Hera Resources Pty Ltd

Federation Project

Environmental Impact Statement

Appendix T

Mitigation Measures

Appendix T - Mitigation Measures

1.1 Introduction

This appendix provides a consolidated summary of the commitments made to manage, mitigate, and monitor impacts during the construction and operation of the Project as proposed within this EIS.

1.2 Assessment Requirements

The SEARS requires the consolidation of proposed mitigation measures for the Project. The relevant requirements are provided in **Table 1**.

Table 1 General SEARS Requirements

SEARs Requirements	Reference
A consolidated summary of the proposed environmental management and monitoring measures;	**This Appendix**

1.3 Management Measures

A summary of the mitigation, management, and monitoring measures proposed for the Project is presented below in **Table 2**.

Table 2 Consolidated Summary of Proposed Environmental Management and Monitoring Measures

Impact	Mitigation Measures and Monitoring Requirements
Soil and Land Capability	**Soil Stripping** The following soil stripping and handling techniques would be implemented where practicable to minimise soil deterioration: ▪ The area to be stripped will be clearly defined on the ground. The target depths of soil to be stripped at each location will be clearly communicated to machinery operators and supervisors. ▪ A combination of suitable equipment will be used for stripping and placing soil in stockpiles. Machinery circuits will be located to minimise compaction of both undisturbed and stockpiled soil. ▪ The soil material will be maintained in a slightly moist condition during stripping. Material should not be stripped in either an excessively dry or wet condition. ▪ All machinery brought onto the site for soil stripping will comply with weed management and biosecurity protocols established for the site. ▪ Trees present will be cleared and grubbed prior to soil stripping. ▪ Handling and rehandling topsoil will be minimised as far as possible. **Soil Stockpiling** The stripped soils resource will be stored in a way that minimises compaction of the whole stockpile and maximises biological activity. The following techniques should be implemented where practicable to achieve these goals:

- All soil stockpiles would have a batter slope of 1V:4H to limit erosion potential;
- Soil stockpiles would be designed and constructed to a depth not greater than 3 m in order to minimise the development of anaerobic conditions and to minimise the deterioration of biota and seed banks;
- The surface of soil stockpiles will be left in a rough condition to promote water infiltration rather than runoff. If required, sediment controls will be implemented downslope of stockpiles to capture eroded sediment;
- Overland flow onto and across stockpile sites will be kept to a practical minimum, and not allowed to concentrate to the extent that it causes visible erosion. This will be achieved by placing stockpiles on locally high areas;
- Stockpiles will be allowed to naturally re-seed under suitable climatic conditions to stabilise the surface, limit dust generation, minimise erosion and provide competition for weeds;
- After the stockpiles are established, machinery and vehicles will be excluded from general access. Stockpile locations would be marked on site maps to identify them so that they are protected from disturbance;
- Stockpiles will be surveyed and data recorded about the volumes and soil types present;
- Stockpiles will be monitored for the establishment of weeds and control programmes implemented as required; and
- Soil transported by dump trucks may be placed directly into storage. Soil transported by bottom dumping scrapers is best pushed to form stockpiles by other equipment (e.g., bulldozer or excavator) to avoid tracking by the scraper over previously laid soil..

Soil Respreading

The aim of respreading is to construct a layered material with properties that can perform similar functions to the undisturbed soil. The recommended process for spreading of topsoil is as follows:

- A soil balance plan showing the depths and volumes of soil to be spread would be prepared before the soil is spread. The plan would take account of the erodibility of the stockpiled soil, with more erodible soil being placed on flatter areas to minimise the potential for erosion.
- Stockpiled soil would be tested to determine the required ameliorants.
- The land surface would be reshaped to appropriate landforms, then the resulting surface ripped.
- Ameliorants would be mixed with the soil as it is being spread if required.
- Soil should be moist to just moist, not wet or dry when being respread.
- Traffic patterns should minimise compaction of topsoiled areas.
- Soil would be lightly scarified to encourage rainfall infiltration.
- Pasture or appropriate vegetation types would be seeded as soon as possible after soil is respread.
- Erosion and sediment controls would be implemented where necessary prior to vegetation establishment.

	Monitoring and Reporting ▪ Monitoring of stripping and stockpiling will ensure that the design depth of topsoil is stripped and that the subsoil is soil, rather than weathered rock. The volumes of topsoil and subsoil will be checked to ensure that there is sufficient soil to enable the planned rehabilitation. Maintenance of biological activity would require plants to be grown. The species and vigour of plants growing on the stockpiles will be monitored. ▪ The soil stockpiles will be tested before the soil is spread to determine the ameliorants required to construct a fertile soil profile. It is likely that nutrients would be required in the topsoil, and some lime would be required in most soil that is spread. ▪ Achieving the planned land soil capability class depends on accurate placement of the subsoil and topsoil. Achieving the desired soil thickness would in turn depend on accurate preparation of the subgrade. As such, an accurate survey of the thickness of the soil layer will be conducted.
Geochemistry	▪ Waste rock brought to the surface is to be segregated into PAF or NAF and stored within the one pad as separate waste rock stockpiles to allow differentiation and appropriate use with PAF going underground and NAF used in the final landform design; ▪ Weathered rock likely to be NAF will be stockpiled separately from fresh rock and used as backfill for the box cut for other rehabilitation and construction activities or transported to Hera Mine and disposed underground; ▪ Fresh rock from the underground will report to the waste rock stockpiles, where run-off and seepage (leachate) will be captured in lined leach ponds and treated if/as appropriate before use in the mine water management system; ▪ No PAF rock will remain at the surface at mine closure. PAF material will either be placed underground at Federation or disposed underground at Hera Mine below the groundwater table; ▪ Highly sodic and/or dispersive weathered waste rock when identified will not be used in construction or the final landform where practical. Where this is not practical the final waste rock landforms (where waste rock is used in rehabilitation of other areas) would need to be constructed with short and low (shallow) slopes to minimise erosion; ▪ Water in the lined leach pond will be monitored for water quality parameters including pH, EC, major anions, acidity, major cations, total dissolved solids (TDS) and a broad suite of soluble metals/metalloids; ▪ Tailings will be either placed into the Hera Mine TSF or returned to Federation for paste backfilling of underground stopes; ▪ Run of Mine (ROM) ore will be placed on the designated ROM stockpile, with surface run-off monitored for standard water quality parameters; and ▪ A Waste Rock Management Plan and Tailings Management Plan will be developed which will detail management of both waste rock and tailings for the Project.

Subsidence	Based on the results of the modelling the following recommendations were provided by Beck Engineering with reference to the mine design and operation, which are proposed to be adopted for the Project: ▪ The uppermost stopes at the mine are recommended to be placed below the base of complete oxidation horizon, with a cable-bolt reinforced competent rock crown pillar to maximum stope span ratio of 2:1; ▪ Characterisation of the rock strength and geological structure of the near-surface zone should be undertaken prior to mining excavations to determine the limits of weathering and lithology domains, all significant fault locations and their condition, block-forming minor joint set parameters and rock mass strength properties and their spatial distribution. This will enable a detailed geotechnical model for this area; ▪ The following control measures were recommended for the upper-level stopes as needed, in order to mitigate the potential for chimneying and surface subsidence impacts: ○ Identification and characterisation of zones of poor ground in planned crown pillars via geotechnical drilling and visual observation during development; ○ Review and adjustment of stable stope span, strike length and height dimensions, following acquisition of additional geotechnical data; ○ A comprehensive crown pillar stability assessment for every stope on the upper levels of the mine, using industry-accepted empirical methods and updated site-specific input parameters, as a minimum; ○ Development of an overcut drive for the uppermost stoping level, located centrally with respect to the crown position, in order to provide direct development access to the top-of-mine stope crown pillar for ground support installation purposes, as well as immediate backfilling, tight to the stope crown; ○ Excavate the narrowest span stopes on the upper level first, in order to assess hangingwall and footwall rock mass conditions on the level, prior to excavating the wider span stopes there; ○ Down-hole blasting of the uppermost stoping level of the mine following overcut drive completion and limiting the stope span width of the top level to the width of the zone that can be reinforced with ground support; ○ Reinforcement of stope crowns with cable-bolts as well as surface support (i.e. shotcrete and/or mesh) to prevent unravelling; ○ Mining of upper-level stopes via single lifts only. Multi-lift stoping increases the potential for instability; ○ Extraction of ore and tight backfilling of all stopes in as short a timeframe as possible, and prioritising those stopes with wider spans or known to be located in or close to zones of poor ground or faults etc; ○ Trigger action response plan (TARP) procedures for prompt management and backfilling of any stopes observed to become

	unstable; ○ Managing extraction sequencing to minimise the risk of unravelling on faults. For example, avoiding stoping through faults in neighbouring ore lenses on the same or adjacent levels at the same time; ○ Avoiding large span excavations in the upper-level stopes, especially wherever there are known zones of poor ground, faults or confluences of multiple faults, which may be defined by future geotechnical investigations; ▪ Undertake a comprehensive rock mass characterisation of the depth of weathering of the box cut region and initial portion of the decline, to confirm the presence or absence of oxide weathering material along the planned decline route; ▪ If found to be necessary after the rock mass characterisation and further geotechnical assessment, modification of the box cut and portal design may be required to place the portal backs below the boundary of oxide-to-transitional weathering; and ▪ Re-design of the location of the southern-most ventilation shaft and egress shaft, such that they no longer intersect the paleochannel zone.
Surface Water	**Surface Water Quantity** ▪ For the purpose of validating the site water balance model, flow meters will be installed at the following locations at the Federation Site: ○ Transfer from the leachate ponds to the Mine Dewatering Dam; ○ Transfer from the Stormwater Retention Pond to the Mine Dewatering Dam; and ○ Transfer from the Mine Dewatering Dam to Hera Mine. ▪ Level sensors measuring the water level in the Stormwater Retention Pond water storage will be installed to estimate discharge quantities in the unlikely event of discharge. **Surface Water Quality** ▪ Surface water quality at Hera Mine will continue to be monitored in accordance with the approved Hera Mine Water Management Plan. Two additional (one upstream and one downstream) surface water quality monitoring locations will be nominated for the Federation Site and be added to the surface water quality monitoring program. These two locations are located on watercourses and would only be sampled during rainfall events sufficient to cause runoff. **Management Plans** ▪ Hera Mine currently operate in accordance with an approved water management plan (WMP). An updated water management plan for the Project will be developed to include the water management requirements of the Project, including Hera Mine. The updated WMP will be reviewed at a minimum every three years or as a result of any regulatory requirements, or any significant changes to water management practices. ▪ Any construction activities associated with the Project will have a detailed Erosion and Sediment Control Plan (ESCP) prepared based on specific construction methodologies. The objective of the ESCP is to ensure that

	appropriate structures and programs of work are in place to: ○ Identify activities that could cause erosion and generate sediment; ○ Describe the location, function and capacity of erosion and sediment control structures required to minimise soil erosion and the potential for transport of sediment downstream; ○ Ensue erosion and sediment control structures are appropriately maintained; ○ Fulfil the statutory conditions of the Project approval; ○ Consider industry standard practice, specifically: ○ Landcom 2004. Managing Urban Stormwater – Soils and Construction, Volume 1, 4th Edition; and ○ Department of Environment and Climate Change (DECC) 2008. Managing Urban Stormwater – Soils and Construction, Volume 2E – Mines and Quarries. *Water Balance Model* ▪ The water balance model will be reviewed and revised annually. The average predicted water balance for the Project will be included in the water management plan and the results for each year will be reported in the Annual Review for the Project.
Groundwater	▪ Ongoing measures will focus on monitoring for potential impacts on landholder bores, and monitoring to validate groundwater model predictions and provide observation data for future model calibration. ▪ The existing flow monitoring program at Hera Mine will be continued. In addition, the flow monitoring program will be expanded as required to include: ○ Metering of water transfers into and out of the Federation workings. This will allow the rate of groundwater inflow into the Federation workings to be calculated. The rate of groundwater inflow into the Federation workings will be approximately equal to the difference between water transferred out and water transferred into the Federation workings; and ○ Metering of groundwater extraction from all proposed production bores. ▪ The existing groundwater monitoring program at Hera Mine, Federation Site and Nymagee Mine would be continued. ▪ The predictions of the hydrogeological model will be reviewed following two years of mining at Federation. The review of the hydrogeological model will include a comparison of modelling results against groundwater monitoring data and mine dewatering volumes. If required, the model will be revised to improve the fit between observed and modelled dewatering volumes and groundwater levels.
Biodiversity	**General** ▪ Ensure all staff working on the Project are inducted on: ○ Site environmental procedures (i.e., vegetation management, sediment and erosion control, protective fencing, weeds, hygiene

protocols, ethical procedures for handling fauna displaced on the site)
    - What to do in case of environmental emergency (chemical spills, fire, injured fauna)
    - Key contacts in case of environmental emergency
    - How to reduce the risk of vehicle strike to fauna.

Removal of Native Vegetation

- Native vegetation removal will be minimised as far as possible using the following measures:
    - Utilise existing disturbed and cleared areas for compound, parking and stockpiling to ensure there is not additional impact to vegetation.
    - Before starting work, a physical vegetation clearing boundary at the approved clearing limit is to be identified and effectively communicated to personnel. The delineation of such a boundary may include the use of temporary fencing or parawebbing and marked as 'No-Go Zones'. Regular inspections should be undertaken to ensure all retained vegetation/fauna habitat is clearly marked and that fencing is in place, where appropriate
    - Vegetation within the Project disturbance area would be removed in such a manner so as to avoid damage to surrounding vegetation. Groundcover disturbance should be kept to a minimum where possible.
    - Some vegetation to be removed would be mulched on-site and re-used to stabilise disturbed areas where possible.
- A preclearing inspection will be undertaken by a qualified ecologist prior to the removal of vegetation. An ecologist or spotter/catcher will be present for the removal of hollow-bearing trees, logs or stags which could contain native fauna. Avoid clearing native vegetation in Spring, when possible. Any fallen timber, dead wood and bush rock encountered on site would be left in situ where possible or relocated to a suitable place nearby. Rock would be removed with suitable machinery so as not to damage the underlying rock or result in excessive soil disturbance.
- Implement staged habitat removal to allow fauna to vacate if present so vegetation will be retained in the buffer area until future stages commence. Respond to (e.g., rescue, relocate only if required) fauna detected during the clearing process.
- Where tree removal is required, large trees, or part thereof, with hollows can be left in the remnant vegetation where possible to provide habitat or used in the waterway to create snags. Nest-boxes or creating tree hollows through pruning existing trees (in a 1:1 fashion) will be installed in suitable, retained trees to compensate for the loss of large hollows (>20 cm) because of the Project.
- The Project has a finite life and post mining disturbed areas will be rehabilitated. The result will be a stable environment that is conducive to the establishment of vegetation characteristic to the area that is like the pre-mining vegetation composition.

	Revegetation and Rehabilitation ▪ Minor landscaping may be required. Where this occurs, there are two options 1) either allow the area to naturally regenerate or 2) to plant species. Natural regeneration in arid areas is typically more successful than planting vegetation. ▪ If planting is chosen, then all species planted for any purpose should be consistent with those Plant Community Types described in this report. Shrubby vegetation layers can be planted on the Project boundaries to screen and provide habitat. **Fragmentation of Habitat Connectivity** ▪ Connectivity impacts will be mitigated post mining through rehabilitation. **Fauna Management** ▪ Personnel will avoid handling wildlife, especially snakes. Fauna handling should only be done by a licenced fauna ecologist or wildlife carer. ▪ In the case of injured fauna contact a nominated animal rescue agency/wildlife car group or veterinarian if an animal is injured as per the proponent's fauna handling and rescue procedure. **Vehicle Strike** ▪ Low speed limits in place on mine site roads. ▪ Install warning signs of known wildlife crossings. ▪ Reporting requirements for any incidents of vehicle strikes. ▪ Ensure staff are inducted on how to reduce risk to fauna from vehicle strike. **Changes to Hydrology** ▪ A water management system will be implemented to prevent release of contaminated water, manage sediment affected water, divert clean water around mining activities and infrastructure. **Aquatic Impacts** ▪ Follow relevant legislation guidelines regarding impact to waterways ▪ Identify and mitigate potential risks to water quality (e.g. sediment from construction, importation of clean fill). Rehabilitation of waterways will occur post mining. ▪ Construction to occur during dry periods only. ▪ Do not refuel, store, or decant chemicals within 50 m of a waterway. **Soil Management and Stockpiles** ▪ Provide sediment and erosion controls to manage exposed soil surfaces and stockpiles to prevent sediment discharge into vegetation and fauna habitat. ▪ Clearly identify stockpile and storage locations and provide erosion and sediment controls around stockpiles. ▪ Stockpile and compound sites would be located using the following criteria: ○ At least 40 m away from the nearest waterway ○ On relatively level ground ○ Outside the one in 10-year Average Recurrence Interval (ARI)

	floodplain. ○ Stockpiling materials and equipment and parking vehicles would be avoided within the dripline (extent of foliage cover) of any tree. **Invasion and Spread of Pests, Pathogens, and Disease** ▪ Any priority weeds in the Project area would be sprayed and managed as far as possible. Application of a native grass mix or sterile exotic grass mix in areas disturbed by the Project post construction will assist in bank stabilisation and preventing further invasion and spread of weeds. ▪ Construction machinery (bulldozers, excavators, trucks, loaders and graders) would be cleaned using a high-pressure washer (or other suitable device) before entering and exiting work sites. ▪ Weed-free fill would be used for on-site earthwork. ▪ All chemicals would be used in accordance with the requirements on the label. Any person carrying out herbicide application would be trained to do so and have the proper certificate of completion/competency or statement of attainment issued by a registered training organisation. ▪ All food scraps and rubbish are to be appropriately disposed of in sealed receptacles to prevent providing forage habitats for foxes, rats, dogs, and cats. ▪ Any roadkill near or caused by the Project is to be relocated away from the site to prevent bird species which eat carrion from being injured by traffic. ▪ Pathogens such as *Phytophthora cinnamomi* will be managed by implementing precaution such as washing down equipment prior to commencing the Project. ▪ Handling of frogs encountered during construction will be done only if necessary, and always in accordance with safe frog handling procedures to prevent the spread of Chytridiomycosis (Amphibian Chytrid Fungus Disease). **Edge Effects** ▪ Exclusion zones will be set up at the limit of clearing. **Noise, Light, and Vibration** ▪ Noise, dust vibration and artificial light impacts will be minimised by strategic project planning to reduce the creation of noise, light, dust and vibration impacts
Indigenous Heritage	▪ The locations of the cultural heritage sites will be provided to the relevant supervisors responsible for the construction and operation of the Project. They will be informed that cultural heritage sites are protected under the NPW Act and no harm is to come to them. The presence of the cultural heritage sites will be made clear to the workforce as part of a Project induction; ▪ Re-identify with the assistance of a qualified archaeologist and the Aboriginal community any Aboriginal sites within 100 m of proposed impacts and install fencing and/or signage around each with a buffer of ten metres from the trunk of the culturally modified trees and five metres from the boundaries of the open sites

	▪ If changes are made to the proposed works which could impact locations outside of the current Project area, further archaeological investigation would be required; ▪ If any objects of suspected Aboriginal heritage origin are encountered during the proposed works, work in the area of the find would cease. An unexpected finds protocol will be developed and implemented for the Project; and ▪ If suspected human remains are located during any stage of the proposed works, work must stop immediately, and the NSW police must be notified.
Historic Heritage	▪ Development of and adherence to an unexpected finds protocol; ▪ Development of and adherence to an encountered human remains protocol; and ▪ Continued engagement with the local community through the Hera Mine Community Consultative Committee (CCC).
Noise and Vibration	**Noise Management Plan** ▪ Although it is demonstrated that noise levels are predicted to meet the relevant noise goals and no further mitigation measures are required, to proactively address any potential residual noise impacts, a noise management plan (NMP) may be considered for the Project. The NMP will guide, manage, quantify, and control noise emissions through the implementation of feasible and reasonable best management practices. These may include: o Strictly adhering to the proposed hours of operation; o Siting noisy equipment behind structures that act as barriers, or at the greatest distance from the noise-sensitive area; o Keeping equipment well maintained and operating it in a proper and efficient manner; o Employing 'quiet' practices when operating equipment, for example, positioning idling trucks in appropriate areas; o Running staff-education programs and regular tool box talks on the effects of noise and the use of quiet work practices; and o Maintain roads to ensure a smooth surface to reduce the incidence of impact noise including body rattles. ▪ The NMP may also address the use of best available technology including alternatives to tonal reversing alarms and efficient muffler design. **Noise Monitoring** ▪ The NMP would include a provision for attended noise monitoring within the community in response to received complaints if they arise. The operator attended noise measurements and recordings would be conducted to quantify noise emissions from the Project, as well as the overall level of ambient noise. ▪ When required, the operator would quantify and characterise the energy equivalent (LAeq) intrusive noise level from the Project over a 15-minute measurement period. In addition, the operator would quantify and characterise the overall levels of ambient noise over the 15 minute measurement interval.

	▪ All acoustic instrumentation used as part of the attended monitoring program must be designed to comply with the requirements of AS IEC 61672.1-2019, Electroacoustics - Sound level meters -Specifications and would have current calibration certificates. All instrumentation would be programmed to record statistical noise level indices in 15-minute intervals including LAmax, LAmin and LAeq.
Air Quality	The following air quality management and mitigation measures will be undertaken for the Project. ▪ Preparation of an Air Quality Management Plan (AQMP) to detail any proposed mitigation and monitoring at the Project. These may include: ○ Minimisation of areas of disturbance where feasible; ○ Minimise dust generating impacts during adverse meteorological conditions and extraordinary events; ○ Encourage vegetative cover to non-operational exposed surfaces, e.g. sediment pond edges, water diversion drains (where necessary); ○ Maintain ore handling areas/stockpiles in a moist condition by using water carts to water down areas affected by wind-blown and traffic-generated dust; ○ Allow for natural re-vegetation cover (under suitable climatic conditions) over all long-term topsoil stockpiles not regularly used,; ○ Use conveyors within the processing plant to transport crushed ore material; ○ Install suitable dust control measures within the process plant such as water sprays to ensure that the required level of dust suppression is achieved; ○ Ensure vehicles only drive on designated roads; ○ If possible, maintain approximately 75% of the TSF area as wet, with emissions restricted to 25% of the surface area of the TSF. Dust suppressants may be considered if required; ▪ Spray unsealed access roads and other trafficked areas with water carts at a rate of 2 L/m2/hour, as required, when visible dust is generated. Restrict speed limit to 40 km/hr on all internal access roads to minimise dust generation; ▪ Air quality monitoring will continue at the site measuring concentrations and deposition levels reported annually and will include the following: ○ High Volume Air Sampler (HVAS) to monitor TSP and/or PM_{10} concentrations; ○ Dust deposition gauges to monitor the monthly dust deposition levels; and ○ Truck loads will be covered for both ore and tailings between Hera Mine and the Federation Site (i.e along Burthong Rd), as well as loads ore between Federation Site and PGM.
Greenhouse Gas	The following management and mitigation measures will be implemented to

	minimise the generation of GHG as a result of the Project: ▪ Use of a renewable energy source (i.e. the proposed solar farm) to displace energy supply from the onsite gas fired power plant; ▪ Progressively optimise the underground mine design to minimise travel distances for mining equipment and re-handling of waste and ore material; ▪ Use mining equipment which is regularly maintained and serviced to maximise efficiency; ▪ Adopt the use of energy efficient lighting technologies and hot water and air conditioning systems wherever practical; ▪ Maximise the recovery of recyclable materials where practicable, including: o Waste hydrocarbons; o Polyethylene; o Scrap metals; ▪ Minimise waste sent to landfill through the development of appropriate purchasing and waste management plans; ▪ Progressively review and implement energy efficiency measures throughout the life of the Mine; and ▪ Emissions and abatement strategies will be reported annually.
Waste Management	Opportunities to reduce waste generation will be sought to minimise disposal to landfill. This may include: ▪ Continued correct classification and labelling of waste materials to ensure they are disposed of correctly; ▪ Waste binds and disposal areas will be in designated areas accompanied with correct labelling; ▪ Wastes to be segregated accordingly and recycled where feasible; ▪ Volumes of wastes generated and disposed will be tracked and collated monthly, with monthly site inspections continuing to identify any additional waste that needs separation or disposal; ▪ Regular waste audits to be undertaken to identify opportunities for waste reduction or other initiatives to manage waste; and ▪ Waste disposal off site will be conducted by relevant appropriately licenced contractors, depending on the waste type. A waste management plan (WMP) will be developed for the Project. The WMP is to include the following: ▪ Waste management principles including legislative and relevant waste management guidelines; ▪ Document processes and strategies to minimise waste generation on site; ▪ Identification and classification of wastes managed on site; ▪ Waste signage and storage requirements; ▪ Reporting and tracking of waste volumes on a monthly basis; ▪ Waste disposal requirements offsite and licencing requirements; ▪ Roles and responsibilities; and ▪ Process of review and continuous improvement.

	Hera Mine currently operates in accordance with an approved waste rock management plan. It is proposed that a new waste rock management plan be developed to reflect the operations of the Project and the specifics of the waste rock geochemistry relevant to the Federation Site.
Traffic and Transport	▪ The intersections of Burthong Road with the proposed Federation Site access roads be constructed as road intersections, with BAL and BAR treatments, designed to accommodate the swept path of the relevant design vehicles; ▪ Signage be installed to alert drivers to the presence of the Federation Site access and of trucks turning at the intersection; ▪ The drivers of heavy vehicles associated with the Project be bound by a Driver's Code of Conduct, consistent with that at Hera Mine, and including behavioural expectations for regular drivers associated with the Project; ▪ Additional signage and guideposts be provided along Burthong Road between Hera Mine and the Federation Site, including at the existing stock grid (if retained) to meet the requirements of AS1742.2; ▪ A Traffic Management Plan be prepared in consultation with Cobar Shire Council and Bogan Shire Council to address the use of public roads by Project traffic, including: ▪ Restricting the transport of ore, concentrates and tailings to daylight hours only; and ▪ Should Burthong Road remain unsealed, restricting the transport of materials during heavy rainfall to prevent damage and to minimise the risk of road crashes due to wet conditions; ▪ Should Burthong Road remain unsealed, the unsealed length be maintained at a suitable standard consistent with ARRB Class 4A unsealed roads to accommodate road trains throughout the life of the Project; ▪ Should Burthong Road be sealed, it be constructed to a standard to meet the requirements of Cobar Shire Council or Austroads (2016) for heavy vehicle routes; ▪ Hera Resources renegotiate the Planning Agreement with Cobar Shire Council regarding annual contributions for road maintenance and repairs on the relevant length of Burthong Road over the life of the Project to reflect the increased heavy vehicle movements; ▪ Review and update the Planning Agreement between Hera Resources and Bogan Shire Council for annual road repair and maintenance contributions relating to the Principal Concentrates Transport Route to Hermidale; ▪ Hera Resources investigate opportunities for use of higher capacity vehicles for haulage of ore, tailings and/or concentrates, which would reduce the number of Project-generated trips on the public road network; and ▪ Hera Resources will investigate the potential to combine ore and tailings haulage fleets between Federation Site and Hera Mine, which would reduce the number of haulage vehicle trips.
Preliminary Hazard Assessment	▪ MSDS and ChemAlert information retained by Project Site personnel. ▪ Environmental inspections and reporting completed regularly. ▪ Operational personnel to have completed relevant training in emergency

	response and/or HAZMAT. ▪ Hazardous Materials Management Plan implemented. ▪ Hydrocarbon, Chemical and Reagent Management Plan ▪ Operational personnel to have completed relevant training in routine handling of chemical. ▪ Emergency Management Plan for dealing with spill developed and implemented. The Plan will include the following. ○ Evacuate the area ○ Advise senior site management of the spill. ▪ Restricted access to the Processing Plant area enforced.
Landscape	▪ It is proposed to maintain and protect existing vegetation during the operation of the Project and to rehabilitate the site to a similar condition as existed prior to mining operations. ▪ A Rehabilitation Strategy has been prepared for the Project which outlines the rehabilitation objectives and outcomes. The land will be rehabilitated back to a stable landform and will be revegetated with suitable native vegetation and grassland with consideration given to the existing plant community types (PCTs) in the Project area.
Social	▪ Develop a social investment strategy (or similar) to formalise the benefits Hera Resources provides to the community. ▪ Develop a dedicated Project communications and engagement (C&E) plan would provide a means to give regular reminders to the community about the presence of people in remote areas near the Project. ▪ Develop a dedicated Aboriginal employment policy and supporting strategy ▪ Implement measures in GWIA (refer **Appendix J**) and communicate groundwater monitoring to residents upon their request. ▪ Identified significant sites will be avoided and/or protected in accordance with the measures described in the ACHA (refer **Appendix L**). A rehabilitation strategy has been prepared for the Project which would, at the completion of the Project, provide measures to rehabilitate the land subject to mining activities. ▪ Dust impacts will be mitigated via the measures described the AQIA (Appendix N), including the seal of Burthong Road. Regularly (e.g., quarterly) volunteer monitoring results to the nearest sensitive receivers. ▪ Development of a Traffic Management Plan (TMP) and Drivers Code of Conduct emphasising traffic concerns in Hermidale. Realisation of the potential reduction of Project-generated heavy vehicle volumes. ▪ Implement measures in NVIA (refer **Appendix M**).
Rehabilitation	▪ Implement Rehabilitation Management Plan, as described in **Chapter 5**.