

REHABILITATION STRATEGY

HERA MINE AND FEDERATION MINE

8/08/2025



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Appendix A – Consultation

Version	Date	Description	Author
V0.1	30/05/2024	Draft for Consultation	IEMA and Aurelia Metals
V0.2	21/10/2024	Final for DPHI Submission	IEMA and Aurelia Metals
V1.0	08/08/2025	Update to reflect changes from consent Modification 2	IEMA and Aurelia Metals

1. INTRODUCTION

1.1. Background

Hera Resources Pty Ltd (Hera Resources), a wholly owned subsidiary of Aurelia Metals Limited (Aurelia), owns and maintains Hera Mine, an underground metalliferous mine, approximately 100km southeast of Cobar and 4km south of Nymagee in the central west of New South Wales (NSW). Hera Resources operated Hera Mine from 2014 until it entered care and maintenance in early 2023.

Hera Mine is a State Significant Development (SSD) and commenced operations in 2012 under the former *Environmental Planning and Assessment Act 1979* (EP&A Act) Part 3A Major Project Approval development consent MP10_0191, which has been modified six times.

The Federation Project (the Project) is an underground metalliferous mine located in central-western NSW, approximately 15 kilometres (km) south of the Nymagee township and 10km south of Hera Mine. High grade mineral deposits were discovered at the Federation Mine site in 2019 with subsequent drilling operations identifying a substantial gold-lead-zinc-copper-silver mineral resource.

Following the mineral discovery, an Exploration Decline Program was approved for a bulk sample and supporting infrastructure at the Federation Site in August 2021 by the Resources Regulator under Part 5 of the EP&A Act and section 23A(4) of the *Mining Act 1992*.

Development consent ('the consent') for the Project (SSD 24319456) was granted on 2 March 2023 and has since been modified twice. Modification 1 was approved on 27 November 2023 regarding changes to biodiversity offset staging.

Modification 2 was approved on 27 March 2025 to allow options for:

- haulage between 7am and 10pm of up to 600ktpa of ore to Peak Gold Mine (PMG) for processing, throughout the life of mine;
- reclaim of tailings from the existing Hera Mine Tailings Storage Facility (TSF) for paste backfill at Federation Mine; and
- minor rearrangement of infrastructure at Federation Mine within the approved disturbance area, inclusive of new water tank.

The consent required that 'within 12 months of the date of physical commencement of development under this consent, or other timeframe agreed by the Planning Secretary, the Applicant must surrender development consent MP10_0191 for the Hera Gold Mine. The Hera Gold Mine consent was surrendered on 17 March 2025. The Project's consent includes the amalgamation of Hera Mine's development consent conditions with the consent conditions for the Project into a single consolidated consent for both Hera Mine and Federation Mine as well as connecting infrastructure, herein referred to as the Site. Within the Site, the consent authorises activities within the 'approved disturbance area'.

Key infrastructure approved via the consent for the Site is outlined in **Table 1**.

Table 1: Key Site Infrastructure

Project Element	Description
Mining Method	Underground mining via longitudinal retreat long hole stoping method.
Management of Waste Rock	During operations, waste rock is stored on designated pads or utilised for backfilling underground stopes. Post mining, potentially acid forming waste rock will be returned underground, and non-acid forming waste rock will be returned underground, used for backfilling the box cut or used for other rehabilitation purposes.
Processing Plant	The existing processing plant includes a Run of Mine (ROM) pad, waste rock emplacement (WRE), crushing, grinding, and screening operations, gravity separation, and flotation circuits capable of processing up to 505 ktpa of ore. The new processing plant is anticipated to be commissioned early to mid 2024 at Hera Mine capable of processing 750 ktpa of ore once at full operational capacity. Key elements of the proposed processing plant include: • Three stages of crushing followed by ball milling with hydrocyclone classification. • Gravity separation to recover gold from the milling circuit recirculating load, followed by cyanide leaching of the gravity concentrate. • Sequential flotation to produce separate copper, lead and zinc concentrates. • Concentrate thickening and filtration. Tailings thickening and filtration, and disposal by both underground paste backfill at Federation Site and surface storage in the approved Hera Mine Tailings Storage Facility (TSF).
Management of Tailings	Tailings will be either placed into the approved Tailings Storage Facility at Hera Mine or returned to Federation Mine for placement underground as paste backfill. The preferred backfill method at Federation Mine is cemented paste fill using tailings. The tailings paste plant will be located adjacent to the stoping footprint to allow gravity reticulation of tailings paste fill down dedicated boreholes and laterally through an underground paste distribution system. The shotcrete batch plant will be co-located with the tailings paste fill plant. This plant will provide an ongoing supply of shotcrete for ground support requirements underground and concrete for miscellaneous construction works.
Power Generation	The preferred option for power generation at Federation Mine will be by a gas plant at Hera Mine with power transferred by overhead powerlines. A proposed solar farm to be constructed at Hera Mine will offset gas requirements. An option for a solar farm and gas generators at Federation Mine is also being considered if separate power generation is the preferred option in which case transmission lines will not be required. The Federation Mine will initially be powered by diesel generators while new power generation capacity is constructed.
General Infrastructure	Internal roads, ablutions block, administration buildings, workshop and stores, sewage treatment and treated effluent irrigation, diesel storage tanks, potable water treatment, waste rock storage, underground vents, sub station, paste plant, laydown area, topsoil stockpiles, ROM pad, box cut, magazines, haul roads, telecommunications tower, surface extraction areas, ventilation rises, access roads, heavy vehicle corridors, overhead transmission lines and concentrate stores.
Transport	Ore will be transported from Federation Mine to Hera Mine via Burthong Road and to Peak Mine via Priory Tank Road and Kidman Way. Tailings will be transported from Hera Mine to Federation Mine via Burthong Road. Concentrate will be transported via road from Hera Mine to Hermidale Siding with an average of approximately 12 vehicle trips per day at the peak of concentrate transport. At the peak of mining, concentrate, ore, and tailings transport is estimated to be an average of 61 vehicle trips (one-way movements) per day.
Water Management	The processing plants generate the majority of Site's water demand. Water will primarily be sourced from underground workings and pumped to the surface. A network of production bores will also be established which will supplement the existing production bores.

The maximum groundwater extraction forecast by the site water balance model is 530 megalitres per year (ML/year), which is within the existing licenced volume of 543 ML/year.

Hera Mine

The water management system at the Hera Site includes the diversion of clean water runoff around upslope areas of the site, the collection of water from disturbed areas and the discharge of water to Box Creek. The key elements of the Hera water management system include:

- Clean water runoff from undisturbed catchment areas within and upslope of the site. These flows may be diverted and discharged off site without treatment or licensing.
- The dirty water management system which consists of a series of dirty water drains. Sediment Basin 1 and Sediment Basin 2 were used as dirty water storages during construction and have since been combined into a larger contaminated water storage which collects runoff from the processing plant area; and
- Raw water system supplied from production bores around the site. The production bores transfer water to the Back Tank (located beside Back Dam). Water from the Back Tank is transferred to the Feed Water Tank. The House Dam receives surface water from the clean water catchment and the House Bore (production bore).

Federation Mine

A water management system will be implemented at the Federation Mine. Key elements include the diversion of clean water runoff around the mine, and the collection of water from disturbed areas and the underground. Dirty (sediment) water is captured in catch drains and collected in the sediment basin within the footprint of the Stormwater Retention Pond. Runoff from the PAF pads will drain to lined leach ponds. Runoff from the box cut will report down the decline and be dewatered as part of the underground dewatering system to the Dewater Pond. Water contained in the lined leach ponds, Stormwater Retention Pond and Dewater Pond will be recirculated for reuse within the Hera Mine water management system by the water pipeline between Federation Mine and Hera Mine.

Linear infrastructure in the 23 m wide, 14.3 km long services corridor (see **Figure 2**) includes:

Service Corridor

- Electricity transmission lines (if required)
 - Water pipeline
 - Access track
 - Tailings pipeline and return water line (potentially)
 - Communication infrastructure (potentially).
-

Ore from Federation Mine will be trucked to the Peak Mine during the first four years of operations. Federation Mine is expected to produce up to 6.95 million tonnes of ore over a 12-to-14-year period.

The regional locality of Hera/Federation Mine is shown in **Figure 1** and a general site layout is in **Figure 2**. Detailed site layouts of Hera Mine and Federation Mine are shown in **Figure 3** and **Figure 4** respectively.

1.2. Purpose and Scope

This Rehabilitation Strategy has been prepared in accordance with Condition B86 of SSD 24319456 to manage the rehabilitation outcomes of the Site. The intent of the Rehabilitation Strategy is to set the strategic direction and outcomes for rehabilitation of the mine and satisfy Condition B86 of the consent (see **Section 2.1**).

Rehabilitation will be conducted in line with the following general requirements:

- All infrastructure is removed, with the exception of infrastructure to be retained by the landholder
- A soil profile is established capable of sustaining the specified land uses which are consistent with pre-mining land use
- Suitable species of vegetation are sown/planted and established to achieve the nominated post-mine land uses which are commensurate with the surrounding vegetation
- The potential for water and wind induced erosion is minimised, including the likelihood of environmental impacts being caused by the release of dust
- The quality of surface water released from the site (if any) is such that releases of contaminants are not likely to cause environmental harm, and
- The final landform is stable and not subject to slumping or erosion which will result in the agreed post mining landform not being achieved and does not present a risk of environmental harm or a safety risk the public and/or domestic stock/native fauna.

This Rehabilitation Strategy should be read in conjunction with the *Hera Mine and Federation Mine Biodiversity Management Plan* (BioMP) and *Hera Mine and Federation Mine Rehabilitation Management Plan* (RMP) for complete rehabilitation information. As a strategy, this document provides high level information detailing how the Site will be rehabilitated. For rehabilitation information regarding reporting requirements (including details on Conditions C8, C9, C10, and C15) and incident protocols, refer to the BioMP.

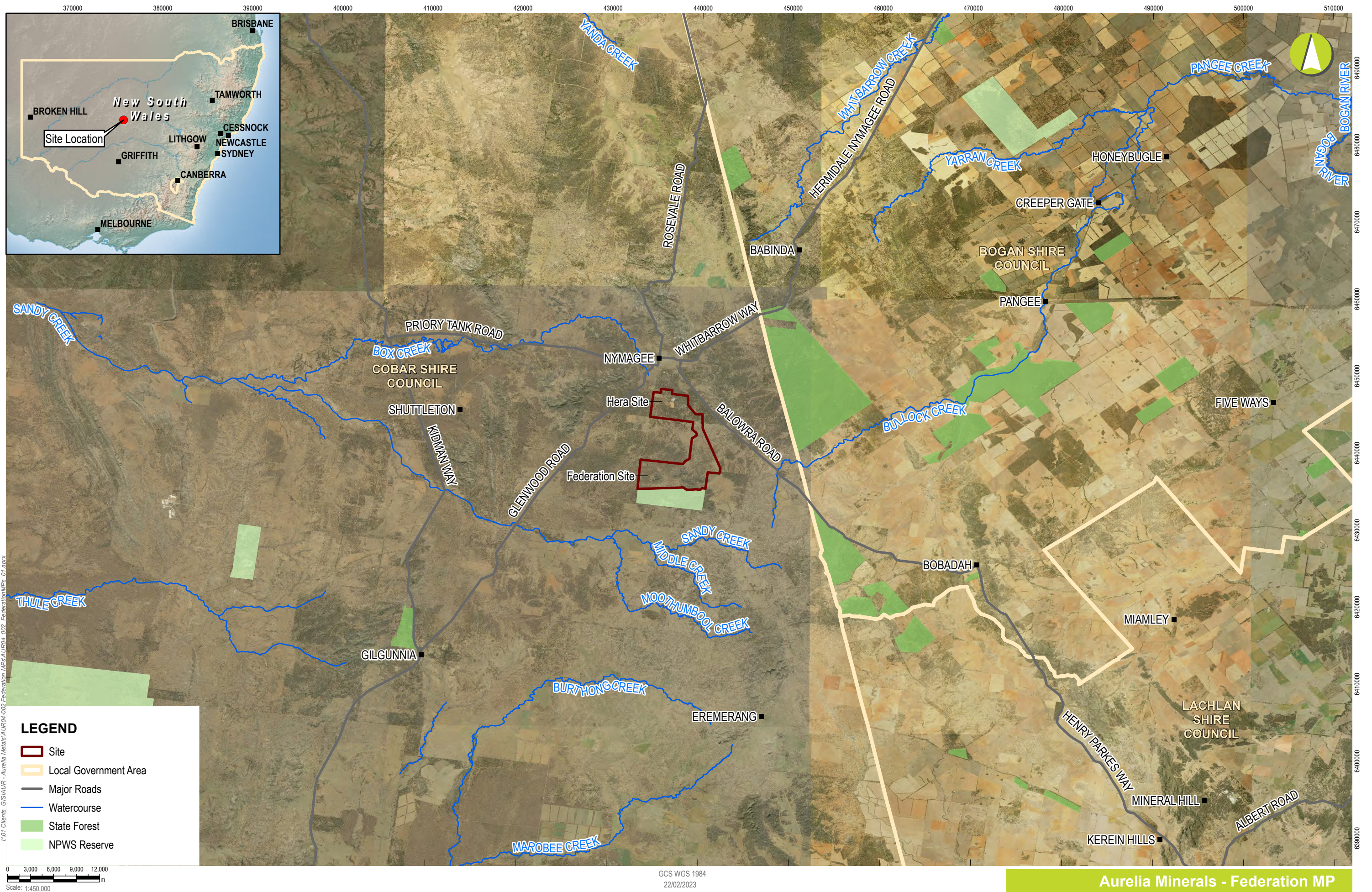
Successful management plans include tailored, quantitative performance measures and targets, completion criteria, monitoring and trigger points for corrective action which adhere to the SMART principles (specific, measurable, achievable, realistic, timely). To maintain the purpose of this Rehabilitation Strategy as a strategic document, more detailed rehabilitation methodologies, monitoring programs, and criteria are described in the *Hera Mine and Federation Mine Rehabilitation Management Plan*.

1.3. Authorship

Condition B86a of SSD 23419456 requires the BioMP to be prepared by a suitably qualified and experienced person. The qualifications and experience of authors is provided in **Table 2**.

Table 2: Qualifications and Experience of Personnel Preparing the Rehabilitation Strategy

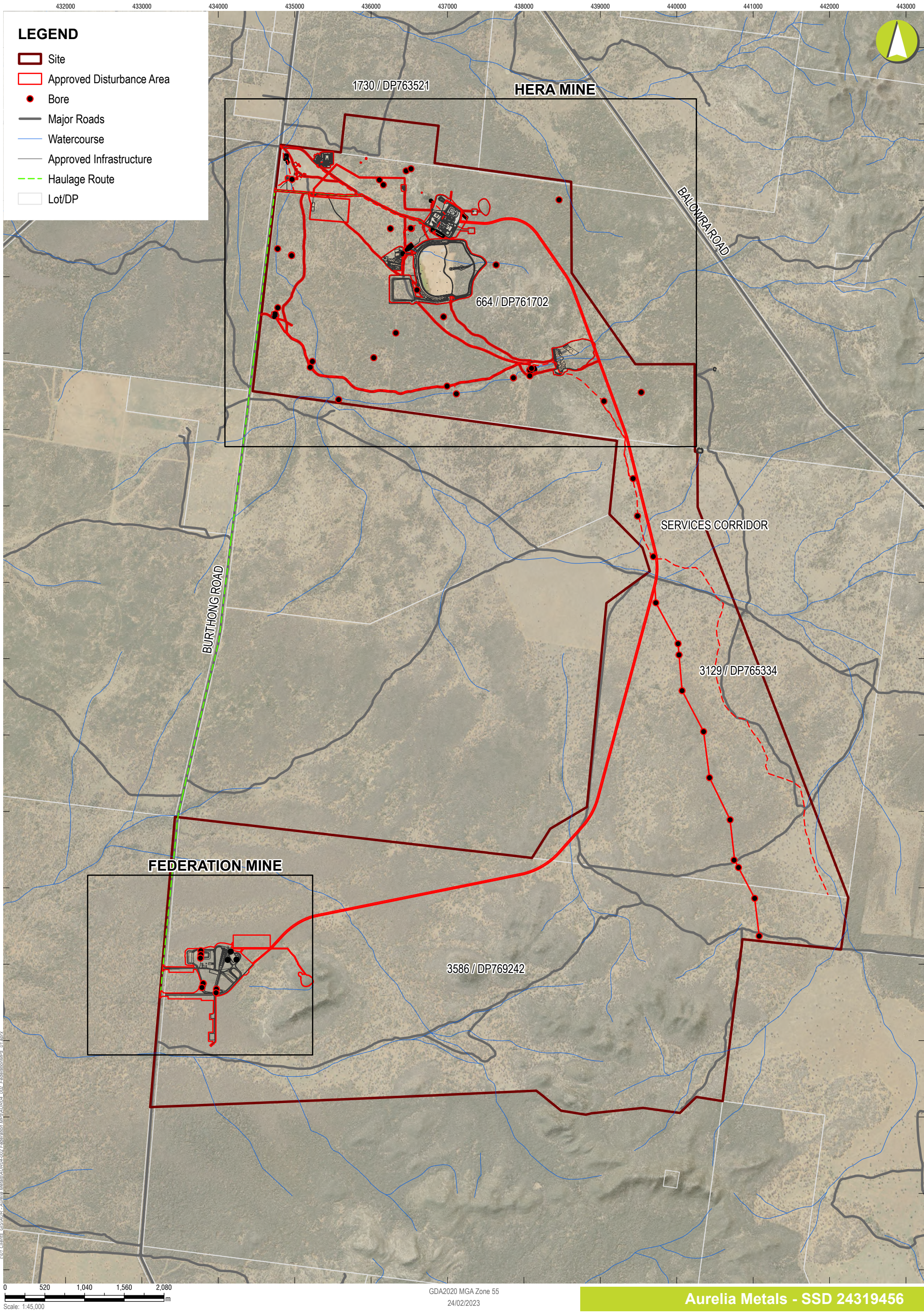
Author	Role	Qualifications
Jordan Murray	Associate Consultant Lead author	• B. Env. Sc & Mgmt. University of Newcastle • 9 years industry experience • Author of <i>Hera Mine and Federation Mine Rehabilitation Management Plan</i> • Authorship of various RMPs and Rehabilitation Strategies for the NSW mining industry.
Chris Jones	Principal Consultant Lead reviewer / Quality management	• B. Env. Sc. University of Newcastle • 18 years industry experience • Principal Environmental Auditor • Extensive experience completing rehabilitation strategies and rehabilitation and closure plans for NSW mine sites.

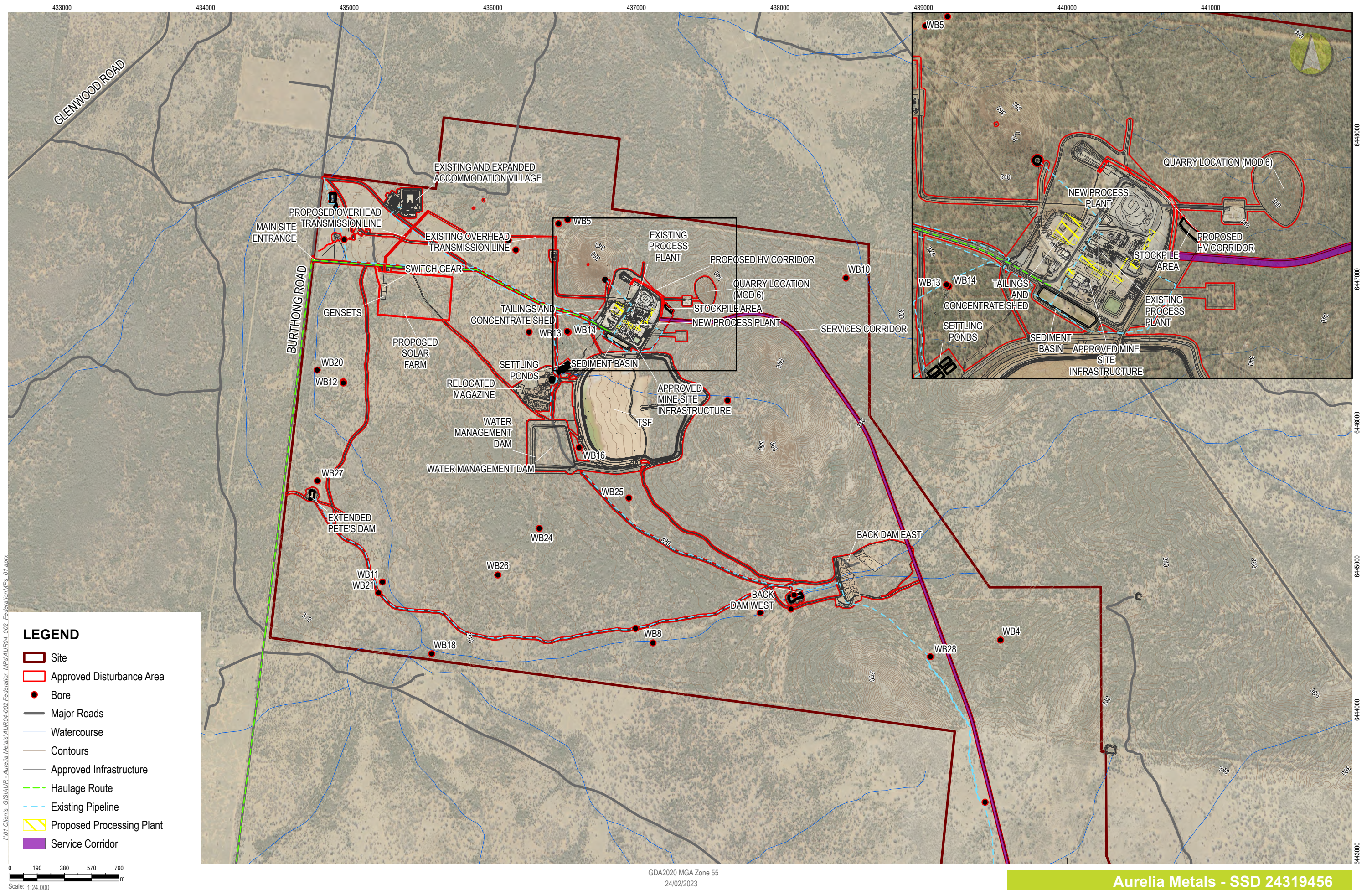


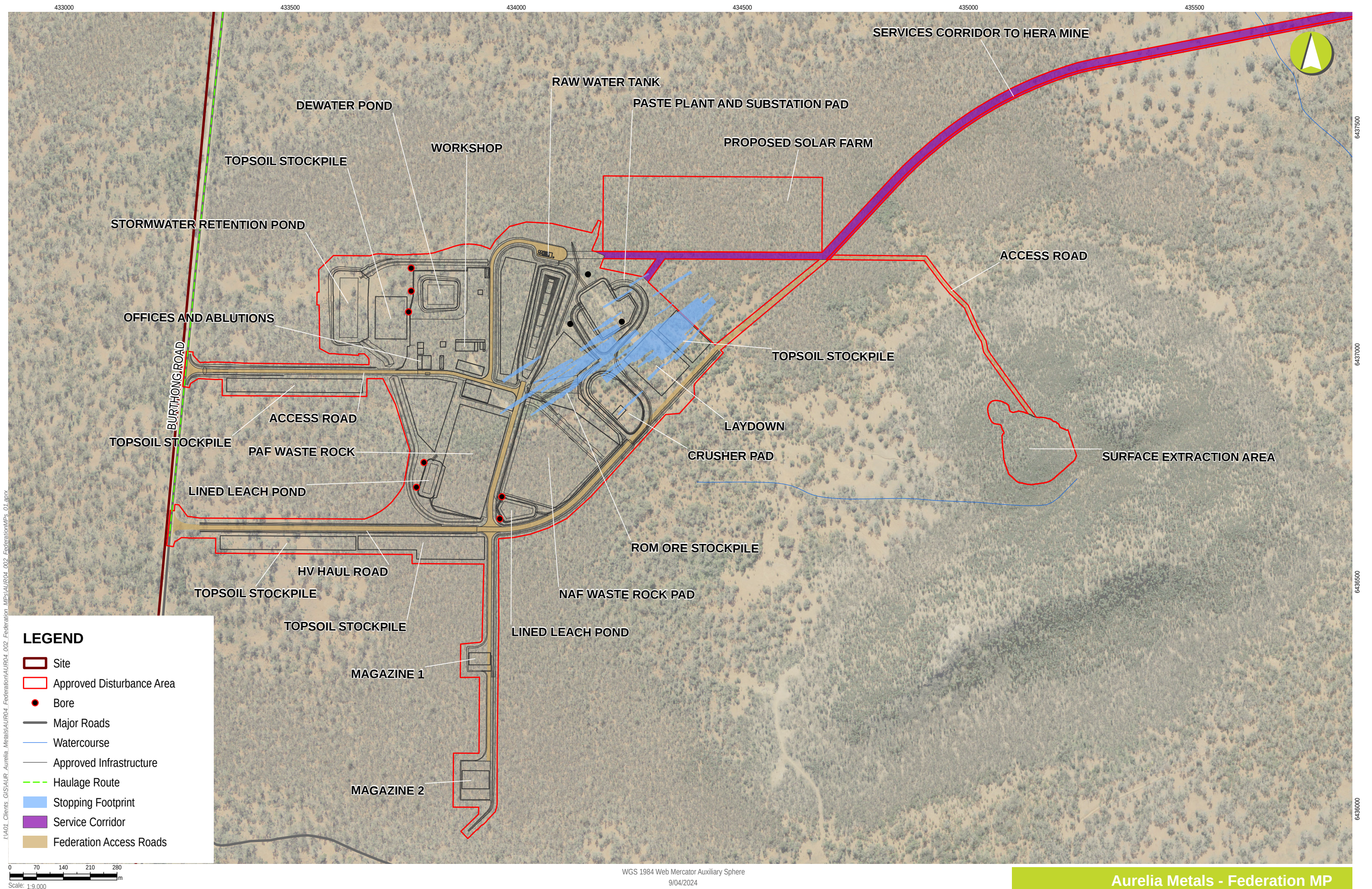
Aurelia Minerals - Federation MP

Regional Locality

FIGURE 1







2. LEGAL AND OTHER REQUIREMENTS

2.1. SSD 24319456

SSD 24319456 stipulates that the required criteria for activities at the Site must comply with and sets out the core requirements of this Rehabilitation Strategy. Relevant conditions associated with this approval and where they have been addressed in this document are reproduced in **Table 3**.

Table 3: Relevant SSD 24319456 Conditions

Condition No.	Condition	Where Addressed
Rehabilitation		
B85	The Applicant must rehabilitate all areas affected by the development accordance with the conditions imposed on the mining leases(s) associated with the development under the Mining Act 1992. The rehabilitation must be generally consistent with the proposed rehabilitation strategy described in the EIS (and shown conceptually in the Rehabilitation Plan in Appendix 3), and must comply with the objectives in Table 7.	Section 4
Rehabilitation Strategy		
	The Applicant must prepare a Rehabilitation Strategy for the development to the satisfaction of the Planning Secretary. This strategy must:	Section 1.3
	(a) be prepared by a suitably qualified and experienced person/s;	
	(b) be prepared in consultation with Resources Regulator, Water Group, CPHR, CSC and the CCC;	Section 2.3
	(c) be submitted to the Planning Secretary for approval within six months of the date of physical commencement of development under this consent, unless otherwise agreed by the Planning Secretary;	Noted
	(d) build upon the Rehabilitation Objectives in Table 7, describe the overall rehabilitation outcomes for the development, and address all aspects of rehabilitation including mine closure, final landform, post-mining land use/s and water management;	Section 4.4
	(e) align with strategic rehabilitation and mine closure objectives and address the principles of the Strategic Framework for Mine Closure (ANZMEC and MCA, 2000);	Section 4.1
	(f) describe how rehabilitation will be integrated with the mine planning process, including a plan to address premature or temporary mine closure; and	Section 4.5
	(g) include details of:	
B86	(i) how the tailings storage facility will be designed to meet the rehabilitation objectives in Table 7;	Section 4.6
	(ii) target vegetation communities and species to be established within the proposed revegetation areas; and	Section 4.5.5
	(iii) the design of the surface water drainage network on the final landform;	
	(h) investigate opportunities to refine and improve the final landform over time, including the configuration of the waste rock emplacement;	Section 4.2
	(i) include a post-mining land use strategy to investigate and facilitate post-mining beneficial land uses for the site, that:	
	(i) align with regional and local strategic land use planning objectives and outcomes;	Section 5
	(ii) support a sustainable future for the local community;	
	(iii) utilise existing mining infrastructure, where practicable; and	
	(iv) avoid disturbing self-sustaining native ecosystems, where practicable;	
	(j) include a stakeholder engagement plan to guide rehabilitation and mine closure planning processes and outcomes;	Section 6
	(k) investigate ways to minimise adverse socio-economic effects associated with rehabilitation and mine closure; and	Section 5
	(l) include a program to report on the outcomes of the investigations required under this condition and review and update this strategy at least every five years.	Section 8
B87	The Applicant must implement the Rehabilitation Strategy approved by the Planning Secretary.	Noted

This Rehabilitation Strategy is intended to provide high level information regarding the intended final land uses and rehabilitation intentions for the site, as opposed to operational management activities. As such, the “Management Plan Requirements” of Condition C5 of the consent have not been addressed in this document.

Refer also to the Hera Mine and Federation Mine Biodiversity Management Plan for details to manage biodiversity outcomes on the Site.

2.2. Environment Protection Licence

There is no relevant condition in the EPL relating the rehabilitation of the Site.

2.3. Consultation

This Rehabilitation Strategy was prepared in consultation with DPE-Resource Regulator (RR), DPE Water, Biodiversity Conservation Division (BCD), Cobar Shire Council (CSC) and the Community Consultative Committee (CCC). Detailed consultation was conducted with these stakeholders for the MOD 2 EIS. As such, consultation was not required for the administrative updates to this plan. This approach was confirmed by DPHI in their letter dated 15 April 2025 and attached in **Appendix A**.

The consultation detailed in **Table 4** below was completed as part of the previous version of this Rehabilitation Strategy.

Table 4: Consultation

Authority	Comments
DPE-RR	No response to feedback requested on 4 June 2024.
DPE-Water	NSW DCCEEW Water Group provided feedback on 7 June 2024 with comments in Appendix A Consultation.
BCD	Biodiversity, Conservation and Science Group (BCS) provided feedback 20 June 2024 with comments in Appendix A Consultation. Amendments were made to this version (V0.2) of the Rehabilitation Strategy to satisfy BCD’s comments.
CSC	The CSC responded on 5 July 2024 with no specific comments but stated: <i>Council has no objection to the Strategy provided the consent authority is satisfied that proposed rehabilitation strategy is in substantial accordance with the development consent.</i>
CCC	The CCC responded on 30 August 2024 and confirmed they had no comments.

3. BASELINE ENVIRONMENT

The Site is located within the Cobar Peneplain Bioregion, which is one of only two bioregions located wholly within the State of NSW. The bioregion is characterised by an undulating to hilly landscape with shallow, red earthsoils where the vegetation is mainly open woodlands of bumble or poplar box (*Eucalyptus populnea*), red box (*Eucalyptus intertexta*) and white cypress (*Callitris glaucophylla*) with relatively low nutrient soils. The regional topography is characterised by rolling downs and flat plains punctuated by stony ridges and ranges and is formed on the north westerly extension of the Lachlan Fold Belt. The semi-arid climate of the region is characterised by hot summer months, mild winters and low rainfall.

The Site is comprised of predominantly woodland vegetation, which is common to the bioregion. Six Plant Community Types (PCTs) have been identified within the Site:

- PCT174 - Mallee - Gum Coolabah woodland on red earth flats of the eastern Cobar Peneplain Bioregion
- PCT104 - Gum Coolabah woodland on sedimentary substrates mainly in the Cobar Peneplain Bioregion
- PCT103 - Poplar Box - Gum Coolabah - White Cypress Pine shrubby woodland mainly in the Cobar Peneplain Bioregion
- PCT180 Grey Mallee - White Cypress Pine woodland on rocky hills of the eastern Cobar Peneplain Bioregion;
- PCT184 - Dwyer's Red Gum - White Cypress Pine - Currawang low shrub-grass woodland of the Cobar Peneplain Bioregion, and
- PCT258 Gum Coolabah - Mugga Ironbark - White Cypress Pine woodland on granite low hills in the eastern Cobar Peneplain Bioregion and central NSW South Western Slopes Bioregion.

The area surrounding the Site was historically used for agricultural activities, predominantly sheep grazing, and mining operations. Notable current or previous land uses within or immediately surrounding the Mine are as follows:

- Agriculture – principally grazing of sheep. Agricultural activities are generally undertaken in cleared areas on undulating hills.
- Nature conservation and forestry – these land uses are mostly restricted to areas of steeper slopes and areas unsuitable for other land uses. The Balowra State Conservation Area adjoins the southern boundary of the Federation mine site.
- Residential and rural residential – The township of Nymagee, located approximately 4km north of Mine Site, and surrounding areas include areas of rural residential and residential land use.
- Mineral exploration and mining – Sections of the mine site have been the subject of historic and more recent mineral exploration and mining activities. Copper mining at the former Nymagee Copper Mine was undertaken 4.5km north of the Site.
- Other minimal use – areas of land that are largely unused, likely as a result of steep slopes or dense vegetation.

4. REHABILITATION MANAGEMENT STRATEGY

4.1. Strategic Framework for Mine Closure

The Strategic Framework for Mine Closure (Australian and New Zealand Minerals and Energy Council and the Minerals Council of Australia, 2000) (the framework) is a framework developed to provide guidelines and principles for the closure of mines in Australia. It covers various aspects of mine closure, including stakeholder involvement, planning, financial provision, implementation, standards, and relinquishment. The framework aims to ensure that mine closure is conducted in an orderly, cost-effective, and environmentally responsible manner, with the ultimate goal of returning mine sites to viable and self-sustaining ecosystems.

The key objectives and principles of the framework are:

- **Stakeholder involvement** to enable all stakeholders to have their interests considered during mine closure process (addressed in **Section 6**).
- Appropriate **planning** to ensure the process of closure occurs in an orderly, cost-effective, and timely manner (this document).
- **Financial provision** to ensure the cost of closure is adequately costed and provided for by the proponent. This will be achieved by Hera Resources with the development of a Rehabilitation Cost Estimate prepared in accordance with the requirements of the Resource Regulator.
- Effective **implementation** to ensure there is clear accountability, and adequate resources, for the implementation of the closure plan (or rehabilitation plan) (addressed in **Section 6**).
- Establish **standards** to provide a set of indicators which will demonstrate the successful completion of the closure process. These are provided in Section 4 of the Rehabilitation Management Plan (RMP) and is discussed in **Section 4.5**.
- To achieve **relinquishment** by achieving rehabilitation to a point where agreed completion criteria has been met to the satisfaction of the relevant authorities (addressed **Section 4.5.7**).

4.2. Landform Design and Planning

The final landform has been designed to be free draining and commensurate with the surrounding landscape. With the exception of the rehabilitated TSF, final void at the Hera Mine Surface Extraction Area (SEA), and any retained infrastructure of water management features, the Site will generally be returned as close to the pre-mining landscape, in terms of vegetation and landform, as practicable. There will be no waste rock left on Site's waste rock emplacement areas after closure, suitable material will be used in Site landform construction, or returned underground.

Material characterisation, erosion modelling and landform evolution modelling will be utilised to refine the TSF final landform design to ensure tolerable rates of erosion to ensure long-term stability of the landform. Elements of the final landform may be subject to change over the life of the Site. Hera Resources will continue to investigate opportunities to refine and improve the final landform over the life of the Site and will update this Rehabilitation Strategy accordingly.

4.3. Domain Selection

Mining domains have been defined on the basis of existing land management units within the Site's Approved Disturbance Area (see **Figure 2**) which have similar operational purposes and therefore similar geophysical characteristics. Final land use domains have been defined as land management units characterised by similar post mining land use objectives. The nominated mining and final land use domains for the Site are included in **Table 5**. The following mining and final land use domains are reproduced from the domains that were established as part of the RMP process.

Table 5: Mining and Final Land Use Domains

Code	Mining Domains	Code	Final Land Use Domains
1	Infrastructure Area: This domain Includes all existing built infrastructure and facilities (other than water management structures). Includes ROM Pad, processing plant and associated infrastructure, buildings including administration, mine camp, workshops and amenities, roads (including access roads and haul roads), hardstand areas and car park, magazines, ventilation shafts and associated infrastructure areas used for stockpiling of topsoil and subsoil material including from Surface Extraction Area (excludes stockpiled waste rock or ore), the Box cut and Portal providing entrance to the underground mine workings and Surface Extraction Area.	A	Native Ecosystem: Native woodland vegetation with local species commensurate with Mallee – Smooth - Barked Coolabah (PCT 174) and Poplar Box – Gum Barked Coolabah (PCT 103). Relates to all other rehabilitation other than the TSF, i.e., infrastructure area, and dams that will be rehabilitated, waste rock emplacement area, stockpiles and void.
2	Tailings Storage Facility: Includes the TSF, including all embankments.	B	Agricultural – Grazing: Grassland rehabilitation comprising a cover crop which includes native grassland species. Relates to the TSF.
3	Water Management Area: Includes clean and dirty water diversion structures and sediment basins.	F	Water Management Areas: Includes the water management structures that will remain the final landform.
5	Active Mining Includes the Surface Extraction Areas at Federation Mine and Hera Mine. It is noted these will only be developed if required for rehabilitation construction material.	G	Water Storage: Includes the dams and water storage structures that will remain in the final landform (Pete's Dam, Three Gates Dam, Back Dam, Back Dam East).
8	Other (Waste Rock Emplacement Area): Includes PAF and NAF waste rock dumps.	I	Infrastructure: Includes all infrastructure that will remain on the site at mine closure, including access tracks and roads, pre-existing infrastructure, including houses and sheds, as well as selected sheds and transportable buildings that could reasonably be required for agricultural and/or nature conservation purposes. The domain also includes the solar farms which will be constructed on the Hera and Federation sites.
		J	Final Void If developed, a final void will remain from the Surface Extraction Area at Hera Mine.

4.4. Rehabilitation Objectives

The broad rehabilitation objectives for the domains identified in SSD 24319456 Table 7, reproduced in **Table 6** and expanded upon in the below subsections. The Site will be rehabilitated in accordance with these objectives. Further defined rehabilitation objectives and rehabilitation completion criteria including validation methods are detailed in Section 4 of the RMP.

Table 6: Rehabilitation Objectives

Feature	Objective	Where Addressed
All areas affected by the development	• Safe, stable and non-polluting • Fit for the intended post-mining land use/s • Establish the final landform and post mining- land use/s as soon as practicable after cessation of mining • Minimise post-mining environmental impacts	Section 4.4.1
Final landform	• Stable and sustainable for the intended post-mining land use/s • Integrated with surrounding natural landforms and other mine rehabilitated landforms, to the greatest extent practicable • Incorporate macro-relief and micro-relief and drainage features that mimic natural topography and mitigate erosion, to the greatest extent practicable • Maximise surface water drainage to the natural environment • Minimise visual impacts, where practicable	Section 4.4.2
Stopes	• Backfilled • Safe and stable • Negligible surface subsidence in the long term	Section 4.4.3
Portals and vent shafts	• To be decommissioned and made safe and stable	Section 4.4.4
Tailings storage facility	• Final landform designed for native grassland species, unless further assessment indicates the capping design can accommodate woodland vegetation • Free draining	Section 4.4.5
Surface extraction area	• Free draining • Optimise the size and depth to ensure the final landform is stable and non-polluting • Minimise to the greatest extent practicable the drainage catchment and any instability risk.	Section 4.4.6
Waste rock storage areas	• Minimise the potential for acid mine drainage and erosion • Potentially acid forming materials to be emplaced in the underground workings	Section 4.4.7
Mine water discharges (from any location)	• Negligible environmental impact	Section 4.4.8
Water quality	• Water retained on the Site is fit for intended post-mining land use/s	Section 4.4.9
Surface infrastructure	• To be decommissioned and removed, unless Resources Regulator agrees otherwise	Section 4.4.10
Community	• Ensure public safety • Minimise adverse socio-economic effects associated with mine closure	Section 4.4.11

Condition B85 of the consent is also relevant to rehabilitation and states:

The Applicant must rehabilitate all areas affected by the development accordance with the conditions imposed on the mining leases(s) associated with the development under the Mining Act 1992. The rehabilitation must be generally consistent with the proposed rehabilitation strategy described in the EIS (and shown conceptually in the Rehabilitation Plan in Appendix 3), and must comply with the objectives in Table 7.

Site will abide by the requirements of B85. Additional information on specific rehabilitation methodologies is provided in the RMP.

4.4.1. All Areas Affected by the Development

The overarching rehabilitation goals for the Site are:

- The final landform is stable and not subject to slumping or erosion which will result in the agreed post mining landform not being achieved and does not present a risk of environmental harm or a safety risk the public and/or domestic stock/native fauna.
- Suitable species of vegetation established to achieve the nominated post-mine land uses which are commensurate with the surrounding vegetation.
- All infrastructure is removed, with the exception of infrastructure to be retained by the landholder and agreed with the Secretary.
- Rehabilitate all areas affected by the development of the Site in accordance with the conditions of the relevant mining lease.

4.4.2. Final Landform

The Final landform will be suitable for the final land use and commensurate with the surrounding environment. It will be stable, not subject to slumping or erosion and does not present a risk of environmental harm or a safety risk the public and/or domestic stock/native fauna. The final landform will support land uses of both of pasture and native vegetation.

The topography of the final landform is designed to mimic the surrounding natural landform as far as practicable, while being free-draining.

The water management structures up slope of the TSF will also remain following mine closure. These structures will deflect upslope water away from the former TSF and have been designed to be stable in a 1 in 100-year Average Recurrence Interval (ARI) storm event.

There will be some water management structures in the final landform, including Back Dam East, Back Dam, Pete's Dam, House Dam, and Three Gates Dam. All basin walls and spillways will be made stable and contain a suitably designed spill way for overflow of water to surrounding drainage lines.

As the site moves closer to closure further details will be provided around longterm water management within the Rehabilitation Management Plan and Water Management Plan.

For further details on specific water management structures at Site, refer to the *Hera and Federation Water Management Plan*.

The ecosystems to be established at the Site during rehabilitation will be similar to the pre-mining environment and are described in **Section 4.5.5**.

The Final Landform and Rehabilitation Plan is contained in Section 5 of the RMP and must be submitted to the Resources Regulator for approval.

4.4.3. Stopes

An adequate number of stopes will be backfilled to minimise surface subsidence in the long term. Approximately 60 % of the tailings produced from Federation ore will be thickened and returned underground (at Federation mine) for backfilling underground stopes. The method to backfill stopes is to use a mix of tailings paste fill and waste rock. Tailings paste fill reduces the volume of tailings reporting to and requiring management at the TSF, whilst stabilising the underground workings.

Sections 6.2 to 6.3 of the RMP discuss stope backfilling and subsidence management further.

4.4.4. Portals and Ventilation Shafts

The portal will be sealed with suitable material (e.g. NAF waste rock). The portal will be rehabilitated to be safe, stable and free draining. It will reflect the existing landform and be established with species of a similar composition to

existing PCTs. The ventilation rises will be capped and collared in accordance with the relevant guidelines. Suitable slope angles will be demonstrated through Landform Evolution Modelling (LEM) and engineering design.

Section 6.2.2 of the RMP describes the decommissioning of shafts.

4.4.5. Tailings Storage Facility

The rehabilitation outcome of the TSF will result in an area of native vegetation grassland. The landform will be stable, free draining and permanent landform established. The maintenance needs of this area will be no greater than those of the surrounding, undisturbed land. Water management structures supporting the TSF will be retained post closure and the final capping design will be free draining.

The final capping design of the TSF will continue to be optimised throughout the life of the Site. This Rehabilitation Strategy will be updated as the final design is confirmed.

4.4.6. Surface Extraction Area

The Hera Mine SEA will only be developed as far as is required for rehabilitation materials. The final design of the SEA will be optimised to be a free draining, safe, stable and non-polluting landform. The footprint of the SEA and any supporting drainage infrastructure will be minimised to the greatest extent possible.

4.4.7. Waste Rock Storage Area

The Federation Mine waste rock emplacement areas (WREA) will have no waste rock left on the surface at closure and be rehabilitated to native ecosystems. Waste rock will be either returned underground at Federation Mine or Hera Mine or have NAF material used for surface landform construction. There is no waste rock or waste rock storages remaining at Hera Mine.

4.4.8. Mine Water Discharges

All contaminated and dirty water storages will be removed following closure. The only clean water diversion drain to be retained following closure is at the TSF. Clean water dams will be retained at the Site following closure to support approved final land uses.

As such, any discharges from the rehabilitated Site will be clean water discharges and pose a negligible environmental risk. Hera Resources will continue water monitoring at the Site for a period of at least two years following closure in accordance with the Water Management Plan.

4.4.9. Water Quality

The overall rehabilitation objectives relating to water retained on Site is that it is fit for the intended approved post mining land use. As described in **Section 4.4.8**, the only water storages to remain following closure are clean water storages to provide water for approved final land uses e.g. pastoral activities.

Refer to Section 4.3 of the RMP for the rehabilitation objectives and completion criteria related to water quality.

4.4.10. Surface Infrastructure

All surface infrastructure will be removed unless it is beneficial to an approved post mining land use in accordance with Condition B85, Table 7 (reproduced in **Table 6** above).

Infrastructure to remain may include access tracks and roads, water management structures, communications tower, solar farm, boreholes, selected sheds and transportable buildings that could reasonably be required for agricultural and/or nature conservation purposes. Any infrastructure identified to be retained will obtain approval from the Resource Regulator prior to closure.

Refer to Section 4.3 of the RMP for the rehabilitation objectives and completion criteria related to the retention and removal of surface infrastructure. Section 6.2.2 of the RMP also outlines the decommissioning of surface infrastructure.

4.4.11. Community

Post-closure Aurelia intends to leave behind an enduring positive legacy on the community. This will be done through ensuring transparency through communication methods, allowing the community to comment and contribute to the mines legacy post-closure. Consultation will include surrounding landholders and aim to include them in closure processes such as those to control feral and pest species.

Potential hazards at the Site (e.g. portals, stopes) will be managed in accordance with the sections above.

Refer to Section 4.4 of the RMP for a record of stakeholder consultation related to rehabilitation of the Site.

4.5. Rehabilitation Phases

Achievement of the post mining land use will be reached through a series of conceptual rehabilitation phases. As defined by the Form and way: Rehabilitation Management Plan (large mines) the rehabilitation phases are presented in **Table 7**.

For further information on the rehabilitation monitoring through the phases refer to Section 8 of the RMP.

Table 7: Rehabilitation Phases

Rehabilitation Phase	Description
Phase 1: Active Mining	In the context of rehabilitation, the active mining phase of rehabilitation constitutes the rehabilitation activities undertaken during mining operations such as land clearing, salvaging and managing soil resources, salvaging habitat resources, and native seed collection. This phase also includes management actions taken during operations to manage risks to rehabilitation and enhance rehabilitation outcomes such as selective handling of waste rock and management of tailings emplacements.
Phase 2: Decommissioning	Activities associated with the removal of mining infrastructure and removal and/or remediation of contaminants and hazardous materials. In the context of the rehabilitation management plan (for large mines only) this phase of rehabilitation may also include studies and assessments associated with decommissioning and demolition of infrastructure or works carried out to make safe or 'fit for purpose' built infrastructure to be retained for future use(s) following lease relinquishment.
Phase 3: Landform Establishment	This phase of rehabilitation consists of the processes and activities required to construct the approved final landform (as per the development consent and, for large mines, the approved final landform and rehabilitation plan). In addition to profiling the surface of rehabilitation areas to the approved final landform profile this phase may include works to construct surface water drainage features, encapsulate problematic materials such as tailings, and prepare a substrate with the desired physical and chemical characteristics (that is, rock raking or ameliorating sodic materials).
Phase 4: Growth Medium Development	This phase of rehabilitation consists of activities required to establish the physical, chemical and biological components of the substrate required to establish the desired vegetation community (including short-lived pioneer species) to ensure achievement of the approved or, if not yet approved, the proposed: • rehabilitation objectives; • rehabilitation completion criteria; and • final landform and rehabilitation plan. This phase may include spreading the prepared landform with topsoil and/or subsoil and/or soil substitutes, applying soil ameliorants to enhance the physical, chemical and biological characteristics of the growth media, and actions to minimise loss of growth media due to erosion.
Phase 5: Ecosystem and Land Use Establishment	This phase of rehabilitation consists of the processes to establish the final land use following construction of the final landform. For vegetated land uses this rehabilitation phase includes establishing the desired vegetation community and implementing land management activities such as weed control. This phase of rehabilitation may also include habitat augmentation such as installation of nest boxes.
Phase 6: Ecosystem and Land Use Development	This phase of rehabilitation consists of the activities to manage maturing rehabilitation areas on a trajectory to achieving the approved or, if not yet approved, the proposed: • rehabilitation objectives; • rehabilitation completion criteria; and • final landform and rehabilitation plan. For vegetated land uses this phase may include processes to develop characteristics of functional self-sustaining ecosystems, such as nutrient recycling, vegetation flowering and reproduction, and increasing habitat complexity, and development of a productive, self-sustaining soil profile. This phase of rehabilitation may include specific vegetation management strategies and maintenance such as tree thinning, supplementary plantings and weed management.
Phase 7: Rehabilitation Completion (sign-off)	The final phase of rehabilitation when a rehabilitation area has achieved the final land use for the mining area: • as stated in the approved rehabilitation objectives and the approved rehabilitation completion criteria, and • as spatially depicted in the approved final landform and rehabilitation plan.

Rehabilitation areas may be classified as complete when the RR has determined in writing that rehabilitation has achieved the final land use following submission of the relevant application by the lease holder.

4.5.1. Active Mining

Appropriate measures and strategies will be implemented during the active phase of mining to enhance rehabilitation outcomes. As an underground mine there will be limited opportunity for progressive rehabilitation while the Site is operational. Progressive rehabilitation will be mostly limited to exploration sites and disused boreholes which will be rehabilitated as soon as practicable as per Resource Regulator requirements.

Management protocols for soils and subsoils will be implemented to minimise risks and enable soil resources within disturbance areas to be characterised, stripped, stockpiled and re-used appropriately.

Soil stripping adopts techniques identified in the Land and Soil Capability Assessment (SSM 2021) for the Site to avoid contamination and maintain soil productivity. The stripped soils will be stored in a way that minimises compaction of the whole stockpile and maximises biological activity. Further details relating to management of soil in the active mining phase are discussed in the RMP.

Weed and feral pest management will be undertaken during the active mining phase in accordance with the Biodiversity Management Plan.

Refer to Sections 4 and 5 of the Biodiversity Management Plan for more information on weed and feral pest management measures and monitoring.

4.5.2. Decommissioning

Decommissioning will include the disconnection of remaining services, demolition and removal of infrastructure from the Site to prepare land for rehabilitation. This phase will include capping of boreholes (where not retained for future water supply for landholders) and sealing of ventilation shafts. No waste rock will remain on the surface at closure, material will either be returned underground to backfill stopes or, used in surface construction activities if chemically appropriate.

Site features, services and structures to be decommissioned and demolished to achieve the final land use include the following:

- Roads and tracks
- Buildings, administration, workshops and amenities within surface infrastructure areas
- Powerlines, ventilation shafts, the portal and boreholes;
- Boxcut;
- Pipework, decant and associated ancillary infrastructure; and
- Sedimentation ponds, surface water dams, water diversions and buried pipelines.

Site features, services and structures to be retained for future use as part of the final land may include, if approved, the following:

- Existing house, exploration office, core store and processing facility
- Access roads and hardstands
- Back Dam East, Back Dam, Pete's Dam, House Dam, Three Gates Dam, and
- Clean water diversions at the TSF.

Any infrastructure to be retained will be subject to approval from the Resource regulator and future landholders.

Contamination assessments will be completed as part of the detailed mine closure planning and decommissioning processes. Contaminated materials will be managed so that remedial works are completed prior to rehabilitation being completed. No hazardous materials will be stored at the Site once operations and rehabilitation activities cease.

Further detail regarding demolition activities will be determined as the operation approaches closure. Detail in this regard will be reported in the Forward Program and RMP.

4.5.3. Landform Establishment

The landform establishment phase involves the earthworks required to construct and/or profile all or part of each domain to the approved final landform. The constructed landform will be suitable for the proposed final land use and

blend as far as practicable with the adjacent topography. This stage also includes the construction of any drainage structures needed for the final landform.

The proposed post-mining landform will involve a combination of pasture and native vegetation. In summary, Hera Resources will ensure that the final landform is comprised of the following:

- The landform will be constructed so that it is consistent with the surrounding landscape.
- The portal would be backfilled and sealed, and ventilation rises would be capped and fenced.
- All stockpile areas will be shaped and revegetated.
- The Surface Extraction Area at Hera Mine will have a reprofiled and reshaped floor draining to a sump (potential for scaled slopes where suitable material is available). The walls of the Surface Extraction Area will be at a maximum of 65° slope and will be made safe (e.g. fencing installed).
- The footprints of the waste rock emplacement areas at Site would be ripped and re-profiled to create a landform consistent with the completion criteria. All PAF material will be placed underground or within the TSF and NAF material used for rehabilitation activities within the Site.
- Haul roads, access tracks, water management structures, and hardstand areas would be ripped and shaped unless required for the approved post mining land use.
- The landform will be designed to be free draining and stable. All clean water and dirty water drains will be removed following the completion of rehabilitation activities (unless identified to be retained) with the exception of water management structures at the TSF (see **Section 4.6**).

4.5.4. Growth Medium Development

Growth medium development encompasses activities to reinstate soils with the initial physical, chemical and biological characteristics required to establish the desired vegetation community. Sampling will determine if the topsoil and subsoil is suitable for rehabilitation use or if it requires amelioration (e.g., Gypsum) prior to application. Organic material will be used in preference to fertilisers during rehabilitation.

Topsoil and subsoils stockpiled during Site establishment activities would be spread to create growth media on the shaped landform. The subsoils would be placed first followed by topsoil. The thickness of each layer would be determined based on the volume of subsoil and topsoil available.

Thorough seedbed preparation will be undertaken to ensure optimum establishment and growth of vegetation. Hera Resources will ensure that during soil placement operations soil is placed directly onto a scarified surface without compaction and in correct order, namely topsoil overlying subsoil.

4.5.5. Ecosystem and Land Use Establishment

The ecosystem and land use establishment phase involves the establishment and maintenance of vegetation on the completed landform. Initial activities for ecosystem and land use establishment of land that will have a final use of native vegetation will focus on establishing a cover of suitable native groundcover (grasses). Revegetation will then comprise seeding / planting of suitable vegetation and / or natural regeneration from seed within the growth medium.

The approved final land use is a combination of agriculture and native vegetation conservation. Native woodland vegetation will be established with local species commensurate with Mallee – Smooth - Barked Coolibah and Poplar Box – Gum Barked Coolibah. This relates to all rehabilitation other than the TSF (i.e., infrastructure area, and dams that will be rehabilitated, waste rock emplacement area, stockpiles and void). Grassland rehabilitation will be established comprising a cover crop which includes native grassland species, relating to the TSF. The remainder of the Site outside of the disturbance footprint will be able to continue to be used for agricultural activities.

Species used in the rehabilitation will be representative of species found in the PCTs listed and suitable for the desired land use of that area. The following six PCT were identified in the EIS:

- PCT174 - Mallee - Gum Coolabah woodland on red earth flats of the eastern Cobar Peneplain Bioregion
- PCT104 - Gum Coolabah woodland on sedimentary substrates mainly in the Cobar Peneplain Bioregion
- PCT103 - Poplar Box - Gum Coolabah - White Cypress Pine shrubby woodland mainly in the Cobar Peneplain Bioregion
- PCT180 Grey Mallee - White Cypress Pine woodland on rocky hills of the eastern Cobar Peneplain Bioregion
- PCT184 - Dwyer's Red Gum – White Cypress Pine – Currawang low shrub-grass woodland of the Cobar Peneplain Bioregion, and

- PCT258 Gum Coolabah - Mugga Ironbark - White Cypress Pine woodland on granite low hills in the eastern Cobar Peneplain Bioregion and central NSW South Western Slopes Bioregion.

4.5.6. Ecosystem and Land Use Development

The ecosystem and land use development phase represents the activities required to develop sustainable ecosystems that have characteristics comparable to similar undisturbed vegetation in the area. The stability and function of the water management areas will be maintained and monitored to achieve relevant performance indicators. Activities in the final land use areas of native ecosystem and agricultural grazing include ongoing maintenance, land management activities and rehabilitation monitoring.

Rehabilitation monitoring will be undertaken throughout the ecosystem and land use development phase until it can be demonstrated that rehabilitation areas have met completion criteria and all conditions for relinquishment. Rehabilitation maintenance activities will be identified by rehabilitation monitoring and ongoing requirements will be reported annually in the Annual Rehabilitation Report and Forward Program.

For more detail on the rehabilitation monitoring program, completion criteria, and rehabilitation trigger action response plans, refer to Section 8, Section 4, and Section 10 of the Hera Mine and Federation Mine RMP, respectively.

4.5.7. Rehabilitation Completion (sign-off)

Rehabilitated areas will be progressively signed-off by the Resources Regulator as they meet the rehabilitation criteria (outlined in Section 4 of RMP), in accordance with the Guideline: *Achieving Rehabilitation Completion (Sign-off)*.

4.6. Tailings Rehabilitation

The approved Hera Mine TSF will continue to be used to store tailings from the Hera processing plant which will process ore from the Federation Mine. It is estimated over the life of the Site 5.2 Mt of tailings will be produced from Federation, of which 3.5 Mt will be returned to the Federation Site to be used as backfill. The remaining 1.7 Mt will be placed into the TSF.

The final design of the TSF will be subject to results of rehabilitation trials on the appropriate capping depth and compositions. LEM will be utilised to assess the long-term performance of the TSF cover layer.

To meet the rehabilitation objectives presented in **Table 6**, the TSF will be constructed to be free draining as per contours of the final design. It will be designed so embankments will be stabilised with NAF waste rock, where necessary and a 0.6m covering of NAF waste rock or other suitable material will be applied to the surface to provide a store-release cover for management of rainfall infiltration. This will allow for a final landform that is suitable for native grassland species, unless further assessment indicates the capping design can accommodate woodland vegetation. Clean water diversion drains and clean water dams upstream of the TSF will be retained after closure.

As further rehabilitation trials are completed, the final landform of the TSF will be evaluated, refined, and improved as possible.

4.7. Care and Maintenance or Sudden Closure

Should the Site be placed into closure or care and maintenance (i.e. a temporary closure) earlier than anticipated, all relevant Site management systems, as well as buildings, plant and equipment, and other infrastructure, will be maintained to a standard that ensures Site remains safe, stable, and non-polluting until the infrastructure is removed or operations are resumed.

Hera Resources will continue to comply with all applicable statutory obligations until the mining recommences at the Site or the Site is progressed to closure and rehabilitation.

Aurelia will ensure there is appropriate provisioning of financial resource to conduct mine closure and rehabilitation activities at the Site. Should unforeseen circumstances result in there being a lack of funding to execute these activities, the Department of Regional NSW – Division of Mining, Exploration and Geoscience (MEG) holds an appropriately valued security deposit (defined by the Sites Rehabilitation Cost Estimate) to fund rehabilitation activities.

5. POST MINING LAND USE STRATEGY

The post mining land use of the Site was considered in the Rehabilitation Strategy prepared by SLR Consulting (SLR) for the EIS, referred to as the EIS-RS (SLR, 2021). The EIS-RS (SLR, 2021) described the proposed post mining land use goal as a low maintenance, geotechnically stable and safe landform that is commensurate with the land use of the surrounding area. The final land use of the Site will include returning the Site to a combination of agriculture (limited pastoral activities predominantly on the rehabilitated TSF on native pastures) and native vegetation made up of predominantly endemic species (see **Section 4.5.5**). The land uses are consistent with land uses permissible without development consent under the Cobar Local Environmental Plan 2011. As the Site is zoned RU1 under the LEP, land uses permissible without development consent include nature conservation and extensive agriculture.

At a regional scale, the Far West Regional Plan 2036 (FWRP) (Department of Planning and Environment, 2017) identifies agribusiness as a key industry for the region to provide economic growth in the short term, as well as the need to diversify in the long term and look to new opportunities like kangaroo or goat meat processing facilities. The FWRP also identifies the importance of maintaining and improving the ecosystems found in the area, as well as the importance of appropriate water management. The proposed final land use aligns with the FWRP, and Hera Resources will investigate what Site infrastructure, if any, may be retained to support the final land use.

Hera Resources currently proposes to retain the clean water dams which will support potential agricultural post mining land uses at the Site, the proposed solar farm at Federation Mine is also proposed to be retained. Currently all hardstand areas, roads, communication infrastructure etc is proposed to be removed. Hera Resources will consult with the community and potential future landholders during the life of the Site and closer to closure and retain any infrastructure that may support a future land use provided the necessary approvals can be obtained.

As the final landform is designed to be commensurate with the surrounding environment, and proposed land uses similar to the existing regional activities, the final landform is not expected to disturb surrounding self-sustaining native ecosystems.

6. STAKEHOLDER ENGAGEMENT PLAN

Hera Resources maintains a Communications and Engagement Plan (CEP) to facilitate communication and coordinated engagement between the Site and key stakeholders. The CEP describes several methods that Hera Resources will use to communicate and consult with relevant stakeholders and community members including:

- Website updates
- Email distributions
- Media releases
- Surveys
- Engagement in the local community through the Site workforce
- Participation in community events through sponsorships, and
- Social media engagement.

In addition to the above methods of communication, Hera Resources will comply with all access to information obligations required by the consent and other approvals to keep the community informed of rehabilitation planning and progression. Hera Resources will maintain the Community Consultative Committee (CCC) and use it as an opportunity to gather feedback on Site rehabilitation planning and potentially identify post-mining land uses that may benefit the local community.

Hera Resources will continually engage with regulatory stakeholders through statutory reporting requirements as detailed in the Site's Environmental Management Strategy (EMS) and specific reporting requirements detailed in each environmental management plan as required.

Where possible, Hera Resources will take learnings from all stakeholder engagement to minimise potential negative impacts associated with the closure and rehabilitation of the Site on the community.

7. ROLES AND RESPONSIBILITIES

The roles and responsibilities for Hera Resources personnel in relation to this Rehabilitation Strategy are listed in **Table 8**.

Table 8: Roles and Responsibilities

Position	Accountable Task
General Manager	• Ensure the resources are available for the implementation of this Rehabilitation Strategy and the Rehabilitation Management Plan. • Accountable for the overall environmental performance of the Project, including the outcomes of rehabilitation activities. • Negotiation with relevant community members to achieve acceptable outcomes for issues that arise.
Environment Superintendent	• Ensure staff have been made aware of their environmental responsibilities. • Ensure rehabilitation resource storages are appropriately managed. • Ensure rehabilitation activities and monitoring activities are conducted to the appropriate standard. • Maintain communication with the relevant rehabilitation authorities for matters relating to rehabilitation (e.g. approvals for the retention of infrastructure.)

8. REVIEW AND IMPROVEMENT

This Rehabilitation Strategy will be reviewed and revised as necessary in accordance with the requirements of Condition C6 of SSD 24319456 which states that reviews must be conducted:

Within three months of:

- (a) the submission of an incident report under condition C8;*
- (b) the submission of an Annual Review under condition C10;*
- (c) the submission of an Independent Environmental Audit under condition C12; or*
- (d) the approval of any modification of the conditions of this consent (unless the conditions require otherwise);*
- (e) notification of a change in development phase under condition A5; or*
- (f) a direction of the Secretary under condition A3 of Schedule 2*

the suitability of existing strategies, plans and programs required under this consent must be reviewed by the Applicant.

As part of the review process Site will assess the adequacy of the plan to meet the requirements contained in the relevant statutory approvals and any opportunities for improvement. The assessment will include a review of any relevant data and related trends identified in the Annual Review, a consideration of recommendations from an Independent Environmental Audit and findings arising from any incident report. If required the plan will be updated in consultation with the appropriate regulators.

Hera Resources will report on the outcomes of any investigations conducted under this Rehabilitation Strategy in the Annual Review. In addition to the review conditions outlined above, this Rehabilitation Strategy will be reviewed at minimum every 5 years in accordance with Condition B86(l).

This Rehabilitation Strategy will also be reviewed in accordance with Condition C7 of the consent which states:

If necessary, to either improve the environmental performance of the development or cater for a modification or comply with a direction, the strategies, plans and programs required under this consent must be revised, to the satisfaction of the Planning Secretary. Where revisions are required, the revised document must be submitted to the Planning Secretary for approval within six weeks of the review.

9. REFERENCES

- SLR Consulting (2021), Federation Project – Rehabilitation Strategy
- ANZMEC and MCA, (2000), Strategic Framework for Mine Closure
- GHD (2024), Federation Mine and Hera Mine Water Management Plan
- AREA (2024), Federation Mine and Hera Mine Biodiversity Management Plan

APPENDIX A CONSULTATION

**Department of Climate Change, Energy, the Environment and Water**

Our ref: DOC24/479300

Alex Butt
Environmental Advisor
Hera Resources Pty Ltd
alex.butt@aureliametals.com.au

Dear Alex

Hera and Federation Mine Rehabilitation Strategy

Thank you for your request via the NSW Planning Portal dated 4 June 2024 to the Biodiversity, Conservation and Science Group (BCS) of the NSW Department of Climate Change, Energy, the Environment and Water (NSW DCCEEW) inviting comments on the Rehabilitation Strategy for the Hera and Federation Mine.

BCS notes that Condition B86 of the consolidated consent requires Hera Resources Pty Ltd to prepare a Rehabilitation Strategy. We have reviewed the strategy and concur that the strategy broadly satisfies Condition B86 noting that the strategy states that *"This rehabilitation strategy is intended to provide high level information regarding the intended final land uses and rehabilitation intentions for the site, as opposed to operational management activities"*. The strategy further states that *"As such, the "Management Plan Requirements" of condition C5 of the consent have not been addressed in this document."*

The rehabilitation strategy outlines the establishment and maintenance of native vegetation on the completed landform, specifically species commensurate with existing plant community types on the site. The strategy indicates that monitoring will be undertaken until it can be demonstrated that rehabilitation areas have met completion criteria. However, performance and completion criteria, monitoring methods and trigger points for corrective action for this work have not been provided. Without these there is no assurance of successful rehabilitation of these areas.

It is noted that BCS commented on the Biodiversity Management Plan (BMP) for the Hera and Federation Mine on 7 February 2024. The BMP contained no references to rehabilitation areas. Our advice included recommendations that were designed to improve the usability of the BMP, the effectiveness of management actions and achievement of the desired outcomes for biodiversity values on the combined mine sites. Noting the statement that the rehabilitation strategy will not provide details on operational management activities, the activities related to rehabilitation must therefore be addressed in the BMP. The BMP must include details on the monitoring methods for the rehabilitation areas, include performance and completion criteria and trigger points for corrective actions. BCS welcomes additional consultation on the BMP once revised.

If you have any questions about this advice, please do not hesitate to contact David Geering, Senior Conservation Planning Officer, via david.geering@environment.nsw.gov.au or (02) 6885 0335.

Yours sincerely,

A handwritten signature in black ink, reading "Samantha Wynn". The signature is written in a cursive, flowing style.

Samantha Wynn
Senior Team Leader Planning, North West
Biodiversity, Conservation and Science Group
20 June 2024

**NSW Department of Climate Change, Energy, the Environment and Water**

Our ref: OUT24/8004

Mark Williams

Aurelia Metals

mark.williams@aureliametails.com.au

7 June 2024

Subject: Hera-Federation Project (SSD-24319456-PA-21) Rehabilitation Strategy

Dear Mark Williams,

I refer to your request on 4 June 2024 seeking advice from the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) Water Group on a draft Rehabilitation Management Strategy for the Hera-Federation Project. It is understood this consultation is in accordance with conditions of approval for the project.

NSW DCCEEW Water Group requests the plan be considered further to ensure relevant water legislation, policy and management requirements are addressed. NSW DCCEEW Water Group has defined a range of outcomes relevant to assist in the preparation of Rehabilitation Management Plans/Strategies and these are detailed in Attachment A.

Should you have any further queries in relation to this submission please do not hesitate to contact NSW DCCEEW Water Assessments at water.assessments@dpie.nsw.gov.au

Yours sincerely,

Tim Baker

Senior Project Officer

Water Assessments

NSW Department of Climate Change, Energy, the Environment and Water

NSW Department of Climate Change, Energy, the Environment and Water



Attachment A

Detailed advice regarding the Hera-Federation Project – Rehabilitation Management/Strategy Plan

1.0 Rehabilitation Management Plan/Strategy Outcomes

The Rehabilitation Management Plan/Strategy is recommended to be reviewed to achieve the following outcomes. These are intended to meet the NSW DCCEEW Water Group's legislative, policy and water management requirements.

- Sharing of water must protect the water source, its dependent ecosystems and basic landholder rights.
 - Water sources, floodplains and dependent ecosystems are protected and restored.
 - Activities within a water source should avoid or minimise land degradation, including soil erosion, compaction, geomorphic instability, contamination, and where possible land should be rehabilitated.
 - The final Rehabilitation Management Plan is made electronically available on a public accessible website.
 - A conceptual model/diagram clearly presents how the groundwater and surface water systems interact with the final landform. This is to be informed by recent environmental assessments/modelling reviews.
 - The final design and location of surface drainage features achieves a stable landform and maintains or improves riparian corridor functioning. This is to be completed with reference to industry guidelines such as: "*Rehabilitation Manual for Australian Streams* (LWRRDC 2000)", "*Guideline: Works that interfere with water in a watercourse for a resource activity* (DNRME 2019)" and "*Guidelines for Controlled Activities on Waterfront Land* (DPE 2022)" or their latest versions.
 - Dirty runoff catchment areas are rehabilitated, and the conveyance of clean surface runoff downstream is maximised.
 - Decommissioning of groundwater boreholes is in accordance with the "Minimum Construction Requirements for Water Bores in Australia (2020)".
 - Ongoing water take by the final landform via interception, storage or diversion is quantified and complies with relevant approvals and licences under the *Water Management Act 2000* or a relevant exemption. Please note exemptions from the requirement to hold approvals under s.90 and 91 of the *Water Management Act 2000* for approved SSD/SSI projects will not apply once the project approval ceases. Therefore, any relevant water management works that are to be retained will need to obtain an approval prior to the development consent lapsing.
-

NSW Department of Climate Change, Energy, the Environment and Water

- Aquifer interference activities are designed to minimise ongoing water take and water quality impacts and meet the requirements of the NSW Aquifer Interference Policy.
- Final voids do not present a risk to important groundwater ecosystems and assets (groundwater dependent ecosystems, alluvial aquifers, and landholder bores).
- Final voids are designed to be sinks or to flow through the local groundwater system and need to be confirmed by a post-mining groundwater model.
- Residual risk to water sources is clearly understood and minimised. This is to include relevant assessment documentation and updated risk assessments to meet the requirements of the NSW Aquifer Interference Policy. Further detail can be found in Fact Sheet 5 in Appendix C of the *"Guidelines for Groundwater Documentation for SSD/SSI Projects. Technical guideline (DPE 2022)"*.
- A monitoring and review program is included to ensure the rehabilitation outcomes are met.

End of Attachment



NSW DCCEEW Water Group Comments 7 June 2024	Comment / Where addressed
The Rehabilitation Management Plan/Strategy is recommended to be reviewed to achieve the following outcomes. These are intended to meet the NSW DCCEEW Water Group's legislative, policy and water management requirements. Sharing of water must protect the water source, its dependent ecosystems and basic landholder rights.	Note, this document is the Rehabilitation Strategy. The Rehabilitation Management Plan is a separate document which will be found on the Aurelia Metals website. Noted, the Project will maintain water licencing.
Water sources, floodplains and dependent ecosystems are protected and restored.	The Project holds an EPL which functions to prevent material harm to the environment.
Activities within a water source should avoid or minimise land degradation, including soil erosion, compaction, geomorphic instability, contamination, and where possible land should be rehabilitated.	Noted.
The final Rehabilitation Management Plan is made electronically available on a public accessible website.	Note, this document is the Rehabilitation Strategy. The Rehabilitation Management Plan is a separate document which will be found on the Aurelia Metals website once finalised.
A conceptual model/diagram clearly presents how the groundwater and surface water systems interact with the final landform. This is to be informed by recent environmental assessments/modelling reviews.	The Hera Mine and Federation Mine Water Management Plan (WMP) Section 5 "Water Balance" outlines groundwater and surface water interactions. Aurelia Metals will consider including a conceptual model/diagram in the WMP or this Rehabilitation Strategy in future.
The final design and location of surface drainage features achieves a stable landform and maintains or improves riparian corridor functioning. This is to be completed with reference to industry guidelines such as: "Rehabilitation Manual for Australian Streams (LWRRDC 2000)", "Guideline: Works that interfere with water in a watercourse for a resource activity (DNRME 2019)" and "Guidelines for Controlled Activities on Waterfront Land (OPE 2022)" or their latest versions.	Drainage features in the final landform of the Site is a requirement of the Final Landform and Rehabilitation Plan in the RMP. Section 4.5.5 relates to landform establishment. Design and locations of drainage features will be further detailed in the RMP.
Dirty runoff catchment areas are rehabilitated, and the conveyance of clean surface runoff downstream is maximised.	Dirty water catchments are within the areas disturbed by mining activities and are therefore required to be rehabilitated.
Decommissioning of groundwater boreholes is in accordance with the "Minimum Construction Requirements for Water Bores in Australia (2020)".	Noted.
Ongoing water take by the final landform via interception, storage or diversion is quantified and complies with relevant approvals and licences under the Water Management Act 2000 or a relevant exemption. Please note exemptions from the requirement to hold approvals under s.90 and 91 of the Water Management Act 2000 for approved SSD/SSI projects will not apply once the project approval ceases. Therefore, any relevant water management works that are to be retained will need to obtain an approval prior to the development consent lapsing.	Noted.

NSW DCCEEW Water Group Comments 7 June 2024	Comment / Where addressed
• Aquifer interference activities are designed to minimise ongoing water take and water quality impacts and meet the requirements of the NSW Aquifer Interference Policy.	Noted.
• Final voids do not present a risk to important groundwater ecosystems and assets (groundwater dependent ecosystems, alluvial aquifers and landholder bores.)	Final voids, if applicable, will be further detailed in the RMP.
• Final voids are designed to be sinks or to flow through the local groundwater system and need to be confirmed by a post-mining groundwater model.	Final voids, if applicable, will be further detailed in the RMP.
• Residual risk to water sources is clearly understood and minimised. This is to include relevant assessment documentation and updated risk assessments to meet the requirements of the NSW Aquifer Interference Policy. Further detail can be found in Fact Sheet 5 in Appendix C of the <i>"Guidelines for Groundwater Documentation for SSD/SSI projects. Technical guideline (DPE 2022)"</i>.	Noted.
• A monitoring and review program is included to ensure the rehabilitation outcomes are met.	The rehabilitation monitoring program will be addressed in the Rehabilitation Management Plan.

Mark Williams
Environmental Superintendent
Hera Resources Pty Limited
Address 353 Burthong Road
Nymagee, NSW, 2831

15/04/2025

Subject: Federation Mine – Consultation Request

Dear Mr. Williams

I refer to your submission dated 11 May 2025, requesting the Planning Secretary's agreement that consultation with nominated stakeholders is not required while making minor and administrative changes while revising management plans following approval of Modification 2 of the Development Consent for the Federation Mine (SSD- 24319456).

The Department notes that Modification 2 of the federation Mine project allowed:

- extension of haulage hours and increase of ore haulage up to 600,000 tpa
- Reclamation of tailings storage for paste backfill
- Minor rearrangement of infrastructure, including a new water tank.

The Traffic Management Plan, however, is proposed to be revised in consultation with TfNSW, Cobar Shire Council and Bogan Shire Council and not CPHR.

Accordingly, as nominee of the Planning Secretary and in accordance with Schedule 2 Condition A23, I agree with your request and advise that consultation not be required for the following plans:

- Water Management Plan
- Waste Rock Management Plan
- Air Quality and Green House Gas Management Plan
- Noise Management Plan
- Environmental Management Strategy
- Blast Management Plan
- Hazardous Materials Management Plan
- Biodiversity Management Plan

- Rehabilitation Strategy

Please ensure you make the management plans publicly available on the project website at the earliest convenience.

If you wish to discuss the matter further, please contact Wayne Jones on (02) 6575 3406.

Yours sincerely

A handwritten signature in black ink, appearing to be 'SOD', written in a cursive style.

Stephen O'Donoghue
Director
Resource Assessments

As nominee of the Planning Secretary