4. PROJECT DESCRIPTION

This chapter provides an overview of the construction, operation, maintenance, rehabilitation and closure activities associated with the BPCP, as required by the relevant schedules of the FTAA.

The chapter should be read alongside **Chapters A.1 – Project Wide Overview** and **A.2 – Mining Overview**, which introduce the Project as a whole and explain the relationship between the individual Project components and how it will be managed.

The activities described in this chapter represent a conservative or greatest-extent scenario for approval purposes. The disturbance areas identified in **Table 4-1** sit within that overall envelope and are based on current design assumptions. Bathurst will continue to refine the footprint of key Project components during detailed design, exploration and implementation to minimise environmental effects where practicable and improve operational efficiency.

4.1 PROJECT BENEFITS

The BPCP is expected to provide economic, social, cultural and environmental benefits through continued mining operations, regional employment, community investment, rehabilitation and long-term AMD management.

In summary, the BPCP will provide substantial economic benefits centred on the West Coast region, including contributions to central government revenue and sustained local employment. Bathurst will continue to engage with and support community organisations, strengthening community wellbeing, local services and long-term regional stability. The Project will also support ongoing legacy AMD management, rehabilitation of disturbed areas on behalf of the Crown, and the continued development of environmental management systems in collaboration with iwi, local communities and stakeholders.

4.2 INTERDEPENDENCIES

The BPCP has been designed as an integrated Project. Approval of all Project Sub-Areas is important to its economic and operational viability, as additional coal resources are required to support blending, maintain production and meet export product specifications as the usable coal resource within the current Stockton operations declines.

On a stand-alone basis, the individual Project components are not expected to be economically viable because each relies on the others for blending, shared infrastructure, access, water management and operational efficiency. The BPCP therefore requires the Sub-Areas to operate as an integrated network, supported by the existing infrastructure at Stockton.

The integrated approach and concurrent development will maximise efficiency and ensure the Project's overall viability, delivering the projected regional and national benefits. Further details on the economic benefits of the BPCP are provided in the Economic Assessment Report prepared by AIGIS Group, attached in **Part B** of this application.

4.3 SEQUENCING OF ACTIVITIES AND PROPOSED WORK DATES

At a high level, the following activities are proposed:

- Ongoing mining operations at Stockton;
- Construction of the UWHR and establishment and development of supporting infrastructure;
- Construction, mining and associated mining operations at ESE and MFS;
- Rehabilitation; and
- Closure and monitoring.

The activities summarised above are expected to occur over the life of the Project, with timing influenced by approvals, detailed design, production requirements, sequencing and rehabilitation outcomes.

Activities at each Sub-Area will be staged and coordinated so that construction, mining, water management, rehabilitation and closure activities occur in a logical sequence rather than across all areas at the same time. Further detail on the anticipated staging approach is provided in the relevant Sub-Area sections below.

Figure 4-1 below provides an estimate of the anticipated stages at each Sub-Area across the life of the Project.

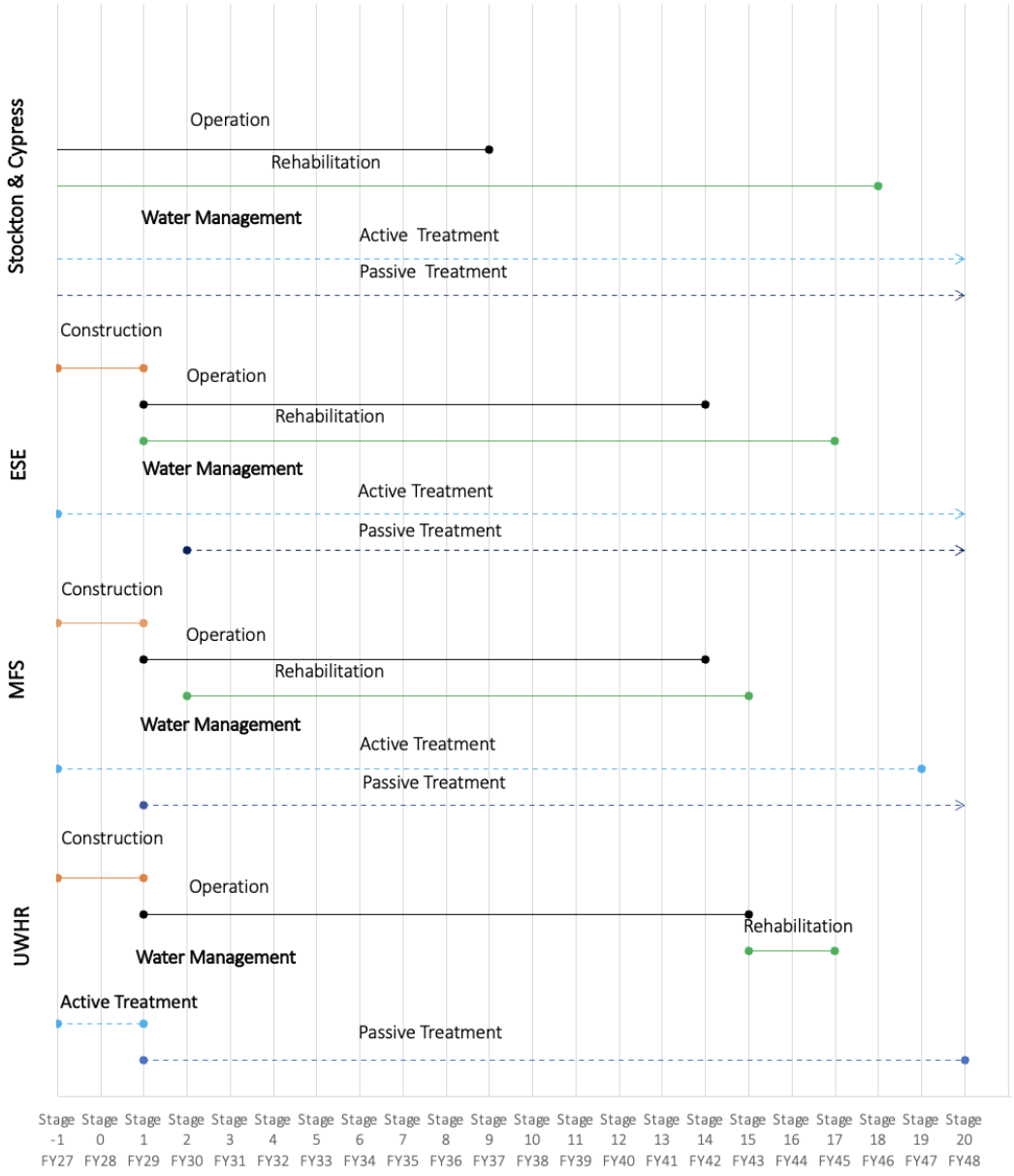


Figure 4-1: Indicative Project Timeline (Assuming Commencement 2027)

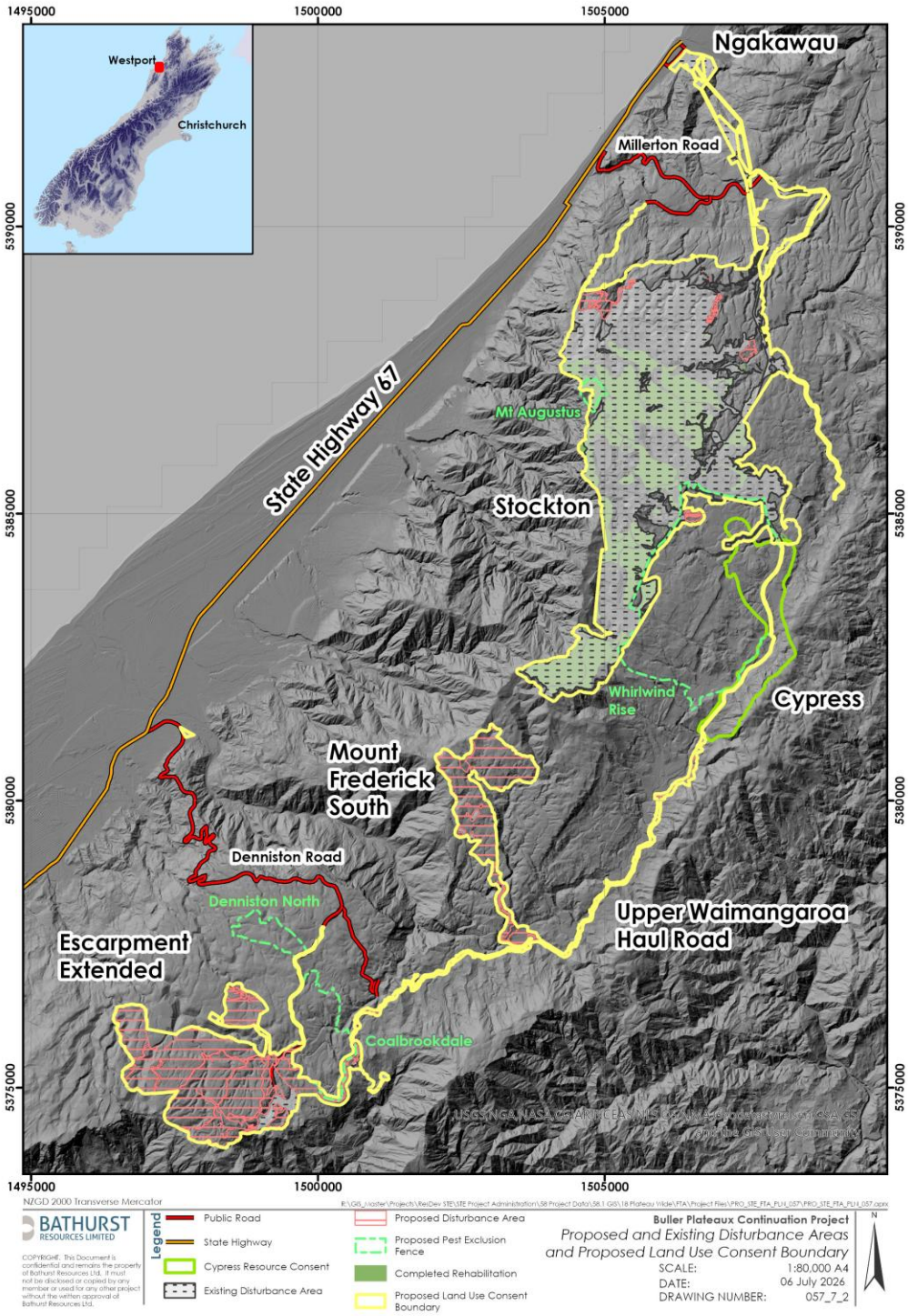
4.4 PROJECT SUB-AREAS

The BPCP comprises the continued operation and reconsenting of existing infrastructure and mining activities at Stockton, together with the development of additional mining areas on the Denniston Plateau that will rely on Stockton's established processing, transport, water management and support infrastructure.

As introduced in **Chapter A.1 – Project Wide Overview** (Section 1.4.1) of this application, the BPCP involves mining activities at five geographically distinct areas. The areas are shown in **Figure 4-2** below, and include:

- **Stockton:** continuation and reconsenting of the existing Stockton Mine and associated infrastructure, including the CHPP, haul roads, water management infrastructure, Ngākawau Rail Loadout and aerial ropeway. The BPCP also provides for extensions within Stockton, including further mining in the northern Millerton area, continued use of the A Drive quarry for construction and rehabilitation material, additional CFSFs, and updated Millerton water and AMD management infrastructure.
- **ESE:** a combination of continuation/renewal of activities associated with the existing Escarpment Mine area, extension of opencast mining into Whareatea and Whareatea West, mining through old underground workings where encountered, establishment of new supporting infrastructure and water treatment systems, and use of the Waimangaroa storage area.
- **MFS:** a new opencast mining area, including new access, mine infrastructure, ELFs, water management and treatment infrastructure, with initial mining through historic underground workings where present.
- **UWHR:** a new dedicated haul road and associated drainage, culverts, sediment controls and operational access infrastructure connecting Stockton with MFS and ESE.
- **Cypress:** continuation of the existing Cypress Mine under existing resource consents. The BPCP does not seek to reconsent Cypress mining itself; however, Wildlife Act authorities require renewal and variations to existing Cypress consent conditions are sought so that biodiversity, access and related management obligations are integrated with the wider BPCP framework.

Some Project-related activities, including water and dust monitoring and wider residual effects package measures such as pest-exclusion fenced areas, will occur outside the defined Sub-Areas across the Buller Plateaux.



90 **Figure 4-2: Project Sub-Areas and Key Features**

4.4.1 Disturbance

Table 4-1 provides a summary of disturbance across the BPCP Sub-Areas within the overall consenting footprint. The total consenting footprint represents the maximum area within which Project activities may occur. Not all land within this footprint will be disturbed. Existing disturbance identifies areas that have already been modified by current or historic mining and associated activities. The ECIA Assessed Disturbance column identifies the disturbance footprint assessed by the ecological specialists for the purposes of the ecological assessments. These assessments adopt a conservative approach and include areas that are already modified or disturbed where ecological effects may still be relevant to the assessment. The ECIA Setback column identifies areas treated as ecologically unavailable due to assumed setback impacts and/or buffers. The remaining areas within the consenting footprint are not anticipated to be disturbed and are identified in the No Disturbance column.

Table 4-1: Disturbance at each BPCP Sub-Area

Sub-Area	Total Consenting Footprint (ha)	Existing Disturbance (up to 31 March 2027) (ha)	ECIA Assessed Disturbance (ha)	ECIA Setback	No Disturbance (ha)
Stockton	1814	1320	31		465
UWHR	88	15	52		37
MFS	216	6	170		41
ESE (including Waimangaroa Storage area)	540	40	502		56
Total	2661	1382	755	128	599

4.5 STOCKTON

4.5.1 Existing Operations

As discussed earlier in this application, Bathurst holds existing resource consents from the BDC and the WCRC, as well as Coal Mining Licences and mining permits for operations at Stockton, which have supported operations at the Stockton Mine since the mine was under Crown ownership.

For clarity, the majority of these activities, which are authorised through to 31 March 2027, are also being sought to be reconsented through this substantive application (refer to **Chapter A.8**).

Stockton Mine has an established network of infrastructure that will continue to support the BPCP, including administration, security, maintenance, storage, utilities, coal handling and processing facilities, water management infrastructure, haul roads, the aerial ropeway and the Ngākawau Rail Loadout.

Administration Area

- Buildings, offices, bath house, ablutions and stores;
- Car parking for employees, delivery trucks, and visitors;
- Storage sheds, laydown areas, helicopter landing pad, and Emergency Response Team facility;
- Electrical services and a 33/11 kVA substation; and
- Power supplied from Ngākawau via a Bathurst-owned line following the aerial ropeway corridor.

Maintenance Area

- Large workshops, warehousing and service bays for mine equipment;
- Tyre changing and storage facilities for heavy mobile machinery;
- Bunded hazardous materials storage (oils, chemicals, bulk fuel) with self-bunded tanks and automated fuel management systems;
- Vehicle wash bay and workshops equipped with sediment sumps and oily water separators;
- Additional Facilities;
- Smaller workshops and storage at Limbo and Upper Office areas for ancillary and support works; and
- Explosives mixing and preparation compound (Orica) near Limbo facilities.

Resource consents also need to be sought for new activities at Stockton mine, including providing for extended mining areas in the north of the Stockton Mine, additional excavating activity in the A Drive Borrow Pit for the construction, including for the UWHR, aggregate for mining operations, and capping material for rehabilitation, an updated water management system for the Millerton area, and the development of additional CFSFs.

The layout of Stockton is shown in **Figure 4-3** below.

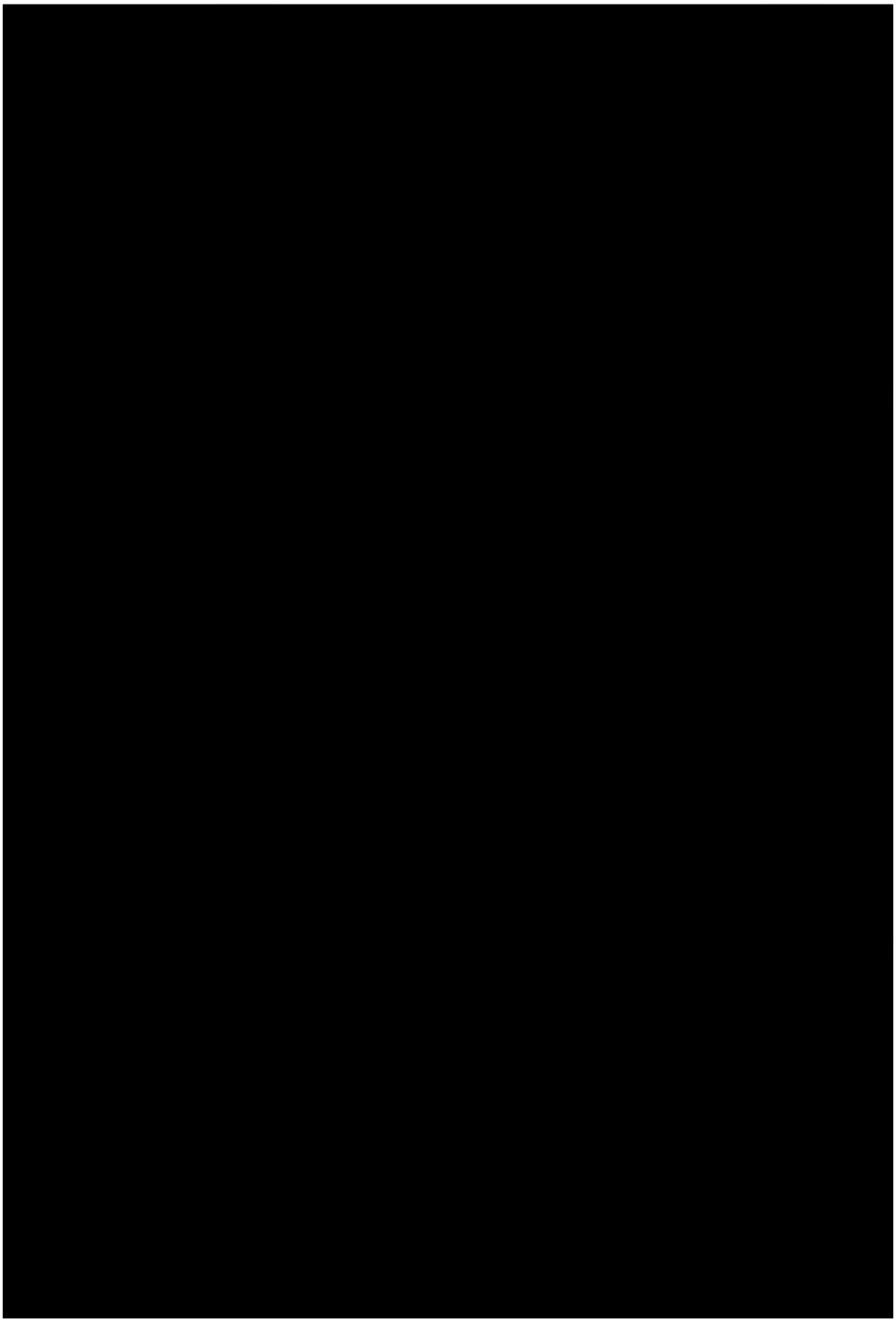


Figure 4-3: Stockton Buildings and Facilities

4.5.2 Resource Investigation and Exploration

As Stockton is an established mine, exploration drilling is ongoing and occurs throughout the site. This enables Bathurst to accurately define the coal resource and overburden characteristics for AMD modelling and ELF design. Procedures for this process are well established and are authorised under the existing Coal Mining Licences. Infill coal quality drilling is part of the general mining operations, and no further authorisation is required.

4.5.3 Open Pit Mining

Open pit mining at Stockton occurs across multiple areas and will continue progressively as part of the BPCP, supported by existing mine infrastructure, water management systems and rehabilitation programmes.

Stockton operates on a continuous basis, with staffing, shift patterns and weekend activity adjusted as required to meet production, maintenance and safety requirements. These arrangements support the efficient operation of the mine, coal processing facilities and transport infrastructure.

Post 2027 mining at Stockton is proposed to continue in stages, starting with the completion of mining at A-Drive, as shown in **Figure 4-4**.

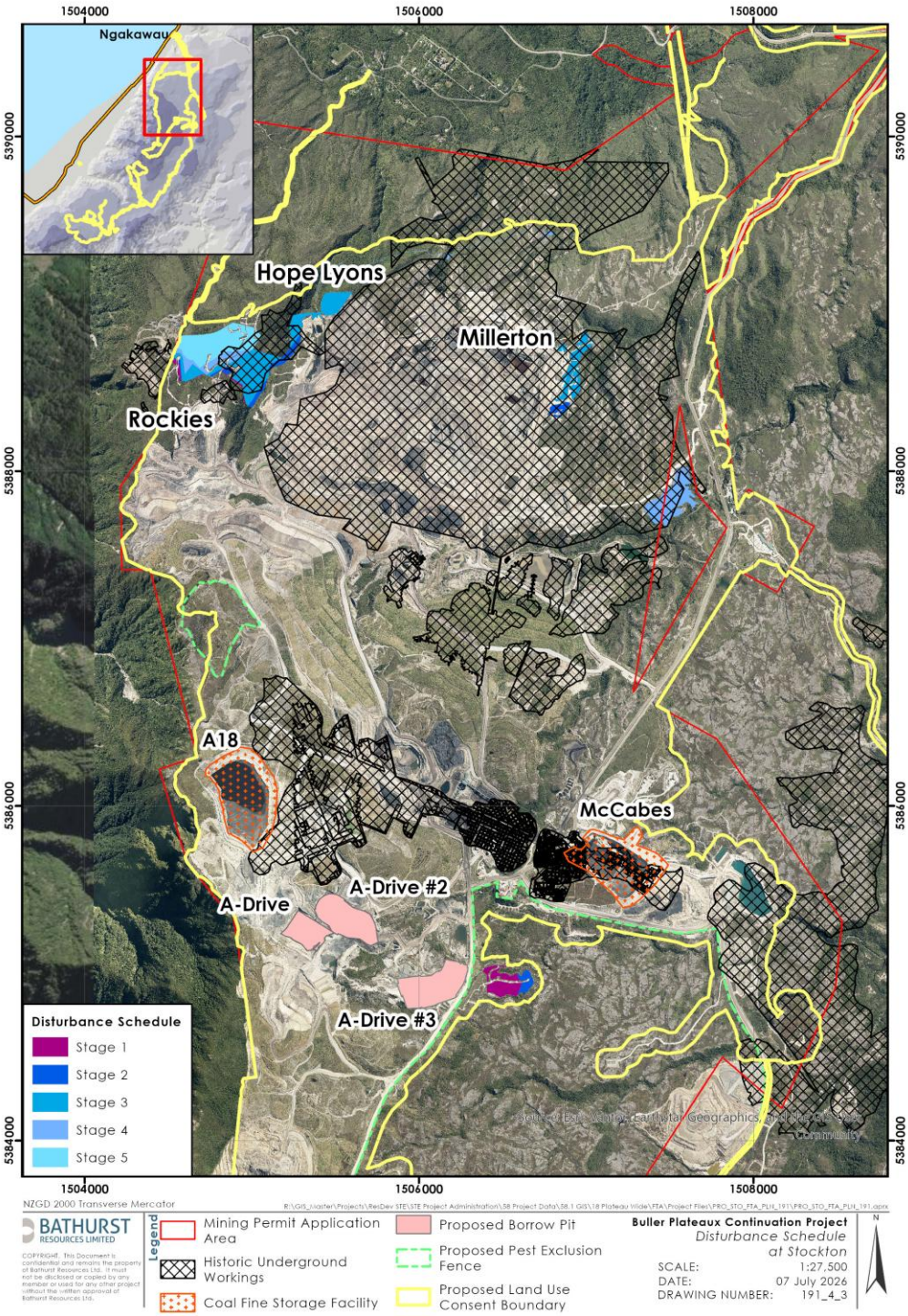


Figure 4-4: Staged Disturbance at Stockton

4.5.4 Pest Exclusion Fences

Two pest-exclusion fenced areas are proposed on the Stockton Plateau: Mt Augustus and
165 Whirlwind Rise. **Figure 4-5** shows these areas and their role in the Project's wider residual effects package.

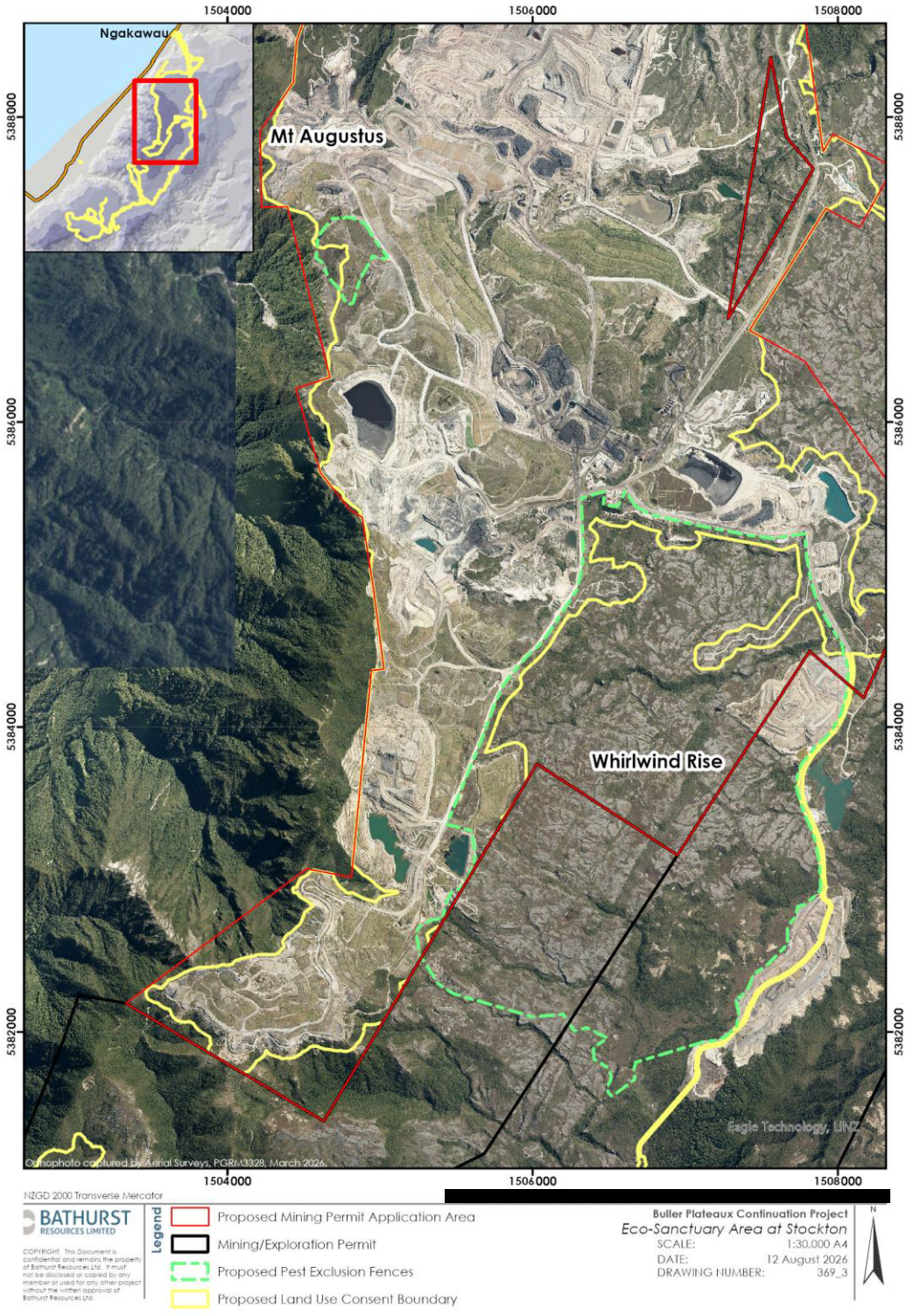


Figure 4-5: Proposed Pest-Exclusion Fenced Areas on the Stockton Plateau (outlined in green)

The Mt Augustus pest-exclusion fenced area will be established at the western extent of the Stockton Plateau. The proposed alignment will use existing roads and tracks where practicable and will be coordinated with the wider Project sequencing and biodiversity management programme.

The Whirlwind Rise pest-exclusion fenced area will be established at the eastern extent of the Stockton Plateau and partly on adjacent Crown land. The proposed alignment will generally use existing roads and tracks where practicable, with waterway crossings designed and managed through appropriate erosion, sediment and aquatic management measures. Bathurst also proposes to relocate snail habitat transferred by VDT from the Cypress Mine area into a pest-exclusion fenced area along the western edge of an ELF in the Cypress Mine area, adjacent to the wider Whirlwind Rise pest-exclusion fenced area.

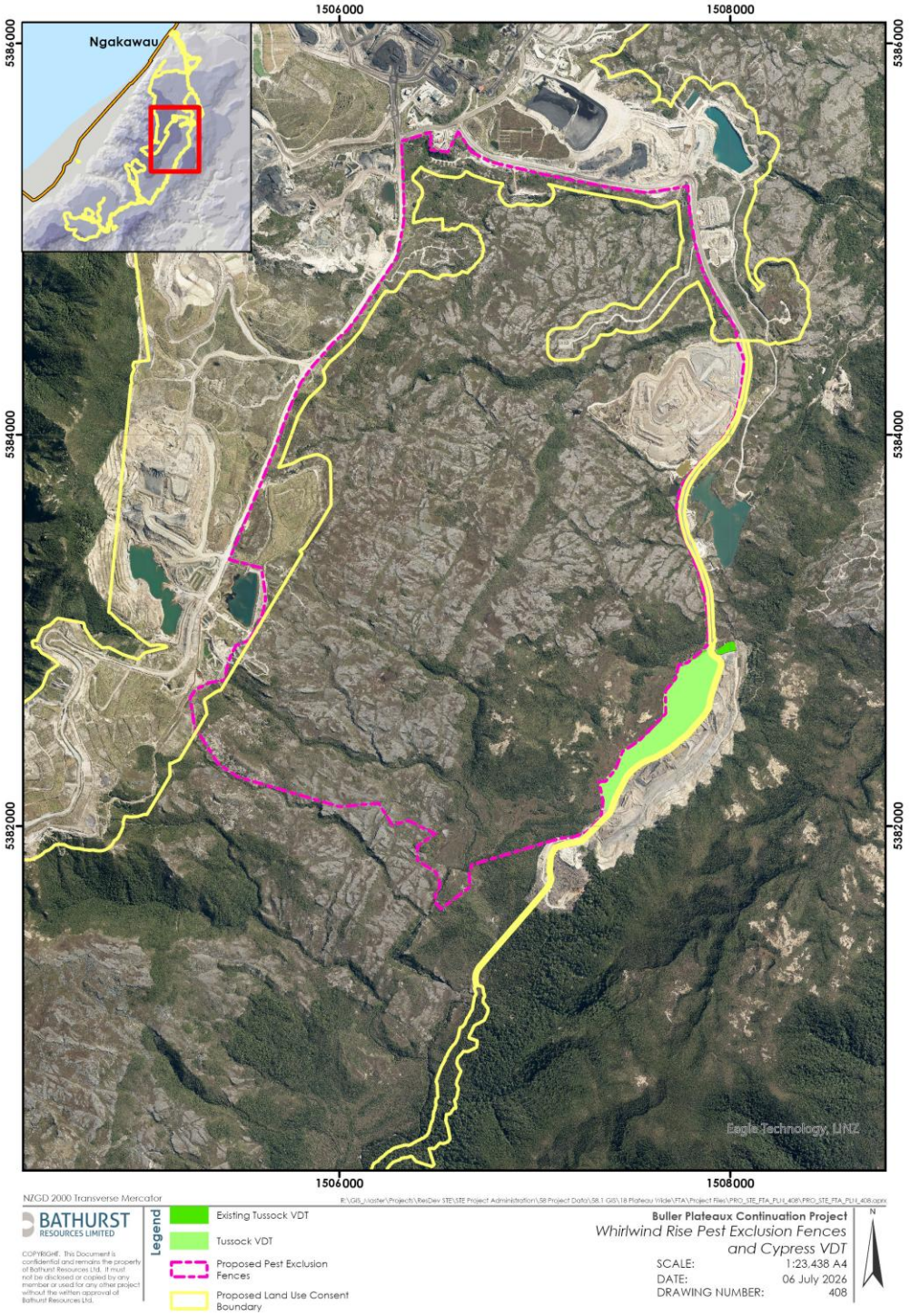


Figure 4-6: Whirlwind Rise Pest Exclusion Fenced Area and Cypress VDT

4.5.5 Site Access

Stockton Mine is accessed via Millerton Road, a public road running from Granity to the mine gate. Public access is restricted beyond this gate for safety reasons, with entry only provided to mine-certified vehicles. All other vehicles are left at the car park, and personnel are shuttled to the mine offices. There is a restricted public access walking track near the current gatehouse and Tin Town Corner.

Contractors and several service vehicles come to the site every day to deliver fuel, limestone, water treatment products, explosives, and general goods. Given the nature of these deliveries, daily vehicle movements are variable.

The Ngākawau Rail Loadout is located in Ngākawau. Access to this is via the public road network through Ngākawau.

4.5.6 Helicopter Use

There are four designated helicopter landing sites within the wider Stockton footprint, located at Ngākawau, Granity, Bathhouse and SN14 Haul Road. Helicopters are primarily used to mobilise exploration drill rigs to inaccessible locations. They are also occasionally used for locating field staff in inaccessible locations and for emergency purposes. As the mine's footprint changes over time, the locations of the helicopter landing pads will also change.

Helicopter landings are irregular; when on-site, the helicopter may remain active for several hours, with many (>10) landings during that time.

There is a Civil Aviation Authority restricted airspace that covers the wider Stockton-Cypress Mine footprint.

4.5.7 Hazardous Substances Use and Storage

The existing hazardous substances facilities are located centrally to the mining area and include workshops for equipment maintenance, bulk oil and coolant storage, refuelling areas, storage of bulk explosives and oxidisers for blasting, coal processing and water treatment substances. There is no proposal to change this as part of the BPCP.

[redacted]

The BPCP will continue to use Class 5 and Class 1 substances. [redacted]

215 [redacted] **Figure 4-7** below shows the location of these.

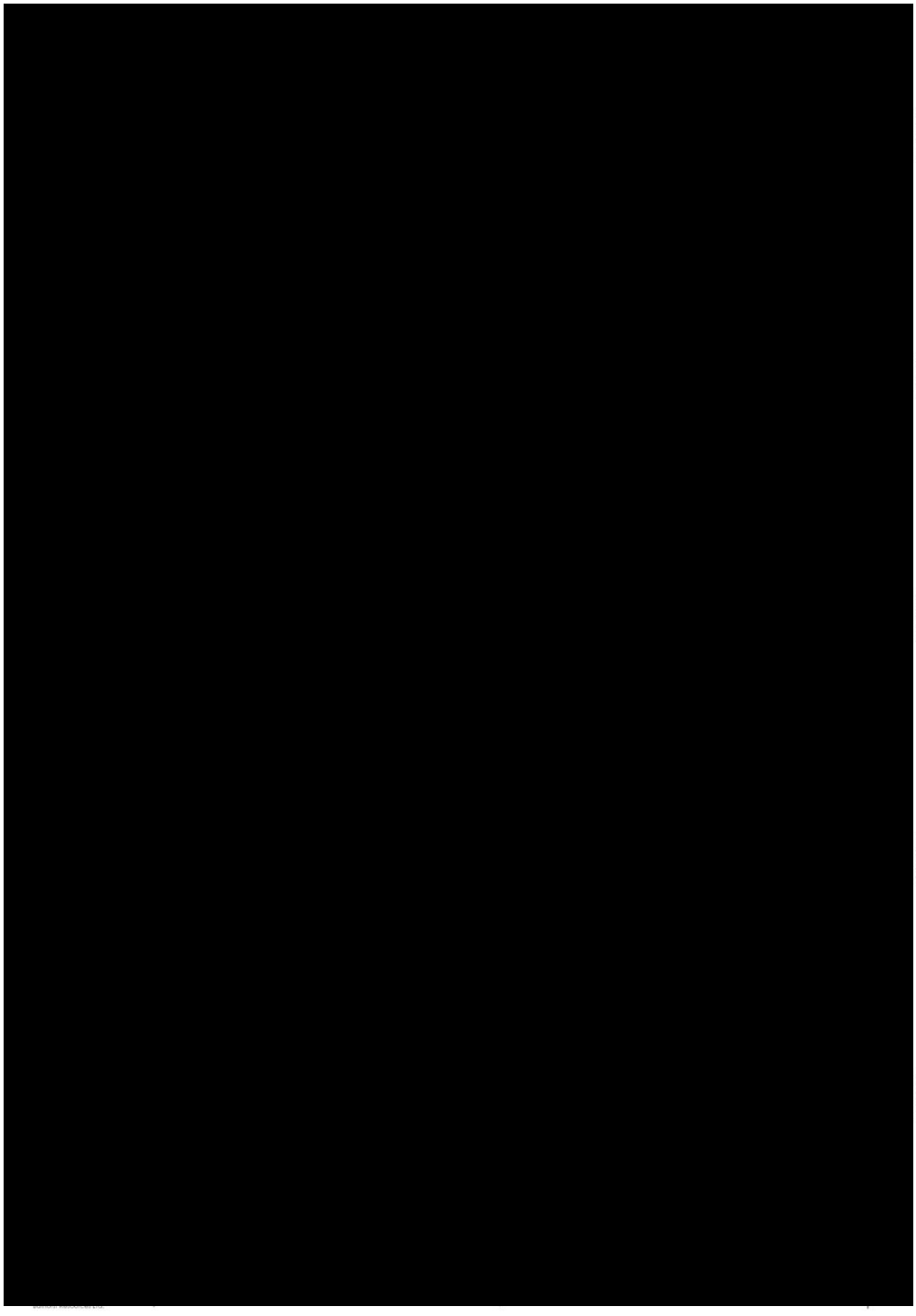


Figure 4-7: Explosives Storage at Stockton

Diesel and other fuels are stored in appropriately designed and contained facilities to support mobile refuelling, ancillary refuelling and helicopter operations. Smaller packaged quantities of fuel and maintenance products are stored and used at workshops in accordance with applicable hazardous substance requirements.

Bulk and packaged maintenance oils and greases are kept in the workshops and oil yards. These products are largely non-hazardous.

Gas storage associated with maintenance workshops includes highly flammable liquefied petroleum gas and acetylene, oxidising gas (oxygen) and non-hazardous gas under pressure (nitrogen, carbon dioxide and argon).

Corrosive lime products and non-hazardous flocculants and chelating agents are used for water treatment at the water treatment facilities [redacted] to reduce the acidity and suspended solids content of water used for coal processing. Solid quicklime ("**CaO**") is stored [redacted] and mixed into water in slurry tanks [redacted] to make high calcium hydrated lime (Ca(OH)2) slurry. At the CHPP, CaO is mixed directly into slurry tanks upon delivery (i.e. there is no powder storage at the CHPP).

4.5.8 Sewerage

Existing sewage systems across the Stockton Sub-Area are expected to be sufficient to meet ongoing operational requirements. Smaller or temporary facilities with low or intermittent staffing are serviced by tank systems that are regularly emptied and disposed of into the larger systems.

Where required, resource consents for the septic systems will be applied for and obtained as part of the BPCP suite of approvals.

4.5.9 Tyre Storage

Tyres at Stockton Mine are managed under WCRC resource consent RCT-2022-0028-01, issued in April 2022 for a 35-year term in accordance with the National Environmental Standards for Storing Tyres Outdoors (2021) ("**NES-STO**"). Heavy, light, and medium vehicle tyres awaiting disposal are stored in compliance with this consent, with some used in 'active use' applications such as protection walls. Not all tyres fall within the NES definition of outdoor storage because of active-use exemptions.

Beyond 2027, Bathurst will continue to use the Tyre Wise scheme for disposal, with tyres regularly uplifted by contractors to minimise on-site storage. Recycling opportunities within New Zealand will also be used where available.

4.5.10 Coal Handling and Processing

As described in depth in **Chapter A.3 – Existing Environment**, Stockton contains the CHPP, a critical piece of existing infrastructure that will continue to service all Sub-Areas of the BPCP. The CHPP is responsible for upgrading raw coal extracted from the mine before it is transported to market. This ROM coal often contains varying amounts of waste rock, shale, and other non-coal material that must be removed to achieve the required product quality.

At the CHPP, the ROM coal undergoes a series of mechanical and density-based separation processes that distinguish coal from unwanted material. These processes utilise the natural density difference between coal and surrounding rock, allowing the lighter coal fraction to be separated from the heavier waste components. Through this process, saleable coal is recovered while the residual waste material is diverted for appropriate management and disposal. Greater detail on this process can be found in the "Mining Construction and Operations" report prepared by Bathurst and attached in **Part B.**

Coal extracted from the various BPCP Sub-Areas will be transported to the Stockton CHPP for processing before entering the wider coal handling and export system. The continued operation of the CHPP therefore forms a central component of the project's infrastructure network, enabling coal from across the mining areas to be efficiently processed and prepared for transport to market.

The Stockton CHPP is a typical gravity (density based) washing plant. A schematic process flow is shown in **Figure 4-8** below.

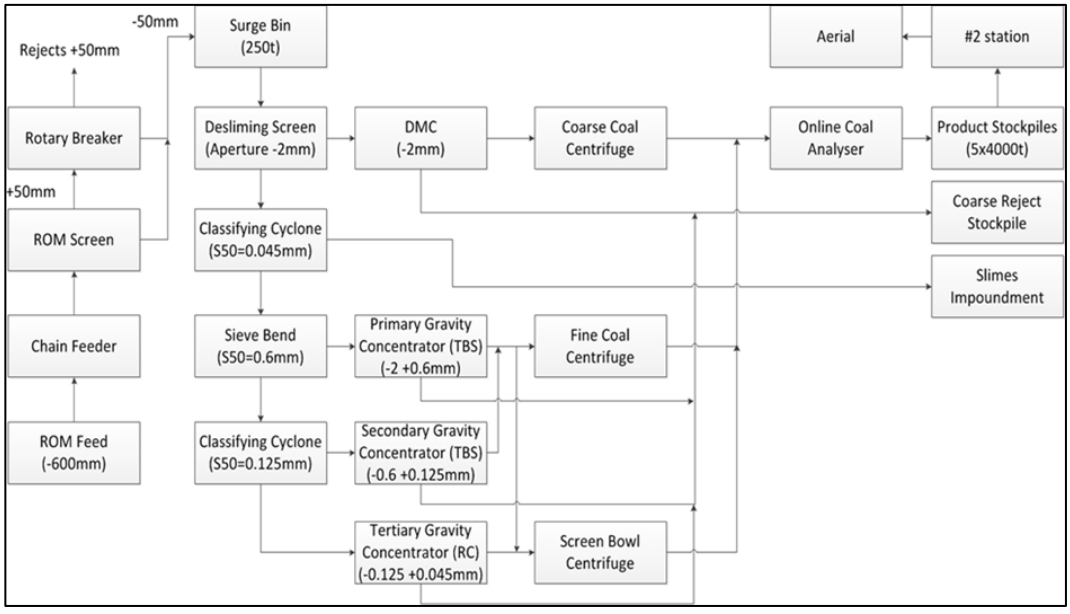


Figure 4-8: Schematic of the Washing Plant Process

The Stockton CHPP generates a fines reject stream, which has historically been managed through purpose-built coal fines storage facilities. As facilities reach capacity, Bathurst will progressively cap, rehabilitate and transition storage to other approved facilities or areas, including mined-out borrow pits where appropriate. Closure will include capping, drainage and monitoring measures consistent with the relevant design and rehabilitation requirements.

4.5.11 Aerial Ropeway

Coal is transported by heavy mining equipment along a 7.4 km haul road (which replaced stations 2 to 5 of the aerial ropeway) and then is loaded onto the aerial ropeway, which begins near the Stockton mine gate. The aerial ropeway, which is approximately 2.3 km long, has a maximum capacity of 2.3 Mt per annum and ends at the Ngākawau Rail Loadout.

4.5.12 Ngākawau Rail Loadout

The Ngākawau Rail Loadout is the product stockpile area and rail loadout facility. Under normal operating conditions, all coal from the facility is loaded onto rail, and railed to the export ship loading facilities at Port Lyttleton near Christchurch.

The aerial ropeway and Ngākawau Rail Loadout have been operating since the 1950s, and the private siding off the main railway corridor through the site is designated for rail purposes under the Buller District Plan.

The Ngākawau Rail Loadout is authorised and operated to support continuous coal transport, with train movements and loading windows managed according to production requirements and KiwiRail scheduling. Weekend or additional movements may occur where required to respond to operational needs or unplanned disruptions.

In rare circumstances, coal may need to be trucked from the Ngākawau Rail Loadout to its next destination, as was the case when the Tawhai Tunnel (near Reefton) was closed for 8 months in 2024 for urgent repairs. Additionally, a contingency is required in cases where the aerial ropeway is unavailable for an extended period and coal needs to be trucked from Stockton to Ngākawau.

4.5.13 Dust Management

Dust management at the Ngākawau Rail Loadout includes a sprinkler system and wind mesh fences. Water used for dust suppression utilises a small amount of water taken from an adjacent stream (consented under RC01104, expiring 2039, and not being renewed as part of the FTAA application). Replacement approvals will be sought closer to expiry. All

water run-off from the site is directed to a treatment system prior to discharge in the Ngākawau River estuary, also authorised by existing permit RC01104.

Water for dust suppression use on the 2-5 haul road is taken exclusively from the treated Mangatini Stream. Water is taken from the MG15 sump for dust suppression on site roads where runoff does not report directly offsite. In addition, dedicated water carts are routinely deployed along interconnecting access roads to keep road surfaces damp and minimise surface dust generation.

These measures are implemented routinely and intensified during dry weather conditions to maintain damp surfaces and reduce dust entrainment.

4.5.14 Water Management

Water management at Stockton involves the continued operation, renewal and extension of established water management systems to capture, divert, treat and monitor sediment-affected water and AMD before discharge. The approach recognises that Stockton has a long history of legacy AMD from historic underground and opencast mining, while the BPCP will also require management of water from contemporary and proposed disturbance. Water is managed across three main Stockton catchments: Mangatini, St Patrick and Millerton.

Water quality and aquatic ecology monitoring will continue across Stockton to track compliance, performance and recovery/betterment outcomes. Complete details of the proposed monitoring are provided in the Stockton water management and AMD management reports attached to this application in **Part G**. The Stockton water catchments and monitoring locations are shown in **Figure 4-9** below.

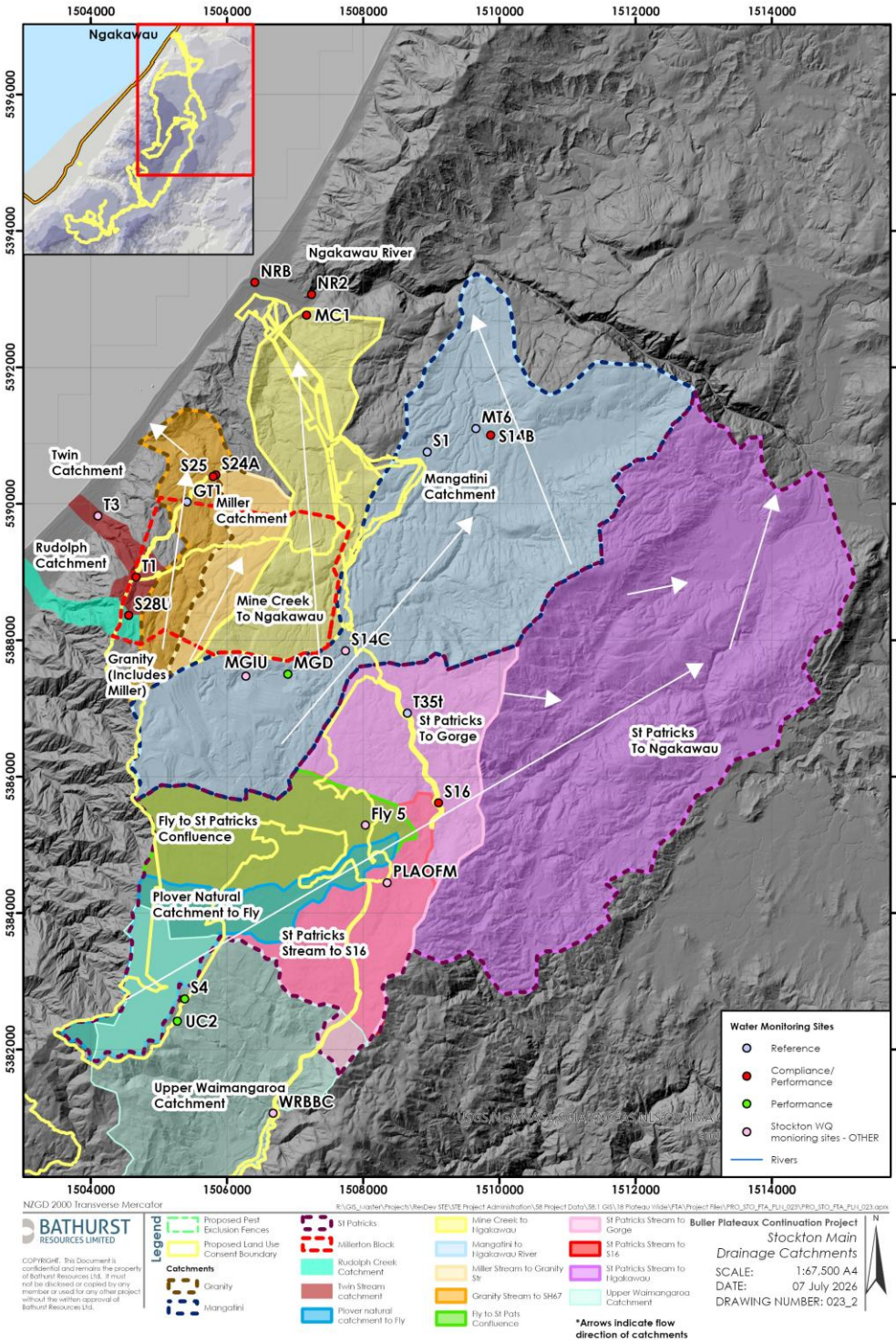


Figure 4-9: Stockton Water Catchments

The overarching water management principles that apply across Stockton are to:

> Separate clean water from disturbed areas wherever practicable, to reduce the volume of water requiring treatment;

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- Minimise erosion by limiting disturbance, managing runoff velocities, and directing water to designated drainage and treatment areas;
- Direct runoff from disturbed areas to sediment control structures and sumps before discharge or treatment;
- Design and operate in-pit and final landform sumps to settle sediment, capture mine-impacted water and enable pumping to treatment systems where required;
- Design and construct ELFs, capping and rehabilitation to reduce oxygen and water ingress and therefore reduce AMD generation over time; and
- Use active and passive AMD treatment, together with ongoing monitoring and adaptive management, to support progressive improvement in downstream water quality.

4.5.15 Legacy AMD Management

Mining on the Stockton Plateau has affected waterways for more than 130 years. The majority of Stockton's severe AMD liability is associated with historic mining undertaken before BT Mining acquired Stockton in 2017, and it is estimated that more than 80% of the AMD liability existed when Stockton was put up for sale by the Crown in 2016. The current condition of AMD-affected waterways is described in **Chapter A.3 – Existing Environment**. As explained in **Chapter A.1 – Project Wide Overview**, once BT Mining has completed its mining operations at Stockton and completed non-AMD rehabilitation, it must transfer the Stockton Mine land, associated permits and licences, and AMD treatment infrastructure to the Crown, together with a terminal payment for AMD caused by BT Mining's operations. At that point, BT Mining is released from future obligations to treat AMD and the Crown assumes responsibility for ongoing AMD management at Stockton.

BT Mining has built on the Treasury Stockton AMD Management business case and prepared a long-term AMD management strategy in consultation with iwi and technical specialists. The strategy is directed at the recovery of AMD-affected waterways draining Stockton Mine over time, with the objective of supporting water health outcomes conducive to mahinga kai.

Figure 4-10 below shows the existing Stockton water infrastructure.

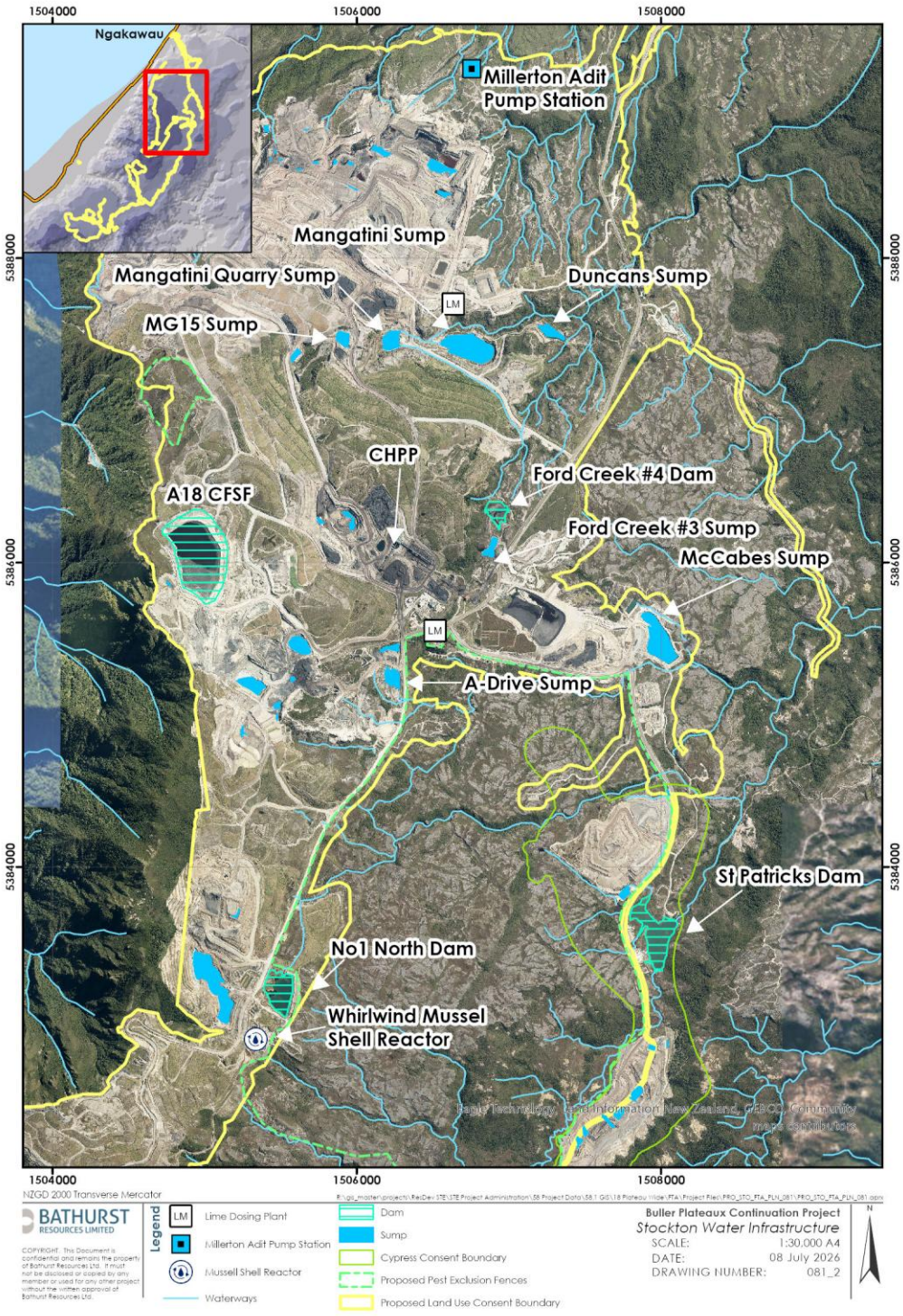

Figure 4-10: Stockton Water Infrastructure

360 **4.5.15.1 Mangatini Catchment**

New consents are sought for the continued operation of the Mangatini Treatment System as part of this application. The system treats AMD and sediment-affected water within the

Mangatini catchment, as well as AMD and sediment-affected water pumped across from the Millerton area. LDP1 supplies CaO slurry, which is mixed with AMD-affected water upstream of the Mangatini Sump. MG15 sump is the primary water source for slurry make-up, with Ford Creek #3 sump available as a backup supply.

The Mangatini Treatment System provides primary settling for sediment and AMD precipitates. Accumulated LDS is managed to maintain operational freeboard in the treatment sumps. LDS is removed to filter beds for drying or recycled to untreated water in the Manchester Street Drain to increase sludge density. During high natural flows in Mangatini Stream, authorised LDS discharge may occur via the decant system.

4.5.15.2 St Patrick's Catchment

The St Patrick's catchment includes the Fly Creek and McCabes sub-catchments, both of which are affected by AMD and require ongoing treatment. AMD sources include historic underground workings at Fly Creek, which operated between 1913 and 1970 and continue to contribute mine-impacted water to St Patrick's Stream.

Mine-impacted water from Fly Creek and McCabes, together with runoff from McCabes CFSF and pumped water from Cypress work areas, is directed to McCabes Lower Sump. The sump provides settling for sediment and AMD precipitates, with CaO slurry supplied from LDP2 for pH correction and metals treatment. Local sediment ponds provide additional primary settling before water reports to No. 1 North Dam.

No. 1 North Dam is retained as an important operational water supply for the CHPP, workshops, top office block, vehicle washdown facilities and LDP2. Water for haul road dust suppression is sourced from A-Drive Sump or St Patrick's Dam as required.

4.5.15.3 Millerton Catchment

The Millerton catchment is affected by historic mining, fractured sandstone, pyrite-rich overburden and remnant underground fires. Drainage from the catchment reports to Granity Stream, Miller Stream and Mine Creek, each of which is degraded by discharges from historic underground workings and runoff from disturbed or pyrite-bearing areas.

Current water management directs runoff from disturbed Millerton areas to the pit and associated in-pit sumps. Water from the main pit sump is used for fire suppression where required, discharged to nearby catchments where appropriate, or pumped to the Mangatini Treatment System when treatment is needed. Runoff from access tracks and other localised disturbance is managed through sediment controls.

The Millerton Adit has been repurposed as part of the mine-impacted water management system. It intercepts discharge from historic underground workings and enables controlled

routing either to Mine Creek or, where water quality triggers are exceeded, to the Mangatini Treatment System for treatment. In practice, pumping to Mangatini is initiated when monitoring indicates elevated turbidity or a reduction in water quality.

4.5.16 Future Water Management Infrastructure

Future water management at Stockton comprises a combination of existing systems that will be retained, proposed upgrades and new infrastructure required for the BPCP, and long-term systems that will remain in place after mining and terrestrial rehabilitation are complete. Even after active coal extraction at Stockton ceases, and final terrestrial rehabilitation is completed, water management infrastructure will continue to be required to treat legacy AMD associated with Crown liability, and AMD associated with contemporary and proposed mining activities within the Stockton and Cypress Sub-Areas.

The main Stockton water management systems anticipated to operate beyond the active mining period are:

- The existing and further refined Mangatini Treatment System, which will continue to treat AMD and sediment-affected water from the Mangatini catchment;
- The existing and further refined McCabes Treatment System, which will continue to manage mine-impacted water from the St Patrick's catchment, including Fly Creek, McCabes and Cypress-related inflows;
- The proposed Millerton Treatment System and the associated existing Millerton Adit management arrangements, which will provide improved control and treatment of mine-impacted water from the Millerton catchment; and
- Supporting infrastructure, including clean-water diversions, drains, sediment ponds, sumps, dams, lime dosing plants, pumps, pipelines, sludge management areas, monitoring sites and compliance points.

These systems are designed to operate adaptively over time. Active treatment will continue where required, while passive systems, rehabilitation drainage, capping and catchment diversions will progressively reduce AMD generation and treatment demand. Long-term operation will continue for as long as necessary to manage legacy AMD sources and support the intended water quality recovery outcomes.

Illustrative diagrams in **Figures 4-11** and **4-12** show the anticipated Stockton water management systems at the end of mining and at closure. These figures distinguish the operational infrastructure expected to remain in use from the longer-term closure configuration required to support ongoing AMD treatment and monitoring.

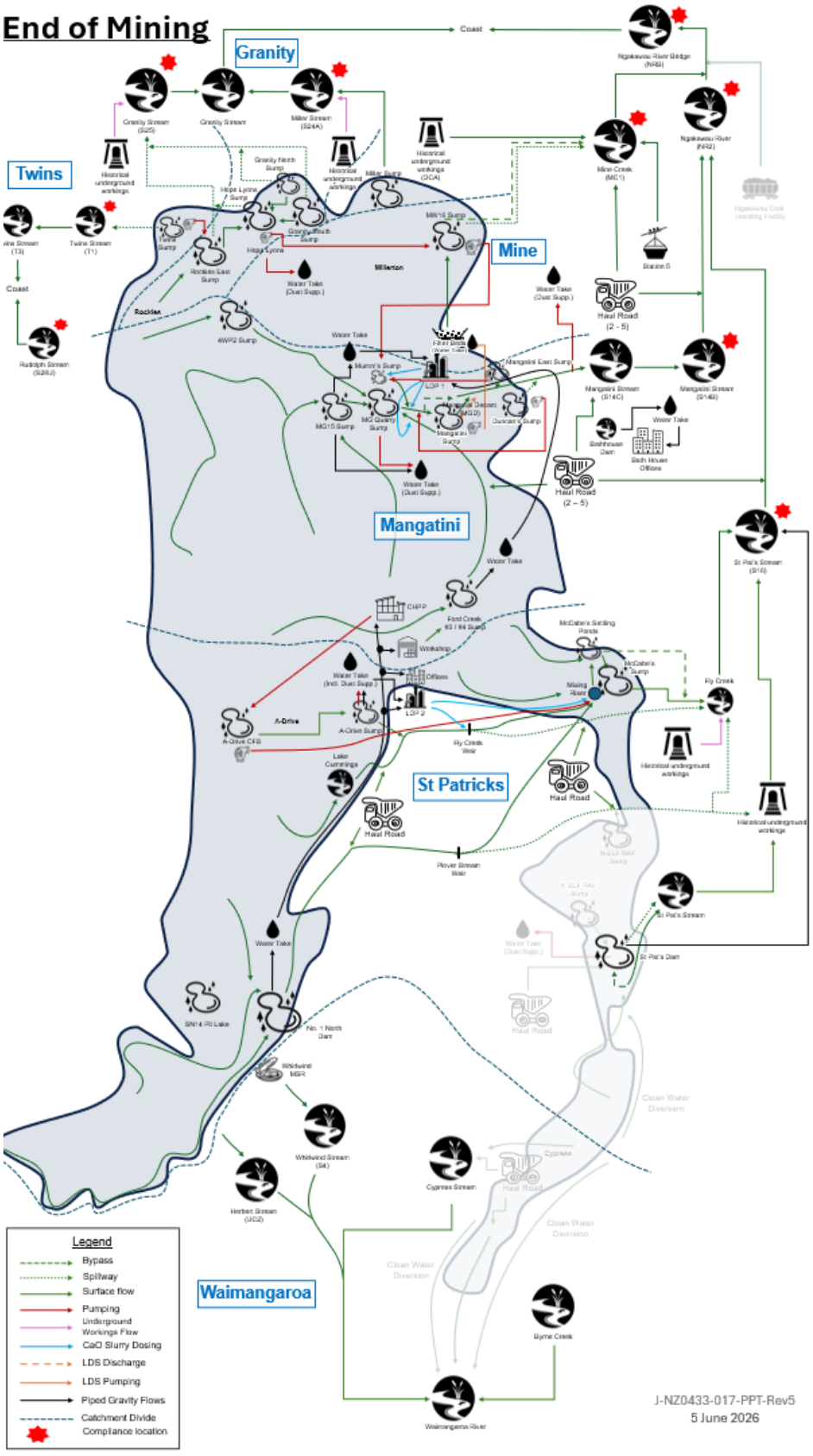

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Figure 4-11: Anticipated water management systems at Stockton at the end of mining

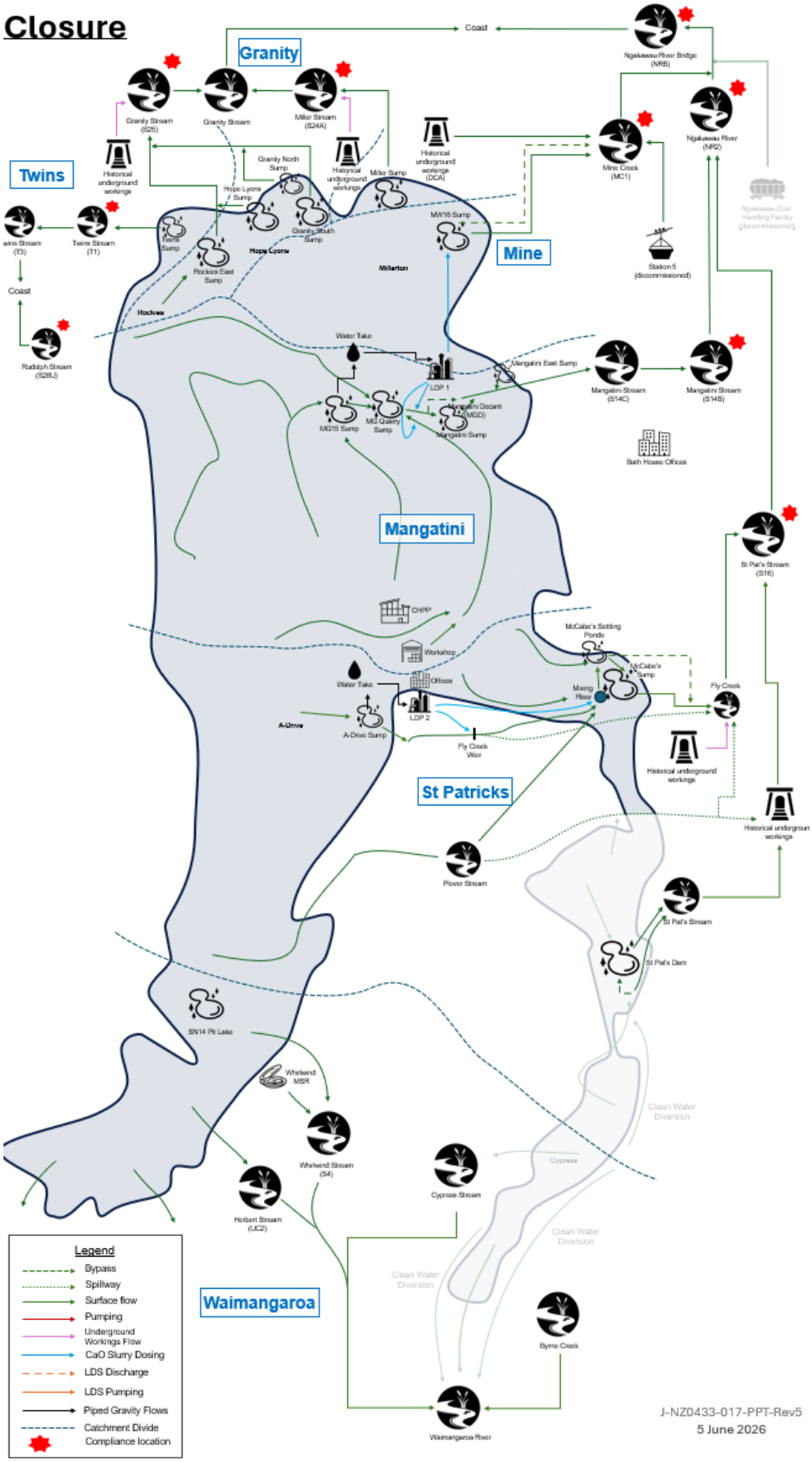

Figure 4-12: Anticipated water management systems at Stockton at closure

4.5.17 Rehabilitation and Closure

Rehabilitation at Stockton has been undertaken progressively in accordance with the staged process set out in the *Stockton Rehab Design Guidelines*. Those guidelines reflect the rehabilitation outcomes required by existing resource consents and Coal Mining Licence conditions, and are also relevant to the obligations and methods recognised under the Crown Indemnity Deed.

The objective of the rehabilitation programme is to progressively return disturbed areas to stable post-mining landforms that are safe, geotechnically stable and sympathetic to the surrounding plateau landscape. Rehabilitation will aim to establish indigenous, self-sustaining and diverse vegetation communities and rockfield ecosystems, while recognising that some water management infrastructure will remain in place for long-term AMD treatment and monitoring.

Rehabilitation at Stockton generally comprises three linked stages:

1. Final landform shaping to achieve stable, sympathetic and free-draining landforms;
2. Placement of suitable capping, topsoil, VDT material and other growth media to support revegetation and reduce AMD generation; and
3. Vegetation establishment, including planting, VDT where appropriate, natural regeneration and ongoing maintenance until completion criteria are met.

Final landforms will be designed and rehabilitated to support natural/native ecosystems that are consistent with the surrounding Stockton Plateau, including both vegetated areas and rockfield habitats. Rehabilitation design will also take account of long-term drainage, capping performance, erosion control and safe access for post-mining monitoring and maintenance.

Rehabilitation will be completed progressively as mining areas reach their final landform, rather than deferred entirely to closure. The programme will optimise the use of natural rehabilitation materials, including VDT, salvaged topsoil and vegetation material, and will apply methods that have already been demonstrated at the Stockton Mine. The indicative rehabilitation sequencing for Stockton is shown in **Figure 4-13** below. To the extent that rehabilitation works remain incomplete or have not received formal sign-off prior to the commencement of the BPCP, those areas will transition to, and be managed in accordance with, the rehabilitation requirements, performance criteria, monitoring programmes and conditions contained within the approvals granted for the BPCP.

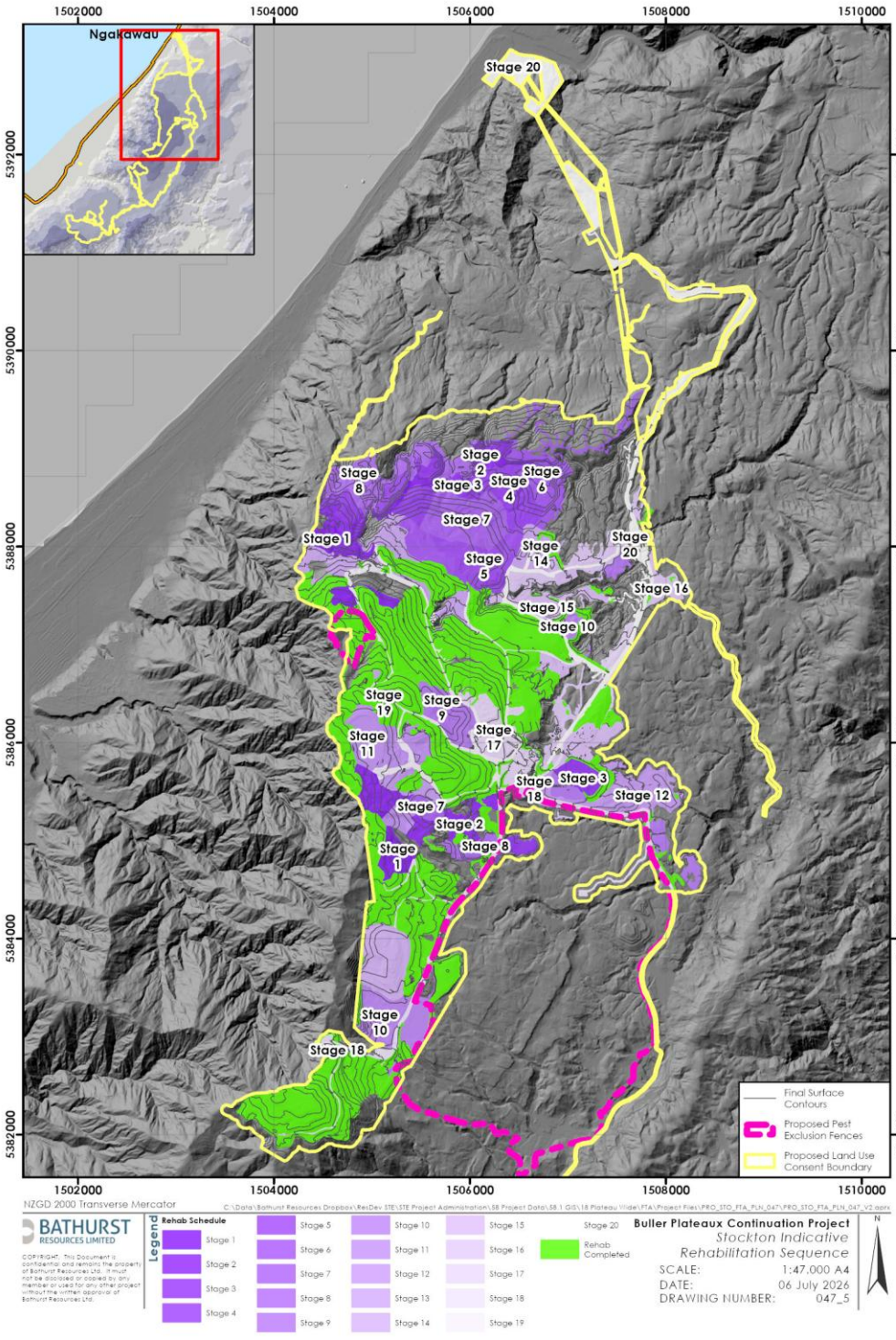

Figure 4-13: Rehabilitation Schedule at Stockton

4.5.17.1 Haul Road and Infrastructure

470 Existing haul roads will be progressively rationalised as mining areas are rehabilitated and transition to closure. Roads required for ongoing operational, rehabilitation, monitoring,

water management or treatment purposes will be retained and maintained to an appropriate standard. Other roads will be narrowed, reprofiled, revegetated or otherwise rehabilitated once they are no longer required.

Access to passive treatment systems will be less frequent, and as such, road maintenance in these areas may be undertaken on an as-needed basis.

Under the current closure scenario, coal processing and materials-handling infrastructure will be progressively decommissioned as it becomes redundant. Opportunities for alternative beneficial use, retention or transfer of infrastructure will be considered in consultation with the relevant landowners, iwi, regulators and other stakeholders. Where infrastructure is not retained, equipment and materials will be prioritised for re-use, recycling or recovery where practicable, with disposal undertaken in accordance with the applicable regulatory requirements.

Water management infrastructure, including treatment systems, dams, ponds, sumps, pipelines, diversions, monitoring sites and associated access routes, will be retained and maintained for as long as required to support AMD management, rehabilitation objectives, compliance monitoring and achievement of the relevant completion criteria.

As outlined earlier in this application, arrangements are in place to enable the Crown to assume responsibility for AMD management at the post-closure stage at Stockton Mine, excluding Cypress. Consequently, closure planning differs from a conventional mine closure model, as key AMD treatment, monitoring and access infrastructure will need to remain operational beyond the completion of terrestrial rehabilitation. Active and passive treatment systems are expected to continue operating for many decades as part of the long-term strategy for recovery of AMD-affected waterways.

4.6 ESCARPMENT EXTENDED

4.6.1 Existing Operations

The ESE Sub-Area is located on the Denniston Plateau and includes the existing Escarpment Mine area, proposed extensions into Whareatea and Whareatea West, and areas associated with relevant mining permits and coal mining licences. Existing Escarpment Mine activities are currently in care and maintenance, with ongoing water management and related site management activities continuing under existing or replacement approvals.

The key existing features within the ESE area are shown in the figures below and include:

- Existing disturbance from pre-2017 open pit mining operations;

> Activities associated with care and maintenance water management, as depicted in
505 **Figure 4-14** and **Figure 4-15**, including clean water diversion drainage, the Barren Valley ELF and the associated BV-ELF mussel shell reactor, Pit 3 Pit Lake, and Lake Brazil.

In addition to the existing baseline water management arrangements at ESE, **Figure 4-15** also depicts the catchment context within which the proposed BPCP water management systems will be developed.

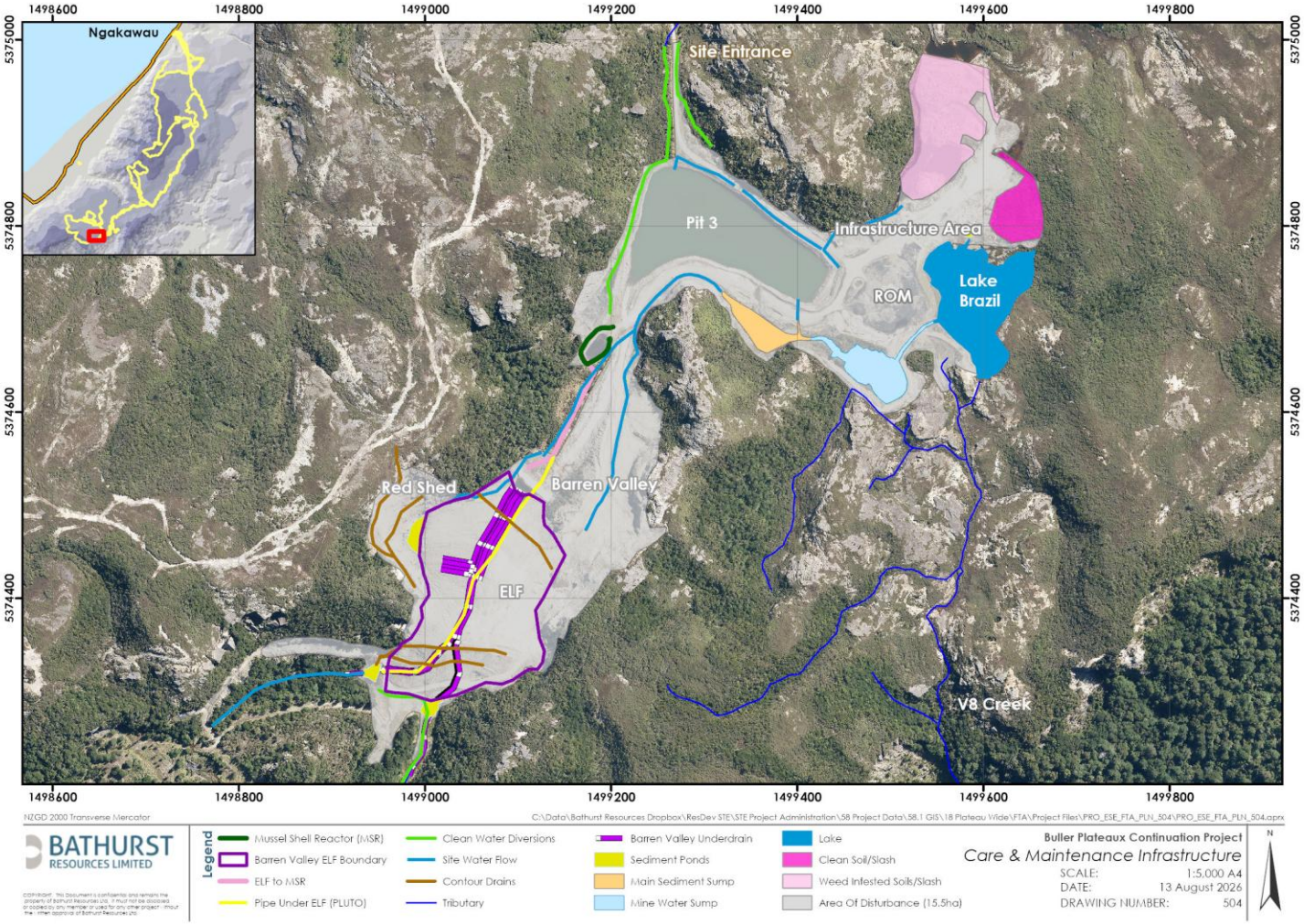

Figure 4-14: Escarpment Mine care and maintenance infrastructure

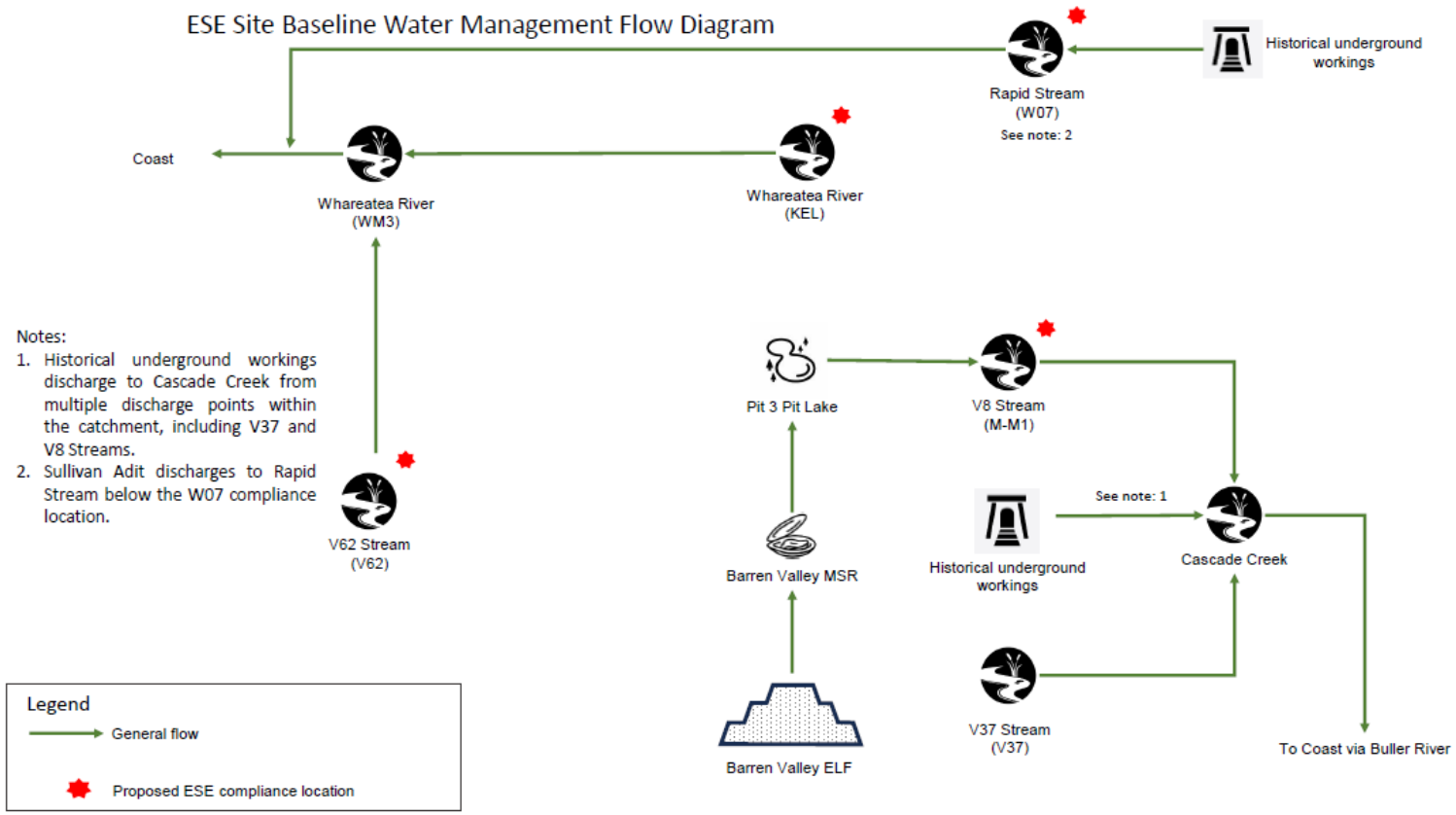

Figure 4-15: ESE Site Baseline (under care and maintenance) Water Management Flow Diagram

4.6.2 Proposed Operations

The key BPCP activities within ESE are summarised below. Further details on mining, access, infrastructure, water management, rehabilitation and closure are provided in the following subsections.

- Open pit mining operations;
- Activities associated with mineral resource investigation, exploration and environmental monitoring;
- Activities associated with water management;
- Construction, operation and maintenance of a Central Infrastructure Area and Coal Haulage Infrastructure Area, as shown in **Figure 4-16** below;
- A bulk explosives plant and high explosives magazine; and
- Use of the Waimangaroa Storage Yard.

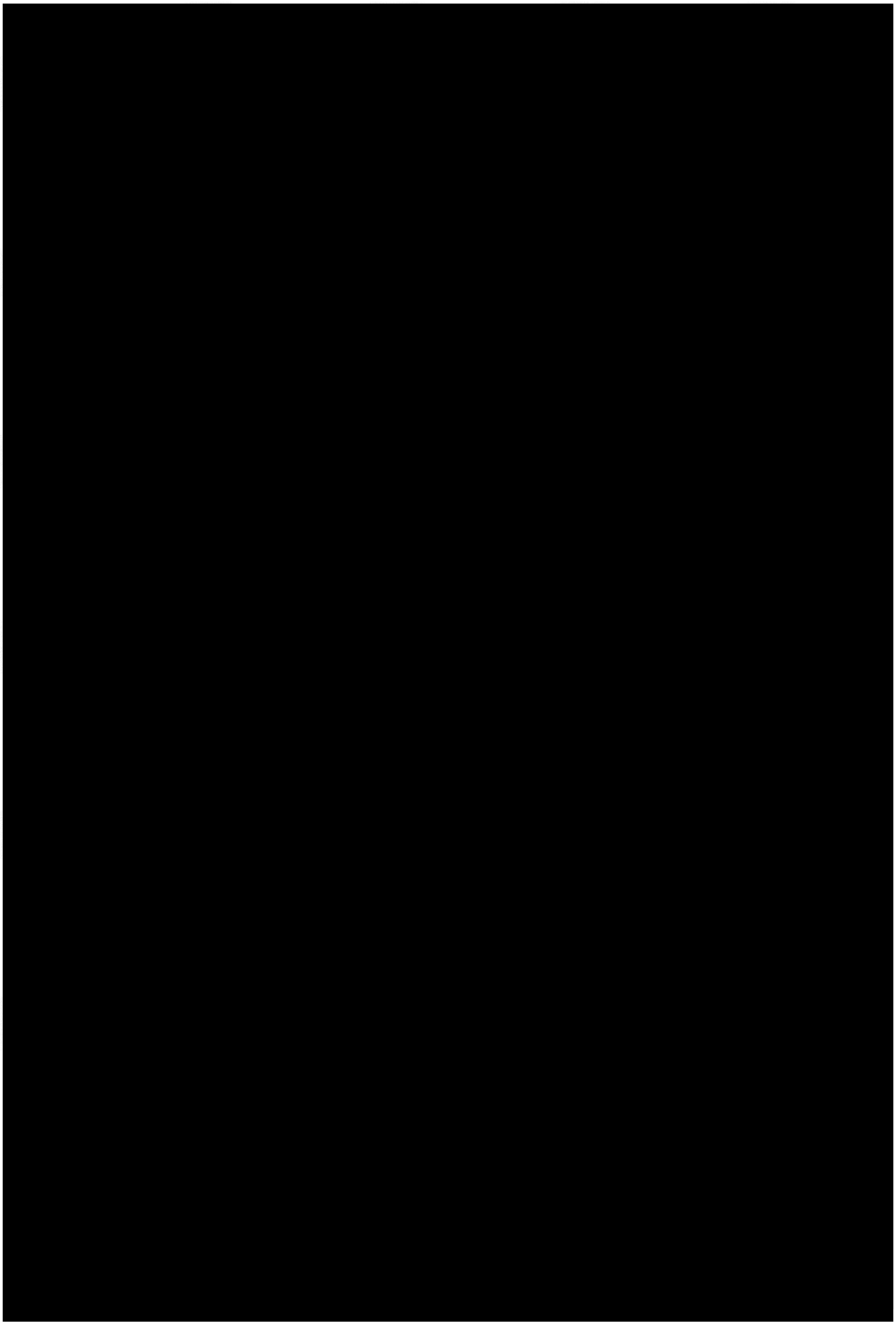

Figure 4-16: Escarpment Extended Central Infrastructure Area

4.6.3 Exploration Drilling

525 Ongoing exploration drilling is planned across the ESE and is required for monitoring purposes and to refine coal resource/reserve classifications and overburden characteristics

for AMD modelling and ELF design. Drilling may be undertaken via ground-based access or, if required, via helicopter lifts.

Infill coal quality drilling is a routine part of general mining operations and will be conducted during the operation of the ESE mine.

4.6.4 Mining and Development Overview

ROM coal from the ESE Sub-Area will be transported to Stockton for processing or blending, depending on coal quality and product requirements. Reject material generated through processing will be managed within existing and planned facilities at Stockton.

The development of the ESE Sub-Area will progress through construction, mining and closure phases. Mining will be staged to align with resource development, water management, rehabilitation and blending requirements.

Construction within the ESE Sub-Area will focus on establishing access, core infrastructure, initial water management systems and the first areas required for mining. Key activities include:

- Site establishment works;
- Construction of initial access roads and security facilities, noting that during construction the security facilities are likely to be located closer to the operational area, enabling ongoing public access to greater areas of the Denniston Plateau;
- Topsoil and vegetation stripping;
- Development of initial sumps, ponds and drains;
- Development of the water treatment facility;
- Ex-pit seal excavation;
- Box cut excavation; and
- Mine-impacted water will be managed according to the break-in and construction sediment management plans.

Mining will be undertaken in a series of stages, as shown in **Figure 4-17** below. Before disturbance occurs in each stage, appropriate heritage, flora and fauna management, and soil and vegetation salvage will be undertaken. Salvaged material will be stored or directly used for rehabilitation where practicable.

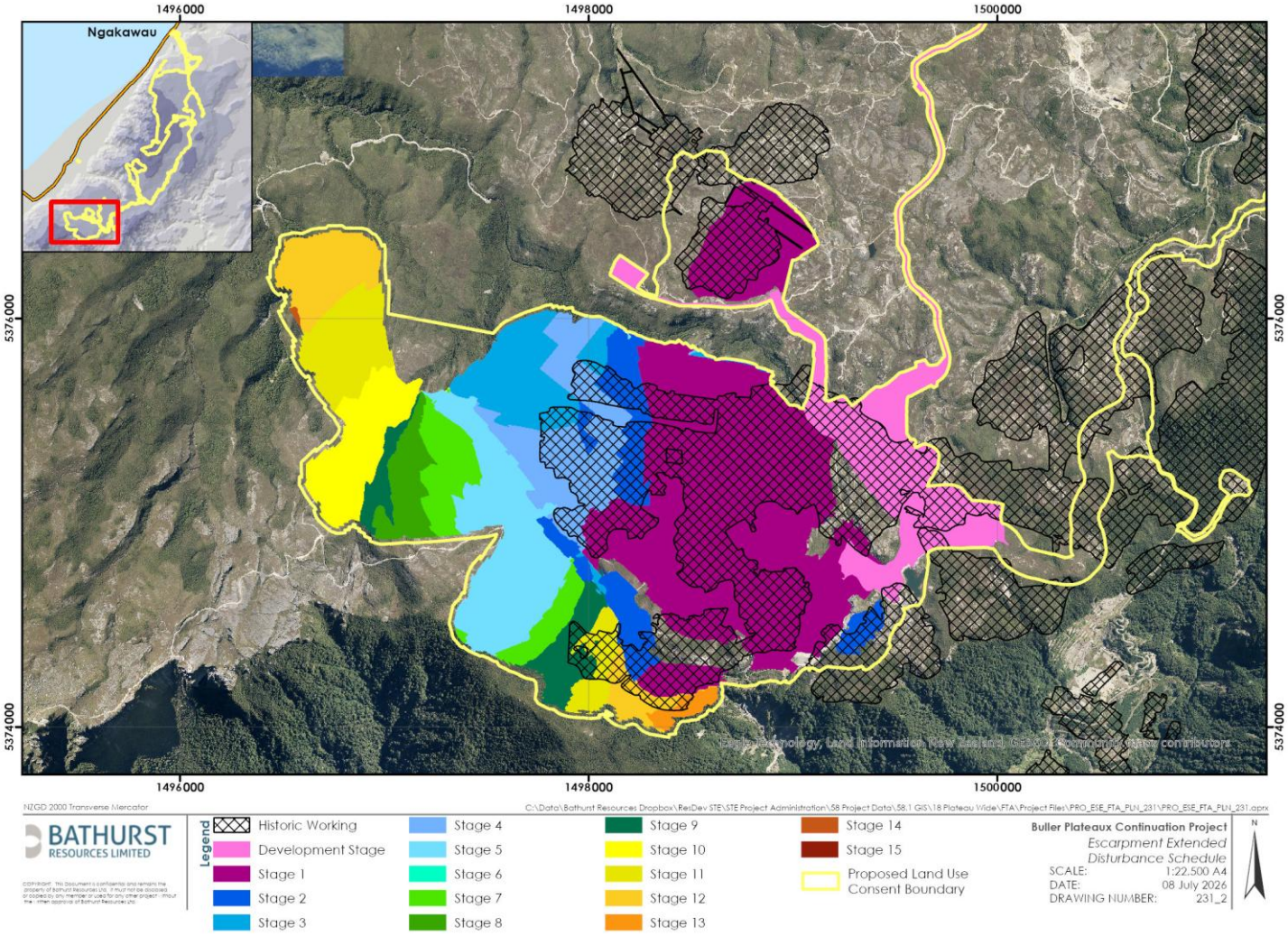

Figure 4-17: Proposed Mining Stages at ESE

As mining progresses, overburden will be excavated, coal will be extracted and waste rock will be placed in accordance with the Project AMD management framework. PAF material will be backfilled in-pit or placed within ELFs, while NAF material will be used for capping, construction and final landform shaping where suitable.

Coal production will occur alongside progressive rehabilitation, reshaping and revegetation of areas where final landforms have been achieved.

Closure planning for ESE will be integrated with progressive rehabilitation from the outset of mining. Rehabilitation will be undertaken as soon as practicable once landforms reach their final design, using VDT where practicable and salvaged soil and vegetation where VDT is not available. Overburden and backfill areas will be capped with suitable NAF material to support stable final landforms and reduce AMD generation.

GPS and standard surveying techniques will be utilised to ensure the final shaping is stable and has natural contours. The overall aim of the closure phase is to create constructed landforms that integrate with the surrounding Denniston Plateau and, combined with the establishment of indigenous vegetation and rockfield features, to reflect the natural character of the area. Final closure designs will be developed in consultation with the landowners, Iwi and stakeholders to ensure that appropriate public access is established and maintained.

4.6.5 Pest Exclusion Fenced Areas

Two pest-exclusion fenced areas are proposed on the Denniston Plateau. These are named Denniston North and Coalbrookdale and are shown in **Figure 4-18** below.

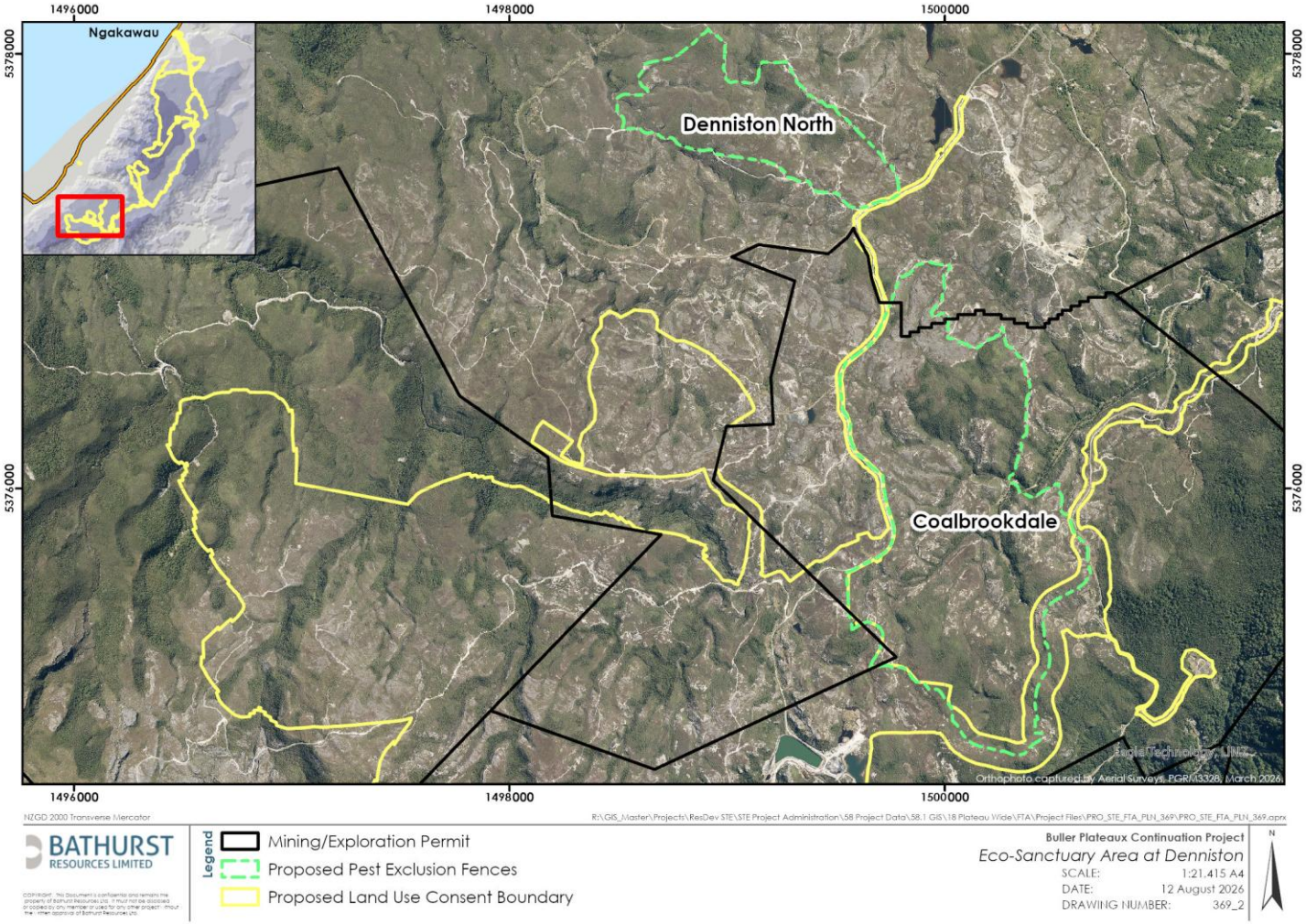

Figure 4-18: Proposed Pest-Exclusion Fenced Areas on the Denniston Plateau (outlined in green)

The Denniston North pest-exclusion fenced area will be established on the northern edge of the ESE Sub-Area. The proposed alignment generally follows existing roads and tracks and is expected to be constructed during the initial BPCP construction phase alongside broader pest and weed control across the Plateaux.

The Coalbrookdale pest-exclusion fenced area will be established on the eastern edge of the ESE Sub-Area. The proposed alignment generally follows existing or proposed roads and tracks, with stream crossings managed through appropriate culvert design. Construction is expected to occur during the early years of the Project, coordinated with the wider disturbance and biodiversity management programme.

As part of Bathurst's existing commitments to enhancing indigenous biodiversity outcomes, Bathurst proposes to continue implementing the remaining elements of the existing Escarpment Mine Compensation Package in accordance with the existing DOC AA. Bathurst will continue to make the remaining compensation payments to DOC in accordance with the existing payment schedule, with DOC responsible for delivering the DPPA, DBEA and HBEA compensation activities. All heritage compensation commitments have, however, been completed.

Continuing the Escarpment Mine Compensation Package alongside the proposed REP creates some overlap between existing and proposed biodiversity measures. This includes approximately 57.7 ha of the original 107 ha DOC AA compensation footprint that is also proposed to be disturbed under the BPCP, and the 4,990 ha DBEA pest and predator control area, which sits entirely within the proposed Landscape Scale Control Area.

Bathurst intends to discuss these overlaps with the regulatory authorities to identify an appropriate approach that recognises existing commitments, avoids unnecessary duplication, and directs resources towards achieving the greatest biodiversity benefit.

4.6.6 Access

Access to ESE will be via Denniston Road, the Denniston historic coal mining area and Whareatea Mine Road to the existing Escarpment Mine area. Public access beyond the mine gate will be managed for health, safety and operational reasons.

As part of the BPCP, the ESE Sub-Area will be connected to the Stockton Sub-Area by the proposed UWHR.

4.6.7 Haul Roads

Upgrades to the Whareatea Road will occur during the first year of Project development, along with the ex-pit bulk haulage network for mining. Erosion and sediment control will be implemented during construction.

The aggregate used for construction and civil works will primarily be sourced from borrow pits within Project Sub-Areas, targeting Berlin Quartz Porphyry, with further drilling confirming the quantity of aggregate available from each borrow pit. If required during the early stages of development, aggregate will be sourced from commercial suppliers off the Buller Plateaux.

Access and supply roads, including Whareatea Road, will be designed to accommodate mine traffic, drainage, safety berms and operational requirements. Whareatea Road from Denniston to the mine gate is expected to remain a gravel road, with speed management applied as required for safety, dust and road condition management.

The development of the haul road network at ESE will require two road crossings over the Whareatea River. Sufficiently sized culverts/box culverts will be placed underneath the crossings to allow for unimpeded flow of the Whareatea and thereby enabling passage for koura.

Culverts will be required for the LOM ex-pit haul roads and LV roads. Where these culverts pass through natural waterways, fish passage has been considered. The relevant assessments are attached in **Part B** to this application. In addition, visual plans showing the locations of the proposed culverts are provided and discussed in **Chapter A.13 – Freshwater Fisheries and Dispensations**.

4.6.8 Infrastructure Areas

ESE infrastructure will be grouped into three main areas, as summarised below:

- Central Infrastructure Area;
- Coal Haulage Infrastructure Area; and
- Bulk explosives sites – Bulk Explosives Plant and Magazine.

The Central Infrastructure Area will be the main ESE production and support hub, located adjacent to the mining operations. It will include access control, administration, workshops, stores, emergency response facilities, parking, utilities and other operational support infrastructure.

The gatehouse and administration facilities will control access to the ESE site and support worker induction, visitor management, emergency response and day-to-day site administration.

The Coal Haulage Infrastructure Area will be located near the UWHR connection point and will provide the primary coal stockpiling and loading area for ESE. ROM coal will be delivered to stockpiles according to quality requirements before being loaded and transported to Stockton for processing or blending. Runoff from the coal stockpile area will be directed to sediment management and water treatment infrastructure before discharge.

Supporting facilities in the Coal Haulage Infrastructure Area will include infrastructure for haul truck servicing, washdown, tyre management, fuel storage, power supply, lighting and dust suppression. Washdown and operational runoff will be collected and directed to the water treatment system where required.

4.6.9 Hazardous Substances

Hazardous substance facilities at ESE will include a bulk explosives plant, an explosives magazine, fuel storage, refuelling areas, workshop-related storage and water treatment chemicals. These facilities will be located, designed and managed to maintain appropriate separation distances, containment and operational controls.

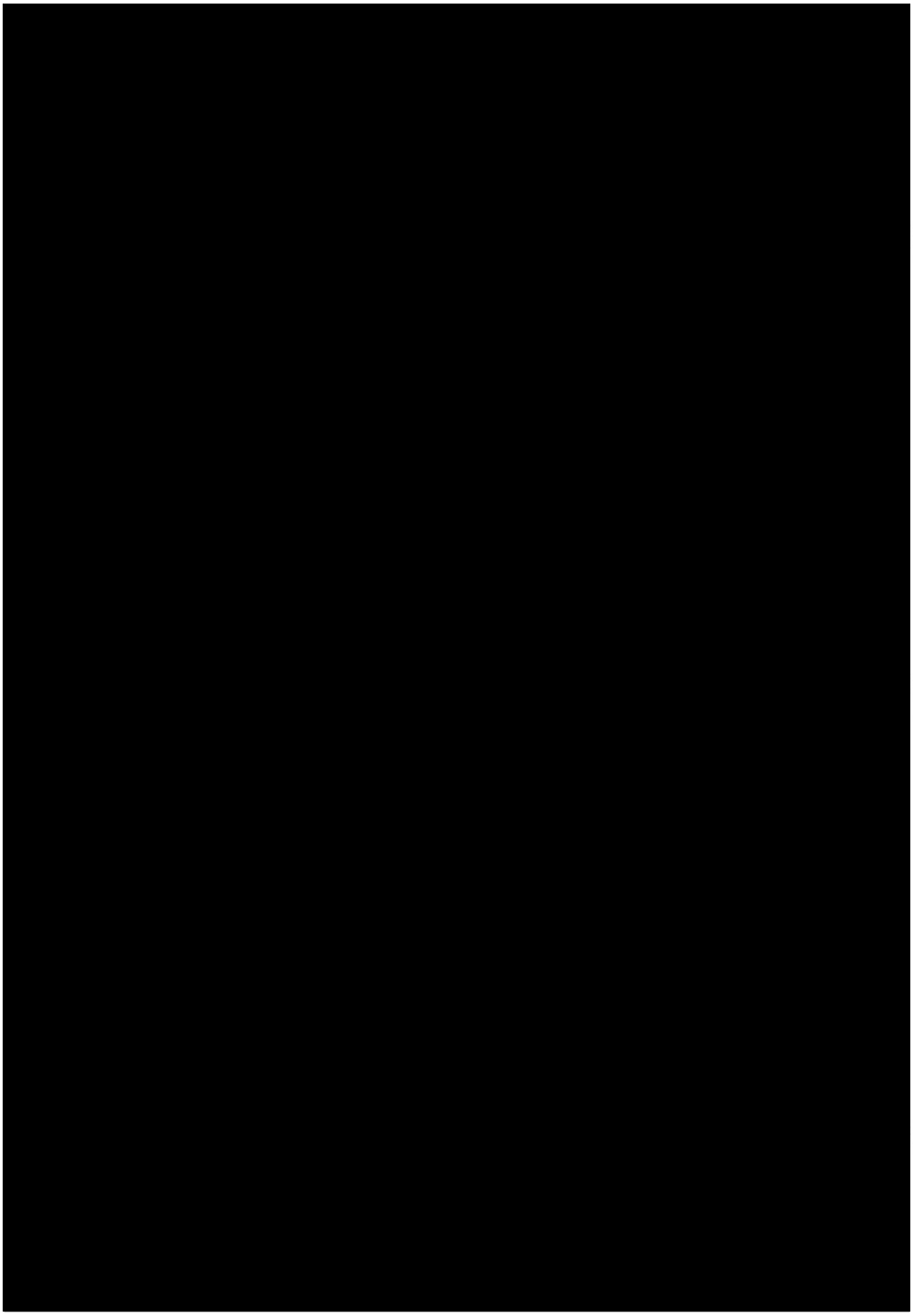

Figure 4-19: Explosives Storage at ESE

660 Hazardous substances may be used during the development phase for water treatment as part of the erosion and sediment control systems and for electricity generation.

4.6.10 Sewerage

Sewerage for the main ESE infrastructure areas will be managed through appropriately designed on-site systems. Smaller satellite facilities, such as crib huts, will use collection tanks that are serviced and managed through approved systems.

4.6.11 Refuse Transfer Station

Waste generated at ESE will be collected, sorted where practicable and removed from site for reuse, recycling or disposal at authorised facilities. A refuse transfer area will be established to support temporary storage, separation and removal of general site waste.

4.6.12 Tyre Storage

Tyres stored outdoors will be placed on low-permeability surfaces with runoff directed to the water treatment system, and all storage areas will include access and provisions for firefighting.

Bathurst will also use the Tyre Wise scheme to regularly remove end-of-life tyres from the project area to minimise on-site stockpiling and storage requirements.

4.6.13 Electrical Infrastructure

Initially, site operations will use generator power, transitioning to a combination of mains and generator supply as the Project develops.

The existing electricity supply network serving the Mount Rochfort facilities traverses parts of the ESE mining area. As mining progresses through the various stages of the Project, sections of this network may require relocation, realignment or replacement to maintain safe separation from mining activities and to ensure continuity of electricity supply.

The gatehouse will have backup power to maintain operations and emergency response capability. Generators will supply key facilities, including workshops, the tyre bay, the Coal Haulage Infrastructure Area and the WTP, with smaller generators providing power for ancillary facilities and standby capacity for critical infrastructure.

Generator fuel storage, refuelling and servicing will be managed in accordance with applicable hazardous substance requirements.

4.6.14 Lighting

Lighting will be installed around amenities, parking areas and key infrastructure to provide safe access and operation. This will include fixed lighting for established facilities and mobile lighting towers for temporary work areas such as coal stockpiles and operating

faces. Lighting will be designed and operated to minimise unnecessary spill where practicable.

4.6.15 Fuel Tanks

Fuel will be delivered to ESE by road tanker and stored in appropriately designed and contained facilities within the Central Infrastructure Area.

Fuel storage and delivery arrangements will be staged to meet operational demand during production ramp-up and will be progressively removed or decommissioned at closure. Delivery frequency will vary with production requirements, generator use and other operational demands.

Dispensing areas will include appropriate containment, sumps, hydrocarbon separation and overfill prevention systems.

4.6.16 Fire Fighting Facilities

Primary firefighting equipment will be water cannons fitted to mine water carts. These units will be in continuous operation for dust suppression and equipment water supply around the Project Sub-Area. Other firefighting equipment and the management centre will be in the Emergency Response Team building at the Central Infrastructure Area.

4.6.17 Helicopters and Drones

Helicopters and drones will be used across the Sub-Area for activities such as exploration, transporting equipment and supplies, survey photography and weed spraying.

4.6.18 Water Management

Water management at ESE will operate across the Rapid Stream, Cascade Creek and Whareatea River catchments. The system will build on existing care and maintenance arrangements and will be adapted as construction, mining, rehabilitation and closure progress.

The overarching approach is to separate clean water from disturbed areas where practicable, collect and treat mine-impacted water, manage sediment, and progressively reduce AMD generation through source control, engineered landform design, rehabilitation and adaptive water treatment.

4.6.18.1 Rapid Stream Catchment

Rapid Stream is affected by legacy AMD generated from historic underground workings within the Northern Sullivan area. Mine-impacted water from these workings continues to discharge to the catchment and contributes to existing degraded water quality.

Within the Rapid Stream catchment, the BPCP will establish access roads and the Northern Sullivan NAF ELF. The development has been designed so that clean water is diverted away from disturbed areas wherever practicable and mine-impacted water is separated from clean runoff. Roading will preferentially utilise NAF material, and any mine-impacted runoff, seepage or contact water will be captured and directed to collection sumps for treatment where required.

The Northern Sullivan ELF will be constructed primarily from NAF material and is not expected to generate significant AMD; therefore, a small MSR is proposed for passive treatment of the ELF seepage following rehabilitation. Runoff from the landform will be managed through perimeter drains and sediment retention structures prior to discharge to Rapid Stream.

Water management measures associated with the ESE development are intended to reduce the influence of legacy AMD sources over time and support progressive improvement in the downstream water quality of Rapid Stream.

4.6.18.2 Cascade Creek Catchment

Cascade Creek is already significantly influenced by historic mining activities, including legacy underground workings associated with the Escarpment, Coalbrookdale and Whareatea mining areas. Several historic adits continue to discharge AMD to the upper catchment and are a major contributor to the existing degraded water quality conditions.

Existing water quality within the upper reaches of the Cascade catchment reflects these historic AMD inputs, while water quality progressively improves downstream through dilution from less-affected tributaries. The majority of AMD currently affecting Cascade Creek originates from historic mining activities rather than contemporary mining operations.

A key component of the ESE water management strategy is the construction of the ex-pit seal. The ex-pit seal will intersect part of the historic underground workings and will perform three functions:

- Intercept and hydraulically control mine-impacted water from historic workings;
- Provide buffering and storage of mine-impacted water prior to treatment; and
- Supply water to the active WTP.

In conjunction with mining activities, some historic underground connections may also be sealed through excavation, drilling and backfilling where practicable. Collectively, these measures are intended to reduce the volume of untreated legacy AMD reporting to Cascade Creek and improve the ability to actively manage mine-impacted water.

During operations, mine-impacted water generated within the ESE area will be captured and directed to the WTP for treatment of acidity, suspended solids and dissolved metals prior to discharge. Treated water may be discharged to either the Cascade or Whareatea catchments, depending on operational requirements and catchment water balances.

Following mine closure, water treatment is proposed to transition progressively from active treatment to passive treatment systems associated with rehabilitated landforms. Passively treated discharge will report to V37 Creek and V8 Creek within the Cascade catchment.

Relative to the existing baseline condition, where historic underground workings discharge untreated AMD to the Cascade catchment, the BPCP water management system is expected to result in a net improvement in downstream water quality through interception, treatment and management of both historic and Project-related mine-impacted water.

During extreme rainfall events, emergency spill and bypass discharges may occur in accordance with the design assumptions adopted for the Project water management system.

4.6.18.3 Whareatea River Catchment

The Whareatea River catchment will contain portions of the ESE mine infrastructure, operational mining areas and long-term rehabilitated landforms. Water management within this catchment is based on the separation of clean water and mine-impacted water, along with the collection, treatment and controlled discharge of mine-impacted water.

During operations, mine-impacted water will be collected through a network of drains, sumps and the ex-pit seal before being directed to the WTP. The WTP will treat water for acidity, suspended solids and dissolved metals prior to discharge. Depending on operational requirements and catchment water balances, treated water may be discharged either to the Whareatea River catchment or to the Cascade Creek catchment.

As rehabilitation progresses and the requirement for active treatment reduces, treatment is proposed to transition to passive treatment systems associated with rehabilitated landforms and final landform seepage collection systems. Treated discharge will ultimately report to the Whareatea River and its tributaries.

During extreme rainfall events, emergency spill and bypass discharges may occur in accordance with the design assumptions adopted for the Project water management system.

4.6.18.4 Clean Water Diversion of Trent Stream

A clean-water diversion is proposed for the upper reaches of Trent Stream to separate clean runoff from active mining areas and reduce the volume of water requiring treatment. The diversion will intercept headwater flows upstream of mining activities and route those flows around the active mine footprint.

The diversion is proposed to discharge to both the Whareatea catchment (via V62 Stream) and the Cascade catchment (via V37 Stream), thereby maintaining flow pathways around the active workings while minimising interaction between clean water and disturbed mine surfaces.

This arrangement represents a temporary operational water management measure. As mining advances and final landforms are established, the diversion system may be modified to support the final closure water management configuration. Where portions of the diversion are subsequently utilised for mine-impacted water conveyance, those flows will be directed to collection and treatment systems prior to discharge.

4.6.18.5 In-Pit Water Management

Mine-impacted water generated within operational pit areas will be collected and managed through a combination of drains, in-pit sumps, pumping infrastructure and treatment systems. The objectives of the system are to maintain safe mining conditions, minimise uncontrolled discharge and enable collection and treatment of mine-impacted water.

Key components of the in-pit water management system include:

- Collection of mine-impacted water within in-pit sumps and pumping to the WTP for treatment;
- Use of sediment collection and settlement structures to reduce suspended solids;
- Interception of seepage through underdrains and collection systems where practicable;
- Management of runoff through roadside drains and water conveyance infrastructure;
- Development of the North Whareatea Sump as a key mine water collection point; and
- Clean-water diversion and cut-off drains to minimise contact between runoff and disturbed materials.
- Treated water will discharge via polishing ponds prior to release to receiving waters.

4.6.18.6 Overburden and AMD Management

AMD management at ESE is based on the hierarchy of controls adopted across the BPCP, including source control, seepage control, water collection and water treatment.

Waste rock will be managed through engineered landforms specifically designed to minimise AMD generation. PAF materials will be encapsulated within engineered landforms and covered by NAF cover systems to limit oxygen ingress, reduce water infiltration and minimise sulfide oxidation. Rehabilitation and drainage controls will further reduce AMD generation over time.

Runoff from rehabilitated landforms will generally be separated from mine-impacted seepage and directed back to surrounding catchments. During the early stages of rehabilitation, runoff may continue to be directed to active treatment systems where required.

The Sullivan ELF is intended to function as a temporary source of NAF cover material during operations, with suitable NAF material progressively reused for closure cover systems and rehabilitation works.

Following closure, seepage from engineered landforms and pit areas will be collected and treated using passive treatment systems. Passive treatment systems will be sized and located based on detailed design, catchment hydrology, seepage volumes and water quality performance requirements.

4.6.18.7 Water Treatment Plant

A WTP will be constructed at the southern end of the Central Infrastructure Area to manage mine-impacted water generated within the ESE Sub-Area.

The WTP forms the primary active treatment component of the ESE water management system. Mine-impacted water collected from operational areas and the ex-pit seal will be directed to the WTP for treatment. The ex-pit seal will provide hydraulic control, flow buffering and temporary storage of mine-impacted water prior to treatment.

The WTP will be designed to treat suspended solids, acidity and dissolved metals and will utilise a combination of:

- Lime dosing using CaO for neutralisation and alkalinity generation;
- Flocculant dosing for suspended-solids removal;
- Clarification and settlement systems;
- Chemical treatment, where required, for dissolved metals removal;

> Polishing ponds prior to discharge; and

> Sludge collection, dewatering and management facilities.

Treated discharge water will be released to receiving waters in accordance with the Project water quality requirements and monitoring framework. During the operational phase, active treatment through the WTP will provide the principal water quality control mechanism, however the Project is expected to progressively transition to passive treatment systems as mine-impacted water loads reduce and rehabilitated landforms become established.

The proposed water management strategies during construction and operation at ESE are illustrated in the following diagrams (**Figures 4-20** to **4-22**):

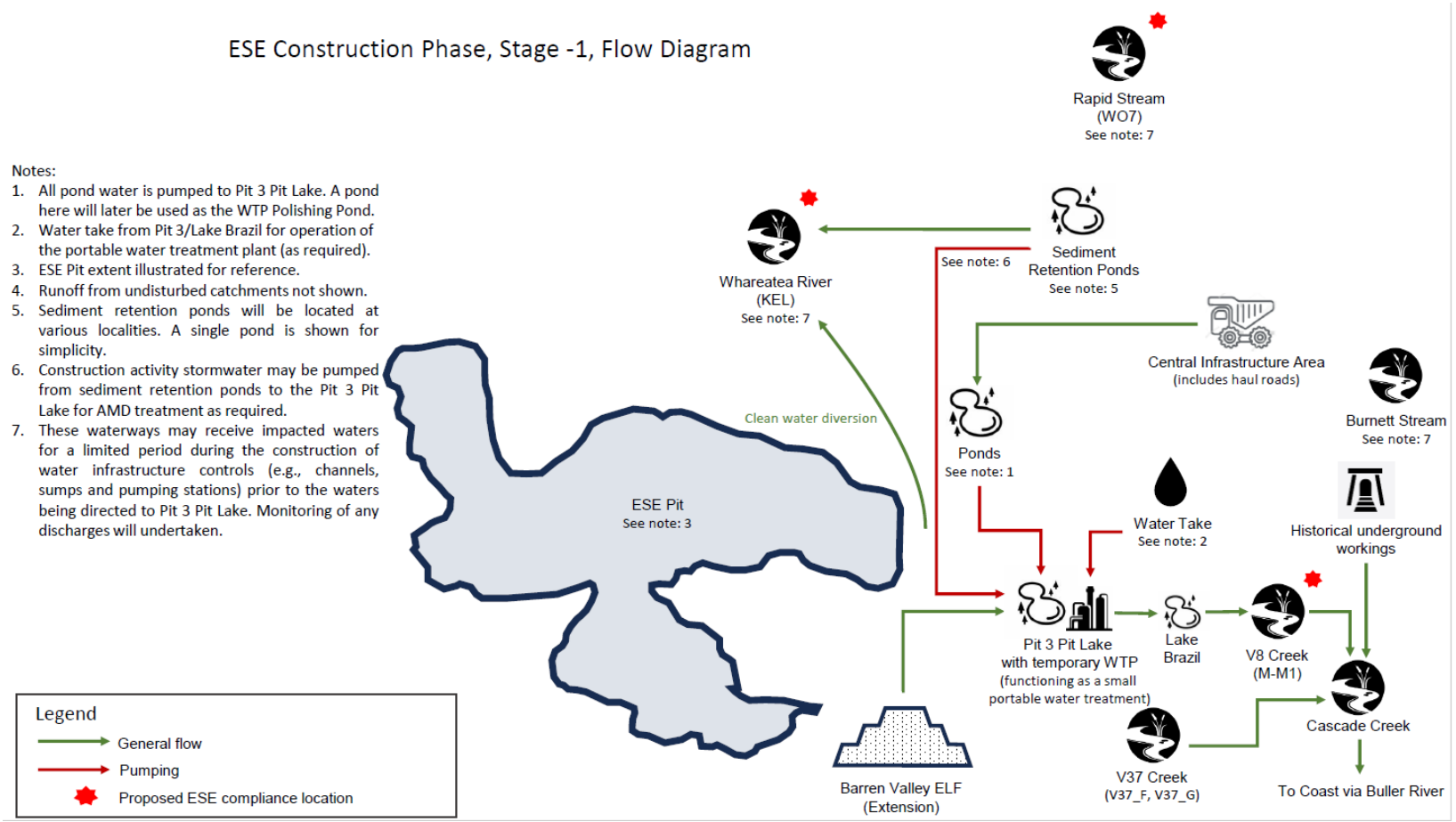

Figure 4-20: ESE Construction Phase, Stage -1, Flow Diagram

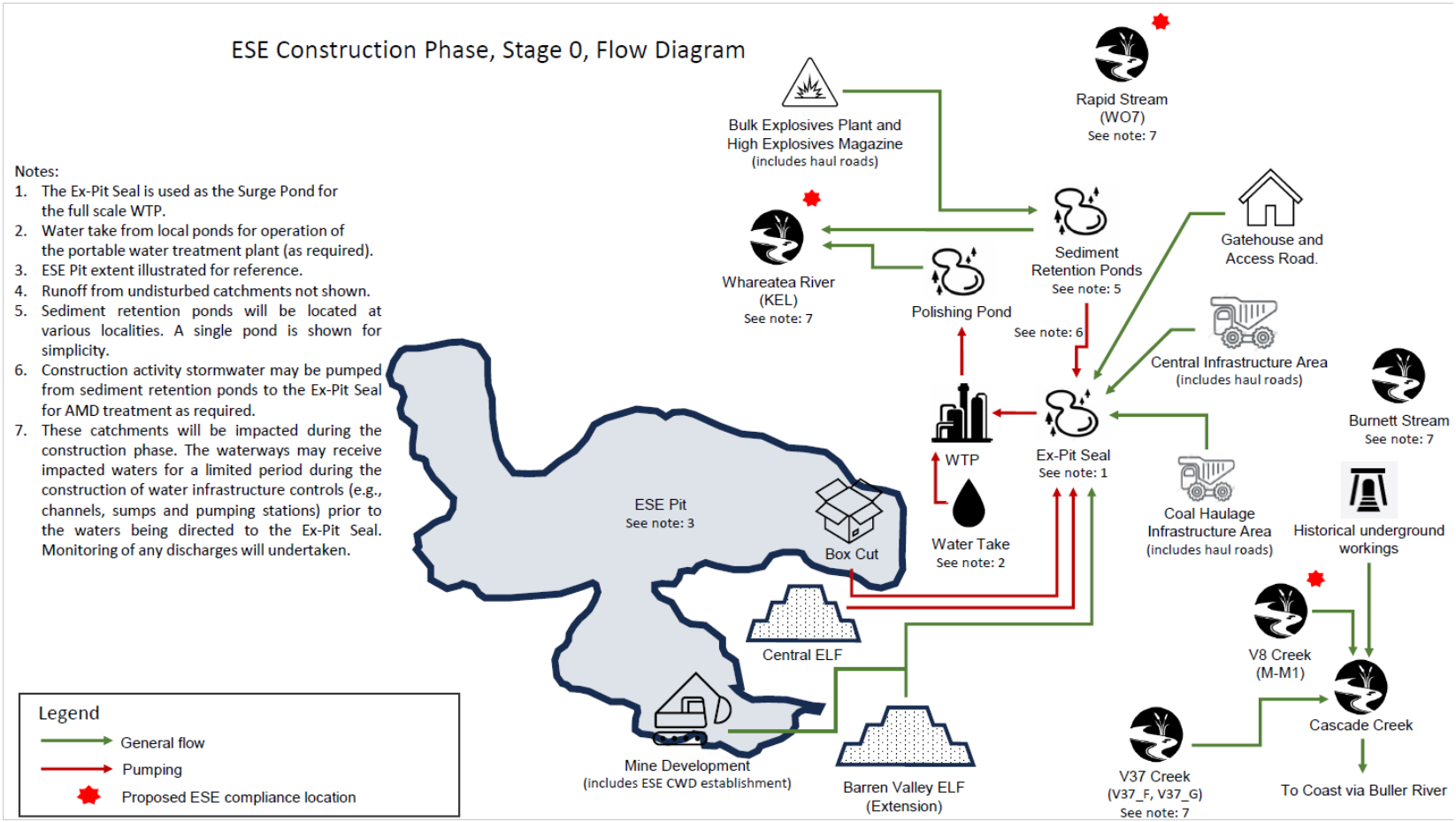

Figure 4-21: ESE Construction Phase, Stage 0, Flow Diagram

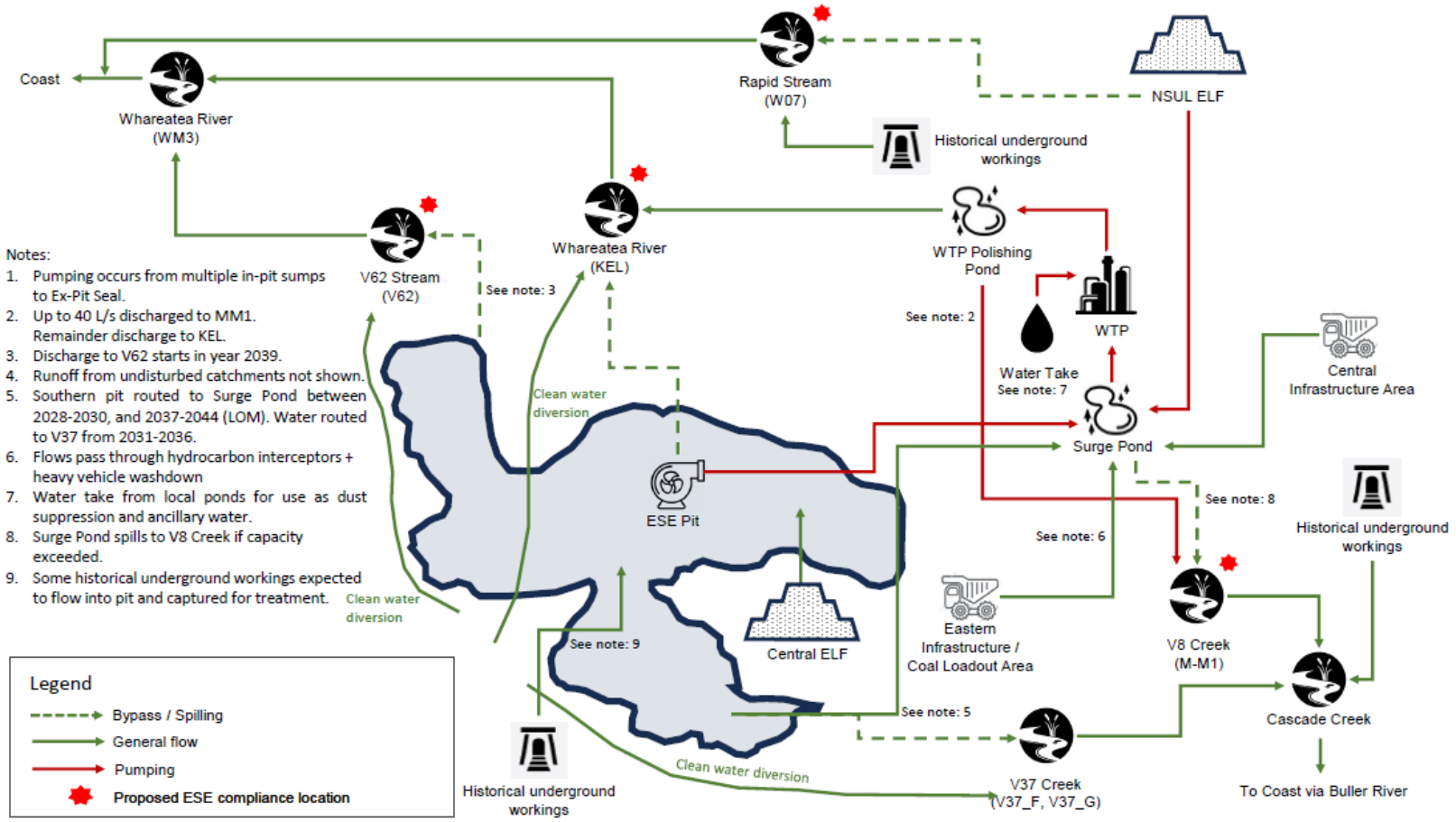

Figure 4-22: ESE Operational Phase, Flow Diagram

4.6.19 Rehabilitation

Progressive rehabilitation will be undertaken as soon as practicable as landforms reach their final design height. Where practicable, VDT will be used to establish cover on the completed landform. In areas where VDT is not available, stored soil will be applied as surface cover. Stockpiled vegetation will also be utilised to assist in stabilising and rehabilitating exposed mining benches.

Final landform shaping will be carried out using appropriately sized dozers, guided by high-precision GPS and standard surveying methods to ensure an accurate final surface.

4.6.20 Closure

Closure of the ESE Sub-Area will focus on creating stable landforms that integrate with the surrounding Denniston Plateau through native revegetation and rockfield features. Infrastructure will be progressively decommissioned, with opportunities to retain selected access routes or facilities for approved post-mining or recreational use, subject to consultation with iwi, landowners and stakeholders.

Water management systems will remain operational to ensure long-term AMD management. Haul roads and other disturbed areas will be reshaped and revegetated to suit the final land use. Final closure activities will also include the safe and contained management of fines and sludge materials within designated, lined and capped storage facilities, ensuring ongoing environmental protection beyond mine life.

The proposed water management system upon closure is illustrated in **Figure 4-23** below:

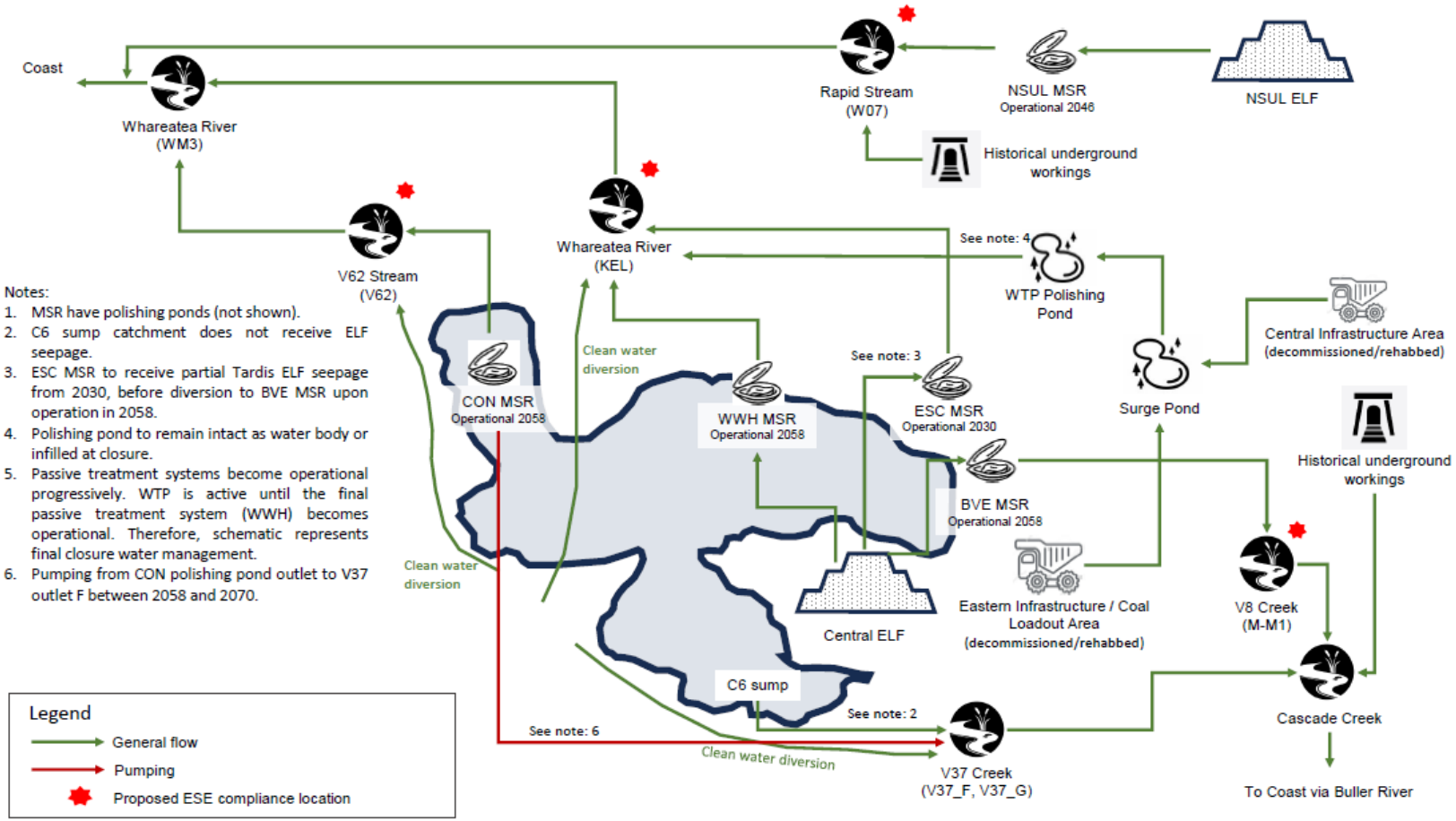

Figure 4-23: ESE Water management system upon closure

4.7 MOUNT FREDERICK SOUTH

The MFS Sub-Area is located approximately 1 km southwest of the Mount Frederick mining area at the Stockton Mine. This area will be accessed from the proposed UWHR, with a spur road constructed to enable access to the MFS Sub-Area. There are historic underground mines in this area, dating back to the late 1800s.

The key features of the BPCP within MFS include:

- Establishment of the main site access road, including a bridge crossing over Deep Stream and culvert crossing of the Waimangaroa;
- Development of an infrastructure area, water treatment facilities and supporting haul roads between mine elements;
- Construction of two main pits – East Pit and West Pit;
- Development of ELFs for overburden placement, and provision for backfilling pit voids;
- Establishment of a coal stockpile transfer area;
- Implementation of site-wide water management system, including sumps, culverts, diversion drains, channels, and treatment facilities;
- Undertaking of exploration drilling, production drilling, blasting, and coal extraction from the East and West pits;
- Wildlife and mining relic search and relocation, vegetation and soil stripping, direct transfer stockpiling, and geochemical waste rock characterisation to support pit development;
- Rehabilitation of disturbed areas, including reprofiling, soil and vegetation direct transfer, native planting, and site decommissioning;
- Ongoing site maintenance activities, including access road upkeep, revegetation, weed and pest control, drainage, and passive treatment system management;
- Site compliance monitoring covering meteorological conditions, water quality, aquatic environments, and terrestrial flora and fauna; and
- Coal transport, stockpiling, and rehandling activities.

4.7.1 Exploration Drilling

Additional infill drilling will be undertaken to further refine the resource and provide additional data to support mine planning. Drilling activities will focus on monitoring, coal resource definition, AMD analysis, washability sampling, and geotechnical profiling, supported by additional field mapping. Mine-impacted water is not proposed for use in

exploration drilling activities. Drilling will be undertaken using a helicopter-supported drill rig, as there will be no vehicle access to the site until the Deep Stream bridge is installed and access across the Waimangaroa River is established.

4.7.2 Mining Overview

MFS will be mined in two pits, the West Pit and East Pit. Coal within this targeted resource is a key component of the future export market blend requirements following the depletion of suitable Stockton coal resources.

Mining at MFS will be integrated with the Stockton and ESE operations, with minimal semi-permanent infrastructure on site. Small temporary staff crib rooms with toilets and potable water sources will be located on site to minimise the need to travel back to the main Stockton administration area for breaks. The site will also include a coal transfer stockpile area and water management infrastructure, including a water treatment plant.

MFS is considered a direct replacement coal for the current Millerton mining area at Stockton. Coal within this targeted resource is a key component of the future export market blend requirements following the depletion of suitable Millerton coal resources.

4.7.3 Access Road

Access to MFS will be provided from the UWHR via the MFS Access Road. The road will be designed to minimise erosion and unnecessary disturbance, using cut sections where practicable and appropriately designed fill, drainage and waterway crossing structures where required. Connection to the UWHR will enable coal from MFS to be transported to Stockton for processing or blending.

The design incorporates the following parameters:

Aggregate and roading materials will be sourced from the existing Stockton A-Drive Borrow Pit. Erosion and sediment control will be implemented during construction in accordance with the BPCP Erosion and Sediment Control Plan.

Several waterway crossings will be required for the construction of the MFS Access Road. Some of these involve ephemeral streams that only flow during heavy rain events. There are three main water crossings for this road:

- Waimangaroa River crossing (MFS1) - A set of box culverts will span the river. The crossing will act as a ford and is planned to overtop during flood events;
- Deep Stream tributary crossing (MFS4) - A box culvert crossing, which will span an unnamed tributary of Deep Stream; and

> Deep Stream crossing – An approximately 50 m single-span bridge will cross Deep Stream.

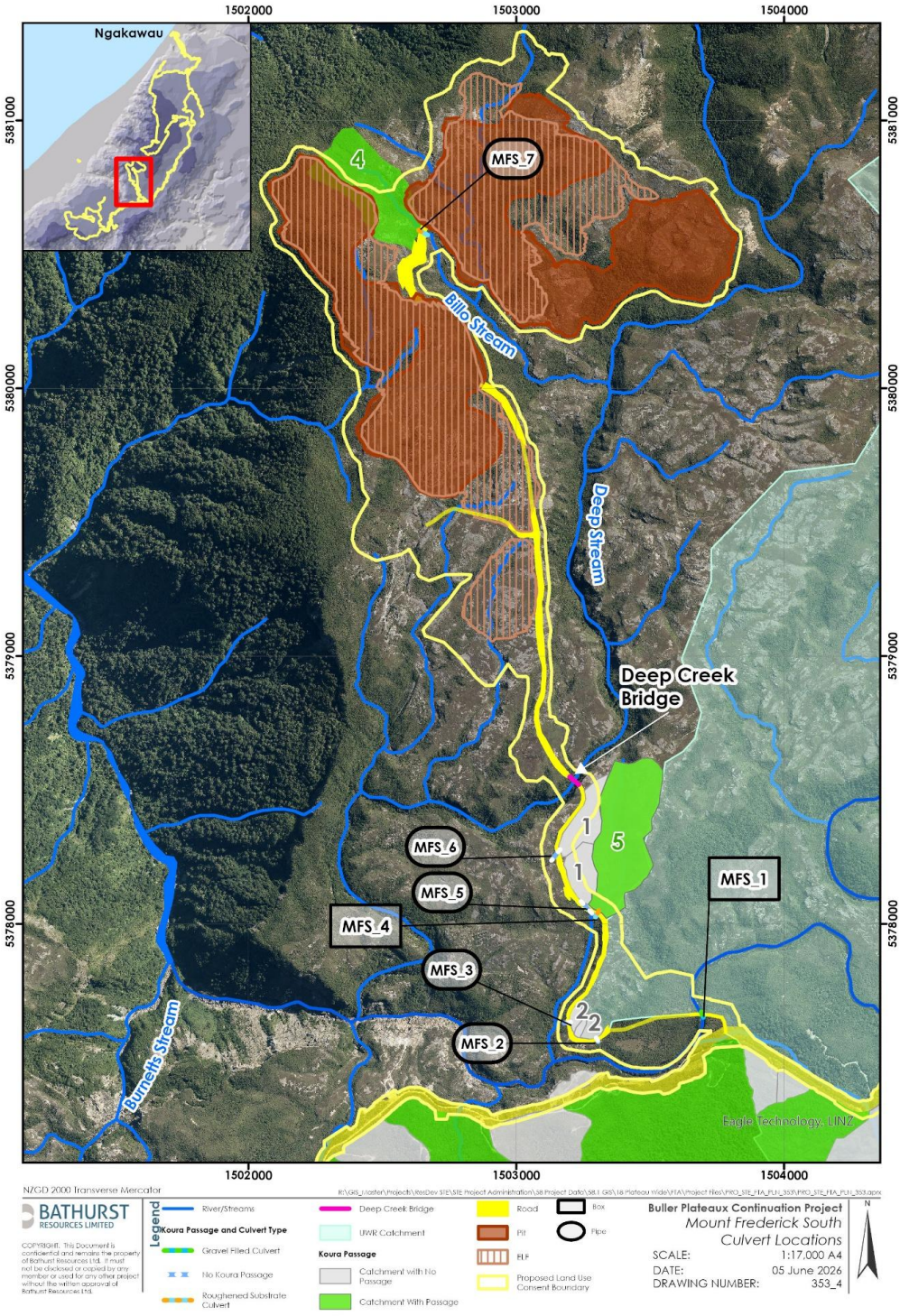

Figure 4-24: MFS culvert and bridge locations.

4.7.4 Waimangaroa River Box Culvert Crossing

Access to MFS will be provided via large box culverts across the Upper Waimangaroa River. The culverts are designed to maintain natural river flow, minimise disturbance to the riverbanks, and avoid upstream flooding. Their size and placement will ensure safe, reliable access during most weather events, while reducing the need for major earthworks and runoff controls.

4.7.5 Deep Stream Bridge

A single-span bridge over Deep Stream is required for access to MFS from the south. This option was selected because it reduces earthworks, limits disturbance to the gorge and provides more reliable access in challenging terrain and weather conditions.

The bridge will be designed for heavy mining vehicles and constructed to minimise ground disturbance. Installation is expected to use methods suited to remote and difficult terrain, including prefabrication, lifting or launching techniques, and limited construction access within the gorge itself.

4.7.6 Infrastructure and Facilities

As previously discussed in Section 4.7.2 above, mining at MFS will be integrated with the Stockton and ESE operations. As such, minimal infrastructure is needed on site.

Coal from MFS will either be processed through the Stockton CHPP or transported directly for blending with other Plateaux coals prior to export, depending on coal quality and product requirements.

Offices and administration functions for the MFS operations will be incorporated into the ESE infrastructure.

There will be no maintenance workshops at MFS. Mobile equipment will be maintained at permanent facilities, either at Stockton or ESE. Semi-mobile equipment, such as shovels and excavators, and breakdown maintenance requirements will be met with mobile maintenance facilities. This will include a resourced maintenance truck and the use of temporary scaffold structures as required.

Refuelling/lube and maintenance for MFS will be facilitated by mobile vehicle-mounted facilities.

A double skinned, self-bunded fuel tank will be installed on the coal stockpile area. This will supply fuel for the water treatment plant, and other fixed and mobile plant. Refuelling of vehicles and plant on the mine-site will be undertaken by a mobile fuel and lube truck.

Explosive products will be supplied as required from facilities established for ESE operations. No explosive products will be stored on site at MFS.

The mining phase hazardous substances storage at MFS is limited to substances required for water treatment, equipment fuelling and the transient use of hazardous substances brought to site for blasting.

Water treatment at MFS will require pH modifiers, which have corrosive hazard classifications, along with non-hazardous flocculants and chelating agents. During construction of the new facilities in the MFS Sub-Area, temporary water treatment systems will be established for the management of sediment runoff. Treatment chemicals may also include pH modifiers, such as caustic soda or lime slurry, and non-hazardous flocculants. During construction, areas where hazardous substances are stored will be designed to drain back to the containment ponds.

There will be a defined helicopter landing area within or immediately adjacent to the mining operations. However, it will only be used for emergency access. Helicopter support will be required at MFS at least until the MFS access road is operational.

Drones are proposed to be used across the project site for activities such as survey photography and weed spraying.

4.7.7 Dust Suppression

Dust suppression will be managed through water carts servicing both in-pit and access roads. Water will be sourced from a new pump station and storage facility associated with a new water take from the Waimangaroa River, or from operational pits and sumps, for the purposes of:

- Dust suppression along the mine roads and UWHR;
- Commissioning and operating the water treatment plant; and
- Supplement rainwater at times for the staff crib huts and ablution blocks.

4.7.8 Development and Staging

The development of the MFS Sub-Area will be progressive, as shown in **Figure 4-25**, and will include initial soil stripping activities before infrastructure, water structures, roads, pits, or ELFs are constructed.

The schedule will be coordinated with ESE production to meet blending requirements.

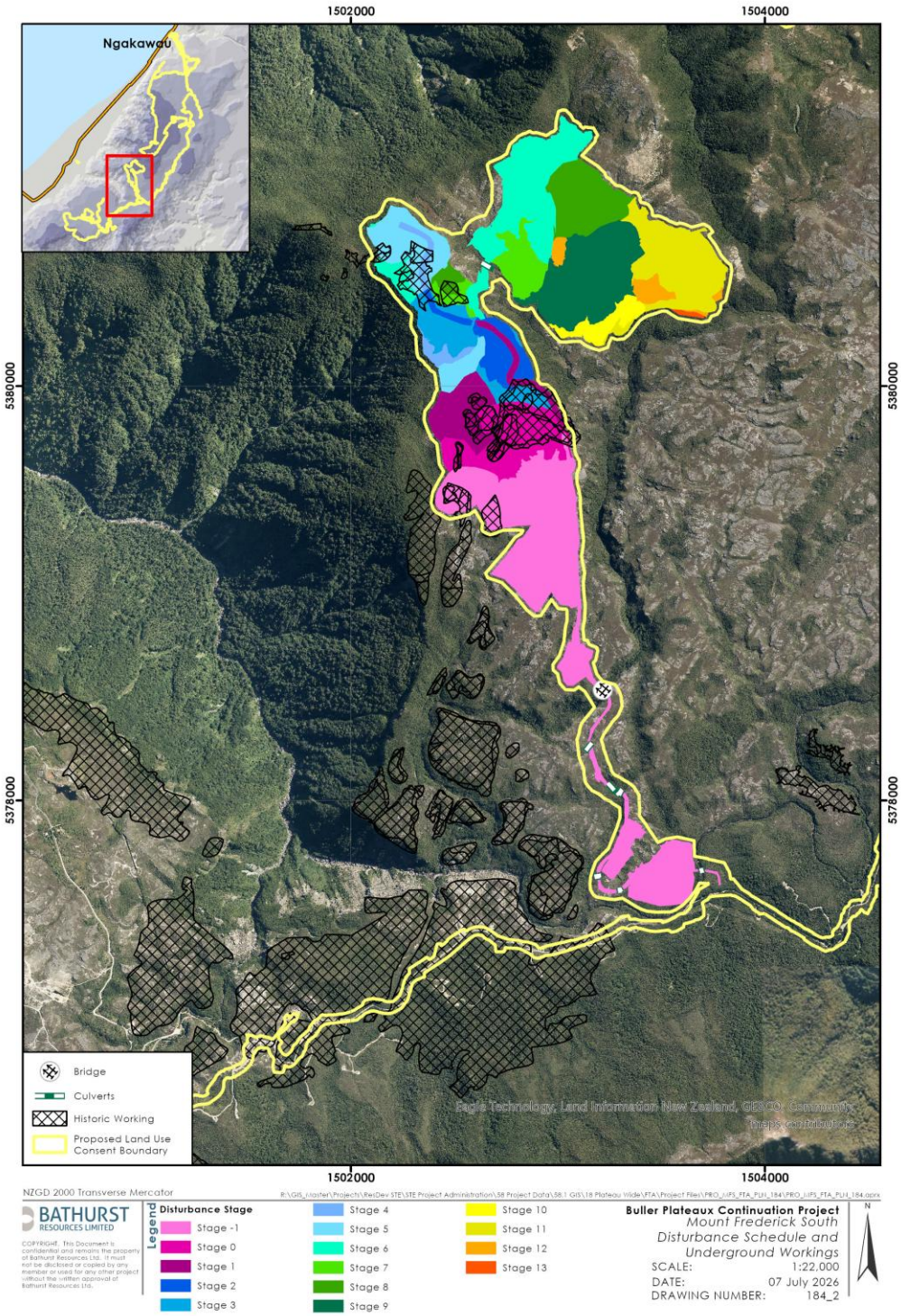

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Figure 4-25: Disturbance Schedule at MFS

Backfilling will occur progressively, with material placed and compacted within completed pit voids. Soils and vegetation will be salvaged for rehabilitation use or stockpiled for later placement.

Haul roads will be constructed to support mining operations, with appropriate widths, gradients, drainage and safety berms. Waterway crossings will be designed to minimise disturbance, and suitable NAF or other appropriate road materials will be used where required to reduce the generation of mine-impacted water.

Operations at MFS will progress through construction, mining and closure phases. Mining will be staged to align with resource development, water management, rehabilitation and blending requirements.

4.7.8.1 Construction

Construction will focus on establishing site access and supporting infrastructure, beginning at the UWHR intersection and working towards the West Pit. This stage includes:

- Soil and vegetation removal and storage;
- Construction of the access road from the UWHR to the MFS mine area;
- Construction of culverts across Waimangaroa River;
- A bridge over Deep Stream;
- Water treatment facilities;
- A coal transfer pad;
- West Pit sump; and
- Ex-pit ELFs.

Mine-impacted water will be managed in accordance with the ESCPLDA.

4.7.8.2 Mining

Mining in the MFS Sub-Area will be undertaken in a series of stages, as shown in **Figure 4-25** above. Before disturbance occurs in each stage, appropriate heritage, flora and fauna management, and soil and vegetation salvage will be undertaken. Salvaged material will be stored or directly used for rehabilitation where practicable.

Operations then progress northward through successive stages, involving the excavation of overburden and the extraction of coal while managing the placement of waste rock. PAF material is backfilled in-pit or placed in ELFs, and NAF material is used for capping and shaping final landforms.

As mining advances, clean water diversions will be constructed and streams progressively redirected to support ongoing pit development. Throughout all stages, coal production will

continue concurrently with the progressive rehabilitation, reshaping, and revegetation of previous stages, as soon as practicable once final landforms are complete.

4.7.9 Operations

Mining at MFS will use conventional drill-and-blast, load-and-haul surface mining. Coal will be hauled to an interim coal transfer pad near the Waimangaroa River before being transported to Stockton for further processing and blending.

4.7.10 Water Management and Treatment

Water management at MFS is designed to capture, separate, treat and monitor mine-impacted water generated from both historic mining influences and future mining activities. The objective of the system is to minimise sediment and AMD effects, maintain compliance with the Project water quality requirements and protect downstream receiving environments throughout the life of the Project. Water management will evolve over time as mining progresses, disturbed areas are rehabilitated and treatment requirements change. Consistent with the wider BPCP approach, clean water will be diverted around disturbed areas wherever practicable to minimise the volume of water requiring collection and treatment.

Mine-impacted water generated within the East Pit, West Pit and associated disturbance areas will be directed to a network of drains, pipelines, sumps and treatment infrastructure. Two principal mine-water collection areas are proposed, comprising a sump south of the West Pit and a sump at the low point of the East Pit. These facilities will be supplemented by temporary in-pit sumps that will be progressively relocated as mining advances. The collection system will provide temporary storage, sediment settlement and buffering prior to treatment. Following treatment, water will be discharged to receiving catchments in accordance with the Project water quality requirements.

AMD management at MFS is based on the broader Project hierarchy of controls, including source control, engineered landform design, seepage management, water collection and water treatment. The majority of overburden at MFS is classified as NAF or Low Risk material. Potentially acid-forming material will be selectively managed through mine scheduling, encapsulation and placement within engineered landforms and in-pit backfill areas. Engineered landforms will incorporate NAF cover systems to reduce oxygen ingress and water infiltration, thereby minimising AMD generation and supporting progressive rehabilitation.

An on-site WTP will provide active treatment of mine-impacted water during operations and the early stages of closure. During the construction phase, temporary treatment systems

may be used until the permanent treatment infrastructure is commissioned. Active treatment will utilise chemical treatment processes to manage suspended solids, acidity and dissolved metals prior to discharge.

The water management system is also designed to accommodate periods of elevated rainfall and high-flow conditions. This includes the use of operational storage, buffering and, where necessary, controlled bypass or spill pathways. These measures are intended to maintain the integrity of the overall water management system, reduce the likelihood of uncontrolled discharges, and enable water volumes exceeding available storage or treatment capacity to be managed in a controlled manner. Such discharges would be limited to periods when receiving waters have elevated flow and dilution capacity and would occur in accordance with the relevant approvals and water management framework. Monitoring and adaptive management will be used to assess the performance of the system and support ongoing refinement where necessary.

As rehabilitation progresses and contaminant loads reduce, water management is expected to transition progressively from active treatment to passive treatment systems associated with rehabilitated landforms and closure water management infrastructure. The timing and extent of this transition will be informed by monitoring results, treatment performance and rehabilitation outcomes.

Treatment sludge generated by water treatment processes will be thickened and dewatered prior to disposal. During operations, dewatered sludge is proposed to be disposed of within appropriately designed engineered landforms. Following mine closure, sludge may be managed within approved on-site facilities, transferred to approved facilities at Stockton or ESE, or disposed of at other authorised facilities as part of the final closure strategy.

The proposed water management systems during construction and operation of MFS are illustrated in the diagrams below (**Figures 4-26** to **4-28**):

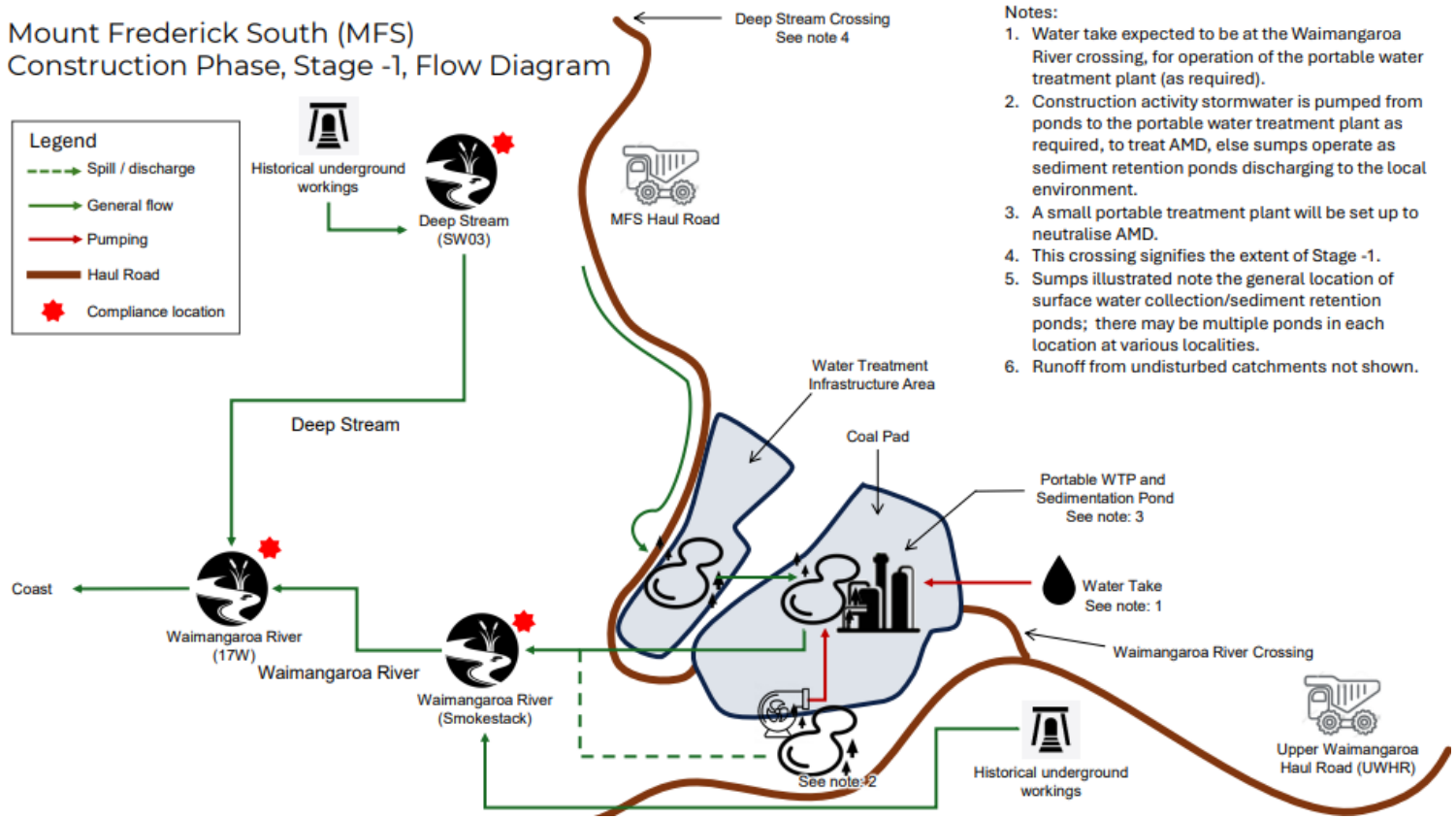

Figure 4-26: MFS Construction Phase, Stage -1, Flow Diagram

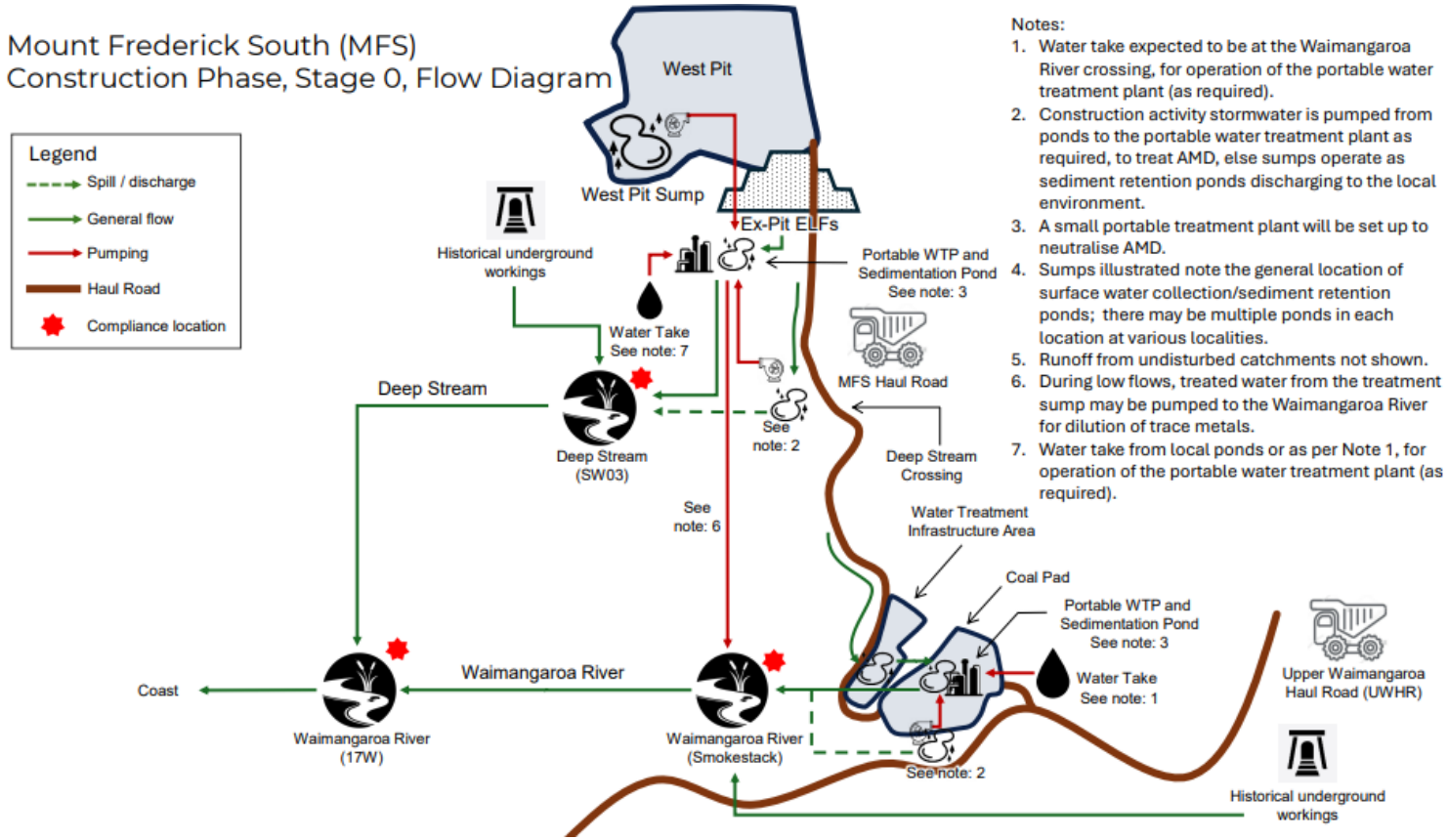

Figure 4-27: MFS Construction Phase, Stage 0, Flow Diagram

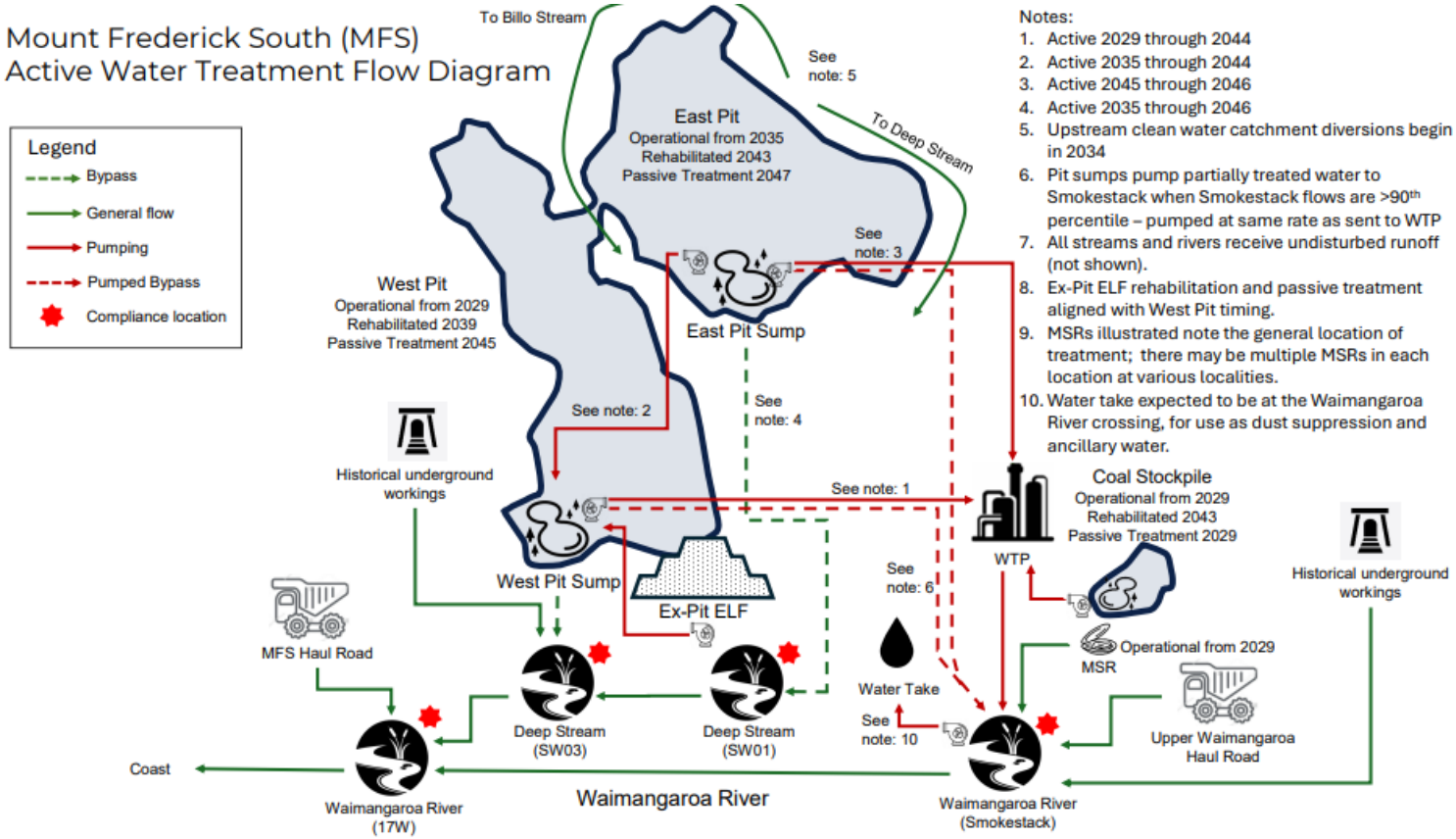

Figure 4-28: MFS Active Water Treatment Flow Diagram

4.7.11 Overburden and AMD Management

Overburden at MFS is managed to minimise land disturbance and control AMD. Initially, overburden is placed in an ex-pit ELF south of the West Pit, with soil and suitable materials stockpiled for later rehabilitation. As mining progresses, most of the overburden is backfilled into the mined-out pit voids. Two ex-pit ELFs are required early in the East Pit until sufficient in-pit space is available.

4.7.12 Rehabilitation and Closure

Rehabilitation and closure of the MFS site will draw on the established methods applied at Stockton, with an emphasis on optimising the use of natural materials.

Progressive rehabilitation will occur throughout operations, focusing first on the South ex-pit ELF and subsequently on the in-pit backfills. Rehabilitation will seek to plant indigenous species consistent with the surrounding landscape, integrating both vegetated and rockfield features. Overburden will be capped with NAF material, and topsoil will be carefully managed to ensure sufficient cover.

Closure will involve shaping constructed landforms to blend with adjacent areas and revegetating with indigenous species.

Post-closure water treatment infrastructure will be retained until rehabilitation is complete and water quality consistently meets the required limits. The treatment of AMD will remain a key land use activity and will initially be managed through the active WTP. As rehabilitation progresses, multiple passive treatment systems will be established progressively across the site, coming into service as mining areas are completed and rehabilitated. Once fully transitioned to passive treatment, monitoring and maintenance of the systems (e.g., MSRs, sumps) will ensure their long-term performance and effectiveness.

A diagram (**Figure 4-29**) illustrating the proposed post-closure water management system is set out below:

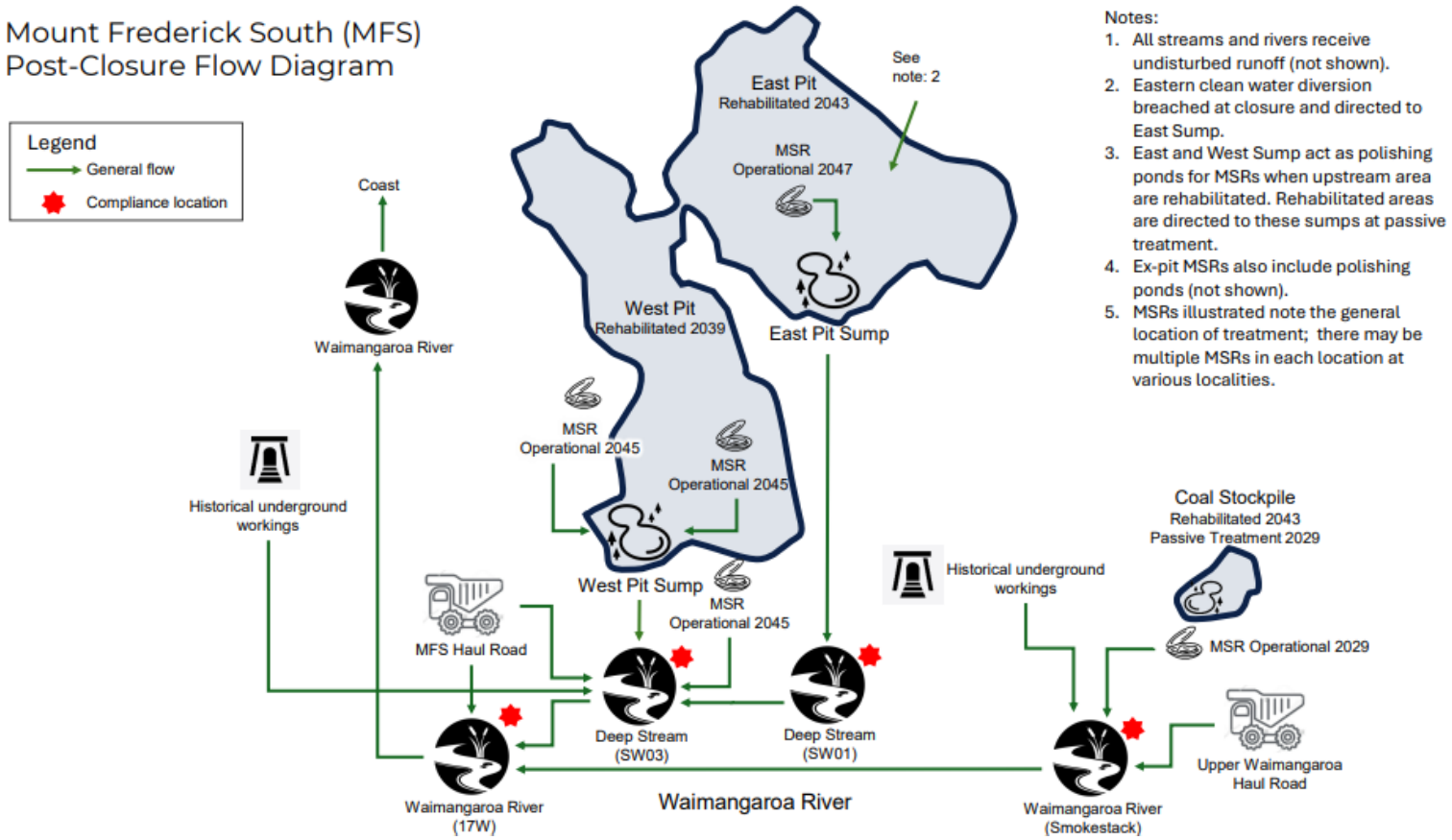

Figure 4-29: MFS Post-Closure Flow Diagram

As closure progresses, site infrastructure and haul roads will be decommissioned. Roads will be narrowed to allow only light-vehicle access for post-closure monitoring and maintenance. Mining infrastructure will be dismantled and removed unless it is identified as beneficial to the post-mining land use and agreed to be retained.

4.8 UPPER WAIMANGAROA HAUL ROAD

The UWHR is approximately 15 km long and will connect the ESE and MFS Sub-Areas to the Stockton boundary and existing haul roads, providing an essential link between all Project Sub-Areas and eliminating the need for heavy machinery and trucks to use the public road network.

Where possible, the proposed alignment uses existing access roads and previously cleared areas to minimise the disturbance footprint. Widening and straightening of the road will be required where the route follows existing four-wheel drive ("**4WD**") tracks. Approximately 4 km of the haul road alignment traverses previously undisturbed ground, comprising 1 km adjacent to the ESE and 3 km connecting the haul road to Cypress mining operations in the north.

Coal from ESE and MFS will be transported along the UWHR for processing or blending with Stockton and Cypress coals, before transport to the aerial ropeway and Ngākawau Rail Loadout.

4.8.1 Construction

Construction of the UWHR is expected to commence once the necessary approvals are obtained and will be undertaken progressively to connect the ESE and MFS Sub-Areas with Stockton.

The UWHR will be designed to accommodate dual-lane haulage operations, surface drainage, safety bunds and, where provided, a walking or cycle allowance. The road design will also support the intermittent transfer of heavy earthmoving equipment between Project Sub-Areas, with movements managed through appropriate traffic controls.

The road surface will largely be unsealed, although running surface construction will support sealing as required on steep gradients where maintenance becomes an issue.

The UWHR alignment crosses under Transpower's 110 kV power lines in three locations with all statutory stand-off requirements met. Transpower will retain access to its infrastructure via the road. Soil and vegetation from clearing will be stockpiled locally and reused in progressive rehabilitation of cuttings and fill areas to support revegetation.

The UWHR will have no permanent buildings and will rely on Stockton and ESE facilities. The road footprint includes sediment control, laydown, and staging areas within existing areas of disturbance. During construction, these will accommodate transport amenities, equipment parking, fuel and lube storage, and construction materials such as pipes, culverts, liners, and aggregates.

4.8.2 Water Management

The following fundamental principles will be followed in the construction of the UWHR:

- Minimise disturbance by limiting works to areas necessary for construction and progressively stabilising exposed surfaces;
- Prepare and implement site-specific erosion and sediment control measures before disturbance occurs;
- Divert clean water around disturbance areas wherever practicable to reduce the volume of water requiring management;
- Construct sediment control and water conveyance infrastructure ahead of development areas;
- Protect disturbed surfaces from erosion through progressive rehabilitation, stabilisation, contouring and surface protection measures; and
- Monitor and maintain water management infrastructure, with modifications made where required to maintain performance.

4.8.3 Erosion and Sediment Control

Sediment will be managed using a toolbox approach that includes directing sediment-laden water to sedimentation ponds, silt fences and, where necessary, treatment with flocculants and coagulants.

Throughout construction, sediment-laden water will be directed to sediment management structures. At completion of construction:

- Road surfaces will be stabilised;
- Batters of fill sections will be rehabilitated but continue to report to sediment management structures until the sections are stabilised;
- Cut slopes will be monitored for sediment generation and will either be directed to clean water once the surfaces stabilise or have a permanent sedimentation structure installed;
- Other surfaces will be rehabilitated/stabilised;
- ESC will be implemented during construction; and

- On completion of construction of permanent sediment ponds, these will be retained and utilised for the duration of operations.

The disturbance areas will be managed so that:

- Once development is complete, areas are stabilised and revegetated.
- Where possible, disturbance activities will be planned with surface exposure minimised;
- Care is taken with sloped surfaces, acknowledging they are at a higher risk of erosion due to the potential of high velocity water runoff; and
- Concentrated/designated water paths are designed to ensure erosion of the structure does not occur.

This will be completed by:

- Reducing water velocities through the use of cutoff/contour drains, check dams, and surface roughening; and
- Stabilisation of disturbed surfaces, including roads, as soon as the development of an area is complete, through the use of:
    - Aggregate placement on roadways;
    - Application of vegetation;
    - Application of mulch;
    - Installation of geotextiles or biodegradable liners;
    - Hydroseeding;
    - Vegetation through planting and rehabilitation; and
    - VDT.

4.8.4 Operational Phase of the UWHR

Speed management across the UWHR will be determined by road design, operating conditions, other users, vehicle types, wildlife protection, dust management and safety requirements. Actual operating speeds are expected to vary across the route.

Coal haulage operations, including road maintenance, will occur as required to support production and transport requirements.

It is Bathurst's intention that the UWHR be used exclusively by Bathurst due to health and safety risks associated with mixing general use with heavy vehicles in a high-production environment. As such, others' access requirements will be managed through a combination

of existing 4WD access tracks and scheduled access along parts of the UWHR to connect to them.

Road surface run-off will be treated in sediment retention ponds prior to discharge, while natural surface run-off will be diverted along and under the road via culverts, maintaining the natural water flow and quality feeding into the Upper Waimangaroa River.

Dust suppression on the UWHR will be managed using dedicated water trucks.

4.8.5 Closure

At the conclusion of coal haulage operations, it is anticipated that the UWHR will transition to a combination of recreational use and ongoing Transpower access up to the point where the Mackley Track diverges (subject to landowner agreement and approvals). Beyond this, the northern sections of the road and the southern portion between the ESE and Burnetts Face will no longer require access for heavy machinery. These areas may be repurposed to provide public recreational opportunities, including potential loop circuits offering access to remote backcountry areas.

Where heavy vehicle access is no longer required, the road footprint will be reduced accordingly. This will involve narrowing the pavement to a single-lane for light vehicles or cycling, with shoulders reprofiled and revegetated with appropriate native species. Existing ponds and drainage structures will be retained to manage runoff and service the remaining track network.

Sections of the former road pavement and associated laydown areas will be rehabilitated to indigenous ecosystem outcomes where they are no longer required for access, drainage, monitoring or other approved post-mining uses.

4.9 CYPRESS

Cypress Mine is accessed from the Stockton Mine area via a 3.7 km haul road and is divided into two areas: Cypress North and Cypress South, which are linked by an access road.

Cypress is an operating site with existing infrastructure in place to support the operation. Operations, including mining methods, equipment and water and AMD management, are largely integrated with the adjacent Stockton Mine.

The alignment of the UWHR traverses the Cypress Mine area. While the UWHR is a new component of the BPCP, the existing Cypress consents provide for the construction and operation of a haul road through the Cypress Mine area to transport Cypress coal to the Stockton CHPP – with part of this haul road already constructed and in operation. It is proposed that the construction of the remaining length of the UWHR that traverses the

Cypress Mine area will be undertaken in accordance with the existing Cypress consents, as this will also serve as the haul road required to transport coal from the Cypress Mine area to the Stockton CHPP. This section of the UWHR will continue to comply with the relevant water management and environmental management requirements authorised under the existing Cypress consents while Cypress mining operations remain active.

To provide for the ongoing operation, rehabilitation and closure of the UWHR following the cessation of mining activities at Cypress, the approvals sought for the UWHR as part of the BPCP will, from that time, also apply to the length of the UWHR that traverses the then former-Cypress Mine area, including the management of operational stormwater runoff and associated water management required.

Existing Cypress Mine consent obligations include predator control and biodiversity management across the Snail Enhancement Area, the Oparara Kiwi Treatment Area, Cypress Mine site control areas and the wider habitat enhancement area.

The BPCP intersects portions of the Cypress Mine consented area, including areas originally set aside to meet the Cypress Mine's biodiversity compensation requirements. This is discussed further below. The Project therefore seeks to vary the relevant Cypress consent conditions and obtain new approvals where required to enable these activities and ensure alignment across the broader approval framework being sought.

Experience from the implementation of the Cypress compensation measures has also demonstrated limitations in achieving the intended ecological outcomes. In particular, predator control efforts alone have not been sufficient to protect *Powelliphanta* snail populations, with predation by species such as weka continuing to constrain population recovery. As such, the continuation of the Cypress compensation package in its current form is unlikely to achieve the original objective of a statistically significant increase in snail abundance.

In response, the BPCP proposes to incorporate the Cypress compensation obligations into a revised, landscape-scale approach to biodiversity management across the Plateaux. This approach aligns with the original intent of the Cypress Mine consents and improves the likelihood of achieving meaningful ecological outcomes through a more integrated and effective management framework.

This includes the establishment of pest-exclusion fenced areas designed to provide a higher level of protection for key habitats and species. A pest-exclusion fence is proposed within the Cypress area to protect the red tussock snail habitat established through VDT, with this area intended to be adjacent to the wider Whirlwind Rise pest-exclusion fenced area. These

fenced areas will complement broader predator control measures and provide refugia where vulnerable species, such as *Powelliphanta* snails, can persist and recover.

The operations regarding the Oparara Kiwi Treatment Area will remain.

The integration of the Cypress compensation measures into the BPCP also enables alignment of biodiversity management across all Project Sub-Areas, ensuring that measures are implemented at an appropriate ecological scale rather than on a fragmented, site-by-site basis. This approach supports a comprehensive and coordinated pest management regime across the Plateaux, which is considered necessary to achieve the intended biodiversity outcomes and to better give effect to the objectives of the Cypress consents.

In addition, Wildlife Act Authorities are required across the wider Project area. A coordinated, project-wide approach to these approvals is therefore proposed to ensure consistency in mitigation and management measures and to avoid a piecemeal approach tied to individual mining areas.

4.10 OFFSITE ACTIONS

In addition to onsite mining activities and compensatory measures, including landscape-scale pest control across the Denniston Plateau, the proposed pest-exclusion fenced areas, and recreational and heritage funding contributions, Bathurst is also proposing a comprehensive package of initiatives that extend beyond the Plateau's footprint. While these actions serve as residual effects management, they also play a key and integral role in the overall proposal. Therefore, they are described in this chapter of the application for the sake of completeness.

Bathurst is proposing a comprehensive pest suppression operation within the Blackburn-Pākihi area, which is recognised as an ecologically valuable and vulnerable upland habitat on the northern West Coast. Further details are provided in the Pest Control Plan (Bathurst, 2026af), included in **Part H**.

Bathurst is also proposing a Strategic Fish Passage Barrier Remediation Programme as part of its broader package of environmental enhancement initiatives. The programme would involve the remediation of priority fish passage barriers, a regional assessment and prioritisation of additional barriers across the West Coast, and the implementation of future remediation projects to improve connectivity and support native fish populations. Details of this proposal are provided in the Assessment of Environmental Effects: Aquatic Ecology (ESNZ, 2026a), included in **Part B.**

Bathurst also currently funds ongoing biodiversity management within the Heaphy catchment as part of its existing biodiversity compensation commitments. Activities

supported through this programme include predator monitoring and control, together with biodiversity outcome monitoring for priority species and habitats. The programme complements the wider package of biodiversity management and compensation measures associated with the BPCP.