



VERTEX MINERALS LIMITED
ACN 650 116 153

Rehabilitation Management Plan

(Care & Maintenance)

Reward Gold Mine

January 2023

Version	Date	Approved By	Position	Notes
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PURPOSE

This Rehabilitation Management Plan (“**RMP**”) has been prepared by Vertex Minerals Limited (“**Vertex**”) for the Reward Gold Mine for the purposes of Clause 10 of Schedule 8A of the *Mining Regulation 2016* (NSW) (“**Mining Regulation**”).

1. PART 1 – INTRODUCTION TO MINING PROJECT

1.1 History of Operations

Alluvial gold was first discovered in the area in 1851 and by the 1860s reef exploitation had emerged as the most popular and profitable method of mining with the most successful mining carried out immediately south of Hill End at Hawkins Hill from 1870 to 1872. Peak Minerals Limited (“**Peak Minerals**”), the former holder of the Hill End Project titles, was listed on the ASX on 17 July 2003 and approximately \$40m has been spent by Peak Minerals on exploration, development and facilities in the area.

During the Reward Gold Mine bulk sampling stage up to May 2010, there were 5,650m of underground development completed. A gravity plant at Amalgamated portal processed 35,390 tonnes at an average grade of 10.6g/t Au with a metallurgical recovery of 91.4% at a coarse grind of $\sim P_{80}0.5\text{mm}$ for 11,029 ounces of payable refined gold.

The gravity gold recovery plant had a nominal capacity of 35,000tpa and includes a ROM bin with grizzly, jaw crusher, screens, vertical shaft impact crusher, 30” Knelson Centrifugal Bowl Concentrator, spirals, ball mill, gold room Wilfley and Wave table, furnace and the associated conveyor belts, hoppers, pumps and pipelines.

The Hawkins Hill - Reward deposits were developed from the Amalgamated Adit at the 650RL level over a strike length of approximately 800m. A 230m raisebore shaft was installed to allow access to ten development levels, provide a second egress and provide ventilation to operations. The underground activities were suspended in May 2010 to allow for further studies to enhance project economics.

In November 2010, the Reward area resource was upgraded, following surface diamond drilling, underground development, bulk sampling, mapping and diamond drilling and geological modelling of the gold mineralisation.

The Reward resource estimate of 900,000 tonnes at 8.6g/t gold is believed to be conservative given the limited strike and depth extent of the deposit that has been explored to date.

Other nearby resources include the Red Hill project located a few kilometres north of Hill End which has a resource that may be economically mined and processed in the future. The Reward Gold Mine may be combined with this resource and the Hargraves resource, approximately 30 kilometres to the north, as a concurrent operation. In addition, there is a potential open pit prospect located four kilometres to the south of Reward at Mares Nest, which has a main mineralised zone of near two kilometres strike length with workings over a width of up to 150m.

Peak Minerals and Vertex were engaged in negotiations to transfer Peak Minerals’ NSW assets to Vertex. An agreement was subsequently entered into and an application for approval to transfer the Hill End and Hargraves gold project to Vertex was lodged on 7 January 2022. Following grant of approval, Vertex successfully acquired and was registered as the holder of the Hill End and Hargraves gold project tenements on 16 June 2022.

Since then, Vertex has undertaken the operations on the mine and have commenced studies to assess the potential viability of upgrading the mine, processing plant and infrastructure as well as continuing monitoring of environmental data and other activities to protect the integrity of the project facilities, the environment and social/community considerations. At the time of writing, refurbishment works and on-going care and maintenance of the gravity processing plant, as well as other infrastructure and equipment, have commenced and are on-going.

In addition, Vertex has commenced rehabilitation works of historical disturbance within the Reward Gold Mine Mining Leases. There are minor areas under existing rehabilitation/regeneration such as road cuttings, drill pads and erosion regeneration sites.

1.2 Current Development Consents, Leases and Licences

Approval	Relevant Authority	Grant Date	Expiry Date
DA 147/2000	Evans Shire Council (Now Bathurst Regional Council)	27/06/2000	N/A
EDA 2000/0147 (Modification to DA 147/2000)	Bathurst Regional Council	2/01/2007	N/A
EPL 12008	EPA	16/04/2004	N/A
80BL239113	WaterNSW	31/07/2001	30/07/2026
GL 5846 (1906)	DRNSW	15/02/1968	07/12/2024
ML 49 (1973)	DRNSW	30/07/1975	07/12/2024
ML 50 (1973)	DRNSW	30/07/1975	07/12/2024
ML 315 (1973)	DRNSW	08/12/1976	07/12/2024
ML 316 (1973)	DRNSW	08/12/1976	07/12/2024
ML 317 (1973)	DRNSW	08/12/1976	07/12/2024
ML 913 (1973)	DRNSW	20/01/1981	19/01/2023
ML 914 (1973)	DRNSW	20/01/1981	19/01/2023
ML 915 (1973)	DRNSW	04/02/1981	03/02/2023
ML 1116 (1973)	DRNSW	28/03/1984	16/10/2024
ML 1541 (1992)	DRNSW	17/10/2003	16/10/2024

Table 1: Current Development Consents, Leases and Licences

1.3 Land Ownership and Land Use

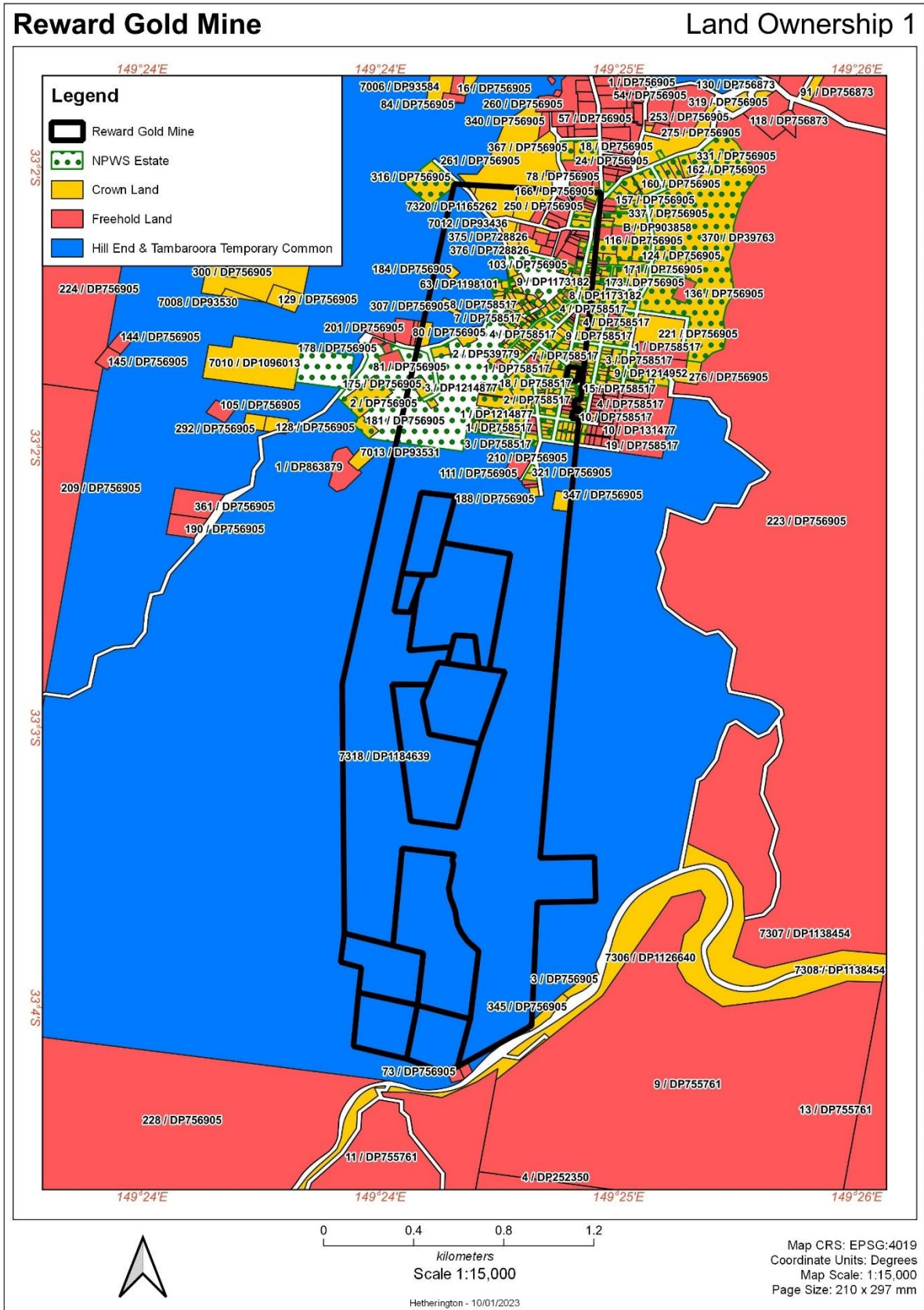
The Reward Gold Mine is located on a combination of existing mining leases on Crown Lands as Temporary Common. These licenses cover parts of the Historic Village of Hill End with a 15.5m surface exclusion zone over these areas. Land in the mining area is zoned 1(a) Rural "A", pursuant to the Interim Development Order No. 1 (IDO) - Evans Shire Council (gazetted 22 August 1980). Under the zoning table in the IDO, mines are permitted in the Rural "A" zone with development consent. Due to the small scale of the mining activity the development was not classified as a designated development and was a local integrated development under Part 4 of the *Environmental Planning & Assessment Act* (EP&A Act) with the council as the consent authority.



The Mining Leases held by Vertex are located within the Bathurst Local Government Area. There are upwards of 265 land parcels in the area of the Mining Leases. The property ownership covered by the Vertex authorities is a mix of freehold and Crown land. The Crown land parcels are controlled by various authorities including Local Council and the New South Wales Government (Figure 1).

All existing mining leases have been disturbed due to past mining activities and extensive clearing of vegetation. The current land use of the surrounding area to the project is conservation and recreation such as bushwalking and hunting.

1.3.1 Land Ownership and Land Use Figure



Reward Gold Mine

Land Ownership 2

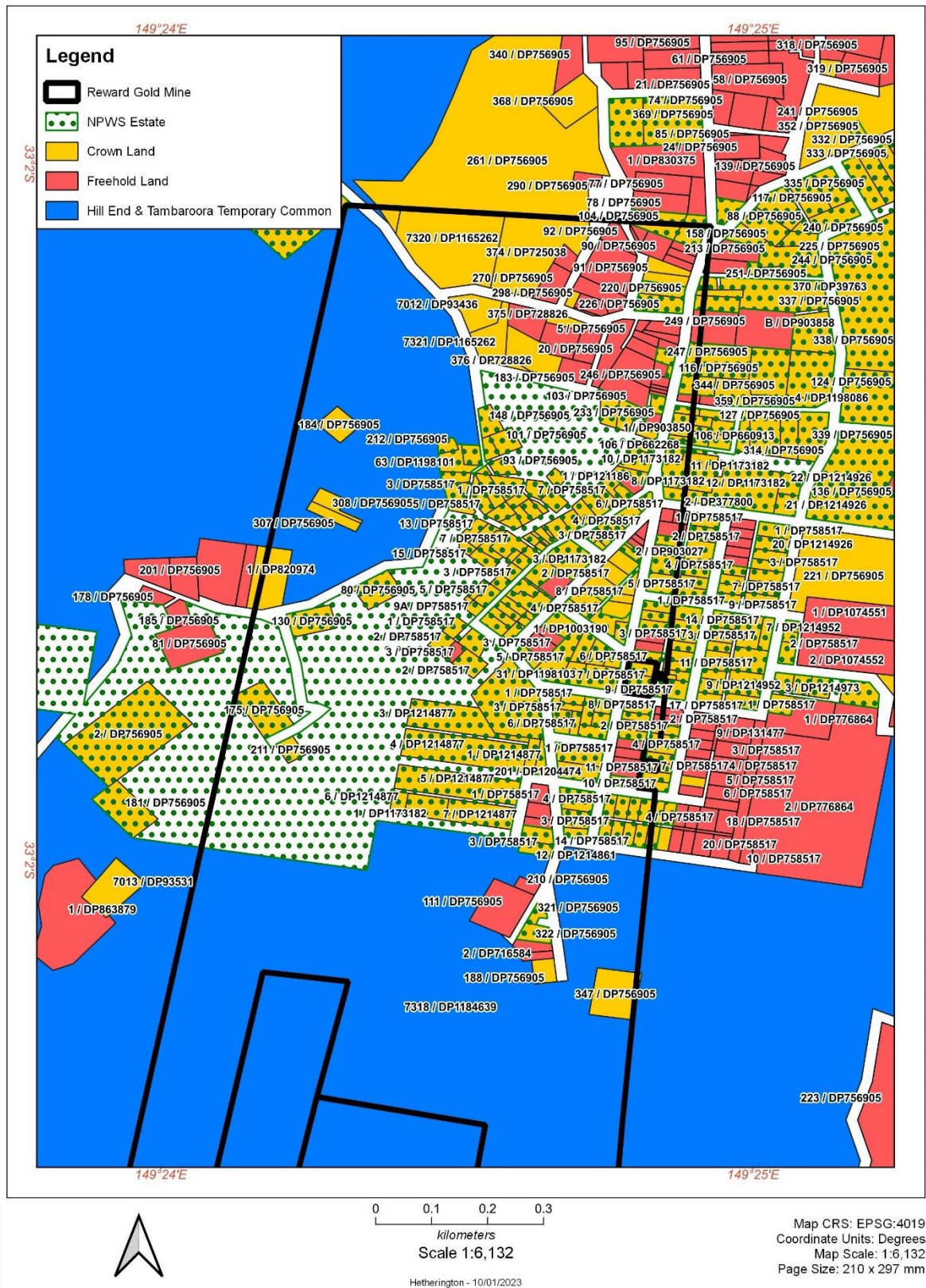


Figure 1: Land Ownership

Reward Gold Mine

Land Use

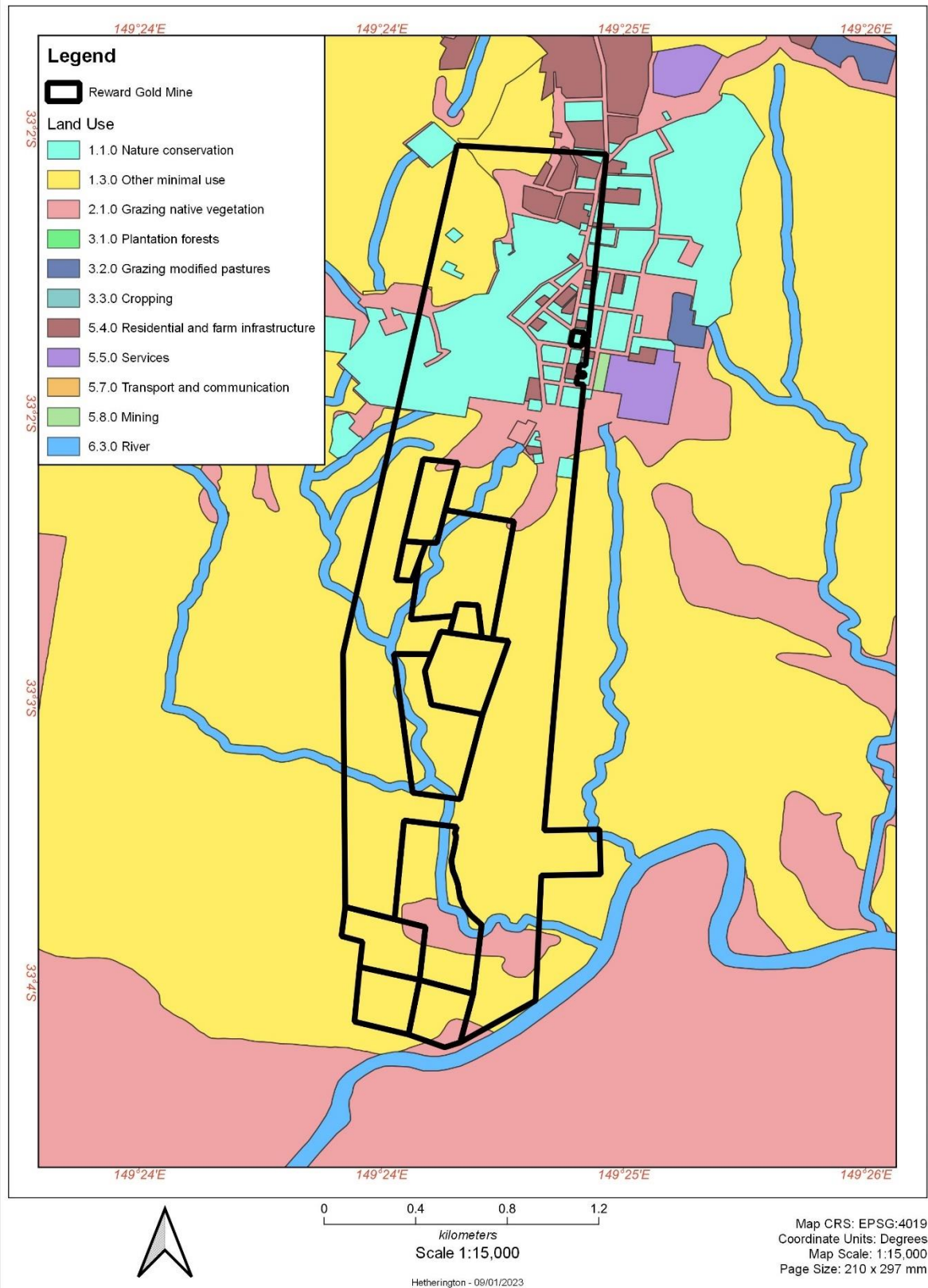


Figure 2: Land Use

2. PART 2 – FINAL LAND USE

2.1 Regulatory Requirements for Rehabilitation

Source	Ref.	Requirement
DA 147/2000	Condition 9	Appropriate measures being undertaken to ensure the effective and continued control of noxious vermin and weeds within the development area, satisfactory to relevant authorities.
	Condition 11	A contingency plan is to be prepared regarding cleanup in the event of a fuel spill in the refuelling areas, to prevent spills reaching the creeks and to address the remediation of refuelling sites, prior to commencement of operations.
	Condition 14	All waste materials and effluents including oils be disposed of to the satisfaction of Council and the Environment Protection Authority.
	Condition 22	No disturbance to occur to the Cornelian Dam or its sediment until it can be established that no contamination is occurring.
	Condition 25	The proponents to ensure the safety of the public in the vicinity of all mining activities at all times.
DA 147/2000 - Statement of Environmental Effects for Proposed Underground Mine, Hill End (April, 2000)	Section 6.4 - Rehabilitation	<ul style="list-style-type: none"> Objective: Return the land to an equivalent capability or better than it was previous to mining or other uses taking place, taking into account historical mining in the area. Stabilise tailings storage areas, initially by way of revegetation with a protective ground cover. On completion of filling the tailings storage, cover the area directly with available top-soil and other growing media for natural regeneration.
EDA 2000/0147 – Amendment to Mining Operations Plan – For Installation of Raisebore “Reward Shaft” Near Exhibition Shaft Area of Hill End (September, 2007)	Section 5 - Rehabilitation	<ul style="list-style-type: none"> On completion of operations, the raisebore site be rehabilitated with trees and the opening capped 2 – 3m below surface and backfilled with soil. All buildings and structures to be removed. Concrete foundations to be removed or buried below surface. Surfaces of compacted crushed rock on hardstand areas to be removed prior to rehabilitation. Shaft opening to be sealed appropriately to prevent unauthorised access. Roads to be retained as stable landforms for use as fire service and environmental monitoring roads. Relinquished roads to be blocked off, ripped and installed with extra erosion control features as

		<p>required. If the roads have embankments exceeding 0.5m then the slope is to be re-contoured.</p> <ul style="list-style-type: none"> Continued analysis of water quality upon completion of rehabilitation until a stable and acceptable water quality is demonstrated. All landforms to be rehabilitated or protected to a long term safety standard.
Mining Regulation 2016, Conditions of Title	Condition 4	<p><u>Must prevent or minimise harm to the environment</u></p> <p>(1) The holder of a mining lease must take all reasonable measures to prevent, or if that is not reasonably practicable, to minimise, harm to the environment caused by activities under the mining lease.</p>
	Condition 5	<p><u>Rehabilitation to occur as soon as reasonably practicable after disturbance</u></p> <p>The holder of a mining lease must rehabilitate land and water in the mining area that is disturbed by activities under the mining lease as soon as reasonably practicable after the disturbance occurs.</p>
	Condition 6	<p><u>Rehabilitation must achieve final land use</u></p> <p>(1) The holder of a mining lease must ensure that rehabilitation of the mining area achieves the final land use for the mining area.</p> <p>(2) The holder of the mining lease must ensure any planning approval has been obtained that is necessary to enable the holder to comply with subclause (1).</p> <p>(3) The holder of the mining lease must identify and record any reasonably foreseeable hazard that presents a risk to the holder's ability to comply with subclause (1).</p>

Table 2: Regulatory Requirements for Rehabilitation

2.2 Final Land Use Options Assessment

Final land use approved under previous Amended Care & Maintenance Mining Operations Plan for the Reward Gold Mine and Associated Projects – Reference: MAAG0009572.

2.3 Final Land Use Statement

The post mining land use goals are:

- For all rehabilitated mined land to be safe, stable and non-polluting.

- For post mining land use to be compatible with the surrounding 'conservation' land use. Most of the mine and immediate surrounding land consists of steep slopes and are considered to be 'Vulnerable Regulated Lands' in NSW. Slopes typically exceed 50 % and are classified as *Land and Soil Capability Class VIII* with biophysical limitations so severe that land is suited only to management for conservation, rather than agriculture.
- That the final landforms will contain slopes consistent with the surrounding land.
- To develop revegetated land into woodland consistent with the immediate surrounding land, subject to further consultation with stakeholders and regulatory authorities. The local vegetation community is comprised of White Box grassy woodland, with variable densities of associated tree species (particularly Blakely's Red Gum and Red Stringybark).

2.4 Final Land Use and Mining Domains

2.4.1 Final Land Use Domains

Code	Domain	Area
A	Infrastructure	Access tracks
B	Water Management Area	Cornelian Dam
C	Rehabilitation Area – Grassland	Nil
D	Rehabilitation Area - Pasture	Nil
E	Rehabilitation Area - Woodland	Reward Shaft Area Patriarch Shaft Area Consolidated Adit Area Amalgamated Adit Area Tailings Storage Facility
F	Rehabilitation Area – Talus and Woodland	Amalgamated Pad WRE Consolidated Pad WRE
G	Rehabilitation Area – Rural Land Capability Classifications I to VIII	All rehabilitated lands to be returned to Rural Land Capability Classification VIII
H	Relinquished Lands	All mined land and access tracks
I	Final Void	Cornelian Borrow Pit
J	Conservation and Biodiversity Offset Area	Historic Workings

Table 3: Final Land Use Domains

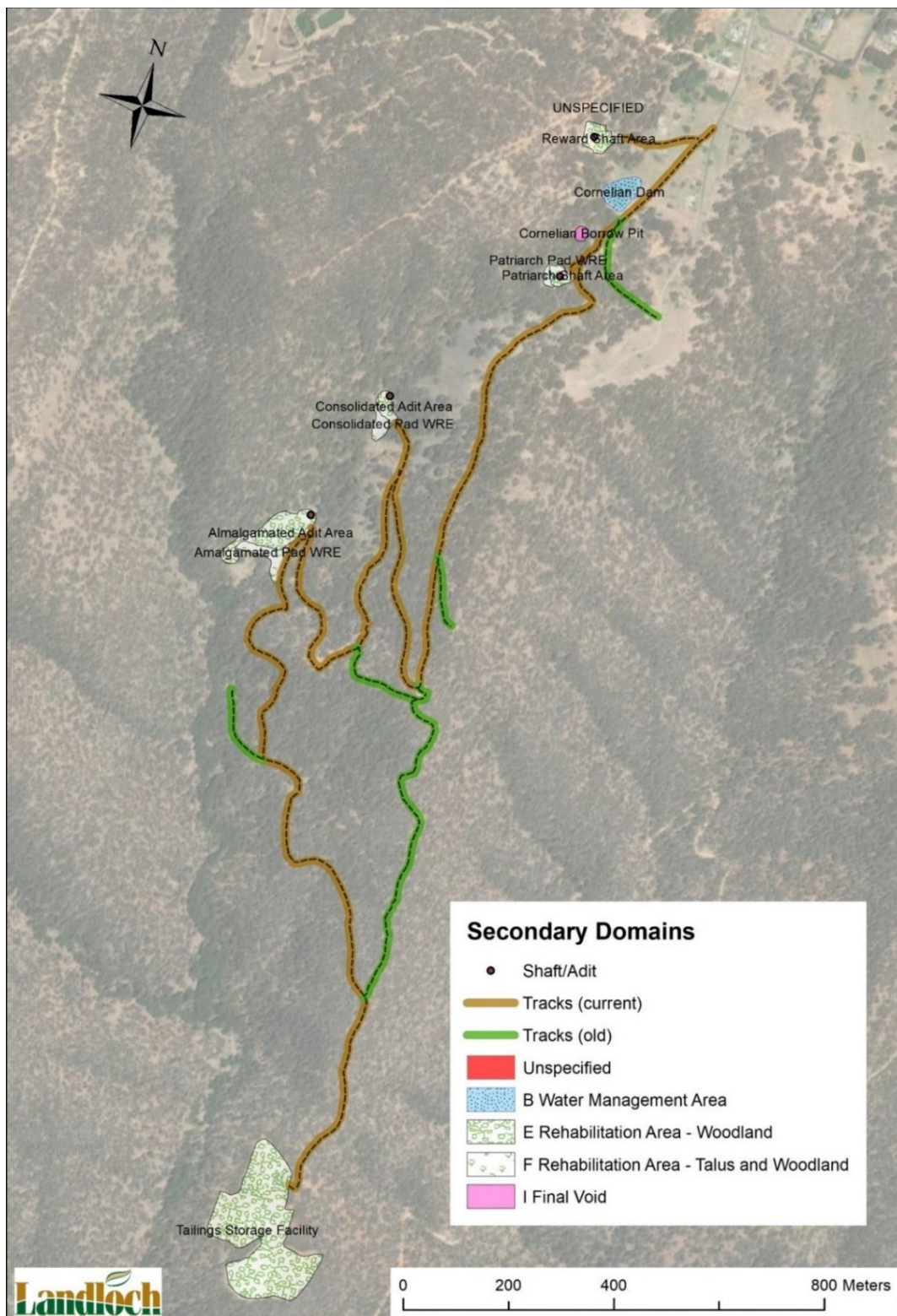


Figure 3: Final Land Use Domains

2.4.2 Mining Domains

Code	Domain	Area
1	Infrastructure	Reward Shaft Area Patriarch Shaft Area Consolidated Adit Area Amalgamated Adit Area Tracks Services (electricity, water, and telecommunications)
2	Tailings Storage Facility	Tailings Storage Facility
3	Water Management Area	Cornelian Dam
4	Overburden Emplacement Area	Amalgamated Pad WRE Consolidated Pad WRE
5	Stockpiled Material	Nil
6	Void	Cornelian Borrow Pit
7	Rehabilitation Area	Reward Shaft Area
8	Underground Mining Area	Reward Shaft Patriarch Shaft Consolidated Adit Amalgamated Adits Historic Workings (e.g. old shafts)
9	Conservation and Biodiversity Offset Area	Historic Workings (e.g. old mullock heaps)

Table 4: Mining Domains

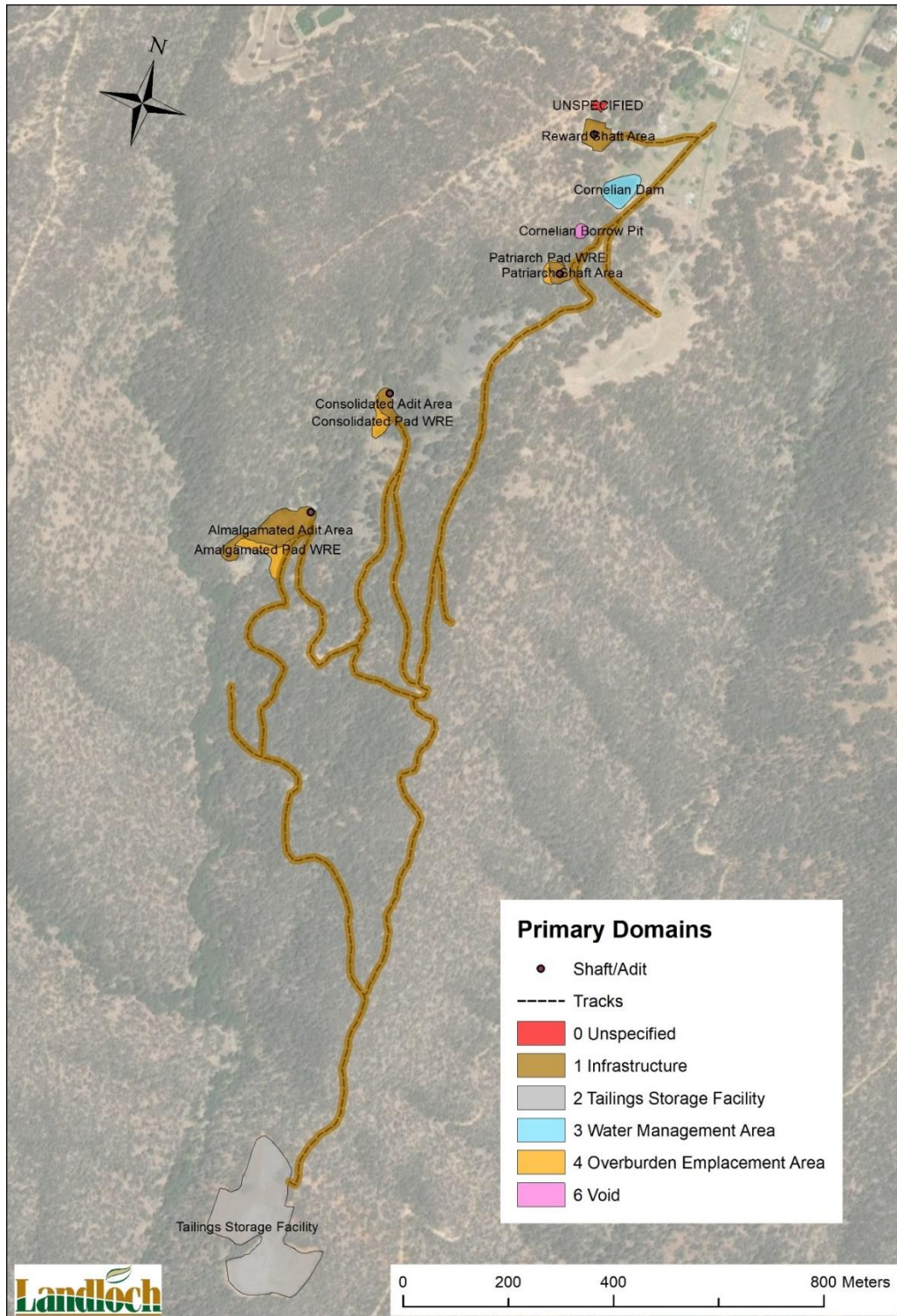


Figure 4: Mining Domains

3. PART 3 – REHABILITATION RISK ASSESSMENT

The environmental and rehabilitation risks identified in Table 5 for the Hill End Group Mining Leases for the RMP period are ranked according to the criteria identified in Table 6.

Risk Event	Likelihood	Consequence	Risk Rating	Comment / Mitigation
Tailings slippage or failure	Possible	Moderate	Moderate	Mitigation will be undertaken in accordance with reports prepared by Douglas Partners including ongoing maintenance and monitoring of the TSF.
Weed spraying / chemical spillage	Unlikely	Moderate	Moderate	Safe chemical storage and transport protocols. Limiting amount transported at any one time.
Feral animal control impacting native species	Rare	Minor	Low	Non-harmful trapping procedures.
Waste rock emplacement slippage or failure	Possible	Major	Moderate	Stabilisation remains subject to independent expert advice. Failure likely to be creep rather than catastrophic.
Access road maintenance; wall/bund failure	Unlikely	Minor	Low	Regular review and maintenance.

Table 5: Environment and rehabilitation risk identification and mitigation for possible activities on the Hill End Group Mining Leases during the RMP period.

		Consequence				
		Insignificant (Minor)	Minor (no ecosystem impairment)	Moderate (medium term)	Major (significant impact)	Catastrophic Impairment
Environmental Impact: Time Period:		< 1 week	> 1 week	> 1 month	> 1 year	> 10 years
Likelihood:	Almost Certain	Moderate	High	High	Critical	Critical
	Likely	Moderate	Moderate	High	High	Critical
	Possible	Low	Moderate	Moderate	High	High
	Unlikely	Low	Low	Moderate	Moderate	High
	Rare	Low	Low	Low	Moderate	Moderate

Table 6: Likelihood and environmental impact criteria used for environment and rehabilitation risk identification and mitigation.

A qualitative risk analysis was undertaken by Landloch (2020) of the TSF in its current state, with summary of findings presented in Table 7.

Item	Hazard	Likelihood	Consequence	Risk
1.0	Scouring of dam crests and batters due to overtopping and uncontrolled discharge.	Unlikely	Low	Low
2.1	Pollution of waterways due to export of tailings from the TSF	Unlikely	Moderate	Low
2.2	Pollution of waterways due to export of soil from the TSF	Possible	Minor	Moderate
3.1	Impact to flora or fauna from tailing sediment deposition outside of the TSF	Unlikely	Unlikely	Low
3.2	Impact to flora or fauna from soil sediment deposition outside of the TSF	Minor	Minor	Low

Table 7: Qualitative risk analysis of TSF undertaken in its current state.

Douglas Partners undertook a slope stability risk assessment in March 2020, presented in Table 8.

Hazard Description	Trigger Mechanism	Likelihood	Consequence of Hazard		Risk Evaluation
			Elements at Risk	Consequence	
Dams					
Settling Dam	Embankment failure due to water ingress into surface cracks	Rare	Environment Downslope of dams	Localised embankment failure and water flowing out of dam	Low
All Dams: Water over topping the dams and embankment failure	Dams fill with water from direct rainfall and possibly overland flow	Possible	Environment Downslope of dams	Localised embankment failure and tailings flowing out of dam	Moderate
Tailings Stockpile – short term considerations					
Localised erosion/scour of stockpile batter face	Rainfall	Almost Certain	Environment Downslope of Tailings stockpile	Minor amounts Tailings flow outside of site bund	Low
Tailings Stockpile – moderate to long term considerations					
Localised rotational slumping of stockpile	Moderate Rainfall – (> 1 in 10 year event)	Unlikely	Environment Downslope of Tailings stockpile	In the order of 5 m3 or so of tailings flow outside of bund	Low
Global Instability of stockpile	Heavy Rainfall – large storm (> 1 in 20 year event)	Possible	Environment Downslope of Tailings stockpile.	Several cubic metres of Tailings flow outside of site bund	Moderate

Table 8: TSF Risk Assessment (March 2020)

4. PART 4 – REHABILITATION OBJECTIVES AND REHABILITATION COMPLETION CRITERIA

To achieve the nominated post mining land use goals, the long-term objectives of rehabilitation activities are as presented in the Table below.

Source	Requirement
Mine site	<ul style="list-style-type: none"> • Be safe, stable and non-polluting • Construct landforms to freely drain to the natural environment (excluding voids and shafts) Minimise visual impact of final landforms as far as is practicable
Voids and Shafts	<ul style="list-style-type: none"> • Provide a permanent seal to stop entry by persons and minimise harm to fauna.
Waste Rock Dumps	<ul style="list-style-type: none"> • Present a negligible risk of causing environmental harm from any seepage or dust generated.
Tailings Storage Facilities	<ul style="list-style-type: none"> • Present a negligible risk of causing environmental harm from any seepage or dust generated. • Revegetate tailings to be community compatible with surrounding landscape that is suitable to the climatic conditions (e.g. drought and extremes of temperature), and hazards such as fire and grazing and burrowing animals.
Surface infrastructure	<ul style="list-style-type: none"> • Decommission and remove, unless agreed to otherwise by Department of Planning and Environment.
Access tracks	<ul style="list-style-type: none"> • Relinquish any tracks that are to be retained in a trafficable and serviceable condition; or • Decommission all other tracks.
Water reservoirs	<ul style="list-style-type: none"> • Retain those able to demonstrate a low risk of harm due to failure.

Table 9: Long-term rehabilitation objectives for the Reward Gold Mine

4.1 Rehabilitation Objectives and Rehabilitation Completion Criteria

Table 10: Rehabilitation Objectives and Rehabilitation Completion Criteria

Proposed Objective	Performance Indicator	Proposed Completion Criteria	Justification / Source	Link to TARP	Validation Method
Phase A - Decommissioning					
Domain 1 - Infrastructure					
Removal of all non-heritage infrastructure. Ensure site is safe and free of hazardous materials.	Disconnection of services. Removal of all transportable buildings. Removal of fuel tanks and other infrastructure. Burying of concrete pads.	Complete removal of infrastructure.	Condition of authority in Mining Leases.	1	On-going monitoring and annual review by Vertex personnel, as well as third parties, against relevant performance indicator.
	Approval by the Department of Planning and Environment of remaining infrastructure is to be (e.g. selected access tracks).	Written approval from the Department of Planning and Environment.	This document.	2	See above.
Closure of tracks that are not to be retained.	Decommission tracks so they are no longer trafficable by 4WD vehicles. Return tracks to a safe and stable condition to support vegetation comparable to the surrounding land.	Create a free draining landform. Rip to alleviate compaction. Sow seed. Install obstructions to 4WD traffic.	This document.	3 & 4	See above.
Domain 2 – Tailing Storage Facilities					
Tailings storage facilities	Remove gravity tailings pipeline.	Complete removal of pipeline.	This document.	1	See above.

("TSF") to be safe and all infrastructure removed.	Integrity of dam wall is adequate.	Sign off by a suitably qualified professional.	This document.	5	See above.
	TSF is not releasing any contaminants.	Sign off by a suitably qualified professional.	This document.	6	See above.

Domain 3 – Water Management Area

Cornelian Dam to be safe.	Integrity of dam wall is adequate.	Geotechnical assessment by a suitably qualified professional.	This document.	5	See above.
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Domain 4 – Overburden Emplacement

Stable and permanent landform established.	Landform is to be geotechnically stable (e.g. no landslides)	Geotechnical assessment by a suitably qualified professional.	This document.	5	See above.
	Landform is to be geochemically stable (i.e. not releasing any contaminants).	Geotechnical assessment by a suitably qualified professional.	This document.	7	See above.

Phase B – Landform Establishment

Domains 1 – Infrastructure, 2 – Tailings Storage Facilities, and 4 – Overburden Emplacement

Free draining, stable and permanent landform established.	Landforms are free draining.	Detailed survey and watershed analysis by a suitably qualified professional.	This document.	8	See above.
	Batters will be geotechnically stable.	Generally, at angles of 1V:3H of angle of repose.	Douglas Partners	5	See above.

Phase C – Growth Media Development

Domains 1 – Infrastructure, 2 – Tailings Storage Facilities, and 4 – Overburden Emplacement

Quality of growth media suitable for target vegetation community.	Quality of primary growth media to be comparable to surrounding land.	Growth media characterisation assessment by a suitably qualified professional. Fertility of primary growth media	This document.	9	See above.
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		comparable to the surrounding landscape.			
Quantity of growth media suitable for target vegetation community.	Adequate growth media is available, or identified for borrowing.	Compilation of an inventory of volumes of growth media available for rehabilitation.	This document.	10	See above.

Phase D – Ecosystem and Land Use Establishment

Domains 1 – Infrastructure, 2 – Tailings Storage Facilities, and 4 – Overburden Placement

Adequate soil depth to support vegetation.	Ground prepared for plant growth.	Absence of hardpans to a depth of 0.3 m, where possible.	This document.	11	See above.
Establish vegetation with a similar species composition to the surrounding area.	Establishment of vegetation endemic to the area.	Retention of vegetation records for seed applied and tube stock planted.	This document.	12	See above.

Phase F – Ecosystem and Land Use Sustainability

Domains 1 – Infrastructure, 2 – Tailings Storage Facilities, and 4 – Overburden Placement

Establish vegetation with a similar species composition to the surrounding area.	Establishing vegetation is progressing towards the target community.	Revegetation monitoring reports confirm that, after 3 years from planting, >70% of the total number of species established are either in accordance with the applied species mix or local native species, and represent 50% to 70% of the total projected foliage cover.	This document.	4	See above.
No weed infestations.	Weeds from the rehabilitated areas are not threatening the surrounding areas.	No priority weeds are present or are controlled in accordance with the requirements	This document.	13	See above.

		relevant to the control class.			
No water pollution from site.	Site water runoff is non-polluting.	Suspended solids <50mg/L Ph 6.5-8.0 Hydrocarbons < 10mg/L with no visible sheen.	Landloch ESCP (2020)	7	See above.

Phase G – Land Relinquishment

Domains - All					
Relinquish Lease.	Demonstrated compliance with all previous performance indicators.	Relinquishment report prepared by a suitably qualified professional.	Mining Leases.	14	See above.

4.2 Rehabilitation Objectives and Rehabilitation Completion Criteria – Stakeholder Consultation

The current rehabilitation objectives and rehabilitation completion criteria has largely been formulated during earlier consultations undertaken by the previous holder and operator of the Reward Gold Mine, being Peak Minerals.

Since acquisition, Vertex has further engaged in consultations with the Hill End community and relevant government authorities during the preparation of this RMP. A summary of recent consultations undertaken is provided in the table below:

Stakeholder	Matters Discussed
NSW Resources Regulator	<ul style="list-style-type: none"> Current and proposed operations at the Reward Gold Mine. Extension of the 'initial period'.
NSW Department of Regional NSW	<ul style="list-style-type: none"> Acquisition of the Reward Gold Mine by Vertex. Current and proposed operations at the Reward Gold Mine.
NSW National Parks and Wildlife Services	<ul style="list-style-type: none"> Organisation of quarterly meetings. Notifications and discussions regarding Vertex's intended operations at the Reward Gold Mine.

Bathurst Regional Council	<ul style="list-style-type: none"> • Notifications and discussions regarding Vertex’s intended operations at the Reward Gold Mine. • Discussions on current status and scope of development consent and associated obligations.
Hill End & Tambaroora Gathering Group	<ul style="list-style-type: none"> • Notifications and discussions regarding Vertex’s intended operations at the Reward Gold Mine. • Assistance with local community developments & sponsorships.
Hill End Community	<ul style="list-style-type: none"> • Organisation of quarterly meetings. • Notifications and discussions regarding Vertex’s intended operations at the Reward Gold Mine.

Table 11: Community Consultation Summary

5. PART 5 – FINAL LANDFORM AND REHABILITATION PLAN

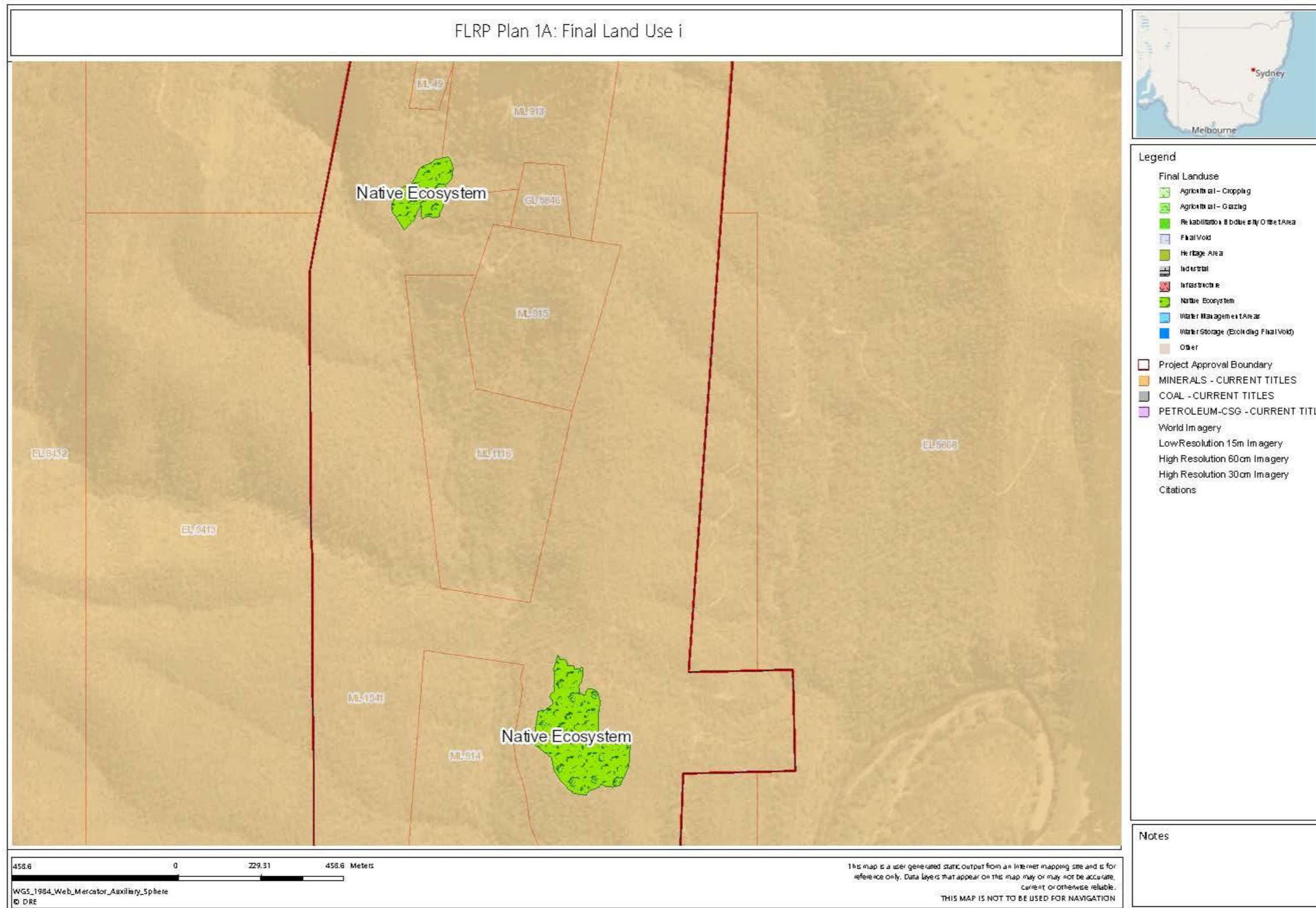


Figure 5: FLRP Plan 1A - Final Land Use i

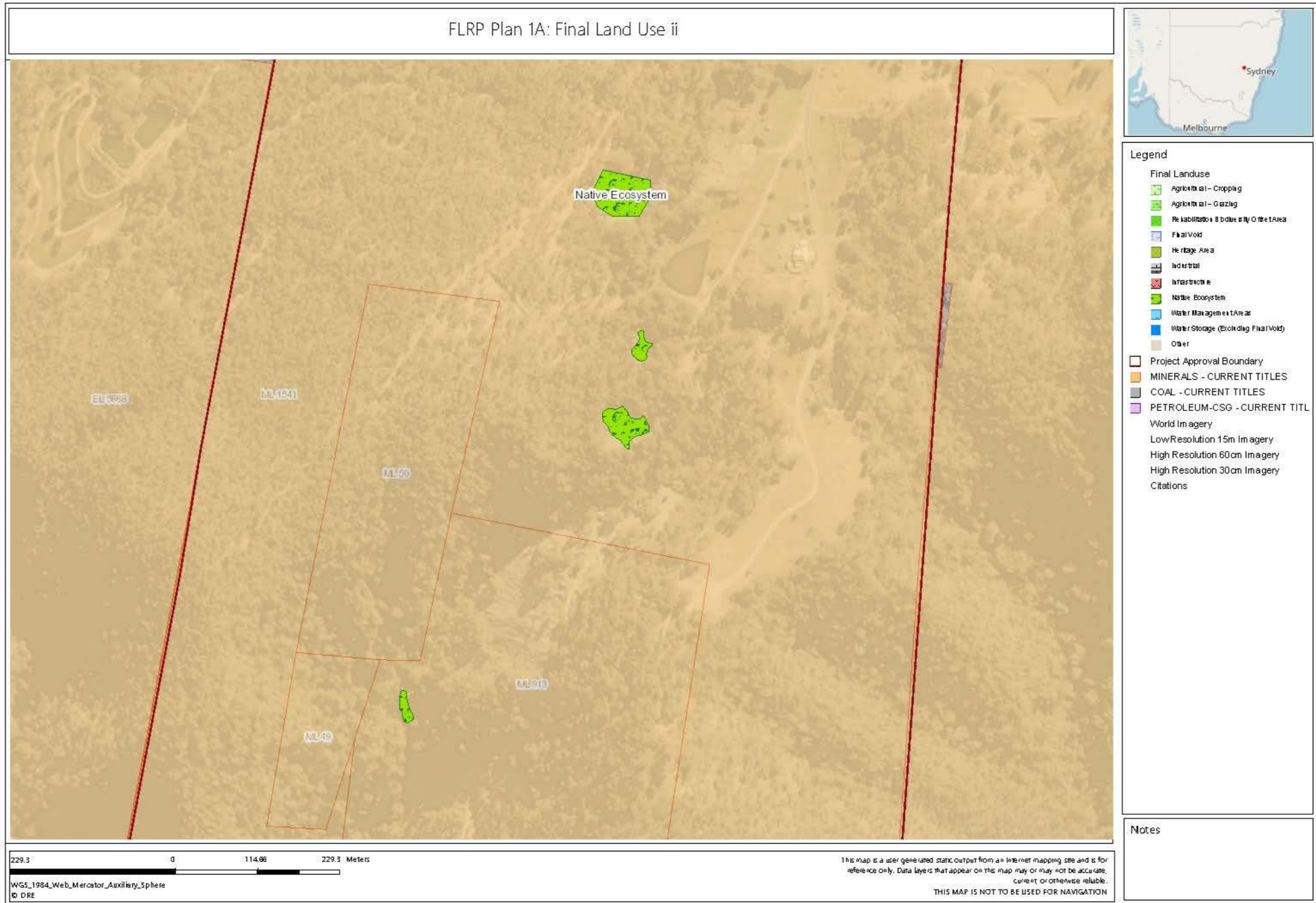
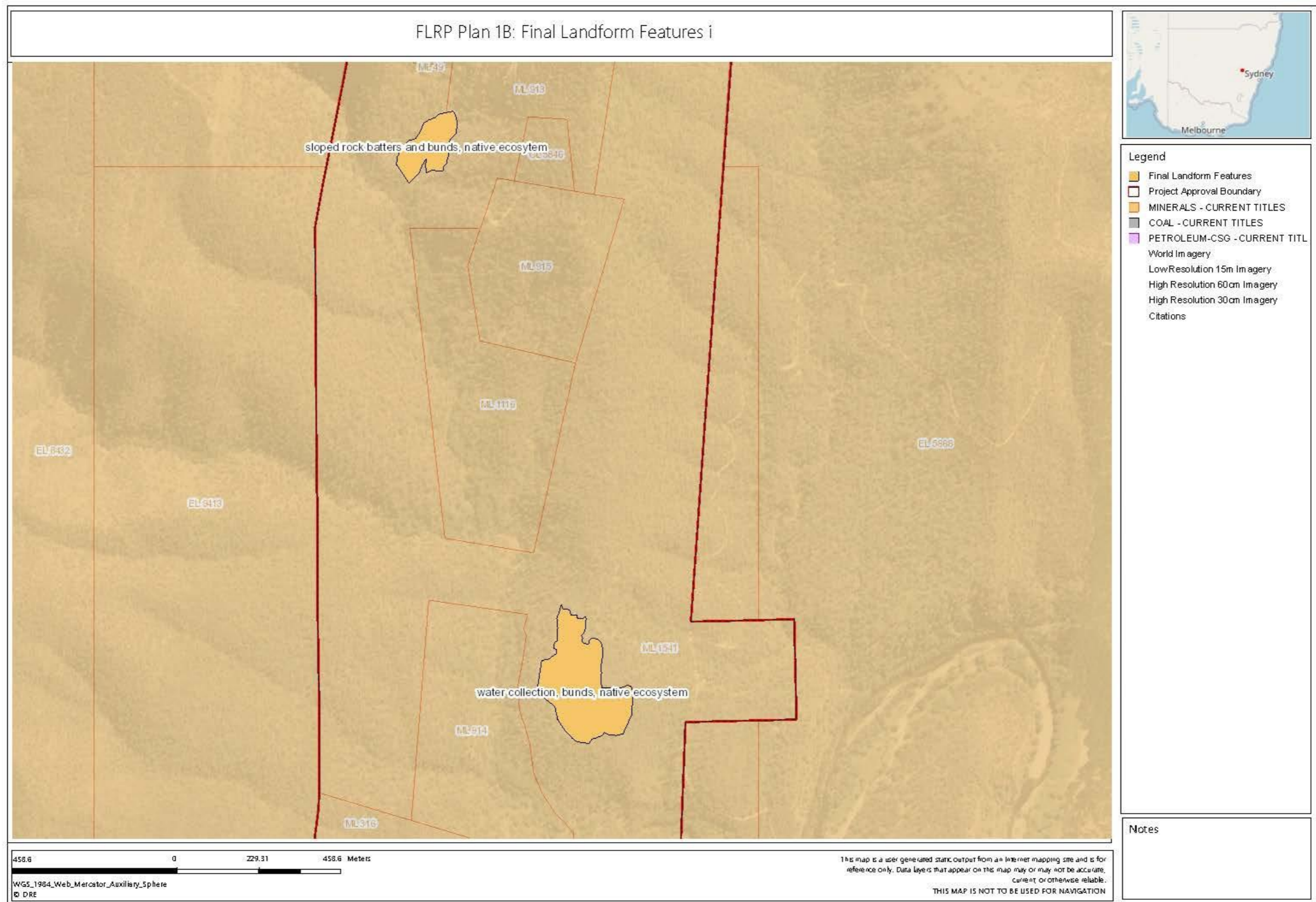


Figure 6: FLRP Plan 1A - Final Land Use ii



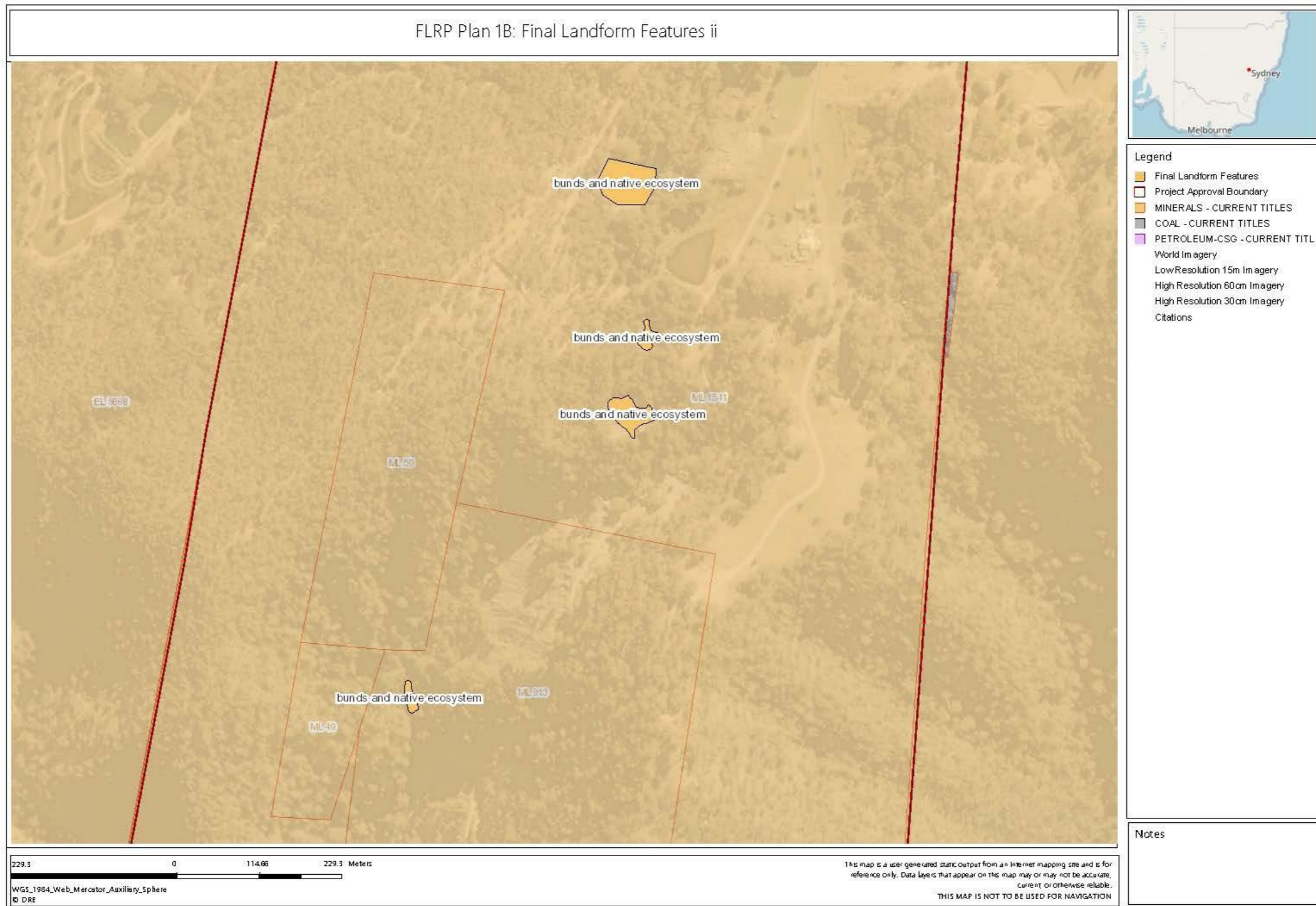


Figure 7: FLRP Plan 1B - Final Landform Features ii

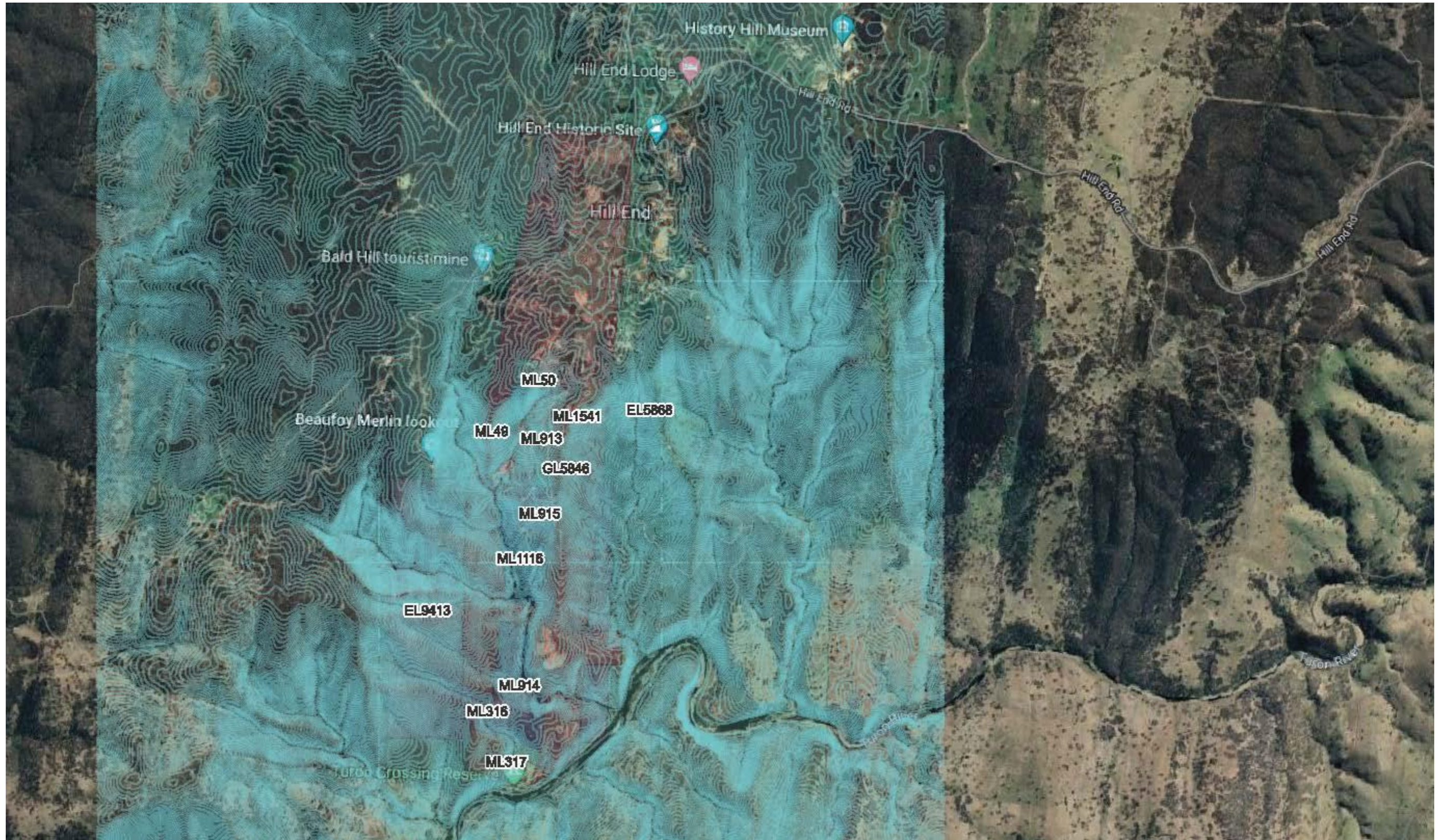


Figure 8: FLRP Plan 2 - Final Landform Contours

6. PART 6 – REHABILITATION IMPLEMENTATION

6.1 Life of Mine Rehabilitation Schedule

The Reward Gold Mine is currently in care and maintenance.

Closure criteria should be quantifiable if possible. For the Reward mine site, the following closure criteria are proposed:

- Rehabilitation must be stable and permanent enough for subsequent land use according to the RMP, being grazing and timber growth;
- Have no adverse environmental effects outside the disturbed area in comparison to baseline studies;
- State of land is compatible with surrounding land and land use requirements as per agreed land use;
- Landforms, soils, hydrology and flora require no greater maintenance than that in the surrounding land;
- Re-established vegetation must be appropriate to the area and at an acceptable density. Native vegetation must be local indigenous species, unless otherwise directed;
- The acceptable density is 70% groundcover for pasture lands;
- The acceptable density for native scrubs or trees is 100/ha planted, or 400/ha planted on slopes exceeding 18 degrees. Rehabilitation is achieved when plants are self-sustaining and secure from serious grazing threat;
- Land does not pose a threat to public safety.

Baseline studies have been conducted as documented in the Statement of Environmental Effects (SEE),

(2000). Baseline studies that are referred to in rehabilitation planning are:

1. Fredrickson & Brooks (1988), Environmental Investigation and Hydrogeochemical Study.

The study analysed samples of water, stream sediment and historic tailings around Hill End to identify environmental problems relict from previous mining or posed by future mining and to provide background water and stream sediment quality data for comparison with later sampling. No evidence for heavy metal contamination of water or active stream sediment by natural or anthropogenic activities above acceptable natural background levels or those listed in the Clean Waters Act (1970) were found. High concentration of mercury were found in old tailings dumps which is likely to be a result of the use of mercury to recover fine gold. Sites that were sampled within or near the Hill End Group Mining Licences are:

- Site 1 – water sample from Nuggety Gully
- Site 2 – water and sediment sample from Hill End Creek
- Site 3 – water and sediment sample from Hill End Creek immediately downstream from site 2
- Site 11 – sediment sample in Hill End Creek near the confluence with Turon River
- Historic tailings at Cornelian Dam

2. Gunninah Environmental Consultants (2000), Flora & Fauna Assessment

This study was completed for the SEE. The surface operations conform with vegetation recognized as Grassy White Box Woodland which has regenerated in previously disturbed areas. No threatened flora species were recorded on the mining sites. 74 native fauna species were recorded. The threatened Masked Owl, Large Bent-wing Bat, Yellow-bellied Sheathtail Bat and Large-eared Pied Bat were recorded or tentatively recorded in the area. The sites disturbed by the mining activities are not regarded as critical or significant with respect to the threatened species.

As increasingly detailed information becomes available the Closure Plans will become more detailed and definitive to address all closure scenarios.

6.2 Phases of Rehabilitation and General Methodologies

Rehabilitation may commence at the completion of mining or use of a component area. The phases are as identified below:

Rehabilitation Phase	Measures
1 – Decommissioning	Cessation of extraction, processing and infrastructure usage. Disconnection of remaining services, demolition and removal. Remediation of any contamination. Removal of all mobile equipment, site office and workshops.
2 – Landform Establishment	Earthwork to final landforms and construction of drainage design for closure.
3 – Growth Medium Development	Provision of sufficient growth media, of adequate quality
4 – Ecosystem and Land Use Establishment	Establishment of vegetation on the completed landforms. Maintenance of weed minimisation.
5 – Ecosystem and Land Use Sustainability	Monitoring until relevant performance indicators are achieved for the target vegetation community's completion criteria.

6 – Land Relinquishment	Relinquishment of land once nominated closure criteria are achieved and accepted by the Department of Planning and Environment.
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Table 12: Phases of Rehabilitation and General Methodologies

For the specific objectives, performance indicators and completion criteria of each phase, please refer to Table 10 for additional details.

6.2.1 Active Mining Phase

Notwithstanding the Reward Gold Mine is currently in care and maintenance, the following information is supplied:

a. Soils and Materials

The soils of the area have been heavily affected by past mining operations in which most timber within economic hauling distance from the mining areas being cleared and the thin forest soils were extensively eroded. The main soil type relevant to the operation on the higher slopes is a very shallow red to yellow light clay which occurs in non-uniform pockets of between 100-200mm (red in colour) with no B Horizon. In the majority of such areas at higher elevations there is virtually no soil formation with an organic layer of approximately 200mm forming the main growing medium. On the gentler slopes below 500m (RL) in the vicinity of the Bridle Track the soil cover is still light clay, more uniform and redder to yellow in appearance up to 400mm in depth.

The soil itself has high potential for erosion once exposed and on sections of exposed slope has experienced high rates of erosion and in areas where past mine workings were located. On the surface and gutter of the existing access track there was little evidence of significant past erosion except at two un-piped drainage lines and on the downside of one switchback turn. These have been rectified by appropriate earthworks.

Published soils mapping indicates the AP and TSF are likely to be part of the Mookerawa Soil Landscape (Kovac, Murphy & Lawrie, 1990).

b. Flora and Fauna

No vulnerable flora and/or fauna species, or their habitats were identified in research during the surveys conducted in 1999/2000, or since that time during ongoing activities on the site and surrounding areas.

Investigations of the flora and fauna in areas proposed to be affected by the mining operation included both detailed surveys on the mine operation site and tailings facilities and more general investigations through the Hill End Common. Features of the Common and of areas proposed to be affected by the mining operation in particular include:

- The high level of existing disturbance and habitat modification, arising from previous mining activities, including the excavation of mine shafts and adits, the dumping of waste rock throughout the landscape, the construction of numerous tracks, roads and paths and other infrastructure, substantial clearing of native vegetation for mining operation and logging, grazing and burning activities over the last 100 plus years; and

- The extent of vegetation communities and habitats throughout the Common and elsewhere in the vicinity similar or identical to those present at the proposed mine operations site and tailings facilities. Most of the Hill End Common is characterised by open grassy woodland dominated by White Box *Eucalyptus albens*, Red Stringybark *E. macrorhyncha*, Blakely's Red Gum *E. blakelyi* and several less common eucalypt species, with variations in canopy composition being related primarily to topographic location. In the deeper and more substantial creek lines and watercourses, the River She-oak *Casuarina cunninghamiana ssp. cunninghamiana* occurs in essentially monotypic stands.

The mine operation site is located at an existing mine site and adit, with ore treatment facilities located on an existing waste rock stockpile within the gully. Operations have been appropriately managed to avoid the discharge of any contaminants or pollutants into the natural environment. When last operated in 2010, erosion is placed down slope and downstream of the previously existing waste rock stockpile, extending it for approximately 100m downstream. The emplacement of waste has involved minor covering of the landscape and areas of existing vegetation, though much of the proposed waste stockpile area has been heavily disturbed by previous waste rock emplacements. Additionally, the stream channel has been retained for the passage of stormwater runoff from the hillside upslope and upstream, as well as some she-oaks within the existing watercourse channel.

The tailings storage facilities are located in areas typically characterised by White Box grassy woodland, with variable densities of associated tree species (particularly Blakely's Red Gum and Red Stringybark). The understorey on these areas is generally highly modified and sparse, with extensive areas of St John's Wort and other weeds.

Grassy box woodland has been listed as an "endangered ecological community, pursuant to the Commonwealth Endangered Species Protection Act 1993 ("ESP Act"). This woodland community is also being considered at present by the NSW Scientific Committee for listing as an "endangered ecological community", pursuant to the NSW Threatened Species Conservation Act 1995 ("TSC Act"). There has, however, not yet been a preliminary determination to list Grassy Box Woodland as an "endangered ecological community" pursuant to the TSC Act.

Vegetation present over much of the Hill End Common, and particularly on the slopes surrounding the mine operation site constitutes grassy box woodland. Much of the Hill End Common is characterised by this vegetation community and the Reward gold mine has involved removal or disturbance of only a very small area of grassy box woodland.

Trial mining from the Amalgamated portal and at the plant site occurred from 19 June 2007 to 27 May 2010. The tailings storage facility was constructed to support the trial mining and involved clearing approximately 32,766 m² (3.28 ha) of grassy box woodland.

The waste rock dump downstream of the Amalgamated Portal site has involved the removal of some grassy box woodland as an inevitable part of the activity. Figure 9 shows the surface disturbance on 2 May 2007 (pre-trial mining), 12 September 2009 (during trial mining) and 21 September 2018.

On 2 May 2007 the disturbed area was approximately 2367 m² (0.24 ha). Currently the surface disturbance covers approximately 6,440 m² (0.64 ha). Figure 10 is a photograph of the Amalgamated Portal area prior to trial mining from 2007 – 2009 which provides a baseline view of the Portal area prior to trial mining disturbance.

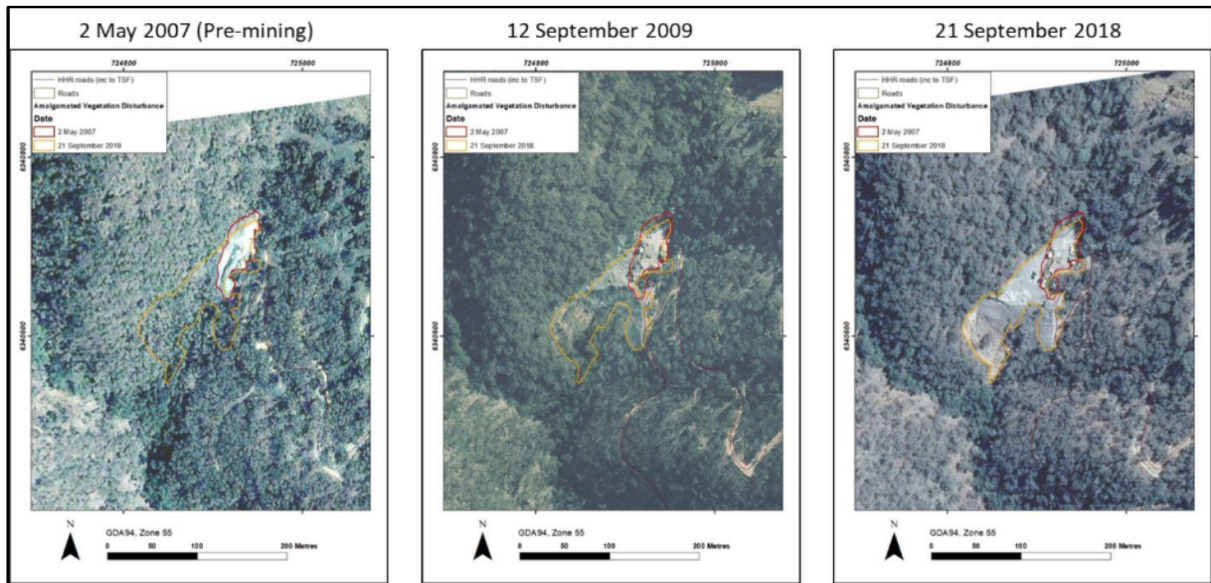


Figure 9: Surface Disturbance May 2007 – September 2018



Figure 10: View of the Amalgamated Portal (2 October 2000)

The Statement of Environmental Effects for Proposed Underground Mine on Hawkins Hill, Hill End NSW (Nugget Resources NL, 2000), noted that, no threatened plants were recorded during field investigations on the Hill End Common, and none have been recorded within 10km of the subject site (on the NPWS Wildlife Atlas). Given the high levels of disturbance over a long period, it is not considered likely that threatened plant species would occur in the areas proposed for disturbance.

An investigation conducted in March 2017 of the NPWS Wildlife Atlas noted that no vulnerable species of flora were within the Hill End area. However, there was one species noted as Endangered, Hoary Sunray (*Leucochrysum albicans* var. *tricolor*). Searches were conducted using a 10km x 10km search area using Hill End as the centre point.

The Statement of Environmental Effects for Proposed Underground Mine on Hawkins Hill, Hill End NSW (Nugget Resources NL, 2000), noted that only one threatened fauna species has been recorded within 10km of the subject site (on the NPWS Wildlife Atlas), being the Koala (*Phascolarctos cinereus*). However, it is considered likely that a number of threatened fauna species would occur on the Hill End Common,

occasionally at least, including the Powerful and Masked Owls, other birds possibly including the Regent Honeyeater and Microchiropteran bats.

No evidence for the presence of the Koala was obtained from areas proposed for disturbance, despite spotlight surveys and dedicated searches for scratches on trees and Koala scats. Although Koalas are known to occur in the Hill End area, there is no evidence of use of those areas proposed for mining activities by this species. Furthermore, given the extent of identical and similar habitat and resources in the immediate vicinity, it cannot be regarded as likely that this species (or even individuals) would be dependent upon those portions of the Hill End Common which will be affected by the proposed operations, even if individuals do occur on occasions.

An investigation conducted in March 2017 of the NPWS Wildlife Atlas noted there were five bird species and four mammal species marked as Vulnerable within the 10km box centred on Hill End.

The five bird species include were:

- Little Lorikeet (*Glossopsitta pusilla*)
- Speckled Warbler (*Pyrrholaemus sagittatus*)
- Brown Treecreeper (*Climacteris picumnus*)
- Barking Owl (*Ninox connivens*)
- Masked Owl (*Tyto novaehollandiae*).

The mammals within this radius include:

- Koala (*Phascolarctos cinereus*)
- Yellow-bellied Sheath-tail Bat (*Saccolaimus flaviventris*)
- Large-eared Pied Bat (*Chalinolobus dwyeri*)
- Eastern Bentwing Bat *Miniopterus (schreibersii oceanensis)*.

The Common Bentwing Bat (*Miniopterus schreibersii*) has been observed within several abandoned mine shafts and adits on Hawkins Hill. It is anticipated that migratory birds would not be affected.

It is considered unlikely that the proposed and current operations at Reward will impose any significant effect on any threatened or vulnerable species of fauna, populations or ecological communities, or their habitats. Further to this the removing of trees that are larger than 300mm that contain hollows or that currently sustain fauna shall, if required to be disturbed, be placed in an upright position nearby.

As there has been a mining heritage within the Hill End region over last 160 years, there are numerous workings scattered throughout the region that provide sustainable habitats for bat species. Considering there are three threatened species of bat within the Hill End area efforts will be undertaken to ensure existing mine workings that could contain bats are not disturbed.

In regard to the habitats of the vulnerable species identified, the area of proposed and current operations isn't a moist eucalypt forested gully; it is a moderately timbered area affected by previous mining activities with foliage predominantly consisting of re-growth. The Reward area is situated on the edge of a large region of eucalypt scrub and thus is considered unlikely for any fauna to become isolated.

On completed surface drill sites, remediation will be undertaken as soon as possible after drilling has ceased. Native trees and shrubs are planted and any displaced timber during pad preparation will be positioned over the ground to assist with erosion control. Grass seed and

super phosphate shall be spread across the area with straw placed on top to assist with germination.

c. Rock/Overburden Emplacement

The waste rock emplacement area is located in Nuggetty Gully and is part of the Amalgamated Mine, that last operated in 2010. The current site houses the portal, processing plant and other various surface infrastructure that remain from the operations. The slopes comprising the gully are steep, generally dipping at angles of between 40 and 50 degrees.

The material in the gully below the waste rock emplacement area comprises colluvium. It is characterised by a low plasticity, fine to coarse, light brown to orange, sandy clay matrix mixed with sandstone cobbles and boulders (see Photo 2). In terms of landslide terminology, this material would be classed as debris. Accumulation of the colluvium has occurred at the basal confluence of two gullies, with the origin of the material sourced from weathering and erosion of the upper slopes in the gully.

Following inspections and review by Douglas Partners (see Geotechnical Assessment, Waste Rock Emplacement Area, March 2020), stabilisation measures are recommended. The aim of the stabilisation measures are to reduce the potential for slippage of the batter.

The stabilisation measures recommended by Douglas Partners (March 2020) will be reviewed, planned and commenced, as follows:

1. Divert the water outflow from the portal to the drainage located beyond the toe of the slide. The aim here is to eliminate the apparent ineffectiveness of the concrete drainage pipe and reduce the likelihood of water saturating the colluvium, in particular the toe of the slide. If left unrectified, continued water exposure from the water outflow could lead to continued movement of the debris in the direction of the existing slide. Possible options include piping the water along the surface of the pad or digging a shallow ditch and burying a diversion pipe along the pad to the drainage.
2. Batter back the scarp and slopes of waste rock emplacement pile.
3. If accessible, construct a surface water drainage ditch along the upper trail located above the slide area. Water during heavy, prolonged rain events should be diverted away from, and around, the colluvium and waste rock emplacement pile.
4. Engage a sediment control expert to provide remediation measures for the colluvium scarp areas.
5. Carry out routine monitoring of the area including surveys and visual inspections. The frequency of the inspections should be increased during times of above average precipitation and following heavy rainfall events.

d. Waste Management

Hydrocarbon Contamination

Limited quantities of hazardous substances will be utilized during the proposed exploration drilling. These substances include oil, petrol and diesel fuels. All fuels will be contained. Activities will be subject to contractor's and/or Vertex's Safety Management Plan. Material Safety Data Sheets (MSDS) will be available for all chemicals and hazardous material used. All drilling fluids will be bio-degradable.

Diesel fuel will be stored in a secured banded facility surrounded by a diversion drain in a spill proof tank to prevent hydrocarbon contamination of drainage.

Contaminated Polluted land and soils

The unexpected escape of fuels or oils is considered to have the potential to cause land contamination. Any such escape would be quickly contained and subsequently recovered and removed. A spill management procedure is in place and an environmental spill kit will be available at all times.

The soils in the area have been significantly degraded by past mining operations with most timber within economic hauling distance from the mining areas having been cleared with mostly secondary regrowth evident. The consequent thin forest soils were exposed and subsequently eroded in some areas.

The proposed activities and drilling are likely to have minimal impact on soil resources due to the proposed limited amount of disturbance. Should excavation works be required then topsoil will be pushed up in a small stockpile. On completion of drilling, the topsoil will then be reintroduced across the “footprint” and sown with a groundcover species to deter erosion and weed infestation.

e. Geology and Geochemistry

No risks have been identified in relation to the geology or geochemistry of the Reward Gold Mine as the site is currently in care and maintenance.

f. Material Prone to Spontaneous Combustion

The only facility where spontaneous combustion may occur is where hazardous materials or fuel will be stored. Fuel will be stored in a secured area.

g. Material Prone to Generating Acid Mine Drainage

Statement of Environmental Effects (2000) noted that there was no evidence of acid mine drainage. Notwithstanding, Vertex monitors mine water run-off that has not presented any visible signs of acid mine drainage.

h. Ore Beneficiation Waste Management (Reject and Tailings Disposal)

The TSF site is located within the southern part of the Reward Mine and is situated on a ridgeline (Figure 11). Hill End Creek is located to the west and downslope of the TSF, within a gully. The TSF is situated on Mining Lease ML1541. It is located on the southern face of Hawkins Hill and covers an area of approximately 3.5 ha. The TSF is approximately 1.3 km down gradient from the Amalgamated Pad Area.

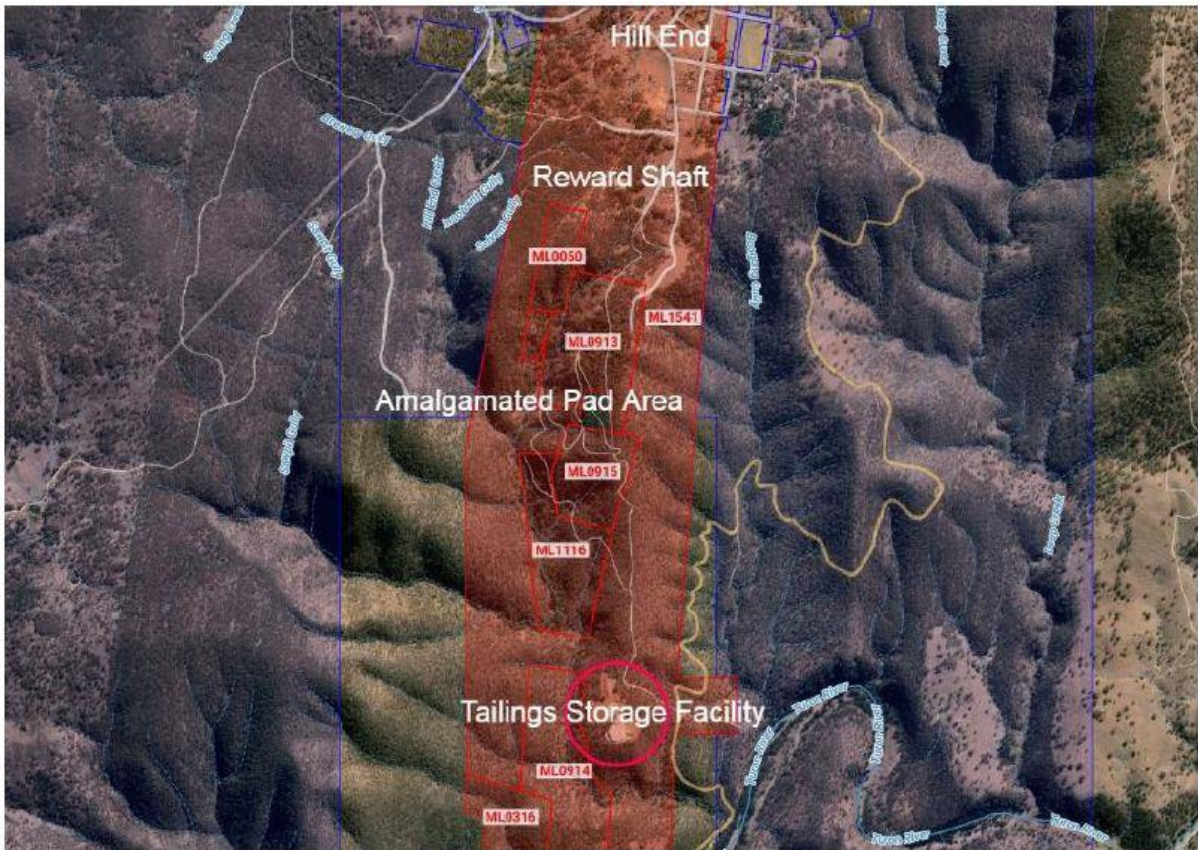


Figure 11: Location of Tailings Storage Area (Red Circle) – Obtained from Landloch Report (2020)

The TSF comprises:

- A tailings stockpile at the southern part of the site;
- Settling Dam on the south-eastern side of the ridge line;
- Tailings Dams 1 and 2, and the Polishing Pond dam on the western side of the ridgeline;
- An earth bund which surrounds the western, southern and eastern parts of the site.

Most of the tailings are either stockpiled or contained in Tailings Dams 1 and 2. The structures in the TSF noted in Table 13.

Structure	Area (ha)	Depth/Height (m)
Tailings Dam 1 (TD1) Void	0.31	Unknown
Tailings Dam 2 (TD2) Void	0.37	Unknown
Settling Pond (SP)	0.20	3 – 4
Polishing Pond (PP)	0.07	~ 2 – 3
Tailings Stockpile (TS)	0.46	< 15

Table 13: Structures in the TSF – Obtained from Landloch Primary ESC Plan, September 2020

The maximum relief of the TSF is approximately 20 m. The elevation decreases from 542 m AHD on the north-eastern boundary to 522 m AHD at the far western boundary.

The western fill batters of the Tailings Dams are between 20–50 m long (horizontal) with gradients of 20–50 % (Figure 12). At the Settling Pond, the eastern and southern batters are approximately 20 m long (horizontal). Appreciable areas of the batter have gradients exceeding 50 %.

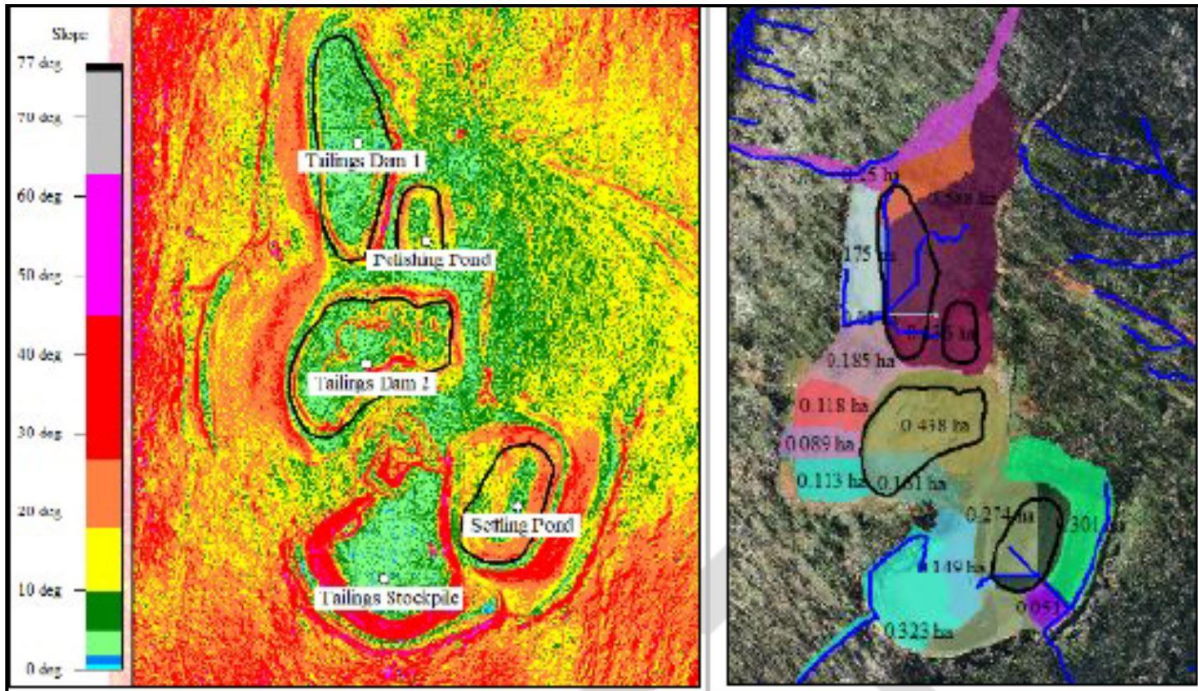


Figure 12: Left – Gradients of the TSF/ Right – Draining and sub-catchments at the TSF (Landloch 2020)

Previously, Peak Minerals engaged Douglas Partners to prepare a report on the slope stability assessment of the TSF, and Landloch Pty Ltd to prepare a report on the rehabilitation of the TSF and also the PESCMP for the TSF. These reports were done in response to the Directions Letter (NTCE0003143, NSW Resources Regulator) Items 2 and 3.

The TSF area will continue to be used as a storage site by Vertex for the fine waste from previous mining operations. The fine waste storage area had earthworks completed during November 2018 on the bund below the tailings stockpile, to return it to the required capacity. These works were successful in creating a stable slope and dry storage facility and Vertex will continue to monitor the bund integrity during the C & M RMP period to ensure it is maintained.

i. Erosion and Sediment Control

Maintenance of all drainage, erosion and sediment control measures is needed until their function is no longer required and adequate surface stabilisation is achieved. Routine tasks include, but are not limited to:

- Removing all sediment control measures once their function is no longer required and adequate surface stabilisation is achieved. All water, debris, and sediment removed from control measures will be disposed of or re-used in a manner that will not create an erosion or pollution hazard.

- Maintaining sediment traps once capacity drops below 50 %.
- Removing spilled soil or other materials from hazard areas, including lands closer than 5 m from areas of likely concentrated or high velocity flows, especially waterways and paved areas.
- Ensuring drains operate properly and to affect any necessary repairs.
- Constructing additional erosion and/or sediment control works, as might become necessary, to ensure the desired protection is given to downslope lands and waterways, i.e. make ongoing changes to drawings where it proves inadequate in practice, or is subjected to changes in conditions on the work-site or elsewhere in the catchment.

j. Ongoing management of biological resources for use in rehabilitation

There are currently no biological resources stockpiled for use in rehabilitation. The proposed activities and drilling are likely to have minimal impact on soil resources due to the proposed limited amount of disturbance. Should excavation works be required then topsoil will be pushed up in a small stockpile. On completion of drilling, the topsoil will then be reintroduced across the “footprint” and sown with a groundcover species to deter erosion and weed infestation.

k. Mine Subsidence

Regular inspections of the underground area have not been required as no access is needed or permitted while the mine is under care and maintenance. Inspections and any necessary remediation work will be conducted prior to recommencing access. The Leaky Feeder Radio Communication System is tested regularly to ensure it is available for use when required.

l. Management of Potential Cultural and Heritage Items

The land in the Hill End area was inhabited by the Wiradjuri people. Archaeological studies of Wiradjuri sites and land use patterns in the Hill End area are generally few in number (du Cros cited in NPWS 1997). Documented in the SEE (2000), a search of the NPWS Aboriginal Sites Register database was carried out by NPWS to determine whether any Aboriginal sites were registered in the proposed development area. The search showed that 14 known Aboriginal sites are recorded in and around the vicinity of the subject site. At these sites the following have been recorded on the register: 3 carved trees, 6 open camp sites, 2 stone arrangements, 1 boral ceremonial ring, 4 shelter deposits and 1 burial. None of these sites are located on the Hill End Group Mining Leases or on EL 5868 surrounding the mining leases and so are not relevant to the Hill End Group Mining Leases development or exploration on the surrounding EL 5868.

An archaeological and heritage survey of the proposed development sites documented in the SEE (2000) was undertaken by J. McDonald & Associates Pty Ltd during February 2000. This was conducted as a joint inspection with Warwick Peckham from the Bathurst Local Aboriginal Land Council. The survey found an extensive archaeological site in the vicinity of proposed tailings storage No 4 (East of the Bridle Track, Figure 11 but no other evidence was found in the other locations proposed to be affected by mining activity.

The Bathurst Local Aboriginal Land Council (Richard Peters) asked for development near the proposed tailings storage No 4 “to be avoided at all costs” following the archaeological and heritage survey which noted that there is no evidence of Aboriginal activity in any of the other proposed development sites.

Vertex intends to honour the request from the Bathurst Local Aboriginal Land Council.

Should any artefactual evidence be identified during the course of the activities, Vertex recognises its obligations under the NPWS Act and will immediately cease work and advise both the Land Council and the National Parks and Wildlife Service.

During site preparation, exploration staff would monitor for artefacts and should any artefacts be encountered during the course of the works, work will cease in the vicinity of the artefact and the site supervisor will seek advice from National Parks & Wildlife Service Division-Western Branch or Office of Environment and Heritage personnel so that it can be assessed in accordance with the requirements of the National Parks and Wildlife Act, 1974 or Heritage Act, 1977.

On-site personnel will be briefed about the likely presence of Aboriginal artefacts and the course of action as prescribed by the above mentioned protocol. Any sites located will be marked and colour flagged to indicate 'off-limits' areas.

m. Exploration Activities

Rehabilitation of the drill sites will be undertaken in accordance with the Department's Exploration Code of Practice – Rehabilitation (Department of Regional NSW, July 2015). All equipment, drilling materials, sample bags and any rubbish will be removed from site. RC cuttings will be emptied into the drill hole and any excess cuttings will be removed off-site and disposed of appropriately. Drill collars (where used) will be cut off below ground level, capped (with a non-degradable or concrete plug) and back-filled at a later date after completion of any down-hole geophysical surveys. Holes awaiting geophysical survey(s) will be capped in the interim. Residues and plastic will be disposed of at an appropriate off-site waste facility. Drill pads would be ripped / re-shaped and rehabilitated to form a stable surface. In accordance with the specific requirements of landholders, all access tracks will be graded to ensure that they are stable / non-eroding and will be retained for future use as tracks and as fire trails. Any damage to existing access tracks will be repaired.

At the completion of rehabilitation, the land will be left to naturally regenerate. If monitoring shows natural revegetation to be ineffective then seeding with local grass species and/or weed control measures will be undertaken.

6.2.2 Decommissioning

As increasingly detailed information becomes available, the Closure Plans will become more detailed and definitive to address all closure scenarios and considerations. At the time of this RMP, the following information is provided:

a. Site Security

Warnings and notices showing "No Entry" or "Prohibited Area" will be posted on boundary fences and at boundary gates. Areas where hazardous chemicals are to be stored will be enclosed by high man-proof fences and locked when not supervised.

Information on duty of care will also be available. Nearby residents will be informed of risks and encouraged to contact the company regarding potential safety concerns.

b. Infrastructure to be Removed or Demolished

The infrastructure domain at the Reward Gold Mine consists of:

- Reward Shaft Area;
- Patriarch Shaft Area;
- Consolidated Adit Area;
- Amalgamated Adit Area;
- Access Tracks; and
- Services, including electricity, water and telecommunications.

All transportable buildings, gravity tailings pipelines, fuel tanks and other surface infrastructure will be decommissioned and removed, employing demolition where required, unless it is agreed with the landholders and the Department of Planning and Environment for certain surface infrastructures to remain. All concrete pads will be buried.

All services will be disconnected.

Access tracks will be decommissioned and rehabilitated if no longer of use. The tracks will be returned to a safe and stable condition to support vegetation comparable to the surrounding land. Any tracks that are to be retained are to be maintained in a trafficable and serviceable condition prior to relinquishment.

c. Buildings, Structures and Fixed Plant to be Retained

All infrastructure is proposed to be removed at the time of this RMP. Any tracks that are to be retained are to be maintained in a trafficable and serviceable condition prior to relinquishment.

d. Management of Carbonaceous/ Contaminated Material

The unexpected escape of fuels or oils is considered to have the potential to cause land contamination. Any such escape would be quickly contained and subsequently recovered and removed. A spill management procedure is in place and an environmental spill kit will be available at all times.

The soils in the area have been significantly degraded by past mining operations with most timber within economic hauling distance from the mining areas having been cleared with mostly secondary regrowth evident. The consequent thin forest soils were exposed and subsequently eroded in some areas.

The proposed activities and drilling are likely to have minimal impact on soil resources due to the proposed limited amount of disturbance. Should excavation works be required then topsoil will be pushed up in a small stockpile. On completion of drilling, the topsoil will then be reintroduced across the "footprint" and sown with a groundcover species to deter erosion and weed infestation.

e. Hazardous Materials Management

Limited quantities of hazardous substances will be utilized during the proposed exploration drilling. These substances include oil, petrol and diesel fuels. All fuels will be contained. Activities will be subject to contractor's and/or Vertex's Safety Management Plan. Material Safety Data Sheets (MSDS) will be available for all chemicals and hazardous material used. All drilling fluids will be bio-degradable.

Diesel fuel will be stored in a secured bunded facility surrounded by a diversion drain in a spill proof tank to prevent hydrocarbon contamination of drainage.

f. Underground Infrastructure

Regular inspections of the underground area have not been required as no access is needed or permitted while the mine is under care and maintenance. Inspections and any necessary remediation work will be conducted prior to recommencing access. The Leaky Feeder Radio Communication System is tested regularly to ensure it is available for use when required.

6.2.3 Landform Establishment

As increasingly detailed information becomes available, the Closure Plans will become more detailed and definitive to address all closure scenarios and considerations. At the time of this RMP, the following information is provided:

a. Water Management Infrastructure

Vertex has three water production bores located on ML 1541 (80WA715466 - 40 units, 80WA726474 - 15ML and 80AL723473 – 30 units), which are in the Lachlan Fold Belt MDB (Other) Management Zone. All production bores will be rehabilitated and relinquished unless otherwise agreed upon with the landholder.

Vertex will continue to undertake quarterly water quality testing at a number of locations at water courses on, as well as above and below our operations; these locations include; Upper Turon, Oakey Creek (two sites), Fosters, Lower Turon, the Tailings Storage Facility, Cornelian Dam and Tambaroora Dam.

b. Final Landform Construction: General Requirements

The primary post mining land use goal pertaining to landform is that the final landforms will contain slopes consistent with, and require no greater maintenance than, that in the surrounding land.

Geotechnical and geochemical assessments, as well as detailed surveys and watershed analysis, by a qualified professional may be required to ensure the land is stable and a permanent landform is established.

Further, earthworks may be undertaken to establish final landforms and to construct a drainage design for closure.

c. Final Landform Construction: Reject Emplacement Areas and Tailings Dams

Landloch was engaged to undertake an assessment of the stability of the TSF. Their assessment resulted in a report titled 'RGM TSF Rehabilitation Options Analysis 2020' (March 2020). It includes the characterisation of the Tailings Dam Area; an evaluation of stability and potential for erosion; and the provision of options to improve stability. The assessment did not consider the geotechnical stability of structures.

Landloch provided options to improve the stability of the earthen batters. These options included:

- Exclusion fencing,
- Rock soil cover, and
- Vegetative debris cover.

Planning of this work has commenced at the time of this RMP, with sediment control measures being delivered to site and experienced earthmovers being engaged.

Landloch further recommended the following rehabilitation options to stabilise the TSF, including:

- Maintenance of the status quo;
- Exclusion fencing and improving batter fertility;
- Rock-soil cover on earthen batters;
- Vegetative debris cover on earthen batters; and
- Decommissioning of the TSF.

These options are still being considered at the time of this RMP.

d. Final Landform Construction: Final Voids, Highwalls and Low Walls

The previously approved rehabilitation objective for the voids and shafts of the Reward Gold Mine is to provide a permanent seal to stop entry by persons and minimise harm to fauna.

Geotechnical and geochemical assessments, as well as detailed surveys, by a qualified professional may be required to ensure the land is stable and a permanent final void landform is established.

A bund is proposed to be constructed around the perimeter of the final voids which will be planted with an initial cover crop (to assist in stabilising the bund following construction) and native vegetation species. The final void will be fenced upon completion of operations, pending discussion with the relevant landholders and the Department of Planning and Environment. Signposted warnings to the public will also be placed along the fence to prevent entry and minimise harm.

e. Construction of Creek/River Diversion Works

Not applicable. There are no constructed creek/ river diversions at the Reward Gold Mine.

6.2.4 Growth Medium Development

The Medium Development incorporates the processes involved to achieve a soil which is capable of supporting a sustainable plant community. It includes consideration of the chemical, physical and biological properties of the growth medium and takes into account issues such as the specialist requirements aligned to the revegetation of the disturbed areas e.g. soil ameliorants.

The soils of the area have been heavily affected by past mining operations in which most timber within economic hauling distance from the mining areas being cleared and the thin forest soils were extensively eroded. The main soil type relevant to the operation on the higher slopes is a very shallow red to yellow light clay which occurs in non-uniform pockets of between 100-200 mm (red in colour) with no B Horizon. In the majority of such areas at higher elevations there is virtually no soil formation with an organic layer of approximately 200mm forming the main growing medium. On the gentler slopes below 500 M (RL) in the vicinity of the Bridle Trail the soil cover is still a light clay, more uniform and more red to yellow in appearance up to 400mm in depth.

The soil itself has high potential for erosion once exposed and on sections of exposed slope has experienced high rates of erosion and in areas where past mine workings were located. On the surface and gutter of the existing access trail to be upgraded there was little evidence of significant past erosion except at two unpiped drainage lines and on the downside of one switchback turn.

In order to find the most effective method of initial stabilisation of batters for revegetation with a protective ground cover, field trials would be conducted as part of the ongoing construction of the storages.

The trials involve the use of:

- control areas (i.e. no seeding)
- a shotgun pasture mix of rye, phalaris and two clovers millet only
- oats only
- each of the above but with fertiliser application
- Use of native shrubs indigenous to the area

On completion of filling the storage, the tailings area can be covered directly with available top-soil and other growing media as there are no potential leachates which would inhibit natural regeneration.

For the access road, terrain types 2A & 3 are the main targets for short term revegetation as these are the ones with some finer weathered rock material and limited areas of top-soil. The results of the above trials will be used as the basis for on-going implementation. In many areas, managed revegetation will not be possible due to the steepness of the slope.

Each area of seeding will be logged by photograph before application, and details entered onto the environmental database. Performance will be monitored for the initial period of six weeks before overall review. Applications may need to be repeated or proposed application changed on a case by case basis at the review point.

On the issue of rehabilitation, there is some doubt as to whether the access roads would be completely rehabilitated, as the Rural Fire Services have commented that the access road is invaluable for access to the lower country for fire fighting services. At the moment, there is no intention to rehabilitate the road. If the time came for possible closure of any road, there will need to be wide consultation with all stakeholders in order to decide a preferred option. The access road was also considered to be useful for possible round-trip eco-tourism ventures. The matter of rehabilitation of the access roads will be subject to on-going and future community consultations.

6.2.5 Ecosystem and Land Use Establishment

In accordance with the rehabilitation objectives in Table 10 of this RMP, the primary objective concerning ecosystem and land use establishment is to establish vegetation with a similar species composition to the surrounding area.

Investigations of the flora and fauna in areas proposed to be affected by the mining operation included both detailed surveys on the mine operation site and tailings facilities and more general investigations through the Hill End Common. Features of the Common and of areas proposed to be affected by the mining operation in particular include:

- The high level of existing disturbance and habitat modification, arising from previous mining activities, including the excavation of mine shafts and adits, the dumping of waste rock throughout the landscape, the construction of numerous tracks, roads and paths and other infrastructure, substantial clearing of native vegetation for mining operation and logging, grazing and burning activities over the last 100 plus years; and
- The extent of vegetation communities and habitats throughout the Common and elsewhere in the vicinity similar or identical to those present at the proposed mine operations site and tailings facilities. Most of the Hill End Common is characterised by open grassy woodland dominated by White Box *Eucalyptus albens*, Red Stringybark *E. macrorhyncha*, Blakely's Red Gum *E. blakelyi* and several less common eucalypt species,

with variations in canopy composition being related primarily to topographic location. In the deeper and more substantial creek lines and watercourses, the River She-oak *Casuarina cunninghamiana ssp cunninghamiana* occurs in essentially monotypic stands.

In regard to the habitats of the vulnerable species identified, the area of proposed and current operations is not a moist eucalypt forested gully; it is a moderately timbered area affected by previous mining activities with foliage predominantly consisting of re-growth. The Reward area is situated on the edge of a large region of eucalypt scrub and thus is considered unlikely for any fauna to become isolated.

At the completion of operations, remediation will be undertaken as soon as possible after drilling has ceased. Native trees and shrubs are planted and any displaced timber will be positioned over the ground to assist with erosion control. Grass seed and super phosphate shall be spread across the area with straw placed on top to assist with germination.

Vertex will continue to inspect and monitor weeds throughout the Reward Gold Mine. Documentation shows that Serrated Tussock is the most prolific weed. Spraying is carried out as and when required on site. A certified contractor will be engaged to carry out spraying, with spraying locations, type of weed and chemical usage being recorded in a day logbook and then transferred to the company's network server.

The most numerous of the feral animals found in the Reward Gold Mine area are feral goats (*Capra hircus*). During dry seasons feral goats venture into the Hill End Village area. When this occurs or when overall numbers increase, Vertex will resume its trapping program.

Vertex is also a member of the Hargraves - Hill End Wild Dog Action Group. The number of sightings of wild dogs in the Hill End, Hargraves and Turondale areas is on the increase. Vertex assisted the action group by undertaking a baiting program throughout 2022, and will continue to sponsor and assist with the programs as required.

Weather and seasonal considerations will also be had during the ecosystem and land use establishment phase. Using a Davis Vantage Pro2 weather station, Vertex continues to collect and record rainfall, temperature and wind data.

6.2.6 Ecosystem and Land Use Sustainability

Monitoring by Vertex personnel will be undertaken to ensure all relevant performance indicators, as contained in Table 10 of this RMP, have been achieved for the target vegetation community's completion criteria.

Inspections are to be conducted on a monthly basis, and carried out by suitably qualified staff who have:

- An understanding of site environmental values that could be impacted by site construction and operation;
- A thorough working knowledge of drainage, erosion and sediment control fundamentals;
- An ability to provide advice and guidance on appropriate erosion and sediment control measures at all times; and
- A good working knowledge of the correct installation, operation and maintenance procedures for the full range of drainage, erosion and sediment control measures used on the site.

All site monitoring data including site inspection records, rainfall records, dates of water quality testing, and testing results will be documented on site. The currency of the documentation will

be maintained for the duration of the approved works and be available on site for inspection by regulators, upon request.

6.3 Rehabilitation of Areas Affected by Subsidence

Not applicable. There is no risk of mine subsidence in consideration of the proposed care and maintenance activities.

7. PART 7 – REHABILITATION QUALITY ASSURANCE PROCESS

Rehabilitation Phase	Quality Assurance Measures	Documentation / Records	Review of QA Process
1 – Decommissioning	<p>Site inspection (Monthly and within 72 hours of cessation of a rainfall event greater than 50mm).</p> <p>Water quality testing.</p> <p>Erosion and sediment control works as required.</p> <p>Remedial maintenance works as required.</p>	<p>Field inspection sheets.</p> <p>Annual Rehabilitation Reporting.</p> <p>Incident reporting where required.</p>	<p>Annual review of quality assurance measures or review immediately following incident.</p>
2 – Landform Establishment	<p>Site inspection (Monthly and within 72 hours of cessation of a rainfall event greater than 50mm).</p> <p>Erosion and sediment control works as required.</p> <p>Remedial maintenance works as required.</p>	<p>Field inspection sheets.</p> <p>Annual Rehabilitation Reporting.</p> <p>Incident reporting where required.</p>	<p>Annual review of quality assurance measures or review immediately following incident.</p>
3 – Growth Medium Development	<p>Site inspection (Monthly and within 72 hours of cessation of a rainfall event greater than 50mm).</p>	<p>Field inspection sheets.</p> <p>Annual Rehabilitation Reporting.</p>	<p>Annual review of quality assurance measures or review immediately following incident.</p>

	<p>Erosion and sediment control works as required.</p> <p>Weed/ pest management works as required.</p> <p>Remedial maintenance works as required.</p>	<p>Incident reporting where required.</p>	
4 – Ecosystem and Land Use Establishment	<p>Site inspection (Monthly and within 72 hours of cessation of a rainfall event greater than 50mm).</p> <p>Water quality testing.</p> <p>Erosion and sediment control works as required.</p> <p>Remedial maintenance works as required.</p>	<p>Field inspection sheets.</p> <p>Annual Rehabilitation Reporting.</p> <p>Incident reporting where required.</p>	<p>Annual review of quality assurance measures or review immediately following incident.</p>
5 – Ecosystem and Land Use Sustainability	<p>Site inspection (Monthly and within 72 hours of cessation of a rainfall event greater than 50mm).</p> <p>Water quality testing.</p> <p>Erosion and sediment control works as required.</p> <p>Remedial maintenance works as required.</p>	<p>Field inspection sheets.</p> <p>Annual Rehabilitation Reporting.</p> <p>Incident reporting where required.</p>	<p>Annual review of quality assurance measures or review immediately following incident.</p>
6 – Land Relinquishment	<p>Site inspection (Monthly and within 72 hours of cessation of a rainfall event greater than 50mm).</p>	<p>Field inspection sheets.</p> <p>Annual Rehabilitation Reporting.</p> <p>Incident reporting where required.</p>	<p>Annual review of quality assurance measures or review immediately following incident.</p>

Table 14: Rehabilitation Quality Assurance Process

8. PART 8 – REHABILITATION MONITORING PROGRAM

8.1 Analogue Site Baseline Monitoring

Historic Rehabilitation Trials at the Reward Mine Site

The aim of the trials was to determine if it is possible to re-vegetate the tailings material. What type of vegetation, if any, will grow in it and what other inputs would be required and at what rates?

A sample of the fine waste material was sent for analysis, with details of that analysis shown in Figure 13 below.

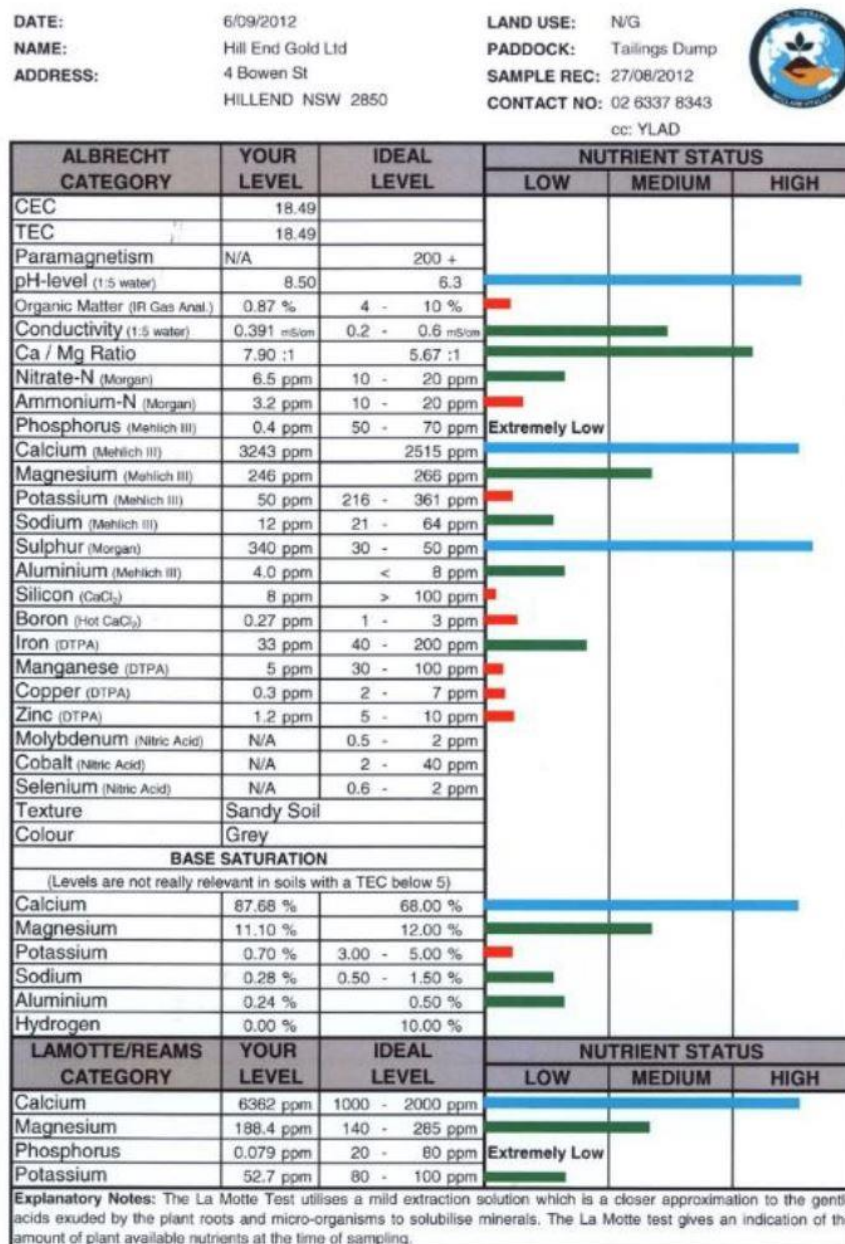


Figure 13: TSF Material Analysis

General Comments

There are some serious imbalances here. Building **organic matter** levels should be a key focus of remediating this soil. If possible, it is recommended to incorporate a few seasons of green-manure crops to help build carbon levels. **Phosphorus (P)**, **potassium** and **all the tested trace elements** are the standout deficiencies here. For your final ground cover, consider selecting plants which are efficient in extracting P (e.g., Proteaceae).

Calcium is excessive and this has resulted in the high pH. Building organic matter levels will help to buffer this excess.

FERTILITY RATING				
★	★★	★★★	★★★★	★★★★★
VERY POOR	POOR	FAIR	GOOD	EXCELLENT
☆ denotes half a star		YOUR FERTILITY RATING		
		★ ☆		

Figure 14: Soil Fertility Rating

During 2013 this information was reviewed and a suitable site selected. It was decided for ease of access and monitoring that an area above the Reward Shaft would be used. A total of 50 m³ of fine waste material was moved from the Tailings Storage Facility to the selected site.

In April 2014 the selected area was fenced to keep out pest and feral animals i.e. rabbits, goats and pigs, although it remains to be seen if Kangaroos will also be a problem. 10 beds were constructed, each approximately 7m² by 500mm thick.

Six species of native grass tube stock were purchased from Jayfield Nurseries at Holbrook, species chosen were Austrodanthonia Carphoides, Austrostipa Scabra, Bothriocloa Macra, Chloris Truncata, Poa Labillardierei and Poa Sieberiana.

Trial plot 1

Planted as a control group, 6 rows of 8 plants, planted with no fertiliser or other inputs

Trial plot 2

12 rows of 8 plants, with a blend of Humus compost, MAP fertiliser and soft rock fertiliser at 2 ton/ ha.

Trial plot 3

12 rows of 8 plants, with a blend of Humus compost, Sulphate of ammonia, Boron Humate granules, Copper sulphate, Zinc sulphate and Manganese at 1ton/ ha.

Trial plot 4

12 rows of 8 plants with Nutricote slow-release fertiliser at 50 kg/ha.

Trial plot 5

12 rows of 8 plants with blood and bone at 50 kg/ha

Trial plot 6

12 rows of 8 plants with Australian Native Landscapes Nitro Humus at 2 ton/ha.

Trial plot 7

Buxifolia Wattle seeds.

Trial plot 8

Shirroe Millet sown with Tunsa Starter fertiliser at 80 kg/ha.

Trial plot 9

6 rows of 8 plants sown with 100 kg/ha of white sugar.

All plants were watered after planting and monitored weekly.

Weather conditions were less than favourable with temperatures above 30° c and only 2 significant falls of rain in December 2014.

April 2015

Some plants have recovered with the onset of cooler weather but others have failed.

Plot 4 with Nutricote fertiliser seems to have survived the best.

It is obvious that erosion is a problem, where water has pooled and overflowed off the plot significant damage has occurred.

LLS trial June 2014

On the 3 June 2014, Clare Edwards, Senior Pastures Officer with the Local Lands Services undertook a “look see” trial in the regeneration area. Biserrula, Gland, Balansa, Serradulla, Bladder, Yellow Serradella and Sub clover were sown with 100 kg/ha of DAP fertiliser. The best germination occurred with the sub clover but once again when the seasonal temperatures increased all plantings failed.

2018-19 saw the lowest rainfall recorded since 2008-09. Due to the harsh seasonal conditions i.e. low rainfall and high temperatures, as well as the recent effects and associated restrictions of the COVID-19 pandemic, it has been decided to suspend further work on the regeneration trials. When weather conditions return to what is regarded as normal, Vertex is considering engaging an appropriately qualified Environmental Consultant to review the past trials and drive further activity on this important project.

Proposed Rehabilitation Trials

Formal research trials are currently not proposed at the time of this RMP. Rather, attention will be focused on the progress of the establishment of revegetation works planned for the TSF and Amalgamated Pad so as to gather learnings relevant to future rehabilitation campaigns. Revegetation progress will be recorded during the erosion and sediment control monitoring inspections that are scheduled:

- Monthly; and
- Within 72 hours of the cessation of a rainfall event of greater than 50 mm.

At these inspections, details of vegetation progress will also be recorded. This will include, but not be limited to:

- Locality;
- Green ground cover, vexation type, and height;
- Leaf litter ground cover; and
- Stone and gravel groundcover.

8.2 Rehabilitation Establishment Monitoring

During the commencement of the ecosystem establishment phase, inspections are to be conducted on a monthly basis.

Inspections are to be carried out by suitably qualified staff who have:

- An understanding of site environmental values that could be impacted by site construction and operation;
- A thorough working knowledge of drainage, erosion and sediment control fundamentals;
- An ability to provide advice and guidance on appropriate erosion and sediment control measures at all times; and
- A good working knowledge of the correct installation, operation and maintenance procedures for the full range of drainage, erosion and sediment control measures used on the site.

All site monitoring data including site inspection records, rainfall records, dates of water quality testing, and testing results will be documented on site. The currency of the documentation will be maintained for the duration of the approved works and be available on site for inspection by regulators, upon request.

8.3 Measuring Performance Against Rehabilitation Objectives and Rehabilitation Completion Criteria

The specific, proposed rehabilitation objectives and completion criteria are provided in Section 4.1 of this RMP.

Performance against the Rehabilitation Objectives and Rehabilitation Completion Criteria (“**ROCC**”) will be measured by way of monthly and annual inspections, or immediately after an incident. Inspections will be undertaken by suitably qualified staff who have been trained on the content and requirements of the Reward Gold Mine ROCC, subject to any future amendments or revisions.

All site monitoring data including site inspection records, rainfall records, dates of water quality testing, and testing results will be documented on site. The currency of the documentation will be maintained for the duration of the approved works and be available on site for inspection by regulators, upon request.

Where any geotechnical or geochemical assessment is required, a suitably qualified professional will be engaged by Vertex to undertake said assessment.

9. PART 9 – REHABILITATION RESEARCH, MODELLING AND TRIALS

9.1 Current Rehabilitation Research, Modelling and Trials

Formal research trials are currently not proposed at the time of this RMP. Rather, attention will be focused on the progress of the establishment of revegetation works planned for the TSF and Amalgamated Pad to gather learnings relevant to future rehabilitation campaigns. Revegetation progress will be recorded during the erosion and sediment control monitoring inspections that are scheduled:

- Monthly; and
- Within 72 hours of the cessation of a rainfall event of greater than 50 mm.

At these inspections, details of vegetation progress will also be recorded. This will include, but not be limited to:

- Locality;
- Green ground cover, vexation type, and height;
- Leaf litter ground cover; and
- Stone and gravel groundcover.

Historic Rehabilitation Trials at the Reward Mine Site

This is discussed more in depth at Section 8.1 of this report. The aim of the trials was to determine if it is possible to re-vegetate the tailings material. The results from this trial found that Calcium is excessive and has resulted in a high pH. It was recommended that building organic matter levels should be a key focus of remediating this soil. In April 2014 7 trial plots were selected to plant a selection of native grass species on. Some plants recovered with the onset of cooler weather but others have failed. Plot 4 with Nutricote fertiliser seems to have survived the best. It is obvious that erosion is a problem, where water has pooled and overflowed off the plot significant damage has occurred.

9.2 Future Rehabilitation Research, Modelling and Trials

2018-19 saw the lowest rainfall recorded since 2008-09. Due to the harsh seasonal conditions i.e. low rainfall and high temperatures, as well as the recent effects and associated restrictions of the COVID-19 pandemic, it has been decided to suspend further work on the regeneration trials. When weather conditions return to what is regarded as normal, Vertex is considering engaging an appropriately qualified Environmental Consultant to review the past trials and drive further activity on this important project.

10. PART 10 – INTERVENTION AND ADAPTIVE MANAGEMENT

10.1 Threats to Rehabilitation

Hazards or threats that could impact on rehabilitation objectives for the Reward Gold Mine are discussed earlier in this RMP and it is Vertex's view there are all outstanding hazards or threats have been carefully reviewed and/or addressed by the implementation of specific mitigation measures.

Notwithstanding this, it is noted that threats generally include:

- Erosion of rehabilitation areas
- Water quality
- Weed infestation
- Damage to rehabilitation from pest animals or other livestock
- Final landform instability
- Rehabilitation not completed in accordance with rehabilitation strategy
- Extreme weather events
 - In the event of forecast severe weather (e.g. events greater than 50 mm) and shut down periods, all efforts should be undertaken to stabilise the area as reasonably as practicable. Generally, the most effective erosion control measure is to improve erosion control and stabilise disturbed areas as much as possible.
 - Application of soil binders and covering with geotextiles can then be undertaken rapidly with minimal plant and personnel. Delaying stripping and instream works until after a severe weather event is an effective means of providing erosion control.

10.2 Trigger Action Response Plan

The Trigger Action Response Plan (TARPs) identifies the levels at which management response to unexpected events is required, such as a flood or drought or poor rehabilitation performance. See Table 15.

TARP#	Performance Indicator	Trigger	Action Response
1	Services Disconnected. Removal of all transportable buildings. Removal of fuel tanks and other infrastructure. Burying of concrete pads. Gravity tailings pipeline removed.	Incomplete decommissioning of infrastructure when impracticable.	Re-evaluate the residual risk. Engage with regulator and other stakeholders about infrastructure that is to remain.
2	Any infrastructure to remain is approved by the Department of Planning and Environment and landholders (e.g. access tracks).	Written approval not received within acceptable timeframe.	Engage with regulator and landholders about altering the plan so as to decommission infrastructure and rehabilitate.
3	Decommission tracks so that they are no longer trafficable by 4WD.	Obstructions failing to restrict 4WD traffic.	Upgrade / replace the obstructions to ensure they are effective.
4	Area being revegetated supports vegetation comparable to the surrounding land.	When revegetation monitoring reports confirm that, after 3 years from planting, >70% of the total number of species established are either not in accordance with the applied	Identify the root causes for failure of vegetation and respond accordingly.

		species mix or local native species, or do not represent 50% to 70% of the total projected foliage cover.	
5	Integrity of dam wall is adequate. Landform is geotechnically stable.	Evidence of landslips, slumping, or extensive cracking. Engineering report states there is an unacceptable risk of failure.	Obtain advice form a suitably qualified professional on appropriate corrective actions.
6	TSF is not releasing any contaminants.	Tailings materials reclassified as being a contamination hazard.	Obtain advice form a suitably qualified professional on appropriate corrective actions.
7	Landform is geochemically stable (not releasing any contaminants).	Ruoff / leachate has pH values <5.5 or > 8.5, or salinity values greater than 10% of the background levels. Dieback of vegetation down gradient of landform.	Obtain advice form a suitably qualified professional on appropriate corrective actions.
8	Landforms are free draining.	Pooling of water at depths greater than 0.15m.	Reshape the land and install drainage as necessary.
9	Quality of primary growth media to be comparable to surrounding land.	Nutrients are deficient or at excessive levels.	Add fertiliser at a targeted rate to address the deficiency.
		Nutrients are at excessive levels.	Shandy with a growth medium of lower fertility.
10	Adequate growth media is available, or identified for borrowing.	Not enough growth media is available.	Import growth media from a source off the mine site.
11	Ground prepared for plant growth.	Depth of soil to a restrictive layer is less than the surrounding land.	Deep rip to relieve compaction, or increase the depth of the capping materials applied.
12	Establishment of vegetation endemic to the area.	Seed supply not available for the diversity required.	Sow with seed that is available and in the following season sow again when seed becomes available. Alternatively, monitor to determine if species are recruiting passively.
13	Weeds from the rehabilitated areas are not	Class 1 weeds are present in the revegetation.	Manage with an aim to eradicate

	threatening the surrounding areas.		where practicable.
		Class 2 weeds are present in the revegetation at an intensity greater than the surrounding lands.	Manage with an aim to limit spreading of weed, where practicable.
14	Demonstrated compliance with all previous performance indicators.	Compliance not able to be demonstrated for all performance indicators.	Re-evaluate the residual risk. Engage with regulator and other stakeholders about infrastructure to remain.

Table 15: Trigger Action Response Plan

11. PART 11 – REVIEW, REVISION AND IMPLEMENTATION

Ongoing review, revision and ensuring the implementation of the RMP is essential to the continual management of rehabilitation obligations at the Reward Gold Mine. Table 16 outlines the statutory triggers for review or revision.

Trigger	Statutory Requirement
Amendments to the ROCC or final landform and rehabilitation plan.	Mining Act, Schedule 8A clause 11
Changes in the risk control measures from rehabilitation risk assessment.	Mining Act, Schedule 8A clause 11
Directed by Secretary to amend.	Mining Act, Schedule 8A clause 11
Change to mining operations.	Conditions of Title/Mining Act
Development outside the scope of current consents requiring modification or new DA.	<i>Environmental Planning and Assessment Act 1979 (NSW)</i>

Table 16: Triggers for Review/Revision

Reviews are conducted to assess the effectiveness of the procedures against the objectives of RMP. The RMP may be reviewed and if necessary revised due to:

- Any modification to the Reward Gold Mine Mining Leases, Environment Protection Licence (EPL12008) and Development Consent conditions;
- Deficiencies being identified;
- Results from the Monitoring and Review Program;
- Recommendations resulting from the Monitoring and Review Program;
- Changing environmental requirements;
- Improvements in knowledge or novel technology become available;
- Changes in legislation;
- Changes in the activities or operations associated with the Reward Gold Mine operations;
- Research and trials producing data which can be used to establish, modify and monitor the rehabilitated area; and
- Where a risk assessment identifies the requirement to alter the RMP.

Any major amendments to this RMP which affect the fundamentals of the plan will be undertaken in consultation with the appropriate regulatory authorities. Minor amendments to this RMP may be made with version control on the Vertex website.

Table 17 identifies the personnel responsible for the monitoring, review and implementation of this RMP.

Title/ Personnel	Responsibility
Executive Chairman Technical Director Site Manager	Implement the procedures referenced in this RMP. Undertake training in relevant Management Plans and procedures as required. Provide resources required and support to implement these procedures.
Technical Director Site Manager	Coordinate the relevant Management Plans. Implement, monitor and review the programs and procedures linked to this RMP. Consult with regulatory authorities as required. Provide measures for continual improvement to this RMP and procedures. Ensure all personnel undertaking works in relation to this RMP are trained and competent.
Technical Director Site Manager	Prepare and coordinate the relevant Management Plans. Undertake monitoring as required. Undertake maintenance as required. Report progress of any rehabilitation and monitoring of biodiversity in the AEMR.

Field Staff	Monitor and implement RMP.
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Table 17: Triggers for Review/Revision