

4 INTRODUCTION

4.1 BACKGROUND

Oceana Gold (New Zealand) Limited (“**OGNZL**” or “**the company**”) owns and operates the Macraes Operation in East Otago, New Zealand. The Macraes Operation is New Zealand’s largest gold mine and has operated continuously since 1989. It is a significant contributor to the regional and national economy providing direct employment for around 760 people and supporting many more jobs. In July 2026, the Macraes Operation produced its 6 millionth ounce of gold becoming the first continuously operating mine in New Zealand to reach this milestone. 100% of the gold produced at the Macraes Operation is exported, thereby contributing to the size of the New Zealand economy. The importance of gold to the nation is recognised through its inclusion in New Zealand’s Critical Minerals List.

The Macraes Operation is a large, integrated mining complex centred on the Macraes deposit – a world-class hard-rock gold deposit endowed with more than 10 million ounces of gold. It comprises open pit and underground mining areas and is supported by a gold processing plant, tailings storage facilities, waste rock stacks, haul roads, offices, workshops, water management infrastructure and associated ancillary facilities. These facilities have been developed progressively over the life of the mine and are authorised by a suite of resource consents and other approvals. A detailed description of the existing Macraes Operation, the surrounding environment and the relevant authorisations is provided in **Part A.05** of this report.

Mining of authorised areas is currently nearing completion and in the absence of additional approvals is forecast to wind down from 2027 with a corresponding tailing-off of employment and subsequent mine closure occurring around 2030.

The Macraes Phase 4 Project (“**MP4**” or “**the Project**”) is proposed to extend the life of the existing Macraes Operation by further developing existing open pit and underground mining areas and by undertaking associated extensions to or changes to tailings storage, waste rock disposal, water management, roading, electricity infrastructure, workshop, ecological enhancement, rehabilitation and closure activities. Reflecting recent exploration success, mine optimisation work and prevailing gold prices, MP4 intends to supplement and extend production from the Macraes Operation, including by enabling the recovery of more than 1 million ounces of gold and supporting continued mining activity at Macraes until at least 2039.

MP4 is listed in Schedule 2 of the Fast-track Approvals Act 2024 (“**the FTAA**”) and described as follows:



In stages, expand the existing open pit and underground gold mining operations to enable output of approximately 130,000 ounces per annum.

As the authorised person in respect of MP4, OGNZL is applying under the FTAA for the approvals necessary to construct, operate, maintain, rehabilitate and close the project elements related to MP4. This substantive application complies with sections 42 – 44 of the FTAA, relates solely to MP4 as listed in Schedule 2 of the FTAA, and does not involve any ineligible activities.

While set out in detail in **Part A.07** of this report, the approvals sought under the FTAA include:

- > Resource consents that would otherwise be applied for under the Resource Management Act 1991 (“**RMA**”);
- > A wildlife approval, being a lawful authority for an act or omission that would otherwise be an offence under certain sections of the Wildlife Act 1953 (“**Wildlife Act**”);
- > Archaeological authorities that would otherwise be applied for under the Heritage New Zealand Pouhere Taonga Act 2014 (“**Heritage Act** or **HNZPT Act**”); and
- > Dispensation and approval that would otherwise be applied for under the Freshwater Fisheries Regulations 1983 (“**Fisheries Regulations**”).

The Project largely utilises the existing disturbance footprint at the existing Macraes Operation and is therefore best seen as a “brownfields” project. Extension of the existing disturbance footprint is proposed only where functionally or operationally necessary to enable the extraction of minerals and the essential ancillary activities proposed.

In 2024, prior to the FTAA being enacted and MP4 being confirmed as a listed project, OGNZL applied for resource consents under the RMA for a project called MP4 which proposed to extend the life of the Macraes Operation to around 2030. That project, hereafter referred to as “MP4 (RMA)”, involved an increase in in-pit tailings storage and expanding some areas of current mining operations underground and in pits previously developed and mined to their former economic limit over the last 30 years. The details of this application and its processing are discussed further in Section 11.4 of this report.

The resource consent applications for MP4 (RMA) did not proceed to a decision and the application was withdrawn in November 2025. However, the submissions and Cultural Impact Assessment received and evaluated in Councils’ reporting provided OGNZL with a clear indication of the environmental issues that would be relevant for MP4. As touched on throughout this substantive application, OGNZL has addressed these issues to the extent practicable through project design, technical reporting, and effects management



frameworks. MP4 is therefore a substantially improved project over MP4 (RMA) in the robustness of its responses to environmental concerns.

4.2 MACRAES PHASE 4 PROJECT OVERVIEW

Part A.05 of this report provides a detailed description of OGNZL's existing activities at Macraes, and how they are currently authorised. In summary, OGNZL's existing and authorised mining activities at Macraes occur on land the company owns and include:

- > Open pit mining in four distinct mining areas, the Coronation Mining Area, the Deepdell Mining Area, the Central Mining Area and the Golden Bar Mining Area, authorised by existing resource consents;
- > Underground mining at Frasers Underground Mine ("**FRUG**") and Golden Point Underground Mine ("**GPUG**"), including portals, declines, ventilation and supporting surface infrastructure, authorised by existing resource consents;
- > The Macraes Operation Processing Plant, ore storage areas, low grade ore stockpiles and associated water supply, tailings discharge and processing infrastructure, authorised by existing resource consents;
- > Tailings storage facilities ("**TSFs**"), including Frasers TSF, Top Tipperary TSF, Southern Pit TSF and the Mixed Tailings Impoundment ("**MTI**"), authorised by existing consents and managed through engineered containment, seepage collection and return-water systems;
- > Waste rock stacks ("**WRSs**"), backfill areas, haul roads, silt ponds, reservoirs and associated mine water management infrastructure, authorised through relevant mining and water management consents;
- > The Macraes Mine Water Management System ("**MWMS**"), used to capture, store, treat, and reuse mine water before its discharge to the environment in accordance with existing discharge permits and water quality conditions;
- > Ancillary mining infrastructure, including workshops, fuel and hazardous substances storage, explosives facilities, power infrastructure, internal roads, sediment controls and temporary buildings, authorised by existing project and activity-specific resource consents; and
- > Approved effects management, rehabilitation and closure activities, including areas set aside for protection and enhancement of ecological values, progressive rehabilitation of disturbed areas, backfilling where practicable, pit lake formation, infrastructure removal or decommissioning, and closure of water management structures.



The Macraes Operation is therefore already a highly established and authorised mining operation, with a long history of staged development, operation and rehabilitation under district and regional resource consents, building consents, and other approvals. Those existing approvals provide the regulatory basis for the current operation and form an important part of the existing environment within and against which MP4 has been designed and assessed.

MP4 is intended to integrate with that existing authorised mining operation and to make efficient use of established infrastructure where practicable. The Project will rely on the continued use of the existing Processing Plant, haul roads, water management, underground access, tailings storage, waste rock stacks and ancillary infrastructure, while seeking the additional approvals necessary to authorise new or changed activities required for the next phase of mining at Macraes.

Part A.06 of this report provides a detailed description of the MP4 elements. In summary, MP4 is made up of the following key activities:

- > Open pit mining - extensions to existing open pits at Coronation, Coronation North, Innes Mills, and Golden Bar;
- > Underground mining – extension of the existing GPUG Mine;
- > Construction of Frasers TSF Stage 3 – expansion of the in-pit TSF in Frasers Pit;
- > Hydraulic mining of tailings stored in Southern Pit TSF and the MTI (partial) to enable mining in Innes Mills Pit and relocation of these tailings to the Frasers TSF;
- > Waste rock disposal – disposal of waste rock in or near open pits as backfill or into existing or extended WRSs;
- > Relocation of the Open Pit Workshop complex;
- > Roading infrastructure - realignment of Macraes Road in two stages, reinstatement of the Golden Bar Haul Road;
- > Hydraulic mining electricity infrastructure;
- > Water management activities, including:
 - > Ongoing use, maintenance and development of the MWMS to capture, store, and treat mine impacted water;
 - > Construction, operation and maintenance of the already consented Coal Creek and Camp Creek Dams;
 - > The construction, operation and maintenance of an active Water Treatment Plant (“WTP”); and



- > Provision of flushing flows into catchments;
- > Erosion and sediment control measures;
- > Establishment of noise bunding near an adjacent private property;
- > Storage and use of hazardous substances;
- > Salvage and translocation of lizards;
- > Destruction and modification of archaeological sites;
- > Ecological enhancement and restoration - development of the Murphys Ecological Enhancement Area (“**MEEA**”), a predator controlled, covenanted ecological enhancement area near Murphy’s Creek, removal of pine trees at Mt Highlay Station, restoration of natural inland wetlands, vegetation direct transfer, ephemeral wetland creation and stream enhancement; and
- > Rehabilitation and closure - creation of lakes in open pits and shaping and rehabilitating other mining landforms to create a range of suitable post mining land uses.

The proposed mining activities are expected to occur across approximately 12+ years, with full site rehabilitation works anticipated to commence in Year 13 and be completed by approximately Year 15. The works are not proposed as discrete stages; rather, they are expected to proceed in a logical sequence across the life of the Project, with the timing of particular activities responding to operational requirements, sequencing constraints and the conditions of the approvals sought.

Figure 4-1 below outlines the MP4 development areas and proposed compensation areas relative to the existing mine extents.

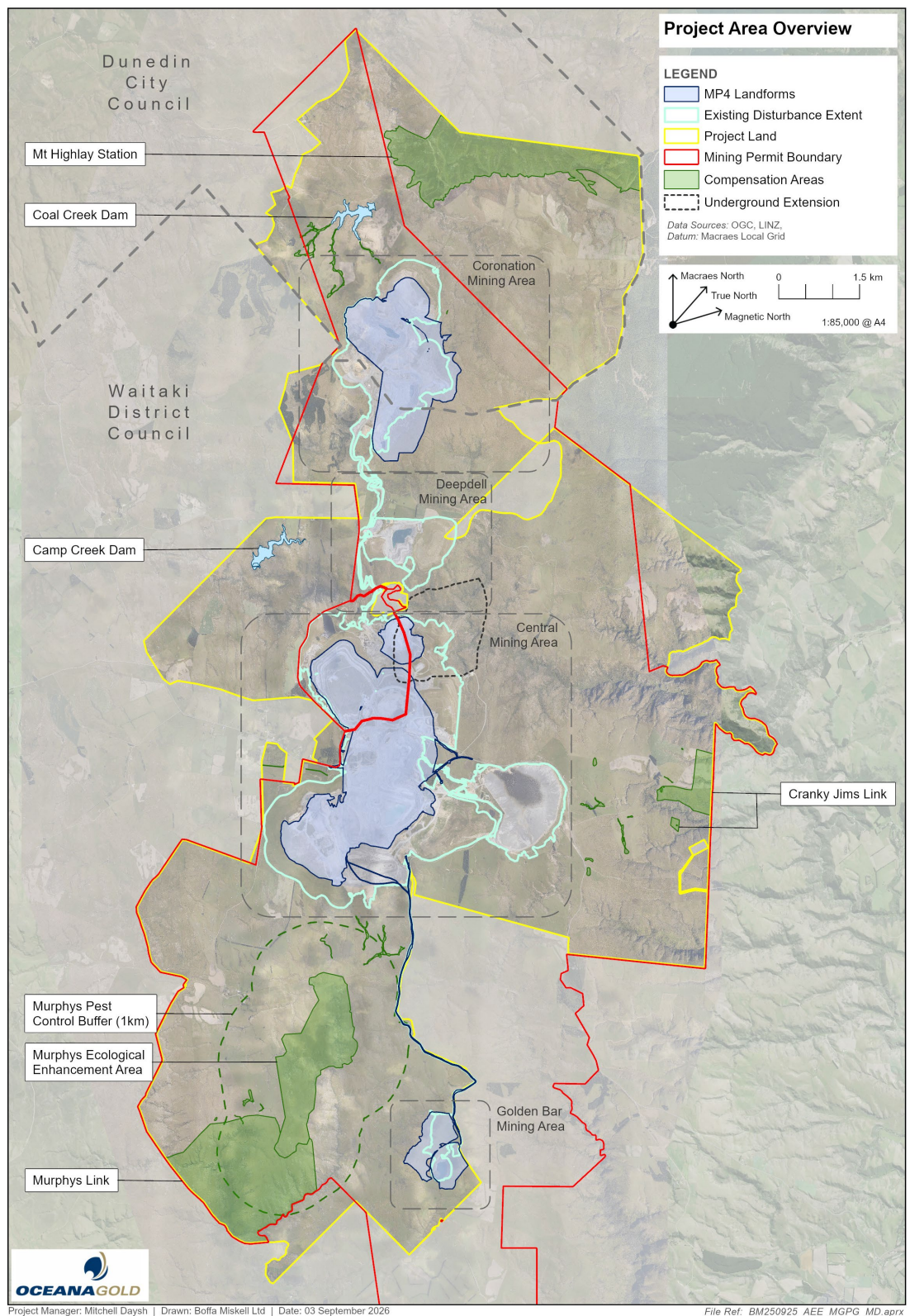


Figure 4-1: MP4 development and compensation areas.



4.3 THE PURPOSE OF THE FAST-TRACK APPROVALS ACT

The purpose of the FTAA is:

to facilitate the delivery of infrastructure and development projects with significant regional or national benefits.

MP4 achieves the purpose of the FTAA by enabling the continued operation of an established mineral development project that provides significant regional and national benefits. The Project will extend the productive life of the Macraes Operation, support continued employment and supplier activity, enable additional gold production, maximise recovery of the Crown's mineral resource and support the ongoing contribution of the Macraes Operation to the Otago and national economies. MP4 will extend the scale and duration of the economic benefits that the Macraes Operation already provides to the regional and national economy, through:

- > **Investment:** MP4 brings around \$1.3 billion of additional capital investment over the life of the Project (\$1.6b including inflation);
- > **Exports:** The Project adds between \$4.5 billion (at the base case gold price) and \$7.3 billion (upside) of gold exports, an average of \$320 to \$520 million a year;
- > **Employment:** The mine directly employs around 760 people, and supports around 2,600 jobs in total across New Zealand once suppliers, contractors and the spending of those workers are counted;
- > **Economic activity:** MP4 is associated with around \$3.1 billion of spending in New Zealand over the life of the project, on wages, suppliers and capital, much of which occurs within the local region; and
- > **Crown revenue:** The project returns between \$0.5 billion (base case) and \$1.4 billion (upside) to the Crown over its life, in royalties, company income tax and PAYE.

The economic benefits of MP4 have been assessed and quantified further in an economic assessment by Eaquad & Eaquad (2026), provided in **Part B** of this substantive application. These are discussed in detail in Sections 6.1 and 9.2 of this report.

In addition to the substantial economic benefits offered by the Project, MP4 has been designed to secure environmental benefits relative to current operations that would not be realised without MP4. With respect to water quality, OGNZL is proposing to transition operations to a new and improved water quality compliance regime that responds to issues identified by Kā Rūnaka and ORC in recent consenting processes. Specifically for the protection of aquatic ecological health, OGNZL proposes to transition to water quality compliance criteria that, in general, align with ANZG guideline values at a level of 95%



species protection. These associated compliance limits are a significant step change from the limits the site is currently consented to operate within. Through adopting more conservative ecologically-derived trigger and compliance limits than are in place via existing consents, and facilitating a transition to this new regime, MP4 will work to better promote the long-term sustainability of the environment within which the mine operates.

As part of the proposed approach to managing the actual and potential effects of MP4, OGNZL proposes a range of measures which are intended to deliver positive and enduring biodiversity outcomes beyond the immediate footprint of the Project. These include the funding and facilitation of the MEEA, Murphys Link, Cranky Jims Link and Mt Highlay Tussock restoration packages within OGNZL's broader landholdings surrounding the Macraes Operation. Actions proposed in these areas benefit a range of habitat types across terrestrial, wetland and riparian environments and ensure that any residual adverse effects are adequately compensated for. Collectively, the package of ecological initiatives responds to the adverse effects of MP4 in a manner that is appropriate, proportionate and consistent with the purpose and decision-making framework of the FTAA. These ecological responses have been assessed and quantified by a range of ecological experts, as provided in the technical assessments provided in **Part B** of this substantive application.

The Project is also an appropriate candidate for fast-track approval because it requires approvals under several statutory regimes and from multiple regulatory authorities. Processing MP4 under the FTAA provides an integrated approvals pathway for a complex, regionally significant development project, while enabling the Panel to consider the Project's effects, proposed management measures, conditions and statutory context in an integrated way.

4.4 OCEANA GOLD (NEW ZEALAND) LIMITED

OGNZL is a wholly owned subsidiary of OceanaGold Corporation ("**OceanaGold**"), a Canadian corporation. OceanaGold is a publicly listed company on the Toronto and New York stock exchanges, listed under "OGC", and operates as a multinational gold, silver, and copper producer. OceanaGold is internationally recognised as a responsible miner and a leader in sustainability that is committed to the highest standards of technical, environmental, and social performance.

OceanaGold has a portfolio of high-quality assets located in the Philippines (Didipio Mine), the United States of America (Haile Mine) and New Zealand (Waihi and Macraes Mines). The gold, silver and copper produced from OceanaGold mines help power the global economy and are essential to the renewable energy and transport sectors, life-saving medical devices, and the technology that connects communities around the world.



4.4.1 Experience and Expertise

OceanaGold has over 30 years' experience of exploring, developing, operating, and closing mines within New Zealand. Its subsidiary OGNZL is resilient and dynamic – trusted to deliver enduring value through innovation, performance, and sustainable growth. In addition to the Macraes Operation, OGNZL:

- > Owns and operates several exploration permits in the Otago and Waikato Regions which are in various stages of evaluation for their mineral development potential;
- > Owns and operates the Waihi Mine, located in Waihi, Waikato. Gold mining has been a key part of Waihi's history since the 1800s. The mine was acquired by OGNZL in 2015 and OGNZL is currently operating the Martha and Correnso Underground Mines beneath Waihi township. OGNZL was also granted approvals under the FTAA for the Waihi North Project (“WNP”) at the end of 2025. The WNP is now under construction and is anticipated to extend the life of the mine to 2038 or beyond. The WNP includes a new underground mine and a new open pit centred around the existing Waihi operation. The project is designed to extend gold production in the region by integrating new deposits with established processing infrastructure. OGNZL plans to progressively rehabilitate land affected by mining activities at Waihi North, for example by restoring areas to pasture, native vegetation, or other agreed end uses. To manage residual environmental effects, OGNZL also undertakes conservation initiatives in the wider region, including the protection and enhancement of native habitats and ecosystems; and
- > Has a closed open pit mine on public conservation land near Reefton on the West Coast of the South Island. The Globe Progress mine has been rehabilitated to a post-closure state and was reopened to the public as a recreation area for cycling and walking in 2025. It is being managed as a site in closure ahead of full relinquishment back to the Department of Conservation. As part of the rehabilitation, OGNZL has undertaken more than 130 ha of indigenous reforestation, providing local wildlife habitat and enhanced biodiversity outcomes, and has established a world-leading passive water treatment facility. OGNZL is also supporting the Department of Conservation's Te Maruia Waka Huia Programme which focuses on protecting and enhancing biodiversity outcomes in the Maruia Valley, including by predator control.

OGNZL has significant technical expertise in designing, constructing, managing and closing mine operations to comply with national, regional and local regulations and in accordance with international best practice.

4.4.2 Responsible Operations

OGNZL is committed to responsible mining, managing the impacts of its activities and, more broadly, contributing positively to the communities in and around its mining operations in



which its people work and live. OGNZL regards its activities as an opportunity to be a good neighbour, build a positive and lasting legacy, and deliver value during and beyond the life of the mines. This is fundamental to OGNZL's approach throughout the full mine life cycle, from early exploration to project development, operations, and the transition to closure.

Responsible mining means OGNZL manages the development of its mines and invests in sustainable, industry-leading and innovative practices at every level of the business, working hard to leave a positive legacy. This is demonstrated in its approach to the key topics of health and safety, environmental management, and social performance.

The health, safety and wellbeing of employees, contractors and local communities is paramount to OGNZL. It is embedded in every facet of the company's activities, and priority is given to continuous improvement and advances in health and safety systems. For example, the health and wellbeing of OGNZL's workforce is monitored and reviewed proactively and OceanaGold has implemented a global system for reporting and tracking both occupational health exposures and the effectiveness of controls at all operations.

OGNZL has a demonstrated commitment to responsible environmental management across all business activities. This includes legally and physically protecting designated land it owns that has high conservation value, adopting leading practices in biodiversity management and restoration, and supporting, developing and implementing inclusive and transparent procedures for integrated land use.

OGNZL complies with the environmental laws of New Zealand and goes beyond these by applying OceanaGold's company-wide environmental standards, which align with internationally recognised standards. OGNZL's environmental commitments and expectations are set out in OceanaGold's Environment Policy¹, which addresses the Company's material environmental areas of focus: nature and biodiversity, water management, hazardous substances and cyanide management, climate change (including energy and greenhouse gas management), tailings management, and closure and relinquishment.

These policy commitments sit within OceanaGold's Responsible Mining Framework, anchored by its Vision, Values and Code of Conduct and delivered through an Integrated Management System of Board-endorsed policies, performance standards and guidelines. The Framework is informed by the ISO 14001:2015 Environmental Management System Standard and the ISO 45001:2018 Occupational Health and Safety Management System Standard and is independently reviewed each year for alignment with these standards. It also supports OceanaGold's conformance with the World Gold Council's Responsible Gold

¹ <https://oceanagold.com/about-us/corporate-governance> under Responsible Mining Policies.



Mining Principles (“**RGMPs**”), against which OceanaGold reports annually. Oversight of these commitments sits with the Board's Sustainability Committee.

OGNZL has a strong overall compliance record under the relevant statutes across more than 35 years of mining operations in New Zealand. While a small number of compliance matters have arisen during this period, these have been addressed through regulatory processes and appropriate corrective actions. This includes:

- > A breach of a resource consent at the Reefton Mine in 2009, involving the discharge of sediment from a silt settling pond into Devils Creek, which resulted in an enforcement order and a fine of \$23,000. The enforcement order was later cancelled after an agreed remedial action plan was prepared and implemented by OGNZL during site closure;
- > In 2017, two charges were laid under the Crown Minerals Act 1991 (“**Crown Minerals Act**”) due to failing to supply a mining plan on time as part of the annual report, however the charges were subsequently withdrawn.
- > An abatement notice for the unconsented storage of tyres at the Macraes Operation in 2024, which was resolved by obtaining a resource consent under Resource Management (National Environmental Standards for Storing Tyres Outdoors) Regulations 2021; and
- > In 2024, WDC and DCC commissioned an independent audit into OGNZL’s Annual Ecological Reporting. The need for an independent audit arose from the number and complexity of consent conditions, and the consequent difficulty in assessing compliance with those conditions. The audit found a number of areas of potential non-compliance and OGNZL has for some time been working with WDC and DCC to arrive at a mutual understanding of what some of the existing consent conditions require in relation to terrestrial biodiversity, both in terms of actions and reporting, and response by Councils. That work has resulted in OGNZL, WDC and DCC agreeing a series of actions and responsibilities to ensure all parties have the same view on what certain existing consents require, set out in the form of enforceable commitments on OGNZL’s part. OGNZL has also committed to funding a liaison officer to assist the District Councils with managing compliance and enforcement at Macraes.

Further details of OGNZL's compliance history and the outcomes of these matters are provided in **Part A.11** of this report.

4.4.2.1 Climate Change, Energy Use, and Greenhouse Gas Emissions

MP4 has been designed and will be implemented within the context of OGNZL’s existing corporate commitments to responsible mining, energy efficiency and greenhouse gas



emissions management. The Project will continue to make use of existing processing, water management, haul road and mining infrastructure where practicable, reducing the need for wholly new infrastructure and supporting efficient use of existing assets. OGNZL will continue to evaluate opportunities to enhance energy efficiency and reduce emissions across the Macraes Operation as part of its broader operational and closure planning.

4.4.3 Contribution to Local Communities

OceanaGold's New Zealand operations make significant and long-term contributions through direct and indirect employment, procurement of goods and services, payment of taxes, licence and approval fees and royalties, and community and social investment programmes.

At Macraes, MP4 will support the continuation of an established mining workforce, ongoing supplier activity and continued economic activity associated with the Macraes Operation. OGNZL's approach to social performance is based on respectful relationships, consideration of community interests and expectations, and the delivery of positive outcomes during and beyond the life of the mine.

Macraes also maintains an Emergency Response Team of over 50 members, ready to provide emergency assistance both on site and across East Otago. Since 2018, these volunteers have responded to more than 120 incidents throughout the region, saving lives and providing a critical support resource for the wider community.

OGNZL's social investment programme at the Macraes Operation is centred on building strong partnerships that create lasting social, environmental, educational, and economic benefits for the Otago region. Through collaboration with community groups, conservation organisations, and local trusts, the company seeks to support initiatives that enhance community wellbeing, strengthen regional resilience, and leave a positive long-term legacy beyond mining operations.

Key community partnerships include:

- > **Otago Fish & Game:** supports the Macraes Trout Hatchery, which raises rainbow trout for release into reservoirs throughout the Otago region;
- > **Macraes Community Development Trust:** The Trust focuses on creating growth and development opportunities within the Macraes community;
- > **Macraes Community Incorporated:** Macraes Community Inc represents local residents and works collaboratively with OGNZL on projects and programmes of work;



- > **UNESCO Waitaki Whitestone Geopark:** This partnership supports initiatives that attract visitors to the region while increasing awareness and understanding of the area's unique geological features;
- > **Orokonui Ecosanctuary:** OGNZL supports Orokonui's efforts to protect native flora and fauna within a predator-free sanctuary;
- > **Wild Dunedin – NZ's Festival of Nature:** OGNZL supports events and activities throughout Wild Dunedin – NZ's Festival of Nature.

Together, these partnerships demonstrate OGNZL's commitment to investing in initiatives that support community wellbeing, environmental conservation, education, research, and regional development, helping to deliver enduring benefits alongside responsible resource development.

4.5 APPROACH TO MINIMISING AND MANAGING EFFECTS

Whilst the benefits of the Project are significant, and enabling the Project clearly meets the purpose of the FTAA, as discussed in Section 4.3 of this report, the approach taken to the development of the Project has been to ensure that adverse environmental effects are managed appropriately. In assessing the actual and potential effects of MP4 and designing appropriate management responses, OGNZL has been cognisant of the environmental issues identified in the MP4 (RMA). OGNZL has worked closely with its technical experts and key stakeholders to develop management responses that address these environmental issues to the extent practicable. Further detail on how these issues have informed the assessment and management of effects is set out in **Part A.09** and **Part A.10** of this report.

MP4 has been developed to focus, where practicable, on existing and previously mined areas, thereby minimising additional environmental disturbance. This includes extending existing open pits, continuing use of existing underground access and mine infrastructure, expanding or reconfiguring existing waste rock and tailings storage areas, and integrating proposed activities with the existing Macraes MWMS. The actual and potential effects of these activities are discussed in detail in **Part A.09** of this report and the technical assessments included in **Part B** of this substantive application.

OGNZL proposes a range of measures to avoid, remedy, mitigate or compensate for the actual and potential effects of MP4. These include updated water quality triggers and compliance regimes, controls on mine impacted water generation, capture, treatment, reuse and discharge, management of tailings and waste rock, erosion and sediment controls, hazardous substances controls, ecological management, wildlife salvage and relocation, wetland restoration and creation, ecological enhancement and progressive rehabilitation and closure measures.



The minimisation or management of effects is dealt with in the proposed consent conditions and, where appropriate, associated management plans then give effect to and implement the consent conditions. There are 28 management plans for MP4 as set out in Table 4-1. This includes six individual archaeological management plans.

Table 4-1: MP4 Management Plans

Management plans to be approved / certified as part of the fast-track process
Avifauna Monitoring and Management Plan
Invertebrate Management and Monitoring Plan
Pest Control and Elimination Plan
Lizard Management and Monitoring Plan
Wetland Management and Monitoring Plan
Residual Effects Terrestrial Restoration Plan
Residual Effects Wetland Restoration Plan
Vegetation and Threatened Species and At Risk (TAR) Flora Management Plan
Stream Compensation Plan
Fish Management Plan
Archaeological Management Plans:
> Coronation Pit and Trimbells WRS;
> Camp Creek Dam and Reservoir;
> Coal Creek Dam and Reservoir;
> Murphys Ecological Enhancement Area;
> Innes Mills and Macraes Road Realignment; and
> Golden Bar and Waste Rock Stack.
Management Plans to be approved / certified at a later date by Waitaki District Council or Dunedin City Council
Noise, Airblast and Vibration Management Plan
Ground Control Management Plan - Public Roads Adjacent to Macraes Operations



Management Plans to be approved / certified at a later date by Otago Regional Council

Air Quality Management Plan

Water Quality Management Plan

Macraes Phase 4 Water Quality Monitoring Plan

Ground Control and Subsidence Management Plan – Golden Point Underground Mine (GPUG)

Tailings Removal and Dam Deconstruction Management Plan

Erosion and Sediment Control Management Plan

Waste Rock Stack Management Plan

Site Decommissioning and Closure Plan

Table 10-1 provided in **Part A.10** of this report provides a summary of the key management and monitoring measures proposed by OGNZL for MP4.

Whilst comprehensive assessments have been undertaken across all relevant environmental disciplines, OGNZL has invested particularly significant effort to understand potential effects, develop innovative management responses, and deliver improved long-term environmental outcomes in relation to water quality and terrestrial ecology – two of the key environmental issues highlighted in the MP4 RMA process.

Water Quality

The Project will have potential effects on groundwater and surface water quality (all detailed further in **Part A.09** of this report). Water management is fundamental to both the existing Macraes Operation and the Project. To support the development of MP4, OGNZL has undertaken extensive hydrogeological, hydrogeochemical, hydrological and water quality investigations, supported by detailed groundwater, mine water and surface water modelling informed by more than 30 years of environmental monitoring data. This work has enabled the development of an integrated water management framework that not only assesses potential effects but also drives a step-change improvement in water management through more stringent water quality standards, enhanced monitoring and adaptive management, source control measures, contaminant capture and treatment systems, flow augmentation



initiatives, and long-term environmental management commitments. Collectively, these measures are intended to deliver enduring freshwater outcomes that extend well beyond the life of the Project and will deliver better quality water outcomes in the receiving environment than is required by current consents.

Terrestrial Ecology

The Project will have potential effects on terrestrial ecology (all detailed further in **Part A.09** of this report). OGNZL has undertaken extensive ecological investigations and species-specific assessments to understand the actual and potential effects of MP4 on indigenous vegetation, wetlands, avifauna, lizards and invertebrates. These assessments have informed a comprehensive ecological management package founded on the effects management hierarchy, including avoidance, minimisation, remediation, restoration, compensation, monitoring and adaptive management measures. Importantly, OGNZL's response extends beyond the management of direct effects and includes substantial habitat restoration, revegetation, pest management, long-term ecological stewardship and biodiversity enhancement initiatives at site, catchment and landscape scales. Through these measures, OGNZL is seeking to achieve ecological outcomes that approach ecological neutrality for direct effects while delivering broader and enduring biodiversity benefits that are not fully captured through conventional ecological accounting alone.

In putting forward the proposed ecological management package for MP4, OGNZL has applied significant learnings from its previous implementation of ecological offsetting, compensation and rehabilitation measures at Macraes. This includes learnings from the independent audit of OGNZL's Annual Ecological Reporting commissioned by WDC and DCC. Amongst other things, this audit process highlighted a lack of clarity in some consent conditions and failings of QEII covenants in terms of providing adequate protection for enhancement areas.

In the context of MP4, OGNZL has sought to ensure consent obligations are clear, limited (as opposed to open-ended), enforceable, and certain (as opposed to being open to subsequent differences in interpretation by ecologists).

OGNZL is proud to present an innovative and nationally significant project that is strongly aligned with New Zealand's development objectives. In preparing this application, OGNZL has sought not only to identify and assess potential adverse effects, but to respond to them through substantial environmental investment, robust management frameworks, and long-term commitments to environmental improvement. While some adverse effects are unavoidable in a project of this nature and scale, OGNZL considers that they have been comprehensively addressed and appropriately managed, such that residual effects are minimised and the Project delivers enduring positive outcomes for freshwater



environments, biodiversity, local communities, mana whenua and the wider region. The ecological gains will extend beyond the scope of direct-effects accounting approaches often referred to and should be assessed holistically, taking into account the full suite of ecological improvements generated by the Project that will contribute materially to biodiversity outcomes at site, catchment and landscape scales.

4.6 APPROACH TO ENGAGEMENT WITH MANA WHENUA, COMMUNITY, STAKEHOLDERS AND INTERESTED PARTIES

OGNZL considers that building trust through the sharing of information and perspectives is critical to good decision making around project development. Accordingly, OGNZL has adopted and promoted an active and open stakeholder engagement approach with mana whenua, the relevant local, and regional government agencies, other landowners, interest groups and the local community.

OGNZL's engagement approach has been informed by the following principles:

- > Engage through listening and meaningful dialogue whilst respecting tikanga and acting in good faith;
- > Share relevant information that helps affected stakeholders understand the impacts, risks and opportunities of the Project;
- > Ensure engagement between OGNZL and its stakeholders on matters that may affect them is organised, iterative and responsive;
- > Participate and partner with stakeholders to identify potential impacts and develop responses where appropriate;
- > Recognise the distinct rights, interests and connections of Kā Rūnaka to land, water and other natural resources impacted by or associated with the Macraes Operation;
- > Create constructive relationships that maximise the potential for achieving agreed outcomes with stakeholders; and,
- > Wherever possible, obtain and sustain broad-based support for the Project.

OGNZL has engaged with mana whenua in relation to its future development plans and first commenced engagement on the concept of MP4 in 2022. That engagement continued up to and during the MP4 (RMA) process. From February 2025 engagement has been conducted under the formal framework of a Process Agreement between OGNZL and Kā Rūnaka. Almost immediately following the withdrawal of the MP4 (RMA) resource consent application, OGNZL commenced its formal engagement on MP4 (Fast-track). Engagement since has been extensive and included multiple stakeholder leadership and Subject Matter Expert site visits, regular meetings, the sharing of technical reports in draft form (since



March 2026) and iterating through feedback, sharing of draft Management Plans (since July 2026) and sharing of draft condition sets. Engagement with mana whenua is ongoing, and while the Cultural Impact Assessment (“**CIA**”) that was provided for MP4 (RMA) in 2025 has been factored into OGNZL’s revised approach to the development of MP4, OGNZL is clear in its understanding that the previous CIA does not represent mana whenua’s views on the Project. OGNZL understands that a Treaty Settlement Impact Assessment focussed on the Project in the context of the FTAA will be provided following lodgement.

OGNZL’s engagement included the provision of information about the Project, its potential effects and the proposed measures to manage those effects. This engagement has assisted in informing the Project design, the proposed management measures and the conditions proffered as part of the application, including commitments to ongoing engagement with Kā Rūnaka and provisions supporting the long-term protection and management of ecological and cultural values. Details of the engagement undertaken and the consideration of feedback received are provided in **Part A.08** of this report.

4.7 APPROACH FOR INTEGRATION WITH EXISTING MINING INFRASTRUCTURE

MP4 has been designed to integrate with the existing Macraes Operation where practicable. While described in further detail in **Part A.05** of this report, this includes continued use of the Processing Plant, haul road network, GPUG access and ventilation infrastructure, MWMS, WRSs, TSFs and other supporting infrastructure. New or expanded components of MP4, including Frasers TSF Stage 3, tailings relocation from Southern Pit TSF and the MTI, road realignments and additional water management infrastructure, have been designed to operate as part of that integrated mining system.

4.8 RELATIONSHIP WITH EXISTING CONSENTS AND OTHER PROCESSES

There are numerous existing resource consents and other approvals authorising OGNZL’s existing mining activities at Macraes. In general, those existing approvals will remain in place to authorise existing activities, with the MP4 approvals sought through this application addressing the new or changed activities required to enable the Project. Where existing resource consents are proposed to be changed, cancelled or surrendered, those matters are addressed in the approvals sought and existing consents material included elsewhere in these application documents (including in Section 7.2.1 in **Part A.07** of this report and **Part F** of this substantive application).

OGNZL appreciates that the District Council land use consent for MP4 will overlap with numerous other land use consents at the site where those consents cannot be surrendered. Where that occurs, OGNZL’s intention is that the MP4 conditions relating to the ongoing use and rehabilitation of that land prevail over any equivalent conditions in other consents. This approach ensures efficient implementation, avoids unnecessary confusion in relation to



compliance and enforcement, and ensures rehabilitation outcomes for the site are as integrated as possible. In **Part F** of this substantive application OGNZL has identified where existing land use consent conditions will effectively be surpassed by MP4 conditions. OGNZL anticipates that a subsequent consenting process will be necessary to formalise this arrangement, likely via changes to conditions or the partial surrender of existing consents.

Similarly, numerous existing regional council consents will remain unaffected by MP4 where they relate exclusively to facilities that are beyond the scope of the listed project. These consents will contain some conditions that do not align with MP4 conditions (for example, water quality compliance conditions). OGNZL's intention is that the MP4 environmental management regimes prevail and the need to align relevant conditions via a future process is anticipated.

4.9 APPLICATION STRUCTURE

This application has been prepared to describe the activities proposed, to provide an assessment of the environmental effects associated with MP4, and to set out other relevant information required for a substantive application under the FTAA.

The application comprises ten parts: ²

Part A This substantive application report, which is structured as follows:

- A.00 Cover and Application Letter to the EPA Substantive Application Report;
- A.01 Legal Overview;
- A.02 List of Lodged Documents;
- A.03 Substantive Application Document Cover Page, Table of Contents and Acronyms and Glossary Terms;
- A.04 This introduction, summarising the project, the applicant, how the Project aligns with the purpose of the FTAA, other relevant background information, and sets out the structure of this document;
- A.05 Provides a description of the environmental setting of the project;
- A.06 Describes the proposed MP4 activities;

² While the application structure does not precisely follow the Fast-track Approvals Act: 2024 Panel Conveners' Practice and Procedure Guidance note (July 2025), separate sections have been created to address each of the types of approvals required under the Act, with cross referencing clearly directing the reader to where the relevant material can be found within the wider application documents.



- A.07 Identifies the various approvals required under the regulatory statutes covered by the FTAA;
- A.08 Describes the consultation undertaken by OGNZL and the outcomes of this consultation;
- A.09 Provides an assessment of effects on the environment associated with the proposed activities;
- A.10 Sets out the measures that OGNZL proposes to take to manage and monitor the environmental effects of the project;
- A.11 Provides an analysis of the proposed activities in relation to the FTAA;
- A.12 Provides an analysis of the proposed activities in relation to the relevant statutory provisions of the RMA including relevant policy and planning documents;
- A.13 Provides an analysis of the proposed activities in relation to the Wildlife Act;
- A.14 Provides an analysis of the proposed activities in relation to the Heritage New Zealand Pouhere Taonga Act 2014;
- A.15 Provides an analysis of the proposed activities in relation to the Freshwater Fisheries Regulations 1983; and
- A.16 Sets out the key conclusions of this substantive application.

Part B Contains 52 reports prepared by technical specialists on the Project and its environmental effects.

Part C Contains 28 management plans which set out measures necessary to assist with managing the environmental effects of the Project and for which OGNZL is seeking certification as part of the decision documents to be prepared under section 87 of the FTAA. Further management plans are proposed within the proffered conditions (**Part D** of this substantive application) which will require certification at a later stage.

Part D Contains the conditions OGNZL proffers for the inclusion on each of the various approvals being sought.

Part E Is a graphic supplement of project maps and technical drawings showing key project components.

Part F Details the existing resource consents at the Macraes Operation and how MP4 interacts with them.



- Part G** Contains copies of the key correspondence with section 29 parties and copies of relevant landowner agreements.
- Part H** Contains Consultant Statements from the technical specialists who have authored the reports contained in **Part B** of this substantive application and the management plans contained in **Part C** of this substantive application.
- Part I** Contains a detailed assessment of the rules and regulations which are triggered under the relevant RMA planning documents.
- Part J** Contains details of land ownership of proposed works areas and neighbouring properties, and all relevant Records of Title for the proposed works areas. Also includes a list of all relevant occupiers where they are not the owners. Note that identification of occupiers is based on OGNZL's reasonable inquiry and may not be a complete list.
- Part K** Contains the correspondence from the Minister stating that MP4 has qualified as a Listed Project under the FTAA.

The various technical reports included in **Part B** of this substantive application are listed in Table 4-2 below. They are referenced throughout this report as necessary. The primary authors of those technical reports have also provided Consultant Statements to confirm their support for their findings and conclusions, and the management and mitigation measures proposed as part of MP4. These are provided in **Part H** of this substantive application.



Table 4-2: Technical Reports Prepared by Technical Specialists on the Project

Report #	Author	Topic	Title	Reference within the Report
Socio-Economic				
B.01	Eaqub & Eaqub	Economics	Economic Impact Assessment	Eaqub & Eaqub (2026a)
B.02	Eaqub & Eaqub	Economics	Economic Impacts of MP4 Mitigation and Compensation Commitments up to Closure of Operations Report	Eaqub & Eaqub (2026b)
B.03	WSP	Social Impacts	Social Impact Assessment	WSP (2026)
Cultural				
B.04	Aukaha	Cultural Impact	Cultural Impact Assessment - Macraes Phase 4 (Stage 3) [MP4 (RMA)]	Aukaha (2025)
Hydrology				
B.05	GHD	Surface and Groundwater Effects	Surface and Groundwater Assessment	GHD (2026a)
B.05A – B.05J	GHD	Surface and Groundwater Effects	Appendices to the Surface and Groundwater Assessment	Appendix A- J to GHD (2026a)
B.06	GHD	Surface and Groundwater Effects	Engineered Seepage Capture Drains - Concept Design Report	GHD (2026b)



Report #	Author	Topic	Title	Reference within the Report
B.07	GHD	Surface and Groundwater Effects	Water Plant Discharges Report	GHD (2026c)
B.08	Strata Geoscience	Summary Report	A Step-Change in Water Management	Strata (2026a)
B.09	Mine Waste Management	Environmental Geochemistry	Environmental Geochemistry Overview Report excl. Appendices	MWM (2026a)
B.10	Mine Waste Management	Geoenvironmental Hazards	Geoenvironmental Hazards Assessment	MWM (2026b)
B.11	Mine Waste Management	Hydrogeochemical Pit Lake Modelling	Hydrogeochemical Pit Lake Modelling Report	MWM (2026d)
B.12	Mine Waste Management	Water Treatment	WRS Assessment - Seepage Quality	MWM (2026e)
B.13	Process Flow	Active Water Treatment	Active Water Treatment Study	Process Flow (2026a)
B.14	WGA	Water Treatment Plant	Water Treatment Plant Brine Disposal	WGA (2026a)
B.15	WGA	Stream Depletion Effects Arising from Golden Point Underground Mine Extension	Stream Depletion Effects Arising from Golden Point Underground Mine Extension MP4 Extension	WGA (2026b)
Ecology				
B.16	Bioresearches	Ecology Summary	Ecology Summary Document	Bioresearches (2026a)



Report #	Author	Topic	Title	Reference within the Report
B.17	Bioresearches	Effects on Terrestrial, Wetlands, and Fauna Ecology	Ecological Impact Assessment for Terrestrial and Wetland Ecology Values	Bioresearches (2026b)
B.18	Bioresearches	Invertebrate Values	Invertebrate Values Assessment	Bioresearches (2026c)
B.19	Bioresearches	Lizard Values	Lizard Values Assessment	Bioresearches (2026d)
B.20	Bioresearches	Avifauna Values	Avifauna Values Assessment	Bioresearches (2026e)
B.21	Bioresearches	Bat Values	Bat Values Assessment	Bioresearches (2026f)
B.22	Bioresearches	Residual Effects on Terrestrial Values	Residual Effects Analysis - Terrestrial Ecology	Bioresearches (2026g)
B.23	Bioresearches	Residual Effects on Terrestrial Values	Residual Effects Analysis - Wetland Ecology	Bioresearches (2026h)
B.24	Bioresearches	Effects on the MEEA	Ecological Impact Assessment - Murphys Ecological Enhancement Area Predator-Exclusion Fence	Bioresearches (2026i)
B.25	Viridis	Surface Water Quality Triggers	Recommended Surface Water Quality Compliance Framework	Viridis (2026b)
B.26	Viridis	Effects on Aquatic & Stream Quality	Assessment of Aquatic Environmental Effects	Viridis (2026a)
B.27	Viridis	Coal Creek and Camp Creek Dams Fish Passage	Coal Creek and Camp Creek Dams - Schedule 9 Fish Passage Assessment	Viridis (2026c)



Report #	Author	Topic	Title	Reference within the Report
B.28	Whirika	Terrestrial Vegetation and Wetland Values	Vegetation and Wetland Values Assessment	Whirika (2026)
Landscape, Visual, Amenity				
B.29	Boffa Miskell	Landscape and Visual Effects	Landscape and Natural Character Effects Assessment	Boffa Miskell (2026)
Geotechnical				
B.30	EGL	SP11A, MTI and Southern Pit Backfill	MTI and SP11A Technical Report	EGL (2026a)
B.31	EGL	Frasers TSF Stage 3	Frasers Tailings Storage Facility Stage 3 Technical Report	EGL (2026b)
B.32	EGL	Macraes Road Embankment	Macraes Road Realignment - Geotechnical Assessment	EGL (2026c)
B.33	EGL	Erosion and Sediment Control	Erosion and Sediment Control Assessment Report	EGL (2026d)
B.34	PSM	General Pit Slope Stability	Open Pit Extensions - Geotechnical Stability	PSM (2026a)
B.35	PSM	Frasers TSF Stage 3 Slope Stability	Open Pit Slope Stability Assessment for Frasers Tailings Storage Facility Stage 3	PSM (2026b)
B.36	PSM	Waste Rock Stack Stability	Waste Rock Stacks - Geotechnical Stability	PSM (2026c)
B.37	PSM	Golden Point Underground Subsidence	Golden Point Underground Extension - Mine Subsidence Assessment	PSM (2026d)



Report #	Author	Topic	Title	Reference within the Report
Noise				
B.38	Acoustic Engineering Services	Noise Effects	Assessment of Environmental Noise Effects	Acoustic Engineering Services (2026)
B.39	TechNick	Vibration Effects	Blasting Vibration and Airblast Effects Assessment	TechNick (2026)
Transport				
B.40	Stantec	Transport Effects	Integrated Transport Assessment	Stantec (2026)
Lighting				
B.41	LDP	Lighting Effects	Assessment of Environmental Effects - Lighting	LDP (2026)
Heritage and Archaeology				
B.42	Origin Heritage	Heritage	Heritage Assessment	Origin (2026a)
B.43	Origin Heritage	Archaeological	Archaeological Assessment	Origin (2026b)
Contaminated Land				
B.44	WWLA	Ground Contamination	Macraes Operation Preliminary Site Investigation (Ground Contamination)	WWLA (2026a)
B.45	WWLA	Ground Contamination	Macraes Operation Detailed Site Investigation (Ground Contamination) - Open Pit Mining Workshop	WWLA (2026b)



Report #	Author	Topic	Title	Reference within the Report
B.46	WWLA	Ground Contamination	Macraes Operation Preliminary Assessment of PFAS Risk	WWLA (2026c)
Hazardous Substances				
B.47	Tonkin & Taylor	Hazardous Substances	Hazardous Substances Assessment	Tonkin + Taylor (2026b)
Air Quality				
B.48	Tonkin & Taylor	Air Quality	Air Quality Assessment	Tonkin + Taylor (2026a)
Civil / Construction				
B.49	MCL	Road Design - Stage 1	Road Design Report - Macraes Road Realignment - Stage 1 - Concept Design	MCL (2026a)
B.50	MCL	Road Design - Stage 2	Road Design Report - Macraes Road Realignment - Stage 2	MCL (2026b)
B.51	Agilitus	Hydraulic Mining of SP11, SP10 and MTI Tailings Storage Facilities	Hydraulic Mining Pre-Feasibility Study of SP11, SP10, and MTI Tailings Storage Facilities	Agilitus (2026)
Bond Process				
B.52	Lane Associates	Bonds	Bond Process Letter	Lane Associates (2026)

