6. PROJECT DESCRIPTION

In accordance with Schedule 5 (clause 5 (1)(a)), Schedule 7 (clause 2 (1)(a)) and Schedule 8 (clause 2 (1)(f)) of the Act, this section of the report provides a description of the activities associated with MP4.

An overview of the key activities for MP4 has been provided in Section 6.2, with further details of those activities provided in subsequent sections. The proposed extractive activities occur within three distinct mining areas - the Coronation Mining Area, the Central Mining Area and the Golden Bar Mining Area, as shown in Figure 6-1. The specific activities within each of these areas are described in Sections 6.4 to 6.6. General activities applying more broadly across the operation or beyond the three distinct mining areas are described in Sections 6.7 to 6.15 below.

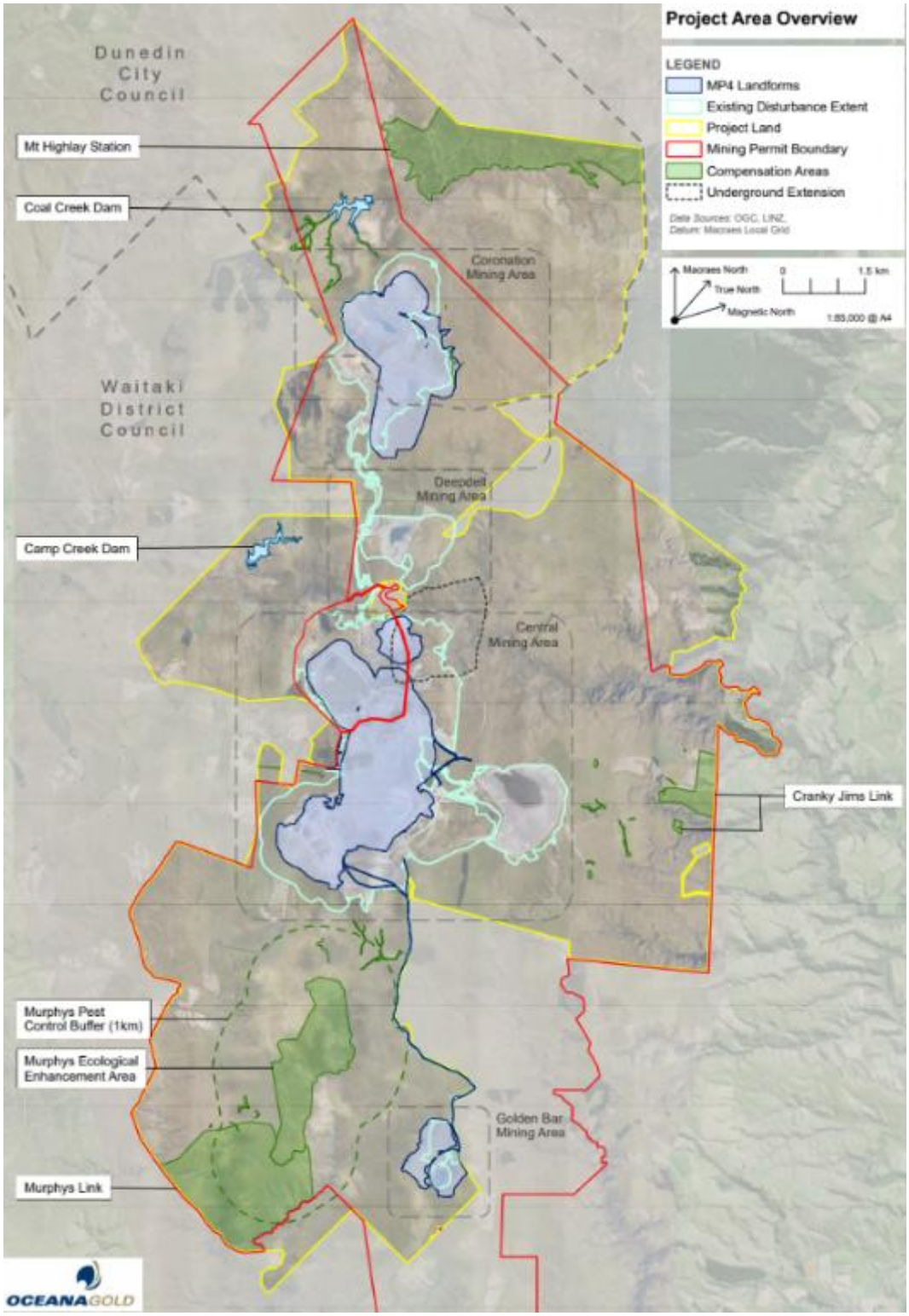


Figure 6-1: MP4 Overview Plan

6.1 PROJECT DRIVERS AND BENEFITS

The Macraes Operation is a significant contributor to the local and national economy. Mining from authorised mining areas is currently forecast to wind down from 2027 with a corresponding tailing-off of employment and subsequent mine closure occurring in around 2030 in the absence of additional approvals. Following recent exploration success, optimisation work, and higher gold prices, MP4 seeks to extend the life of the Macraes Operation to at least 2039, thus prolonging the operation's significant contribution to the economy.

MP4 proposes a continuation of the current ore processing rate of approximately 6.5 Mtpa producing approximately 80,000 to 130,000 ounces per annum and has the potential to add more than 1 million ounces of total gold production. Ore production is from a series of brownfield open pit cutbacks and an underground mine extension which minimise new environmental disturbance. These developments provide multiple and secure sources of production, additional revenues, and will enable the mine to be more productive and more resilient while increasing employment and maximising of the recovery of the Crown's resource.

The economic benefits of MP4 are assessed in Eaqub & Eaqub (2026a) and comprise:

- **Investment**: MP4 brings around $1.3 billion of additional capital investment over the life of the Project ($1.6 billion including inflation);
- **Exports**: The Project adds between $4.5 billion (at our 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; 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.

In addition to economic benefits, 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 departs from the existing water quality standards prescribed in the

site's current discharge permits.[17] Those existing standards are largely derived from stock drinking water guidelines. While operation under existing standards has largely maintained ecosystem health, there is concern from Kā Rūnaka and ORC that the existing standards provide for ecosystem degradation. MP4 directly addresses this concern by setting appropriate ecologically derived trigger and compliance limits and facilitating a transition to this new regime which, in general, aligns with ANZG guidelines for 95% species protection. OGNZL is also proposing enhanced monitoring and adaptive management, source control measures, contaminant capture and treatment systems, flow augmentation initiatives, and long-term environmental management commitments. As a result, MP4 will work to promote the long-term sustainability of the environment within which the mine operates.

With respect to indigenous biodiversity, OGNZL proposes range of measures to deliver positive and enduring biodiversity outcomes beyond the immediate footprint of the Project. These include the establishment of the MEEA, Murphys Link, Cranky Jims Link and Mt Highlay Tussock restoration packages within OGNZL's broader landholdings surrounding the Macraes Operation. The compensation measures also include the restoration and enhancement of stream and wetlands throughout the Project site, and the creation of replacement rock habitat for lizards within Murphys Link lizard relocation site which involves the construction of 62 rock piles. In addition, OGNZL will also undertake large-scale lizard salvage across the site.

6.2 PROJECT OVERVIEW

6.2.1 MP4 Key Components

Overall, MP4 comprises 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 existing or extended WRSs;
- Relocation of the Open Pit Workshop complex;

[17] The relevant discharge permits within which water quality are prescribed endure until at least 2046.

- Roading infrastructure - realignment of Macraes Road in two stages, reinstatement of the Golden Bar Haul Road, and establishment of access to the proposed MEEA;
- 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 bund 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 MEEA, a scalable, 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 above activities all occur within the Project area identified in Figure 6-1 with mining operations confined to three mining areas, being the Coronation Mining Area, the Central Mining Area and the Golden Bar Mining Area.

6.2.2 Open Pit Mining Operations

MP4 proposes to expand the existing open pits at Coronation Pit, Coronation North Pit, Innes Mills Pit and Golden Bar Pit to minimise the additional disturbance footprint as far as practicable. The disturbance areas for the proposed open pit extensions are shown in Figure 6-1 above. Following initial topsoil and brown rock stripping waste rock and ore is mined by conventional drilling, blasting, loading and hauling. Topsoil material will be stockpiled

nearby within stockpiles not exceeding 3 m in height. Waste rock will be hauled to nearby WRSs and ore will be hauled directly to the ROM pad at the Processing Plant or stockpiled for later hauling.

6.2.2.1 Hours of Work

Hours of works will remain consistent with current practice at the site. That is, open pit blasting will be restricted to 9.00am to 5:30pm Monday to Friday and 10.00am to 4:30pm Saturdays, Sundays and public holidays and all other mining activities will be undertaken 24 hours per day / 7 days per week.

6.2.2.2 Anticipated Mining Fleet

The equipment used at each of the open pit mining extensions is anticipated to primarily comprise of the following:

- Existing EX3600 / Cat 789 truck load and haul fleet with an increase in trucks as pits deepen, and WRS heights increase;
- Drills;
- Graders;
- Track dozers;
- Water carts; and
- Fuel trucks.

6.2.2.3 Support Infrastructure

The support infrastructure used for open pit mining is in place at many locations and includes:

- Pipes and pumps to facilitate pit dewatering and water management;
- Radar systems, piezometers, inclinometers and total stations for pit slope monitoring;
- Topsoil and ore stockpiles;
- A portable staff amenity room;
- A fuel tank (electric powered, double skinned) and other hazardous substances such as lubricants and oils in small quantities;
- A small ablution facility and septic tank;
- Potable water storage; potable water will be delivered via tankers for drinking and ablutions;

- Portable lighting towers;
- A wireless comms repeater will be installed for fleet management system data, communications; and
- Power will be supplied either via a generator or from overhead lines.

6.2.2.4 Water Management

Mining of the pit extensions will require surface and groundwater dewatering of the existing pits to the MWMS. Horizontal dewatering bores may be required to facilitate pit dewatering and maintain groundwater levels during mining.

Clean surface water will be permanently diverted around the WRSs and temporarily diverted around open pits. Surface water runoff / sediment laden water and contaminants (ancillary seepage) from the WRS will be discharged to silt ponds.

Section 6.8 below includes further information on water management.

6.2.3 Underground Mining Operations

The existing haulage decline, located in the highwall of the Golden Point Pit, will continue to be used to access GPUG. No new surface connections from access or service tunnels are proposed. The existing ventilation return and fan for mine ventilation will also continue to be utilised to service the expanded GPUG layout. PSM (2026d) details the existing and proposed GPUG extension and further detail is included in Section 6.5.2. The GPUG mining methodology is described in detail in the Ground Control and Subsidence Management Plan - Golden Point Underground Mine (GPUG), provided in **Part C** of this substantive application, and is summarised below.

As per GPUG development to date, the proposed extension is intended to be developed by drill and blast using jumbo drills and ammonium nitrate fuel oil ("**ANFO**") or bulk emulsion charging units and packaged explosives. Stopes are to be charged with ANFO or bulk emulsion and packaged explosives and the blasted ore recovered using remote control load haul dump machines.

6.2.3.1 Hours of Work

Underground mining activities will be undertaken 24 hours a day / 7 days per week, in accordance with current practice.

6.2.3.2 Mining Fleet and Equipment

Existing 50 tonne trucks suitable for underground transportation will carry waste rock and ore to the surface. Transportation of ore from the underground run of mine to the Processing

Plant is anticipated to require the open pit mining fleet (refer to Section 6.2.2.2). In addition, a small fleet of support equipment comprising bulldozers, graders and water carts (trucks) will support the waste and ore handling on the surface. Manned and remotely operated loaders, underground trucks, development jumbo drills, production and ground support drills, shotcrete machines and other ancillary equipment will be operated underground. In addition to the mobile machinery, the existing 300 kW ventilation fan will be operated (refer to Section 6.5.2 for further details).

6.2.3.3 Support Infrastructure

No new infrastructure will be required in association with the expansion of GPUG.

6.3 SEQUENCING OF ACTIVITIES AND PROPOSED WORK DATES

The Project is not being progressed in stages for approval purposes. Rather, all activities that comprise the MP4 Project are included in this substantive application. Those activities are anticipated to occur across a period of 13 years, with OGNZL proposing to commence the MP4 Project as soon as the necessary approvals are obtained.

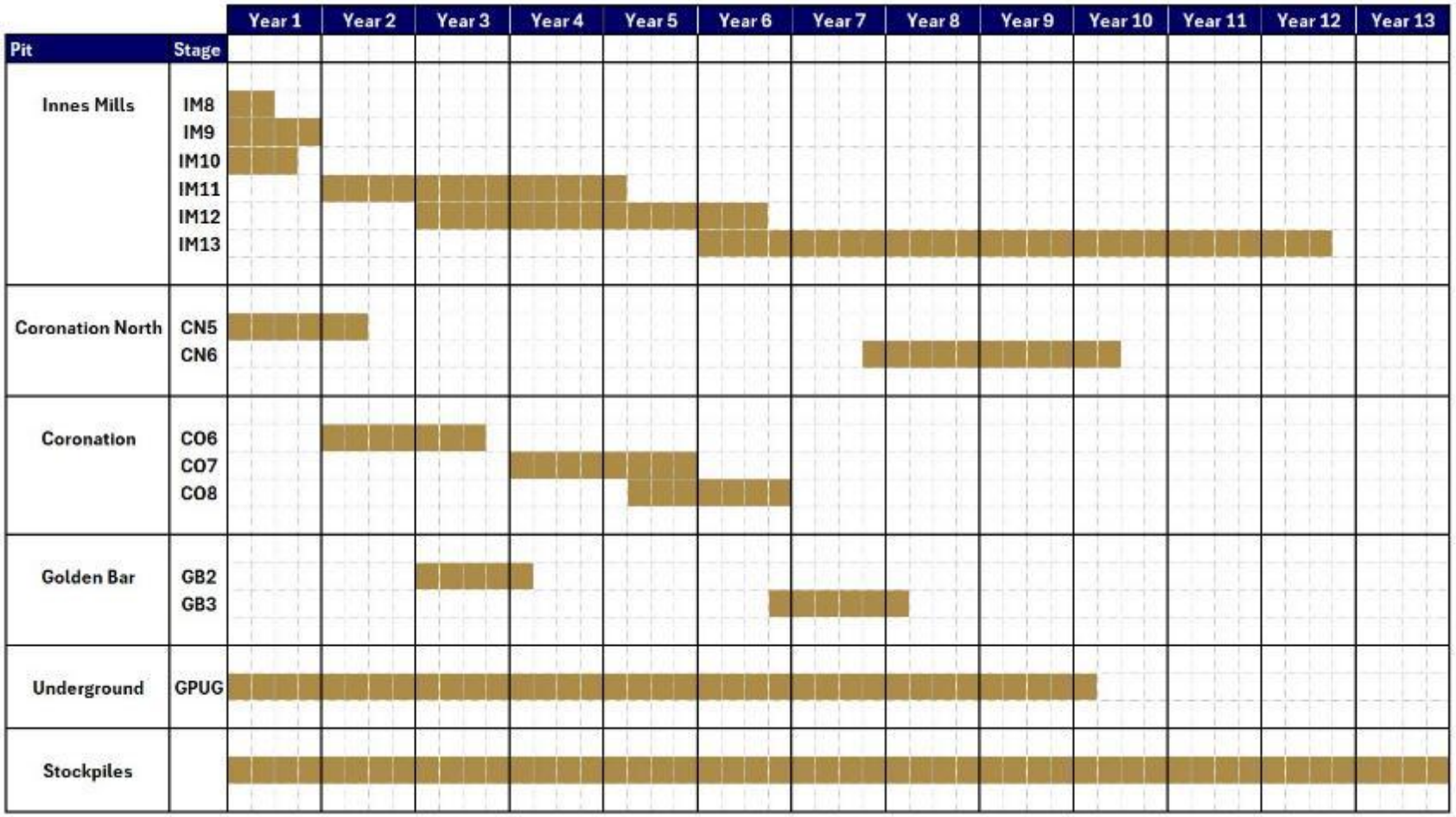
The activities described herein are expected to be generally sequenced as follows:

- The continuation of Innes Mills Pit mining from Year 1 to Year 12;
- The continuation of Coronation Pit mining from Year 2 to Year 6;
- Relocation of tailings from Southern Pit TSF and MTI from Year 2 to Year 12 to facilitate mining of Innes Mills Stage 13 (IM13);
- The continuation of Golden Bar Pit mining mostly in Year 3 and in Year 7;
- The continuation of GPUG mining from Year1 to Year 10;
- The continuation of Coronation North mining from Year 1 to Year 2 and then from Year 7 to Year 10;
- Associated replenishment of stockpiles throughout the MP4 mine life; and
- Full site rehabilitation to commence in Year 11 and be completed by approximately end of Year 13.

Mine planning is fluid at complex multi-pit operations such as the Macraes Operation. Precise timing of activities depends on a range of factors and operational requirements may demand or facilitate changes to the sequencing of some activities.

Table 6-1 shows the anticipated sequencing of the proposed MP4 activities across the life of the Project.

Table 6-1: Anticipated Sequencing of the MP4 Project Activities



6.4 CORONATION MINING AREA

The key activities located within the Coronation Mining Area are shown in Figure 6-2 and described below and include:

- Coronation North Pit extension – Stage 6;
- Coronation Pit extension – Stages 6 – 8;
- Coronation North WRS height raise;
- Trimbells WRS extension and height raise;
- Coronation North Pit backfill; and
- Coronation Pit backfill.

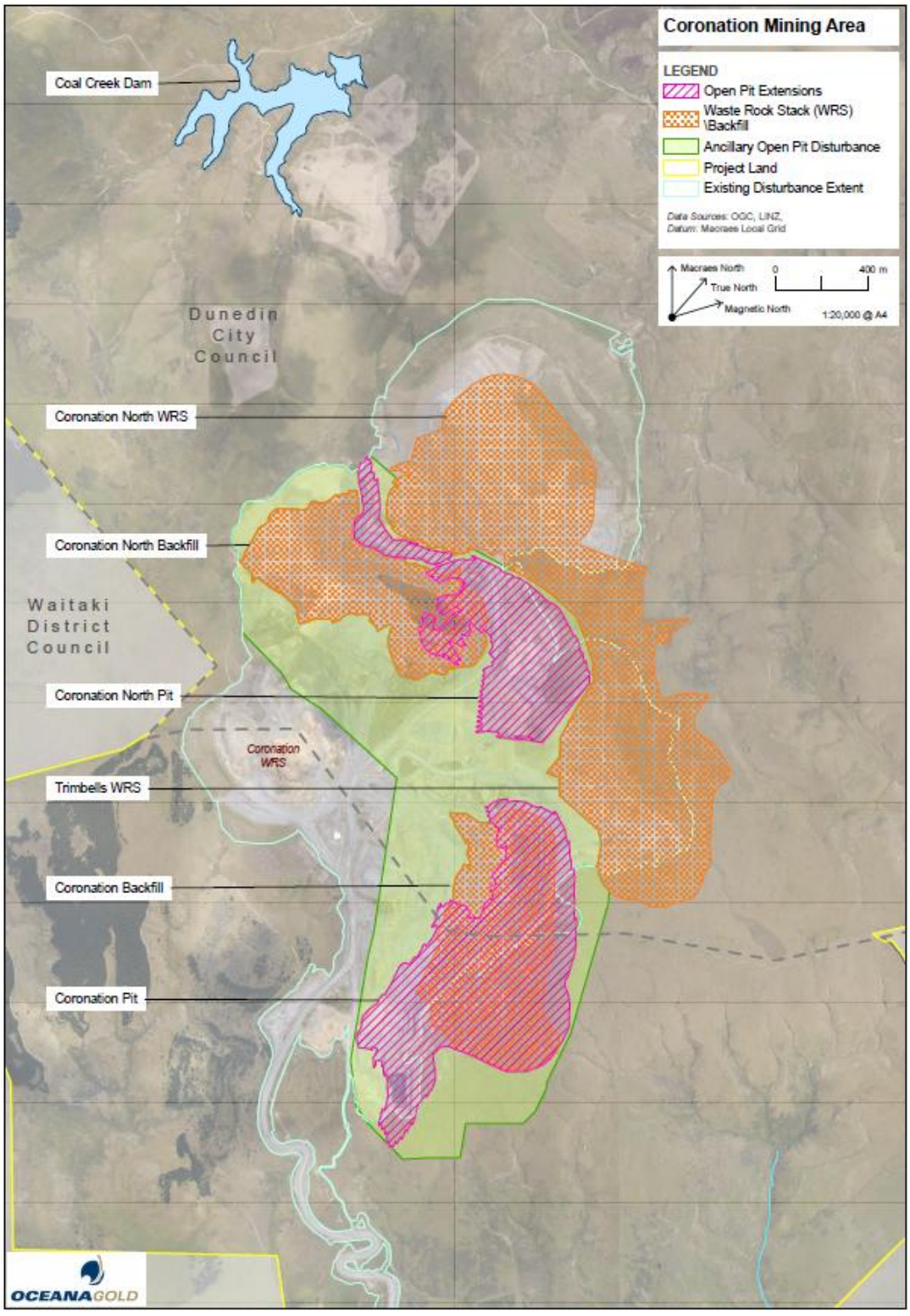


Figure 6-2: Proposed developments within the Coronation Mining Area

6.4.1 Coronation and Coronation North Pit Extensions

6.4.1.1 Overview

The Coronation North and Coronation Pits are located approximately 5 km north of the Processing Plant (refer Figure 6-2) and are currently used as temporary water storage reservoirs as part of the MWMS.

The proposed pit extensions for MP4, including the various stages and the pit slope and wall designs, are described in PSM (2026a) and set out below.

The proposed Coronation North Stage 6 Pit consists of an approximate 205 m expansion to the southeast over predominantly tussock land and part of the Trimbells WRS, shown in Figure 6-4. The Coronation North Stage 5 Pit as currently mined has a footprint of approximately 89 ha. The proposed extension to the Coronation North Pit will result in an overall increase to the pit footprint of approximately 14 ha, increasing the total pit footprint to approximately 103 ha.

The proposed Coronation Stage 6-8 Pits consist of an approximate 560 m expansion to the southeast, shown in Figure 6-4. The Coronation Stage 5 Pit as currently mined has a footprint of approximately 48 ha. The proposed extension to the Coronation Pit will result in an overall increase to the pit footprint of approximately 38 ha, increasing the total pit footprint to approximately 86 ha.

The proposed land disturbance and dewatering activities associated with pit development, waste rock placement and associated landform modification at Coronation Mining Area will result in the direct loss of 2.08 ha of wetland and the potential disturbance of 0.9 ha wetland within 100 m of the proposed works footprint.

Following the extended mining of Coronation North and Coronation Pit, rehabilitation and closure is proposed as set out in Section 6.15.

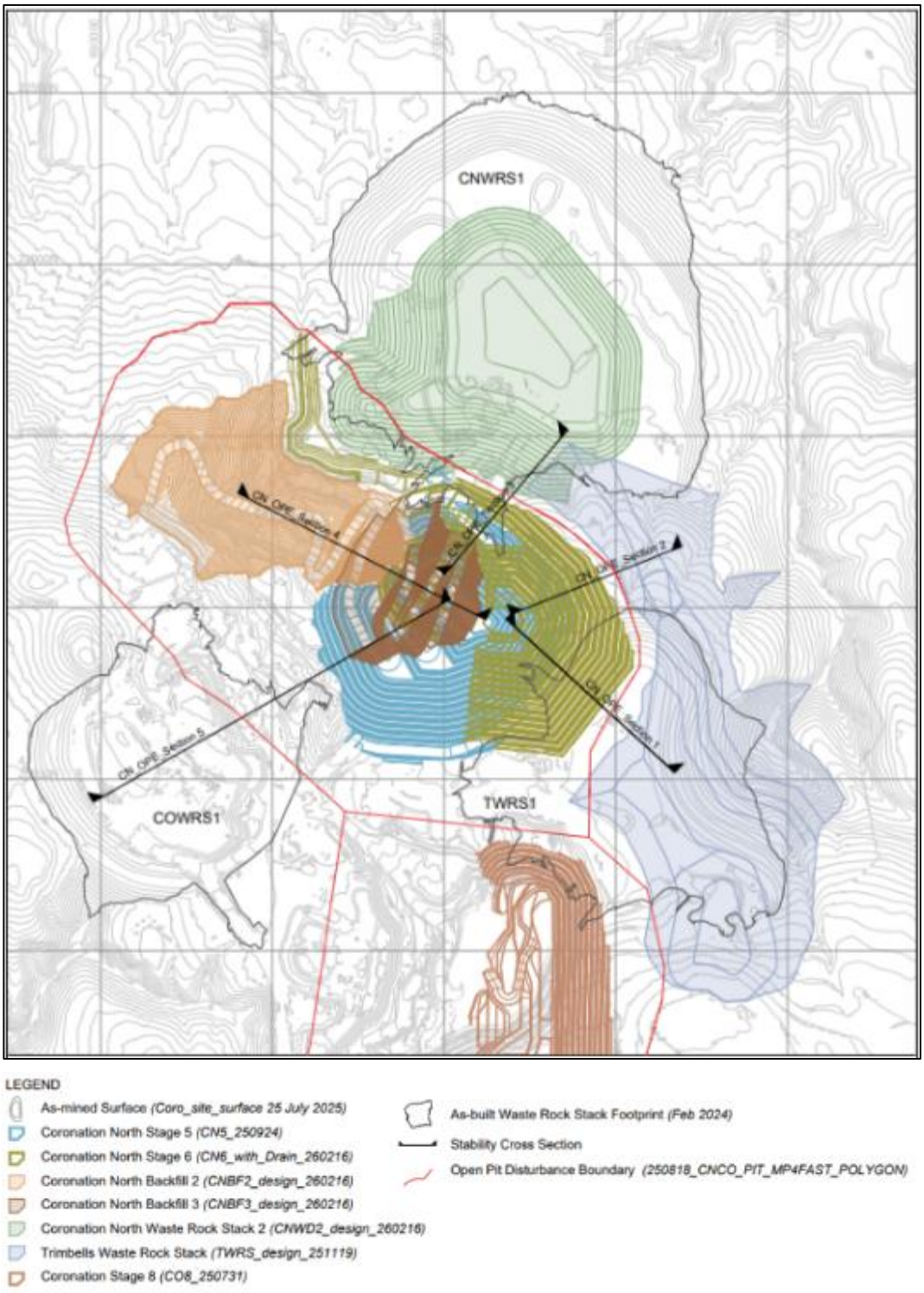


Figure 6-3: Coronation North Pit features and Geometry (Source: PSM, 2026a)

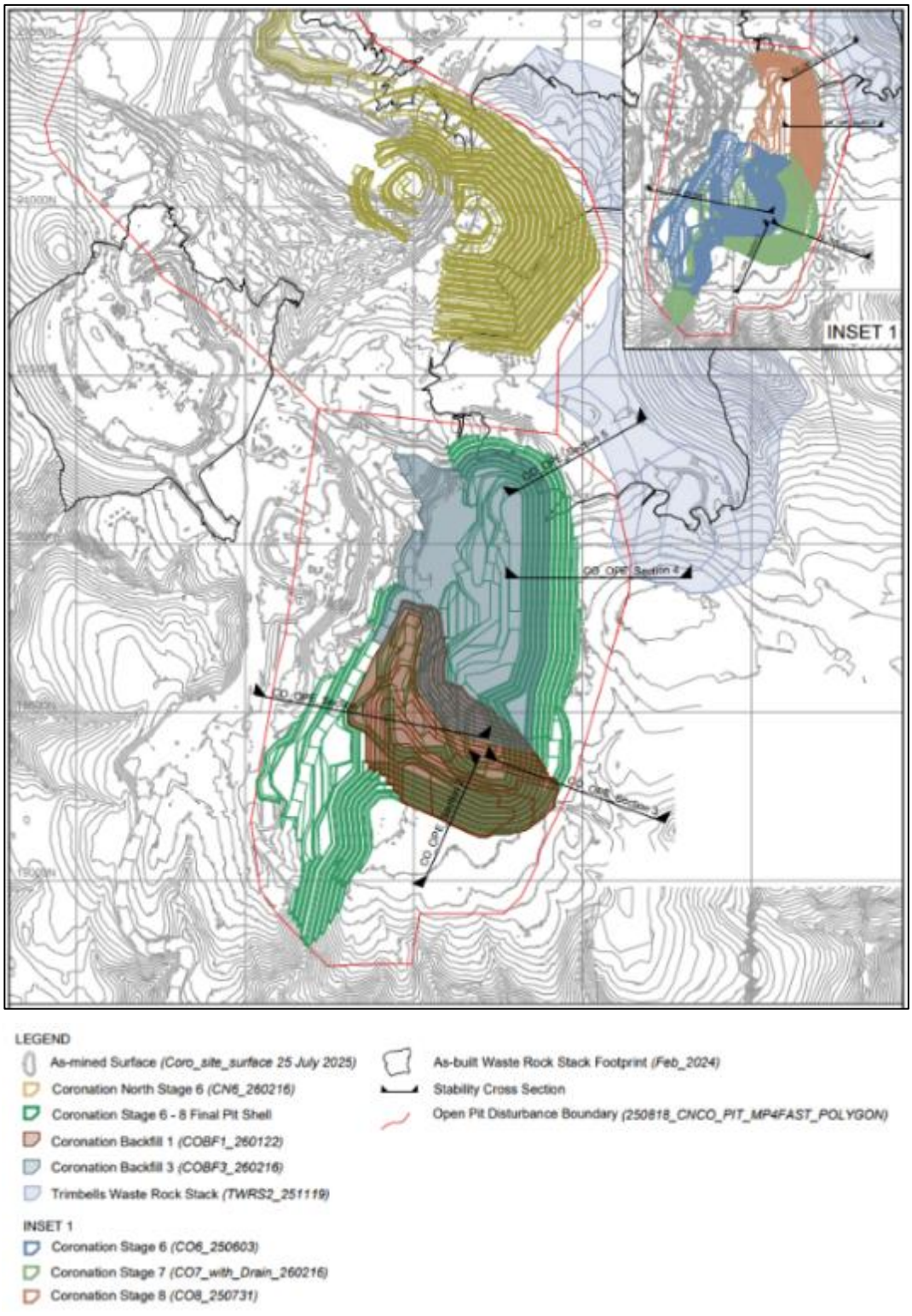


Figure 6-4: Coronation Pit features and Geometry (Source: PSM, 2026a)

6.4.1.2 Excavation

Approximate material quantities expected from the mining of the extended Coronation Pit and Coronation North Pit are shown below.

Table 6-2: Mining Material Quantities of the Extended Coronation Pit and Coronation North Pit

	Coronation Pit	Coronation North Pit
Ore	6.9 Mt	0.7 Mt
Waste Rock	106.0 Mt	34.6 Mt
Total movement	112.9 Mt	35.3 Mt

6.4.1.3 Waste Rock Disposal

Waste rock from the Coronation and Coronation North Pit extensions will be disposed of as backfill to the respective pits or to the existing Coronation, Coronation North and Trimbells WRSs. To accommodate the additional capacity required, the consented capacity of all three waste rocks stacks will be increased. To achieve this, the height of Coronation, Coronation North, Coronation North Backfill and Trimbells WRSs will be increased and the Trimbells WRS footprint extended to the east.

Section 6.7 describes the general principles applying to waste rock disposal and details the proposed capacity, height and footprint of all WRSs impacted by MP4.

6.4.1.4 Trimbells Waste Rock Stack Diversion Channel

The proposed extension of Trimbells WRS requires the reclamation of approximately 110 m^2 of intermittent streambed area and 126 m^2 of permanent streambed in Trimbells Gully. This reach of stream is proposed to be realigned around the proposed Trimbells WRS extension through the construction of a dedicated diversion channel as shown in Figure 6-5 below.

The channel will be excavated into the underlying rock to provide natural erosion and scour resistance. The proposed diversion channel is 1,100 m long, with 10 m contingency to allow for local ground conditions, with a disturbance area of approximately 1.1 ha. The gradient of the diversion channel will be approximately 1V:6H, similar to the existing channel.

The proposed channel will convey flows up to the 1% AEP event (100-year ARI). Further management for larger storm events will be considered at detailed design stage, such as localised erosion protection, controlled overtopping or repairability.

Detailed design will also confirm the localised erosion protection requirements such as rock armouring, riprap or concrete grouting around tighter bends or where less competent rock/defects are exposed.

The channel will pass through an existing wetland and the proposed Trimbells WRS. Localised modification to the Trimbells WRS toe may be required to allow the channel and access track to pass without altering the wetland. Wetland dewatering will be minimised by constraining the vertical alignment of the diversion channel near the wetland. The channel invert will be constructed to align with the existing ground level near the wetland.

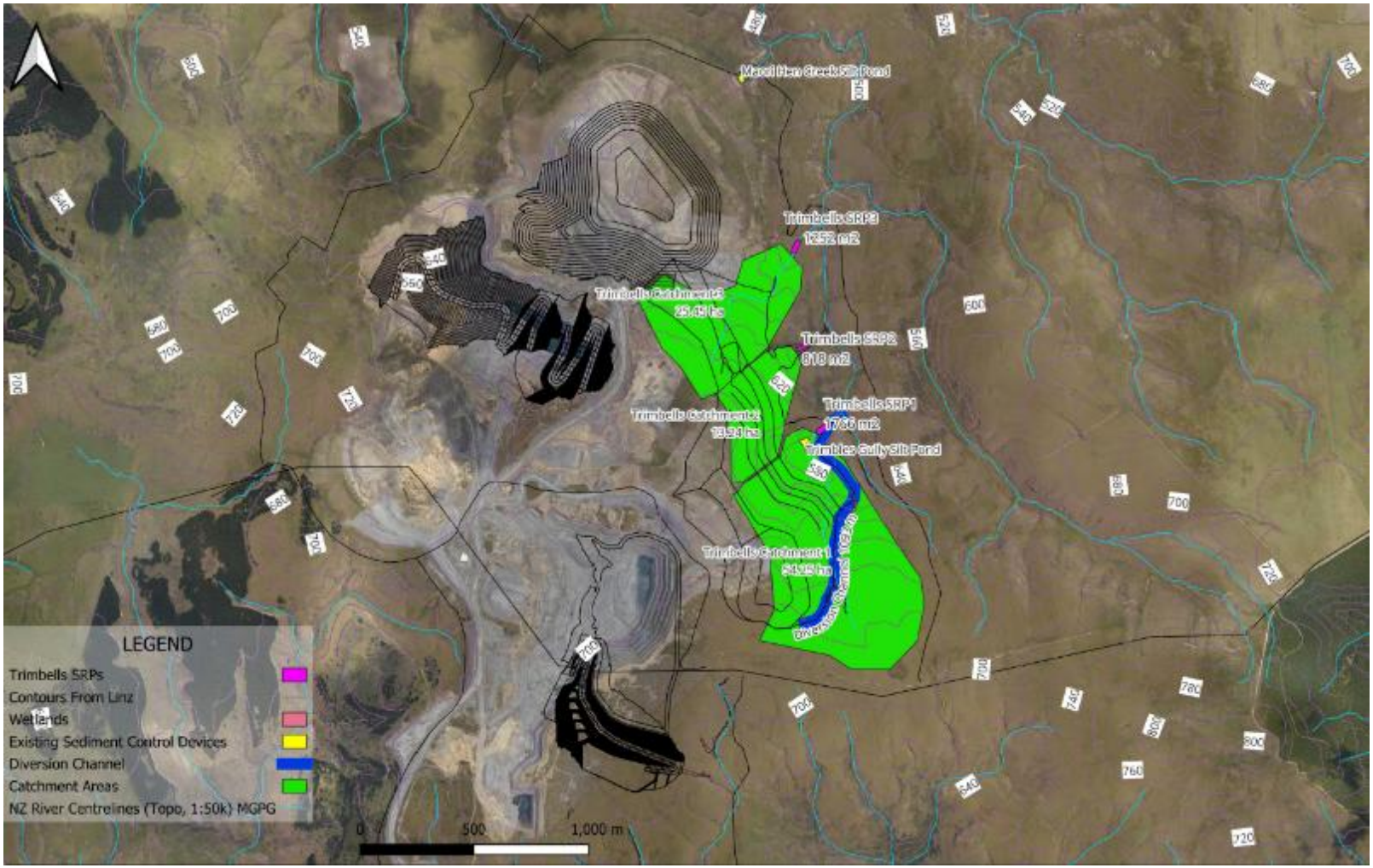


Figure 6-5: Trimbells WRS Diversion Channel Location (Source: EGL, 2026c)

6.4.1.5 Ore Transport

The transportation of ore from the Coronation Mining Area to the Processing Plant will utilise the existing Coronation Haul Road. This will require continuation of the existing arrangement that has existed since 2013:

- Golden Point Road will be temporarily closed between Horse Flat Road and the point it gives public access to the Golden Point Historic Reserve, and
- Two haul road crossings will be used:
  - One at Horse Flat Road where the Coronation Haul Road intersects it; and
  - One on Golden Point Road where the public access to Golden Point Historic Reserve is located.

When in use by mine vehicles, the two crossings will be controlled by traffic lights or stop/go personnel. Public access to the Golden Point Historic Reserve will remain available at all times and Horse Flat Road will remain open to the public.

6.5 CENTRAL MINING AREA

The key activities located within the Central Mining Area are shown in Figure 6-6 and described below and include:

- GPUG Extension;
- Innes Mills Pit Extension – Stage 11 to 13;
- Hydraulic Mining and Relocation of tailings from Southern Pit TSF (combined SP10 and SP11) and MTI;
- Hydraulic Mining Electricity Infrastructure (powerline rerouting);
- Frasers TSF Stage 3;
- Macraes Road realignment – Stages 1 and 2;
- Open Pit Workshop Relocation;
- Golden Point Backfill;
- Innes Mills Backfill 1 - 3;
- Frasers Backfill;
- Frasers West WRS;
- Frasers South WRS;

> Frasers South Backfill; and

> Processing Plant.

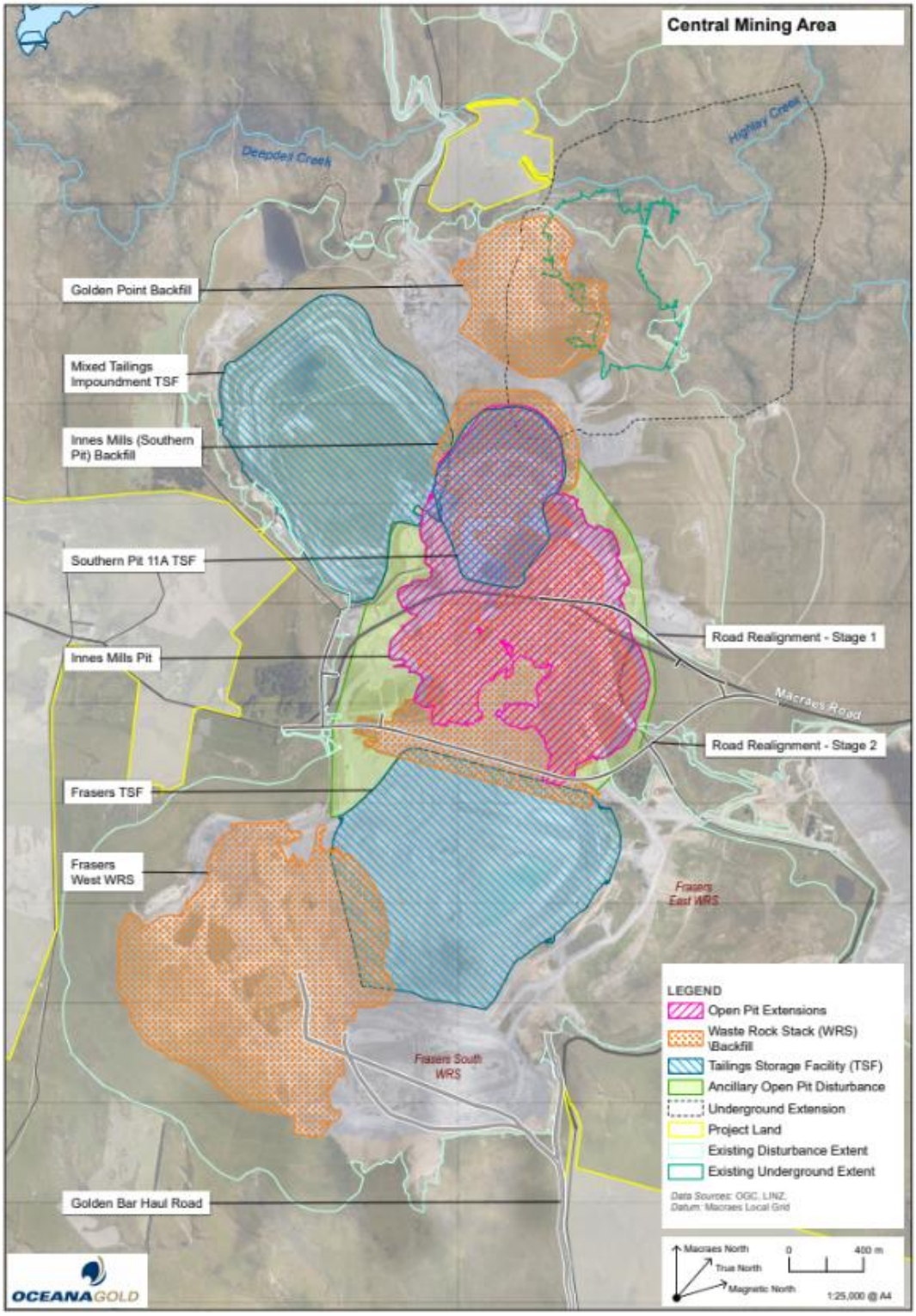


Figure 6-6: Proposed developments within the Central Mining Area

6.5.1 Frasers TSF – Stage 3

6.5.1.1 Overview

To provide for life of mine tailings disposal and relocation of tailings from Southern Pit TSF and MTI, MP4 proposes the construction of Frasers TSF Stage 3. EGL (2026b) details the proposed Frasers TSF Stage 3 development, and a summary of the proposed development is provided below.

Stage 3 will accommodate up to an additional 120 Mt of tailings and will bring the total tailings storage capacity of Frasers TSF up to 153 Mt at an assumed tailings density of 1.25 t/m^3.[18] As per Frasers TSF Stage 2, Stage 3 involves increasing the height of the existing waste rock embankment backfill between the Frasers and the Innes Mills pits from 480 mRL to 520 mRL. This embankment will accommodate Stage 2 of the Macraes Road realignment described in Section 6.5.4. At closure the Frasers TSF is planned to be dry capped.

Table 6-3 identifies the consented and proposed storage capacity for each stage of the Frasers TSF.

Table 6-3: Frasers TSF Staged Storage Capacity for Tailings

Stage of Development	Proposed Max Height of Embankment (mRL)	Proposed Additional Storage Capacity (Mt)	Total Storage Capacity (Mt)
Stage 1	450	6	6
Stage 2	480	29	35
Stage 3 (proposed)	520	120	153

6.5.1.2 Development of the Frasers TSF Stage 3

The construction of the Frasers TSF Stage 3 will comprise the following:

> Continued staged raising of the Frasers Backfill using mined waste rock;

> Deposition of tailings within Frasers TSF, forming a tailings beach and decant pond;

[18] The MP4 mine plan requires a total Frasers TSF capacity of 153 Mt. Therefore, Frasers TSF Stage 3 as designed provides for possible variations in density from the hydraulically relocated tailings of MTI and Southern Pit TSF and some potential project upside.

> Management of surface water and seepage; and

> Integration with long-term closure objectives.

The Frasers TSF Stage 3 geometry includes the existing Frasers Backfill embankment, raised to approximately 520 mRL. Additional perimeter embankments or infill will be required to tie the facility into the surrounding pit walls and natural ground on the eastern and western sides. The key elements of the facility are show in Figure 6-7 and include the following:

> The Frasers Backfill embankment;

> The West Embankment;

> Western seepage controls where tailings interface with the Fraser West WRS and Murphys Creek to manage seepage; and

> The East Infill.

The final embankment geometry comprising refined crest widths, slopes, and benching will be confirmed during detailed design stage.

Several embankment zones are used to construct the Frasers TSF Stage 3. The placement of this material is shown in a series of cross sections in EGL (2026b).

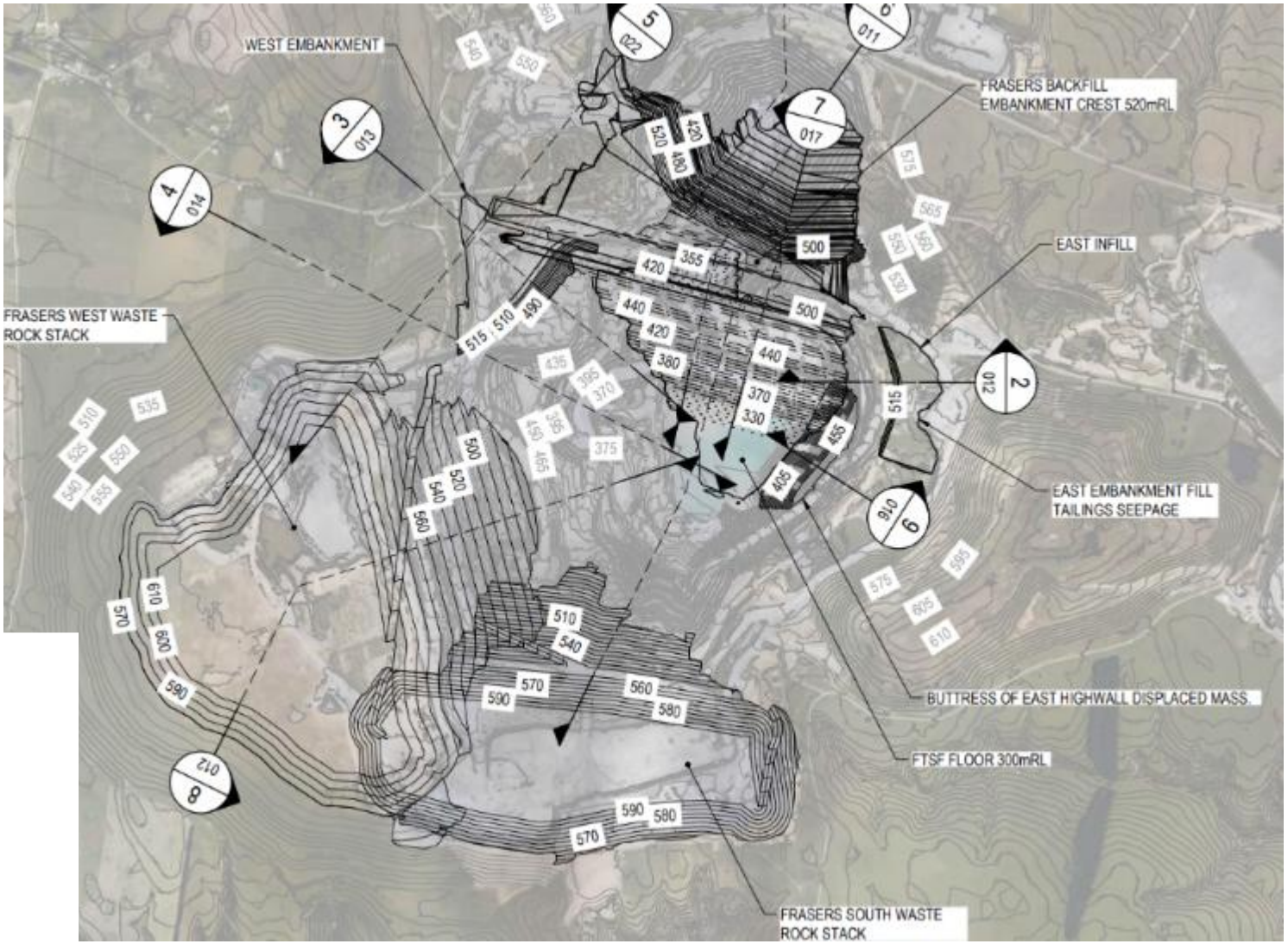


Figure 6-7: Frasers TSF Stage 3 Layout Plan

Tailings will be deposited into Frasers TSF by slurry discharge from pipelines and spigots. Deposition will initially continue the operating approach adopted for Frasers TSF Stage 1 and Stage 2, with discharge from spigots located along the upstream face of the Frasers Backfill and associated operational benches. Deposition locations will be progressively raised as the embankment crest is increased during Stage 3 development.

As Stage 3 approaches closure (approximately when tailing beach level exceeds 500 mRL), deposition will be changed to progressively form the proposed closure landform. This will require repositioning of spigots and the decant pond to develop a final tailings surface falling from the south-east toward the north-west. This will require relocation of the decant pond to the north-west corner of the impoundment against the West Embankment western extent of Frasers Backfill.

The proposed tailings production schedule indicates that the Frasers TSF average tailings surface is expected to rise from approximately 364 mRL at the end of 2026 to approximately 512 mRL at the end of 2039. This corresponds to an average rate of rise of approximately 11 m/year over this period.

The rate of rise is expected to be highest during the early stages of deposition, when tailings are being placed over a smaller active storage area. The schedule indicates a maximum annual rise of approximately 27 m/year between 2027 and 2028, reducing to generally 9 m/year to 12 m/year through the main deposition period. The rate of rise will continue decreasing as the facility approaches its final tailings level.

6.5.1.3 Water and Seepage Management

Active water management during operational and closure phases for the Frasers TSF Stage 3 includes:

- Operational decant pond in the south-eastern portion of the Frasers TSF for the collection of supernatant water released from tailings deposition and rainfall runoff. Water from the pond will be returned via the return water system to the Processing Plant for reuse;
- At completion of the Frasers Backfill embankment, a permanent stream diversion channel along the Frasers Backfill crest to convey clean water flows to the headwaters of the North Branch Waikouaiti River as required. The flows will be derived from Top Tipperary TSF catchment, Frasers East WRS and the catchment of the headwaters east of Frasers Pit; and
- A spillway and outlet channel over the West Embankment to pass surface water flows from the rehabilitated Frasers TSF surface and surrounding WRS areas that drain into

the Frasers TSF catchment to flow towards the headwaters of the North Branch Waikouaiti River.

With regard to seepage control, a variety of measures will be implemented for Stage 3 which generally include:

- Zoned fill area on the upstream side of West Embankment and western end of Frasers Backfill;
- A tailings seepage collection drain along the upstream side of the Frasers Backfill embankment;
- A combination of subsurface drains are proposed along the Western Embankment;
- A subsurface drain along Frasers West WRS and part of Frasers South Backfill;
- A subsurface drain along the East Infill;
- A toe drain beneath the downstream slope of Frasers Backfill;
- Management of operational tailings beach and decant pond location; and
- Tailings closure capping surface profile.

6.5.2 GPUG Extension

6.5.2.1 Overview

GPUG is an established underground mine with surface access via two portals, the haulage decline and the ventilation return. These access portals are located on the eastern highwall of Golden Point Pit, as shown in Figure 6-8 below, approximately 700 m from the Processing Plant.

The haulage decline is used for the intake of fresh air, and facilitates movement of personnel and materials, including ore and waste rock out of the GPUG. The ventilation return comprises ventilation fans at the portal which pull fresh air through the GPUG and exhausts ‘stale’ air that has circulated in the underground openings.

OGNZL proposes to further expand GPUG, as outlined in blue in Figure 6-8. The eastern extent of the proposed envelope has not yet been explored (drilled) and exploration in this area is planned for 2026. Assuming ongoing exploration success, the GPUG will extend underground development and production by up to 7 years.

6.5.2.2 Underground Development and Stoping

PSM (2026d) describes underground development and stoping. The proposed development declines and access drives will typically be 5.5 m wide x 6 m high. The ore drives will typically be 5.5 m wide x 5.5 m high. All development will be fully supported with rockbolts and mesh. In addition, fibrecrete or resin injection will be used if ground conditions require it. The depth of proposed workings within the currently unconsented area will vary from 105 m to 379 m below surface, with depth increasing as mining progresses eastwards.

The proposed stoping dimensions are 11 to 15 m wide by 10 to 15 m long, with heights of 4 to 20 m. Stoping will commence at approximately 400 mRL (approximately 100 mbgl) and continue down dip (following the ore body) to terminate at approximately 120 mRL (approximately 510 mbgl). The typical pillar thickness between stopes is approximately 5 m wide.

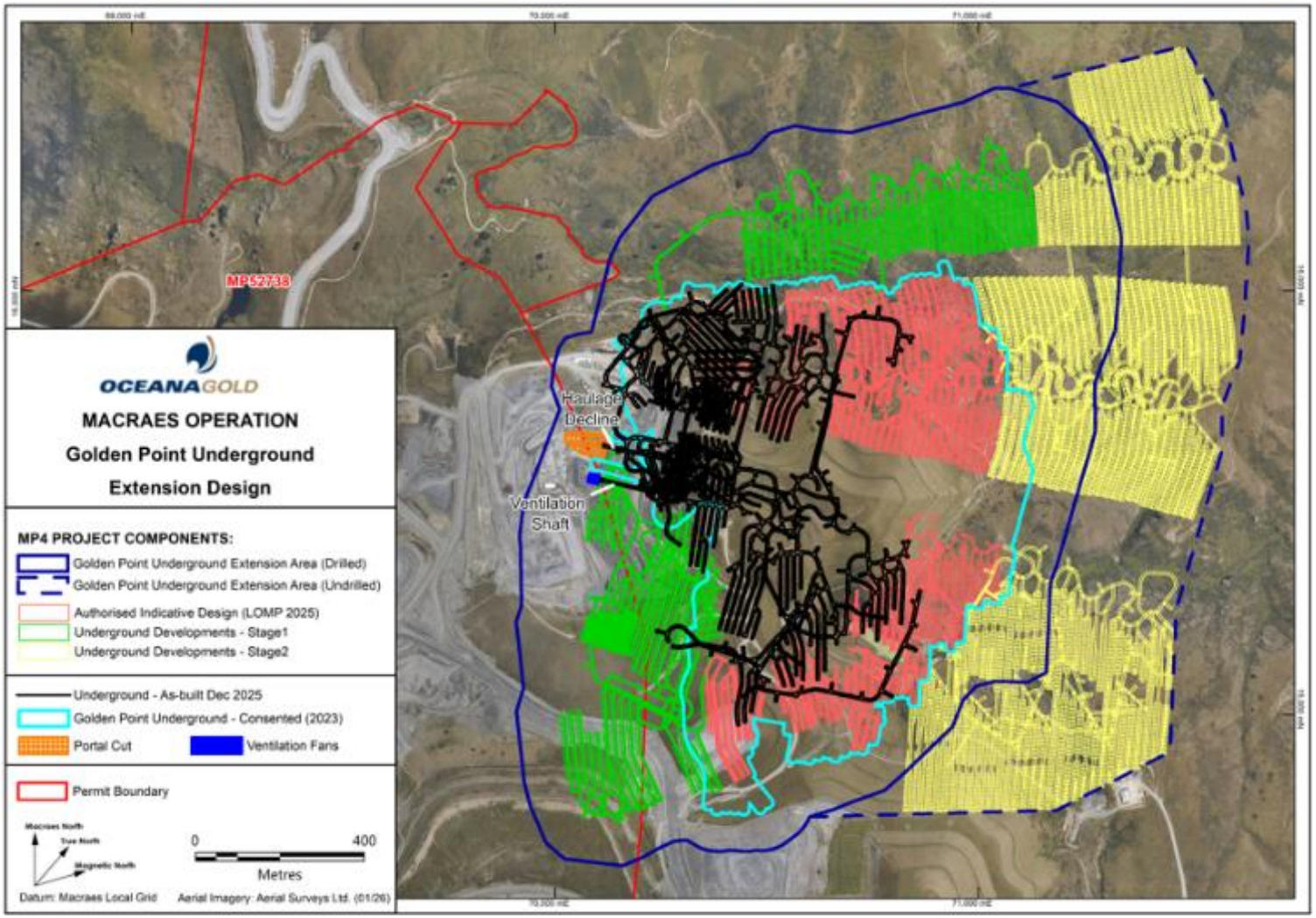


Figure 6-8: Indicative GPUG Extension Design

6.5.2.3 Waste Rock Disposal

The proposed expansion of the GPUG is anticipated to generate 256,000 m^3 of waste rock. The existing consented WRSs will be adequate to support the GPUG expansion. There are four WRSs shown in Figure 6-8 with approximate dimensions and volumes summarised below:

- Two WRSs (backfilling) located at the north and south ends of the now defunct Golden Point Pit:
  - WRS 1 was consented to have a footprint of 1.7 ha, height of 40 m, and volume of 600,000 m^3; and
  - WRS 2 was consented with a footprint of 2.5 ha, height of 30 m, and volume of 300,000 m^3.
- WRS 3, to the immediate west of the pit on a previously worked site, was consented with a footprint of 1.5 ha, height of 15 m and a volume of 200,000 m^3; and
- WRS 4, to the immediate west of the Coronation Haul Road and adjacent to the Processing Plant, was consented with a footprint of approximately 2.3 ha, height of 30 m and 400,000 m^3.

6.5.2.4 Water Use and Management

The GPUG extension will continue to use operational water for drilling, machinery cooling, washing down headings, dust suppression, hose down, shotcrete machines and for general clean up purposes. This operational water will be sourced from the MWMS and then pumped into GPUG. Water demand for the extended and expanded GPUG is expected to be around 5 to 10 L/s or 430 m^3/day to 860 m^3/day as per the existing operation. Once used, this operational water mixes with groundwater seepages from the surrounding rock mass.

The water level in GPUG is kept to a low level and controlled through gravity-driven flow back to the haulage decline where it is collected in underground sumps. The water is then pumped to the surface via a series of pumps to the Round Hill Pit sump, where it is utilised in the MWMS.

Seepage water from the WRSs, within the Round Hill Pit, will continue to be contained and managed by collection in Round Hill Pit sump for use in the MWMS. The seepage from the two WRSs, located outside the Round Hill Pit, is directed to the Battery Creek Silt Dam, which is also pumped to the MWMS.

6.5.2.5 Ore Stockpiling and Transport

Ore is transported to the surface run of mine pad for the underground mine where it will be transferred to the main ROM pad at the Processing Plant via the fleet of open pit dump trucks on existing haul roads.

6.5.3 Innes Mills Pit Extension

6.5.3.1 Overview

The proposed Innes Mills Pit Extension extends mining to the north, east and west into the Innes Mills Backfill area (Innes Mills Stage 11 to 13), shown in Figure 6-9. This will enable the recovery of downdip ore. The proposed extensions (illustrated as the "Proposed Pit Shell" surrounding Innes Mills Pit in Figure 6-10) will result in an overall increase to the Innes Mills Pit footprint of approximately 49 ha and are further described in PSM (2026a).

Several activities are required to facilitate the full mining of Innes Mills Pit as proposed. These include:

- Realignment of Macraes Road in two stages (Section 6.5.4);
- Hydraulic mining and relocation of SP10, SP11 and MTI tailings (Section 6.5.5);
- Hydraulic mining electrical infrastructure (Section 6.5.6); and
- Relocation of the Open Pit Workshop (Section 6.5.7).

The proposed vegetation clearance, earthworks, pit development, waste rock placement, road construction and associated landform modification will result in the direct loss of 0.77 ha of wetland and the potential disturbance of 2.96 ha wetland outside the works footprint, within the 20m to 100m buffer in the Central Mining Area.

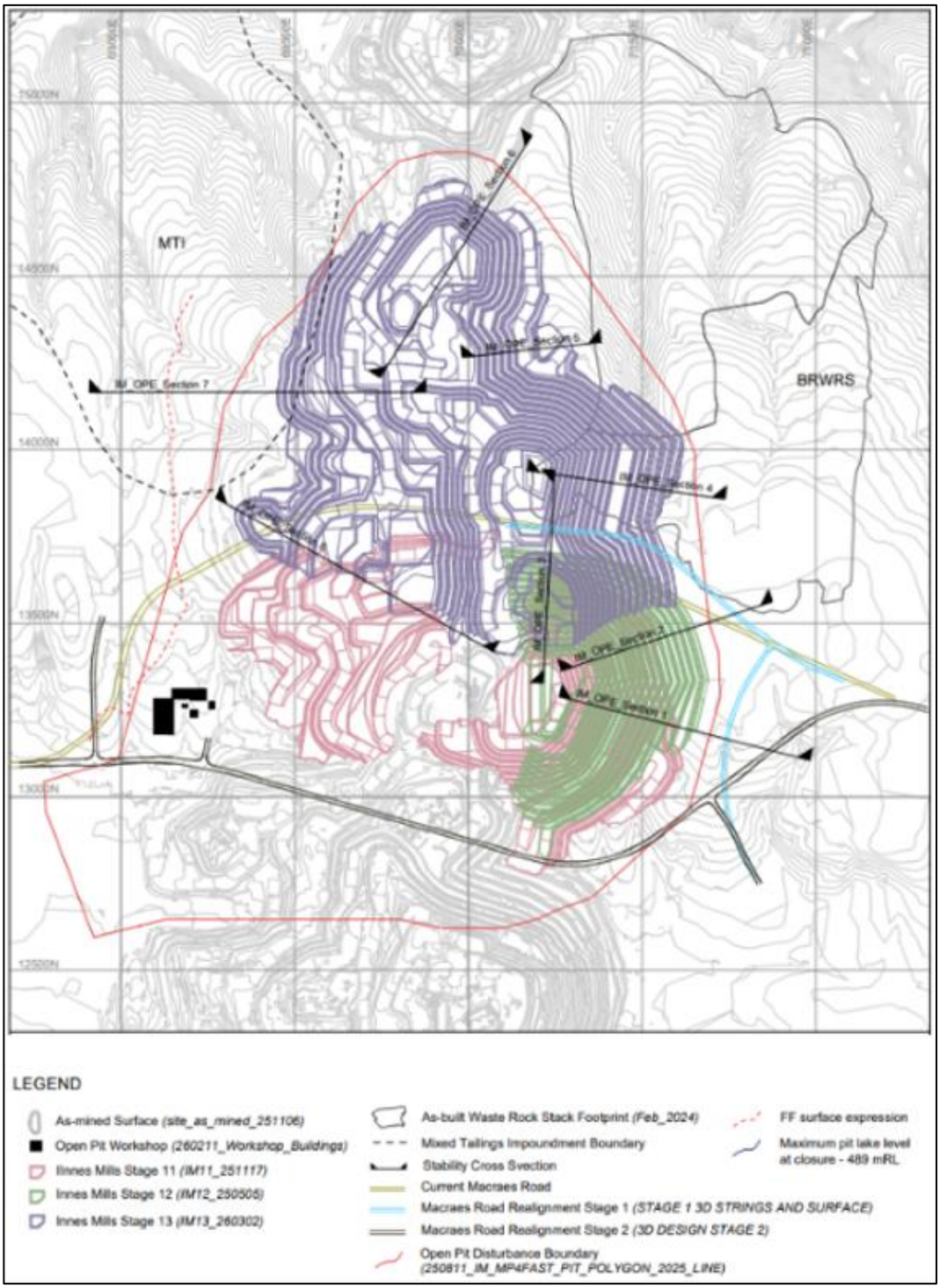


Figure 6-9: Innes Mills Stages 11 to 13

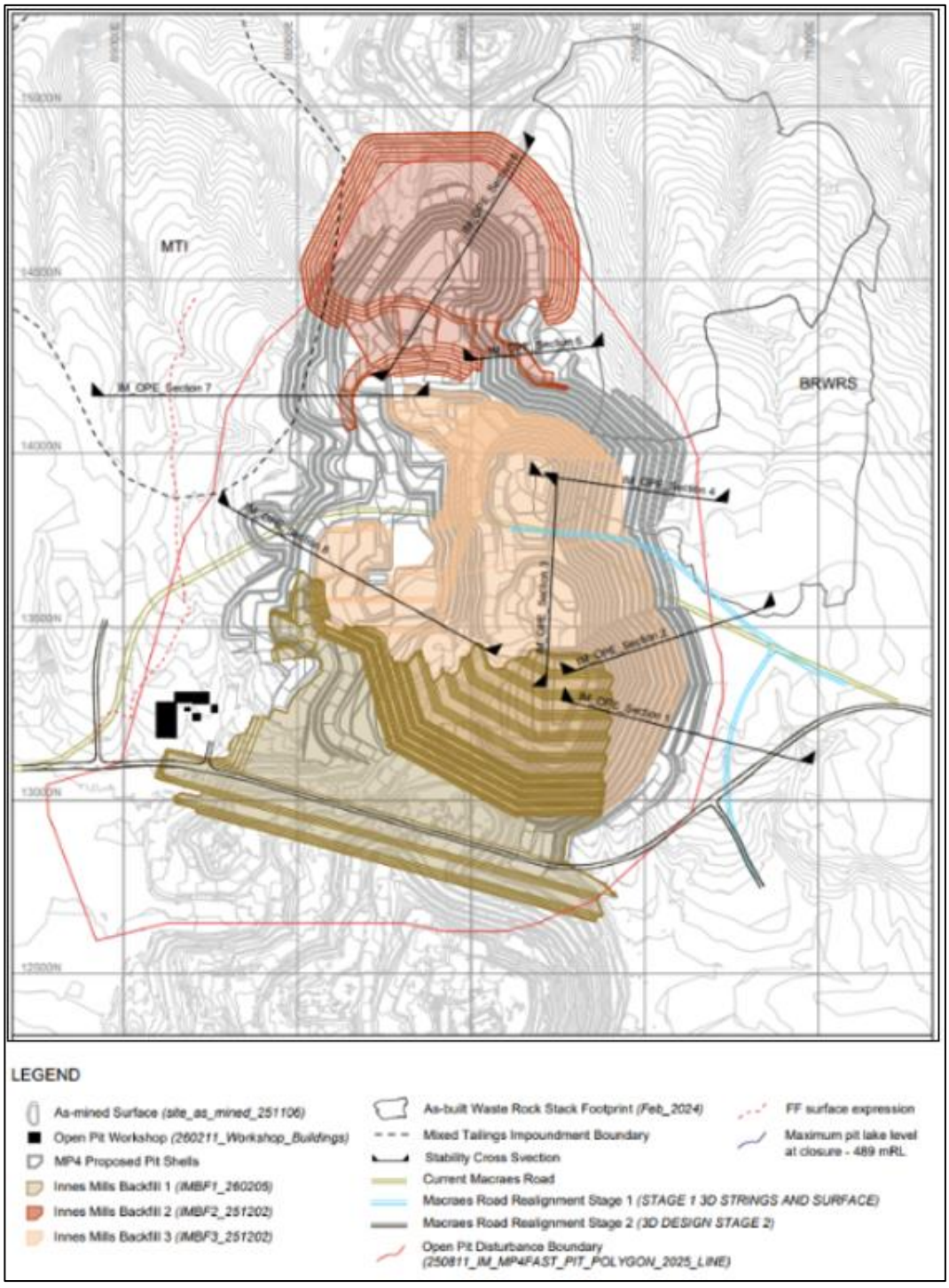


Figure 6-10: Innes Mills Pit Shell, Backfill 1 to 3 and MTI

6.5.3.2 Excavation

The approximate additional material quantities expected from the mining of the extended Innes Mills Stages 11 to 13 pits are:

- Ore: 36.3 Mt;
- Waste: 276.1 Mt;
- Relocated tailings: 59.2 Mt: and
- Total additional movement: 371.6 Mt.

6.5.3.3 Waste Rock Disposal

Waste rock from the mining of the Innes Mills Pit extension is primarily planned to be placed within Frasers Backfill embankment. Any additional waste rock will be placed on the existing consented Frasers South WRS, Innes Mills Backfill, and a new raise to Frasers West WRS. The Innes Mills waste rock may also be used to partially backfill Golden Point Pit.

Section 6.7 describes the general principles applying to waste rock disposal and details the proposed capacity, height and footprint of all WRSs impacted by MP4.

6.5.4 Macraes Road Realignment

The proposed Macraes Road realignment will occur in two stages with Stage 1 required to make way for the Innes Mills 12 expansion and Stage 2 required to make way for the Innes Mills 13 expansion. The Stage 1 realignment will involve shifting Macraes Road to the east of the bridge by approximately 160 m. Stage 2 will include a total diversion of the road to the south over the Frasers TSF embankment crest. The stream diversion channel for the North Branch Waikouaiti River will also pass over the Frasers TSF embankment crest and the road realignment will be north of the North Branch Waikouaiti River stream diversion channel. EGL (2026b) notes that the road has no critical interaction with the operational safety requirements of the Frasers TSF as a dam.

Concept designs for Stage 1 and 2 of the Macraes Road realignment are described in MCL (2026a) and MCL (2026b), respectively, and presented in Figure 6-11 and Figure 6-12. Transportation safety aspects are considered in Stantec (2026).

Both realignments will be designed in line with a 100 km/h speed environment, will allow for 3.5 m lanes and 1.2 m sealed shoulders matching or improving the existing carriageway formation.

Construction of the road platform will require removal of vegetation and topsoil from the alignment. This will expose a stable rock base on which a road base will be developed using waste rock from Innes Mills Pit.

For Stage 1, a new T-intersection is proposed at Macraes Road / Golden Bar Road intersection. The proposed intersection will include widening on the opposite side of the

road. This will allow a vehicle to pass a vehicle waiting to turn right into Golden Bar Road, which is not provided at the existing intersection. It will also include a left turn deceleration lane, as provided at the existing intersection. It will be lengthened to the Austroads standard for the design speed. The design will accommodate manoeuvring of a 25 m truck and trailer and sight lines will be in accordance with Austroads safe intersection sight distance. A culvert is proposed to direct run-off through the large table drain in the shoulder opposite the proposed intersection.

For Stage 2, two new intersections, consistent with the Stage 1 intersection design, are proposed where Golden Point Road and Golden Bar Road meet the realigned Macraes Road. In addition, two new vehicle access points are proposed along the realigned section of the Macraes Road, with one to serve the new Open Pit Workshop. The other will be located at the eastern end of the alignment to provide access to the redundant section of Macraes Road for mine access. The gullies at this location, being ephemeral channels, will require culverts to accommodate runoff flows.

Works associated with both realignments involve earthworks, land disturbance and vegetation clearance within and within 10 m of natural inland wetlands.

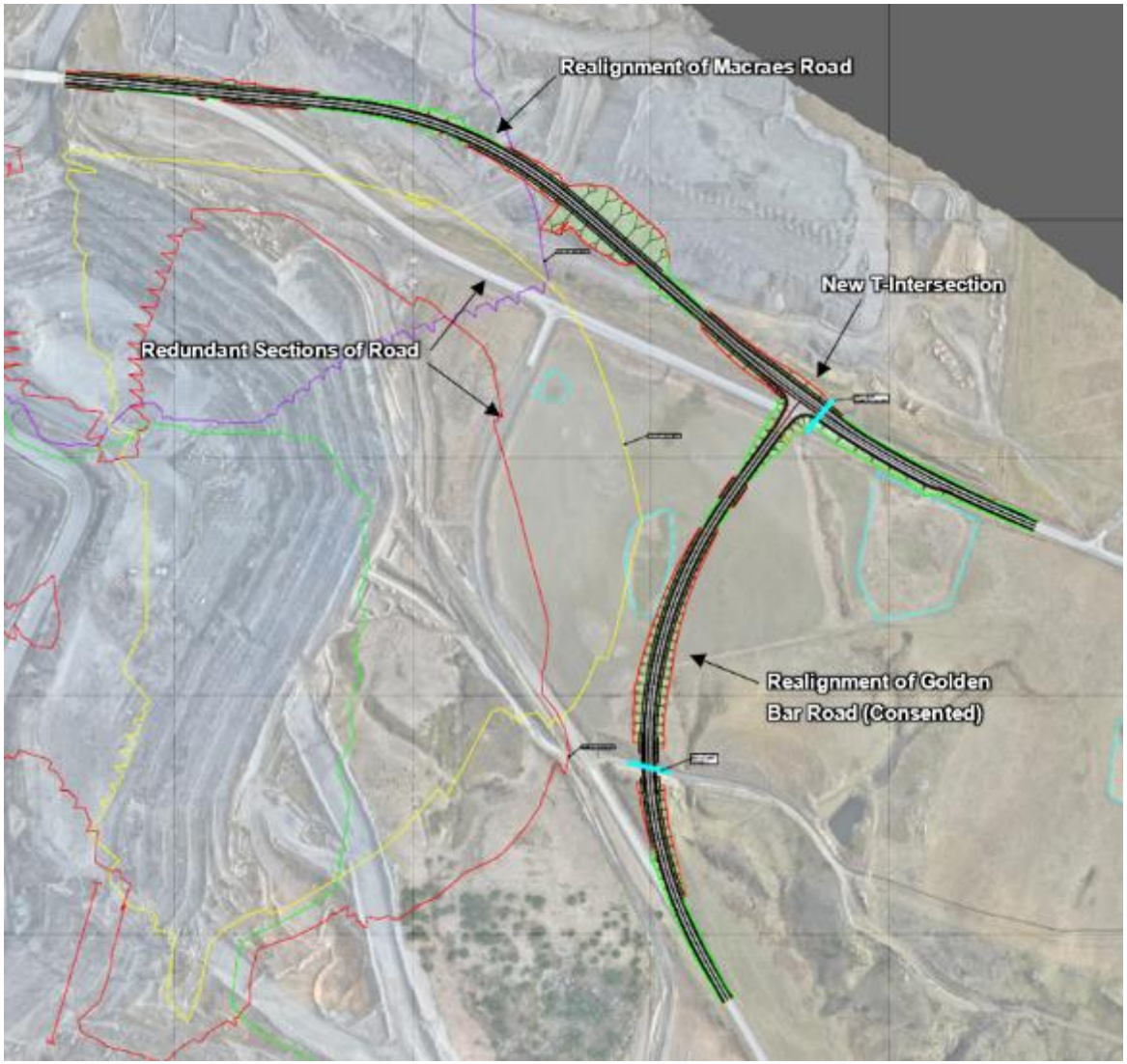


Figure 6-11: Stage 1 Macraes Road Realignment (Source: MCL, 2026a)

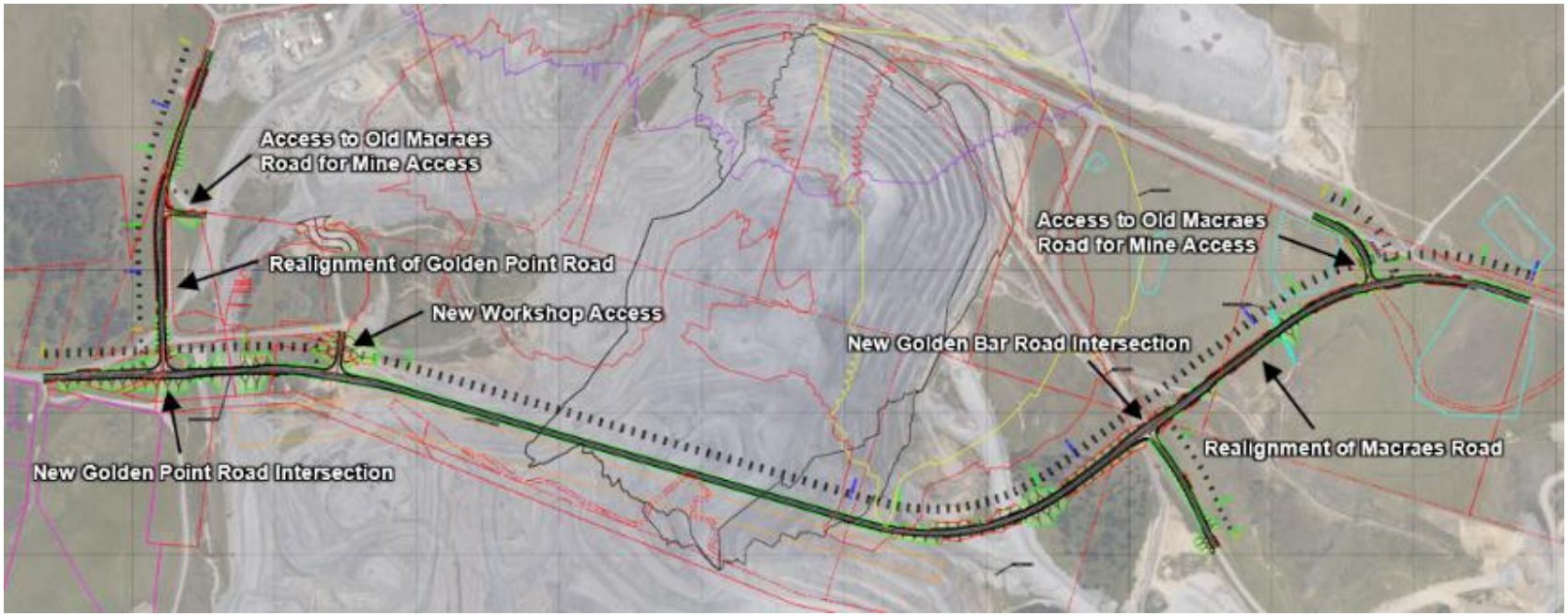


Figure 6-12: Stage 2 Macraes Road Realignment (Source: MCL, 2026b)

6.5.5 Hydraulic Mining and Relocation of Tailings

6.5.5.1 Overview

Hydraulic mining is a water-based reclamation method used to recover tailings. It works by directing a high-pressure water jet onto a material face to break down, mobilise, and transport the material as slurry.

Hydraulic mining of all the tailings currently stored in SP10 and SP11 (approximately 26 Mt) and partial hydraulic mining of the MTI facility (approximately 38.4 Mt) is proposed. Hydraulically mined tailings will be pumped to Frasers TSF.

The hydraulic mining plan, design and methodology that may be used by OGNZL is provided in EGL (2025a) and Agilitus (2026), provided in **Part B** of this substantive application, and the Tailings Removal and Dam Deconstruction Management Plan, provided in **Part C** of this substantive application. The specific design and methodology will be finalised at detailed design stage, however, a summary is provided below. Building consents will be required as the activities constitute modification and deconstruction of classifiable dams.

6.5.5.2 Southern Pit TSF

Removal of the tailings contained within SP10 and SP11, is proposed to facilitate full mining of Innes Mills Stage 13. The Southern Pit TSF embankment will remain in place unless removal is required to facilitate safe pit lake development and drainage.

Tailings will be removed using hydraulic mining techniques (high pressure jets) with tailings material to be disposed of at Frasers TSF.

Hydraulic mining will source water from within the MWMS, as further described in Section 6.8.

EGL (2025a) explains that hydraulic mining of Southern Pit TSF will be undertaken in flitches[19], comprising 6 to 9 m high benches. At the start of each flitch, a 6 m deep sump with pontoon will be established and launders (trenches) graded at 1V:150H to drain into the sump. A main launder must be developed first to establish the initial void required for subsequent mining blocks to drain into.

The haul road across Southern Pit TSF will be deconstructed before remining commences. The Innes Mills Backfill and SP10 embankments will be mechanically deconstructed in stages that generally coincide with the lowering of tailings.

[19] A horizontal slice or sub-layer cut from a larger mining bench.

Surface Water

Collection sumps will be located in the middle of the impoundment area against the western rock ridge (away from upstream embankments) to prevent water ponding and saturating these embankments.

Remining Rate

Remining will take place at a proposed rate of 900 t/hr as a base case, increasing to up to 1200 t/hr. The hydraulic remining will operate 24 hr per day, equating to a remining rate of 7.9 to 10.5 Mt per annum. Remining rate may reduce to 450 t/hr towards the end of remining, due to space constraints at the base of Southern pit.

6.5.5.3 Mixed Tailings Impoundment

To reduce the risk of embankment deformation during the mining of Innes Mills 13, OGNZL proposes to remove the upstream embankment raises at the MTI. The upstream raises from crest level 548 mRL to 515 mRL are proposed to be deconstructed, and tailings surface level reduced to an average level of 512 mRL to ensure sufficient freeboard is maintained. This equates to the removal of approximately 37.5 Mt of tailings and lowering of the facility by approximately 33 m (i.e. average tailings level of 545 mRL to 512 mRL).

As with the SP10 and SP11 tailings relocation, the MTI tailings will be removed using hydraulic mining techniques (high pressure jets) and disposed of at Frasers TSF. Any embankment material from SP10, SP11 and MTI will be used for the Frasers TSF backfill embankment construction.

Remining of MTI will commence towards the end of SP10 and SP11 remining, when equipment can be deployed to the adjacent TSF. Hydraulic mining will source water from within the MWMS.

Hydraulic Mining Configuration

Similar to SP10 and SP11, hydraulic mining will be undertaken in flitches.

Tailings on MTI are up to 150 m deep towards the north, decreasing to approximately 10 m towards the south. Refer to Figure 6-13 below for an isopach showing approximate tailings depth across MTI. As hydraulic mining approaches 512 mRL, the operation will expose the natural rock of the original ground profile at the southern extents of MTI, and the dam crest of the buried Concentrate Impoundment Dam and Water Storage Dam. Sumps, pontoons and launders will be repositioned to avoid or minimise excavation into rock while maintaining required falls.

The MTI upstream embankments, Concentrate Impoundment Dam and Water Storage Dam embankments will be mechanically deconstructed in stages that coincide with the lowering of tailings.

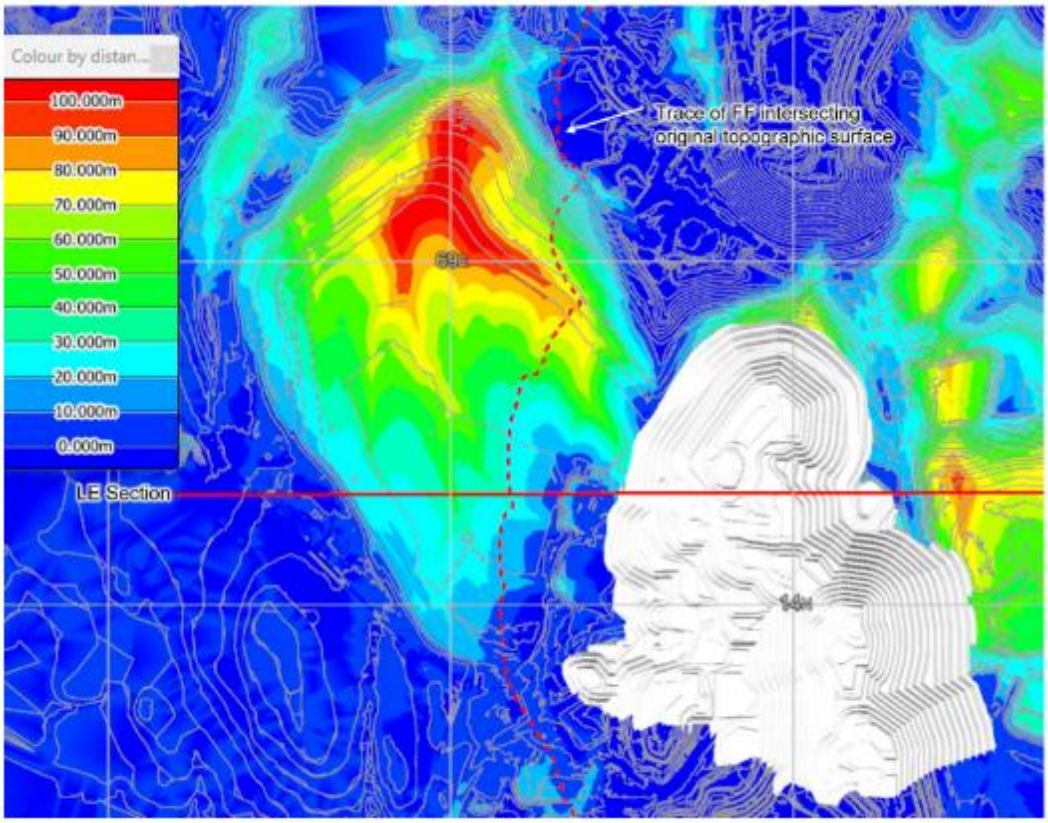


Figure 6-13: Isopach Showing Approximate Thickness of MTI Tailings

Surface Water

Collection sumps will be located away from upstream embankments to prevent water ponding and saturating these embankments.

Remining Rate

Remining will take place at a proposed rate of 900 t/hr as a base case, increasing to up to 1200 t/hr. The hydraulic remining will operate 24 hr per day, equating to a hydraulic mining rate of 7.9 to 10.5 Mt per annum.

6.5.5.4 Hydraulic Mining Method

Hydraulic mining was identified as the preferred method for the following reasons:

> Enables safe material removal within constrained pit geometries;

- Reduces heavy equipment interaction risks;
- Provides continuous flow of slurry to Frasers TSF; and
- Integrates effectively with the MWMS.

Hydraulic mining comprises three mechanisms:

- High-pressure jet projected from a Remote Operated Mining Unit causes hydraulic erosion and fracturing of material to liquify and create a flow path of slurry to a sump or collection point;
- The repulped tailings form a slurry that flows by gravity towards a collection sump or trench; and
- At the sump, high density slurry pumps lift the material through pipelines for redeposition.

Figure 6-14 provides a flow diagram of the system.

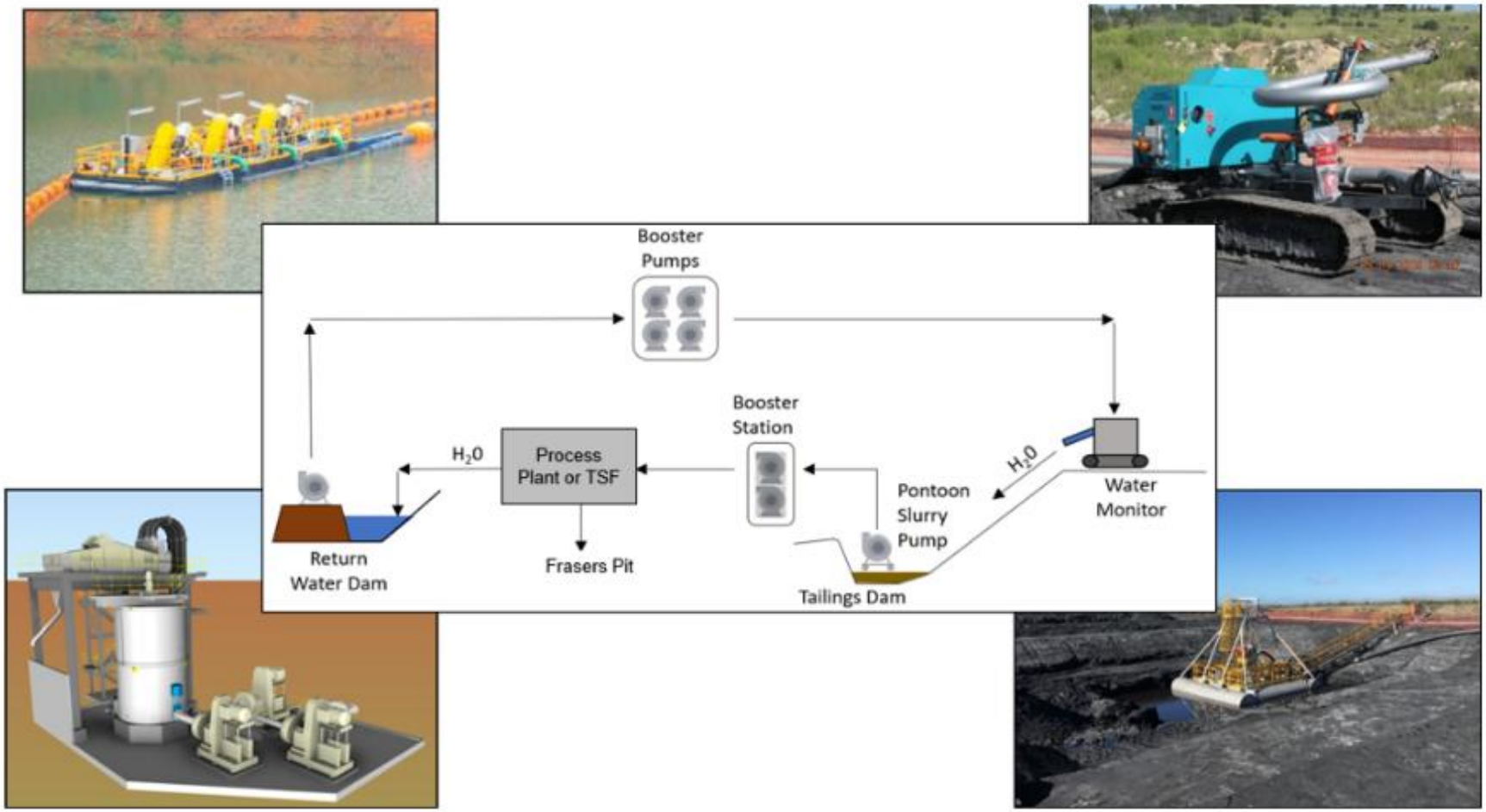


Figure 6-14: Hydraulic mining Process Flow Diagram

Pontoon Sump

A sump must be excavated within the tailings to allow for installation of the pontoon-mounted slurry pumping system for slurry collection during hydraulic mining. The defined slope and bench excavation (refer Figure 6-15) allows for return slurry piping, electrical connections, and access and walkways for maintenance.

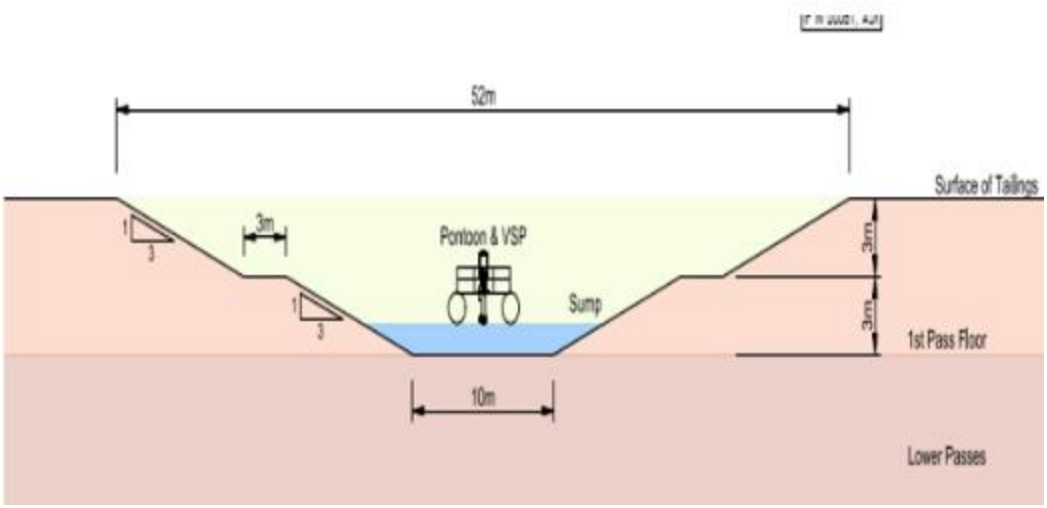


Figure 6-15: Pontoon Sump - Concept Design at 6m depth

Launder and Bench Development

The main launder and trenches will be hydraulically mined at a slope of 27 degrees (1V:2H) with a maximum crest width of 45 m and a maximum bench height of 6-9 m. An overall floor grade (tailings beach angle) of 0.6% (H150:V1) is assumed.

Trenches are proposed to be mined from the main launder and create defined mining blocks to dissipate pore pressures within the mining slope and improve bench stability.

Figure 6-16: Bench and Mining Block Development during Hydraulic Mining

Pontoon Locations

Pontoons are proposed throughout each mining phase and throughout hydraulic development for Southern Pit TSF and MTI. Pontoons are proposed to be placed against the in-situ pit wall on either side of the saddle separating the Southern Pit TSF and MTI tailings facilities. This will allow for:

- Progressive deconstruction of the Southern Pit TSF and MTI embankments;
- Safe installation of pontoon services on the saddle, clear of deconstruction works;
- Stable saddle foundation for pontoon installation;
- Maximised tailings reclamation near the pit wall; and
- Exposure of historical access ramps enabling support equipment to access the mining area and service hydraulic mining operations.

The proposed locations of the pontoons at their various levels (RLs) are linked to the mining phases, as provided in Agilitus (2026).

Mining Phases between SP10, SP11 and Mixed Tailings Impoundment

Hydraulic mining will be undertaken within discrete operating areas during operating periods defined as mining phases. This approach is based on maintaining production in one TSF while preparation works, including pontoon relocation and infrastructure setup, are undertaken in an alternate TSF. This is described further in EGL (2025a) and the Tailings

Removal and Dam Deconstruction Management Plan, provided in **Part C** of this substantive application.

In summary, the conceptual sequence involves mining in SP11 while SP10 is prepared for pontoon relocation. This step will be followed by a changeover to SP10 once the active flitch in SP11 has been fully reclaimed. The alternating sequence continues between SP11 and SP10 until SP11 is fully depleted. As SP10 extends to significantly greater depths than SP11, hydraulic mining equipment will be relocated to MTI following completion of SP11. After this an alternating operational sequence will be adopted between SP10 and MTI. Agilitus (2026) provides further detail on the individual mining phases and the proposed configurations for the Remote Operated Mining Units ("**ROMU**").

6.5.6 Hydraulic Mining Electricity Infrastructure Upgrades

The proposed hydraulic mining and pumping of tailings from Southern Pit TSF and MTI to the Frasers TSF will increase the power demand beyond the existing capacity of the mine and will require an electricity supply upgrade. OGNZL is working with the local electricity distribution company to secure an upgraded power supply to the site to ensure the additional power demand for MP4 will be satisfied. Construction of an additional 66kV powerline upgrade from Ranfurly to the Macraes Operation will be progressed as a separate project by the distribution company.

However, MP4 includes internal electricity infrastructure upgrades and realignments to facilitate connection to the new 66 kV line. This will involve construction of an additional switchyard at the mine site to accommodate additional stepdown transformers (66kV/11kV). It will also include the associated switchgear and relocation of the existing 11kV distribution network, occurring as a result of the planned realignment of the Macraes Road. This will provide power to new pump stations for pumping of hydraulically mined tailings and power to the new open pit maintenance workshop.

6.5.7 Open Pit Workshop Relocation

The deconstruction of the existing Mining Workshop and the construction of the new Open Pit Workshop is proposed to facilitate mining in Innes Mills 13. The new Open Pit Workshop location is shown in Figure 6-17.

Figure 6-17: Proposed location for the new open pit workshop

6.5.7.1 De-construction of Existing Mining Workshop

The layout of the existing Mining Workshop is shown in Figure 6-18 below and comprises:

- storage of tanks/drums;
- the motor vehicle workshop (waste oil, gas storage, tyre workshop, water tanks);
- commercial refuelling at the fuel farm;
- intentional and accidental release of contaminants at vehicle wash bays, tyre storage and testing and scrap metal storage; and
- migration of contaminants at the western stormwater gully.

WWLA (2026b) indicates arsenic concentrations in some sediment and solids residue has the potential to present human and/or environmental health risks. Although this risk is low in the context of Macraes Operation, these materials will be managed during the deconstruction and relocation of the Mining Workshop. WWLA (2026b) explains that an elevated level of arsenic (and other contaminants) is expected, accounted for in day-to-day management, and able to be mitigated using on-site facilities such as the Processing Plant, tailings impoundments and water management system. Remediation is therefore not required in relation to the Mining Workshop. However, the following management measures are proposed to mitigate future risks to site workers and the environment. Note that all measures relate to arsenic contamination as no other metals or hydrocarbons exceed human health or environmental criteria.

- Removal of 0.1-0.5 m bgl of sediment (1,200 m^2 area and 600 m^3 volume) from the light vehicle truck wash once decommissioned and place sediment with tailings or another secure location;
- Removal of 0.4 m bgl of sediment (2,000 m^2 area and 800 m^3 volume) from the heavy vehicle truck wash once wash bays are decommissioned and place sediment with tailings or another secure location; and
- Removal of 0.3 m bgl of silt (2,000 m^2 area and 600 m^3 volume) from the western swale adjacent the MTI (approximately half of the swale if disturbance of for MP4 is required).

The management methods and controls required for the proposed earthworks are detailed in WWLA (2026b) and the Site Management Plan - Ground Contamination, provided in **Part C** of this substantive application. These include either processing the removed soil through the Processing Plant, disposing of the soil to an offsite facility, or mixing of the impacted soils to lower concentrations of arsenic.

Figure 6-18: Existing Workshop Layout (Source: WWLA, 2026b).

6.5.7.2 Proposed Open Pit Workshop

The proposed bulk and shape of the proposed open pit workshop is shown in Figure 6-19. The workshop concept design is provided in **Part E** of this substantive application. The proposed layout includes a workshop, a large store, a tyre repair bay and a truck wash bay. The height of the workshop is 16 m and it covers an area of approximately 4000 m^2, excluding the surrounding hardstand and carpark area. Access to the Open Pit Workshop will be from the Macraes Stage 2 Road Realignment and from the internal haul road network.

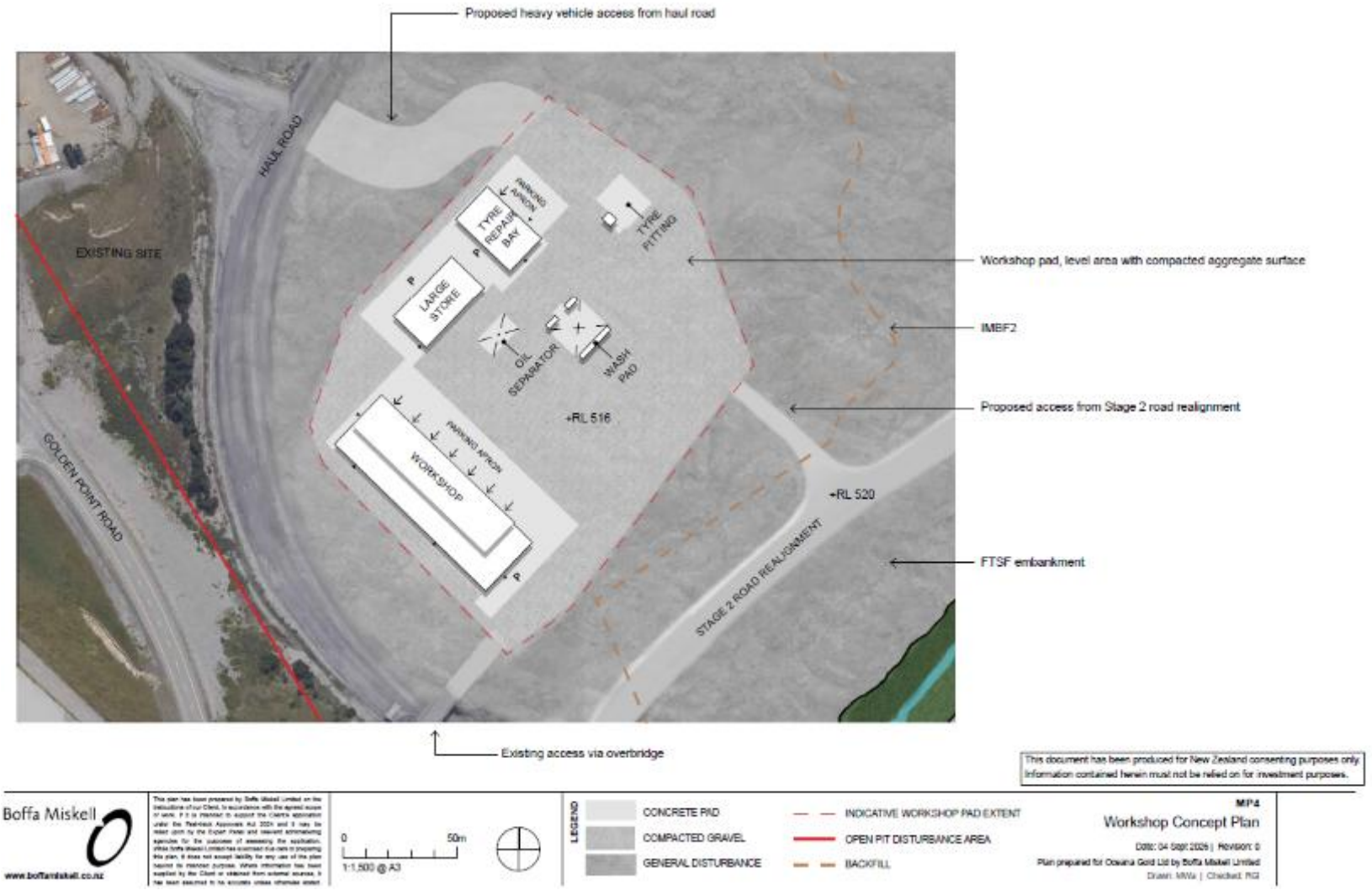


Figure 6-19: Open Pit Workshop Concept Plan

6.6 GOLDEN BAR MINING AREA

The key activities located within the Golden Bar Mining Area are shown in Figure 6-20 and are described below and include:

- Golden Bar Pit extension;
- Golden Bar Haul Road reinstatement; and
- Golden Bar WRS extension.

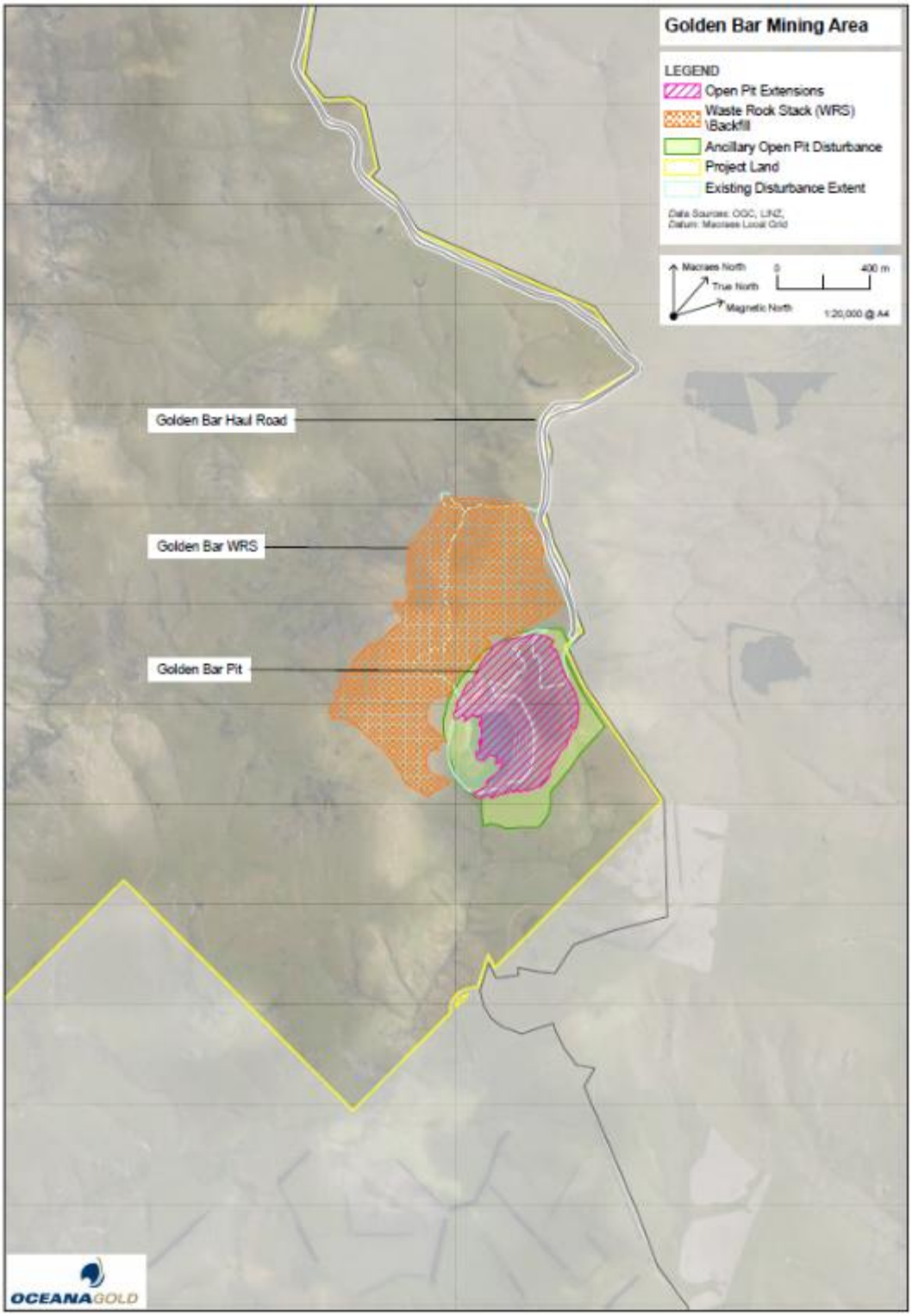


Figure 6-20: Golden Bar Mining Area

6.6.1 Golden Bar Pit Extension

6.6.1.1 Overview

The proposed Golden Bar pit extension consists of an approximate 340 m expansion to the east and northeast over two stages (Stage 2 and 3), as shown in Figure 6-21 and described in PSM (2026a). The current Golden Bar Pit, which was rehabilitated in 2012, has a footprint of 14 ha. The open pit excavation will end approximately 55 m from Golden Bar Road. The proposed extension to the Golden Bar Pit will result in an overall increase to the pit footprint of approximately 15.2 ha and a total pit footprint increase to approximately 29.2 ha – an increase of 109%.

The partially rehabilitated Golden Bar Pit forms a pit lake that spills water to a tributary of Murphys Creek, locally known as Golden Bar Creek.

A disused private haul road running adjacent to Golden Bar Road on land owned by OGNZL connects Golden Bar Pit to the wider mine haul road network.

Following the extended mining of Golden Bar Pit, rehabilitation and closure is proposed as set out in Section 6.15.

To accommodate the expansion of the Golden Bar WRS, approximately 15 m^2 of the permanent Clydesdale Creek tributary will be reclaimed.

The proposed land disturbance and dewatering activities associated with the Golden Bar Haul Road reinstatement, pit development, waste rock placement and associated landform modification at Golden Bar will result in the direct loss of 1.32 ha of wetland and the potential disturbance of 2.79 ha wetland within 100 m of the proposed works footprint.

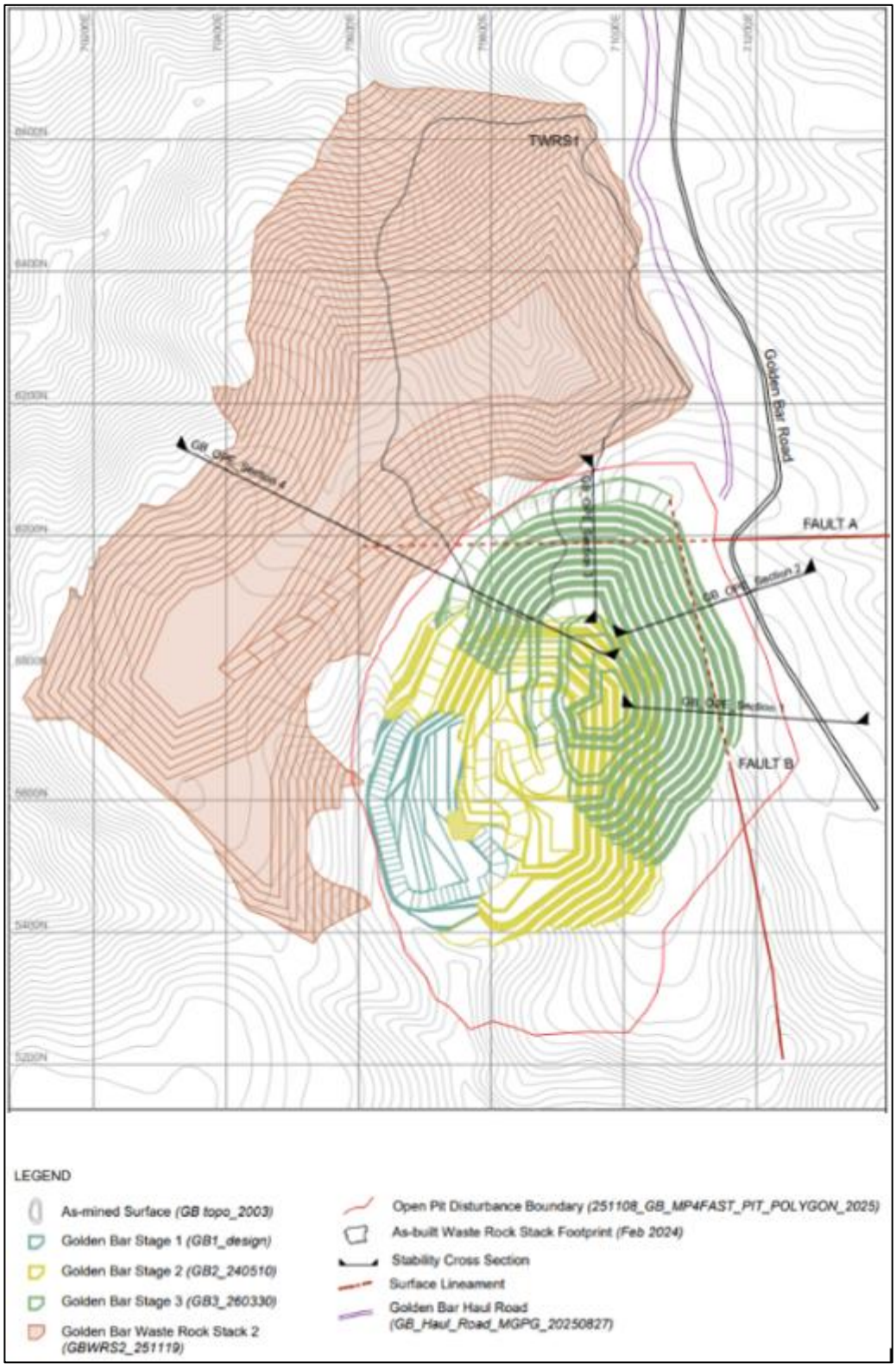


Figure 6-21: Golden Bar Pit Features and Geometry

6.6.1.2 Excavation

Approximate material quantities expected from the mining of the extended Golden Bar Pit are:

- Ore 2.2 Mt;
- Waste 32.6 Mt; and
- Total additional movement 34.8 Mt.

6.6.1.3 Waste Rock Disposal

All waste rock from the Golden Bar Pit extension will be disposed of within the Golden Bar WRS. This is to be extended to the northwest, as set out in Figure 6-20, to accommodate the additional capacity required.

Section 6.7 describes the general principles applying to waste rock disposal and details the proposed capacity, height and footprint of all WRSs impacted by MP4.

6.6.1.4 Ore Stockpiling and Transport

Ore from the Golden Bar pit will be stockpiled adjacent to the WRS (see Figure 6-20) and then be loaded out onto smaller haulage trucks and transported to the Processing Plant.

The haul route to the Processing Plant will utilise the previously used private Golden Bar Haul Road which will be reinstated as described in Section 6.6.2.

6.6.1.5 Equipment

Regarding equipment, ore will be loaded using a wheel loader (e.g. Cat 988) onto smaller off-road rigid dump trucks (e.g. Cat 773) and transported to the Processing Plant. It is assumed that five Cat 773s (or equivalent) will be required. The 11 km private haul road will require maintenance with a grader and water cart. This fleet is expected to commence operations on a single shift basis, but then proceed to operate 24 hours per day / 7 days per week within approximately four months from commencement.

6.6.1.6 Support Infrastructure

The following infrastructure will be required to enable mining at Golden Bar:

- A pipeline, pump stations and a haul road – all following the Golden Bar Haul Road corridor (also referred to as the Golden Bar infrastructure corridor) identified in Figure 6-22; and
- An ore stockpiling and loading area – this area is identified in Figure 6-20.

6.6.1.7 Site Specific Water Management

The Golden Bar Pit is currently filled with water to its maximum capacity and is passively discharging to Golden Bar Creek. Dewatering of the pit is required before mining of the proposed pit extension can commence.

Approximately 2 years prior to commencement of mining, Golden Bar Pit Lake water is intended to be pumped to Frasers Pit via a temporary pipeline installed adjacent to the Golden Bar haul road, for use in the MWMS. Golden Bar Pit will thereafter be maintained in a dewatered state until mining of the pit extension is completed.

Operational water from stormwater runoff or groundwater ingress will be used in the MWMS or pumped into the silt control structures and stored prior to discharge, in accordance with silt pond discharge permits.

Perimeter drains will be constructed in parts of the extended GBWRS to direct surface runoff into the silt control structures. There it can be treated (if necessary) and discharged to the local waterways.

6.6.2 Golden Bar Haul Road

The previously used private haul road will be reinstated as the haul route to the Processing Plant and referred to herein as the "**Golden Bar Haul Road**". This haul route is immediately adjacent and west of the public Golden Bar Road until it gets to the Frasers South WRS where it joins the mine haul road system in and around Frasers Pit. The proposed Golden Bar Haul Road is identified in Figure 6-22 and Figure 6-23. The proposed haul road intersects one paper road that connects Golden Bar Road to Red Bank Road and is otherwise located on land owned by OGNZL.

The Murphys Flat Historic Reserve Area currently allows public access via Golden Bar Road. The new Golden Bar Haul Road will intersect this access point. OGNZL proposes to maintain access to the Murphys Flat Historic Reserve Area via the construction and use of a managed haul crossing located at approximately grid reference NZTM 2000 1403720E 4970010N.

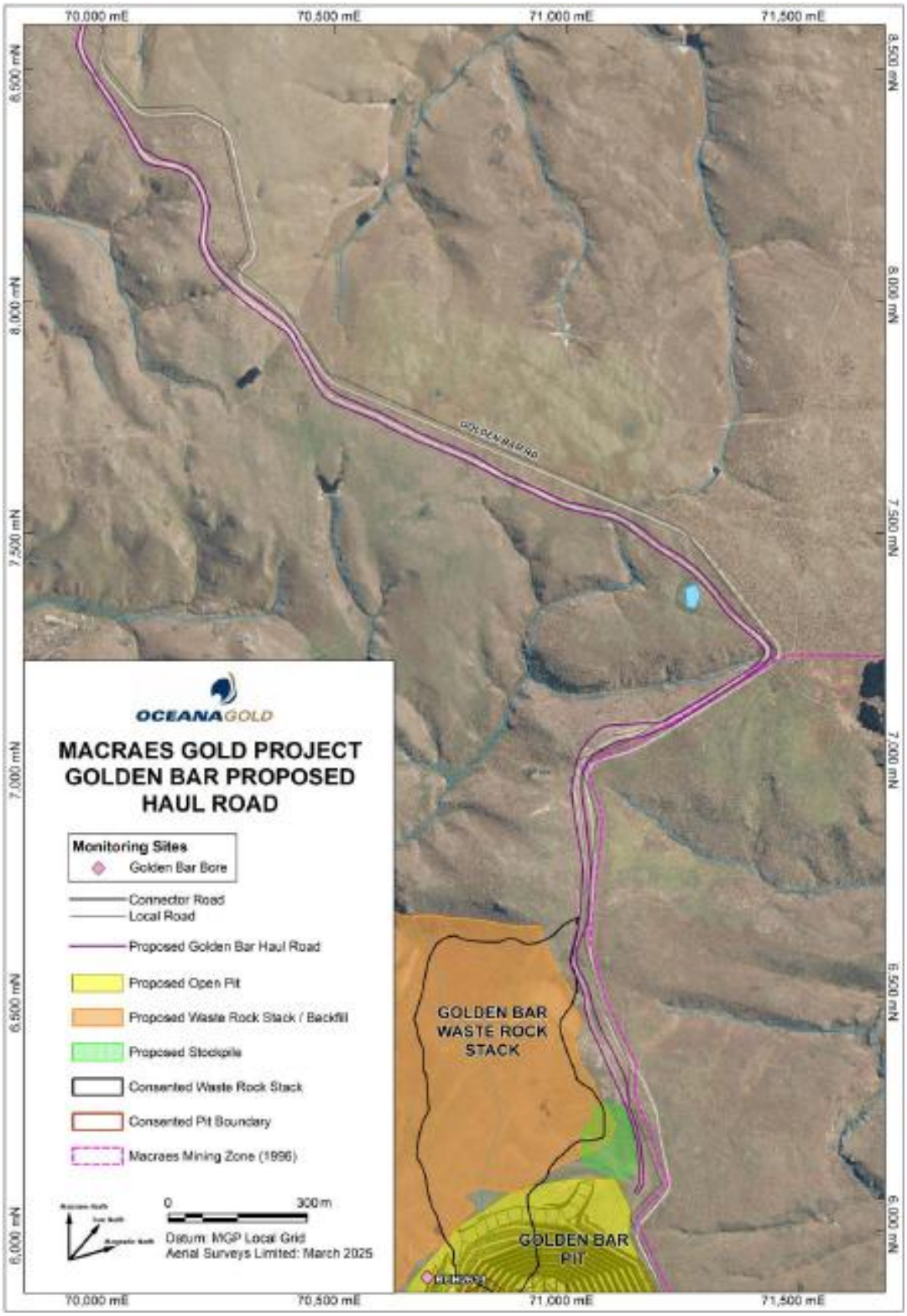


Figure 6-22: Proposed Golden Bar Haul Road Southern Extent.

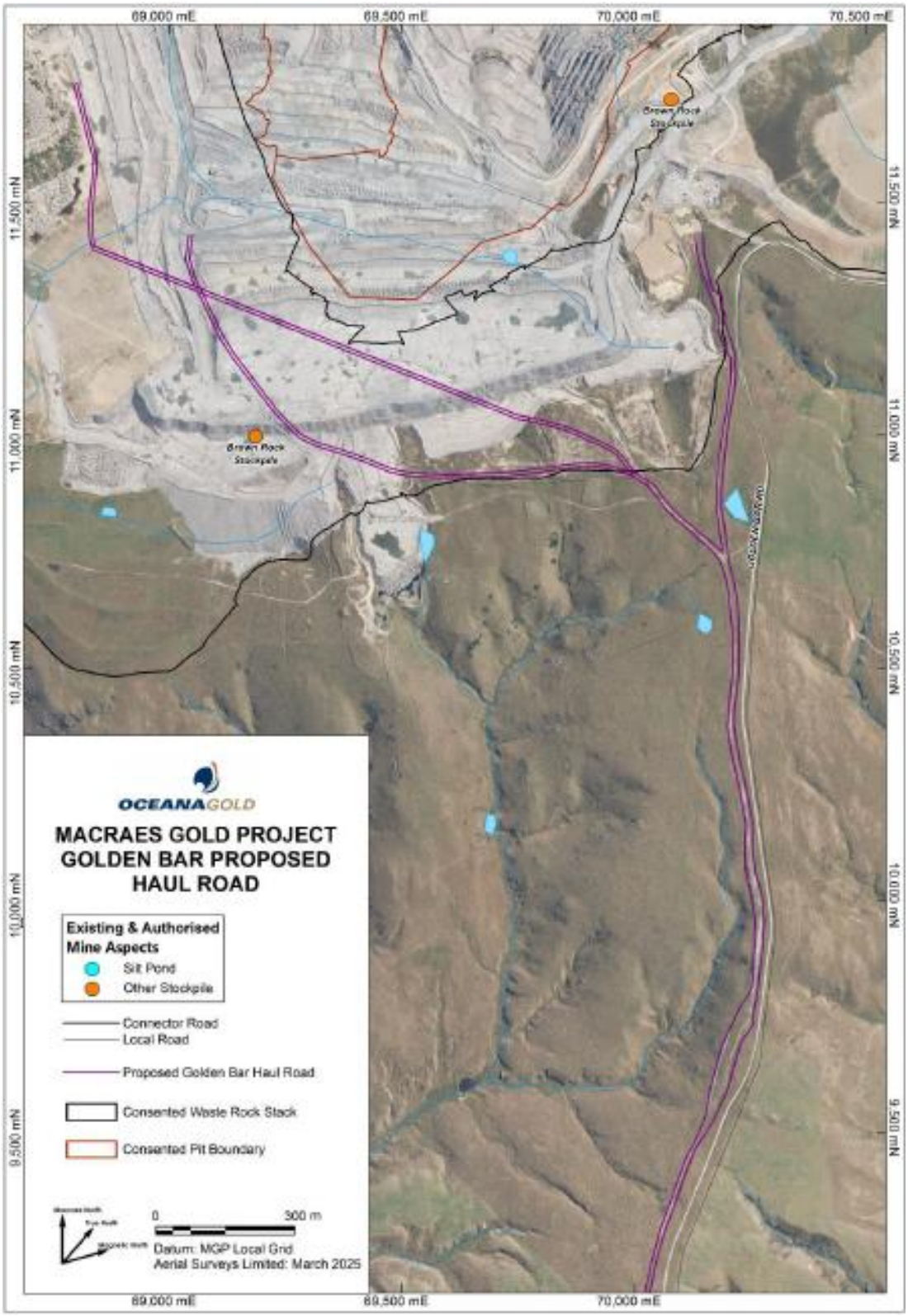


Figure 6-23: Proposed Golden Bar Haul Road Northern Extent

6.7 WASTE ROCK DISPOSAL

6.7.1 Overview

The MP4 Project involves the disposal of waste rock at several existing and proposed waste rocks stacks and pit back fill locations across the mine. Four of the disposal locations extend over previously undisturbed land. Consents for all disposal locations will need to be obtained to enable the disposal of waste rock out to at least 2045.[20]

The proposed MP4 waste rock disposal locations are shown in Table 6-4 below.

[20] 2045 is six years beyond the planned life of the Macraes Operation to provide operational flexibility for waste rock disposal and to ensure final landform shaping and rehabilitation activities are provided for.

Table 6-4: MP4 Waste Rock Locations and Approximate Disposal

WRS	Existing Design Capacity (Mm3 (Mt))	Proposed Design Capacity (Mm3 (Mt))	Additional MP4 Storage (Mm3 (Mt))	Additional Maximum Design Height (mRL)	Proposed Maximum Design Height (mRL)	Additional MP4 height (mRL)
Coronation North WRS	51 (112)	67 (146)	16 (35)	640	670	30
Trimbells WRS	18 (39)	34 (75)	17 (36)	670	740	70
Coronation WRS	15 (33)	15 (33)	-	730	730	-
Coronation North Backfill	9 (19)	24 (53)	15 (33)	640	670	30
Coronation Pit Backfill	1.9 (4)	22 (49)	20 (45)	-	710	-
Frasers West WRS	155 (338)	199 (432)	43 (94)	570	610	40
Frasers South WRS	46 (102)	47 (102)	-	595	595	-
Golden Point Backfill	-	23 (35)	23 (35)	-	460	-
Frasers Backfill / Innes Mills Backfill 1	37 (82)	64 (140)	27 (58)	480	520	40
Innes Mills Backfill 2	-	15 (28)	15 (28)	-	520	-
Innes Mills Backfill 3						
Golden Bar WRS	67 (15)	22 (48)	15 (33)	550	600	50

6.7.2 Waste Rock Stack Construction Methodology

The construction of the proposed WRS extensions will be dependent on the specific technical constraints, but in all cases will be undertaken in accordance with a Waste Rock Stack Management Plan provided in **Part C** of this substantive application.

The WRS construction will involve the delivery of waste rock by dump trucks. Construction methods will include measures to reduce the ingress of oxygen and water into the WRSs aligning with the construction improvements recommended by GHD (2026a) and others. These measures include:

- Exposed areas of waste rock, not yet rehabilitated, will be reduced through construction sequencing;
- Completed WRS surfaces will be designed to promote water shedding;
- Erosion protection measures will be installed such that the surface integrity of the WRS is retained long-term (refer to Section 6.9); and
- Localised contouring of existing rehabilitated WRS surfaces to promote runoff and reduce infiltration.

These improvements represent a departure from the construction philosophy used at the site to date which typically encouraged WRSs to be water retaining structures. The shift towards a water shedding construction philosophy has the objective of decreasing contaminant loads generated from the WRSs.

6.7.3 Engineered Seepage Capture Systems

Engineered Seepage Capture Systems currently capture shallow seepage at the toe of existing WRSs. Seepage can then be diverted for treatment or taken and reused within the MWMS (refer to Appendix F of GHD, 2026a). Where seepage is distributed over larger lengths of a WRS toe (diffuse seepage), there is typically no current mine infrastructure installed to capture this seepage. This is particularly so in the western aspects of Coronation North WRS and the perimeter of Frasers West WRS.

New engineered seepage capture drains and toe bunds are proposed at several locations listed in Table 6-5 and shown in Figure 6-24, to further reduce WRS seepage from entering the receiving environment. The concept design is detailed in GHD (2026b).

The existing and proposed seepage capture systems are described in Appendix F of GHD (2026a), and the proposed systems are summarised in Table 6-5 and below.

Table 6-5: Proposed Seepage Capture Systems (Modified from Table 5, Appendix F of GHD, 2026a)

Location	Current Operation	Proposed System / Modelled Future Operation
Frasers TSF	No current seepage capture systems implemented other than released pore water from tailings being captured within the TSF impoundment.	Seepage capture drains proposed as the TSF reaches the upper levels (above 480 mRL). Captured water will be fed to the mine water management system during mining, then fed to the Water Treatment Plant on closure.
Coronation North WRS	Currently the highest discharge of seepage water is to Māori Hen Creek via Māori Hen Silt Pond, with further distributed seepage from the western aspects of the WRS to Coal Creek tributaries.	Seepage capture drains proposed along the western aspects of the WRS to capture distributed seepage. When the Water Treatment Plant is operational, treated water will be returned to the Mare Burn catchment.
Trimbells WRS	Currently seepage water discharges to Trimbells Gully via Trimbells Gully Silt Pond.	Toe bunds are proposed above the proposed Trimbells Gully Silt Pond and in the 3 minor tributaries contributing to Trimbells Gully. When the Water Treatment Plant is operational, treated water will be returned to the Trimbells Gully catchment.
Coronation WRS	Currently seepage water discharges to a tributary of Camp Creek via Coronation Silt Pond.	Toe bunds are proposed above Coronation silt pond to capture seepage currently discharging to the tributary of Camp Creek. When the Water Treatment Plant is operational, treated water will be returned to the Deepdell Creek catchment.
Deepdell North WRS	Currently Deepdell North silt pond discharges directly to Deepdell Creek from a decant pipeline from the silt pond. These flow rates are	Seepage capture via the existing silt pond during dry periods only and pump to the Water Treatment Plant.

Location	Current Operation	Proposed System / Modelled Future Operation
	relatively low and the toe of the WRS is well established.	Return of treated water will be via Māori Tommy Gully.
Golden Point Backfill	Currently the Roundhill sump is dewatered to below the adit overflow level (~332mRL) using bore pumps. This sump is used for staging of water from GPUG. It is proposed that this operation continues until rendered impractical due to construction of the Golden Point Backfill WRS.	Once operational use of the Roundhill Sump ceases, up to 4 permanent dewatering bores are proposed to maintain levels in the Golden Point and Roundhill Pit voids, below the historical workings adit level. Water capture will be pumped to the Water Treatment Plant with returned waters being discharged to Deepdell Creek.
Northern Gully WRS	Currently water is pumped from Northern Gully Silt Pond to the mine water management system.	Toe bunds proposed at the Northern Gully East and Northern Gully West seepage locations above the Northern Gully Silt Pond to capture seepage currently discharging to the pond. When the Water Treatment Plant is operational, treated water will be returned to the Deepdell Creek above DC07.
Frasers East WRS	Currently seepage is captured within the Frasers East Silt Pond and used within the mine water management system. This is to continue through the mining phase.	Toe bund proposed above Frasers East Silt Pond on closure and completion of the water course re-connecting the headwaters of the North Branch Waikouaiti River across Frasers Pit. When the Water Treatment Plant is operational, treated water will be returned to North Branch Waikouaiti River.
Frasers West WRS	Currently seepage from Frasers West is discharged through distributed seepage locations to the NBWR along the western aspects of the WRS. The southern aspect of the WRS discharges to Murphys Creek Silt	Toe bund proposed where the toe of the WRS meets Murphys Creek. Seepage capture drains proposed along the western aspects of the WRS to capture the distributed seepage and pump to the Water Treatment Plant. When the Water

Location	Current Operation	Proposed System / Modelled Future Operation
	Pond. Water from the silt pond (combined with surface water runoff) is pumped to an infiltration pond reporting to Frasers Pit or Frasers East Sump for use in the mine water management system.	Treatment Plant is operational, treated water will be returned to the North Branch Waikouaiti River and Murphys Creek below the existing silt pond.
Golden Bar (Clydesdale) WRS	Currently seepage water from Golden Bar WRS is discharged to Clydesdale Silt Pond, before discharging to Clydesdale Creek that feeds into Murphys Creek.	The existing Clydesdale Creek Silt Pond will be converted into a toe bund to allow for the proposed expanded Golden Bar WRS. Seepage will be pumped to the Water Treatment Plant for treatment. It is proposed that the treated seepage water be discharged to Murphys Creek reducing long-term permanent infrastructure and energy requirements to pump back to Clydesdale Creek.

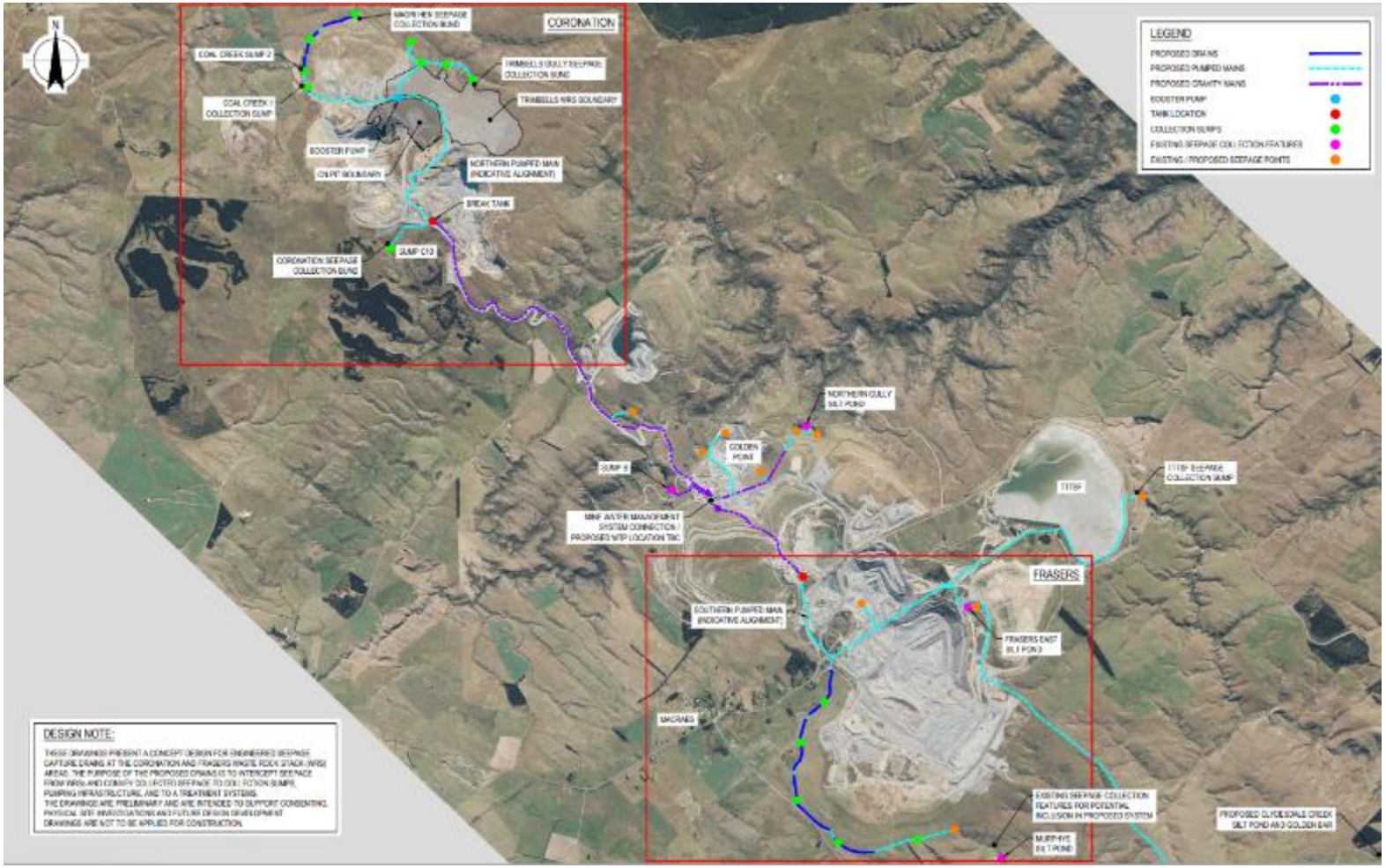


Figure 6-24: Proposed Seepage Capture Systems (Source: GHD, 2026b).

Seepage capture toe bunds are proposed to capture discrete toe seepage. A typical cross section of a toe bund is shown in Figure 6-25. These seek to capture the bulk of the seepage water discharging from WRSs by intercepting the portion of seepage that propagates along the pre-mine topography, or in-situ schist, to the toes of WRSs. These are applicable to seepage within incised gullies.

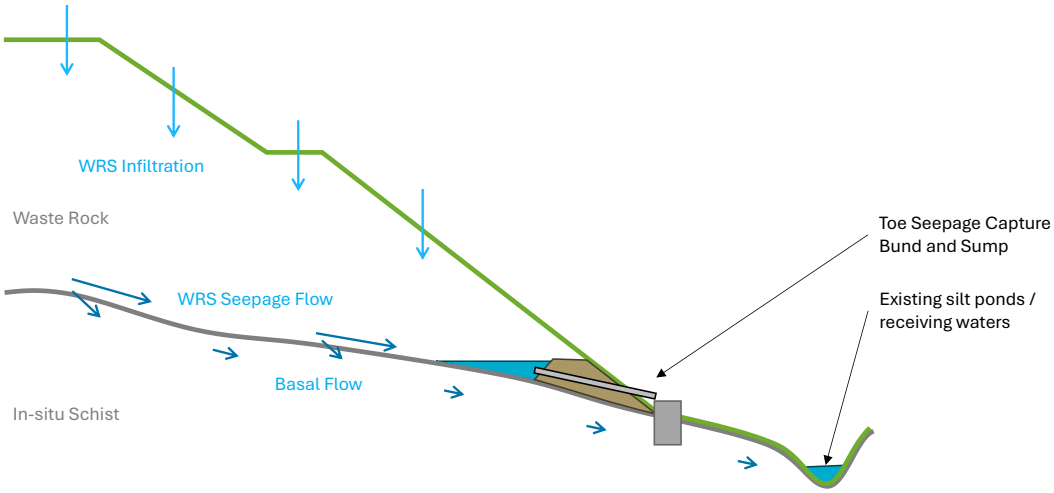


Figure 6-25: Typical Cross-section showing a Toe Seepage Capture Bund and Sump

Seepage capture drains are proposed to capture distributed seepage. A typical cross section of a toe seepage capture drain is shown in Figure 6-26. These function by intercepting the flow path of water being discharged from the toe of the WRS by creating a high permeability drain with a perforated drainage pipeline conveying seepage water to collection sumps.

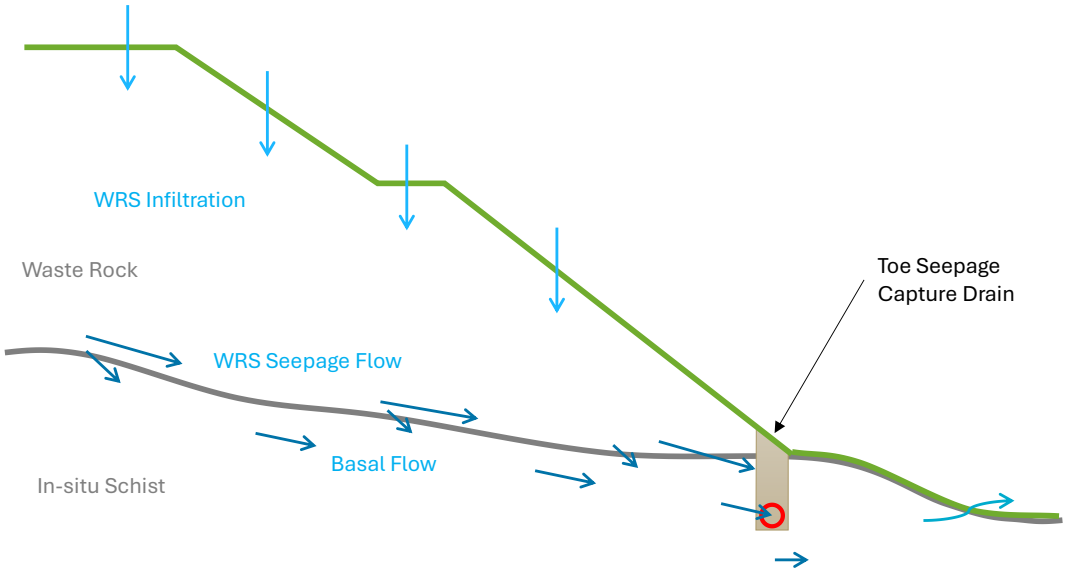


Figure 6-26: Typical Cross-section showing a Toe Seepage Capture Drain

The construction of the new drains will require additional vegetation clearance and may traverse existing seepage wetlands, which tend to develop at the toe of WRSs.

6.7.4 Waste Rock Stack Surrender

A component of MP3 included a significant expansion of the Back Road WRS to the east of the Round Hill/Southern Pit locations, as shown in Figure 6-27. OGNZL has not yet commenced construction of the Back Road WRS extension and does not intend to carry out these works if MP4 proceeds. Therefore, OGNZL proposes to surrender the resource consents for Back Road WRS, should MP4 consents be granted and exercised.

Resource consents for MP3 also authorised an extension to the Frasers WRS complex known as Frasers North WRS. OGNZL has not yet exercised its right to construct Frasers North WRS and does not propose to if MP4 proceeds. Therefore, like Back Road WRS, OGNZL proposes to relinquish its right to construct Frasers North WRS should MP4 consents be granted and exercised. As Frasers North WRS is authorised as part of the broader Frasers WRS complex (by RM10.351.08-12 and the MP3 land use consent) relinquishment will be achieved by replacing the resource consents for the Frasers WRS complex. This will enable authorisation of the Frasers West WRS height raise and rationalisation of the overall Frasers WRS footprint to exclude Frasers North WRS.

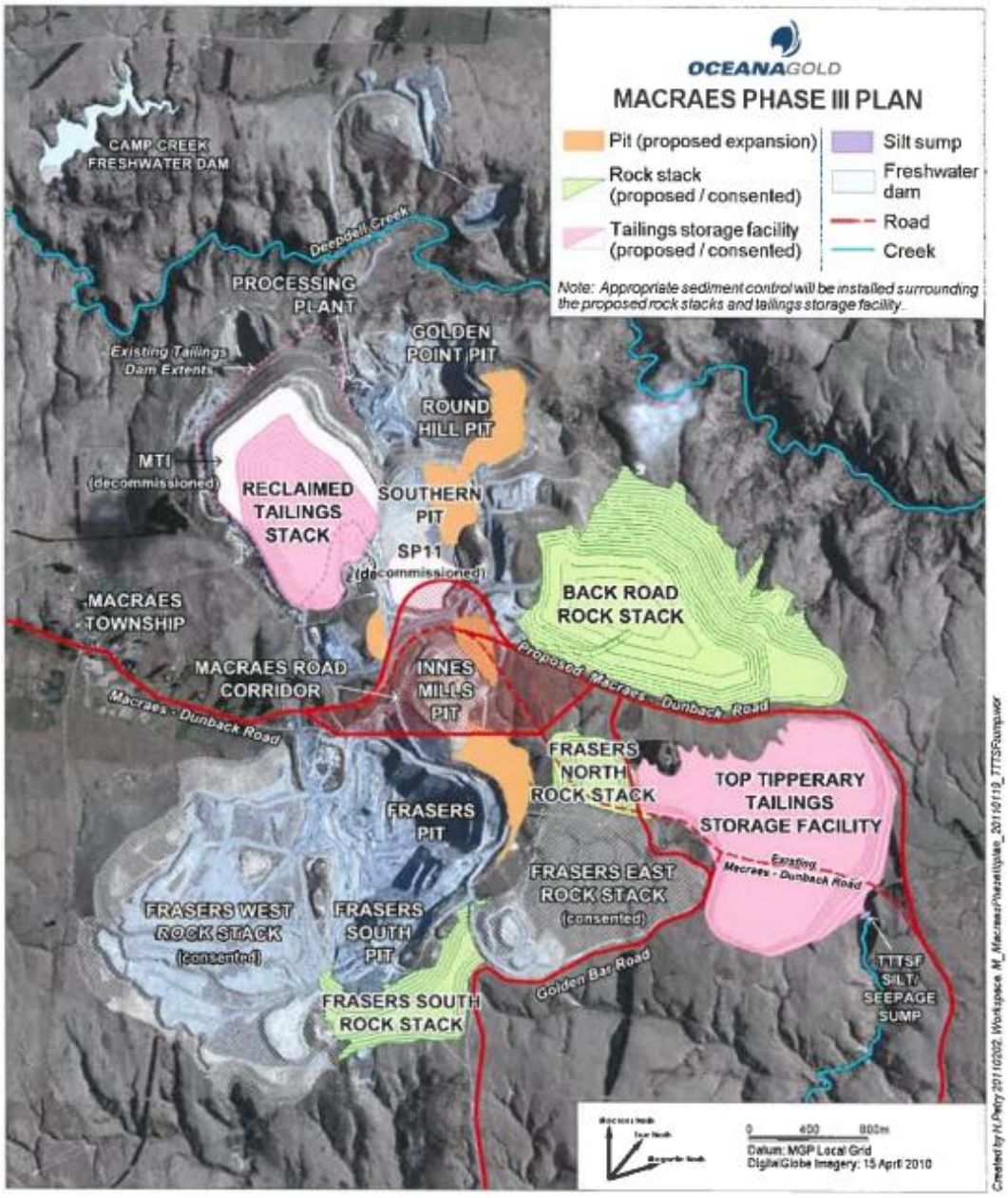


Figure 6-27: **Figure showing Back Road WRS and Frasers North WRS as consented by the MP3 Project.**

6.8 WATER MANAGEMENT

6.8.1 Overview

Viridis (2026b) recommends a new long-term receiving environment surface water quality compliance regime for MP4. OGNZL proposes to transition operations to this new compliance regime by Year 7 following the implementation of the mitigation measures required to achieve the transition as outlined in GHD (2026a). The required mitigation measures include:

- Continued operation of the MWMS;
- Construction and operations of engineering seepage capture systems (refer to Section 6.7.3);
- Interim and long-term water treatment via the Water Treatment Plants Stage 1 and Stage 2 (Section 6.8.3);
- Construction and operation of Coal Creek and Camp Creek augmentation dams (refer to Section 6.8.4); and
- Flushing flows into catchments to manage periphyton growth (Section 6.8.5).

The proposed timing of implementation of the mitigation measures is as follows and reflected in the proposed resource consent conditions in **Part D** of this substantive application:

- Commissioning of Stage 1 WTP no later than 30 months following consent commencement;
- Commissioning of Stage 2 WTP no later than 66 months following consent commencement;
- Commencement of augmentation from the Camp Creek and Coal Creeks Dams no later than 42 months following consent commencement; and
- Construction and implementation of seepage capture drains and sumps no later than 30 months following consent commencement.

This section describes the proposed MWMS and the water quality and flow mitigation measures for MP4.

6.8.2 Mine Water Management System

The various MWMS elements are described throughout this section. OGNZL proposes to continue using water conveyance infrastructure (drains, pumps and pipes) to move water

between the various MWMS elements as required to meet its objectives. MP4 will generate new inputs to the MWMS from seepage capture systems and expanded mine elements.

A comprehensive assessment of the proposed water takes that supply the MWMS is provided in **Part I** of this substantive application.

6.8.3 Water Treatment

6.8.3.1 Water Treatment Plant

To assist in meeting the discharge water requirements recommended by Viridis (2026b), Process Flow (2026a) investigated two active water treatment options to treat wastewater as part of MP4:

- **Reverse osmosis** is a water treatment process that works by forcing contaminated water through semi-permeable membranes and retaining the clean/filtered water on the other side of the membrane. It can strip out up to 99% of dissolved solids, including minerals, salts, heavy metals, fluoride, and most bacteria. Testing reveals that this method is a viable option for MP4.
- **Chemical (ettringite) precipitation** is an advanced chemical treatment process used to remove high concentrations of dissolved sulphate, heavy metals, and other scaling compounds (like calcium) from industrial and mining wastewater. It involves a two-stage process which, when tested, provided good results but would still require a secondary treatment system to provide compliant ammoniacal nitrogen levels.

As set out in WGA (2026a) and shown in Figure 6-28 and Figure 6-29, OGNZL proposes to implement active water treatment in two stages. The first stage will involve the construction of a small (at least 5 L/s) reverse osmosis WTP (“**Stage 1 WTP**”) to treat influent mine water during the early stages of MP4. The second stage involves the establishment of a centralised reverse osmosis WTP (“**Stage 2 WTP**”) to which all captured mine water will be directed and treated, including pumping of water to and from the satellite mining areas. MP4 relies on a reverse osmosis system as the base case for Stage 2, however, ettringite precipitation is promising technology with potential operational benefits and may be considered by OGNZL in the future.

Modelling indicates that the Stage 2 WTP will need to be constructed with capacity to treat up to 45 L/s of influent mine water. Design capacity along with confirmation of the treatment technology will be confirmed in detailed design following an update to the Water Balance Model. Appropriate pre and post-treatment may also be required to ensure compliance with long-term water quality requirements.

The overall Stage 2 WTP may comprise:

- Pre-conditioner facility - pre-treatment with lime or ferric chloride within a treatment pond to remove metals (for reverse osmosis).
- Reverse osmosis or chemical precipitation through an appropriately sized plant;
- Post-treatment (or pre-treatment) via a gravel reactor bed for a reduction in nitrate; and
- Rehardening of water by addition of chloride in a polishing pond.

The waste products produced from active water treatment may contain:

- Brine produced through reverse osmosis, of which contaminants are sulphate, hardness metals (Ca and Mg) minerals and low concentrations of metal products (up to 15 % of influent waters); and/or
- A precipitate from the pre-conditioner or chemical precipitation facility comprising mostly metal contaminants (1 % of influent waters).

Waste streams will be placed into the Frasers TSF during operations. Upon closure of Frasers TSF, any solids residue will be transported to an approved landfill and any brine, will be injected into the old Frasers Underground Mine ("**FRUG**") via a deep well injection. FRUG has a void volume of 5.7 Mm^3, which will provide sufficient storage for the brine.

All treated mine water will be discharged to the locations outlined in Figure 6-30 in accordance with a certified operating procedure or alternatively distributed to the respective catchments in a proportionate way.

6.8.3.2 Treated Wastewater and Vehicle Wash Water

Treated wastewater and vehicle wash water from the Underground Workshop is currently discharged from the existing effluent field to the MTI[21], shown in Figure 6-31. It is proposed that this discharge continues for the duration of underground operations at the site remaining active whilst tailings are hydraulically mined from the MTI as described in Section 6.5.5.3. To avoid interference with working hydraulic mining areas, the effluent field will be periodically relocated within the vicinity of the existing disposal field on the MTI, shown in Figure 6-31.

The existing Open Pit Workshop treated wastewater and vehicle wash water are currently disposed of offsite and this will remain the arrangement for the new relocated workshop.

[21] In accordance with Discharge Permit RM20.089.01

Figure 6-28: Proposed Water Treatment Plant Location

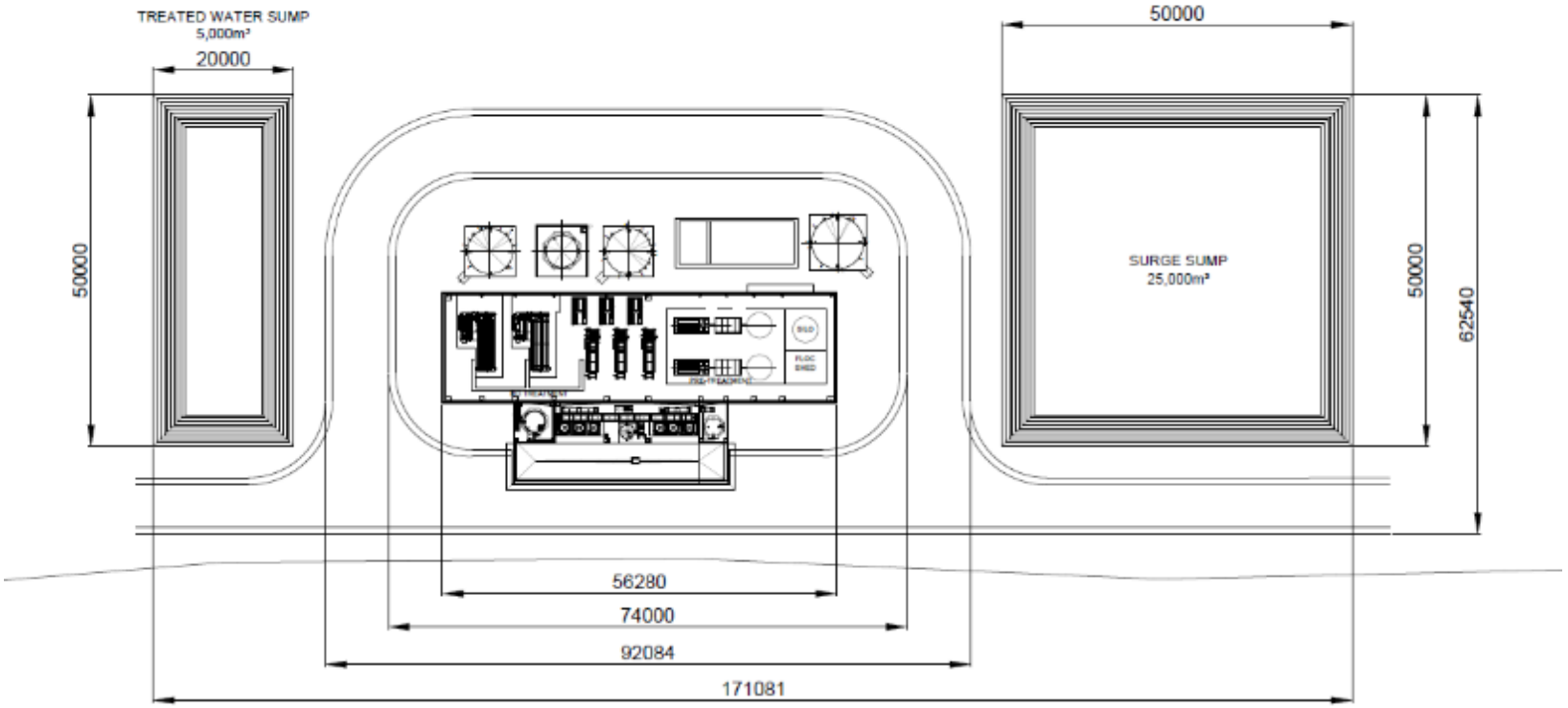


Figure 6-29: Water Treatment Plant Preliminary Layout (Source: Process Flow, 2026a)

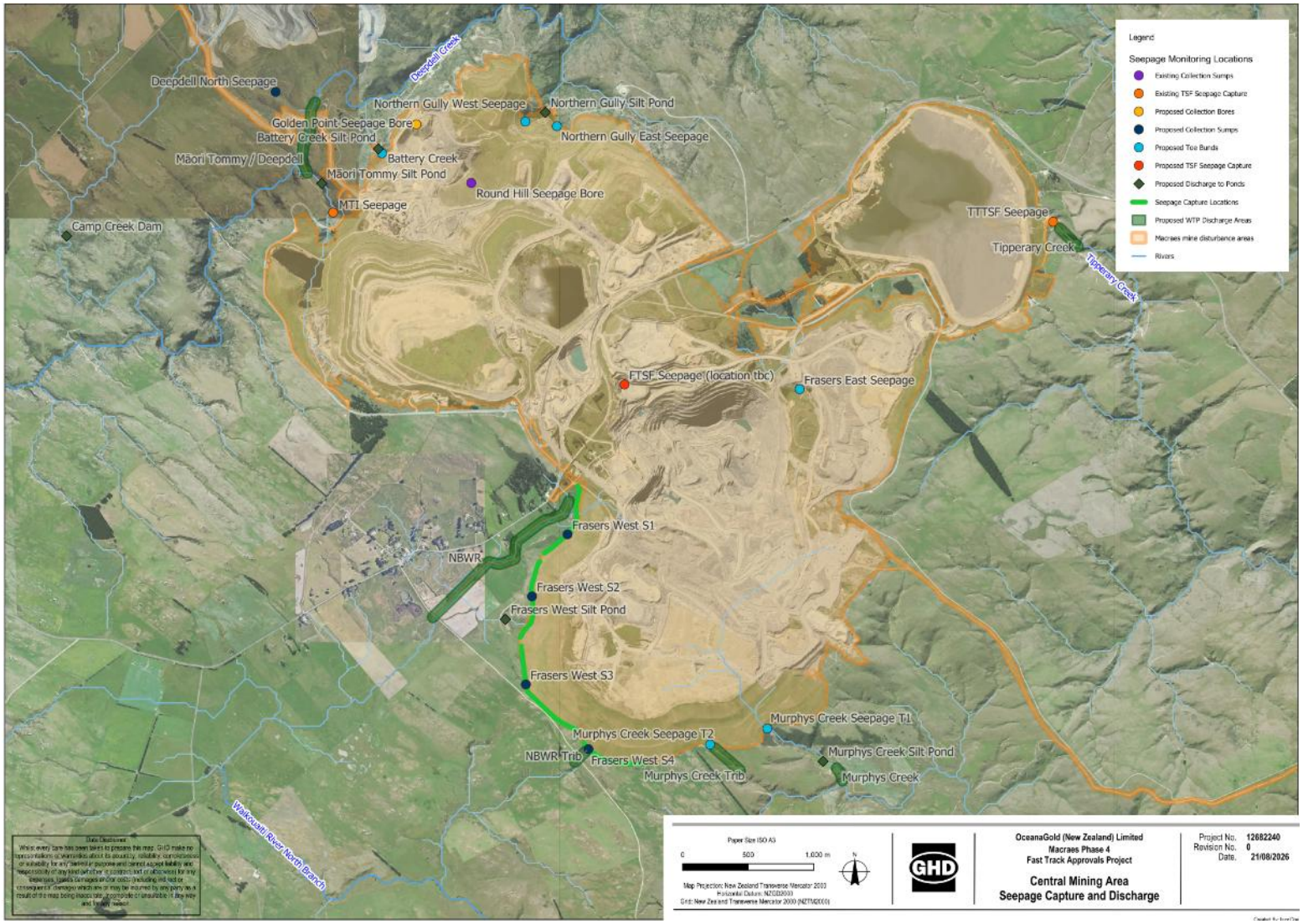


Figure 6-30: Proposed WTP Discharge Locations (Source: Water Monitoring Plan)

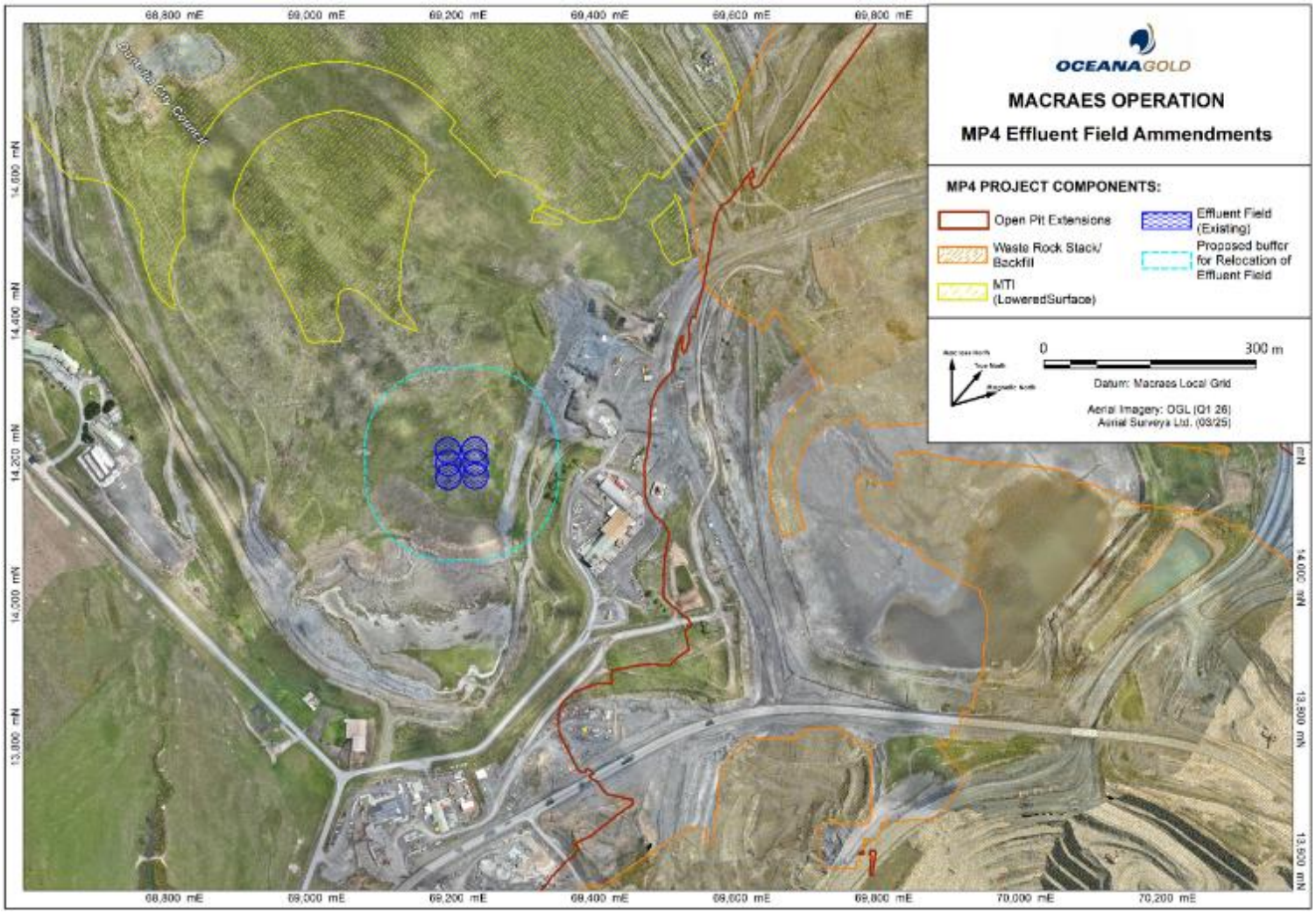


Figure 6-31: Existing and Proposed Effluent Field

6.8.3.3 Other water treatment

MWM (2026d) describes the use of ferric chloride dosing of pit lakes for adsorption of arsenic and recommends bench-scale trials prior to full scale dosing. OGNZL has commenced trials and may utilise ferric chloride dosing for adsorption of arsenic and other metal products in pit lakes and silt ponds for MP4.

6.8.4 Camp Creek and Coal Creek Dams

Camp Creek Dam and Coal Creek Dam are largely consented water storage dams which have not yet been constructed. OGNZL proposes to construct these early in the MP4 schedule for the purpose of providing augmentation and flushing flows (if required) into Deepdell Creek catchment (Camp Creek Dam) and the Mare Burn catchment (Coal Creek Dam) during dry periods. This will assist with the management of instream water quality and enable management of potential eutrophication so that acceptable water quality standards are maintained.

The construction, operation, and maintenance of these water storage dams were consented as a contingency water quality management method as part of the MP3 and Coronation North consenting projects, respectively.[22]

The location of Camp Creek Dam and Coal Creek Dam, including their water storage reservoirs, is shown in Figure 6-32 and Figure 6-33.

In addition to the activities for which consent is already held, establishment of both dams involves activities that constitute earthworks, land disturbance and vegetation clearance within and within 10 m of natural inland wetlands. This will result in the direct loss of 0.24 ha of wetland at Camp Creek and 2.96 ha of wetland at Coal Creek.

[22] These consents do not lapse and may be implemented at any time prior to their expiry on 1 October 2046 and 24 April 2052.

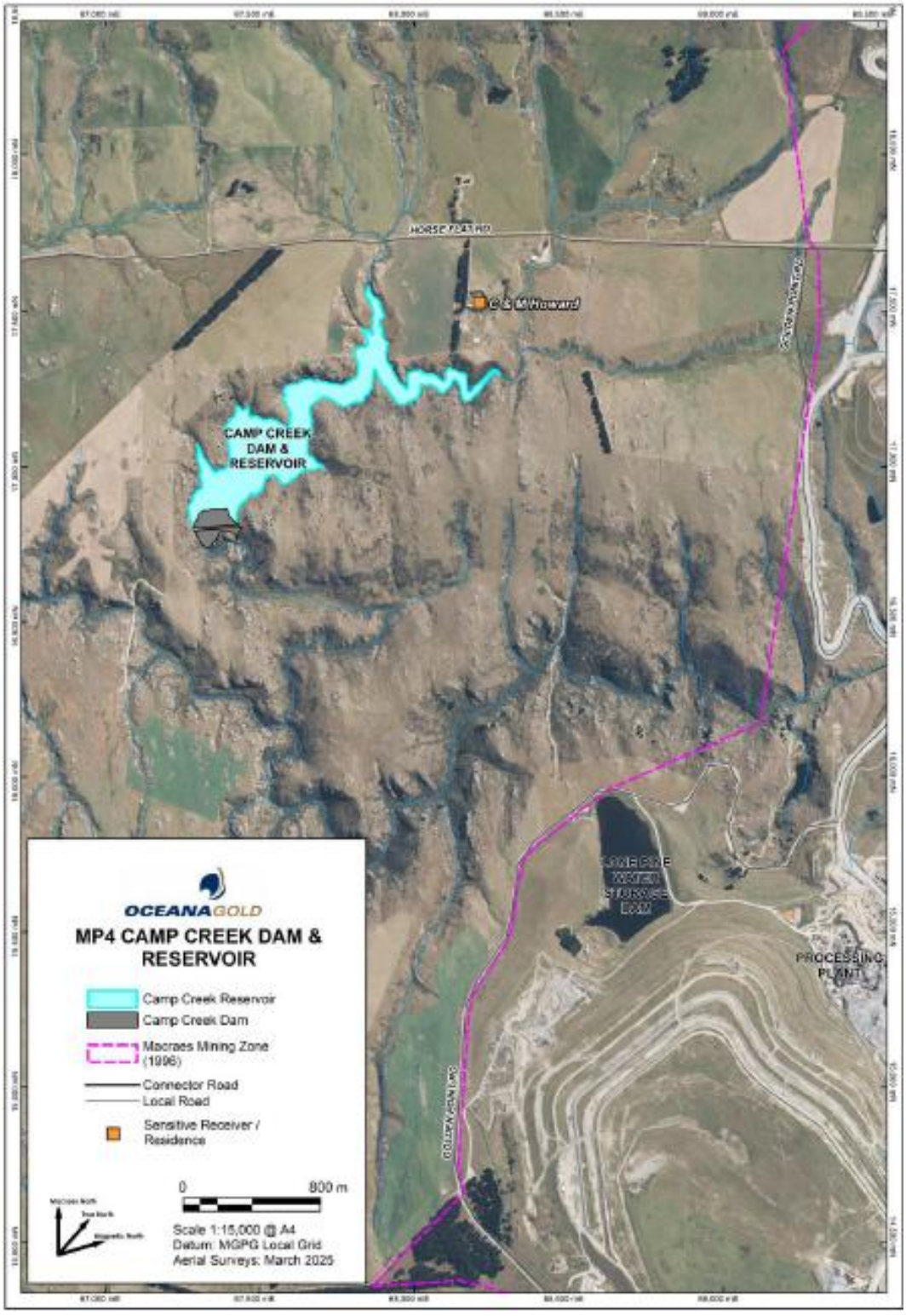


Figure 6-32: Camp Creek Dam Embankment and Reservoir

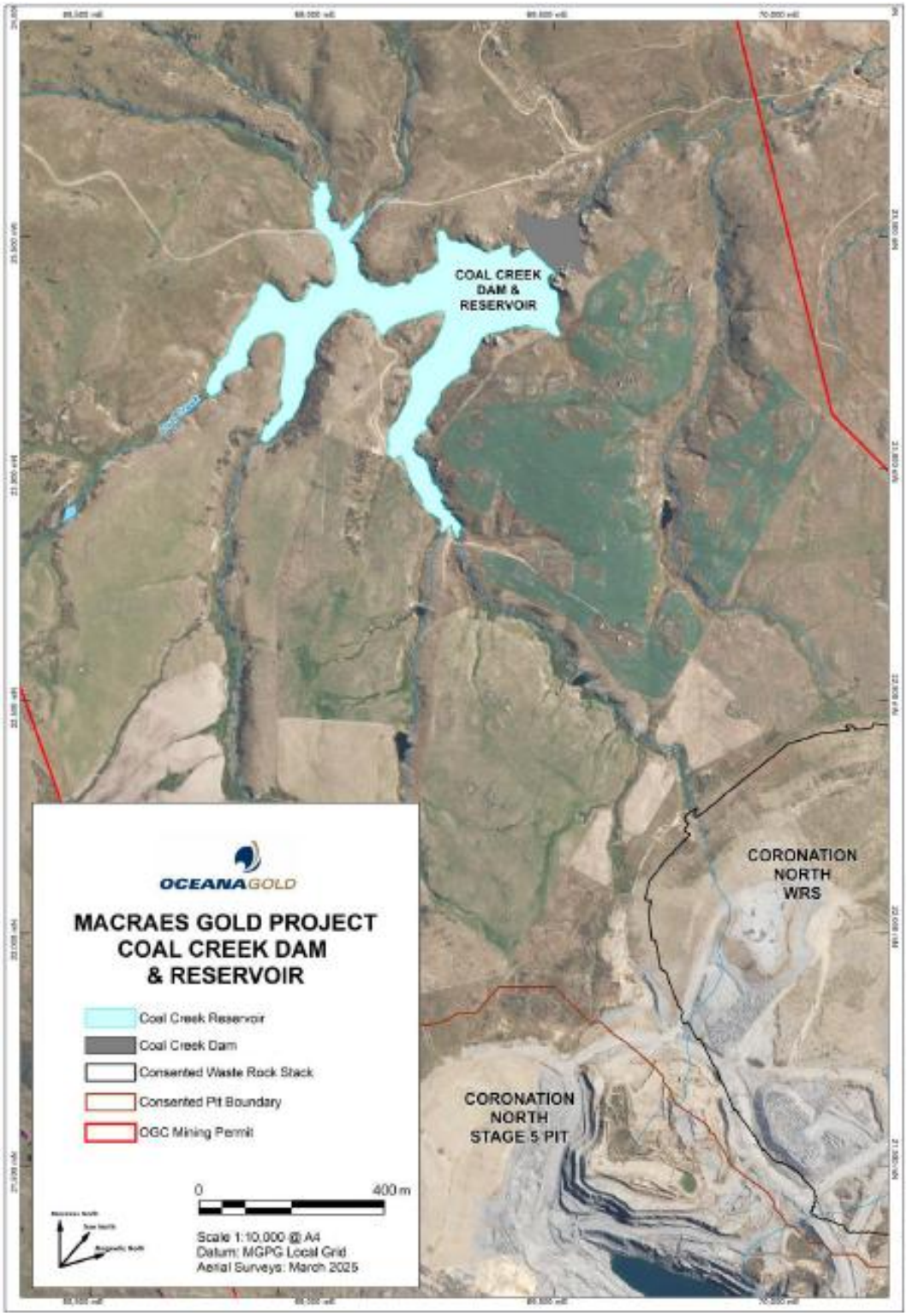


Figure 6-33: Coal Creek Dam Embankment and Reservoir

6.8.4.1 Camp Creek Dam Proposed Operation

GHD (2026a) includes the proposed operation of Camp Creek Dam once it is constructed. The proposal is summarised as follows:

> Maintain a minimum discharge to Camp Creek of 2 L/s from a floating decant to maintain suitable fish habitat downstream, unless incoming flows are lower;

> A variable discharge rate will be discharged to Camp Creek below the dam. The discharge will be flow matched to the established flow gauging site at Golden Point in Deepdell Creek, providing increased flow augmentation at low flows (refer to Figure 6-34);

> Where the dam is at or above capacity, allow free discharge via a constructed spillway to Camp Creek below the dam.

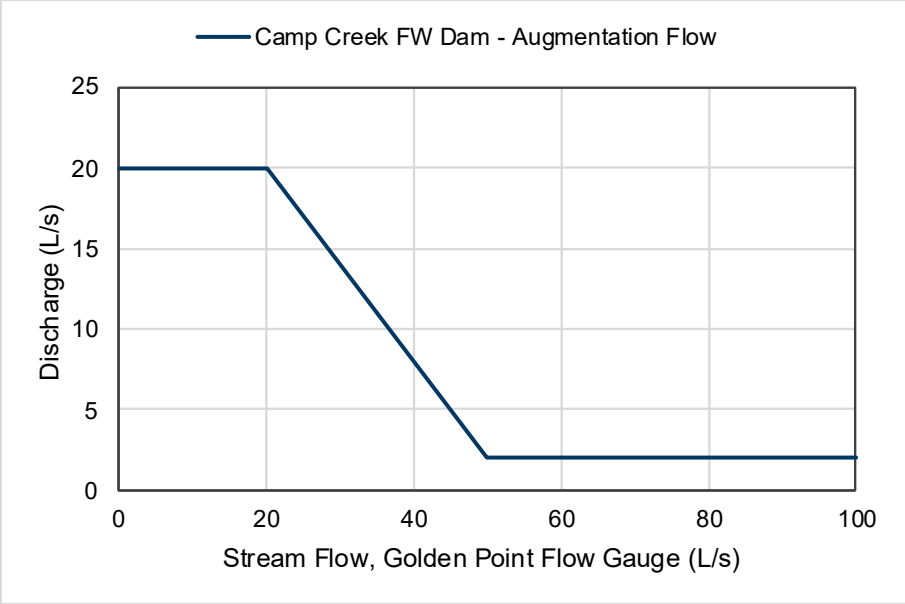


Figure 6-34: Proposed Augmentation Flow for Camp Creek Dam

6.8.4.2 Coal Creek Dam Proposed Operation

GHD (2026a) recommends a revised operational approach, which is proposed for the Coal Creek Freshwater Dam. This will allow a greater length of the Mare Burn to receive the benefits of flow augmentation. The revised approach includes:

> Maintain a minimum discharge to Coal Creek of 3 L/s from a floating decant, unless incoming flows are lower;

> A variable discharge rate will be discharged to Māori Hen Creek or the Mare Burn above MB01 to be achieved by establishing:

- A floating water intake from the surface of the dam;
- A pressure main (pumped) routed from the dam to the discharge location;
- The pipe will discharge into an elevated sump or small pond, then flow over riprap to encourage aeration before joining the stream;
- The discharge will be flow matched to a flow gauging site on the Mare Burn, providing a higher level of flow augmentation at low flows (refer to Figure 6-35); and

- Where the dam is at or above capacity, free discharge will be allowed via a constructed spillway to Coal Creek below the dam.

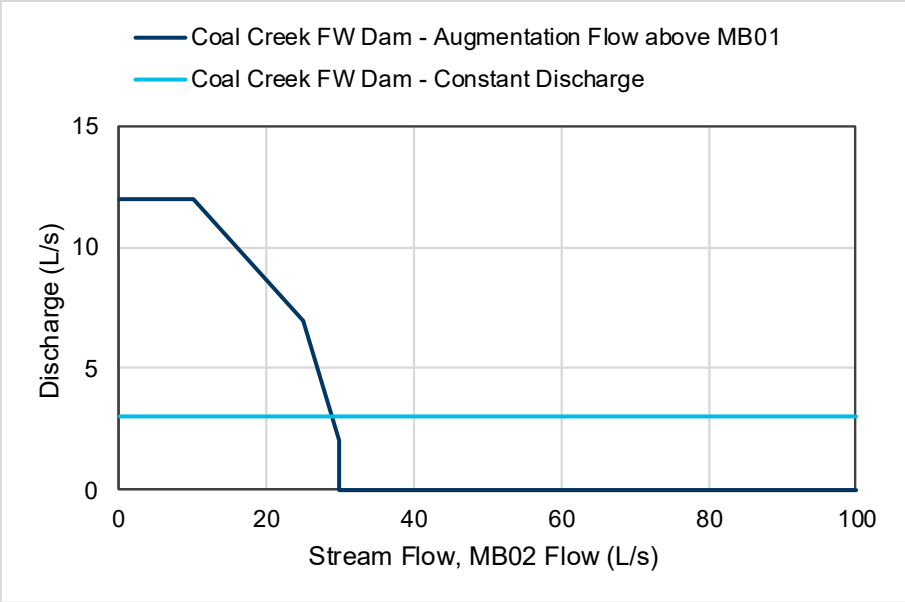


Figure 6-35: Proposed Augmentation Flow for Coal Creek Dam

6.8.5 Flushing Flows

GHD (2026a) includes proposed provisions for flushing flows as required to manage periphyton growth. Although the flow regimes will change as reinstatement progresses and pit lakes develop at the site, the basis for flushing flow provision considers a controlled release of 3 times the median flow for 3 hours at 20-day intervals over 4 summer months (i.e. 6 flushing cycles).

The proposed flushing flows are provided in Table 6-6 below. Camp Creek and Coal Creek dams will be the primary mechanisms for discharge flow control, however discharge from Murphys Creek Silt Pond and Frasers West Silt Pond may also be utilised sourcing the clean water from the WTP. Retrofitting of discharge systems is proposed for the existing silt ponds to allow for this function.

Table 6-6: Proposed Flushing Flow (Modified from GHD, 2026a)

Catchment	Flow (L/s)	Volume (m^3)	Provision
Mare Burn	87	940	Water stored in Coal Creek Dam and pumped to temporary staging points in Māori Hen and Trimbells Gully silt ponds, with controlled release (returned treated water may also be used).
Deepdell Creek	153	1,660	Water stored and released from Camp Creek Dam, with potential for returned treated water to be discharged from Māori Tommy Silt Pond as a secondary discharge.
Murphys Creek	45	490	Water stored and released from Murphys Creek Silt Pond, or an alternative small pond should the water quality in the silt pond not improve substantially following construction of the seepage capture toe bund and pumping of the WRS seepage back to the MWMS.
Waikouaiti River North Branch	60	650	Water treated and pumped to Frasers West Silt Pond for discharge.

6.9 EROSION AND SEDIMENT CONTROL

EGL (2026d) describes the existing Macraes Operation erosion and sediment control measures and identifies the MP4 work areas which pose erosion and sedimentation risk, where revised controls are required.

The existing measures will continue to be implemented at the MP4 site. In summary, the existing measures to be continued at the MP4 site are as follows:

> Divert clean water away from work areas so it does not pick up sediment.

> Use diversion drains and bunds to collect runoff from disturbed areas and direct it to silt ponds.

> Schedule topsoil and loess stripping during dry weather where possible.

> Strip soil progressively to minimise the amount of exposed ground at any one time.

- Leave steep gullies largely undisturbed where practical to act as natural buffer zones that trap sediment.
- Manage stormwater across WRS surfaces to prevent runoff flowing over outer edges.
- Install soak pits on WRS surfaces to allow stormwater to soak into the waste rock, reducing runoff and filtering fine sediment.
- Use staged end-tipped construction methods to create coarse rock drainage layers that improve water infiltration.
- Rehabilitate WRS and tailings storage facility (TSF) embankments progressively by covering with oxidised waste rock, adding topsoil, and seeding with grass immediately to stabilise the surface and reduce erosion.
- Construct benches on WRS and TSF slopes at intervals of no more than 20 m vertical height to slow and control runoff.
- Install sediment controls such as silt fences and decanting bunds in accordance with industry guidelines.
- Use silt ponds to settle out suspended sediment before water is discharged.
- Monitor discharge points regularly to ensure compliance with consent requirements.
- Inspect and maintain silt ponds, drains, and diversion structures regularly to keep them functioning effectively.

The features and attributes of the erosion and sediment control measures and silt pond design features are described further by EGL (2026d). It is noted that these practises have been successful throughout the life of the mine with no major issues observed.

The erosion and sediment control framework for MP4 will build on the existing framework. However, the framework will be adapted to promote surface water runoff rather than infiltration to meet the MP4 objectives for groundwater quality identified in GHD (2026a). The proposed erosion and sediment controls will be based on the following principles:

- Minimise the area and duration of exposed erodible ground;
- Avoid exposing topsoil and loess during wet conditions;
- Progressively stabilise completed surfaces;
- Separate clean water from sediment-laden runoff where practicable;
- Contain runoff within pits, sumps, silt ponds or the mine water management system where available;

- Direct sediment-laden runoff to appropriate treatment or detention before discharge;
- Use existing erosion and sediment controls where they remain suitably located and sized;
- Provide new or revised controls where MP4 works alter catchments, increase disturbance or create new external discharge pathways; and
- Confirm the final controls through various Site Specific Erosion and Sediment Control Plans ("**SSESCP**") prior to works commencing.

Silt ponds / sediment retention ponds will either be hold and release type, to provide substantial detention and operational flexibility if pump back is required, or pass through type retention ponds, often requiring the use of flocculant for earthworks sites (for roading works or WRSs).

A new sediment retention pond is proposed at Trimbells WRS called the "Trimbells Sediment Retention Pond" as shown in Figure 6-36. Temporary sediment retention ponds are proposed at the Macraes Road Realignment and Golden Bar Haul Road.

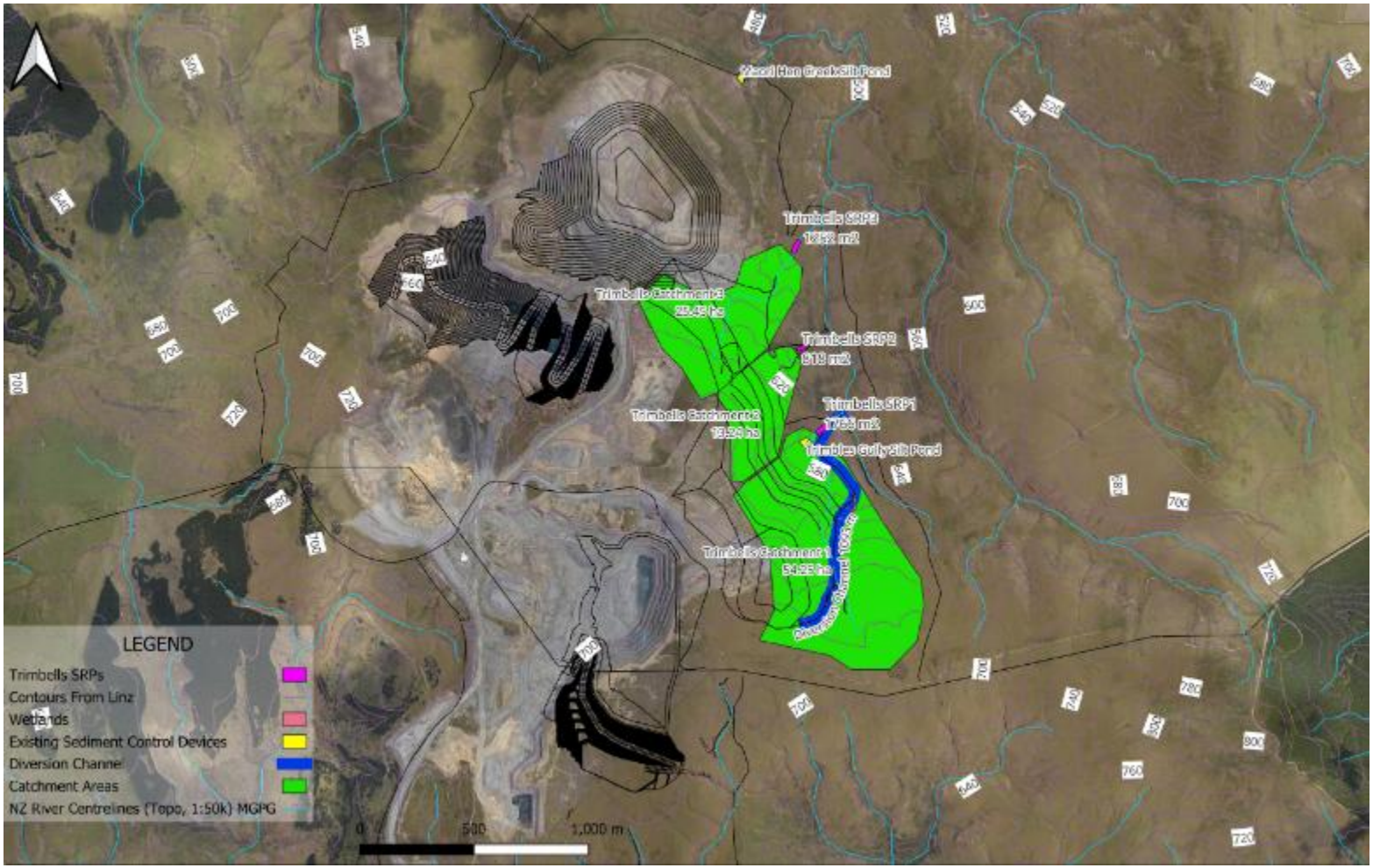


Figure 6-36: Location of Trimbells Sediment Retention Pond (Source: EGL, 2026d)

The project-wide Erosion and Sediment Control Management Plan ("**ESCMP**"), provided in **Part C** of this substantive application, sets out the requirements for the preparation of various SSESCPs. The SSESCPs will be submitted to ORC in accordance with any relevant consent requirements prior to the commencement of earthworks associated with MP4. It is expected that a SSESCP will be required for open pit extension areas, new and existing WRSs and backfill areas, construction of new haul roads and access tracks and realignment of Macraes and Golden Bar Roads.

The SSESCP will include, but will not be limited to the following:

- The specific construction activity to be undertaken and methodologies for construction;
- The area, volume and location of earthworks and streamworks;
- If streamworks are required, the nature of the streamworks at specific locations;
- Identification of the downstream receiving environment;
- Methods for managing construction water effects for specific activities, including design details for the proposed ESC measures;
- Supporting calculations and design drawings;
- Catchment boundaries and contour information;
- The duration of the earthworks and/or streamworks;
- The time of the year that the works are to be undertaken, and where applicable, the measures to be implemented to respond to any heightened weather risks at that time;
- Stabilisation methods and timing to reduce the open area at key locations to assist with a reduction in sediment generation; and
- Chemical treatment (flocculation) of Sediment Retention Ponds.

The following measures are likely to be utilised as part of the SSESCPs:

- Stormwater runoff will be diverted into clean water diversion drains, lined or with small dams located in gullies where required;
- Small bunds and diversion structures will be located in gullies, where required, to divert water into a clean water diversion drain;
- Silt ponds downstream of disturbed areas and decants where appropriate;
- Silt ponds will be located in all gullies downstream of the initial WRS toe fills to mitigate this erosion and sediment control risk;

- If required, additional silt ponds will be constructed on the surface of a WRS area (e.g., if the underdrain system beneath a WRS area is suspected to have insufficient capacity);
- Shoulders of the WRS areas to have benches constructed every 20 m vertical height to slow the velocity of runoff;
- Perimeter surface water drains will be located around the perimeter of WRSs where appropriate to control runoff to gullies without erosion; and
- A series of sediment retention ponds to pick up dirty water run-off from Golden Bar Haul Road.

6.10 NOISE BUND

A noise bund will be constructed as mitigation for noise levels exceeding the permitted activity standards at 1668 Macraes Road (a neighbouring land parcel to the east). The bund will be a maximum height of 4 m above ground level at its southernmost extent, tapering to ground level at the north end as the terrain rises. The indicative size and location of the bund is shown in Figure 6-37.

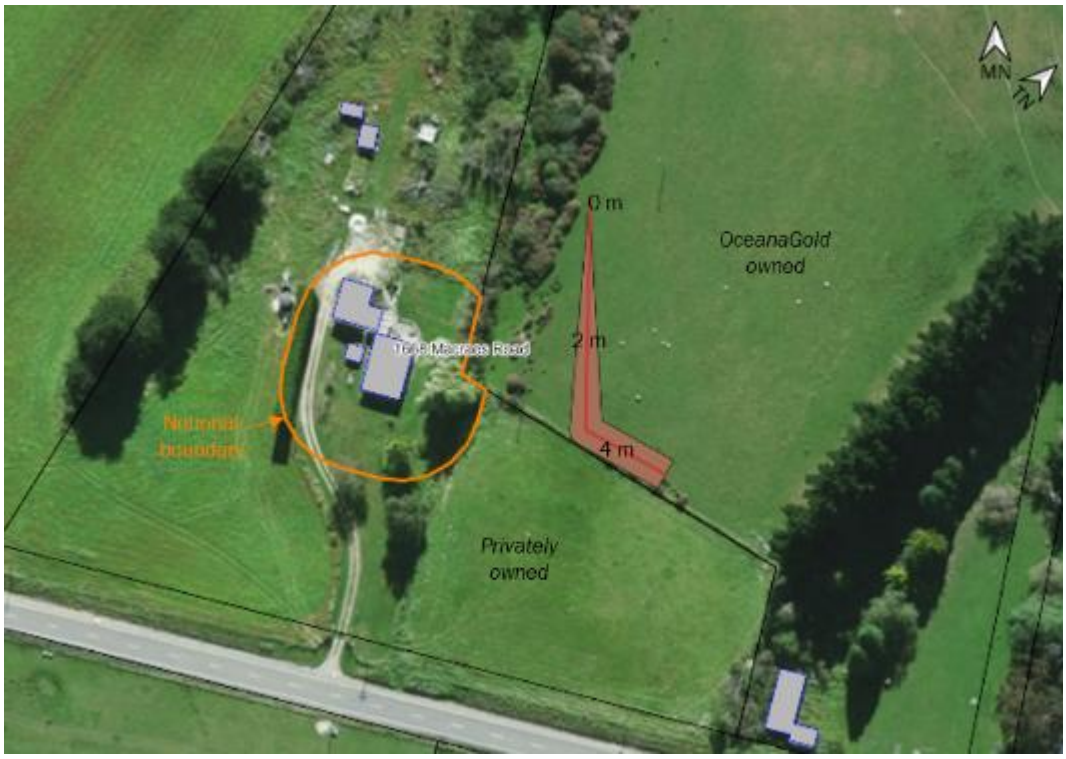


Figure 6-37: Indicative Location for Noise Bund Shown in Red (Source: AES, 2026).

6.11 STORAGE AND USE OF HAZARDOUS SUBSTANCES

6.11.1 Overview

The storage and use of hazardous substances will generally occur in accordance with the existing storage and use practices on site, with the exception of the relocation of the Open Pit Workshop further described in Section 6.5.7.

The existing storage and use of hazardous substances across the Project Site is recorded in the site Hazardous Substances Inventory, and the general approach to managing hazardous substances within the Project Site is detailed in the site Principal Hazard Management Plan (both of which are appended in T+T, 2026b).

All hazardous substances will be stored in approved bunded containment in accordance with the relevant New Zealand Standards and Codes of Practice and the Hazardous Substances and New Organisms Act 1996 ("**HSNO Act**") and Regulations.

All fuel will be stored in secure tanks or packages that have secondary containment. Where substances are stored within secondary containment, the bunding capacity will be a minimum 110% of the largest container and constructed of material impervious to the substance stored. Chemicals will be stored such that incompatible substances are segregated.

External specialised suppliers (with all relevant training and authorisations) will be utilised to deliver and change over the substances outlined above. Signage will be maintained at all entrances to the Project Site, as per the requirements of the HSNO Act and Regulations.

6.11.2 Open Pit Workshop

The nature and approximate quantities of hazardous substances that are stored at the Mining Workshop are proposed to be stored at the relocated Open Pit Workshop, as set out in Table 6-7.

Table 6-7: Proposed Hazardous Substance Storage – Open Pit Workshop and Fuel Tanks

Substance	Hazard Classification	Predicted Max Volume	Storage Location
Acetylene	Flammable Gases - Category 2.1b Gases Under Pressure - Compressed gas	6,700 litres	Open Pit Workshop

Substance	Hazard Classification	Predicted Max Volume	Storage Location
Oils and Greases (Including Waste Oils)	6.1D - acute dermal toxicity Category 4. 6.1E - aspiration hazard Category 1. 6.3A – skin irritation Category 2. 6.4A - serious eye damage Category 1. 6.5B - skin sensation Category 1. 6.9B - specific target organ toxicity – single or repeated exposure Category 2 and 3. 6.9B1 - hazardous to the aquatic environment chronic Category 2 or 3.	No limits required.	Open Pit Workshop
LPG	2.1.1A – flammable gas Category 1.	135.9 kg	LPG will be stored in 45.3 kg cylinders connected to the service at the Open Pit Workshop.
Nitrogen, compressed	Gases Under Pressure - Compressed gas – category 2.3 Simple Asphyxiants	52,200 litres	Compressed nitrogen will be stored in 8.7 m^2 cylinders at the Open Pit Workshop.
Coolants	6.4A - serious eye damage - Category 1. 6.9B - specific target organ toxicity – single or repeated exposure Category 2 and 3 Aquatic Toxicity (Chronic) - Category 3 Reproductive toxicant (developmental) - Category 2	32 litres	Open Pit Workshop
Sealants (Petroseal and Cat Black RTV Silicone Sealant)	Skin Sensitisation: Category 1 Aquatic Toxicity (Chronic): Category 3	201 litres	Open Pit Workshop

Substance	Hazard Classification	Predicted Max Volume	Storage Location
Propane	Flammable Gases - Category 1 Gases Under Pressure - Liquefied Gas	0 litres	Open Pit Workshop
Diesel	3.1D – flammable liquids Category 4. 6.1E – aspiration hazard Category 1. 6.7B – carcinogenicity Category 2. 9.1B - hazardous to the aquatic environment chronic Category 2.	5,000 litres	Open Pit Workshop GGH Tank A, B and C in accordance with WorkSafe NZ Regulations[23]. Mobile trailers in accordance with *Land Trasport Rule: Dangerous Goods 2005* and *NZS 5433:2012*.

6.12 HANDLING, SALVAGE AND TRANSLOCATION OF NATIVE FAUNA

Surveys of the MP4 site undertaken by Bioresearches have identified a variety of lizard species. Bioresearches (2026a) confirms that the Project will result in direct effects on approximately 300 ha of suitable lizard habitat and indirect effects on approximately 180 ha of suitable lizard habitat. In particular, injury and permanent loss of McCann's skink, southern grass skink and korero gecko is expected as a result of the proposed works.

To manage potential effects on these species, OGNZL will implement a Lizard Management and Monitoring Plan, provided in **Part C** of this substantive application. In summary, these measures include:

> pre-clearance habitat checks;

> salvage and relocation where required;

> staged habitat clearance;

> careful removal of refuge material; and

> protection or enhancement of recipient habitats.

[23] Health and Safety at Work (Hazardous Substances) Regulations 2017.

Salvage of lizards is proposed within all suitable lizard habitat within the MP4 site within the recognised South Island lizard salvage season (October to April, inclusive).

Vegetation and lizard habitat removal will be undertaken alongside lizard salvage. Lizards will be 'hard released' (*versus* penned) to Murphys Link as the preferred relocation site, shown in Figure 6-38. Lizards will not be marked as no post-relocation monitoring is proposed, except for the monitoring associated with rock pile construction. At Macraes, rock habitat creation has previously been undertaken at Golden Bar Road, Camp Creek, the Deepdell South rehabilitation site, Coronation and Coronation North. The MP4 Project will affect 64 rock outcrops, comprising 47 outcrops within the impact footprint and a further 17 within the 20 m buffer. Collectively, these features occupy approximately 0.26 ha of rock habitat.

To compensate for the loss of rock habitat, replacement habitat will be created within Murphys Link lizard relocation site at a ratio of 1.2:1 based on rock surface area. This will involve the construction of 62 rock piles, each measuring approximately 10 m long × 5 m wide × 1.5 m high (50 m^2 footprint area; 75 m^3 volume).

6.13 DESTRUCTION AND MODIFICATION OF ARCHAEOLOGICAL SITES

The Project involves the potential modification or destruction of known archaeological features in the following mining areas:

Coronation Pit and Trimbells WRS

- I42/253 – Historic Fence line;

Innes Mills and Macraes Road Realignment

- I42/50 – Chinese Camp;
- I42/49 – Gay Tan's Cottage;
- I42/215 – Innes Farm;
- I42/214 – Griffin House/ Development House and other possible rural domestic sites in the upper township;

Golden Bar Bit and WRS

- I43/190 – Sluicing;

Coal Creek Dam

- I42/98 – NZ Gold and Tungsten Battery;

> I42/221 – Coal Creek Alluvial Workings;

Camp Creek Dam

> I42/148, I42/149, I42/150, I42/151, I42/152, I42/155, and I42/156 – Camp Creek Alluvial Workings: water race, prospecting pits, alluvial workings, and associated hut foundations;

MEEA

> I43/191 – Murphys Creek Alluvial Mining;

> I42/256 – Stacked schist culvert; and

> I42/257 – Fence Line.

In addition, the Project may encounter and affect unknown archaeological features within any area requiring land disturbance.

6.14 ECOLOGICAL ENHANCEMENT AND RESTORATION

6.14.1 Terrestrial

The terrestrial offsetting and restoration approach, described in Bioresearches (2026g), the Residual Effects Terrestrial Restoration Plan and the Vegetation and TAR Flora Management Plan (provided in **Part C** of this substantive application), integrate revegetation and enhancement actions, supported by predator management, to deliver both short-term and long-term biodiversity gain. Central to this offset and compensation package is the proposed establishment of an ecological enhancement area in the Murphys Creek catchment called the Murphys Ecological Enhancement Area ("**MEEA**"). In addition to the MEEA, the enhancement includes Cranky Jims Link to link habitat between two existing Ecological Covenants. It also includes the removal (de-afforestation) of recently planted pine trees from an area of 265 ha at Mt Highlay Station, to avert the loss of lizards and lizard habitat.

The MP4 terrestrial compensation package, including wetland creation, restoration and enhancement, is summarised in the schematic provided in Figure 6-38.

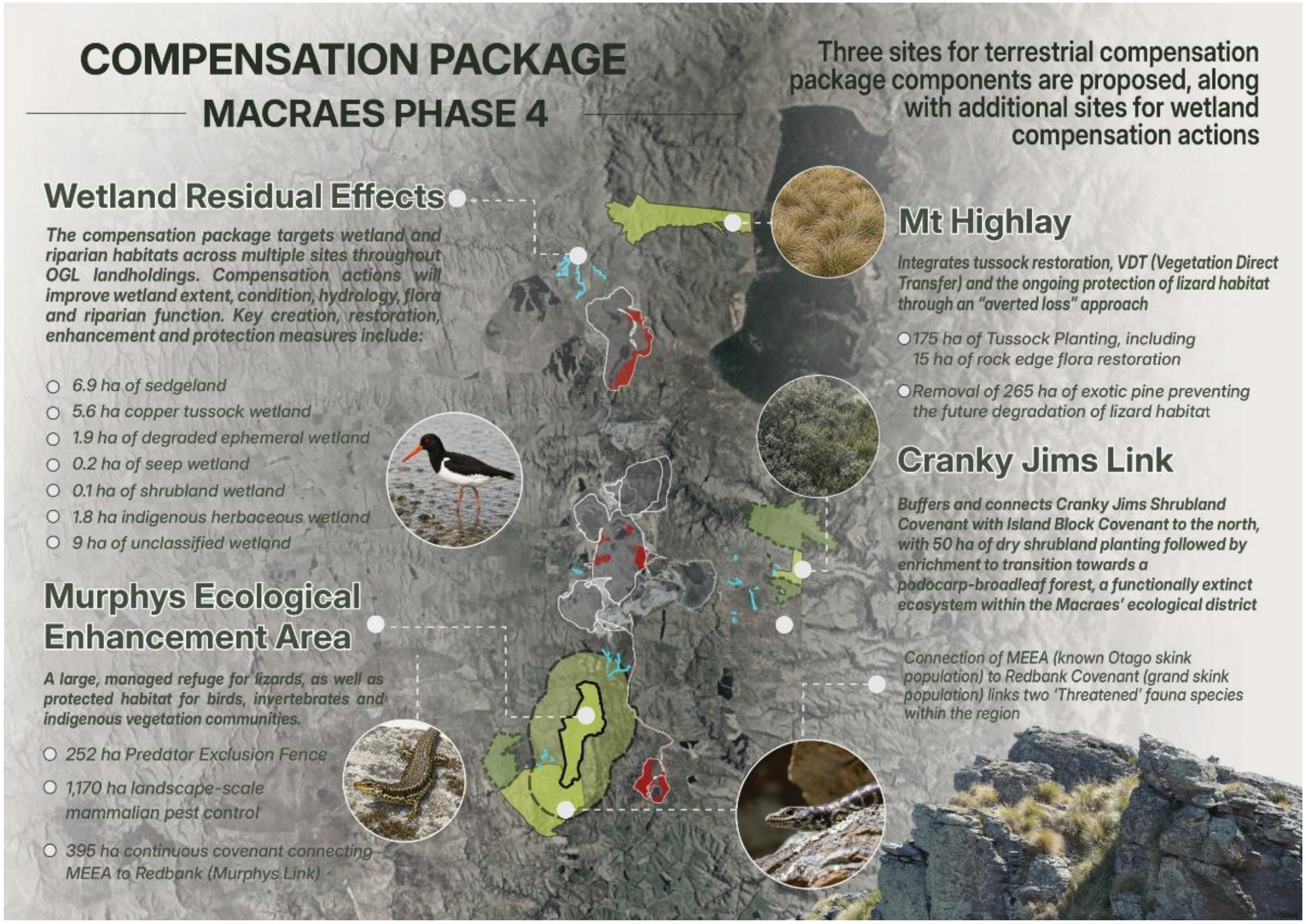


Figure 6-38: Schematic of Proposed MP4 Terrestrial Compensation Package (Source: Bioresearches, 2026g)

6.14.1.1 Murphys Ecological Enhancement Area

The MEEA will be fenced to cover approximately 252 ha with an additional 1,170 ha pest control buffer extending approximately 1 km beyond the fence boundary. In addition, 395 ha of continuous covenant connecting the MEEA with Redbank will be created called Murphys Link. The extent and location of the MEEA and Murphys Link is shown in Figure 6-38 above. The location of MEEA has been selected on the basis of its proximity to the Golden Bar and Innes Mills pits, the similarity of vegetation to that being affected, diversity of habitat types, and enhancement potential.

The activities proposed as part of the establishment of the MEEA include:

- Large scale enhancement and protection in perpetuity of approximately 356 ha of existing snow tussock, 41 ha dry shrubland and 31.5 ha of rock habitat in the MEEA and Murphys Link;
- Creation of Murphys Link (395 ha), connecting MEEA with the existing Redbank Station Covenant and other protected habitat to strengthen the ecological continuity for lizards;
- Construction of a 252 ha predator proof fenced area and other fences to support stock management and predator control;
- Removal of mammalian predators within the fenced area and maintenance of pests to levels within allowable thresholds as set out in the Pest Control and Elimination Plan (provided in **Part C** of this substantive application);
- An all-weather access track from the public roading network, including culverts or fords at river crossings for access to and maintenance of the MEEA;
- Fence maintenance tracks and culverts at the points where the predator fence crosses major drainage gullies; and
- Construction of site offices, equipment sheds and park up areas.

6.14.1.2 Cranky Jims Link

Cranky Jims Link will restore vegetation between the currently isolated Cranky Jims Shrubland (47.20 ha) and Island Block Covenant (291.55 ha) shown in Figure 6-38. The purpose is to restore indigenous habitat, reduce fragmentation and edge effects, and improve opportunities for indigenous fauna to move between feeding, shelter and breeding habitats. The following is proposed at Cranky Jims:

- Approximately 50.59 ha of dry shrubland and dry shrubland restoration planting;
- 0.56 ha of tor and rock outcrop protection;

- 6.58 ha of existing dry shrubland protection; and
- Stock-proof fencing around the proposed dry-shrubland planting and Cranky Jims Shrubland Ecological Covenant.

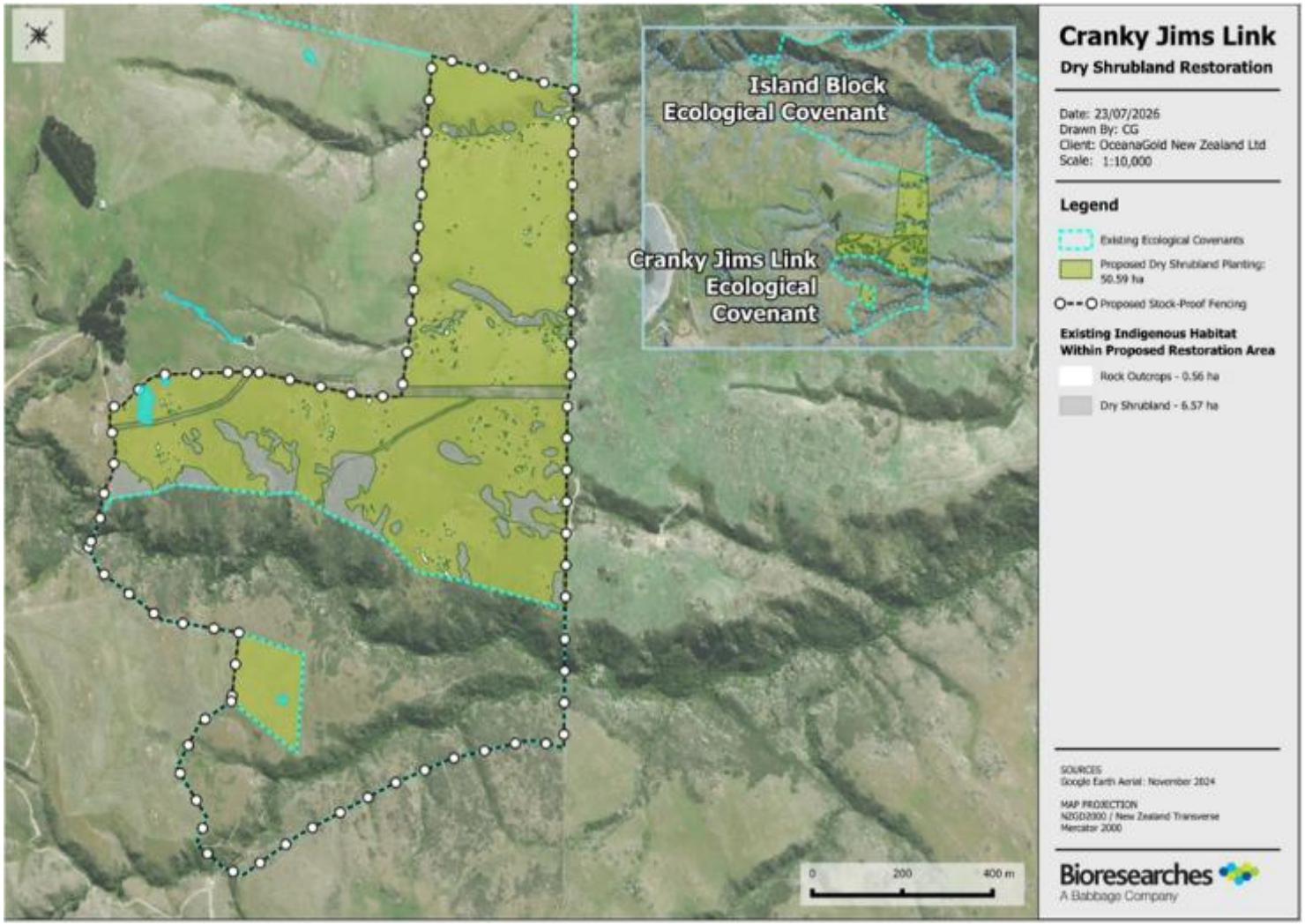


Figure 6-39: Proposed Cranky Jims Link

6.14.1.3 Mt Highlay

Bioresearches (2026g) details the proposed removal of 265 ha of existing pines, including the Douglas fir, *Pinus radiata*, and hybrid pine (*P. radiata* × *P. attenuata*) from the recent afforestation which occurred in 2023 at Mt Highlay Station. This will be followed by the planting of 175.65 ha of snow tussock revegetation, protection of 18.66 ha of existing tussock, 0.74 of dry shrubland protection and 4.07 ha of rock outcrop (tor) protection as shown in Figure 6-40. The purpose is to avert the loss of three lizard species (McCann's skink, southern grass skink, and kōrero gecko) found at this site. These species rely largely on sun exposure for survival and are unlikely to persist under dense canopy conditions.

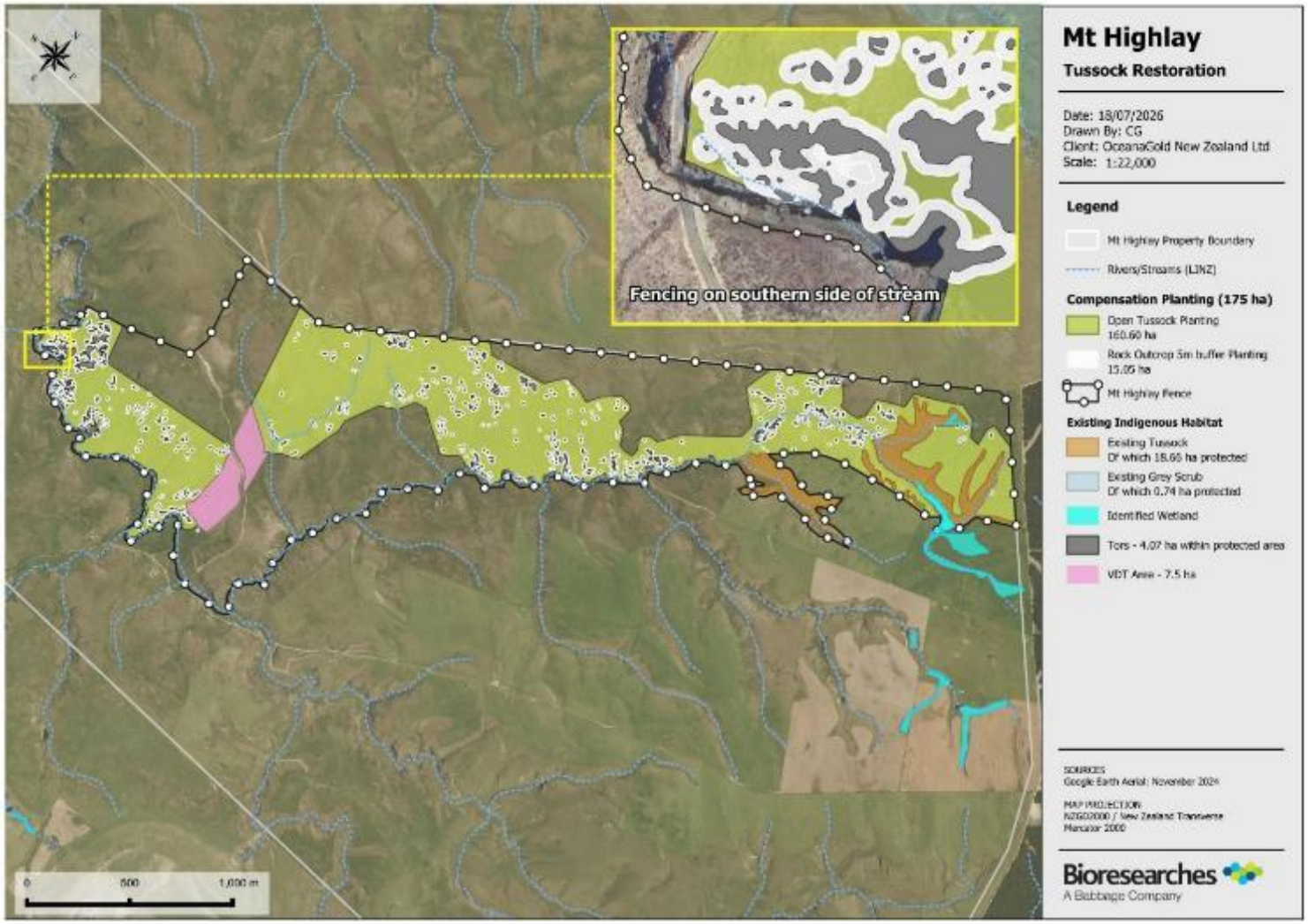


Figure 6-40: Proposed Tussock Restoration at Mt Highlay Station

6.14.2 Wetlands

The wetland loss will be compensated for by undertaking the activities proposed in Bioresearches (2026h), the Residual Effects Wetland Restoration Plan and the Vegetation and TAR Flora Management Plan, provided in **Part C** of this substantive application. The wetland compensation approach includes the following:

- 2.78 ha of existing degraded ephemeral wetland enrichment and enhancements;
- 5.48 ha of sedgeland restoration, enhancement, planting, buffering and stock exclusion;
- 5.06 ha of "Copper tussock" wetland establishment and enhancement, including planting, buffering and stock exclusion;
- 0.12 ha of shrubland wetland restoration and protection, including buffering and stock exclusion;
- Throughout Murphys Link, 0.22 ha of headwater seep wetland protection and stock exclusion;
- Throughout Murphys Link, 0.96 ha of wetland, and 2.48 ha of unclassified riparian vegetation protection and stock exclusion;
- Enrichment and establishment of Threatened and At Risk wetland plants throughout the compensation wetlands, including those salvaged from the impact wetlands; and
- Throughout Camp Creek and Coal Creek, restoration, establishment and enhancement of 1.47 ha of sedgeland wetland, 0.54 ha of copper tussock, various Threatened and At Risk wetland plants, and the protection and stock exclusion of 9 ha of wetland.

The locations of the compensation areas will be within OGNZL Landholdings and are located within Murphys Link, Cranky Jims Link, and Macraes Central Mining Area, shown in Figure 6-41 below.

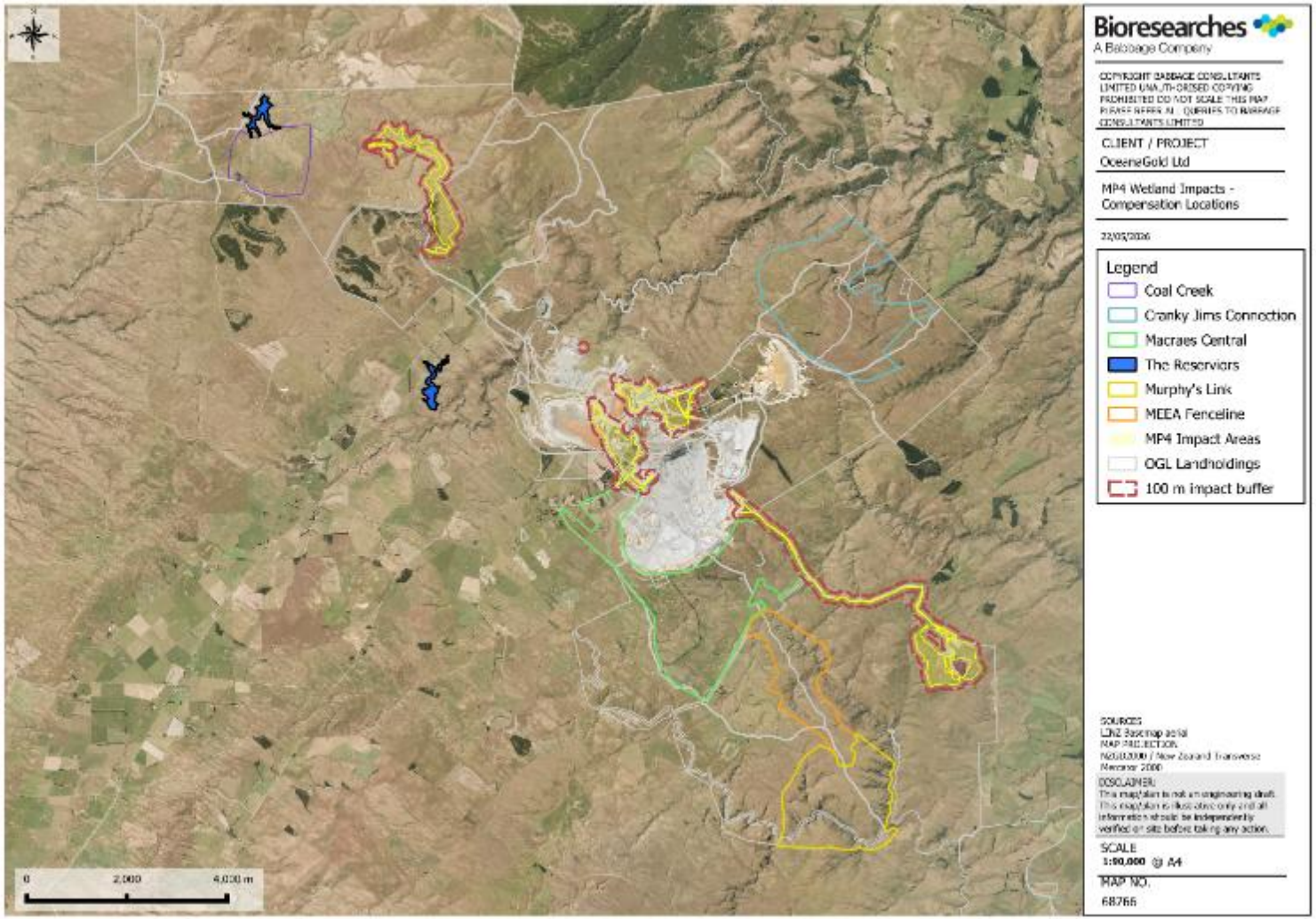


Figure 6-41: Location of Four Compensation Areas for Wetland Restoration

6.14.2.1 Management and Monitoring of Indirect Effects

OGNZL propose to implement a range of management and monitoring measures, included in the Wetland Management and Monitoring Plan, provided in **Part C** of this substantive application. These measures are intended to manage the indirect effects on wetlands as a result of MP4 and include:

- Water level monitoring through the installation of level loggers (within shallow dipwells or piezometers) with the implantation of trigger levels and management responses;
- Fencing around wetlands to be used as delineation and identification;
- Translocation of Threatened and At Risk species from wetlands within the impact area and within 80 m of the MP4 Project area to equivalent habitats within the enhanced wetlands; and
- Dust suppression and sediment control measures.

6.14.3 Streams

The stream loss will be offset and compensated for by undertaking restoration and enhancement activity described in Viridis (2026a) and in the Stream Compensation Plan, provided in **Part C** of this substantive application.

To compensate for the loss of stream habitat described in Section 6.4.1.4 (Trimbells Gully) and Section 6.6.1.1(Clydesdale Creek), it is proposed to restore and enhance sections of both the North Branch Waikouaiti River upstream of Red Bank Road and Murphys Creek. This compensation will comprise the following:

- 640 m of Murphys Creek enhancement, with 20 m riparian planting from the stream edge where practicable; and
- 950 m of North Branch Waikouaiti River enhancement, with 10 m riparian planting from the stream edge and instream boulder placement to improve habitat heterogeneity.

Figure 6-42 shows the impacted reaches and those that will be compensated in the MP4 site.

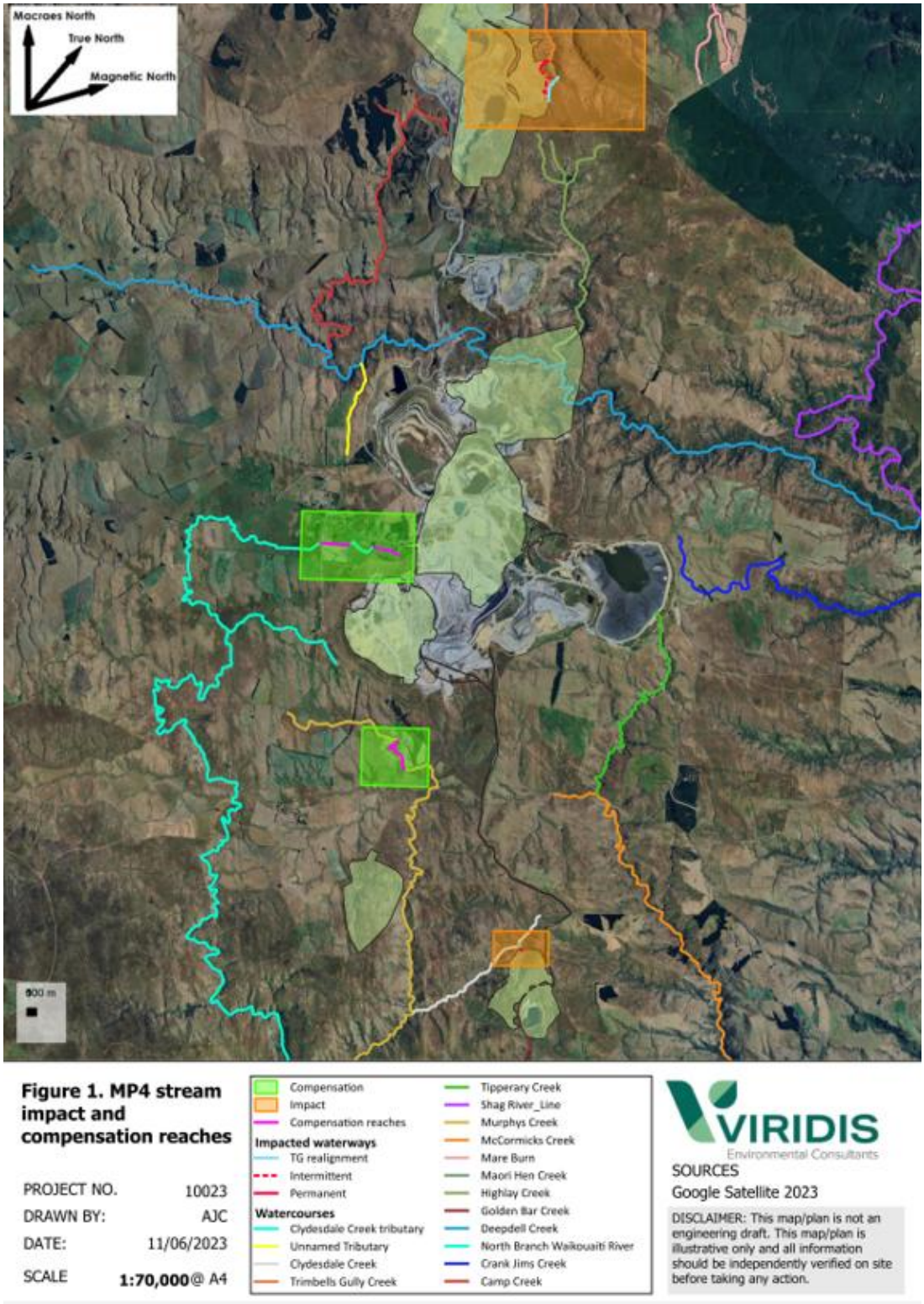


Figure 6-42: Stream Impact and Compensation Reaches

6.15 REHABILITATION AND CLOSURE ACTIVITIES

6.15.1 Overview

Following completion of mining activities, the mine will be closed, dismantled, equipment removed, and the site rehabilitated, unless infrastructure is required to remain or can be utilised for other purposes. This will be undertaken in general accordance with the Concept Mitigation and Closure Plans provided in **Part C** of this substantive application. Other management plans that guide management of the site into and beyond closure will continue to be implemented, these include the various ecological management plans and the Landscape Rehabilitation Strategy and Management Plan, provided in **Part C** of this substantive application.

The current mine closure strategy involves the creation of lakes in open pits and shaping and rehabilitating other mining landforms to create a range of suitable post mining land uses.

To provide for suitable post mining land uses, the rehabilitation objectives that are specified in existing or proposed resource consent conditions relating to the mine are:

- To ensure short- and long-term stability of all structures and works and their surrounds;
- To avoid creating a need for maintenance after completion of rehabilitation requirements;
- To protect soil from erosion and to protect water from contaminants affected by mining operations;
- To stabilise and rehabilitate the banks and surrounds of any waterbodies;
- To return land as closely as possible to its original condition, including any exotic pastoral and indigenous species appropriate to the area;
- To visually integrate finished structures, landforms and vegetation into the surrounding landscape so they appear to be naturally occurring features; and
- To control invasive environmental weeds, including wilding conifers, in the disturbed land for the life of the mine.

The rehabilitation strategy, as detailed in the Landscape Rehabilitation Strategy and Management Plan and visually in the Concept Mitigation and Closure Plans, will be used to achieve these objectives. Actions are summarised below:

- Creation of permanent engineered WRSs at Coronation, Coronation North, Trimbells, Frasers West, and Golden Bar;
- Pit benching and creation of batters and edges;

- Parts of Coronation Pit, Coronation North Pit and Innes Mills Pit will be partially backfilled on completion of extraction;
- The Frasers TSF will hold the tailings from the ore processing in perpetuity, and dry capped on completion of extraction;
- The upper MTI will be removed and relocated to the Frasers TSF;
- Pit Lakes will be created at the base of Golden Bar Pit and part of Coronation, Coronation North and Innes Mills Pits. These will either intersect with pit benching, batters and edges, or open pits backfill;
- Pit disturbance areas, modified ground surrounding the MP4 open pit extensions, will be rehabilitated;
- The Workshop Buildings and Plant, used primarily during extraction, will be removed on completion of extraction;
- Haul Roads will connect the extraction areas, Processing Plant and WRSs located within the three mining areas;
- Permanent Water Diversion of a tributary of Waikouaiti River North Branch will be created across the embankment adjoining Macraes Road above the Frasers TSF;
- Spillways will be constructed to enable any excess lake water overflow to discharge to the wider water catchment;

6.15.2 Backfills, WRSs and Other Operational Areas

WRS rehabilitation will be undertaken in accordance with the Waste Rock Stack Management Plan, provided in **Part C** of this substantive application. Consistent with current practices, WRS slopes will be designed and constructed in accordance with the following principles and revegetated progressively to ensure they are complementary to the existing landforms upon closure:

- Slopes shall be suitably concave or convex in cross-profile to match nearby natural slopes;
- Slope gradients shall be no steeper than nearby natural surfaces unless required to minimise infiltration;
- Transitions between natural and formed surfaces shall be rounded and naturalised;
- Contours should be curvilinear in plan form, in keeping with original natural contours in that area;
- The skyline shall be variable and curved, simulating natural skylines;

- New landforms shall be aligned and located so they seem to continue, not cut across, existing landscape patterns; and
- Silt ponds shall be removed and the site rehabilitated or converted to stock water drinking ponds where they are no longer required as part of the ongoing site water management.

All other disturbed areas will be rehabilitated using the standard site rehabilitation techniques described above and in accordance with the rehabilitation objectives.

EGL (2026a) and EGL (2026b) details the proposed site closure activities for the MTI, SP11 and Frasers TSF and this is summarised below.

6.15.3 MTI

The proposed rehabilitation and closure strategy for MTI involves construction of a dry cover (dry cap). This will allow the area to be rehabilitated and returned to the pre-mining land use. An outlet will be constructed on the western side of MTI to discharge surface water to an existing drainage channel along Golden Point Road, into Lone Pine Reservoir as shown in Figure 6-43 below.

Figure 6-43: MTI Closure Concept (Modified from EGL, 2026a)

The removal of the upstream lifts of MTI will expose the original ground surface at the southern portion of the facility. In preparation for closure, residual tailings overlying exposed ground at the southern extents of MTI will be mechanically removed. Tailings remaining in the northern portion of the facility will be retained by the downstream embankment.

In closure, the MTI will be dry capped to manage dust and erosion. Closure capping is proposed to comprise a minimum of 300 mm thick brown rock, overlain by a minimum of 200 mm topsoil to allow rehabilitation of the TSF surface.

The closure dry cap will be shaped such that surface water will fall towards the closure outlet, comprising a spillway cut into rock at the western embankment.

Minor earthworks (5 to 15 m of fill) below the western embankment are required to direct water to an existing drainage channel to the west of the stockpile located south of Lone Pine. The closure outlet spillway will be designed to pass the Inflow Design Flood ("**IDF**"). The magnitude of the IDF will depend on the Potential Impact Classification ("**PIC**") in closure.

The closure capped tailings surface has been assumed to fall from 514.5 mRL at the northeastern side of MTI, to approximately 509 mRL at the western side of MTI, at a 1V:170H gradient.

6.15.4 SP11 Embankment

Water balance modelling undertaken by MWM indicates that a pit lake will form within IM Pit following closure. Pit lake levels are assessed to rise immediately post-closure period, reaching approximately 400 - 410 mRL within 5 years. Thereafter, lake levels are expected to increase more gradually, reaching 440 mRL at 20 years post-closure. Over the longer term, IM Lake levels are assessed to stabilise at approximately 465 to 475 mRL after 50 to 70 years.

The elevation of the natural schist rock at the Southern Pit 11A embankment is approximately 460 mRL. Once the IM Pit lake levels exceed 4 m above natural rock level (approximately 464 mRL post-closure), a large dam will form as the SP11 embankment impounds more than 4 m of water. This is expected to occur between 40 and 50+ years post closure.

The proposed rehabilitation and closure strategy for SP11 involves establishing a low PIC water dam through reprofiling of the SP11 embankment, and construction of an outlet channel in rock (refer to the Concept Mitigation and Closure Plans in **Part C** of this substantive application). The outlet will discharge to an earth lined channel, west of Golden Point Backfill, and flow to Deepdell Creek. Rock armour will be required for erosion protection along steeper channel sections.

Part of the SP11 embankment will remain in closure with the crest reduced to 520 mRL and the remaining upstream face reprofiled. The upstream face is compacted Zone A material (i.e. weathered brown rock) and will require topsoiling for closure. The SP11 embankment is assessed to impound a maximum height of up to approximately 15 m of water in closure under flood conditions.

The upstream cut off drain and tailings underdrains will be disestablished and collector pipes sealed in preparation for Innes Mills Lake water impoundment behind the embankment.

A cut will be made to the embankment to create a closure spillway. The spillway outlet channel will comprise a concrete weir cut in rock at an invert of approximately 473 mRL and will be designed to pass the IDF. This allows pit lake water quality to be managed through selective pumping and treatment as necessary or release if suitable water quality, with the outlet channel functioning to pass water during extreme flood events only.

6.15.5 Frasers TSF

EGL (2026b) describes the proposed closure strategy for the Frasers TSF Stage 3 and this is visually represented in the Concept Mitigation and Closure Plan in **Part C** of this substantive application. The closure strategy involves the construction of a dry cover (dry cap). The tailings surface will be capped and profiled to promote surface water drainage toward the western outlet. At the western extent of the facility, surface water will discharge via a defined outlet, with the cap dropping from approximately 510 mRL (the tailing closure surface) to the natural ground level of approximately 500 mRL.

A naturalised drainage channel is proposed to run along the crest of the Frasers Backfill embankment. This will require Zone A lining. The channel will convey flows from the rehabilitated Top Tipperary TSF, together with local runoff from the Frasers TSF closure landform, toward the North Branch of the Waikouaiti River.

The crest alignment will avoid reliance on the tailings surface for the primary drainage pathway. This provides a more robust arrangement, considering the potential for post deposition tailings settlement and early closure scenarios where the final tailings surface may not be fully developed.

At the eastern extent of the facility, the closure landform is proposed to be formed by infilling and raising the existing low-lying area, rather than retaining a discrete low area behind the East Embankment. This reduces the potential for localised ponding and provides a more continuous closure surface draining toward the west.

The detailed closure design, including final surface profiling, channel lining, erosion protection, and settlement allowance, will be developed during detailed design.

If mining is ceased prior to the final tailings level being achieved, the Ephemeral Lake Scenario or the Pit Lake Scenario may be undertaken.

6.15.5.1 Ephemeral Lake Scenario

There is potential for the formation of an ephemeral lake within the Frasers TSF if tailings deposition ceases at elevations above approximately 480 mRL but below approximately 490 mRL. Water may accumulate within the pit, however, a permanent water cover may not develop. Water levels are expected to fluctuate in response to seasonal and climatic conditions. As a result, there is potential for ongoing dust risk, and full dry capping of the tailings surface will be required to manage dust.

6.15.5.2 Pit Lake Scenario

A pit lake is expected to form over time within the Frasers TSF if the tailings deposition ceases at elevations below approximately 480 mRL. The timing of lake formation is variable and will depend on site water balance conditions and the final level of tailings deposition. During the period prior to lake establishment, there remains a potential for dust generation from exposed tailings, requiring interim management measures including a tailings cap (either wet or dry). If a pit lake develops within a relatively short timeframe, a tailings cap may not be required. However, if lake formation is delayed, dry capping may still be required to manage dust risk. As with the ephemeral lake, a naturalised drainage channel will still be required along the Frasers Backfill crest, lined with Zone A material, to convey runoff from Top Tipperary TSF and the surrounding landform.

6.15.6 Macraes Road Realignment Bridge Removal

Upon closure and decommissioning of the site, the haul road underpass (bridge) at the west of the Stage 2 Macraes Road realignment will be removed. The road will then be re-established on appropriate earthworks foundations. This approach is consistent with closure of the site as provided for by the current consents whereby the existing haul road underpass and vehicle underpass are to be removed as part of site decommissioning.[24]

6.15.7 Matheson Road Re-instatement

Matheson Road is currently an unformed road that crosses the site at the Coronation Pit and Coronation WRS. OGNZL have an existing resource consent obligation to provide access through the site at closure to connect the eastern and western portions of the unformed Matheson Road.[25] OGNZL proposes to provide a formed fine weather four-wheel drive track access through the mine workings at closure to meet this obligation however the location of that track will need to differ from that indicated in current consent documents to accommodate the proposed Coronation Pit development. Consistent with existing farm tracks, the access track will not be constructed to the full legal width of 20 m and will be a

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[24] See Condition 3.1 of 201.2019.1379/2

[25] Condition 13.3 - Consent reference: WDC 201.2019.1241/2, DCC LUC-2019-42A
Within six months of completion of mining operations in 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 20m wide that approximately follows the blue line shown on the annexed Figure 2 (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 blue 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.

single track of approximately 3 m width. Figure 6-44 indicates the general alignment of the unformed paper road and the proposed new access track alignment.

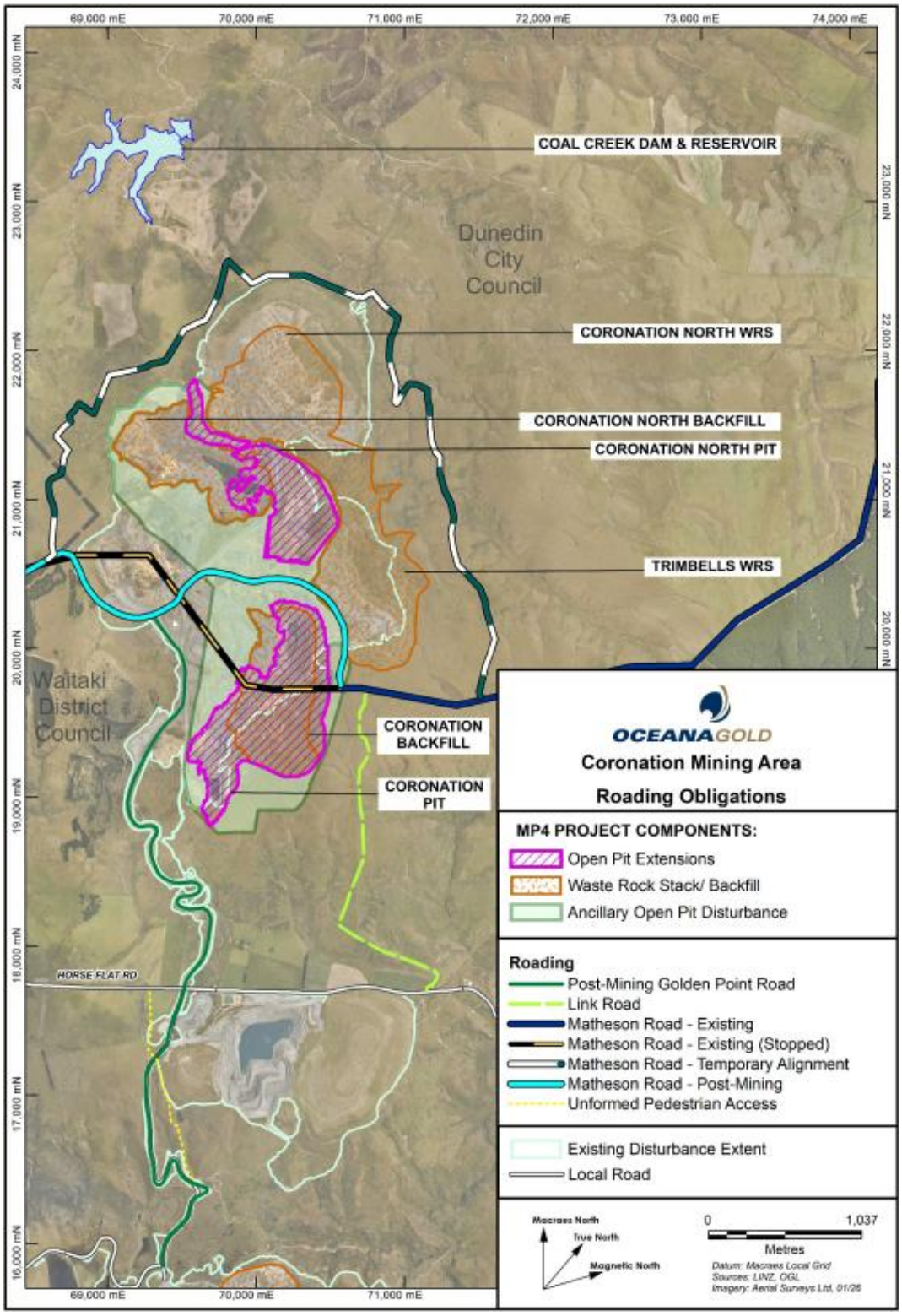

Figure 6-44: Location of Matheson Road Alignment - Pre and Post-mining