Section 6

Evaluation and Justification of the Project

PREAMBLE

This section concludes the assessment of the proposed Hera Project. The impact of the Project is evaluated by reassessing the risks posed to the local environment by Project activities, following consideration of the controls, safeguards and/or mitigation measures proposed by the Proponent, as well as through consideration against the principles of Ecologically Sustainable Development (ESD). Finally, a justification for the Project is provided based on the residual impacts of the Project, the likely economic and social benefits that would be generated and the consequences locally, regionally and nationally of the Project not going ahead.

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6.1 EVALUATION OF THE PROJECT

6.1.1 Residual Environmental Risk and Impacts

An assessment of the unmitigated environmental risks associated with the Project has previously been presented in **Table 3.8**. Following consideration of the proposed management and mitigation measures described in Section 4, together with the commitments provided in Section 5, an assessment of the mitigated risks associated with the Project was completed for each potential environmental impact based on the likelihood of occurrence and potential environmental consequence. **Table 6.1** reproduces the results of the analysis of unmitigated risk together with the residual or mitigated risks associated with the Project. For ease of reference, **Table 3.5** to **Table 3.7** are reproduced as **Table 6.2** to **Table 6.4**, respectively.

It is noted that in some cases no residual risk ranking has been allocated as the assessment recorded in Section 4 has determined that the impact would not occur.

Through the implementation of the proposed controls, safeguards and mitigation measures summarised in Section 4, the risk ranking for the majority of potential environmental impacts has been reduced to either a moderate or low risk ranking. In a number of cases, a moderate (or high) risk ranking is the lowest possible ranking even though the consequence is assessed as 'insignificant' (if the potential for occurrence is considered 'likely' or 'almost certain'), or the potential occurrence is assessed to be 'rare' (if the consequence is considered to be 'moderate' or greater).

In some cases, a ranking is no longer provided as the relevant assessment recorded in Section 4 determined the likelihood to be so low, the consequence so insignificant, or the operation of the Project to have no influence on the overall risk to the surrounding environment.

Further consideration is given to the potential impacts which retain a "high" risk ranking as follows.

- Major or severe accident resultant from road transport from the Project Site.

  While every precaution has been and would be taken by the Proponent in relation to the design of traffic management and education of its workforce, the potential consequence of a major or severe accident is such that a high risk ranking would continue to apply.

- Impacts associated with bushfire either initiated on the Project Site or on lands external to the Project Site.

  While bushfire is considered to have a potentially rare occurrence, the consequence could be major and as such a high risk ranking applies despite the incorporation of Project safeguards which would minimise the potential for fire on the Project Site.

Table 6.1
Analysis of Unmitigated Environmental Risk

Risk Source (see Table 3.4)	Potential Impact (Including Scale if applicable)	Unmitigated Risk Ranking	Consequence of Occurrence	Likelihood of Occurrence	Residual Risk Ranking[1]
Groundwater					
Pollution of groundwater due to leaching of contaminants from the Tailings Storage Facility (TSF).	Reduced availability of water for beneficial uses, eg. domestic water supply, environmental flows.	H	3	E	M*
	Detrimental impacts on biota dependent on local surface or groundwater resources.	L	3	E	M*
Pollution of groundwater due to hydrocarbon spills.	Reduced groundwater quality leading to reduction in beneficial uses of the water and therefore availability to existing groundwater users.	M	2	D	M
Reduction of groundwater levels due to mining and associated drawdown.	Reduction in groundwater levels.	H	2	C	M
	Reduced yields of local groundwater bores.	H	2	C	M
	Adverse impact on or reduced viability of groundwater dependent ecosystems.	M	-	-	-
Dewatering of local hard rock aquifers as a result of blasting induced fracturing.	Dewatering of local groundwater bores.	H	-	-	-
Reduced volume and/or quality of water recharging surface water flows.	Reduced surface flows to surrounding creeks and rivers.	M	-	-	-
	Degradation of groundwater dependent ecosystems.	M	-	-	-
Surface Water / Flooding / Erosion and Sedimentation					
Reduction in environmental flows through onsite capture of water.	Reduced availability of water to downstream users.	H	1	B	M#
	Structural change to, or degradation of downstream vegetation including Groundwater Dependent Ecosystem (GDEs).	M	3	E	M*
	Degradation of aquatic habitats.	M	-	-	-
Discharge of dirty, saline or contaminated water (other than from the TSF).	Pollution of downstream waters.	H	3	E	M*
	Pollution of local waterways resulting in death of flora and fauna.	H	3	E	M*
	Contamination of soil resources and indirect impacts on end land use.	M	-	-	-
Discharge of contaminated water (from the TSF).	Contamination of local waterways.	H	3	E	M*
	Contamination of local soils.	M	-	-	-
	Poisoning of native flora and fauna.	H	-	-	-
	Long-term degradation of landform and reduced potential for future beneficial use.	H	-	-	-

Table 6.1 (cont'd)
Analysis of Unmitigated Environmental Risk

Risk Source (see Table 3.4)	Potential Impact (Including Scale if applicable)	Unmitigated Risk Ranking	Consequence of Occurrence	Likelihood of Occurrence	Residual Risk Ranking[1]
Surface Water / Flooding / Erosion and Sedimentation (Cont'd)					
Discharge of saline groundwater	Pollution of downstream waters.	H	-	-	-
	Pollution of local waterways resulting in death of flora and fauna.	H	-	-	-
	Contamination of soil resources and indirect impacts on future land use.	M	-	-	-
Changes to hydrology of creeks and drainage lines.	Reduced surface flows within the affected waterway(s) and the Box Creek catchment.	M	1	B	M#
	Increased erosion potential resultant from changed alignment of flow.	M	-	-	-
	Reduction in the quality of aquatic habitat.	M	-	-	-
Changes to local flood regimes.	Increased erosion potential within local catchments.	L	2	E	L
	Changes to vegetation community structure and habitat value.	M	3	E	M*
	Detrimental impacts on surrounding properties as a result of changes to flooding regime.	M	3	E	M*
Soil erosion (due to the erosive actions of water).	Erosion of disturbed areas on the Project Site.	M	2	D	L
	Erosion of rehabilitated areas and/or final landform of the Project Site.	H	3	E	M*
Sedimentation of water within and discharged from the Project Site.	Increased sediment load in drains and/or waterways.	H	2	E	L
Soil Resources					
Reduction in soil quality and availability through poor management practices.	Insufficient soil quantities for rehabilitation.	L	-	-	-
	Reduced soil quality.	H	3	E	M*
Flora and Fauna (Biodiversity)					
Removal of native vegetation due to clearing activities.	Loss of, or alteration to, existing habitats.	H	1	B	M#
	Direct adverse impact on threatened species, populations or endangered ecological communities.	H	3	E	M*
Disturbance to threatened species, populations and endangered ecological communities.	Local or regional reduction in distribution of threatened species, populations or endangered ecological communities.	H	-	-	-
	Possible local extinction of threatened species, populations or endangered ecological communities.	H	-	-	-

Table 6.1 (cont'd)
Analysis of Unmitigated Environmental Risk

Risk Source (see Table 3.4)	Potential Impact (Including Scale if applicable)	Unmitigated Risk Ranking	Consequence of Occurrence	Likelihood of Occurrence	Residual Risk Ranking[1]
Flora and Fauna (Biodiversity) (Cont'd)					
Disturbance to fauna and fauna habitat as a result of ongoing operations, eg. Dust etc.	Local or regional reduction in distribution of threatened species, populations and endangered ecological communities.	M	3	E	M*
	Possible local extinction of threatened species, populations and endangered ecological communities.	H	-	-	-
Pooling of cyanide – contaminated water within the TSF	Poisoning of native fauna.	E	3	E	M*
Aboriginal Heritage					
Removal or destruction of known Aboriginal sites and/or artefacts.	Destruction of impacted site.	M	-	-	-
	Cumulative reduction of the in-situ archaeological record.	M	-	-	-
Removal or destruction of currently unidentified Aboriginal sites and/or artefacts	Destruction of impacted site.	M	-	-	-
	Cumulative reduction of the in-situ archaeological record.	M	-	-	-
Historical Heritage					
Removal or destruction of sites of heritage significance due to project activities.	Loss or destruction of items of historical heritage significance.	-	-	-	-
Noise					
Increased noise levels above relevant criteria resulting from operation of mobile and fixed equipment, and product transportation.	Occasional minor exceedance of noise criteria (1-2dB(A)).	M	2	D	L
	Regular minor exceedance of noise criteria (1-2dB(A))	L	2	E	L
	Occasional marginal exceedance of noise criteria (3-5dB(A)).	M	3	E	M*
	Regular marginal exceedance of noise criteria (3-5dB(A)).	M	3	E	M*
	Occasional major exceedance of noise criteria (>5dB(A)).	M	3	E	M*
	Regular major exceedance of noise criteria (>5dB(A)).	L	2	E	L
	Maximum noise levels resulting in sleep disturbance.	M	3	E	M*
	Increased noise levels associated with the Project leading to impacts on the native fauna assemblage.	M	3	E	M*

Table 6.1 (cont'd)
Analysis of Unmitigated Environmental Risk

Risk Source (see Table 3.4)	Potential Impact (Including Scale if applicable)	Unmitigated Risk Ranking	Consequence of Occurrence	Likelihood of Occurrence	Residual Risk Ranking[1]
Blasting / Vibration					
Increased levels of vibration or air blast overpressure in excess of relevant criteria form mine blasting.	Structural damage to buildings and structures.	M	-	-	-
	Nuisance/amenity impacts on surrounding landowners / residents.	M	-	-	-
Fracture induced dewatering of hard rock aquifer(s).	Reduced yield / availability of water from affected groundwater bores.	L	-	-	-
Air Pollution – Dust, Odour, Greenhouse Gas Emissions, Other					
Dust generation resulting from vehicle movements on unsealed roads and wind action on disturbed areas, waste rock emplacements and stockpiles.	Nuisance / amenity impacts from dust deposited on window sills, cars, surfaces etc.	M	3	E	M*
	Adverse health impacts (if PM_{10} levels are excessive).	H	-	-	-
	Stress on native vegetation, and indirect impacts on fauna habitat.	M	3	E	M*
Greenhouse Gas Emissions	Increased contribution to greenhouse effect.	M	1	B	M#
Traffic and Transport					
Construction of new entrance to the Project Site	See "*air pollution*", "*flora and fauna protection*", "*noise*" and "*Aboriginal heritage*" above.				
	Temporary inconvenience to commuters if stopped for road works.	L	1	C	L
Increased traffic levels due to movement of workforce and contractors	Increased traffic congestion.	L	2	E	L
	Elevated risk of accident / incident on local roads	H	4	E	H*
	Road pavement deterioration.	M	3	E	M*
Increased heavy vehicle movements for product transportation.	Increased traffic congestion.	M	2	E	L
	Elevated risk of accident / incident on local roads	H	4	E	H*
	Road pavement deterioration.	M	3	E	M*
Visual Amenity					
Changes in visual characteristics of the Project Site.	Decreased visual amenity.	L	-	-	-
Impacts of night lighting	Decreased visual amenity.	M	2	E	L
	Elevated risk of traffic incident.	M	-	-	-

Table 6.1 (cont'd)
Analysis of Unmitigated Environmental Risk

Risk Source (see Table 3.4)	Potential Impact (Including Scale if applicable)	**Unmitigated Risk Ranking**	**Consequence of Occurrence**	**Likelihood of Occurrence**	**Residual Risk Ranking[1]**
Rehabilitation / Final Landform / End Land Use					
Temporary or permanent changes to the landform of the Project Site	Reduced amenity of the final landform resultant from altered topography.	M	-	-	-
	Final landform and land use that is not compatible with activities / lifestyle of local community.	M	2	E	L
Waste Management					
Production of contaminating or polluting materials, eg. waste oils, tailings, general non-putrescible and putrescible waste.	Contamination of surface water.	M	3	E	M*
	Contamination of groundwater.	M	3	E	M*
	Contamination of soil resources by leaking or split residue.	L	2	E	L
	Reduced amenity of Project Site due to poor rubbish, litter management.	L	2	E	L
Waste Management (Cont'd)					
Acid Mine Drainage from mineralised waste rock.	Contamination of local water and/or soil resources by leaking or spilt residue.	M	2	E	L
Management of waste materials.	Reduced visual amenity.	L	2	D	L
	Adverse impacts on local waterways and aquatic habitats.	L	2	E	L
Land Contamination					
Exposure of previously contaminated materials.	Contamination of soil resources.	L	2	E	L
	Contamination of surface water.	L	2	E	L
Creation of contaminated land.	Contamination of soil resources.	M	3	E	M*
	Contamination of surface water.	M	3	E	M*
Bushfire					
Initiation of fire on the Project Site and spread to adjoining properties.	Injury or health impacts on project personnel.	H	4	E	H*
	Operational constraint posed by damaged equipment.	L	2	E	L
	Destruction / damage of native vegetation and fauna habitat.	M	3	E	M*

Table 6.1 (cont'd)
Analysis of Unmitigated Environmental Risk

Risk Source (see Table 3.4)	Potential Impact (Including Scale if applicable)	**Unmitigated Risk Ranking**	**Consequence of Occurrence**	**Likelihood of Occurrence**	**Residual Risk Ranking[1]**
Socio-Economic Impacts					
Alteration of social activities or employment due to employment generation and capital expenditure.	Improved economic activity and related social impacts attributable to reduced unemployment.	Net benefit			
Reduction in availability of skilled labour for other industries.	Reduced availability of labour for other businesses and industries.	M	2	D	L
Increased pressure on local infrastructure	Increased cost of housing and rental accommodation locally.	M	3	D	M
	Increased costs of services.	H	3	E	M*
Perceived or real impacts on local amenity of neighbouring properties	Reduced quality of life (actual or perceived).	M	3	E	M*
	Reduced property values.	M	3	E	M*

Note 1: * : indicates the lowest possible risk ranking given the likelihood of occurrence category of E: Rare
: indicated the lowest possible risk ranking given the consequence of occurrence category of 1: Insignificant
- : Indicates that a ranking is no longer provided as the relevant assessment recorded in Section 4 determined the likelihood to be so low, the consequence so insignificant, or the operation of the Project to have no influence on the overall risk to the surrounding environment.

Consequence of Occurrence: 1 = Insignificant; 2 = Minor; 3 = Moderate; 4 = Major; 5 = Catastrophic
Likelihood of Occurrence: A = Almost Certain; B = Likely; C = Possible; D = Unlikely; E = Rare
Risk Rating: E = Extreme; H = High; M = Moderate; L = Low

The risks associated with the majority of possible environmental impacts are considered moderate or less and therefore, while these may result in impacts deemed unacceptable to some stakeholders, the development and operation of the Project, with the implementation of appropriate management plans, are overall considered acceptable.

6.1.2 Ecologically Sustainable Development

6.1.2.1 Introduction

Sustainable practices as encapsulated in the principles of Ecologically Sustainable Development (ESD) have been recognised for over two decades by industry, all levels of government and the community to be important for the future prosperity and well-being of the world. These principles are based upon meeting the needs of the current generation while conserving our ecosystems for the benefit of future generations.

Table 6.2
Qualitative Consequence Rating

Level	Descriptor	Description
5	Catastrophic	• Massive and permanent detrimental impacts on the environment. • Very large area of impact. • Massive remediation costs. • Reportable to government agencies. • Large fines and prosecution resulting in potential closure of operation. • Severe injuries or death.
4	Major	• Extensive and/or permanent detrimental impacts on the environment. • Large area of impact. • Very large remediation costs. • Reportable to government agencies. • Possible prosecution and fine. • Serious injuries requiring medical treatment.
3	Moderate	• Substantial temporary or minor long term adverse impact to the environment. • Moderately large area of impact. • Moderate remediation costs. • Reportable to government agencies. • Further action may be requested by government agency. • Injuries requiring medical treatment.
2	Minor	• Minor detrimental impact on the environment. • Affects a small area. • Minimal remediation costs. • Reportable to internal management only. • No operational constraints posed. • Minor injuries which would require basic first aid treatment.
1	Insignificant	• Negligible and temporary detrimental impact on the environment. • Affects an isolated area. • No remediation costs. • Reportable to internal management only. • No operational constraints posed. • No injuries or health impacts.
Source: modified after HB 203:2006 (Standards Australia, 2006) - Table 4(B)		

Table 6.3
Qualitative Likelihood Rating

Level	Descriptor	Description
A	Almost Certain	Is expected to occur in most circumstances.
B	Likely	Will probably occur in most circumstances.
C	Possible	Could occur.
D	Unlikely	Could occur but not expected.
E	Rare	Occurs only in exceptional circumstances.
Source: HB 203:2006 (Standards Australia, 2006) - Table 4(A)		

Table 6.4
Risk Rating Matrix

Likelihood	Consequences				
	Insignificant 1	Minor 2	Moderate 3	Major 4	Catastrophic 5
A (Almost Certain)	H	H	E	E	E
B (Likely)	M	H	H	E	E
C (Possible)	L	M	H	E	E
D (Unlikely)	L	L	M	H	E
E (Rare)	L	L	M	H	H
Note: Rating modified after HB 203:2006 (Standards Australia, 2006) - Table 4(C)					

Integration of both short-term and long-term environmental, economic, social and equitable objectives is required to achieve sustainable developments. Accordingly, throughout the design of the Project, the Proponent has endeavoured to address each of the four sustainable development principles given below:

- the precautionary principle;
- the principle of social equity;
- the principle of the conservation of biodiversity and ecological integrity; and
- the principle for the improved valuation and pricing of environmental resources.

The following sub-sections draw together the features of the Project that reflect the four principles of sustainable development.

6.1.2.2 The Precautionary Principle

Anticipation and prevention of environmental damage, rather than reacting to it after it has occurred is the underlying basis to satisfy the Precautionary Principle. During the planning phase for the Project and throughout the preparation of the *Environmental Assessment*, the Proponent used specialist consultants and their formal assessments to examine the existing environment, predict possible Project impacts and recommend controls, safeguards and/or mitigation measures in order to ensure that the level of impact satisfies statutory requirements or reasonable community expectations. Throughout the development of the Project, the Proponent and its consultant team have adopted an anticipatory approach to impacts, particularly issues that could impact on local land uses and amenity (water resources, noise, dust, visual aspects, etc.). The approach comprised undertaking an analysis of the risks posed by Project activities, including an appropriate level of research and baseline investigations and environmental evaluation. The controls, safeguards and/or management and mitigation measures have therefore been planned with a comprehensive knowledge of the existing environment and the potential risk of environmental degradation posed by Project-related activities.

The implementation of the environmental safeguards, controls and mitigation measures has been formalised by the Proponent as the Draft *Statement of Commitments* presented as Section 5.

Examples of matters relating to the precautionary principle that were considered during the various stages of the Project are listed below.

Project Objectives

The principal objective of the Project is the design and operation of an underground metaliferous mine in a manner that minimises surface disturbance and impact on the environment and surrounding residents. In support of this objective and as examples of due consideration of the Precautionary Principle, the Proponent would:

- ensure compliance with all relevant environmental criteria;
- meet reasonable community expectations; and
- achieve all relevant statutory requirements through appropriate design, management and mitigation measures.

Project Design Components

A number of design features were incorporated during the initial design stage in recognition of the Precautionary Principle. Subsequent modifications to the Project were made in response to issues identified during the specialist consultant investigations undertaken as part of the environmental assessment phase. These design features and modifications included the following.

- The Hera Project has been developed as an underground mine rather than an open cut mining operation to minimise surface disturbance and potential impacts on local ecology, water resources and visual amenity.
- The backfilling of underground stopes using waste rock removed during initial mine development and throughout the operational phase would minimise the requirement to stockpile waste rock at the surface and remove the requirement for a permanent waste rock emplacement in the final landform. This would reduce the total disturbance footprint of the Project.
- The tailings generated in the Project would be benign and would not be detrimental to local water resources. In addition, the Proponent would ensure that the weak acid dissociable cyanide concentration in tailings on discharge is less than 10mg/L. Notwithstanding the above, however, and in recognition of the importance of local surface and groundwater resources to surrounding land users and biota, the Proponent would appropriately line the Tailings Storage Facility to ensure that the groundwater contamination does not occur.
- All potentially sediment-laden water from disturbed sections of the Project Site would be directed to and retained within Sediment Basins 1 and 2 or the five settling ponds. These structures would be designed to retain a 1 in 100 year rainfall event.
- No potentially chemical-laden water would be permitted to flow from the site to natural drainage or the clean water system.
- The incorporation of the Mine Camp for mine personnel would effectively mitigate the potential increase in traffic levels in the surrounding road network due to the Project.

Management and Operational Safeguards

The Hera Project, following project approval, would be managed within a framework comprising ongoing environmental management, operational performance and rehabilitation of the Project Site in accordance with the Mining, Rehabilitation and Environmental Management Process (Department of Trade & Investment, Regional Infrastructure & Services) and would be designed based on input from the relevant State and local government agencies. The *Mining Operations Plan* prepared for the Project, following approval, would contain a range of site-specific environmental procedures to achieve consistency with specified outcomes and to control identified risks. This document would be updated periodically.

The *Annual Environmental Management Report* would document the progress of the Project and provide an opportunity to review the effectiveness of the environmental management strategies adopted.

Finally, the following management and operational safeguards would be implemented in accordance with the precepts of the Precautionary Principle.

- Surface water management structures would be constructed prior to the commencement of major ground disturbing activities and maintained in a manner that would ensure that potentially sediment-laden water does not flow from the Project Site.
- Potentially sediment-laden water would preferentially be used for mining-related purposes, minimising the use of water from other sources.
- Dust suppression would be undertaken by the Proponent throughout the life of the Project.
- Access to areas of remnant native vegetation, as well as those areas awaiting or undergoing revegetation, would be limited to minimise the potential for inadvertent disturbance.
- The Proponent would undertake weed and feral pest control, particularly for feral goats, in all areas of the Project Site and would implement measures to ensure that groundcover and mid-storey species are able to recover and recolonise sections of the Project Site that are currently disturbed.
- Areas not required for mining-related activities would not be disturbed.
- Soil material would be stripped, stockpiled and re-spread in accordance with the recommendations of the Soils Assessment.
- Surface water, groundwater, noise and dust levels would be monitored at locations potentially most affected by the Project in order to ensure the continued compliance with the identified goals.
- All on-site management procedures would be regularly reviewed, particularly in light of monitoring results.
- A Biodiversity Offset Strategy would be implemented to compensate for loss of habitat due to the Project-related clearing of vegetated areas.

Rehabilitation and End Land Use

In order to avoid unforseen potential long term adverse impacts on the environment, the Proponent would implement the following.

- Creation of a safe, stable, vegetated, non-polluting final landform.
- Progressive rehabilitation as soon as practicable once areas are no longer required for mining-related purposes, including shaping of the final landform, spreading of soil and reseeding or replanting with endemic, locally sourced species.
- Creation of a final landform that would be suitable for an end land use of nature conservation and grazing. These land uses are consistent with the current land uses on surrounding properties.

Conclusion

The Precautionary Principle has been taken into consideration during all stages of the design and assessment of the Project. The approach adopted in the Project design, comprising risk analysis, initial assessment, consultation, specialist investigations and safeguard design, provides a high degree of certainty that the Project would not result in any major unforeseen impacts.

6.1.2.3 Social Equity

Social equity embraces value concepts of justice and fairness so that the basic needs of all sectors of society are met and there is a fair distribution of costs and benefits to the community. Social equity includes both inter-generational and intra-generational equity considerations.

Equity within generations (intra-generational) requires that the economic and social benefits of the development be distributed appropriately among all members of the community. Equity between generations (inter-generational) requires that the non-material well-being or "quality of life" of existing and future residents of the local community would be maintained throughout and beyond the life of the Project such that the ability of future generations to achieve their desired quality of life is not adversely impacted by the actions of the currently generation (or the Project).

Both elements of social equity are addressed through the design of the Project itself, the implementation of operational safeguards to mitigate any short-term or long-term environmental impacts, and the proposed rehabilitation of the areas directly disturbed. Examples of matters relating to social equity that are relevant to the various stages of the proposed development are listed below.

Identification of Project Objectives

The Proponent has identified the following Project Objectives.

- The principal objective of the Project has been the design and operation of an underground metaliferous mine in a manner that minimises surface disturbance and impact on the environment and surrounding residents.
- The Project would be developed with the objective of maximising the social and economic benefits to the nearby Nymagee community and within the Cobar LGA more generally through:
  - provision of employment, including a commitment to employee training (whilst not adversely affecting the ability of other employers within the region to maintain suitably qualified staff);
  - development of a purchasing policy specifying the local purchase of project-related consumables where practicable;
  - support to community organisations, groups and events and, as appropriate, to assist in and contribute to the planning and development of community based projects, particularly those that will contribute to community resilience following completion of the Project; and
  - contribution to the maintenance of roads to be used by the Proponent generated traffic.

- The Project would develop an on-site Environmental Monitoring System which would monitor the impacts of the Project on environmental issues of surface water, groundwater, air quality, noise and blasting, and which would contribute to a heightened community awareness of environmental issues.
- The Project has been designed with the objective to ensure the continued viability of surrounding land uses throughout and beyond the life of the Project.

Design of Project Components

The Proponent has designed the Project to maintain inter-generational equity cognizant of the fact that the mining and processing of the identified resource is a short term land use. This would ensure that components of the existing biological, social and economic environment available to existing generations would also be available to future generations.

- Underground mining has been proposed, as opposed to open cut mining, to minimise disturbance to land which has an ongoing value to local agriculture and for use for nature conservation.
- A Biodiversity Offset Strategy would be established to compensate for any loss of habitat and thus disturbance to biodiversity within the Project Site, to safeguard the populations of threatened flora and fauna species, and to provide for both the protection and enhancement of native vegetation/fauna habitat.
- The availability of groundwater to surrounding landholders, although not predicted to be significantly affected by the Project, would be monitored throughout the life of the Project and compensatory measures taken in the event reductions in the yield due to drawdown effects from groundwater extraction within the Project Site are identified.
- Surface water management within the Project Site has been designed to have minimal impact on environmental flows and maintain or improve the water quality available to downstream users.
- The final landform to be created has been designed to be suitable for grazing activities and nature conservation.

Integration of Safeguards and Procedures

The Proponent recognises that all members of the local community should benefit appropriately from the Project, either directly or indirectly. The Proponent would continue to consult with the local community and maintain a pro-active approach to issues of interest to ensure a realistic distribution of benefits. This dialogue would also include a system of recording, managing and responding to any complaints relating to the mine operation.

Several issues, some Project-related and others of a more general nature, have been identified as having possible inter-generational effects. The following describes these issues and the approach to be taken by the Proponent to ensure potential for adverse inter-generation impacts are minimised.

- Tailings Management – The Tailings Storage Facility has been designed to ensure it remains structurally sound, retains all tailings and leachate and can be rehabilitated to provide for future nature conservation end land use. Ongoing monitoring would be undertaken to confirm no leakage of leachate into local groundwater or surface water drainages. This monitoring program would be undertaken throughout the life of the Project and for as long as required by the relevant government agencies. These measures will ensure that the proposed tailings management does not adversely impact on the environment and land users of future generations.
- Pest and Weed Management – The spread of weeds is recognised as an issue that could potentially impact on surrounding land owners over the life of the Project and beyond. While this issue is a more general one for the local area, the Proponent recognises that poor land management within the Project Site could exacerbate the problem. The Proponent proposes to implement appropriate pest and weed management programs within the Project Site, focusing particularly on feral goats and noxious weeds, and which would assist in overall pest and weed management of the local area. Any such works would be undertaken in consultation with the local Weeds Officer of Cobar Shire Council and relevant government agencies.
- End Land Use – The proposed rehabilitation objectives and measures described in Section 2.15.2 have been designed to ensure that the Project Site lands are available for future use for grazing or nature conservation purposes and do not restrict the ongoing agricultural activities on surrounding lands.

Rehabilitation and End Land Use

The proposed final landform would provide for the end land use of grazing and nature conservation. This would ensure that resources available within the Project Site would continue to be available to future generation.

Conclusion

The principle of social equity has been addressed through the consideration of how the Project could benefit the local and regional communities, how the design of particular elements of the Project and the integration of operational safeguards and management measures would maximise community involvement in reviews of operations. Lastly, how the Project would ensure that gains made in the short-term do not result in adverse impacts on the environment or the local community post-completion of the Project has also been addressed.

The Project would contribute significantly to the economic activity of the local and regional community through the generation of employment, increased demand for local goods and services, direct community contributions and flow-on effects. These benefits of the Project, considered in more detail in Section 6.2.3, would be distributed throughout the local community.

The Project has been designed such that elements of the existing environment available to the current generation, including water and local biodiversity, would continue to be available to future generations.

The Proponent would adopt a pro-active approach in identifying and addressing any concerns identified by the local community.

6.1.2.4 Conservation of Biological Diversity and Ecological Integrity

The protection of biodiversity and maintenance of ecological processes and systems are central goals of sustainability. It is important that developments do not threaten the integrity of the ecological system as a whole or the conservation of threatened species, communities or populations in the short- or long-term. Details of how the Project has been designed to achieve compliance with these principles are set out below.

Identification of Project Objectives

The Proponent is committed to undertaking all activities in an environmentally responsible manner, and recognises the need to ensure that changes to natural components of the environment do not significantly adversely affect biological diversity or ecological integrity. As such, the Project has been designed to:

- avoid, as far as practicable, impacts on threatened flora and fauna through the minimisation of surface activities and the proposal to disturb minimal areas for the construction of the Surface Facilities Area and the Tailings Storage Facility for operations.
- minimise the potential impacts on threatened flora and fauna (and native vegetation and fauna habitats generally) through the development and implementation of the Biodiversity Offset Strategy to compensate for loss of habitat through vegetation clearing within the Project Site; and
- maintain surface and base flows within Project Site, and establish water management structures that would not degrade the water quality within the Box Creek catchment.

Design of Project Components

The Proponent, on advice from the specialist consultancies commissioned to assist with the design and to assess the impact of the Project, has provided for the conservation of biological diversity and ecological integrity through the following design elements. As far as practical, the Proponent has followed the principle of "*avoid, mitigate and then offset*" being Step 4 of the guideline document "*Draft Guidelines for Threatened Species Assessment"* (DEC/DPI, 2005), in the Project.

Impact Avoidance

- By developing the Project as an underground mine, the area of surface disturbance, and therefore potential impact on threatened flora and fauna, has been minimised.

- Locating the Surface Facilities Area and the Tailings Storage Facility in already disturbed areas to avoid clearing of native vegetation.
- All waste rock would be used as backfill underground or to construct Project infrastructure such as the Tailings Storage Facility embankment. As a result there would be no areas required for the permanent stockpiling of waste rock.

Impact Mitigation

- The design and construction of the proposed water management structures would ensure that no sediment or chemical-laden water would be permitted to flow to natural drainage.
- Soil would be stripped and managed in stockpiles for eventual respreading over the final landform. These stockpiles would be designed and managed to minimise any reduction in the biological activity within the soils and to prevent erosion and sedimentation from these structures.
- The proposal to use the existing internal roads and access routes would minimise disturbance to native vegetation.
- Progressive rehabilitation of the Project Site would provide for the re-establishment of native and pasture vegetation.
- Effective weed control would be undertaken to reduce the spread of weeds over the Project Site and surrounding lands.

Impact Offsetting

- The limited areas of disturbance to native vegetation and fauna habitats associated with the Project would be compensated by the establishment and implementation of the Biodiversity Offset Strategy to compensate for the loss of habitat through vegetation clearing. A Property Vegetation Plan, under the *Native Vegetation Act 2003*, would be developed as part of the Biodiversity Offset Strategy. That plan would specify the land management practices to be implemented in perpetuity, including appropriate control of grazing and the management practices to be adopted to improve on the ecological value of the offset areas.

Integration of Management and Mitigation Measures

The Proponent would implement the following Management and Mitigation Measures to maximise the conservation of biological diversity and ecological integrity within and surrounding the Project Site.

- Rehabilitation of the Project Site would include the establishment of endemic vegetation, including groundcover and mid-storey species.
- Pest and weed eradication programs, focusing particularly on feral goats, would continue to be implemented, as required.
- Clearing of any vegetation required to be removed would be undertaken on a campaign basis to ensure that clearing is undertaken during periods when local fauna is unlikely to be nesting, roosting or over-wintering within the trees and shrubs to be cleared.

Rehabilitation and Subsequent Land Use

The final landform has been designed to provide for future use of the Project Site lands for grazing and nature conservation.

Conclusion

The Project addresses the principle of conservation of biological diversity and ecological integrity through the minimisation of disturbance to areas of native vegetation. Should threatened species be identified within those areas of the Project Site to be disturbed, these would be relocated or managed appropriately in consultation with the Office of Environment & Heritage or with a suitably qualified professional. Pest and weed eradication programs would continue to be implemented as appropriate and would further assist in addressing the Conservation of Biological Diversity and Ecological Integrity principle of sustainable development.

6.1.2.5 Improved Valuation and Pricing of Environmental Resources

The issues that form the basis of this principle relate to the acceptance that:

- the polluter pays;
- cost-effective environmental stewardship is adopted when all resources are appropriately valued; and
- the adoption of user-pays principle based upon the full life cycle of the costs.

A reflection of these issues on the Project is set out below.

Identification of Project Objectives

Given the Proponent's principal objective of the Project is the design and operation of an underground metaliferous mine in a manner that minimises surface disturbance and impact on the environment and surrounding residents, demonstrates that an appropriate value has been placed on elements of the existing environment.

Design of Project Components and Integration of Safeguards and Procedures

The extent of research, planning and design of environmental safeguards, mitigation measures and offset strategies to prevent irreversible damage to environmental resources, other than the gold ore to be mined, is evidence of the value placed by the Proponent on these resources.

Rehabilitation and Subsequent End Land Use

The design of the final landform to integrate ongoing grazing activities with the re-establishment and conservation of native vegetation illustrates the value placed by the Proponent on both the commercial and ecological elements of the Project Site.

Conclusion

The value placed by the Proponent on environmental resources is evident in the identification of Project objectives, extent of site-specific research, planning and environmental safeguards and measures to be implemented to prevent irreversible damage to the environment on and surrounding the Project Site. It is planned that the income received from the sale of the mined gold would be sufficient to enable the Proponent to achieve an acceptable profit level whilst undertaking all environmentally-related tasks and meeting all commitments in all approvals, licences and permits and those made to the local community.

6.1.2.6 Conclusion

The approach taken in planning the Hera Project has been multi-disciplinary, involved consultation with community representative groups, local residents that could be potentially affected and various government agencies, and the proposal to apply safeguards to minimise potential environmental, social and economic impacts. The design of the Project has addressed each of the sustainable development principles, and, on balance, it is concluded that the proposed Hera Project would achieve a sustainable outcome for the local and wider environment.

6.2 JUSTIFICATION OF THE PROJECT

6.2.1 Introduction

Two factors were used to decide whether the development and operation of the Project is justified. These were the predicted residual impacts on the local and wider environment and the potential benefits the Project would have for the Proponent, surrounding land owners and residents, Nymagee community, the community within the Cobar LGA, NSW and Australia. Further justification arises from the proposal by the Proponent to implement controls, safeguards and mitigation measures for impact minimisation and the incorporation of the ESD principles into the design of the Project discussed in the previous subsections.

This sub-section discusses the above in terms of biophysical and socio-economic considerations. It also discusses the consequences of the Project not proceeding.

6.2.2 Need for the Project

The Project would result in the production of approximately 33 000oz of gold, 74 000oz silver, 10 000t of lead and 10 000t of zinc per year during the 5.5 year life of the mining operations. This material would be used within Australia and elsewhere for a range of purposes. The Project would also result in a range of other economic and social benefits for the surrounding and wider community. These are further described in Section 6.2.5.

6.2.3 Biophysical Considerations

The Project would result in limited impacts to the biophysical environment within and surrounding the Project Site. These have been addressed in Section 4. The unmitigated risk ratings for the identified risk factors are presented in Section 3.4 while the mitigated risk ratings are presented in Section 6.1. This sub-section identifies the potential residual biophysical impacts of the Project, following the adoption of the identified design and operational procedures, management and mitigation measures and/or offset strategies. These residual impacts of the Project are summarised below and is based on the assumption that commitments made by the Proponent in Section 5 are implemented.

Topography

Given the Project is to be developed as an underground mine, the impact on the local topography would be restricted to the following.

- The box cut would be retained following cessation of mining, however, appropriate bunding, fencing and signage would be erected to prevent any unauthorised access and the slopes of the walls would be reduced to safe angle during decommissioning of the Project.
- The completed Tailings Storage Facility would be rehabilitated appropriately following cessation of mining. A free-draining structure, with embankment slopes of approximately 1:3 (V:H) or less, would be created in the final landform.
- Minor changes to the pre-mining landform would result following the shaping and profiling of the Surface Facilities Area following the removal of all infrastructure.

The final landform would largely replicate the pre-mining landform and would be suitable for the intended final land use of grazing and nature conservation.

Flora and Fauna

The area of disturbance to vegetation within the Project Site would be approximately 77ha and would be restricted to the following communities:

- 58.4ha of Benson 103;
- 10.2ha of Benson 103 – Bimble Box dominated;
- 1.7ha of Benson 103 – White Cypress Pine dominated;
- 1.6ha of Benson 103 – Eremophila and hopbush growth;
- 3.2ha of Benson 103 – Yarren (*Acacia hemaphylia*);
- 0.1ha of Benson 174; and
- 2.1ha of cleared/disturbed area (all areas approximate).

The potential impact of the Project on all threatened species, populations and communities identified on, or considered as having the potential to occur within the Project Site was assessed. In all cases, it was determined that the Project would not have a significant impact such that viable local populations of species or communities are likely to be placed at risk of extinction.

Groundwater Resources

The Project would result in the following groundwater-related impacts.

- Groundwater inflow during decline development.

  Groundwater would flow into the decline during development from a depth of approximately 60m below ground level (bgl). The modelled rate of this inflow would increase from nil at 60m bgl to 4.6L/s at 200m bgl. However, the actual rate of groundwater inflow is likely to be significantly less than the modelled rate of inflow once a low- or zero-recharge boundary is reached.

- Groundwater inflow at the end of mining operations.

  Groundwater modelling indicates that inflows to the completed mine would be between 12L/s and 93L/s and that the theoretical extent groundwater drawdown would be between 5 880m and 15 850m from the centre of the proposed underground mine. However, it is likely that a low- or zero-recharge boundary would be reached within 1 000m of the proposed underground mine, resulting in the actual groundwater impacts being significantly less than those modelled. In that case, groundwater inflows are likely to similar to the estimated groundwater recharge rate. Assuming that a low- or zero-recharge boundary occurs within 1 000m of the proposed underground mine, the estimated rate groundwater inflow would be approximately 0.4L/s.

- Groundwater recovery post mining operations.

  Following the completion of mining operations, groundwater levels are expected to recover to pre-mining levels gradually over a period of between 20 and 100 years

- Surrounding groundwater users.

  The Project is expected to adversely impact on standing water levels within a single non-Project-related bore (GW017386).

- Groundwater quality and groundwater dependent ecosystems.

  The Project is not expected to adversely impact on groundwater quality or groundwater dependent ecosystems within or surrounding the Project Site.

Surface Water Resources

The surface water assessment determined that the construction of a new dam (Back Tank East) and the expansion of an existing dam (Pete's Tank) would not impact on downstream flow rates or frequency of flows.

Modelling undertaken to determine the supply confidence of these two dams indicates that they would not be able to meet the operational water demands of the Project at all times. As a result, the Project would rely on groundwater to make up the water short-fall.

The proposed design and management of the Tailings Storage Facility would ensure that no leachate permeates through the walls or floor of the structure and interacts with natural groundwater or surface water.

Clean and dirty water diversion bunds will be constructed within disturbed sections of the Project Site to ensure that polluted waters do not leave the site and degrade the water quality of the receiving waters.

Noise and Blasting

Noise modelling for site establishment and operational noise scenarios demonstrate the predicted noise levels are below the relevant criteria at the four nearest residences. In addition, the traffic noise assessment concluded that road traffic noise levels would be less than the relevant criteria at all residences along the Project-transportation route.

Finally, the blasting assessment concluded that basting operations would result in air overpressure or peak ground vibration levels less than the relevant criteria at all surrounding residences.

Heritage

No sites or objects of Aboriginal or historic (non-Aboriginal) heritage significance were identified during two surveys (2004 and 2010) undertaken within the Project Site and the heritage assessment concluded that there is a low potential for averse Project-related impacts on such sites or objects.

Air Quality

The air quality assessment concluded that the potential impact on air quality at surrounding residences would be minor and would not exceed the recommended air quality goals.

For the life of the Project, it has been estimated that approximately 19,131 t CO_2-e would be released annually, corresponding to approximately 0.0112% and 0.0033% on state and national level GHG emissions level greenhouse gas emissions, respectively against the 2008 levels.

Traffic and Transportation

The Traffic assessment concluded the following in relation to Project-related traffic impacts on the surrounding road network.

- The Project would not adversely impact on the existing level of service “A” of surrounding roads.
- The proposed Main Site Access Road and Existing Site Entrance intersections would be constructed to a BAL type intersection design.
- The proposed heavy vehicle transportation route is designated for road trains and the additional heavy vehicle traffic generated by the Project would not have an unacceptable impact upon the operation of the roads along that route.

Soils and Land Capability

The management of the soil resource have been designed to ensure their proper handling and to provide the maximum opportunity for its re-use in the successful rehabilitation of the Project Site. As such, the impact associated with topsoil/subsoil removal, storage and re-use is

Visual Amenity

Based on the relative isolation of the Project Site both from surrounding residential locations and public vantage points, combined with the fact that the principal Project-related structures would be constructed to the east or south of the Peak and the proposed landscape and visual amenity related controls, it is assessed that the Project would not impact significantly on the visual amenity surrounding the Project Site.

The proposed final landform would also provide for a landscape amenable for grazing and should therefore eventually blend with the surrounding undisturbed lands.

6.2.4 Final Land Use and Landform Considerations

As indicated in Section 2.15.3, the proposed final land use would comprise agriculture and nature conservation. To facilitate the proposed final land uses, the proposed final landform would comprise the following.

- A portal that would be sealed and backfilled in a manner that would allow re-opening, in the event that mining operations re-commence in the future. The slopes of the walls of the box cut would be reduced to approximately 1:3 (V:H) through backfilling of the box cut or blast profiling of the walls, spread with soil material and revegetated.
- Two sealed ventilation rises.
- An appropriately shaped and covered, free draining Tailings Storage Facility with appropriate surface water management structures and embankment slopes of approximately 1:3 (V:H) or less.
- A shaped, covered and revegetated Surface Facilities Area and Mine Camp with infrastructure not required for ongoing land management activities removed.

In addition, the Proponent proposes to implement a Biodiversity Offset Strategy comprising a suitably sized Biodiversity Offset Area as described in Section 2.17.

The proposed final land uses would enable a beneficial use for the western section of "The Peak" where agricultural operations have previously been undertaken, with the eastern section of the property, including the Biodiversity Offset Area, providing for nature conservation and preservation of the biodiversity values of the property for future generations.

In addition, the shaped and covered Surface Facilities Area, Tailings Storage Facility and Mine Camp area would provide for ongoing benefits through use for nature conservation and agriculture respectively.

The shaped and revegetated box cut would provide for a final land use of nature conservation while allowing, together with the sealed vent rises, for the reopening of the underground mine should a future holder of the relevant mineral authority so desire.

6.2.5 Socio-economic Considerations

While the impacts summarised in Section 6.2.1 have been assessed to comply with nominated criteria or to meet accepted environmental standards, the cumulative effect of these minor impacts may have some adverse effect on the amenity of the local setting reflected in a reduction in the socio-economic setting.

An objective assessment of this impact on local amenity is difficult as what one person may consider as acceptable, may not be acceptable to another person (and vice versa). However, based on experience obtained from the assessment of similar mining developments, it is noted that the perceived impact of a project on local amenity is generally far greater than the actual impact. With respect to the Project, where all biophysical impacts are assessed as complying with nominated criteria or standards, it is considered unlikely for impacts on local amenity to be unacceptable to a reasonable person.

An assessment of the potential socio-economic impacts (both adverse and beneficial) undertaken in Section4.14 demonstrates the beneficial impacts of the Project far outweigh any minor adverse impacts associated with the operations. These benefits are objectively verifiable and are discussed below.

The Project would provide several economic benefits to the local and regional socio-economic setting, including the following.

- Direct full-time employment for approximately 100 full-time equivalent positions during the site establishment and approximately 100 full-time equivalent positions during the operational phase of the Project.
- Employees would preferably be sourced from within the Cobar local government area (LGA), and even if drawn from further afield, would be encouraged to reside locally.

Increased employment opportunities associated with the Project would have additional flow-on benefits including:

- the provision of new employment would provide an impetus to other local businesses;
- contribution of $15 million per year to the local and regional economy through wages and purchases of local goods and services; and
- support of local community services and projects.

The Project would provide for the continued diversification of development / industry in the Cobar LGA which would lead to increased training and employment opportunities for the residents of the LGA.

The socio-economic benefits of the Project would also flow through to the economies of NSW and Australia. It is anticipated that the Project would contribute:

- approximately $25 million per year to the State and national economy through purchases of goods and services within NSW and Australia; and
- approximately $3 million per year to the local, State and national governments through the payment of rates, taxes and royalties.

The Proponent would remain accountable for managing the Project in a manner that complies with the nominated environmental criteria and meets reasonable community expectations. A comprehensive monitoring program would be established to demonstrate compliance with environmental criteria, and liaison with both official and unofficial community representation would continue to address community concerns as they arise.

6.2.6 Planning Considerations

6.2.6.1 Introduction

This sub-section reviews the compliance of the Project with local and State planning instruments. It is noted that whilst the relevance of these instruments may change in the future, the following represents the application of these in their current form to the Project as described in Section 2.

6.2.6.2 Permissibility

Mining is permissible within the Project Site by virtue of its location within Zone 1(a) (General Rural) of the Cobar LEP 2001 which identifies mining as being permissible with consent.

6.2.6.3 Environmental Planning Considerations

State Environmental Planning Policy (SEPP) (Mining, Petroleum Production and Extractive Industries) 2007

The SEPP specifies matters requiring consideration in the assessment of any mining, petroleum production and extractive industry development, as defined in NSW legislation. **Table 3.3** presents a summary of each element requiring consideration and a reference to the section in the *Environmental Assessment* where this is addressed.

State Environmental Planning Policy (Rural Lands) 2008

Clause 12 of this SEPP aims to provide for the protection of agricultural land. The land that would be affected by the Project has not been identified as State or regional significant agricultural land by Schedule 2 of the Rural Lands SEPP, the Project activities would not be incompatible with continued agricultural land use surrounding the Project Site, and the protection of the land within the Project Site would not provide any public benefit. In fact In fact, the employment and local economic stimulus that would be generated by the Project would be of far greater public benefit than the current grazing.

State Environmental Planning Policy No. 33 – Hazardous and Offensive Development (SEPP 33)

The transport, storage and use of sodium cyanide required a *Preliminary Hazard Analysis* (PHA) under the SEPP 33 (in accordance with DoP, 2008) to be conducted (see **Appendix 4**). The PHA confirms that, with the implementation of various safeguards and controls, the risks associated with sodium cyanide would be reduced to a Tolerable level. The Project does not represent a hazardous industry and hence compliance with SEPP 33 for the Project is adequate.

State Environmental Planning Policy No. 44 – Koala Habitat Protection (SEPP 44)

Cobar Local Government Area has not been identified in Schedule 1 of *State Environmental Planning Policy No. 44 – Koala Habitat Protection* as an area that could provide habitat for koalas. The ecology assessment (OzArk (2011a)) has confirmed that no habitat species listed in Schedule 2 of SEPP 44 is found within the Project Site. No Koala Management Plan is therefore required.

6.2.7 Consequences of not Proceeding with the Project

The consequences of not proceeding with the Project include the following.

- The recoverable resource would not be mined. Such an outcome would be contrary to the objective of the NSW Department of Primary Industries relating to resource utilisation.
- The opportunity to create up to approximately 100 full-time equivalent positions during the construction phase of the Project, and up to approximately 100 full-time equivalent positions during the operational phase would be foregone.
- The contribution of $15 million per year to the local and regional economy through wages and purchases of local goods and services would be foregone.
- Approximately $3 million per year in rates, taxes and royalties would be foregone to the local, State and national governments annually.
- Approximately $25 million per year would be contributed to the State and national economy through purchases of goods and services within NSW and Australia.
- The opportunity to re-establish an industry historically associated with the Cobar region would be foregone, along with the training opportunities proposed by the Proponent. This loss of training opportunities would also reduce the ability of the local communities including Nymagee to retain younger people who generally are lost from regional communities to pursue opportunities elsewhere.
- The minor impacts on the local biophysical environment would not eventuate.

It is considered that the benefits of proceeding with the Project therefore far outweigh the minor impacts on the environment that would result.

6.3 CONCLUSION

The proposed Hera Project has been designed, as far as practicable, to address the issues of concern to the community and all levels of government. The Project provides for the recovery of valuable gold resources which would contribute significantly to the economies of NSW and Australia. The final landform would be constructed to sustain grazing and/or nature conservation.

The *Environmental Assessment* and the supporting specialist consultant studies have identified that the Project is able to undertaken with minimal impacts on the environment by adopting mitigation measures. The Project design and the proposed implementation of a range of environmental controls and safeguards would:

- satisfy sustainable development principles;
- operate with low risks to the local environment;
- have a minimal and manageable adverse impact on the biophysical environment;
- have a substantial positive impact on the local and wider regional and NSW socio-economic environment;
- contribute to the continued economic activity of Cobar LGA; and
- provide a site suitable for future grazing or nature conservation.