subject to an agreement with the Consent Holder, school or church outside the Macraes Mining Project Mineral Zone as defined by the Waitaki District Plan, deemed operative on 23 August 2010 shall not exceed a peak particle velocity measured in the frequency range 3-12 Hz of 5 mm/sec provided this level may be exceeded on up to 5% of the total number of blasts over a period of 12 months. The level shall not exceed 10 mm/sec at any time.

Advice Note: *The notional boundary is defined as a line 20 metres from the exterior wall of any rural dwelling or the legal boundary where this is closer to the dwelling.*

8.6 Airblast overpressure from blasting associated with the mining operation, when measured at any point within the notional boundary of any dwelling not owned by the Consent Holder, or subject to an agreement with the Consent Holder, school or church outside the Macraes Mining Project Mineral Zone as defined by the Waitaki District Plan, deemed operative on 23 August 2010 shall not exceed a peak non-frequency-weighted (Linear or flat) level of 115 decibels (dB), provided this level may be exceeded on up to 5% of the total number of blasts over a period of 12 months. The level shall not exceed 120 dB (Linear peak) at any time. For the purpose of this consent, C-frequency-weighting may be considered equivalent to the Linear or Flat-frequency-weighting.

8.7 The Consent Holder shall not conduct blasting within the vicinity of the Macraes Road or Golden Bar Road in a manner that constitutes a danger to life or property. If the Waitaki District Council considers it necessary to temporarily close the Macraes Road or Golden Bar Road to allow blasting to take place, it may permit the Consent Holder to temporarily close the road, provided that the Consent Holder:

- (a) Keeps the time of closure as short as possible; and
- (b) Does not allow the time of closure to exceed a maximum of 15 minutes in any continuous period of 60 minutes, except where an emergency situation arises in respect of the safety of the public or project personnel.

In the event of such temporary closure the Consent Holder shall:

- (a) Ensure appropriate barriers are erected and ensure such number of persons as may be necessary are stationed at Macraes Road or Golden Bar Road to prevent access by the public to that part of the road that shall be closed; and
- (b) Hold current public liability insurance to indemnify any member of the public affected.
- (c) Postpone any blasting in order to reopen the Macraes Road or Golden Bar Road to allow the passage of vehicles for emergency purposes.



Condition

9. Noise

Noise Limits

- 9.1 The Consent Holder shall ensure that all construction and operation activities associated with the mining operations are designed and conducted so that the following noise limits are not exceeded at the locations specified in Condition 9.2:
- (a) On any day between 7 am to 9 pm (daytime): 50 dBA Leq; and
 - (b) On any day between 9.00 pm to 7.00am the following day (night-time): 40dBA Leq; and/or 70 dBA Lmax.

Measurement Locations

- 9.2 Noise measurements shall be taken at any point within Macraes Village; or at, the notional boundary of any dwelling not owned by the Consent Holder, or subject to an agreement with the Consent Holder.

Advice Note: *The notional boundary is defined as a line 20 metres from the exterior wall of any rural dwelling or the legal boundary where this is closer to the dwelling.*

Measurement and Assessment

- 9.3 All noise measurements referred to in Conditions 9.1 and 9.2 above shall be measured in accordance with the provisions of NZS 6801:2008 Acoustics: Measurement of Environmental Sound, and shall be assessed in accordance with the provisions of NZS 6802:2008 Acoustics: Environmental Noise.

10. Monitoring of Noise, Airblast and Vibration

- 10.1 Prior to exercise of this consent, the Consent Holder shall prepare a Noise, Airblast and Vibration Monitoring Plan. The plan shall include but not be limited to:
- (a) Details of the monitoring locations, the frequency of monitoring and the method of measurement and assessment in accordance with Conditions 8.4, 8.5, 9.1 and 9.2;
 - (b) Procedures for recording blasting method, strength of the blast and time of blast; and



Condition

(c) Procedures for addressing non-compliant results and notification of the Councils.

10.2 The Noise, Airblast and Vibration Monitoring Plan for this consent may be combined with any other Noise, Airblast and Vibration Monitoring Plan required by any other consent held by the Consent Holder for mining operations at Macraes Flat.

10.3 The Consent Holder shall exercise this consent in accordance with the Noise, Airblast and Vibration Monitoring Plan. The Consent Holder shall review the plan annually and, if necessary, update it. Confirmation of the review shall be included in the Project Overview and Annual Work and Rehabilitation Plan. The Councils shall be provided with any updates of the plan within one month of any update occurring.

10.4 The Consent Holder shall produce a report each year summarising the results of the Noise, Airblast and Vibration Monitoring. The report shall be included in the Project Overview and Annual Work and Rehabilitation Programme.

10.5 All measurements from the monitoring programmes shall be recorded and shall be made available to the Councils on request.

11. Lighting

11.1 All flood lighting luminaires that could potentially cause a glare nuisance or a traffic hazard shall be fitted with shields and, as far as is practicable, orientated so that the principal output is directed away from residences and traffic.

12. Waste Rock Stacks and Waste Rock Backfills

12.1 Waste rock stacks and waste rock pit backfills shall be designed in accordance with industry best-practice, and to withstand a 1-in-2500 annual-exceedance-probability earthquake without catastrophic failure, noting that some deformation is allowable provided the structure retains a state of long-term stability post event.

12.2 A design report shall be prepared for each new waste rock stack and waste rock pit backfill by a suitably qualified geotechnical engineer or engineering geologist and this report provided to the Council prior to the commencement of construction of the structure. The report shall include details of the geotechnical model, loading assumptions, credible failure modes, and key design and construction requirements, and shall include an evaluation of the long-term stability for closure.



Condition

12.3 The Golden Bar Waste Rock Stack must not materially exceed a height of 610 mRL

13. Tailings Storage Facilities

13.1 The Consent Holder shall ensure that Stage 2 of the Frasers Tailings Storage Facility is designed and constructed in accordance with sound engineering practice.

13.2 The Consent Holder shall engage a suitably qualified engineer to design Stage 2 of the Frasers Tailings Storage Facility. A design report shall be prepared for the Frasers Tailings Storage Facility and this report provided to the Waitaki District Council prior to the commencement of construction of the Stage 2 impoundment. The report shall include details of the foundation conditions, material properties, groundwater, seepage and construction requirements, and shall include evaluation of the long-term stability and performance of the impoundment.

14. Final Pit Lakes

14.1 The pit lakes shall, at all times, have sufficient freeboard to fully contain seiche waves that may be induced by landslides and earthquakes.

14.2 No less than twelve months prior to commencement of filling the pit lakes, the Consent Holder shall provide the Councils with a Closure Manual for the following pit lakes: Golden Bar, Coronation, Coronation North (if applicable), and Frasers - Innes Mills Pit Lakes. The manual shall include, but not be limited to:

- (a) Details of how Condition 14.1 shall be achieved and how compliance with Condition 14.1 is to be demonstrated over the term of this consent.
- (b) Details of the lake filling, including but not limited to mean flow-rates, location of inflows and, where applicable, the quality of the discharge; and
- (c) Details of the long-term pit wall stability.

14.3 The Consent Holder shall exercise this consent in accordance with the Closure Manual. The Consent Holder shall review the manual annually and if necessary update it. Confirmation of the review shall be included in the Project Overview and Annual Work and Rehabilitation Plan. The Consent Holder shall provide the Councils with any updates of the plan within one month of any update occurring.

15. Rooding



Condition

Coronation Roding

15.1 The consent holder shall provide unformed legal public access of a width not less than 15m that generally follows the blue line, and orange line north of Horse Flat Road shown on the map titled "Macraes Gold Project Coronation Area Roding" annexed.

15.2 The consent holder shall provide unformed pedestrian access that generally follows the yellow dashed line south of Horse Flat Road shown on the map titled "Macraes Gold Project Coronation Area Roding" annexed.

15.3 Within 12 months of all stages of Coronation Pit, Coronation North Pit, Coronation WRS, Coronation North WRS and Trimbells WRS excavation and rehabilitation ceasing, the Consent Holder shall reinstate for public use that part of Golden Point Road south of Horse Flat Road shown on the map titled "Macraes Gold Project Coronation Area Roding" annexed.

15.4 To achieve the reinstatement of that part of Golden Point Road under Condition 15.3 the following work must be completed:

- (a) The haul road shall be decommissioned, and replaced with a public road that has a minimum road reserve of 15 metres in width, and a carriageway of 5 metres in width;
- (b) The public road shall be formed to a minimum 150 mm sub-base and a base course of 100mm AP40 with a wearing course of AP20;
- (c) The road shall also be delineated and marked to a public road standard;
- (d) Design and construction details shall be lodged with the Waitaki District Council for its approval.

15.5 Within 6 months of completion of mining operations associated with all stages of Coronation North and Coronation Pits and rehabilitation of the project areas to the point of decommissioning silt ponds, the consent holder shall define and take steps to vest to the respective Councils (and make lawfully available to the Councils pending completion of vesting) a legal road of no less than 20 m wide that approximately follows the purple line shown as "Post Mining Matheson Road" on the map titled "Macraes Gold Project Coronation Area Roding" annexed (as a replacement for the unformed Matheson Road). Depending on the extent of pit excavations, the road may be modified to be south or southwest of the purple line. The grade of Matheson Road shall be no more than 1 Vertical, 6 Horizontal at any location of the alignment. Prior to vesting, the road shall be graded to a standard enabling it to be used as a fine weather track for four wheel drive vehicles. The consent holder shall not have any ongoing responsibility to maintain the track or any form of public access along this unformed road as a consequence of this grading.



Condition

15.6 Where the road under Condition 15.5 crosses Trimbells waste rock stack, the Consent Holder shall design the road to avoid the road being scoured out or eroded. The detailed design shall be forwarded to the Compliance Manager at the Dunedin City Council.

15.7 Within 6 months of completion of mining operations associated with all stages of Coronation North and Coronation Pits ceasing and rehabilitation of the project areas to the point of decommissioning silt ponds, the consent holder shall define and take steps to vest to the Waitaki District Council (and make lawfully available to the Council pending completion of vesting) a legal road of no less than 20 metres wide that approximately follows the Coronation haul road alignment (as indicatively shown marked in orange as "Post Mining Golden Point Road" on the map titled "Macraes Gold Project Coronation Area Roading" annexed) between Horse Flat Road and Matheson Road (as a replacement for the unformed Golden Point Road). Prior to vesting, the road shall be graded to a standard enabling it to be used as a fine weather track for four wheel drive vehicles. The consent holder shall not have any ongoing responsibility to maintain the track or any form of public access along this unformed road as a consequence of this grading.

Advice Note: *All road stopping, temporary road closures and vesting of new road reserve is to be completed under the relevant statutes.*

Road Stability

15.8 Prior to the exercise of this consent, the Consent Holder must assess the existing Factor of Safety for Macraes Road and Golden Bar Road in the vicinity of Innes Mills Pit and Golden Bar Pit to identify any areas where the existing Factor of Safety is less than 1.5.

15.9 The Consent Holder must ensure that the activities authorised by this consent do not cause the Factor of Safety of Macraes Road or Golden Bar Road to reduce below 1.5 or below the Factor of Safety identified by the assessment carried out in accordance with Condition 15.8, whichever is the lesser.

15.10 Where the assessment carried out in accordance with Condition 15.8 identifies an existing Factor of Safety of less than 1.0, the Consent Holder must prepare and submit to the Waitaki District Council a Ground Stability Management Plan (GSMP) within 6 months of the first exercise of this consent. The purpose of the GSMP is to manage stability of public roads potentially affected by the activities authorised by this consent.

15.11 The GSMP required by condition 15.10 must include, at a minimum, the following information:

- (a) Provision of a Factor of Safety, developed using an Industry Standard methodology for the relevant public road;
- (b) Methodology for determining the Factor of Safety including the assessed failure mode(s);
- (c) A monitoring program for the specific slope potentially affecting the public road which may include prisms and deformation markers, and inspections (walkover and drive over). The nature and scale of the monitoring program will be developed with regard to the Factor of Safety and the assessed risk;



Condition

- (d) Triggers for action, based on rainfall and demonstrated ground movement determined through deformation curves;
- (e) A response plan when monitoring reaches trigger levels. The response plan will include specific actions to be undertaken, timeframes for response and roles and responsibilities for undertaking actions;
- (f) A review period for the GSMP based on frequency and in the event of specific trigger levels being breached;
- (g) Reporting requirements in the case that movement triggers are exceeded, including but not limited to the following information:
 - i. Who is to prepare the report and within what timeframe of a trigger exceedance;
 - ii. Factors which may explain why the movement trigger was exceeded;
 - iii. Recommended actions to minimise recurring or ongoing instability;
 - iv. Recommended changes to the monitoring if required;
 - v. Any revisions on the current applicable factor of safety and Risk Assessment, if required;
 - vi. Recommended actions to restore appropriate stability to the road realignment if required;
 - vii. Any other necessary actions to achieve the purpose of the GSMP;
 - viii. Timeframe for provision of the report to Waitaki District Council;
- (h) A description of the methods and principles to avoid ground movement and otherwise ensure the road is geotechnically safe and fit for purpose;
- (i) Details of the proposed monitoring network to be established, including the location and installation schedule for monitoring stations and instrumentation to be used at each station.
- (j) A description of the stability parameters and milestones that should be reached and at which point the GSMP and all of its requirements will no longer apply.
- (k) Any other information or procedure that is recommended by the geotechnical engineer, or a suitably qualified and experienced peer reviewer in order to achieve the purpose of the GSMP.

15.12 The GSMP must be certified in writing by a suitably qualified and experienced geotechnical engineer as meeting the requirements of condition 2.4 and the consent holder shall provide this certification and the GSMP to Waitaki District Council.

16. Golden Bar Road Realignment



Condition

16.1 The realignment of Golden Bar Road shall be constructed within the corridor identified on Map 4 attached to and forming part of this consent and shall be designed and constructed in accordance with the conditions identified in this section.

Maintenance of Public Right-of-way

16.2 During the Golden Bar Road realignment construction, the Consent Holder shall ensure that public vehicle and pedestrian access along existing roads is maintained within the existing legal road reserve on a carriageway at all times, except that the roads may be temporarily closed from time to time for the purpose of mine blasting. All works on or in close proximity to open public roads shall be managed in accordance with the NZTA Code of Practice for Temporary Traffic Management.

Land for New Public Roads

16.3 All land to be vested as road reserve for new roads shall be transferred to Waitaki District Council by the Consent Holder at no cost to Waitaki District Council. If any actual and reasonable costs are incurred by Waitaki District Council in facilitating the vesting of the road, such as survey, legal and consulting costs, these costs shall be paid in full by the Consent Holder.

Road Closures

16.4 The Consent Holder shall request the Waitaki District Council to initiate road stopping procedures in relation to all public roads to be stopped. All actual and reasonable costs including survey, legal and other consulting fees, and all of Waitaki District Council's direct costs associated with the closure procedures shall be paid in full to the Waitaki District Council by the Consent Holder.

If any roads within the Dunedin City Council control need to be stopped, the Consent Holder shall request the Dunedin City Council to initiate road stopping procedures in relation to all public roads to be stopped. All actual and reasonable costs including survey, legal and other consulting fees, and all of Dunedin City Council's direct costs associated with the closure procedures shall be paid in full to the Dunedin City Council by the Consent Holder.

Disposal of land under closed roads

16.5 All road reserve land comprised as closed road shall be transferred from the Council or the Councils to the Consent Holder as the owner of adjacent land. All land created by road closure shall immediately be amalgamated with the adjoining land.

Condition

16.6 The Consent Holder shall ensure that all existing parcels of land have frontage to a legal road at the completion of the amalgamations.

16.7 All actual and reasonable costs, including survey, legal, consulting fees and costs and disbursements incurred by the Council in disposing of the land under the closed roads shall be paid in full to the respective Council by the Consent Holder.

Stability Requirements for Golden Bar Road Realignment

16.8 Fill material shall be placed and compacted to a minimum standard in accordance with TNZ F/1:1997 "Specification for earthworks construction" and Council requirements, and in accordance with previously established construction precedent for the public roads within the mine site.

Preparation and Certification of Designs for Road Works

16.9 The Consent Holder shall ensure a producer statement (PS1) is completed that confirms that the road design meets industry design criteria, including but not limited to:

- (a) TNZ F/1:1997 "Specification for earthworks construction" for general earthworks;
- (b) Austroads "Guide to Road Design" (2009) and "NZ supplement to the 2004 Austroads Pavement Design Guide" for pavement design;
- (c) Granular Pavement Layers: TNZ B/02:2005. Specification for Construction for Unbound. Granular Pavement Layers; and
- (d) TNZ P/3: 1995: Specification for First Coat Sealing.

Where any one of the documents set out in clauses (a)-(e) above are superseded by a new document prior to provision of the PS1 to Waitaki District Council, the new document or part thereof shall only apply with the express agreement in writing by the Waitaki District Council Roading Manager.

Inspection and Certification Works

16.10 An inspection report shall be supplied to the Council at three monthly intervals during the road construction work, and at the conclusion of the maintenance periods defined in these conditions.



Condition

16.11 The Consent Holder will meet on site with a Waitaki District Council representative monthly during construction to discuss compliance matters and inspect the road alignment works, unless Waitaki District Council states in writing that this is unnecessary in that month. The outcomes of this meeting will be recorded in minutes and provided to Waitaki District Council.

16.12 The Consent Holder shall provide a producer statement (PS4) to the Waitaki District Council confirming that the constructed road meets the PS1 prepared in accordance with condition 16.9.

16.13 A Schedule 1B "Contractor's Certification Upon Completion of Land Development/Subdivision" and a Schedule 1C "Certificate Upon Completion of Land Development/Subdivision" from NZS 4404:2010 shall be completed and presented to Council at the completion of works.

Advice Note: *It is recommended that construction work be inspected and certified as being constructed in compliance with the design by a Chartered Professional Engineer with specific experience in road construction.*

Road Construction and Maintenance Standards

16.14 The realigned section of Golden Bar Road authorised by this consent shall be designed, constructed and maintained as required by the following conditions 16.15 to 16.33 inclusive.

Pavement Design

16.15 The Consent Holder shall ensure that the design life of the realigned section of Golden Bar Road authorised by this consent is sufficient to ensure that the road is capable of sustaining the anticipated traffic load for 25 years.

16.16 The minimum actual pavement design life achieved on the realigned road shall be 10 years based on the AADT with 10% heavy vehicles for sealed roads, and 10 years based on AADT with 20% heavy vehicles for unsealed roads.

16.17 The pavement design of the road shall be in accordance with Austroads "Guide to Road Design" (2009) and "NZ supplement to the 2004 Austroads pavement design guide".

Where the document set out in this condition is superseded by a new document prior to provision of the PS1 to the Council, the new document or part thereof shall only apply with the express agreement in writing by the Waitaki District Council Roading Manager.



Condition

16.18 All road pavement construction is to be in accordance with NZTA B/2 "Construction of Unbound Granular Pavement Layers". All construction testing is to be submitted to the Council before sealing of pavement on the realigned road commences.

16.19 The Consent Holder shall, prior to opening the realigned section of road for public vehicular and pedestrian use, undertake roughness testing in accordance with TNZ TM 7003 v1 "Roughness Requirement for Finished Pavement Construction". Should the tests fall outside the roughness parameters then the Consent Holder shall, at its cost, undertake the necessary remedial works to bring the pavement back into specification prior to vestment of the pavement.

Advice Note: *This condition does not prevent the Consent Holder from opening any unsealed section of the new realignment with the agreement of Waitaki District Council, should this be required for operational reasons.*

Geometric Standards

16.20 The geometric design of all new public roads and intersections shall be in accordance with Austroads "Guide to Road Design" (2009).

Private Vehicle Access Design

16.21 On sealed roads all access ways shall be constructed in accordance with the Waitaki District Council Standard vehicle entrance specification, including any drainage and concrete headwalls.

Safety Audit

16.22 The Consent Holder shall commission an independent safety audit by a suitably qualified and experienced person on the as built design and submit the safety audit report to Waitaki District Council within 1 month of practical completion of road construction or a longer time frame if agreed to in writing by the Waitaki District Council.

Day-to-Day Maintenance

16.23 The day-to-day maintenance of Golden Bar Road between Macraes Road and the Golden Bar Haul Road by the Frasers South Waste Rock Stack as shown on Map A and Map B2 of resource consent 201.2011.235 (including snow clearance, frost gritting, road clearing and vehicle recovery) will be the



Condition

responsibility of the Consent Holder at its cost during the mine operation and for a period of six months after the decommissioning of the ore processing plant at the mine site carried out in accordance with the Site Decommissioning Plan prepared under Condition 5.1 of resource consent 201.2011.235.

- 16.24 Any deficiencies in the day-day maintenance of the road surface will be repaired by the Consent Holder until the timeframe described in condition 16.25 has elapsed. The response time of the repairs carried out and standard of repair required will be undertaken as outlined in the Waitaki District Council current Road Maintenance Contract, unless otherwise agreed to by the Waitaki District Council Roading Manager.

Structural Maintenance Period

- 16.25 Subject to condition 16.29, for a period of four years after the decommissioning of the ore processing plant at the mine site in accordance with the Site Decommissioning Plan prepared under Condition 5.1, the Consent Holder shall remain responsible, at its own cost, for the drainage and structural condition of all new or reconstructed road formations where these cross over previously mined areas or tailings deposits and/or are within 500m of an excavated mine pit.
- 16.26 Subject to condition 16.29, for a period of 12 months after the decommissioning of the ore processing plant at the mine site in accordance with the Site Decommissioning Plan prepared under Condition 5.1 of resource consent 201.2011.235, the Consent Holder shall remain responsible, at its own cost, for the drainage and structural condition of all new or reconstructed road formations, other than those covered by condition 16.25 of this consent.
- 16.27 The Consent Holder must undertake annual inspections of the road structural condition and drainage. The Consent Holder shall notify Waitaki District Council not less than three weeks before the inspection is to be carried out. Inspection reports and notifications will be e-mailed to Waitaki District Council Roading Manager within 3 months of the inspection being carried out.
- 16.28 Any part of the road including structural, bridge or drainage aspects that do not meet the standards for a local road set out in the One Network Road Classification prepared by the New Zealand Transport Agency will be repaired or rectified by the Consent Holder at its own cost within two months of identification of the deficiency, or a longer time frame if approved in writing by the Waitaki District Council Roading Manager.
- 16.29 Prior to the Council accepting the road at the end of the structural maintenance periods described in conditions 16.25 and 16.26 above, the Council may provide the Consent Holder with details of any standards for a local road set out in the One Network Road Classification prepared by the New Zealand Transport Agency that were identified as requiring rectifying in the inspections required by 16.27 that are yet to be remedied and the Consent Holder, upon receiving such details, shall carry out the works so that the road meets the standards for a local road set out in the One Network Road Classification prepared by the New Zealand Transport Agency.

Condition

Advice Note: *The Council shall only accept responsibility for the road upon being satisfied that any deficiencies which have been identified in inspections carried out pursuant to condition 16.30 are remedied by the Consent Holder so that the road meets the standards for a local road set out in the One Network Road Classification prepared by the New Zealand Transport Agency.*

Maintenance Standards

16.30 The Consent Holder shall, until such time as the Council agrees to accept the roads for maintenance, will maintain the roads affected by this consent to the standards for a local road set out in the One Network Road Classification prepared by the New Zealand Transport Agency.

General Roding

16.31 The Consent Holder, at its own cost, shall ensure that the roading maintenance, carried out by the Consent Holder or by a contractor engaged by the Consent Holder, shall:

- (a) Carry out road maintenance to the specifications as identified in Council's Road Maintenance Contract current at the time of repair or other specifications only with the express agreement in writing by the Waitaki District Council Roding Manager.
- (b) Install, maintain and replace all work to the specifications identified in Council's Road Maintenance Contract current at the time of repair or other specification only with the express agreement in writing by the Waitaki District Council Roding Manager.

16.32 The Consent Holder shall complete all pavement markings in accordance with TNZ P/12 Specification for Painted Pavement Markings unless any alternative is with the express agreement of the Waitaki District Council Roding Manager.

16.33 No tree planting by the Consent Holder shall be positioned such that when the trees grow, they will shade the Golden Bar Road alignment between the hours of 1000 and 1400 on the shortest day of the year.

17. Heritage

17.1 Prior to the removal of any part of the historic fenceline at Coronation Pit Stage 6 identified in Map 7 attached to this consent, the Consent Holder must record the extent and features of the fenceline to a Level III Standard as per HNZPT, "*Investigation and Recording of Buildings and Standing Structures*" (Archaeological guidelines series no. 1, 2018).



Condition

Advice note: *An archaeological authority from Heritage New Zealand Pouhere Taonga will be required before removal of any part of the historic fenceline can proceed.*

17.2 The Consent Holder must not remove any part of the historic fenceline except where necessary to provide for the Coronation Pit Extension. This may include up to 50m either side of the Coronation Pit Extension. The consent holder must restrain the remaining parts of the historic fenceline.

17.3 If the Consent Holder

- (a) Discovers koiwi tangata (human skeletal remains), or Māori artefact material, the Consent Holder shall without delay:
 - i. Notify the Councils, Tangata whenua and Heritage New Zealand Pouhere Taonga and in the case of skeletal remains, the New Zealand Police.
 - ii. Stop work within the immediate vicinity of the discovery to allow a site inspection by Heritage New Zealand Pouhere Taonga and the appropriate runanga and their advisors, who shall determine whether the discovery is likely to be extensive; if a thorough site investigation is required and whether an Archaeological Authority is required.
 - iii. Any koiwi tangata discovered shall be handled and removed by tribal elders responsible for the tikanga (custom) appropriate to its removal or preservation.
- (b) Discovers any feature or archaeological material that predates 1900, or heritage material, or disturbs a previously unidentified archaeological or heritage site, the Consent Holder shall without delay:
 - i. Cease work immediately at that place and within 20m around the site;
 - ii. Shut down all machinery, secure the area, and advise the Site Manager;
 - iii. Secure the site and notify the Heritage New Zealand Regional Archaeologist and the Councils. Further assessment by an archaeologist may be required;
 - iv. If the site is of Māori origin, notify the Heritage New Zealand Regional Archaeologist, the Councils and the appropriate iwi groups or kaitiaki representative of the discovery and ensure site access to enable appropriate cultural procedures and tikanga to be undertaken, as long as all statutory requirements under legislation are met (Heritage New Zealand Pouhere Taonga Act 2014, Protected Objects Act 1975). Heritage New Zealand will determine if an archaeological authority under the Heritage New Zealand Pouhere Taonga Act 2014 is required for works to continue; and
 - v. Recommence site work following consultation with the Councils, Heritage New Zealand and iwi, provided that any relevant statutory permissions have been obtained.

Advice Note: *An archaeological authority from Heritage New Zealand Pouhere Taonga may be required before work can proceed.*



Condition

17.4 Following a discovery described in Condition 17.3, site work shall recommence following consultation with the Councils, Heritage New Zealand Pouhere Taonga, Tangata whenua, and in the case of skeletal remains, the NZ Police, provided that any relevant statutory permissions have been obtained.

18. Ecological Management Plan

18.1 Prior to the exercise of this consent, the Consent Holder shall engage a suitably qualified and experienced ecologist to prepare and submit to the Councils an Ecological Management Plan ("EMP") for certification. The purpose of the EMP is to manage the actual and potential adverse effects on the Threatened, At Risk and Locally Uncommon species and general ecological values being affected by the Macraes Phase 4 Project.

Advice Note: *The EMP may be combined with any EMP required by any other consent held by the Consent Holder for mining operations at Macraes Flat.*

18.2 The EMP shall:

- (a) Include sections covering the following matters:
 - i. vegetation and threatened plant management;
 - ii. avifauna management;
 - iii. aquatic biota management; and
 - iv. management of other indigenous biodiversity
- (b) Have the following objective:
 - i. To avoid, remedy, mitigate, offset or compensate the effects of the Macraes Phase 4 Project on threatened, at risk and locally uncommon plants and vegetation types, indigenous birds, indigenous invertebrates, resident lizard populations, and aquatic fauna.
- (c) Detail the methods by which the objective set out in this condition shall be achieved, including:
 - i. Ecological management during construction and operation of the Macraes Phase 4 Project including to give effect to conditions 20.1 to 20.4;
 - ii. Rehabilitation requirements to give effect to conditions 21.1 to 21.2;
 - iii. Offsetting and compensation requirements including the management of such sites to give effect conditions 22.1 to 22.17;
 - iv. Details relating to the salvage, propagation and transplanting of the indigenous plant species identified in conditions 24.1 to 24.4;
 - v. Management of effects on lizards including to give effect to conditions 25.1 to 25.4;



Condition

- vi. Management of any habitat restoration;
 - vii. Weed and predator control;
 - viii. Ecological monitoring and ongoing management requirements and,
 - ix. Fencing design and method of construction for the offset/compensation areas.
- (d) The Consent Holder shall implement the programme of activities specified in the EMP.

18.3 Where offsetting and compensation is proposed as part of the EMP the Consent Holder shall ensure it achieves the following outcomes:

- (a) Any offset is applied so that the ecological values being achieved are the same or similar to those being lost. Any compensation together with the offset will achieve positive biological diversity outcomes;
- (b) The positive ecological outcomes of the offset are designed and implemented to last at least as long as the duration of the consent, and as far as is practicable in perpetuity;
- (c) The offset and compensation will achieve biological diversity outcomes beyond results that would have occurred if the offset was not implemented; and
- (d) The delay between the loss of biological diversity through the proposal and the gain or maturation of the offset's biological diversity outcomes is minimised.

18.4

- (a) The Councils will use their best endeavours to certify the EMP within 10 working days of receipt, noting that expert input may be required before certification can be provided. If the Council is unable to certify the EMP within 10 working days, it must notify the Consent Holder and advise a revised timeframe. Regardless, the Councils must use their best endeavours to certify the EMP as soon as possible after the 10 working day period and within a total of 20 working days of receipt.
- (b) Provided that the Consent Holder has not been advised of a revised timeframe under Condition 18.4(a), the Councils shall, no later than 10 Working Days of receipt of the EMP, confirm in writing to the Consent Holder that the management plan is either certified or declined, or shall request that the Consent Holder incorporate changes suggested by the Councils. If a revised timeframe has been advised, confirmation of a decision shall be made by the Councils in accordance with that timeframe (applying best endeavours to reach a decision within 10 working days from receipt of the EMP).
- (c) If 10 working days have passed since the EMP has been provided to the Council, and the Council has not advised the Consent Holder of a revised timeframe under Condition 18.4(a), or certified or declined to certify the EMP in accordance with Condition 18.4(b), then the EMP shall be deemed to be certified and the Consent Holder may commence works in accordance with the EMP as provided.



Condition

- 18.5 Prior to submitting the final EMP to the Councils for certification, a copy of the draft EMP must be provided to the Department of Conservation and Kāti Huirapa ki Puketeraki, Te Rūnanga o Otakou; Te Rūnanga o Moeraki, with an invitation to provide feedback within 10 working days. The Consent Holder must ensure that all written feedback on the draft EMP received from Department of Conservation and Kāti Huirapa ki Puketeraki, Te Rūnanga o Otakou; Te Rūnanga o Moeraki within the 10 working day timeframe is provided to the Councils when the EMP is submitted for certification, along with a clear explanation of where any comment made on the draft EMP has or has not been incorporated into the EMP and, if not incorporated, the reasons why.
- 18.6 The Consent Holder may request subsequent changes to the certified EMP by submitting the amendments in writing to the Councils for certification. Any changes to the EMP shall remain consistent with the objectives and functions of the EMP as specified in condition 18.2, and no changes shall take effect until certified by the Councils. Condition 18.4 applies to any amendments submitted by the Consent Holder.

19. Ecological Monitoring Report (EMR)

- 19.1 The Consent Holder shall engage a suitably experienced and qualified ecologist(s) to prepare an annual Macraes Phase 4 Project Ecological Monitoring Report (EMR). The EMR shall include:
- (a) A description of the works and other actions completed by the Consent Holder in the previous twelve months in order meet the purpose and objectives of the EMP; and
 - (b) An evaluation of the progress of:
 - i. Rehabilitation implementation as required by conditions 21.1 to 21.2;
 - ii. Offsetting and compensation implementation as required by conditions 22.1 to 22.12;
 - iii. Transplanting of indigenous plant species identified in condition 24.1; and
 - iv. Actions required by the Lizard Management Plan in accordance with conditions 25.1 – 25.5
 - (c) A description of the methods to be implemented in the following 12 months in order to meet the purpose and objectives of the EMP.
- 19.2 The Consent Holder shall provide the Councils, Kāti Huirapa ki Puketeraki, Te Rūnanga o Otakou; Te Rūnanga o Moeraki; and the Department of Conservation with a copy of the report by no later than 31 July each year. The report may be combined with any EMP report required by any other consent held by the Consent Holder for mining operations at Macraes Flat.

20. Ecological Management During Construction and Operation



Condition

- 20.1 Land disturbance undertaken by the Consent Holder must adhere to a Ground Nesting Bird Protocol. The Ground Nesting Bird Protocol must be developed by a suitable qualified and experienced ecologist with the objective of avoiding disturbance of indigenous ground nesting birds. A copy of the Ground Nesting Bird Protocol must be provided to the Councils as part of the EMP required by Condition 18.1.
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- 20.2 The Consent Holder shall take practical measures to ensure that the areas of indigenous vegetation requiring disturbance to give effect to this consent are minimised where possible. This shall include the following protocols:
- (a) Using survey markers to clearly mark out areas to be cleared prior to land disturbance commencing;
 - (b) Using survey markers to clearly mark out areas of higher ecological value within 100m of the areas to be cleared or disturbed prior to land disturbance commencing. Such areas must be identified in the EMP required by Condition 18.1;
 - (c) Only clearing authorised areas as they are required; and
 - (d) Avoiding driving vehicles and machinery outside of established tracks or areas that are authorised by this consent to be cleared.
-
- 20.3 If *Orocrampus sophistes* is confirmed in pre-development surveys to be present at the site of the Golden Bar Waste Rock Stack, the Consent Holder must undertake the following to protect the resident *Orocrampus sophistes*:
- (a) Only remove tussock from the site of the Golden Bar Waste Rock Stack Extension during summer;
 - (b) Stockpile any tussock removed from the site of the Golden Bar Waste Rock Stack Extension in addition to soils within an area of existing undisturbed tussock grassland; and
 - (c) Use all of the stockpiled tussock specified in (b) to rehabilitate the Golden Bar Waste Rock Stack in accordance with condition 21.1.
-
- 20.4 Within 12 months of the works authorised by this consent commencing, the Consent Holder shall engage an appropriately qualified ecologist to undertake an inspection of the area around any disturbed land authorised by this consent for new weed species. The Consent Holder must engage and appropriately qualified ecologist to repeat the inspection every 6 months for two years and annually thereafter for the duration of this consent. Any new environmental weeds that are discovered in the area must be subject to OceanaGold's annual environmental weed control operation.

21. Ecological Rehabilitation Requirements



Condition

21.1 The Consent Holder shall in accordance with the rehabilitation objectives specified in condition 4.1, rehabilitate at least 35 ha of the 48 ha extension of the Golden Bar WRS to 80% cover of narrow-leaved tussock grassland by planting subdivided or nursery grown narrow-leaved tussock plants within an area which shall include a 20 m buffer from the WRS base to facilitate recruitment by other species from adjacent undisturbed tussock grassland.

21.2 The Consent Holder shall fence the area specified in condition 21.1 to exclude stock.

22. Ecological Offsetting and Compensation Requirements

Offset and Compensation Areas

22.1 Prior to undertaking any clearance of indigenous vegetation at the site of the Coronation Stage 6 Pit Extension, the Consent Holder must set aside:

- (a) an area of land capable of containing ephemeral wetland(s) covering a combined area of at least 0.3 ha known as the Ephemeral Wetland Creation Site at or near the location as shown on the Map 1 annexed to this consent for the purpose of providing ecological offsetting for ephemeral wetland values.
- (b) an area of land containing at least 1.5 ha of suitable lizard habitat that can be enclosed by a predator proof fence or otherwise predator controlled;
- (c) an area of land containing at least 0.5 ha of riparian and wetland vegetation mosaic;
- (d) an area of land containing at least 6 ha of existing tussock grassland that is currently at approximately 15% tussock cover that is capable of having average tussock cover increased to 50%.

The exact size and location of the area shall be finalised during preparation of the management plans required by Condition 22.12 and shall be in accordance with the outcomes set out in Conditions 22.4, 22.6, 22.8, and 22.10 (as applicable). Two or more of the above areas may be combined.

22.2 Prior to undertaking any clearance of indigenous vegetation at the site of the Innes Mills Pit Extension or the Golden Bar Road Realignment, the Consent Holder must set aside:

- (a) an area of land at capable of containing a wetland covering at least 0.1 ha known as the Wetland Offset Site at or near the location shown on the Map 1 annexed to this consent for the purpose of providing ecological offsetting for wetland values.
- (b) an area of land containing at least 6 ha of suitable lizard habitat that can be enclosed by a predator proof fence or otherwise predator controlled;
- (c) an area of land containing at least 1 ha of riparian and wetland vegetation mosaic;

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- (d) an area of land containing at least 6 ha of existing tussock grassland that is currently at approximately 15% tussock cover that is capable of having average tussock cover increased to 50%.

The exact size and location of the area shall be finalised during preparation of the management plans required by Condition 22.12 and shall be in accordance with the outcomes set out in Conditions 22.4, 22.6, 22.8, and 22.10 (as applicable). Two or more of the above areas may be combined.

22.3 Prior to undertaking any clearance of indigenous vegetation at the site of the Golden Bar Pit Extension or the Golden Bar Waste Rock Stack Extension, the Consent Holder must set aside:

- (a) an area of land containing at least 27.7 ha of suitable lizard habitat that can be enclosed by a predator proof fence or otherwise predator controlled;
- (b) an area of land containing at least 1.8 ha of riparian and wetland vegetation mosaic;
- (c) an area of land containing at least 31 ha of existing tussock grassland that is currently at approximately 15% tussock cover that is capable of having average tussock cover increased to 50%.

The exact size and location of the area shall be finalised during preparation of the management plans required by Condition 22.12 and shall be in accordance with the outcomes set out in Conditions 22.4, 22.6, 22.8, and 22.10 (as applicable). Two or more of the above areas may be combined.

Management Requirements for Offset and Compensation Areas

22.4 The Consent Holder must manage the area identified in Condition 22.1(a) (the Ephemeral Wetland Creation Site) to achieve the following outcomes:

- (a) Establish ephemeral wetlands which will become self-sustaining; and
- (b) To increase the overall extent and value of ephemeral wetlands within the Macraes Ecological District.

22.5 To achieve the outcomes specified in Condition 22.4 the Consent Holder must, as a minimum:

- (a) Excavate gently sloping concave scrapes in the bedrock of approximately 1m depth below existing ground level, with two excavated to a deeper depth;
 - (b) Fill the excavations specified in (a) with peat material to a depth of approximately 10cm below existing ground level;
 - (c) Carry out seeding of the peat base described in (b) with ephemeral wetland and wetland plant species to form a near continuous cover of native plant community;
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Condition

- (d) Fence off the ephemeral wetlands constructed within the Ephemeral Wetland Creation Site with fencing of an appropriate specification to exclude cattle whilst maintaining access for sheep; and
- (e) Enable grazing of the Ephemeral Wetland Creation Site by sheep or otherwise undertake weed control to prevent short-stature native plant communities being overtopped by weeds.

22.6 The Consent Holder must manage the area identified in Condition 22.2(a) (the Wetland Offset Site) to achieve the following outcomes:

- (a) Establish a wetland which will become self-sustaining; and
- (b) To increase the overall extent and value of wetlands within the Macraes Ecological District.

22.7 In order to achieve the outcomes specified in Condition 22.6 the Consent Holder must, as a minimum:

- (a) Planting out at least 0.1 ha of indigenous wetland plant species at the Wetland Offset Site;
- (b) Fence off the Wetland Offset Site with fencing of an appropriate specification to exclude cattle whilst maintaining access for sheep; and
- (c) Enable grazing of the Wetland Offset Site by sheep or otherwise undertake weed control to prevent short-stature native plant communities being overtopped by weeds.

22.8 The Consent Holder must manage the areas identified Conditions 22.1(b), 22.2(b), and 22.3(a) (Lizard Habitat Enhancement Areas) to achieve the following outcomes:

- (a) Protect and enhance lizard habitat;
- (b) Provide for the translocation of lizards from within the project footprint.

22.9 In order to achieve the outcomes specified in condition 22.8 the Consent Holder shall:

- (a) Fence the Lizard Habitat Enhancement Areas to exclude stock;
 - (b) Install predator proof fencing or otherwise undertake predator control to exclude mammalian predators;
 - (c) Prepare and implement a Predator Control Plan with the objective of eradicating target pest animals from the area(s).
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Condition

22.10 The Consent Holder must manage the areas identified under Conditions 22.1(c) – (d), 22.2(c) – (d), and 22.3(b) – (c) (Vegetation Enhancement Areas) to achieve the following outcomes:

- (a) Allow the natural succession of the indigenous vegetation communities within the Vegetation Enhancement Areas; and
- (b) Increase the ecological diversity and ecological importance of the Vegetation Enhancement Areas.

22.11 In order to achieve the outcomes specified in condition 22.10 the Consent Holder shall:

- (a) Fence the Vegetation Enhancement Area to exclude stock;
- (b) Plant out at least 0.5ha of new shrubland, comprising at least five different indigenous shrub species in the area that shall achieve 75% canopy cover within 10 years;
- (c) Undertake control of woody weeds within the shrubland area referred to in (b) and within 200m of this area;
- (d) Include at least 12 ha of riparian vegetation;
- (e) Remove gorse from the area described in (g) and establishing safeguards against invasion of woody weed species within this habitat.

Offset and Compensation Management Plans

22.12 As part of the EMP required by condition 18 the Consent Holder shall engage an appropriately qualified and experienced Ecologist(s) to prepare the following management plans:

- (a) An Ecological Enhancement Area Management Plan (EEAMP) for the areas referred to in Conditions 22.1(b) – (d), 22.2(b) – (d), and 22.3(a) – (c);
- (b) An Offset Plan for the Ephemeral Wetland Creation Site specified in condition 22.1(a); and
- (c) An Offset Plan for the Wetland Creation Site specified in condition 22.2(a).

22.13 The objective of each Plan referred to in Condition 22.12 is to set out the detailed offsetting, compensation, and monitoring measures that will be practically implemented at the areas identified in Conditions 22.1 – 22.3 to achieve the outcomes specified under conditions 22.4, 22.6, 22.8, and 22.10, respectively. The Plans required by Condition 22.12 must include, as a minimum (as applicable to the relevant site):

- (a) A description of the offset, the calculation basis, locations and management activities by which enhancements will be generated;



Condition

- (b) Details regarding the financial cost of the offset work and its subsequent maintenance and how these will be secured in the long term in order to secure the financial delivery of the Plan.
- (c) A monitoring programme to assess the degree to which enhancement targets are being achieved and the ability to adjust biodiversity management to ensure that gains will be achieved and maintained for the long term;
- (d) The roles and responsibilities of those carrying out the work, and the governance and management structures relating to the operation of the offsetting site(s)
- (e) Reporting of monitoring results and a process for undertaking actions if offsetting or enhancement targets are not being achieved as anticipated.
- (f) With regard to the Ecological Enhancement Area Management Plan, the incorporation of research programmes in order to:
 - i. form a better understanding of the response of resident invertebrate communities to changes in tussockland habitat; and
 - ii. if *Orocrambus sophistes* is present, form a better understanding of the distribution, habitat and food plants of *Orocrambus sophistes* in both the Golden Bar and local area to enable the creation or enhancement of suitable habitat in the Murphys Ecological Enhancement Area or other suitably protected site.

22.14 Upon certification of the Plans prepared in accordance with Condition 22.12 and not later than six months following the commencement of any onsite works the Consent Holder shall confirm in writing to the Councils that it has commenced implementing the Plan at the appropriate.

22.15 Three years following the implementation of each certified Plan identified in Condition 22.12 the Consent Holder shall engage a suitably qualified and experienced ecologist to conduct a review of each offset and compensation area that has been established to determine that all offsetting and compensation actions have been undertaken in accordance with Conditions 22.5, 22.7, 22.9, and 22.11 (as applicable).

The purpose of this review shall be to ensure that these actions are achieving or show clear evidence towards achieving the outcomes specified in Conditions 22.4, 22.6, 22.8, and 22.10 (as applicable). Should any monitoring result show that the expected outcomes will not be realised, the Consent Holder shall implement a programme of corrective actions to achieve the expected outcomes.

22.16 As a result of the reviews undertaken in accordance with Condition 22.15 the Consent Holder may request subsequent changes to the certified Plan by submitting the amendments in writing to the Councils. Any amendments shall be such that the Offset Plan will continue to achieve outcomes specified under Conditions 22.4, 22.6, 22.8, and 22.10 (as applicable) and the requirements of Condition 22.13. No changes may take effect until the Councils have certified that the plan will continue to achieve the relevant objectives. Condition 18.4 applies to any amendments submitted by the Consent Holder as part of an updated EMP.



Condition

22.17 Within 6 months of completing construction of the Coronation Pit Lake Spillway, the consent holder must fence off 100 m of gully bottom extending from the spillway downstream to the current stock fence using standard stock fencing situated at least 5 m from gully bottom.

23. Offsetting sites – Land Protection and Long Term Requirements

23.1 Within 24 months of the exercise of this consent, the Consent Holder must register a covenant (or other suitable legal protection mechanism) in perpetuity against the relevant land titles for the areas identified in Conditions 22.1 – 22.3. The conservation purposes of the covenant shall be as described at Conditions 22.4 – 22.11 (as applicable) and any covenant shall retain the right of access to the Councils for monitoring and compliance purposes. The survey and legal costs associated with creating the covenants in registrable form shall be borne by the consent holder. Copies of the titles shall be provided to the Councils upon completion of the covenant registration.

24. Plant Rescue

24.1 Prior to mining the Golden Bar Pit Extension or depositing waste rock into the Golden Bar Waste Rock Stack Extension, the Consent Holder shall, using a suitably qualified person or persons, fund and carry out measures for the translocation of seeds, cuttings or other cultivation material from the following plant species located within the impacted footprint ("salvage species"):

- (a) The Declining desert broom *Carmichaelia petriei* from the c. 100 shrubs in the Golden Bar Pit and Waste Rock Stack footprint to establish 500 individuals at a location fenced to exclude stock;
- (b) The Naturally Uncommon wetland rush *Juncus distegus* from the c. 6 individuals in the Golden Bar Waste Rock Stack footprint to establish 50 individuals at a location fenced to exclude stock;
- (c) The Data Deficient shrub *Melicytus* aff. *alpinus* from 20 individuals in the Golden Bar Waste Rock Stack footprint to form a component of shrubland containing at least 40 individuals at a location fenced to exclude stock;

24.2 The propagation material taken from the plants listed in Condition 24.1 (a) - (c) will be established as self-sustaining and viable plants in suitable habitat within the Vegetation Enhancement Areas identified in Condition 22.3(c) of this consent.

24.3 The Consent Holder shall monitor the success of all plantings carried out under the requirements of (a) - (c) of Condition 24.1 annually for three years following planting and shall detail the plantings carried out and the "success" of the plantings in its annual EMR. In this context, success means the successful survival and growth of the plant species so that they may form potentially viable populations and shall be monitored by recording the survival and



Condition

growth of individual plants and noting any flowering and recruitment of new individuals. Success shall be demonstrated by at least 75% of established plants surviving, and at least 50% of transplants increasing in size compared with their establishment.

24.4 Prior to constructing the Coronation Pit Lake spillway, the Consent Holder shall use a suitably qualified person or persons, fund and carry out measures for the translocation of the c. 300 plants Naturally Uncommon Declining mountain daisy *Celmisia hookeri* to a stock fenced area adjacent to the proposed Coronation Pit Lake spillway.

25. Lizard Management Plan

25.1 As part of preparing the EMP the Consent Holder shall engage an appropriately qualified and experienced person to prepare a Lizard Management Plan (LMP).

25.2 The purpose of the LMP is to, as far as is practicable, plan and implement actions to avoid, remedy and/or mitigate the actual and potential effects of the Macraes Phase 4 Project on the lizard values present within the project footprint. Offsetting and compensation will be employed to address residual adverse effects. The Lizard Management Plan shall demonstrate consistency with;

- (a) The requirements of any permit or approvals issued under any other legislation for the Macraes Phase 4 Project site (Wildlife Act Authorisation or permit); and
- (b) The *draft Lizard Management Strategy: OceanaGold Operations, Macraes Flat* prepared by LizardExpertNZ, dated 2022 and any final version or subsequent updates to that strategy.

25.3 The LMP required by condition 25.1 of this consent shall include:

- (a) A description of the measures to be taken by the Consent Holder to adequately avoid, remedy, mitigate or compensate for effects on lizard species present within the Macraes Phase 4 Project site; and
- (b) A description of the monitoring and reporting requirements required to ensure the intended outcomes of the LMP are being met.

The actions described in the LMP to satisfy the requirements of (a) and (b) will be in general accordance with those outlined in the draft LMP included as Appendix 18 of the Macraes Phase 4 Resource Consent Application and Assessment of Environmental Effects, dated 28 March 2024, and any other permit or approval obtained under the Wildlife Act 1953 or other relevant legislation. If there are any inconsistencies between the draft LMP and the conditions of any permit or approval obtained under the Wildlife Act 1953 or other relevant legislation, the Consent Holder shall prioritise consistency of the final LMP with those approvals.



Condition

25.4 Within two years of first exercise of this consent the Consent Holder shall engage a suitably qualified person to update the *Lizard Management Strategy: OceanaGold Operations, Macraes Flat* to incorporate the lizard information relating to the Macraes Phase 4 Project and shall provide it to the Councils. Any recommendations within the Lizard Management Strategy shall be incorporated into the overarching EMP and implemented by the Consent Holder.

26. Fencing, barriers and marking

26.1 Stock-proof fencing shall be used to keep livestock away from all working areas.

26.2 On the completion of mining operations, the Consent Holder shall ensure that all fences and barriers, required to restrict people and/or stock for safety purposes, are installed and maintained. This shall include fences and barriers to be installed and maintained around any pit or tailings storage facility.

27. Management of Hazardous Substances

27.1 The Consent Holder shall ensure that all fuels and oils used at the site are contained in appropriately bunded facilities and that all fuel/oil dispensers are fitted with non-return valves.

27.2 Refuelling, lubrication and any mechanical repairs shall be undertaken in a manner that provides sufficient mitigation measures to ensure that no spillages onto the land surface or into water occur.

28. Bonds

Obligations to be secured

28.1 The Consent Holder shall provide and maintain in favour of the Councils one or more bonds to secure:

- (a) The performance and completion of rehabilitation in accordance with the conditions of this consent; and
- (b) The carrying out of the monitoring required by the conditions of this consent; and
- (c) The remediation of any adverse effect on the environment that may arise from the exercise of this consent; and
- (d) Compliance with conditions 28.13 - 28.17 of this consent.



Condition

Advice note: The bond is not intended to include the cost of general road maintenance or rectifying any deficiency caused by lack of maintenance of public roading beyond the maintenance periods identified by this consent. The Consent Holder is required to carry out road inspections, monitoring and maintenance under conditions 16.28, 16.29, 16.30, 16.31 and 16.32 of this consent, until four years after the closure of the processing plant, at which time maintenance will no longer be a Consent Holder responsibility.

When bonds to be provided

28.2 Before the commencement of this consent, the Consent Holder shall provide to the Councils one or more bonds required by Condition 28.1

Form of bond

28.3 Subject to the other provisions of this condition, any bond shall be in the form and on the terms and conditions approved by the Councils.

Surety

28.4 Any bond shall be given or guaranteed by a surety acceptable to the Councils.

28.5 The surety shall bind itself to pay for the carrying out and completion of the conditions of consent which are the subject of the bond on default by the Consent Holder or the occurrence of any adverse environment effect requiring remedy during or after the expiry of this consent.

Amount

28.6 The amount of each bond shall be fixed annually by the Councils which will take into account any calculations and other matters submitted by the Consent Holder relevant to the determination of the amount to be bonded in the Project Overview and Annual Work and Rehabilitation Plan, or otherwise.

28.7 The amount of the bond(s) shall include:

- (a) The estimated costs of complete rehabilitation in accordance with conditions of consent on the completion of the mining operations proposed for the next year and described in the Project Overview and Annual Work and Rehabilitation Plan.
- (b) The estimated costs of:



Condition

- i. Monitoring in accordance with the monitoring conditions of the consent;
 - ii. Monitoring for and of any adverse effect of the activity authorised by this consent which may become apparent during or after expiry of this consent;
 - iii. Monitoring any rehabilitation required by this consent.
- (c) Any further sum which the consent authority considers necessary for monitoring and dealing with any adverse effects on the environment that may arise from the exercise of the consent whether during or after the expiry of this consent.

28.8 The amount shall be calculated for the duration of this consent and for a period of 20 years after its expiry.

28.9 If, on review, the total amount of bond to be provided by the Consent Holder is greater or less than the sum secured by the current bond(s), the Consent Holder, surety and the Councils may, in writing, vary the amount of the bond(s).

General

28.10 While the liability of the surety is limited to the amount of the bond(s), the liability of the Consent Holder is unlimited.

28.11 Any bond may be varied, cancelled, or renewed at any time by written agreement between the Consent Holder, surety and Councils.

Costs

28.12 The costs (including the costs of the consent authority) of providing, maintaining, varying and reviewing any bond shall be paid by the Consent Holder.

Bonding on expiry or surrender of this consent

28.13 For a period of 20 years from the expiry or surrender of this consent the Consent Holder shall provide in favour of the Councils one or more bonds.

28.14 The amount of the bond to be provided under Condition 28.13 shall include the amount (if any) considered by the Councils necessary for:

- (a) Completing rehabilitation in accordance with the conditions of this consent.
-



Condition

- (b) Monitoring for and of any adverse effect on the environment that may arise from the exercise of the consent.
- (c) Monitoring any measures taken to prevent, remedy or mitigate any adverse effect on the environment that may arise from the exercise of this consent.
- (d) Dealing with any adverse effect on the environment which may become apparent after the surrender or expiry of this consent.
- (e) Contingencies

28.15 Without limitation, the amount secured by the bond given under Condition 28.13 may include provision to deal with structural instability or failure, land and water contamination, and the failure of rehabilitation in terms of the rehabilitation objectives and conditions of this consent. Costs shall include costs of investigating, preventing, remedying or mitigating any adverse effect.

28.16 The bond(s) required by Condition 28.13 must be provided on the earlier of:

- (a) 12 months before the expiry of this consent;
- (b) Three months before the surrender of this consent.

28.17 Conditions 28.3, 28.4, 28.5, 28.8, 28.9, 28.10 and 28.11 apply to the bond(s) required by Condition 28.13.

29. Public Liability Insurance

29.1 The Consent Holder shall effect and keep current public liability insurance for an amount not more than twenty million dollars. The amount shall be determined by the Councils in consultation with the Consent Holder.

29.2 The indemnity expressed in the insurance policy shall be sufficiently wide in its coverage so as to include claims arising from damage caused by structural failure, or damage resulting from fire or explosion and all fire fighting costs resulting from the Consent Holder's operations in respect of the land and from any accidental or otherwise spillage of any chemical or reagent and/or resulting clean up and restoration costs and the costs of mitigation of those events.

29.3 The Consent Holder shall on request provide the Councils a copy of the insurance policy and the receipt evidencing payment of the premium in respect of any such policy.



Condition

29.4 The Consent Holder shall also indemnify the Councils against any claim arising from the public use of public roads for the time being under control of the Consent Holder.

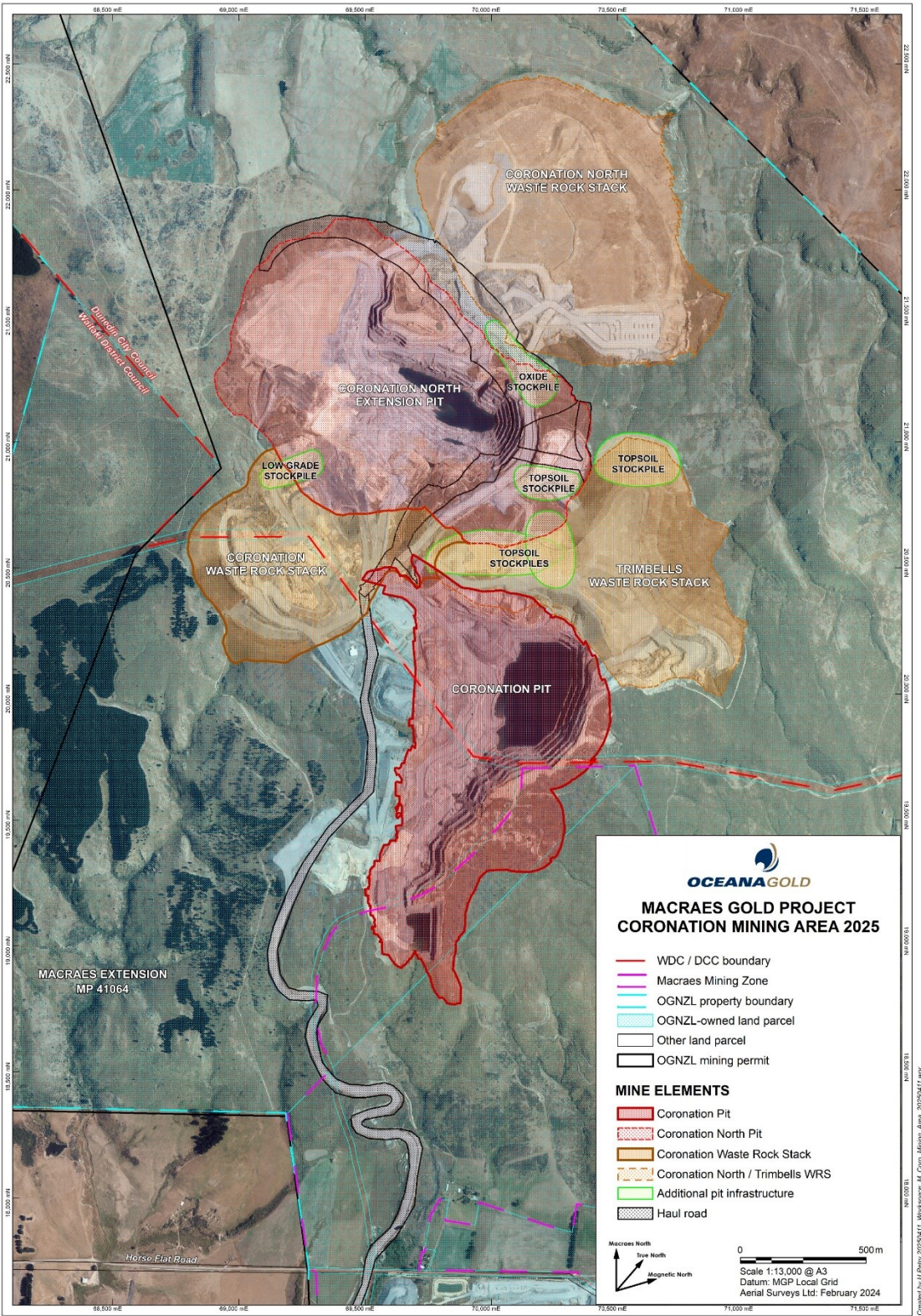
30. Closure of Operations

30.1 The Consent Holder shall annually supply to the Council a contingency plan for the early closure of the mine, as part of the Project Overview and Annual Work and Rehabilitation Programme. This contingency plan shall be updated annually. The plan shall address the objectives listed in Condition 4 and include:

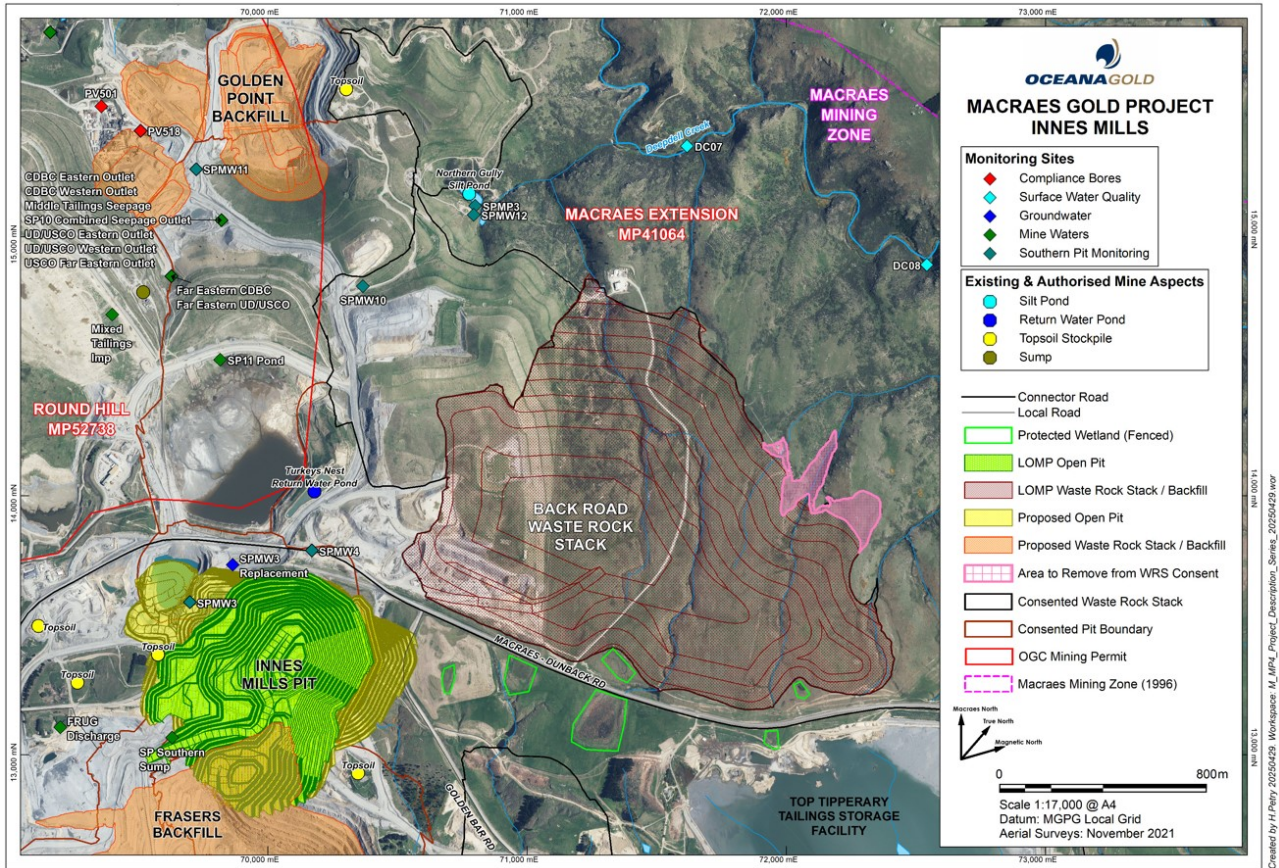
- (a) An evaluation of the residual risk of the operation with regard to the neighbouring community and environment; and
- (b) A plan for the long term management of the site, in particular the area of open pits or consequent lakes and include details of on-going maintenance and monitoring requirements and restrictions on future use.
- (c) Describe in detail what needs to be done to:
 - i. Decommission the mine site in accordance with this consent;
 - ii. Rehabilitate the mine site in accordance with this consent;
 - iii. Comply with other conditions relevant to cessation of mining; and
 - iv. The costs needed to comply with (i)-(iii).



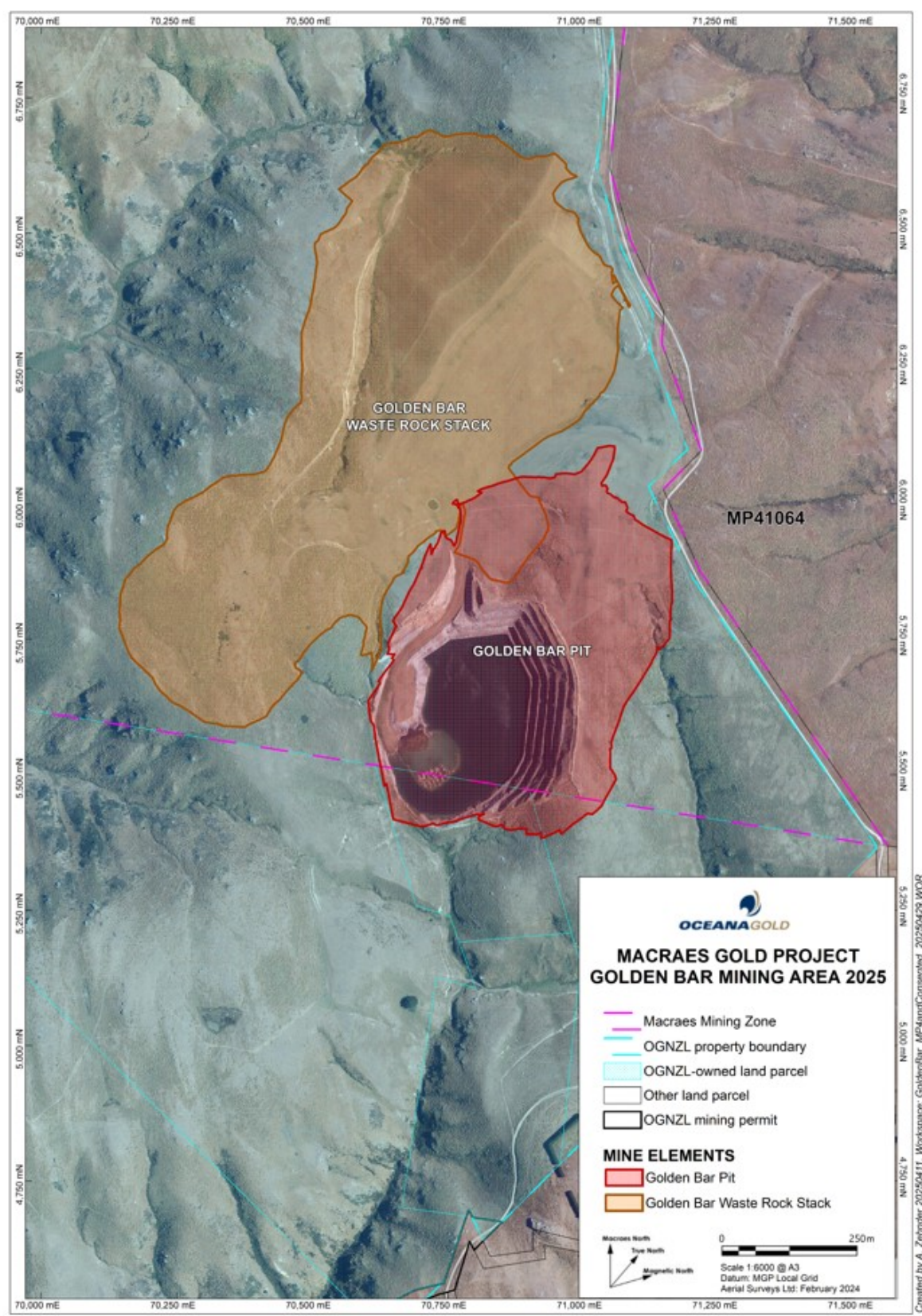
MAP 1 – CORONATION MINING AREA



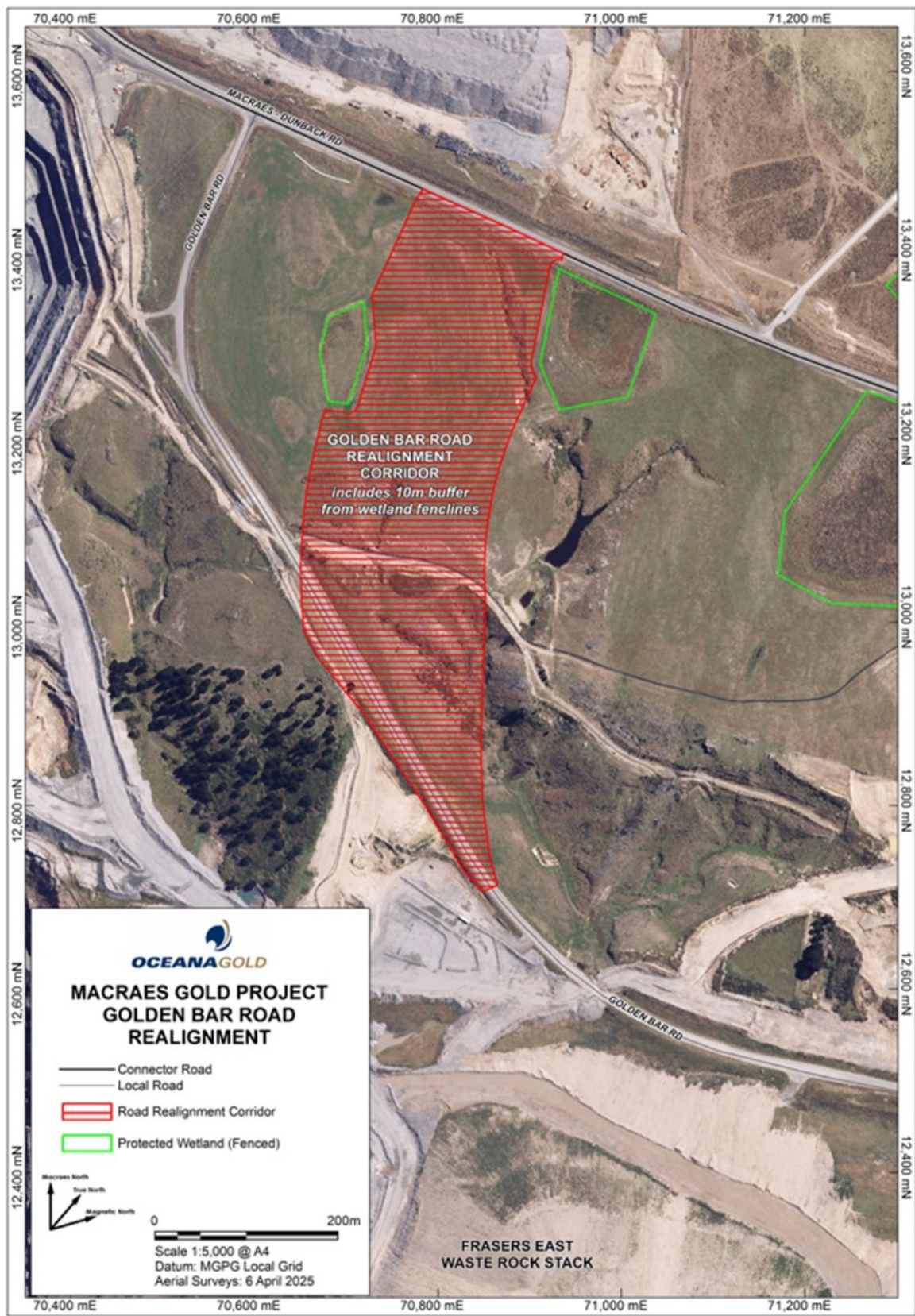
MAP 2 – INNES MILLS PIT



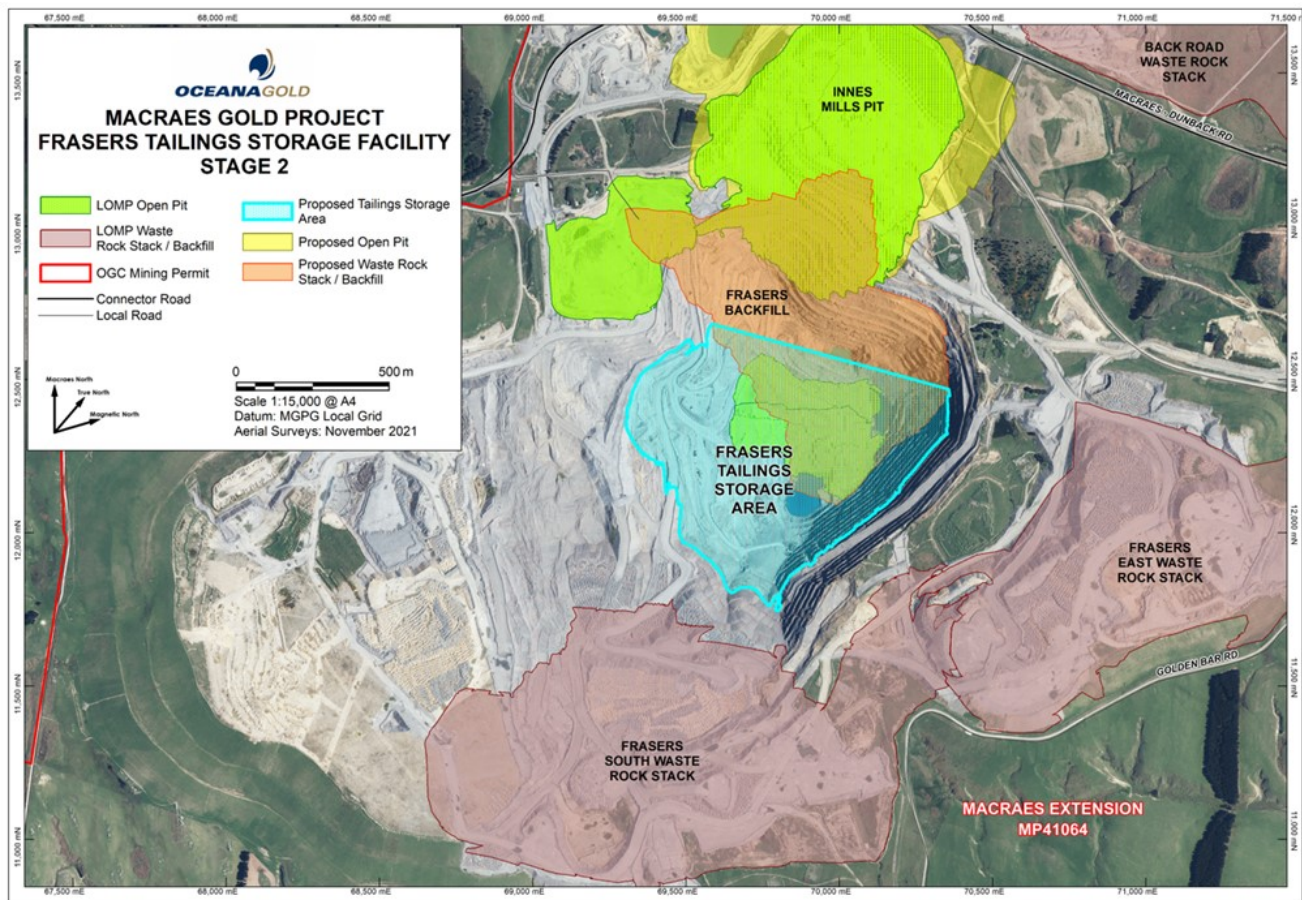
MAP 3 – GOLDEN BAR MINING AREA



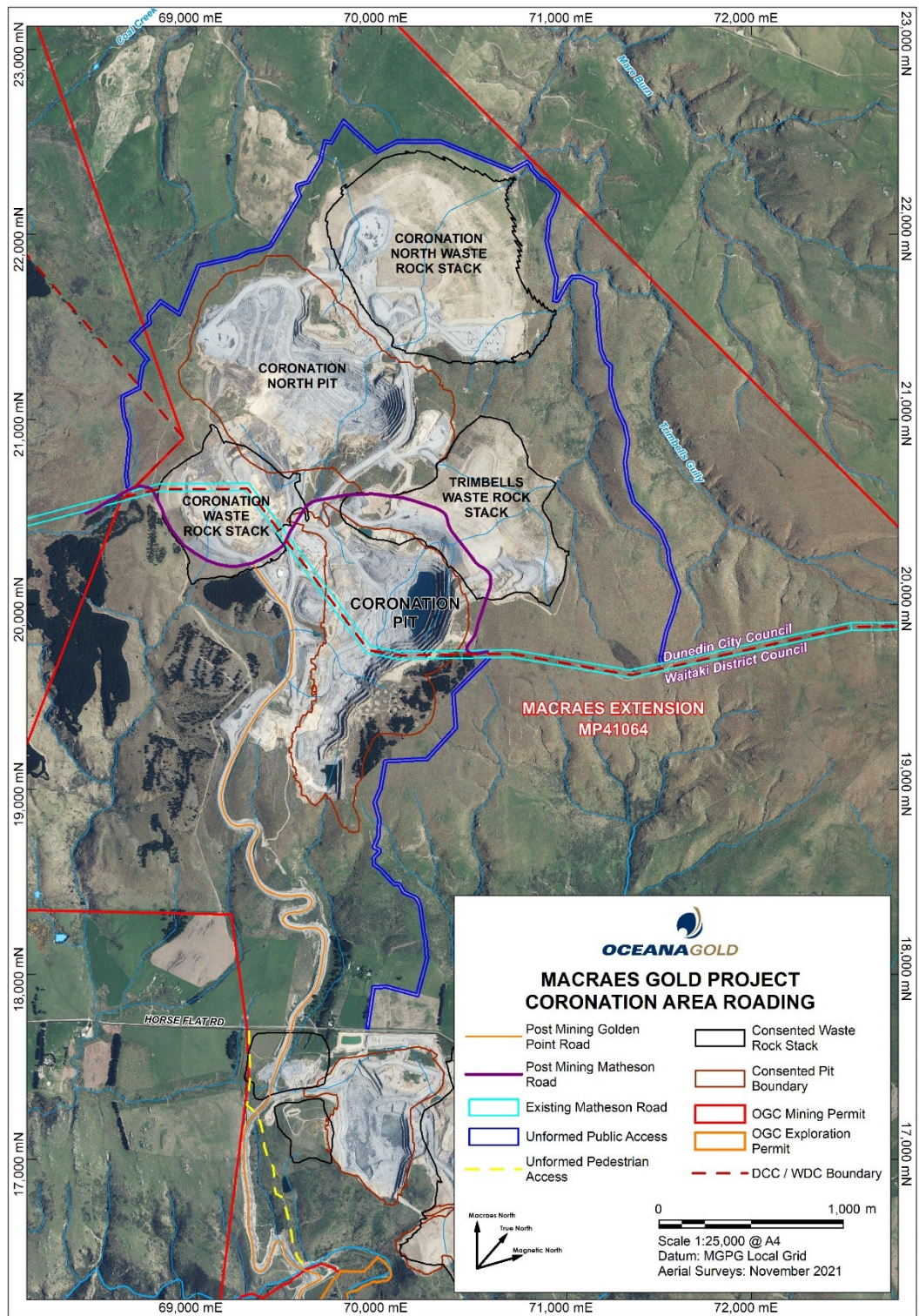
MAP 4 – GOLDEN BAR ROAD REALIGNMENT



MAP 5 – FRASERS TAILINGS STORAGE FACILITY

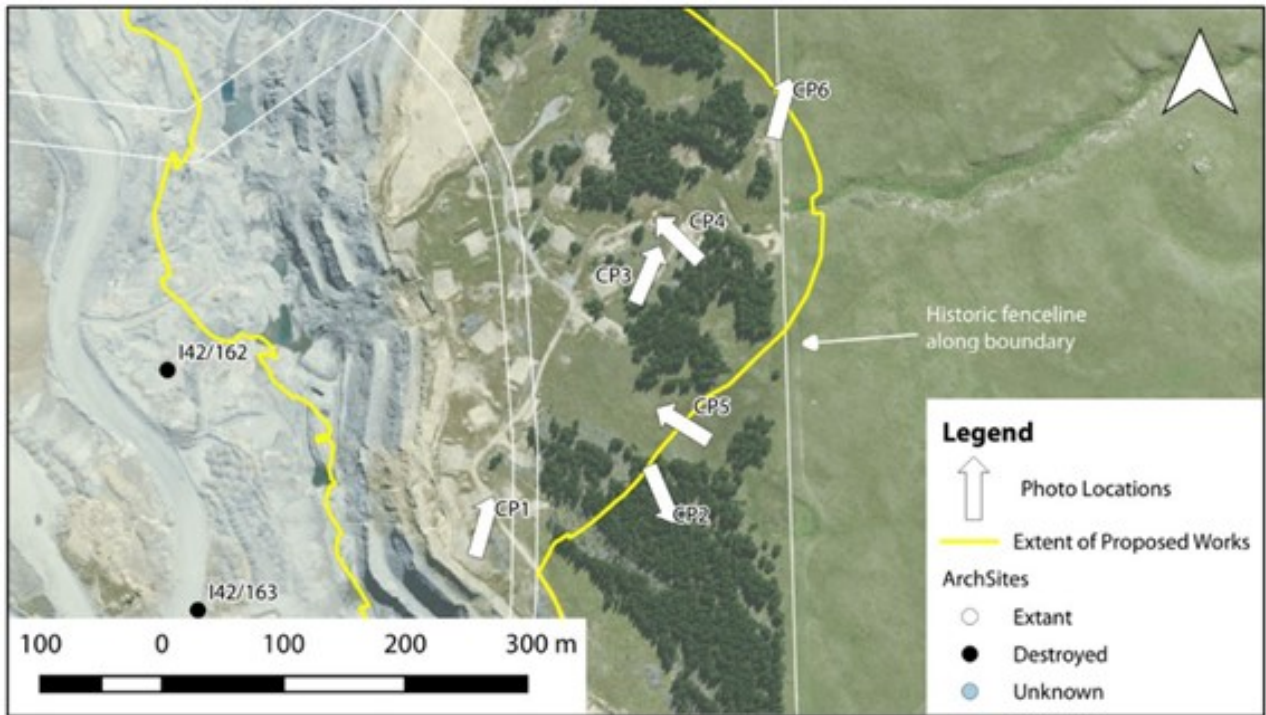


MAP 6 – CORONATION AREA ROADING



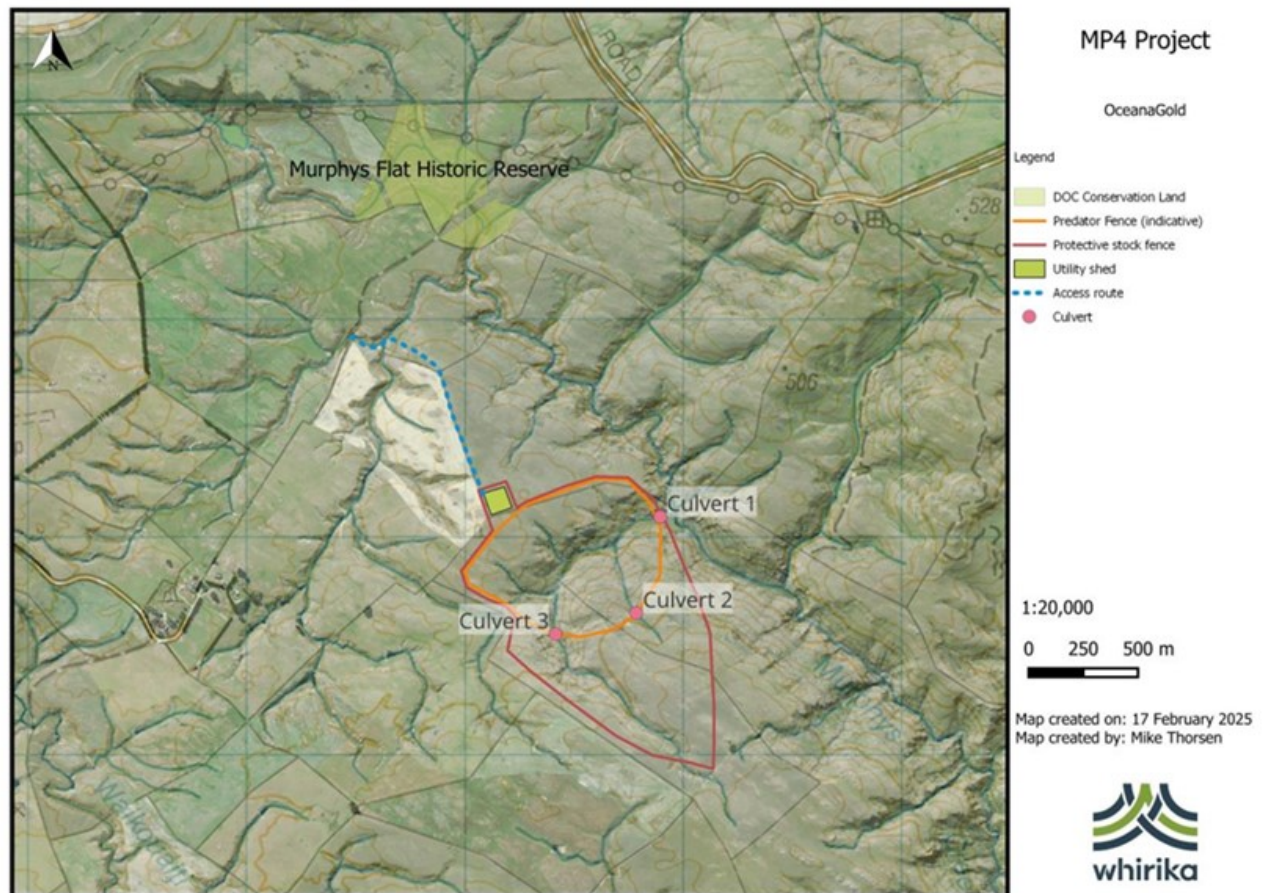
Map 6 - Macraes Gold Project Coronation Area Roading

MAP 7 – HISTORIC FENCELINE



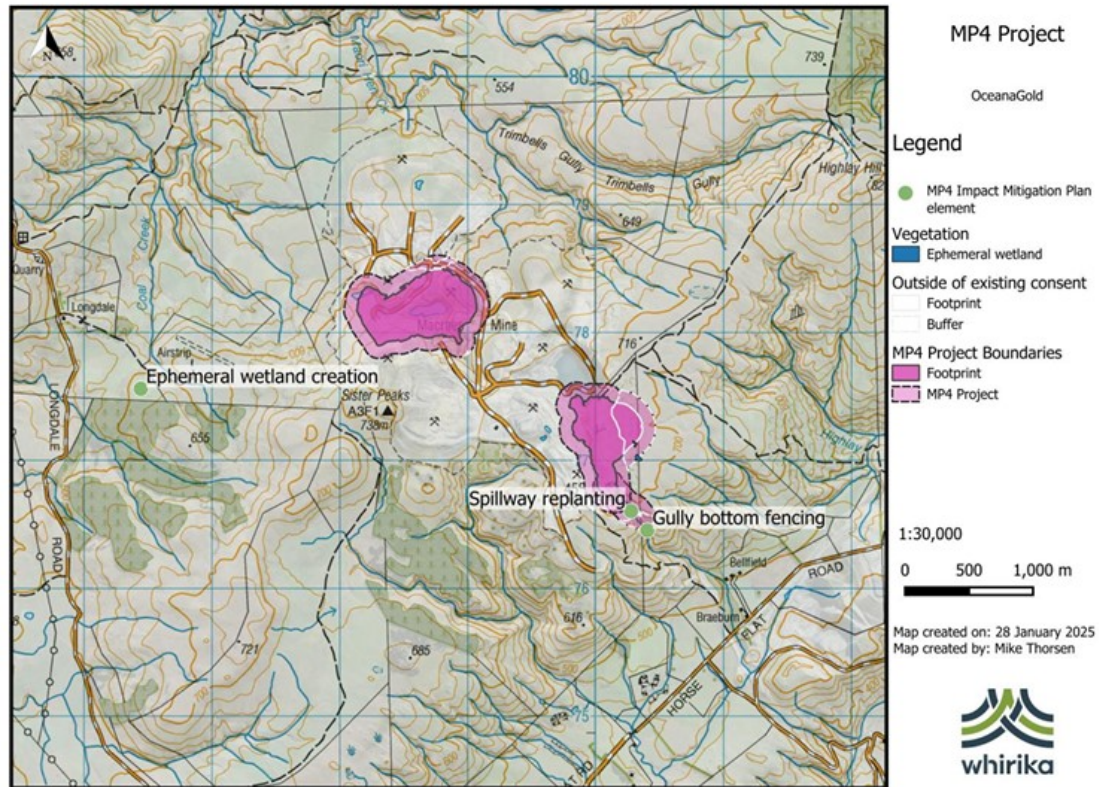
Map 7 – Historic Fenceline at Coronation Stage 6 Pit Extension

MAP 8 – MURPHYS ECOLOGICAL ENHANCEMENT AREA



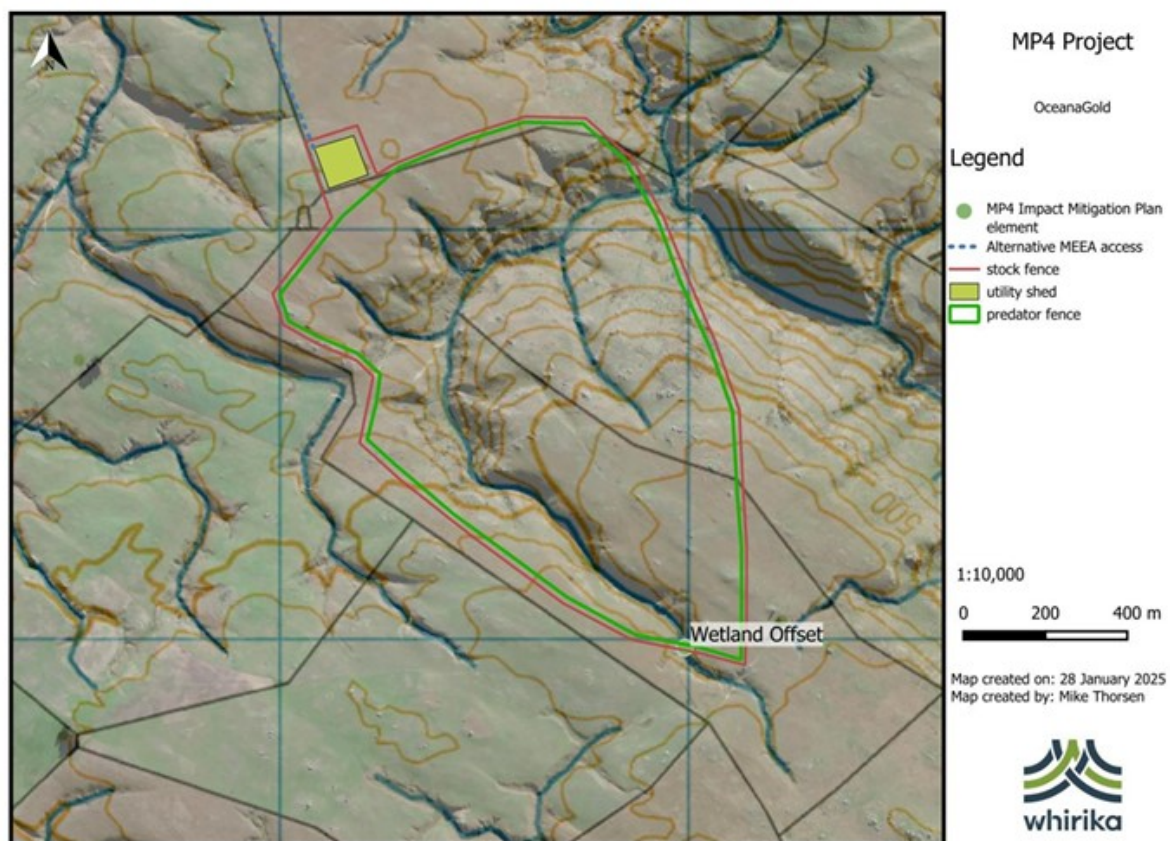
Map 8 – Approximate location of the Murphys Ecological Enhancement Area

MAP 9 – EPHEMERAL WETLAND CREATION SITE



Map 9 – Approximate Location of the Ephemeral Wetland Creation Site

MAP 10 – WETLAND OFFSET SITE



Map 10 – Approximate location of the Wetland Offset Site

APPENDIX 4:
MEMORANDUM TO THE COMMISSIONERS

Memorandum to Hearing Commissioners, Oceana Gold NZ Ltd (OGL) MP4 Applications

Applications 201.2024.2373 to the Waitaki District Council (WDC) and
LUC 2024-126 to the Dunedin City Council (DCC)

From Marian Weaver, Resource Management Consultant for WDC
Phil Petersen, DCC Planner

Date 9 June 2025

Subject: District/City Council Amendments to OGL Proposed Conditions

1. The Councils have today provided the Commissioners and other parties to the applications their Resource Management Act (RMA) s42A reports on the above applications.
2. Often the report writers would provide draft consent conditions attached to their reports, whether or not they recommend grant or decline of an application.
3. This memorandum is to inform the Commissioners (and other parties) why we have not done so in this instance.
4. The Councils have reviewed the Applicant's proposed consent conditions and worked on amendments the Councils would seek should the Commissioners decide to grant consent . However, we are of the opinion that these conditions remain unsatisfactory for granting of consent, remain a work in progress, and cannot currently be completed due to incomplete information and anticipated changes to the application.
5. In particular, the ecological and offsetting conditions are substantial and are not presently able to be completed because of a lack of detail in the application documents.
6. OGL in meetings have advised that they will be providing information about the results of a moth survey that has been undertaken, changes to the Murphys Ecological Enhancement area and a response to the Cultural Impact Assessment dated 1 May 25.

7. The Councils' ecological peer reviewer Glenn Davis of e3scientific has stated in his evidence:

"I note the IMP (Ecological Impact Management Plan) sets out the framework for the Ecological Enhancement Area Management Plan (EEAMP) and includes all of the elements that I would expect to see in a document that directed the project implementation. I am of the view that for a project of this scale this document should have been part of the consent application package as it will include critical information to assist with the assessment of effects and provide council with confidence that the objective of the offsets can be achieved. I note that I have requested this information from OGL through the s92 process, however this was not provided. Without this information, drafting of consent conditions becomes very important and very difficult to ensure the project commitments and performance objectives are captured accurately and monitored effectively over the life of the project which is likely to extend beyond the life of the mine."

8. We can only propose consent conditions for consideration by the Commissioners when we are satisfied that the conditions can fully deal with management of the effects of the proposed activity, and have a sufficient foundation in the evidence presented in support of the application.
9. It is our intention to revisit the consent conditions once the OGL evidence has been received on 23 June 25, and we have more complete information.



Marian Weaver



Phil Petersen

9 June 2025