Alpha Coal Project Environmental Impact Statement

F List of Proponent Commitments





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APPENDICES

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### **Section F List of Proponent Commitments**

The Terms of Reference (TOR) requires a list of all commitments made by Hancock Prospecting Pty Ltd (HPPL) in the Environmental Impact Statement (EIS), together with a reference to the relevant section of the EIS. As the Alpha Coal Project comprises of two components (a coal mine and a railway line), the tables in the sub-sections that follow list HPPL Commitments grouped into sections reflective of the EIS structure and are further divided by those listed out as part of the Mine and those related to the Railway.

#### F.1 Mine

#### F.1.1 Introduction

Relevant Section in Coal Mine EIS
Volume 2, Section 1.10
Volume 2, Section 1.10.2.2.3
Volume 2, Section 1.10.2.2.3
Volume 2, Section 1.10.2.2.3
Volume 2, Section 1.10.2.6
Volume 2, Section 1.10.2.14

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### F.1.2 Project Description

Proponent Commitment	Relevant Section in Coal Mine EIS
Where necessary all licences and permits will be obtained as per legislative requirements prior to commencing the applicable works. All construction activities will comply with legislative and industry standards.	Volume 2, Section 2.3
Due to the close vicinity to Lagoon Creek all critical infrastructure are to be located at least 0.5 m above the predicted 1 in 3,000 year flood inundation level.	Volume 2, Section 2.3
All structures, buildings and infrastructure within MLA 70426 currently in-use by local landholders will be acquired and then removed as necessary. The proponent will consult with affected landowners and other third parties to develop an appropriate relocation plan.	Volume 2, Section 2.3.1
After construction, the contractors will be required to clear all construction waste, equipment and plant as per their construction environmental management plan (EM Plan). Disturbed areas that are not proposed to be utilised for project related activities will be rehabilitated.	Volume 2, Section 2.3.3
Construction personnel will most probably work 21 days on, 7 days off. Programmed shifts will be 10 to 12 hours duration, daytime only. Night-time shifts may be required.	Volume 2, Section 2.5.1
The construction and operational workforce will be managed through a fatigue management policy covering FIFO, DIDO and BIBO transport options. No personnel will be required to work more than 14 hours in any 24 hour period, including driving (DIDO).	Volume 2, Section 2.5.1.1
<ul> <li>There will be a number of different operational shift rosters, these are:</li> <li>five days on, two days off, day shift roster;</li> <li>a ten days on, four days off roster, day shift roster;</li> <li>seven days on, seven days off, seven nights on, seven days off, being a four panel roster. These will be 12 or 12.5 hour shifts. Shift change will occur at 6:00 or 7:00 am/pm, however shift change times may vary seasonally to suit daylight hours; and</li> <li>operational staff shift change will be split over 3 days.</li> </ul>	Volume 2, Section 2.5.1.2

#### F.1.3 Climate

No Proponent commitments.

### F.1.4 Geology

Proponent Commitment	Relevant Section in Coal Mine EIS
Good surface water drainage control will be essential to prevent ponding of water as well as traffic-ability and handle-ability problems. Consideration of the puggy claystone or clay matrix sandstone within the interburden must be given when considering high wall slope angles.	Volume 2, Section 4.9.2

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Proponent Commitment	Relevant Section in Coal Mine EIS
The coal handling and storage areas will require attention to detail to prevent spontaneous combustion (Salva, 2010). Management must include consideration of wind direction, the use of coal wetting systems, and possible burial.	Volume 2, Section 4.9.7
Should significant fossil specimens be identified within the mine then steps will be taken to secure and protect the fossils. The Queensland Museum will be notified to allow for the identification and correct preservation and removal.	Volume 2, Section 4.9.10
The mine will develop a closure plan to minimise the impacts and rehabilitate the overburden and soils to restore to pre-mining land use.	Volume 2, Section 4.9.12

### F.1.5 Soils, Topography and Land Disturbance

Proponent Commitment	Relevant Section Coal Mine EIS
A detailed erosion and sediment control plan (ESCP) will be developed prior to the commencement of construction works.	Volume 2, Section 5.1.3.2
One of the primary design aspects of the Project is the minimization of clean water in ephemeral drainage channels entering the active disturbance area. This will be achieved through the use of levees, cut-off drains, dams and diversions, as well as the containment of dirty water in sediment dams within the active areas of the Project to limit any uncontrolled runoff.	Volume 2, Section 5.1.3.2
Effective erosion and sediment control for the Project site will require appropriate activities to be carried out over the life of the Project including:  Construction;  Operations; and Rehabilitation and Closure.	Volume 2, Section 5.1.3.2
Sediment dams will be provided to intercept as much runoff from the overburden dump as practical. The eastern portion of the overburden dump drains east, and sediment dams will intercept dirty runoff before it reaches Lagoon Creek.	Volume 2, Section 5.1.3.2
Regular erosion monitoring of the rehabilitation areas will be required during the vegetation establishment period, to demonstrate whether the objectives of the rehabilitation strategy are being achieved and whether a sustainable landform has been provided.	Volume 2, Section 5.1.3.3
In addition to rehabilitated areas, reference sites will be monitored to allow a comparison of the development and success of the rehabilitation against a control. Reference sites indicate the condition of surrounding un-mined areas that the mine site must replicate.	Volume 2, Section 5.1.3.3

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#### F.1.6 Land Use and Tenure

Proponent Commitment	Relevant Section in Coal Mine EIS
<ul> <li>Only the minimum land required for the safe operation of the Project is proposed to be cleared</li> <li>Land to be cleared will be surveyed and marked out prior to clearing and signed off by an appropriate person as defined in the ESCP, to ensure no significant areas are inadvertently disturbed;</li> <li>The disturbed area of the Project will be rehabilitated progressively where possible; and</li> <li>Mine rehabilitation will aim to return the land to the pre-mining land suitabilities;</li> </ul>	Volume 2, Section 6.2.5.4
If required, the Proponent will submit development applications to the relevant local authority (that is the Barcaldine Regional Council) for any off lease activities requiring their approval. The development applications will be supported by this EIS and other information required to be provided with each application.	Volume 2, Section 6.3
Methodologies for the rehabilitation / re-vegetation will use the most appropriate species for the landscape elements. Such methodologies will include habitat matching of species to ensure rehabilitation success.  Clearing of vegetation in the area of Lagoon Creek will be minimised where possible to maintain habitat connectivity and provide a movement corridor for small, terrestrial fauna species.  Pest and weed control strategy to address threat of pests and diseases will be developed.	Volume 2, Section 6.3.2.1 Table 6-8
A proposed water management strategy will address sustainable use of water resources while maintaining environmental values.	Volume 2, Section 6.3.2.1 Table 6-8
Pest and weed control strategy to address threat of pests and diseases will be developed.	Volume 2, Section 6.3.2.1 Table 6-8
An EM Plan will be implemented to minimise any adverse impacts on air and water quality, to prevent land degradation, loss of habitat and biodiversity and to protect riparian areas.	Volume 2, Section 6.3.3 Table 6-9
The accommodation village will be removed at the end of the Project to promote successful rehabilitation of MLA 70426.	Volume 2, Section 6.3.3 Table 6-9
All Project infrastructure within MLA 70426 will be developed to meet current standards.	Volume 2, Section 6.3.3 Table 6-9
As part of the Project, it is proposed that the existing Hobartville Road within MLA 70426 will be closed to public traffic and relevant bypasses will be constructed to facilitate traffic flow.	Volume 2, Section 6.3.5

### F.1.7 Landscape Character

Proponent Commitment	Relevant Section in Rail EIS
Areas of remnant woodland vegetation within the Project area and those which are beyond the primary disturbance area, will be retained where possible.	Volume 2, Section 7.16.1
Proactive management of natural regeneration will be used as a	Volume 2, Section 7.16.2

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Proponent Commitment	Relevant Section in Rail EIS
method of providing additional screening of mine infrastructure in a number of locations within the Project area.	
To reduce the extent of visibility, the colour contrast and reflectivity of materials and finishes will be taken into account when selecting construction materials, with the aim of minimising any potential visual impacts.	Volume 2, Section 7.16.3
Work programs will also be arranged, where possible, so that some activities to be carried out across surface areas of the mine that may be visible from surrounding view locations, occur within daylight hours of operation.	Volume 2, Section 7.16.4
Shielding lights with hoods and louvers where practicable	Volume 2, Section 7.16.4

#### **F.1.8** Land Contamination

Proponent Commitment	Relevant Section in Coal Mine EIS
Prior to any development of the Project site taking place, the mining plan of operations will be compared to the locations of the identified areas of potential contamination. A protocol will be developed to further assess (and manage as required) these areas in accordance with DERM's Draft Guidelines for the Assessment and Management of Contaminated Land in Queensland (DERM, 1998). These assessments will include site inspections as deemed necessary and possible soil and groundwater testing where required.	Volume 2, Section 8.3.2
Stockpiles, workshop areas, chemical stores, fuel tanks and waste disposal/storage areas will be located on hardstand or compacted soil.	Volume 2, Section 8.3.2
Relevant Australian Standards (e.g. for the storage and handling of flammable and combustible liquids and dangerous goods) will be complied with, and all chemical and fuel storage areas will include secondary containment (bunding).	Volume 2, Section 8.3.2
Where possible, hazardous chemicals and materials will be replaced with less harmful alternatives. Material Safety Data Sheets (MSDSs) for chemicals used or brought to the site will be kept in a central register on site and at the area of use and be readily available to workers at all times.	Volume 2, Section 8.3.2
Putrescible waste will be disposed of on site into an approved engineered landfill (refer to Volume 2, Section 16). Site personnel will be trained in the operation and procedures for this installation to reduce the potential for unauthorised waste disposal at this site.	Volume 2,Section 8.3.2
Spills will be cleaned up as soon as possible. In particular, designated site vehicles and appropriate facilities will be equipped with appropriate spill kits. For significant chemical or fuel spills, the site emergency response plan will be followed and the appropriate authorities notified as soon as possible.	Volume 2, Section 8.3.2
Detailed records will be kept of any activities or incidents that have the potential to result in land contamination. Records will be kept in an inventory that contains information on storage locations, personnel training, monitoring data, and disposal procedures for appropriate chemicals, fuel and other potential contaminants used	Volume 2, Section 8.3.2

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Proponent Commitment	Relevant Section in Coal Mine EIS
on site. Records will be maintained by the Proponent and made available to relevant authorities on request. Regular inspections of containers, bund integrity, valves and storage and handling areas will be carried out by suitably qualified personnel.	
All staff will be trained as part of their site induction in appropriate handling, storage and containment practices for chemicals, fuel and other potential contaminants, as relevant.	Volume 2, Section 8.3.2
All mine waste and rejects identified as potential acid generating or potentially harmful to the environment will be handled in accordance with the strategies outlined in Volume 2, Section 16 of this EIS. These mitigation measures will include the adequate containment of the tailings material to prevent potential groundwater and surface water impacts, as well as the appropriate management of any potential ARD material to reduce the potential for acidification and resultant groundwater and surface water impacts.	Volume 2, Section 8.3.2

### F.1.9 Terrestrial Ecology

Proponent Commitment	Relevant Section in Coal Mine EIS
A trained ecologist or other suitably qualified environmental field supervisor will precede or accompany clearing crews when clearing significant vegetation, in order to ensure disturbance to rare, threatened or other significant fauna is minimised.	Volume 2, Section 9.1.2.2.2
The design, location and construction of such infrastructure will meet the following performance criteria:  1. No vegetation communities listed as endangered at either the Commonwealth or State level will be affected, where suitable alternatives exist;  2. Impacts on State-listed vegetation 'of concern' will be minimised; 3. Fragmentation of remnants of vegetation/habitat will be avoided; 4. Disturbance will be located at the edge of existing remnants; and 5. Where possible, access tracks and other infrastructure will be located in areas that have already been disturbed.	Volume 2, Section 9.1.2.2.2
Methodologies for the rehabilitation / re-vegetation works of the Project will use the most appropriate species for the landscape elements of the site. Such methodologies will include habitat matching of species to ensure rehabilitation success.	Volume 2, Section 9.1.3.2.3
Species chosen for re-vegetation will be selected from the dominant flora of each community and will be matched with final land use. Seeding of as many species as possible will be undertaken at each rehabilitated site, in order to promote more rapid recovery of the local vegetation and lasting groundcover.	Volume 2, Section 9.1.3.2.3
Recreated landforms will be contoured to resemble original regional topographic where possible	Volume 2, Section 9.1.3.2.3
Reference monitoring sites will be established and maintained, prior to any disturbance taking place.	Volume 2, Section 9.1.3.2.3
Declared weed species will be treated per the relevant Queensland Department of Employment, Economic Development	Volume 2, Section 9.1.3.2.4

Proponent Commitment	Relevant Section in Coal Mine EIS
and Innovation (DEEDI) fact sheet for each particular species.	
A weed management plan must be developed and implemented prior to the commencement of construction activities. The weed management plan must describe how the weeds are to be managed in accordance with the Land Protection (Pest and Stock Route Management) Act 2002 and/or local government requirements for weeds not declared under state legislation.	Volume 2, Section 9.1.3.2.4
Proposed weed management strategies include:	Volume 2, Section 9.1.3.2.4
The present location of weeds will be highlighted and a comprehensive weed spraying program be implemented, prior to the commencement of works. Declared weed species will be treated per the relevant Queensland Department of Employment, Economic Development and Innovation (DEEDI) fact sheet for each particular species;	
<ul> <li>Monitoring in the form of annual observations by site personnel for weeds of management concern will be undertaken. These will also be conducted following significant rain events particularly in disturbed areas, roadsides, riparian zones and wash down facilities once safe access can be provided;</li> </ul>	
<ul> <li>Wash down facilities will be constructed at access points for vehicles arriving and departing from the Project site. These facilities will be bunded and located away from drainage lines to minimise the risk of weed spread;</li> </ul>	
<ul> <li>All vehicles entering the Project site and leaving properties known to contain declared weeds will be thoroughly washed down before entering clean areas; ensuring wheels, wheel arches and the undercarriage are free of mud and plant material;</li> </ul>	
<ul> <li>Radiators, grills and vehicle interiors will be cleaned for accumulated seed and plant material;</li> </ul>	
<ul> <li>All materials will be certified as weed-free prior to acceptance on-site;</li> </ul>	
<ul> <li>Soil and fill material from weed-affected areas will not be transported to clean sites. Minimising soil disturbance has the potential to limit the ability of weeds to become established;</li> </ul>	
<ul> <li>If weeds of management concern are identified, they will be eradicated from the site in accordance with local best management practice from the Burdekin Dry Tropics Regional Pest Management Strategy (Maunsell Australia Pty Ltd, 2008) and / or the DEEDI Pest Fact Sheets (DEEDI, 2007);</li> </ul>	
Monitoring of rehabilitated areas will be ongoing until the completion criteria have been met for the entire area of disturbance.	Volume 2, Section 9.1.3.2.5
Reference sites and rehabilitated sites will be assessed for quantitative data, including:	Volume 2, Section 9.1.3.2.5
Plant and litter cover;	
Plant density and species composition;	
Presence and abundance of weeds; and	
Soil erosion.	
Species chosen for rehabilitation will be locally indigenous and match soil type and land forms. The ground layer will be well	Volume 2, Section 9.1.3.2.5

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Proponent Commitment	Relevant Section in Coal Mine EIS
established, to provide habitat and forage for fauna. The established ground layer will also aid in restoring ecosystem processes. The shape of rehabilitated areas will have a larger width, to reduce edge effects. Positioning of the rehabilitated area will aim to increase opportunity for re-colonisation of plant species, build on the existing natural vegetation and provide a sanctuary away from known sources of mine disturbance.	
The Project will probably significantly increase the light intensity in affected areas; however, these lights will not be directed into riparian habitat, thus increases in overall levels of illumination for these habitats will be minimal.	Volume 2, Section 9.1.4.2.1
Native vegetation removal will be conducted only after the areas to be cleared have been clearly delineated and identified to equipment operators and supervisors. Care will be taken to minimise harm to affected fauna communities by employing environmental staff to inspect the vegetation to be disturbed prior to clearing to ascertain whether any fauna are present. If fauna is present, the individual or group will given the opportunity to move on before clearing occurs. Clearance from environmental staff will be obtained prior to disturbance in the area.	Volume 2, Section 9.1.4.2.4
In order to maintain the integrity of vegetated land that is not cleared, appropriate erosion and sediment controls will be implemented to prevent sediment erosion or deposition in remaining habitat.	Volume 2, Section 9.1.4.2.4
Fauna spotters will conduct a thorough survey of the site prior to any vegetation clearing to determine the location of any Squatter Pigeon nests. Particular attention will be given to areas of short dry grass, grass tussocks and under bushes and fallen logs. If nests are located, translocation of the eggs/young will be conducted by qualified personnel to a suitable nearby habitat.	Volume 2, Section 9.1.4.2.5
Project persons operating vehicles in and adjacent to the Project site will be made aware of the presence of this threatened species and the potential for it to be encountered on vehicle tracks.	Volume 2, Section 9.1.4.2.5
Roost trees and dead stag trees of the Little Pied Bat ( <i>Chalinolobus picatus</i> ) will be preserved where practicable (in their entirety or in part) and if possible, the population of this species monitored prior to vegetation clearance.	Volume 2, Section 9.1.4.2.5
Measures to assist with control of the Feral Cat (Felis catus) will be applied in areas where the Squatter Pigeon Geophaps scripta scripta) is known to reside. A section of the staff induction program will be dedicated to raising awareness of this avian species, including photos, descriptions and areas of preferred habitat	Volume 2, Section 9.1.4.2.5
Under the LP Act, land managers must take reasonable steps to control numbers of Class 2 Pests on their land. A Pest Management Plan will be developed to control pest fauna on the Project site.	Volume 2, Section 9.1.4.2.6

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#### F.1.10 Aquatic Ecology and Stygofauna

Proponent Commitment	Relevant Section in Coal Mine EIS
Works to divert Lagoon Creek will be conducted when minimal (if any) water is present (preferably during the dry season) to reduce impacts to fish movements.	Volume 2, Section 10.2.4.2
Flood protection levees will be installed upstream and along the length of the diversion.	Volume 2, Section 10.2.4.1
Clearing of riparian vegetation for the proposed creek diversion will be conducted in a staged manner, to allow fauna to migrate to adjacent habitat areas.	Volume 2, Section 10.2.4.2
Creek diversion rehabilitation will be monitored to ensure the vegetation is stable and self-sustaining.	Volume 2, Section 10.2.4.2
No contaminated mine water or process water will be discharged from the Project site.	Volume 2, Section 10.2.4.3
Any mine and process water will (where possible) be contained within a closed-loop system.	Volume 2, Section 10.2.4.3
Sediments traps will be designed and installed downstream of all land disturbances (such as water storage dams) in order to remove sediment from storm water which flows over such land disturbances.	Volume 2, Section 10.2.4.3
A water quality, sediment quality and aquatic-fauna monitoring program will be initiated and continued throughout the Project life. This program will ensure the early detection and recording of Project impacts upon local surface water courses, thereby allowing mitigation strategies to be altered or developed.	Volume 2, Section 10.2.4.3
A water quality monitoring program will be initiated and continued throughout the Project life. The program will include:	Volume 2, Section 10.2.4.3
<ul> <li>Establishment and regular sampling (when possible) of upstream Lagoon Creek;</li> </ul>	
<ul> <li>Sampling of downstream of Lagoon Creek. Data from these sources will provide background water quality levels for comparison with downstream values;</li> </ul>	
Sampling of a variety of physio-chemical parameters;	
<ul> <li>The downstream results will be compared with those produced for upstream locations (which lie outside the impact area and the proposed creek diversion workings); and</li> </ul>	
If the quality of water leaving the Project site deteriorates and is found to exceed background water-quality trigger values (i.e. ANZECC water quality values), then the Proponent shall investigate the cause of such deterioration and report the results to DERM.	
A sediment quality monitoring program will be initiated and continued throughout the Project life.	Volume 2, Section 10.2.4.3
An aquatic fauna monitoring program will be initiated and continued throughout the Project life:	Volume 2, Section 10.3.4.4
<ul> <li>Annual sampling of aquatic fauna species (both vertebrate and invertebrate) following a significant rainfall event;</li> </ul>	
Documentation of aquatic diversity and abundance;	
Inclusion of both downstream and upstream sampling	

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Proponent Commitment	Relevant Section in Coal Mine EIS
<ul> <li>locations, plus representative lacustrine and palustrine wetlands;</li> <li>Collection and analysis of water quality at pre-determined monitoring locations including all identified aquatic environments; and</li> <li>Identification of sensitive species / habitat that could be used as indicators of stream health.</li> </ul>	
A Weed Management Plan will be developed to limit the spread of these species on the Project site. Staff will be informed of the species of weed likely to be encountered, the location of known weed infestations (particularly Parthenium) and how to report the presence of new infestations.	Volume 2, Section 10.3.4.5
Measures to control the spread of these weeds (Velvety Tree Pear (Opuntia tomentosa); Parkinsonia (Parkinsonia aculeate); Parthenium (Parthenium hysterophorus) and Lantana (Lantana camara) including vehicle washdowns will be adopted across the Project.	Volume 2, Section 10.3.4.5
Any mine and process water will (where possible) be contained within a closed-loop system and recycled. No contaminated mine water or process water will be discharged from the Project site to the environment;	Volume 2, Section 10.5

#### F.1.11 Surface Water

Proponent Commitment	Relevant Section in Coal Mine EIS
Site specific baseline monitoring will be conducted to manage this potential uncertainty and will include reference site and impact site monitoring and biological indicator monitoring within an overall Receiving Environment Monitoring Program (REMP).	Volume 2, Section 11.4.6.2
All sewage waste generated during the project is to be collected and treated to Class A effluent quality on site.	Volume 2, Section 2.2.8 and Section 11.5.4
Sewage from the MIA, CHPP and accommodation village will be collected and conveyed to a package sewage treatment plant (STP) and the effluent disposed to the tailings decant dam. Solids by-products from STP will be removed by a contractor and transported to a licensed disposal facility. Sewage from the remote dragline construction site and the run of mine (ROM) dump stations will be collected in septic tank systems and trucked back to the STP for treatment.	Volume 2, Section 11.5.4
Storm water design (around the accommodation village) will be undertaken in accordance with the Queensland Urban Drainage Manual (DERM 2007), Australian Runoff Quality – A guide to water sensitive urban design (2005), and requirements of the local Regional Council	Volume 2, Section 11.5.4.1
The creek diversion active channels (low flow channel) will be designed with lengths at least equal to the reach of the existing stream active low flow channel. The upstream and downstream bed levels will be designed to match the existing stream bed	Volume 2, Section 11.5.5.2

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Proponent Commitment	Relevant Section in Coal Mine EIS
levels.	
An active (low flow) channel will be provided within a high flow channel of each creek diversion.	Volume 2, Section 11.5.5.2
A high flow (flood) channel will be provided to convey flows up to a 50 year ARI event for each creek diversion.	Volume 2, Section 11.5.5.2
Diversions will be vegetated prior to commissioning.	Volume 2, Section 11.5.5.2
The diversion active channels will allow for replication of substrate conditions similar to the existing stream substrates of significance for geomorphic processes, water quality, vegetation, and aquatic habitat features as required.	Volume 2, Section 11.5.5.2
Hydraulic performance including channel velocities, stream power and shear stress will limited to the guideline criteria in the DERM Central West Water Management and Use Regional Guideline – Watercourse Diversions, Table 1.	Volume 2, Section 11.5.5.2
All of the physical works extents of the proposed stream diversions will be contained with the MLA 70426 boundary.	Volume 2, Section 11.5.5.3
Discussions will be held with DERM during the detailed design phase to agree on an appropriate risk based level of flood protection.	Volume 2, Section 11.5.6.2
HPPL will implement a Water Management System to manage water flows onto, within and from the site in order to safeguard mine operations and protect downstream water quality	Volume 2, Section 11.5.7
The proposed controlled discharge criteria will only allow discharges to occur when the upstream flow in Lagoon Creek equals or exceeds 1 m³/s. The proposed criteria will limit the discharge rate to 20% of the upstream Lagoon Creek flow ie the minimum volumetric dilution of the discharge is to be 1:5. This will be used to control the loading of the discharge relative to the stream flow so that the downstream EC values remain below the maximum guideline level.	Volume 2, Section 11.5.7.5
Mine water from the contaminated mine water system will not be used for dust suppression of the section of the heavy vehicle access road that traverses across Lagoon Creek	Volume 2, Section 11.5.7.10
Baseline and ongoing surface water monitoring programs will be implemented	Volume 2, Section 11.7.1
A comprehensive monitoring program for the proposed stream diversions will be developed and implemented.	Volume 2, Section 11.7.2
HPPL will develop and implement an Erosion and Sediment Control Plan, to be in place prior to commencement of construction works.	Volume 2, Section 11.6.2.1 Volume 5, Section 8 Table 8.1

### F.1.12 Groundwater

Proponent Commitment	Relevant Section in Coal Mine EIS
A groundwater monitoring program will be developed and	Volume 2, Section 12
implemented.	

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Proponent Commitment	Relevant Section in Coal Mine EIS
<ul> <li>Surface water features shown on Figure 12-4 include:</li> <li>An area of palustrine wetland, which is interpreted to be a perennial water feature, and which will be monitored to establish whether the feature is groundwater dependent</li> </ul>	Volume 2, Section 12.7
Figure 12-6 illustrates the location of Properties for which Bore Survey will be undertaken	Volume 2, Section 12.8.2.1
The bore census was scheduled to be undertaken in September and will take several months due to access issues and data collection requirements. The results will be included as an addendum to the hydrogeological technical study report (Volume 5 Appendix G). Information that will be sought during the bore survey includes:  • Bore construction details (diameter, materials, depth, screened interval, aquifer screened, etc.);  • Pump details (pump type, setting depth);  • Bore yield (operating pumping rate);  • Bore usage patterns (frequency and duration of use, purpose of taking water);  • Water level (static water level and operating water level); and  • Water quality.	Volume 2, Section 12.8.2.2
<ul> <li>Within the region where the MLA is sited, potential for groundwater discharge has been identified in the following areas:</li> <li>Discharge to an area of palustrine wetland on Lagoon Creek. It is not possible to prove or disprove that the feature is groundwater dependent with data available, so the feature will require further investigation (via construction of groundwater monitoring bores, monitoring of water levels in the surface water feature, and water quality analysis).</li> </ul>	Volume 2, Section 12.8.5.1
Numerical regional groundwater modelling to assess the long-term groundwater impacts of the operation, including final void modelling studies. This modelling is ongoing, and will be finalised once additional information regarding adjacent mining activities have been included, to allow for an assessment of cumulative impacts. The results of the modelling will be made available as an addendum to the hydrogeological technical report (Volume 5 Appendix G).	Volume 2, Section 12.9.1
<ul> <li>Modelling of the final void will be undertaken to make prediction of:</li> <li>Average final void water level and maximum water level under a range of climatic conditions;</li> <li>Long-term water quality (in terms of salinity) within the final void;</li> <li>Decant potential / risk;</li> <li>Final groundwater drawdown cone / zone of influence; and</li> <li>Long term impacts on surface water systems.</li> </ul>	Volume 2, Section 12.9.8

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### F.1.13 Air Quality

Proponent Commitment	Relevant Section in Coal Mine EIS
There are currently two other residences within the study area (Hobartville and Wendouree homesteads). However these two residences are within the boundary of MLA 70426 and will be most likely acquired by the Proponent.	Volume 2, Section 13.2.1
Dust control measures that will be implemented on site have been identified by the Proponent. These consist of a mixture of engineering controls (such as partial enclosure of conveyors) and control measures (such as watering of haul roads and stockpiles).	Volume 2, Section 13.2.2.3
Rehabilitation of exposed surfaces will be undertaken progressively as mining and stockpiling activities are completed.	Volume 2, Section 13.4.3
Operational procedures set out how the Project is to be operated in order to meet targets for air quality performance. In relation to air quality, the following procedures will be incorporated into the site operational procedures:  • Use of water trucks to achieve sufficient watering of haul roads and other high-risk areas. The schedule for truck use will be	Volume 2, Section 13.4.4
<ul> <li>developed for the Project and will incorporate consideration of recent rainfall and weather conditions;</li> <li>Use of water sprays as required with additional use as</li> </ul>	
<ul><li>determined by ambient conditions;</li><li>Maintenance of water spray equipment and engineering</li></ul>	
controls to minimise dust emissions; and	
<ul> <li>Sufficient number of watering trucks to allow for continuation of dust suppression when one or more truck is out of service;</li> </ul>	
These procedures will be incorporated into the site Environmental Management Plan (EM Plan). The EM Plan will be regularly audited to ensure that these key elements for air quality management are satisfied.	
The outcomes of the ambient monitoring program outlined in Volume 2 Section 13.4.5.3, will be used by the Proponent to determine whether the mine's operations are contributing to excessive dust levels at nearby residential locations. The Proponent will take action to avoid adverse impacts on air quality at nearby receptor locations. The monitoring data will be used to provide an indication of excessive off-site dust levels that may be attributable to the mine's operations in order that appropriate and effective corrective actions can be identified and implemented.	Volume 2, Section 13.4.5
Ambient air monitoring will be conducted in accordance with and/or in consideration of:	Volume 2, Section 13.4.5.1
<ul> <li>AS/NZS 3580.1.1:2007, Methods for sampling and analysis of ambient air – Guide to siting air monitoring equipment;</li> </ul>	
<ul> <li>AS/NZS 3580.9.10:2006, Methods for sampling and analysis of ambient air Method 9.10: Determination of suspended particulate matter— PM<sub>2.5</sub> low volume sampler— Gravimetric method;</li> </ul>	
<ul> <li>AS/NZS 3580.9.9:2006, Determination of suspended particulate matter – PM<sub>10</sub> Low volume sampler – Gravimetric method;</li> </ul>	
AS/NZS 3580.9.3.2003 Determination of suspended particulate matter-Total suspended particulate matter (TSP) -	

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Proponent Commitment	Relevant Section in Coal Mine EIS
<ul> <li>High volume sampler gravimetric method;</li> <li>AS/NZS 3580.9.6:2003, Methods for sampling and analysis of ambient air – Determination of suspended particulate matter – PM<sub>10</sub> High Volume sampler with size selective inlet - Gravimetric method;</li> <li>AS/NZS 3580.10.1:2003, Methods for sampling and analysis of ambient air – Determination of ambient air - Determination of suspended particulate matter – Deposited matter – Gravimetric method;</li> <li>Queensland Government, Air Quality Sampling Manual; and</li> <li>A method determined in consultation with the QLD DERM.</li> </ul>	
Due to the level of impacts predicted at the location of Receptor 8 and Receptor 9, meteorological data (from their corresponding monitoring locations D and E) (Figure 13-9) will be incorporated into the site based EM Plan in order to ensure that dust impacts at these locations are minimised as far as practicable.	Volume 2, Section 13.4.6
As part of the Proponent's community consultation program, discussions are continuing with landowners and occupiers in the vicinity of the project site, including those noted in Volume 2, Section 13.2.1. The discussions will include the provision of information from the air quality assessment and the provision of additional relevant information as the implementation plans for the project are further developed. The discussions will include appropriate compensation arrangements to ensure the land holders specific requirements are properly satisfied.	Volume 2, Section 13.4.7
The project will achieve and maintain the level of dust control outlined in the EA.	Volume 5, Appendix P Section P3.3.9
The project will meet the Ambient Air Monitoring program requirements.	Volume 5, Appendix P Section P3.3.9
The project will investigate all substantiated dust complaints.	Volume 5, Appendix P Section P3.3.9
The project will implement corrective action resulting from complaints investigations as required.	Volume 5, Appendix P Section P3.3.9
All monitoring and sampling techniques will be consistent with the DERM's Air Quality Sampling Manual and applicable Australian Standards	Volume 5, Appendix P Section P3.3.9

### F.1.14 Greenhouse Gas Emissions and Climate Change

Proponent Commitment	Relevant Section in Coal Mine EIS
Under the Carbon Pollution Reduction Scheme (CPRS), entities in covered industries that directly emit more than a specified threshold amount of GHG will be required to surrender permits at the end of each compliance period to match their GHG emissions. If a covered entity fails to surrender sufficient permits, it will be subject to penalties. The Proponent will be required to obtain and surrender permits with respect to the covered GHG emissions from the Project.	Volume 2, Section 14.2.1.2
The Commonwealth Government's Energy Efficiency Opportunities (EEO) program came into effect in July 2006, and	Volume 2, Section 14.2.1.2

Proponent Commitment	Relevant Section in Coal Mine EIS
mandates large energy users (over 0.5 petajoules [PJ] of energy consumption per year) to participate in the program. The objective of this program is to drive ongoing improvements in energy consumption amongst large users. Businesses are required to identify, evaluate and report publicly on cost-effective energy saving opportunities. The minimum requirements of the scheme will need to be met by the Project.	
The Proponent has committed to preparing an energy conservation and GHG management plan for the next phase of the Project, to ensure that all sources of emissions are identified and emissions levels are quantified during engineering and design.	Volume 2, Section 14.2.5
The objectives of the energy conservation and GHG management plan will be to:	Volume 2, Section 14.2.5
<ul> <li>Reduce GHG emissions associated with the Project and all relevant emissions sources;</li> </ul>	
<ul> <li>Incorporate energy efficiency initiatives into Project design, engineering, construction and operation;</li> </ul>	
<ul> <li>Integrate GHG management and energy efficiency initiatives into business decision-making at all stages of the Project; and</li> </ul>	
<ul> <li>Provide consistent and accurate reports on GHG emission levels in compliance with relevant legislation.</li> </ul>	
The exploration drilling program plans to conduct gas testing to better quantify emissions factors and CSG emissions from coal. Strategies for CSG capture and use will be developed based on these results and will be considered for implementation during the detailed design phase of the Project.	Volume 2, Section 14.2.5
Potential GHG offsetting and emission reduction opportunities will be assessed in detail during the detailed design phase of the Project. Such assessment will include the following potential offsetting and emission reduction opportunities:  • Carbon offset projects;  • Renewable energy sources and supply;	Volume 2, Section 14.2.5
<ul> <li>Benchmarking components of the Project against international best-practice standards;</li> <li>Cleaner technologies; and</li> <li>Energy efficiency initiatives.</li> </ul>	
The Project will be obliged to report under the NGER Act given that emissions for the Project's Scope 1 and Scope 2 emissions will exceed the 25,000 tonne CO2-e threshold from the first year of construction.	Volume 2 Section 14.2.3.1
To abate increased flood risk due to climate change; apply appropriate risk assessment methods in design of storage dams, and protect the mine workings and infrastructure from floodwater inundation.	Volume 2, Section 14.3.3
To abate the risk of reduced process water availability due to climate change; use the minimum volume of water necessary in the process circuit, recycle waters in the process circuit or for other uses, such as dust suppression, as much as possible, and segregate water by quality or source.	Volume 2, Section 14.3.3
To abate the risk associated with increased dust generation due	Volume 2, Section 14.3.3

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Proponent Commitment	Relevant Section in Coal Mine EIS
to climate change; limit the extent of site disturbance, and undertake rehabilitation, including earthworks, drainage and revegetation, progressively.	
To abate the risk of unsuccessful rehabilitation planting due to climate change monitor rehabilitated areas on a regular basis to ensure that original objectives are achieved. Monitoring will include regular inspections for soil erosion, rehabilitation success, weed infestation and integrity of water diversion drains, waterways and sediment control structures.	Volume 2, Section 14.3.3
To abate the risk of increased maintenance costs for infrastructure due to climate change, regularly maintain and service all equipment as per the technical specifications.	Volume 2, Section 14.3.3
To abate the risk of failure/overtopping of tailings dams due to climate change, design tailings dam to include adequate spillway capacity, adequate design storage allowance (DSA), and operation within mandatory reporting levels (MRL).	Volume 2, Section 14.3.3

#### F.1.15 Noise and Vibration

Proponent Commitment	Relevant Section in Coal Mine EIS
Where there exists the possibility that instantaneous, short-duration, high-level noise events may occur during night-time hours (22:00 – 07:00), consideration will be given to the potential for the disturbance of sleep within residences and the accommodation village.	Volume 2, Section 15.4.
The accommodation will need to be air conditioned allowing windows to be kept closed. Further measures, such as physical barriers through vegetation planting etc, will be considered by the Proponent during design of the accommodation village.	Volume 2, Section 15.4.3.7
The transportation, storage and use of explosives will be in accordance with the relevant Australian Standards (i.e. AS 2187 Explosives – storage, transport and use) and all state legislation (i.e. Explosive Act 1999)	Volume 2, Section 15.4.6
The explosives supplier will operate the explosives depot and supply the explosives trucks and operators.	Volume 2, Section 15.4.6
Blasting will be avoided if predicted values of airblast overpressure in noise-sensitive places exceed acceptable levels. If this is not practicable, blasting will be scheduled to minimise noise annoyance. An appropriate period is generally between 11:00 and 13:00. Similarly, blasting will be avoided at times when strong winds are blowing from the blasting site towards noise sensitive receptors.	Volume 2, Section 15.4.4.5
All blast holes will be confined and standard central Queensland strip mining blasting techniques will be used. Electronic initiation will be used to optimise blast performance and to limit the MIC values.	Volume 2, Section 15.4.6
Management measures concerning overpressure from blasting are provided in the Environmental Management Plan (EMP).	Volume 2, Section 15.4.6

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Proponent Commitment	Relevant Section in Coal Mine EIS
These will be provided to the blasting contractor for consideration and will be incorporated into a blasting plan.	
Calculations will be revised and predictions refined based on additional site specific constants obtained once the exact locations for blasting are known.	Volume 2, 15.6.4.4
Noise and vibration monitoring will be carried out in accordance with the environmental authority	Volume 5, Appendix P Section 3.5.8
The Project will investigate all substantiated noise and vibration related complaints.	Volume 5, Appendix P Section 3.5.8
The Project will implement corrective action resulting from complaints investigations as required.	Volume 5, Appendix P Section 3.5.8

### F.1.16 Waste Management

### F.1.16.1 General Waste Management

Proponent Commitment	Relevant Section in Coal Mine EIS
Annual reporting of Project waste emissions to land, air and water will be conducted in accordance with the National Pollutant Inventory (NPI) Guide managed by the Department of Sustainability, Environment, Water, Population and Communities (DSEWPC)	Volume 2, Section 16.2.1.1
Waste from any early works and the initial construction activities will be segregated for recycling and/or reuse purposes wherever possible, with the balance disposed of at the existing BRC landfill facility. An on-site landfill will be established at the start of the construction phase following grant of the mining lease.	Volume 2, Section 16.2.2.1
General municipal wastes will be segregated to facilitate recycling, by the provision of recycling bins around the construction accommodation village, site offices and amenities. Residual (non-recyclable) waste would be disposed of to the on-site landfill.	Volume 2, Section 16.2.2.3.3
During construction of these facilities, sewage will be discharged to a temporary package Wastewater Treatment Plant (WWTP), which will be decommissioned at the end of the Project's construction stage.	Volume 2, Section 16.2.2.3.4
All sewage waste generated during the Project is to be collected and treated to Class A effluent quality on-site.	Volume 2, Section 16.2.2.3.4
Tyres will be either removed by the tyre supplier for reprocessing, or stored and appropriately disposed of once mining operations commence by burying in the mine overburden in a designated location that will be identified on the Environmental Management Register (EMR) managed by the DERM.	Volume 2, Section 16.2.2.3.6
Hydrocarbon wastes, including filters, solvents and paints, will be collected into suitably bunded waste storage tanks or other suitable containment devices and disposed of off-site by a licensed contractor for reprocessing, recycling or final disposal.	Volume 2, Section 16.2.2.3.6

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Proponent Commitment	Relevant Section in Coal Mine EIS
Batteries will be stored in a central bunded facility, and collected and disposed of off-site by a licensed contractor for reprocessing, recycling or final disposal.	Volume 2, Section 16.2.2.3.6
In particular, large vegetation materials such as hollow logs and hollow-bearing trees will be stockpiled for use in rehabilitation activities or placed in adjoining bushland.	Volume 2, Section 16.2.2.4.1
Laboratory testing and process measurement wastes will also be generated during the operation phase. These wastes will be handled in accordance with recognised industry best practices, typically by designated maintenance contractors, and stored, handled and disposed of to a designated licensed waste facility for reprocessing, recycling or final disposal.	Volume 2, Section 16.2.2.4.4
Prior to the decommissioning works being carried out a detailed waste management plan would be prepared to confirm the estimated types, quantities and waste management measures implemented during this stage.	Volume 2, Section 16.2.2.4.5
Waste management strategies will apply over the Project life, including early works, site preparation, construction, operation and decommissioning.	Volume 2, Section 16.2.3
The principal objective of the waste management strategy for the Project is to minimise the impacts on land resources, water quality, and air quality, and to manage waste in a manner that avoids any direct or indirect impacts on the environment or health of people working at the mine and the community.	
The main strategies that will be adopted for the Project include waste minimisation (including waste segregation for re-use or recycling), cleaner production, and ensuring wastes are disposed of safely at appropriate facilities.	
Considering the waste management hierarchy, materials will be segregated during handling and storage on-site. If materials such as metals, solvents, oils, and wood products can be re-used, then this will occur where practicable.	Volume 2, Section 16.2.4
Storage of wastes will differ according to the specific waste type. Flammable and combustible liquid wastes will be stored within facilities designed to Australian Standard (AS) 1940, The Storage and Handling of Flammable and Combustible Liquids, to prevent contamination of land, surface water and groundwater.	
If waste materials cannot be reused or disposed of on-site then they will be collected for off-site reuse, reprocessing, recycling or final off-site disposal. Market demand at the time will determine the ultimate rate of recycling of recovered materials. Final disposal of wastes will be to a licensed waste facility that is suitable for the type and quantity of waste. The proposed on-site landfill would be designed to accept non-recyclable general waste. Any recyclable, regulated or hazardous waste would be sent off-site for recycling or final disposal.	Volume 2, Section 16.2.4
The waste disposal facility, incorporating the on-site landfill, will be developed at the start of the construction phase in strict accordance with regulatory requirements. The on-site facility would be used for disposal of all non-recyclable and non-regulated waste streams generated during construction and	Volume 2, Section 16.2.5

Proponent Commitment	Relevant Section in Coal Mine EIS
operation. Off-site disposal will occur via licensed contractors in accordance with legislative requirements.	
The proposed on-site landfill would be designed and operated in accordance with Queensland EPA Environmental Guidelines for Landfill Siting, Design, Operation and Rehabilitation last revised June 2008 (EPA, 2008).	
A groundwater monitoring (GWM) system is necessary to assess the environmental character of groundwater around the landfill facility before beginning of waste filling operations (baseline "fingerprinting"), and to assess the environmental performance of the leachate containment system. For the on-site landfill, the proposed GWM system includes three wells around the landfill and associated works. One well has an up-gradient position with regard to waste fill and the other two have down-gradient positions	Volume 2, Section 16.2.5.3.1
The conversion of landfill gas (LFG) to power will require assessment of LFG generation projections and availability of small-scale power generation devices. Results of geotechnical and / or hydrogeological site investigations will dictate the locations and depths of LFG monitoring wells.	Volume 2, Section 16.2.5.3.4
The system will bypass 'clean' surface water that flows toward the site from up-gradient areas and contain and treat 'dirty' sediment-laden surface water from active and operational areas of the landfill.	Volume 2, Section 16.2.5.3.5
Achievement of the surface water management system objectives will require regular review of and revision to the surface water management system after each significant rain event, and as the drainage patterns of the site change with developing waste disposal activities.	Volume 2, Section 16.2.5.3.5
To combat nuisance dust emissions, the following measures will be implemented.  • Designation of traffic routes;  • Driving speed limits;	Volume 2, Section 16.2.5.3.6
<ul> <li>Track maintenance;</li> <li>Periodic watering of tracks to subdue emissions, as required; and</li> </ul>	
<ul> <li>Maintenance of vegetation on non-traffic areas.</li> <li>These dust management techniques apply to construction, operation and closure phases of the landfill development.</li> </ul>	
As appropriate, site personnel, contractors and visitors will utilise appropriate Personal Protective Equipment (PPE) to protect themselves against the hazards of fugitive dust emissions.	Volume 2, Section 16.2.5.3.6
The landfill design will include a perimeter security fence and one primary access / egress point.	Volume 2, Section 16.2.5.4
The on-site landfill will include construction of six to eight sub-cells to form the entire landfill over a 25 to 30-year period. Each sub-cell will include liner, leachate management and LFG management features and eventually form a continuous system within the overall landfill.	Volume 2, Section 16.2.5.6
As with all critical civil construction works, the landfill construction process will require a rigid quality assurance system to ensure	

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Proponent Commitment	Relevant Section in Coal Mine EIS
that construction products and installation methods meet the relevant specification for the facility design.	
The site attendant will record vehicle and waste load data, and then direct the vehicle to the disposal area to discharge the load. The equipment operator will spread and compact waste load deliveries across the active waste sub-cell through the day and cover the waste fill (typically 200 mm of soil) at end of the day's operations. Waste spreading, compacting and covering will occur on a periodic, typically daily basis and in an orderly fashion. Fill will progress in horizontal layers across the sub-cell until waste fill covers the floor of the sub-cell. Waste fill will continue in subsequent horizontal layers over the first layer until the sub-cell is as full as is practical. The operators use global positioning system (GPS) level control equipment to control the vertical and horizontal limits of fill within each sub-cell.	Volume 2, Section 16.2.5.7
Landfill operators must maintain similar processes of spreading, compacting and covering of waste throughout the entire process to ensure consistency in landfilling effort and optimisation of the available filling capacity of the landfill.	Volume 2, Section 16.2.5.7
During appropriate stages of waste filling and in accordance with the LFG management plan, installation of LFG management system components will occur.	
<ul> <li>Where practical, tyres will be removed by the tyre supplier for recycling, or used on-site for road barriers and demarcation.</li> <li>Otherwise tyres will be stored and appropriately disposed of by burying in the mine overburden in designated locations, in accordance with the following principles (EPA, 2006):</li> <li>Tyres awaiting disposal or transport for take-back will be stockpiled in volumes less than 3 m in height and 200 m² in area. Fire precautions will include removal of grass and other flammable materials within a 10 m radius of the tyre store. Tyres will be stored in a manner that prevents water retention and minimises mosquito breeding events;</li> <li>Scrap tyres may be disposed of in spoil emplacements where tyres are placed as deep in the spoil as possible but not directly on the pit floor. Placement will ensure scrap tyres do not impede saturated aquifers and do not compromise the stability of the final landform; and</li> <li>Scrap tyre disposal sites will be recorded on the DERM's EMR</li> </ul>	Volume 2, Section 16.2.6
Green waste will be burned as a last resort, in accordance with the following principles:	Volume 2, Section 16.2.6
<ul> <li>Ensuring appropriate buffer distances and fire breaks around asset protection zones, public and other privately owned assets, and protected areas, including important vegetation communities and habitats;</li> </ul>	
<ul> <li>Under favourable wind conditions to minimise risk of harm to sensitive receptors; and</li> </ul>	
<ul> <li>Prior and informed notice provided to adjacent landowners.</li> <li>The burning of vegetation will be done with the approval of the Queensland Fire and Rescue Service and in accordance with an agreed fire management plan.</li> </ul>	
Under the EP Act, sites used for a notifiable activity such as waste disposal must be listed on the EMR, which includes notifiable	Volume 2, Section 16.2.6

Proponent Commitment	Relevant Section in Coal Mine EIS
activities occurring on mining leases. All items of waste buried on- site that are classed as notifiable activities will be identified on the EMR managed by DERM	
A waste management plan will be implemented during construction and operations. For waste tracking, the waste management plan will address the following:	Volume 2, Section 16.2.7
<ul> <li>Training of all personnel on procedures concerning waste minimisation, handling, storage, reuse, segregation, collection and disposal;</li> </ul>	
<ul> <li>Waste removal and transport from site to be by appropriately licensed contractor/s with disposal only to licensed reprocessors, recyclers, or waste disposal facilities;</li> </ul>	
<ul> <li>Transport of any hazardous or regulated waste to comply with all relevant legislation including waste tracking requirements; and</li> </ul>	
<ul> <li>Compare Project waste quantities with actual waste produced to improve estimates and provide more reliable figures for future waste management plans.</li> </ul>	
A detailed Waste Management Plan (Construction) will be prepared as part of the Project-specific Environmental Management Plan (EM Plan) prior to the commencement of construction. The Waste Management Plan (Construction) will address the following:	Volume 2, Section 16.2.8
Identification of waste streams;	
<ul> <li>Consideration of the waste management hierarchy when selecting waste management strategies, with emphasis on minimising any hazardous waste;</li> </ul>	
<ul> <li>Identification of solid, liquid or hazardous waste collection, storage and or disposal strategies;</li> </ul>	
<ul> <li>Training of all personnel on procedures concerning waste minimisation, handling, storage, reuse, segregation, collection and disposal;</li> </ul>	
<ul> <li>Concept design of proposed on-site landfill for non-regulated and non-recyclable waste;</li> </ul>	
<ul> <li>Waste not suitable for on-site disposal to be removed and transported from site by appropriately licensed contractor/s with disposal only to licensed reprocessors, recyclers, or waste disposal facilities;</li> </ul>	
<ul> <li>Transport of any hazardous or regulated waste to comply with all relevant legislation including waste tracking requirements; and</li> </ul>	
<ul> <li>Monitoring of waste streams and auditing against the Waste Management Plan (Construction) to ensure overall objectives are being met.</li> </ul>	
All construction wastes will be managed in accordance with the Waste Management Plan (Construction).	
A detailed Waste Management Plan (Operations) will be prepared as part of the Project-specific Environmental Management Plan (EM Plan) and Plan of Operations prior to the commencement of operations, and updated annually to reflect the current activities of the Project. The Waste Management Plan (Operations) will address the following:	Volume 2, Section 16.2.9

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Proponent Commitment	Relevant Section in Coal Mine EIS
<ul> <li>Identification of waste streams and establishment of a baseline measurement for each stream;</li> </ul>	
<ul> <li>Consideration of the waste management hierarchy when selecting waste management strategies, with emphasis on minimising waste;</li> </ul>	
<ul> <li>Identification of solid, liquid or hazardous waste collection, storage and or disposal strategies;</li> </ul>	
<ul> <li>Training of all personnel on procedures concerning waste minimisation, handling, storage, reuse, segregation, collection and disposal;</li> </ul>	
<ul> <li>Waste removal and transport from site to be by appropriately licensed contractors with disposal only to licensed reprocessing, recycling or waste disposal facilities;</li> </ul>	
<ul> <li>Transport of any hazardous or regulated waste to comply with all relevant legislation including waste tracking requirements;</li> </ul>	
<ul> <li>Monitoring waste streams and identifying opportunities for reduction and reuse of wastes; and</li> </ul>	
<ul> <li>Auditing against the Waste Management Plan (Operations) to ensure waste management strategy objectives are being met.</li> </ul>	
All operational wastes will be managed in accordance with the Waste Management Plan (Operations).	
At the end of the mine life, any remaining infrastructure will be decommissioned and removed from the site in accordance with the Waste Management Plan	Volume 2, Section 16.2.10
A register of all chemicals stored on the Project site will be maintained.	Volume 5, Appendix P Section 3.6.12
The storage and handling of flammable and combustible liquids will be in accordance with AS 1940 – Storage and Handling of Flammable and Combustible Liquids.	Volume 5, Appendix P Section 3.6.12
All regulated waste will be appropriately disposed of to a facility licensed to receive such wastes and, where required, be tracked.	Volume 5, Appendix P Section 3.6.12
As part of the staff awareness and induction program, re-use and recycling will be encouraged.	Volume 5, Appendix P Section 3.6.12

#### F.1.16.2 Mine Waste

Proponent Commitment	Relevant Section in Mine EIS
During the first year of operation, coarse rejects will be encapsulated in the out-of-pit spoil pile. Following development of the initial open pit boxcut area in Year 1, all coarse rejects will be stored within the in-pit spoil piles.	Volume 2, Section 16.3 and Section 16.5.3.1
Tailings will be stored in mined out pit voids as they become available, although these materials will need to be placed into an engineered ex-pit tailings storage facility (TSF) for project start up and the first years of operation, up to around Year 5.	Volume 2, Section 16.3
Initially, the overburden produced by mining the boxcut area will be stored at an out-of-pit spoil emplacement area adjacent to the eastern side of the open pit. When sufficient space is created within the mined areas, subsequent overburden will remain in the open pit	Volume 2, Section 16.3

Proponent Commitment	Relevant Section in Mine EIS
Any out-of-pit overburden will be managed to ensure that saline and/or sodic materials do not report to final top and bench surfaces and batters.	Volume 2, Section 16.3
The main environmental management activities at the product coal stockpiles will be the capture of surface runoff water in sediment control dams.	Volume 2, Section 16.3.3.1
Any saline and/or sodic overburden materials will be placed within the core of the spoil piles before covering with more benign materials, reshaping and adding topsoil and vegetation as part of rehabilitation.	Volume 2, Section 16.3.3.2
Any requirement for rock mulching final batters to limit potential erosion from surface runoff will be assessed during rehabilitation field trials	Volume 2, Section 16.3.3.2
Coarse rejects generated from the CHPP will be dewatered and discharged onto the CHPP rejects conveyor, which reports to the rejects bin.	Volume 2, Section 16.3.3.3
During the first years of mining, the coarse rejects (approximately 23% moisture) will be truck-hauled and placed adjacent to the low-wall edge of the boxcut area. The reject emplacement area will have a 4,000 m strike length parallel to the low wall and will be in close proximity to the proposed reject bin location.	Volume 2, Section 16.3.3.3
All coarse reject materials will be paddock dumped and compacted in approximate 1-2 m layers using dozing and vibrating or square roller equipment.	Volume 2, Section 16.3.3.3
During the first years of mining, coarse rejects placed at the low wall edge of the boxcut area will be clay encapsulated before being further encapsulated with spoil.	Volume 2, Section 16.3.3.3
From around Year 2 to end of mine life, the coarse reject material is planned to be placed in the in-pit voids between the dragline spoil. Truck-shovel pre-strip spoil materials will be used to cap the reject areas. Coarse reject placement will be sequenced such that capping of the rejects will be completed progressively as the working face progresses down dip	Volume 2, Section 16.3.3.3
Coarse reject material placed in the in-pit voids between the dragline spoil will be compacted in 1-2 m layers and capped with a clay cover prior to covering with at least 10 m of spoil material. Topsoil will be placed onto the reprofiled slopes.	Volume 2, Section 16.3.3.3
Tailings will report to a purpose-built tailings storage facility (TSF) located to the east of the open pit.	Volume 2, Section 16.3.3.4
A cover system will utilised for TSF closure and topsoil will be placed onto the reprofiled final landform slopes.	Volume 2, Section 16.3.3.4
The Proponent will continue to complete sampling and geochemical test programs for representative samples of coal and mining waste materials as the Project progresses and has already commenced an additional infill drilling program focusing on sampling coal and mining waste materials from the area likely to be mined in the first five years of operation.	Volume 2, Section 16.4.3
As a precautionary measure, the Proponent will ensure that any roof and floor materials within one metre of the coal seams not	Volume 2, Section 16.5.1.3

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Proponent Commitment	Relevant Section in Mine EIS
extracted as coal dilution will stay in the open pit and be managed in a similar fashion to coarse rejects.	
Should any uneconomic coal seam material be extracted from the open pit, this will preferentially be managed within the open pit voids in a similar fashion to coarse rejects.	Volume 2, Section 16.5.1.3
The ongoing management of mining waste (overburden and potential reject materials) will consider the geochemistry of materials with respect to their potential risk to cause harm to the environment and their suitability for use in revegetation.	Volume 2, Section 16.5.3.2
The design of a mining waste management strategy for the project will focus on placement of mining waste materials to minimise runoff, erosion and potential seepage.	Volume 2, Section 16.5.3.2
The design of a mining waste management strategy for the project will focus on preferential placement of mining waste materials in open pit void areas, when sufficient capacity becomes available.	Volume 2, Section 16.5.3.2
The Proponent will undertake ongoing operational geochemical characterisation of coal and mining waste materials from the Project area to confirm the predicted geochemical characteristics of these materials. This data will be used to optimise the management strategies of coal and mining waste materials.	Volume 2, Section 16.5.3.3
For future work, in addition to standard acid-base and metals testing (static tests) and kinetic leach column tests, geochemical characterisation will include assessing the general soil properties (sodicity, exchangeable cations) of selected mined waste materials to evaluate their suitability for use in revegetation/rehabilitation activities.	Volume 2, Section 16.5.3.3
Surface water and leachate derived from, or in contact with, coal and mining waste materials will be monitored to ensure that water quality is being managed and not significantly compromised by proposed site management practices.	Volume 2, Section 16.5.3.4
Potentially impacted surface waters will be primarily managed by retaining water on-site. This water will be reused in the site water management system. This will be particularly important in the CHPP and open pit areas where stored materials may produce brackish run-off water.	Volume 2, Section 16.5.3.4
Coal and mining waste materials will be monitored for geochemical characteristics (pH, EC, acidity, alkalinity, sulphur species (total, organic, suphide and sulphate) and ANC) on a monthly basis until such time as the variability of the geochemical characteristics of these materials is well defined (approximately 12 months).	Volume 2, Section 16.5.3.4
Surface and seepage water at coal and mining waste storage areas will be monitored on a monthly basis and tested for pH, EC, Total Dissolved Solids (TDS), acidity and alkalinity. Major anions (sulphate, chloride, fluoride), major cations (calcium, magnesium, sodium and potassium) and trace metals (aluminium, arsenic, antimony, boron, cadmium, chromium, cobalt, copper, iron, lead, manganese, molybdenum, nickel, selenium, silver, uranium, vanadium and zinc) will be included in the range of parameters tested in these water samples, initially on a quarterly basis (for 12 months) and then on an annual basis throughout the life of mine. Should the pH of the TSF seepage water decrease below pH 5.5 or the EC increase by more than 100% from typical background	Volume 2, Section 16.5.3.4

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Proponent Commitment	Relevant Section in Mine EIS
values, the full range of parameters described in this Section will be included in the test suite.	
The Proponent will expedite a shift to in-pit disposal of tailings after the first five years of operation, if this alternative proves viable through further hands-on experience, ongoing testing and engineering investigation. Work is currently underway to progress this proposal, with the main input being the experience soon to be gained from the bulk sample test pit operation – underway at the time of writing. Further mine planning, testing on tailings rheology and tailings geochemistry is also in progress to further access the viability of in-pit disposal.	Volume 2, Section 16.5.3.4

### F.1.17 Transport

Proponent Commitment	Relevant Section in Coal Mine EIS
The existing Hobartville Road within the mining lease area will be closed to public traffic and relevant bypasses will be constructed to facilitate traffic flow around the Project site.	Volume 2, Section 17.1.1
All external road upgrades and construction will be completed to required standards and design guidelines as stipulated by the DTMR.	Volume 2, Section 17.1.1
The DTMR is the relevant approval and management body for the transportation of dangerous goods and hazardous materials throughout Queensland and requires certain permits and conditions to be met for the transportation of these goods on the State controlled road (SCR) network.	Volume 2, Section 17.6.7
Logistics plans will need to be submitted for individual components (ie each separate vehicle) as well as the entire program of planned movements for any Over Dimensional vehicles.	Volume 2, Section 17.6.8
The Proponent is proposing to close a section of Hobartville Road and construct bypasses to the north and south of the mining lease area. As these works affect the existing road network and are entirely attributed to the impact of the Project, the Proponent will be responsible for all associated costs.	Volume 2, Section 17.7.1
In order to access the Project site from the existing road network new intersections will need to be constructed at both the northern and southern entries to the site as part of the proposed bypass layouts. As these works affect the existing road network and are entirely attributed to the impact of the Project, the Proponent will be responsible for all associated costs under the DTMR guidelines.	Volume 2, Section 17.7.2
The Proponent will create a Transport Management Plan in order to manage the risks and impacts of any transport related issues.	Volume 2, Section 17.7.4

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#### F.1.18 Indigenous Cultural heritage

Proponent Commitment	Relevant Section in Coal Mine EIS
As the Project requires an Environmental Impact Statement (EIS), Hancock Prospecting Pty Ltd (HPPL) is required under Part 7 of the ACH Act to prepare an approved CHMP to meet its cultural heritage duty of care. The CHMP manages all aspects of Indigenous cultural heritage matters for the Project, including mitigation measures.	Volume 2, Section 18.2.2.1
Detailed cultural heritage survey reports will be prepared for the Wangan & Jagalingou People. Each report will culminate in a management plan established through consultation between the endorsed parties and their technical advisers, and accepted by HPPL, which will provide guidance for the way in which Aboriginal cultural heritage defined by the cultural heritage survey will be managed before construction commences and during the Project.	Volume 2, Section 18.2.3
The scientific and Aboriginal assessments of significance and impacts will be carried out as part of the Cultural Heritage Management Plan (CHMP) process.	Volume 2, Section 18.3.1
Protection, management and mitigation measures will be discussed and incorporated into the cultural heritage survey report, following the completion of cultural heritage surveys, which will include W & J traditional owners and archaeologists to ensure that all areas of significance are identified commencing in August 2010.	Volume 2, Section 18.3.1
In addition, where avoidance is possible, the preparation of site- specific management plans that provide clear directions and processes for protection of the area or object will be drawn up so that accidental harm during project activities is avoided.	Volume 2, Section 18.3.2
Cultural awareness training will be a crucial element of management, with the intention of training people involved in the Project in avoidance and protection of known cultural heritage sites, what cultural heritage may reasonably be in the landscape, and what to do in the event of a find of cultural heritage not previously defined during the cultural heritage survey.	Volume 2, Section 18.3.2

### F.1.19 Non Indigenous Cultural Heritage

Proponent Commitment	Relevant Section in Coal Mine EIS
Where possible the project design will take into account each of the significant heritage sites and places identified within the study area, and, where possible, avoid impacting these sites. If avoidance of these areas is not possible, the Proponent will implement relevant mitigation measures.	Volume 2, Section 19.4.2.1
The Proponent will develop a Cultural Heritage Management Plan (CHMP) for the coach route network prior to ground disturbing activities taking place in the vicinity. The CHMP will consider the following including:	Volume 2, Section 19.4.2.2
<ul> <li>Further and focussed contextual research of the coach route between Clermont-Aramac, to identify further potential for sites and places to exist within the study area;</li> </ul>	
<ul> <li>Further comparative research to determine other examples of coach route networks which might survive within Central</li> </ul>	

Pr	oponent Commitment	Relevant Section in Coal Mine EIS
	Queensland, so that further conclusions can be made in respect to the exact nature of the coach route network within the study area;	
•	Brief survey of targeted sections of the Clermont-Aramac coach road (outside of the study area) to determine the likelihood of sites and places to survive of comparative nature and context to those in the study area;	
•	Further site inspection to record key features /sites within the study area which are considered to be associated with the route;	
•	On completion, provide a CHMP Report to HPPL which provides clear and achievable mitigation and management measures to protect and conserve cultural heritage values associated with the coach route network within the study area for the life of the project, including:	
•	Record any sites located within the proposed disturbance area of the project in detail to an archival standard by a qualified cultural heritage professional and in line with the draft DERM Guidelines for Archival Recording;	
•	Obligations for any sites which might be considered an Archaeological Place, under the provisions of Section 60 of the QHA, including liaison with DERM; and	
•	Consider the potential for archaeological excavation or further research opportunities for sites which exhibit archaeological values important to the region or to Queensland, which might be impacted by the project	
su	til such time that the CHMP has been completed, this report ggests that no ground disturbing activities be undertaken within 0M either side of the coach route alignment.	Volume 2, Section 19.4.2.2
Sta spe He	e former Hotel site (A-5) is an Archaeological Place of potential ate significance. State significant archaeological sites require ecial consideration under the provisions of the <i>Queensland</i> eritage Act 1992. Avoidance of these sites will be practised and site personnel made aware of relevant obligations to avoid the ea.	Volume 2, Section 19.4.2.3
ph	nistorical archaeologist will be appointed during construction ases of the Project, so that a callout can be made if potential chaeological material is noted.	Volume 2, Section 19.4.2.6
cat cat site pro for	e Proponent will undertake a bi-annual survey of all heritage ms identified on the study area. Any damage to items can be talogued and actions taken to ensure that the process that used the damage is not repeated and that training material for e personnel can be updated with current information. The oject will develop forms and databases, similar to those it has Indigenous heritage, to monitor the condition, management d protection of the heritage sites.	Volume 2, Section 19.4.2.7

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#### F.1.20 Social

Proponent Commitment	Relevant Section in Coal Mine EIS
FIFO workers will be collected from key regional centres throughout Queensland based on workforce sourcing realities at the time, and flown to Alpha aerodrome for their work rotations. FIFO workers will be bussed to site from the aerodrome and back to the aerodrome after their work rotation.	Volume 2, Section 27.1.1
Bus in, bus-out service provided from regional centres to the mine site.	Volume 2, Section 20.5.1.5.2
The Proponent will work with Barcaldine, Isaac and Central Highland regional councils to identify and contribute (where possible) to regional development that is supported by the relevant plans developed under the <i>Sustainable Planning Act 2009</i> e.g. Community Plans	Volume 2, Section 27.3
The Proponent will work with local businesses and service providers to ensure the Project does not negatively impact on their operations.	Volume 2, Section 27.3
The Proponent will continue to sponsor community development programs, community organisations and opportunities in the region.	Volume 2, Section 27.3 and Section 20.5.1.5.2
The Proponent will implement a social impact monitoring process that will monitor impacts as well as the effectiveness of management strategies throughout the construction and operational stages of the Project.	Volume 2, Section 27.4
The Proponent will continue to make efforts to engage the community because their understanding and feedback are important to social impact management and fostering positive relationships in the community.	Volume 2, Section 27.5
The Proponent will maintain an ongoing Communication and Community Engagement Plan that focuses on consultation techniques in order to provide opportunities for stakeholders to be engaged with the Project.	Volume 2, Section 27.5 and Section 2.15
The Stakeholder Engagement Strategy will align with the International Association for Public Participation (IAP2).	
The Proponent will allocate resources to ensure that the Communications and Community Engagement Plan is able to be developed, implemented and reviewed in a timely fashion. Resources include stakeholder engagement personnel at the corporate level and on site, appropriate funding and relevant policies and procedures.	
The Proponent will establish a dedicated Community Liaison role (either a dedicated person or group) tasked with managing relationships in the community.	Volume 2, Section 27.5 and Section 20.5.1.10.2
In the absence of a similar body of forum, the Proponent will establish a Hancock Consultative Committee (HCC). to act as a forum for the Project and the regional councils to work collaboratively on Stage 2 of the SIMP.	Volume 2, Section 27.5
The Proponent will welcome input from other projects to assist (the Project and councils) on cumulative impact management. The Proponent will ensure the DIP SIA Unit is informed of the discussions and outcomes for cumulative impacts when	Volume 2, Section 27.5

Proponent Commitment	Relevant Section in Coal Mine EIS
appropriate. The Proponent will provide a baseline through the submission of the EIS which will provide future projects with a consistent foundation for impact assessment. This consistent baseline is an important component in future cumulative impact assessments.	
Operational personnel will be accommodated in an accommodation village which will be located in the south-east of the mine lease where the disturbance to off-duty employees from noise, vibration and light will be minimal. The accommodation village for permanent personnel will be designed and constructed to fit in with the environment. The accommodation village will include comfortable, en-suited accommodation, catering facilities and appropriate recreational facilities	Volume 2, Section 27.6.2
The Proponent will develop a local employment policy and a local procurement policy for the Project.	Volume 2, Section 27.6.3
The Project and council will explore road safety programs in conjunction with local police and emergency services providers.	Volume 2, Section 27.7.2
The Proponent is looking at implementing a maximum work hours per day to reduce the potential for fatigue and maintain worker health and safety.	Volume 2, Section 27.7.2 Volume 2, Section 20.5.1.5.2
Hancock currently owns an ~1,500 acre property near the Alpha town and will explore opportunities with council for future beneficial use.	Volume 2, Section 27.7.2
The Proponent will continue to work with relevant stakeholders regarding traffic and transportation, including government, emergency service providers and area residents.	Volume 2, Section 27.7.2
Hancock will continue ongoing consultation with landholders that is considerate of the needs of the individual. This will include land liaison officers, complaints database and landholder survey The Proponent will also work with key stakeholders including councils, social service providers and emergency service providers to address increased issues of substance abuse and violence.	Volume 2, Section 27.7.2
The Proponent will consider programs such as Block Watch and welcoming committees for personnel if population change occurs at a higher rate.	Volume 2, Section 27.7.2
The Proponent will implement random drug and alcohol testing for employees as per international best practice.	Volume 2, Section 27.7.2
The Proponent will explore opportunities to make counseling services available.	Volume 2, Section 27.7.2
The Proponent will work with key stakeholders including councils, social service providers and emergency service providers to address issues of substance abuse and violence.	Volume 2, Section 27.7.2
Establish appropriate benchmarks and methods for monitoring changes to various VSCs in consultation with local councils.	Volume 2, Section 27.7.2
Monitor SIMP throughout project with wholesale reviews undertaken following each release of new census data.	Volume 2, Section 27.7.2
The Project will commit to sponsor and support community development programs in the Alpha community (and BRC).	Volume 5, Appendix M Section 7.3.2 and Section 7.5.2

Proponent Commitment	Relevant Section in Coal Mine EIS
The Proponent will communicate with regional community members about the Project (including stakeholder engagement specialists and complaints database)	Volume 2, Section 27.11.1
The Proponent will monitor media coverage to gauge any change in regional profile.	Volume 2, Section 27.11.1
The Proponent will collect council's, tourist's, resident's feedback on regional profile through questionnaire (voluntary).	Volume 2, Section 27.11.1
<ul> <li>The Proponent will develop voluntary questionnaires include:</li> <li>A new arrival questionnaire;</li> <li>A relocation (moving away) questionnaire:</li> <li>A current resident questionnaire;</li> <li>A business survey / questionnaire:</li> <li>A social services questionnaire;</li> <li>A community survey / questionnaire.</li> </ul>	Volume 2, Section 27.11.1
The Proponent will develop a Code of Conduct that all mine personnel will be required to adhere to.	Volume 2, Section 27.11.1
The Proponent will report on the monitoring program to the Social Impact Assessment Unit of the Department of Infrastructure and Planning on an annual basis during construction.	Volume 2, Section 27.12
The Proponent will report on the operational impacts of the Project to the Social Impact Assessment Unit of the Department of Infrastructure and Planning every three years.	Volume 2, Section 27.12
The Proponent will agree to an external review of the SIMP when requested by the Social Impact Assessment Unit of the Department of Infrastructure and Planning.	Volume 2, Section 27.12
The Proponent and their construction contractors will develop management policies and processes to support the development and implementation of the Communications Engagement Plan. The Community Liaison role will be the principle contact between all stakeholders and the plan, and will be responsible for implementation and management of the plan.	Volume 2, Section 27.16.3
The Communications and Community Engagement Plan will be reviewed by the Community Liaison role and other relevant representatives of the Proponent on an annual basis,	Volume ,2 Section 27.16.4
Relevant stakeholders may be requested to participate in the review, including but not limited to councils.	
The Proponent will develop a dispute resolution mechanism within the Issues and Risks Registry which supports an active response to community and stakeholder concerns about social impact issues. The dispute resolution mechanism will be aligned with organizational processes. All items that must be included are listed under Section 27, F.	Volume 2, Section 27.17
The SIMP and GBCC to include IRC involvement to effectively monitor external changes (like road upgrades) that are indirectly related to the Project, as well as direct Project impacts.	Section 20.4.1.1.2
Stage 2, SIMP consultation will identify means for tracking population changes, recognition of the sources (the Project, other projects, increased access from cumulative), mitigation options	Volume 2, Section 20.4.1.2.2, Section 20.4.1.3.2, Section 20.4.2.2.2, Section 20.5.1.2.2, Section 20.5.1.5.2, Section

Proponent Commitment	Relevant Section in Coal Mine EIS
and responsible authorities	20.5.1.10.2 and Section 20.5.1.11.2
The SIMP will also consider defining 'manageable growth' for each region in consultation with the local government.	Volume 2, Section 20.4.1.2.2, Section 20.4.2.2.2 and Section 20.5.1.2.2
SIMP will establish means for monitoring change in community associated with culture and community dynamics.	Volume 2, Section 20.4.1.3.2, Section 20.4.2.3.2, Section 20.5.1.3.2
The SIMP will consider options for tracking housing stocks in the community and reasons for change	Volume 2, Section 20.4.1.4.2, Section 20.4.2.4.2 and Section 20.5.1.4.2
The Proponent will consider working with councils to expedite the process of land release from the State government for development.	Volume 2, Section 20.4.1.4.2, Section 20.4.2.4.2 and Section 20.5.1.4.2
The SIMP will identify existing drugs and alcohol programs in other parts of IRC and explore opportunities for expanding these to Clermont.	Volume 2, Section 20.4.1.5.2
The Proponent will explore options like financial planning services and counseling for employees.	Volume 2, Section 20.4.1.5.2, Section 20.4.2.5.2 and Section 20.5.1.5.2
Opportunities to use existing services within the region will be explored as part of Stage 2 of the SIMP.	
The SIMP will consider including an indicator to monitor use of the Alpha–Clermont Road from the site to Clermont.	Volume 2, Section 20.4.1.11.2
The SIMP will identify existing drugs and alcohol programs in Emerald or other parts of CHRC.	Volume 2, Section 20.4.2.5.2
The Proponent will consider opportunities to develop personnel sharing programs and apprentice/trainee programs in consultation with local government.	Volume 2, Section 20.4.2.7.2
The Proponent will implement a local recruitment and procurement policy.  The SIMP will monitor procurement of local businesses and employment of local residents.	Volume 2, Section 20.4.2.8.2, Section 20.5.1.7.2, Section 20.5.1.8.2 and Section 20.5.1.9.2
The Proponent will undertake ongoing communication and provide continues support to landholders throughout the resettlement process.	Volume 2, Section 20.5.1.1.2
The Proponent will provide personnel will a community and workplace induction.	Volume 2, Section 20.5.1.1.2 and Section 20.5.1.5.2
The Stage 2 SIMP will include consultation to determine appropriate strategies to enhance the potential benefits of the Project in the community. These strategies will be refined in consultation with local council and stakeholders but may include:	Volume 2, Section 20.5.1.3.2 and Section 20.5.1.9.2
<ul> <li>Providing courses in Alpha town and opening them to the community;</li> </ul>	
Considering options to provide financial management services and information to personnel and the community.	
The SIMP will identify road traffic programs aimed at reducing accident rates in other mining regions such as the Bowen Basin. Lessons learned will be collect and considered in developing a plan for the Project.	Volume 2, Section 20.5.1.5.2
The Proponent will engage actively with Police to support traffic management.	Volume 2, Section 20.5.1.5.2

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Proponent Commitment	Relevant Section in Coal Mine EIS
The Proponent will actively engage with local Emergency Services.	Volume 2, Section 20.5.1.5.2 and Section 20.5.1.10.2
The Proponent will establish a 24-hour on-site medical clinic.	Volume 2, Section 20.5.1.5.2 and Section 20.5.1.10.2
The SIMP will identify means for monitoring demand on emergency services in Alpha and develop strategies to address emerging trends and identify additional resources when required.	Volume 2, Section 20.5.1.5.2
The Proponent will distribute key findings of the EIS about the potential for dust to reach the community.	Volume 2, Section 20.5.1.5.2
The SIMP will identify means of monitoring community crime and deviance levels.	Volume 2, Section 20.5.1.5.2
The SIMP will identify any relevant drugs and alcohol programs in BRC or across Central Queensland and explore opportunities for extending these to Alpha.	Volume 2, Section 20.5.1.5.2
The Proponent will encourage personnel to undertake volunteering in the community.	Volume 2, Section 20.5.1.5.2
The SIMP will monitor the availability of recreation and sporting activities, community participation levels and volunteer participation rate.	Volume 2, Section 20.5.1.5.2
<ul> <li>The Proponent will consider ways that it can support local child care facilities to obtain improved facilities including:</li> <li>Supporting them to obtain additional funding;</li> <li>Attracting new providers to the region; and</li> <li>Supporting child care centres to train new staff or improve facilities.</li> </ul>	Volume 2, Section 20.5.1.6.2
The Proponent will undertake further investigations into the capacity of Alpha and Barcaldine schools and this will be documented in the SIMP.	Volume 2, Section 20.5.1.6.2
The SIMP will identify means of monitoring the effect of any population change on educational institutions in the region.	Volume 2, Section 20.5.1.6.2
Proponent will consult with local service providers and support BRC efforts to obtain more funding.	Volume 2, Section 20.5.1.6.2
The SIMP will document ways of monitoring the number of workers moving from other industries into the mining sector.	Volume 2, Section 20.5.1.6.2
The Proponent will consider profiling agricultural labourers to determine if they align with the mine worker demographic and profile. The SIMP will identify monitoring tools to determine if there is a decrease in labour available for agriculture because of the Project.	Volume 2, Section 20.5.1.7.2
The Proponent will consider developing a spousal employment program.	Volume 2, Section 20.5.1.7.2
The SIMP will identify ways of monitoring local employment trends.	Volume 2, Section 20.5.1.7.2
The Proponent will consult with local landholders and provide information about transportation schedules and potential impacts of the Project's transportation.	Volume 2, Section 20.5.1.8.2
The SIMP will monitor the coordination of transportation between	

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Proponent Commitment	Relevant Section in Coal Mine EIS
the Project and other potential projects in the region.	
The SIMP will identify ways of monitoring wages in the local and regional areas.	Volume 2, Section 20.5.1.9.2
The Proponent will explore options to enter into a direct contract with QAS for the provision of emergency services to the Project.	Volume 2, Section 20.5.1.10.2
The SIMP will document responsibilities of all parties in delivering funding and services to the community.  Appropriate monitoring to ensure this is happening will be developed.	Volume 2, Section 20.5.1.10.2
The Proponent will support BRC in their efforts to obtain required funding or to discuss with DTMR regarding additional upgrade of the Alpha – Clermont road.	Volume 2, Section 20.5.1.11.2
In consultation with BRC the Proponent will determine the best route to the mine site from Alpha. The Proponent will undertake the necessary upgrade to this road between Alpha and the mine lease as required.	Volume 2, Section 20.5.1.11.2
The SIMP will identify means for monitoring the impact of the Project on local road use and will document strategies for managing this.	Volume 2, Section 20.5.1.11.2
The Proponent will discuss infrastructure opportunities for local economic and community development.	Volume 2, Section 20.5.1.11.2
The Proponent will consider placing mobile phone receivers and towers in locations where they will best benefit the community wherever possible.  The Proponent will support BRC to extend these benefits as appropriate.	Volume 2, Section 20.5.1.11.2
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### F.1.21 Health and Safety

Proponent Commitment	Relevant Section in Coal Mine EIS
The Proponent is committed to providing a safe and healthy working environment to its employees, contractors and visitors and completing the Project with minimal impacts to the surrounding environment and community. The health, safety, environment, community and heritage (HSECH) risks associated with the development and operation of the mine are managed under the Hancock Integrated Management System (HIMS). All site and Project personnel are expected to comply with the requirements of the HIMS.	Volume 2, Section 21.1.1
Fly-in-fly-out (FIFO) and bus-in-bus-out (BIBO) arrangements will be used to transfer the majority of the Project workforce to the site. However, a small percentage of the Project workforce may elect to commute independently (i.e. Drive-In-Drive-Out (DIDO)), subject to management approval.	Volume 2, Section 21.2.3
<ul> <li>Residual dust levels at adjacent residential receptors will be minimised by adopting appropriate equipment, correct handling (e.g. drop heights) and storage, road sealing and maintenance and haul road watering to suppress dust during construction and operation of the Project.</li> </ul>	Volume 2, Section 21.3.1 Table 21-2

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Proponent Commitment	Relevant Section in Coal Mine EIS
The Proponent will maintain a complaints register and assess options for dust mitigation at nearby residential dwellings.  The Proponent will maintain a complaints register and assess options for dust mitigation at nearby residential dwellings.	
<ul> <li>The Proponent will monitor air quality at nearby sensitive receptors in accordance with Australian Standards and limiting "trigger level" events to acceptable numbers.</li> </ul>	
The Proponent will maintain a complaints register and assess options for noise mitigation at nearby residential dwellings.	Volume 2, Section 21.3.1 Table 21-2
<ul> <li>The Proponent will monitor noise and vibration levels at nearby sensitive receptors in accordance with Australian Standards and limiting "trigger level" events to acceptable numbers.</li> </ul>	
<ul> <li>Surface water and sediment controls will be implemented to segregate clean and dirty water. Preference will be given to on-site reuse of water to reduce the need to import raw water on-site and the potential for release off-site.</li> </ul>	Volume 2, Section 21.3.1 Table 21-2
<ul> <li>Sufficient on-site storage will be provided through the application of the relevant guidelines for mine water storage capacity to give an acceptable level of risk for uncontrolled discharge of dirty water during significant rainfall events.</li> </ul>	
<ul> <li>Sewage will be treated to appropriate levels at an on-site treatment plant before reuse for industrial applications on-site.</li> </ul>	
<ul> <li>Appropriate spill containment and bunded storage will be provided for dangerous goods, as per the applicable Australian Standard and relevant guidelines.</li> </ul>	
<ul> <li>Water supply monitoring and annual reporting to government agencies will validate on-site water management.</li> </ul>	
Control measures to prevent increase in local populations and spread of biting insect species of pest and health significance will be contained within a Pest Management Plan, to be implemented on an as-needs basis.	Volume 2, Section 21.3.1 Table 21-2
<ul> <li>Transport infrastructure improvements, including roads, road markings and signage, form part of the Proponent's commitment to minimise impacts on local traffic conditions and improve road safety.</li> </ul>	Volume 2, Section 21.3.1 Table 21-2
<ul> <li>FIFO, BIBO and on-site accommodation arrangements will be provided to reduce the risk of traffic accidents caused by driver fatigue during commute to and from the Project site.</li> </ul>	
<ul> <li>To limit impacts on local housing availability and affordability in the region, the Project workforce will primarily be accommodated on-site or transferred via FIFO or BIBO arrangements from the surrounding metropolitan and regional areas.</li> </ul>	Volume 2, Section 21.3.1 Table 21-2
<ul> <li>Investment in road and airport infrastructure will assist in improving and maintaining the transport infrastructure quality and level of service for the region providing a long-term community benefit.</li> </ul>	
<ul> <li>Work scheduling will aim to make reasonable time available for employees to participate in social and family activities. The Proponent is committed to working with the local support services to monitor and review trends and identify opportunities to improve social cohesion and quality of life.</li> </ul>	
The Proponent is committed to effective, transparent and open	

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Proponent Commitment	Relevant Section in Coal Mine EIS
communication, consultation and feedback with local communities and stakeholders via the Social Impact Management Plan (SIMP) including Consultation Plan presented in Volume 2, Section 27.	
A SIMP (refer Volume 2, Section 27) will be prepared to define and integrate consultation and management strategies for protecting community values. It will incorporate details of procedural practices to monitor and review the performance of measures and ongoing consultation and negotiation with adjacent landholders to mitigate residual impacts on the community.	Volume 2, Section 21.3.1
<ul> <li>At a minimum the Proponent is committed to adequate competency level and training for site personnel that includes:</li> <li>Appropriate licences as required;</li> <li>Appropriate level of training for their role, e.g. Industry coal surface inductions, Bachelors Degree in Geology, Mining Engineer, Field Assistant TAFE course, etc;</li> <li>Successfully completing the pre-employment (coal) medical;</li> <li>Comprehensive site induction; and</li> <li>Current certification/permit/licence for their tasks (e.g. forklift driver, crane driver, equipment operator, electrician, plumber, confined space work etc).</li> </ul>	Volume 2, Section 21.3.2
Health and safety of the Project workforce will also be managed using the following tools:  Safety management plans; Safety inspections; Job health and safety analysis (JSEA) tools; Safety audits; and Hazard/safety observations.	Volume 2, Section 21.3.2

#### F.1.22 Economics

Proponent Commitment	Relevant Section in Coal Mine EIS
To encourage the development of local and regional industry capability, HPPL will develop an employment and procurement policy guided by industry standards and relevant government guidelines that will reflect:	Volume 2, Section 22.3.5
<ul> <li>Maximising local employment (including work readiness if appropriate);</li> </ul>	
Promoting Indigenous employment; and	
<ul> <li>Employment of apprentices and trainees (including work readiness if appropriate).</li> </ul>	

### F.1.23 Sustainability

Proponent Commitment	Relevant Section in Coal Mine EIS
The Proponent is committed to ongoing consultation in accordance with a detailed Community and Stakeholder	Volume 2, Section 23.2 Table 23-1

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Proponent Commitment	Relevant Section in Coal Mine EIS
Engagement Plan to ensure local communities and stakeholders are engaged in a way that encourages active participation and safeguards the welfare of current and future generations. This process has already commenced and will continue according to the Social Impact Management Plan.  The development and implementation of the Social Impact Management Plan will actively promote community participation at all stages.	
The Proponent has developed the Hancock Community Support Program to develop long-term partnerships that assist the communities to achieve independent growth and promote future economic and community development.	Volume 2, Section 23.2 Table 23-1
<ul> <li>To fulfil the requirements of the precautionary principle, the Project has included the following measures.</li> <li>Detailed research, planning and investigative studies will be used to increase scientific certainty about the threat of serious or irreversible environmental damage. Outcomes have been and will continue to be fed back into the Project design by incorporating an appropriate margin for error and avoidance, mitigation and management measures.</li> <li>Management plans will be prepared and implemented to assist in the avoidance, mitigation and management of potentially serious or irreversible damage to the environment and social development.</li> <li>Monitoring will assess the implementation and effectiveness of measures to demonstrate compliance with evaluation objectives and performance criteria. Compliance will verify that the residual risks associated with the Project are low and manageable.</li> </ul>	Volume 2, Section 23.2 Table 23-1
Community and stakeholder engagement will remain an integral component of the Project – e.g. accurate and timely environmental, social and economic information will be provided to surrounding communities and stakeholders to demonstrate compliance.	Volume 2, Section 23.2 Table 23-1
The Project design and sequencing will enable progressive rehabilitation of the environment disturbed by the Project to comply with rehabilitation goals and objectives of the DERM guideline – Guideline 18: Rehabilitation requirements for mining projects in relation to intergenerational equity, polluter pays principle, protection of biodiversity and maintenance of essential ecologically processes.  The strategies for mine rehabilitation will involve progressive landform preparation and revegetation to create a stable postmining landform and use consistent with the surrounding environment. A financial assurance is to be put aside to provide guarantee for long-term land use outcomes.	Volume 2, Section 23.2 Table 23-1
<ul> <li>Through the EIS planning process and community consultation, the Proponent has committed to provide appropriate community returns to the advantage of both current and future generations.</li> <li>Economic stimulus throughout the life of the Project is estimated to be \$47 billion, assuming all operating inputs purchased in the State, including State royalties.</li> <li>Increased employment, training and economic development</li> </ul>	Volume 2, Section 23.2 Table 23-1

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Proponent Commitment	Relevant Section in Coal Mine EIS
opportunities.	
New support service industries established in the region.	
Upgrades to road and airport infrastructure.	
<ul> <li>Introduction of additional water and power supply into the region.</li> </ul>	
<ul> <li>Adopt best practice technology and management to improve the efficiency and the sustainability of the Project.</li> </ul>	
<ul> <li>Financial assurance is to be put aside to guarantee appropriate decommissioning and rehabilitation of the Project site.</li> </ul>	
Active community participation and feedback will be encouraged during all stages of Project development.	
The Proponent is committed to ongoing consultation in accordance with a detailed Community and Stakeholder Engagement Plan to ensure local communities and stakeholders are engaged in a way that encourages participation and feedback. This process has already commenced.	Volume 2, Section 23.2 Table 23-1
Active community participation at all stages of the Project lifecycle will be facilitated according to the development and implementation of the Social Impact Management Plan	

### F.1.24 Hazard and Risk

Proponent Commitment	Relevant Section in Coal Mine EIS
The Proponent's approach to safety management has been structured on the management system model outlined in AS4801:2001 Occupational Health and Safety Management Systems - Specification with guidance for use.	Volume 2, Section 24.7.1
The Hancock Integrated Management System (HIMS), which encompasses the approach to safety management. Under HIMS, the Proponent is committed to comply with all legislative requirements.	Volume 2, Section 24.7.1
The primary occupational health and safety legislation applicable to the Project includes the following Acts and Regulations:  • Workplace Health and Safety Act 1995 (Qld);  • Workplace Health and Safety Regulation 2008 (Qld);  • Coal Mining Safety and Health Act 1999 (Qld); and  • Coal Mining Safety and Health Regulation 2001(Qld).	Volume 2, Section 24.7.1
Risk management principles have been integrated into safety management under HIMS. Risk management will be used to identify hazards, assess risks and identify controls at various stages of the Project. The outcome of the risk management process will be the development of operational controls such as health and safety plans, safe operating procedures, inspections and audits based on the risks identified. Risks requiring controls will use a preferred order of control (hierarchy of control). Elimination will be the first control method to be considered.	Volume 2, Section 24.7.2
The following will be canvassed when evaluating project risks:  • Lessons from other Hancock and stakeholders and other	Volume 2, Section 24.7.2

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Proponent Commitment	Relevant Section in Coal Mine EIS
projects;;	
Legislative requirements;	
Industry standards; and	
Lessons from industry.	
The risk management process will be applied from the planning stages throughout the life of the Project. The activities or events that trigger the risk assessment process include:	
Design;	
<ul> <li>Prior to commencing day-to-day tasks such as the Job Safety and Environmental Analysis (JSEA) and Take 5 Tools;</li> </ul>	
<ul> <li>Prior to the introduction of new items of plant, equipment or substance;</li> </ul>	
<ul> <li>When there is a change in management systems, conditions, processes or plant;</li> </ul>	
After a significant incident; and	
Periodic review.	
Hazards and risks identified during the Project risk assessment will be maintained within a risk register that is continually updated and relevant. The risk register will be reviewed at least annually to ensure that high level hazards and risks continue to be adequately controlled.	Volume 2, Section 24.7.2
Activity-based risk assessments, such as those completed by using JSEA tools, will be maintained and used to continuously improve the methods of work undertaken during the Project.	
Employees of the Project will be involved in the development, implementation and review of safe operating procedures relating to risk management.	
As part of the operational controls relating to the hazards and risks identified in this study, safe work methods, training and competency will be developed to include:	Volume 2, Section 24.7.3
Safe work method; and	
Training and competency.	
In order to address the hazard and risk issues identified during construction, operation and decommissioning, the Project will commit to delivering a Health and Safety Management Plan under HIMS, including the following elements:	Volume 2, Section 24.7.4
Principal Hazard Management Plans	
Safe work methods;	
<ul> <li>Operating procedures;</li> <li>Design and construction of infrastructure in accordance with relevant Australian Standards;</li> </ul>	
Emergency management plans; and	
Training and competency.	
The Proponent will provide all resources, training and equipment for first response capability for all foreseeable incidents.	Volume 2, Section 24.8
The Proponent will supplement the existing resources, capability and equipment of the rural fire brigade.	Volume 2, Section 24.8
The mine site will have an Emergency Management Plan that is maintained up to date and is a controlled document. In addition to	Volume 2, Section 24.8.1

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Proponent Commitment	Relevant Section in Coal Mine EIS
<ul> <li>defining the manner in which on-site emergencies are to be managed, this plan will include the following information:</li> <li>The nature of the emergency situations that could occur at the site;</li> <li>The local public authorities involved (or potentially involved) with the management of emergencies that could arise at the site;</li> <li>Emergency management structure;</li> <li>Notification and escalation;</li> <li>Mine site layout;</li> <li>Specific Principle Hazard Management Plans (PHMP). E.g. Vehicles, explosives, ground, floor heave;</li> <li>Specific Emergency Response Procedures; and</li> <li>Trigger Action Response Plans.</li> </ul>	
The Emergency Response Team and Incident Management Team plan will be specifically developed for the Project site prior to construction and again for operations closer to the time based on Project organisational structure and protocols established.	Volume 2, Section 24.8.3
The preservation of property and business will also be considered in the finalisation of emergency management plans.	Volume 2, Section 24.8.4
<ul> <li>The Emergency Management Plan will consist of the following:</li> <li>Fire management plan -(Equipment, Building, Vehicle Fire, Wild fire)</li> <li>Diesel / oil spill management plan</li> <li>Vehicle breakdown management plan</li> <li>High wind management plan</li> <li>Rain response management plan</li> <li>Flood management plan</li> <li>Principle Hazard Manage Plans (PHMP)</li> </ul>	Volume 2, Section 24.8.4
<ul> <li>The following specifications for minimum resourcing requirements are provided which will be effective prior to construction.</li> <li>Have an appropriate number of fully trained personnel in the following areas: <ul> <li>First aid and resuscitation;</li> <li>Fire fighting;</li> <li>Rescue – Ground failure;</li> <li>Rescue – At heights;</li> <li>Rescue – In water;</li> <li>Rescue – Dealing with electricity;</li> <li>Rescue – Dealing with explosives;</li> <li>Rescue – Dealing with chemicals (e.g. diesel, oil, CHPP reagents);</li> <li>Rescue – Confined spaces;</li> <li>Rescue – From vehicles;</li> <li>Rescue – From buildings; and</li> <li>Rescue – Remote locations.</li> </ul> </li> <li>Emergency Management Team will include a paramedic on site at all times.</li> <li>Anti-venom will be held on site.</li> <li>First response capability and resources for six injured personnel (corresponding to the maximum number of people</li> </ul>	Volume 2, Section 24.9

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Proponent Commitment	Relevant Section in Coal Mine EIS
likely to be together in a standard mine site based light vehicle).	

### F.1.25 Decommissioning and Rehabilitation

1.1.25 Decommissioning and Kenabintation	
Proponent Commitment	Relevant Section in Coal Mine EIS
The Queensland Department of Environment and Resource Management (DERM) requires that land disturbed by mining is rehabilitated to achieve stable and beneficial agreed uses. The three mandatory rehabilitation requirements stipulated by DERM include landform stability, beneficial use and protection of water quality.	Volume 2, Section 25.1.2
<ul> <li>The rehabilitation of disturbed land at the mine site will be conducted so that:</li> <li>Suitable species of vegetation are sown/planted and established to achieve the nominated post-mine land uses;</li> <li>The potential for water and wind induced erosion is minimised, including the likelihood of environmental impacts being caused by the release of dust;</li> <li>The quality of surface water released from the site is such that releases of contaminants are not likely to cause environmental harm;</li> <li>The water quality of any residual water bodies (other than the final void) is suitable for the nominated use and does not have the potential to cause environmental harm; and</li> <li>The final landform is stable and not subject to slumping or erosion which will result in the agreed post mining landform not being achieved.</li> </ul>	Volume 2, Section 25.1.3
The post mining landform will be constructed and rehabilitated to ensure that a similar proportion of land suitability classification as the pre-mining landscape is attained.	Volume 2, Section 25.1.5.1
The post mining landform will be constructed and rehabilitated to attain an agricultural land suitability class of C2.	Volume 2, Section 25.1.5.2
Treed vegetation along the toe of rehabilitation areas will not be cleared unless an unacceptable safety or erosion risk remains. Where possible, rehabilitation planning will attempt to maximise opportunities for a diverse post-mining landscape and land-use. It is presently proposed that the final land-uses of the rehabilitated site will include a mixture of grazing and bushland. Creek diversions running around the site will have riparian areas rehabilitated to a pre-mining standard to include a diverse vegetative community of native trees, shrubs and grasses. Monitoring will be undertaken to ensure that objectives are being met.	Volume 2, Section 25.1.6
Rehabilitation will be progressively undertaken on areas that cease to be used for mining or mine-related activities within two years of becoming available, to reduce the amount of disturbed land at any one time. Results of progressive rehabilitation will be used to refine rehabilitation methods for future application such as the selection of appropriate drainage measures and plant species for re-establishment. Areas available for progressive rehabilitation	Volume 2, Section 25.1.7

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Proponent Commitment	Relevant Section in Coal Mine EIS
and the types of disturbance at those sites will be detailed in the mine's Plan of Operations.	
Rehabilitation will be undertaken throughout the life of the mine	Volume 2, Section 25.1.7
The Proponent recognises the importance of appropriate soil identification, stripping and management practices for successful mine rehabilitation and the achievement of the desired post mining land use(s). To achieve these outcomes the Proponent will implement measures to effectively manage topsoil through the mining and rehabilitation process. Detailed site soil management plans will be developed prior to the commencement of mine construction. These will include a topsoil management plan (TMP) and an erosion and sediment control plan (ESCP). The TMP will specifically address topsoil stripping, stockpiling (includes specific locations), the development of topsoil inventories for the Project site, handling, re-spreading, amelioration and seedbed preparation.	Volume 2, Section 25.1.9
A proposed tree, shrub and groundcover mix, based on the species list from the flora assessment (Volume 2, Section 9) is provided in Table 25-3.	Volume 2, Section 25.10.2
<ul> <li>Weeds will be managed across the site through a series of control measures, including:</li> <li>Hosing down at risk equipment in an approved wash down area before entry to site;</li> <li>Scalping weeds off topsoil stockpiles prior to re-spreading topsoil;</li> <li>Regular inspections of rehabilitation to identify potential weed infestations; and</li> <li>Identifying and spraying existing weed populations on-site together with ongoing weed spraying over the life of the mine.</li> <li>Weed control, if required, will be undertaken in a manner that will minimise soil disturbance. Any use of herbicides will be carried out in accordance with appropriate requirements to minimise the risk to downstream water quality. Records will be maintained of weed infestations and control programs will be implemented according to best management practice for the weed species concerned.</li> </ul>	Volume 2, Section 25.1.12
Regular monitoring of the rehabilitation will be required during the vegetation establishment period, to demonstrate whether the objectives of the rehabilitation strategy are being achieved and whether a sustainable landform has been provided.  In addition to rehabilitated areas, reference sites will be monitored to allow a comparison of the development and success of the rehabilitation against a control. Reference sites indicate the condition of surrounding un-mined areas that the mine site must replicate.  Monitoring will be conducted periodically by independent, suitably skilled and qualified persons at locations which will be representative of the range of conditions on the rehabilitating areas. Annual reviews will be conducted of monitoring data to assess trends and monitoring program effectiveness.  The proposed rehabilitation monitoring programme details are provided in the Environmental Management Plan (Volume 5, Appendix P). Monitoring of the rehabilitated areas will broadly	Volume 2, Section 25.1.14

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Proponent Commitment	Relevant Section in Coal Mine EIS
	Relevant Section in Coal Wille Els
<ul><li>involve the following:</li><li>Ongoing chemical analysis of topsoil;</li></ul>	
<ul> <li>Comparison of soil erosion rates and rill and gully dimensions with measurements taken from reference sites;</li> </ul>	
Comparison of vegetation measurements with measurements taken from reference sites;	
Ongoing analysis of water quality parameters in accordance with the development consent and environmental protection licence conditions from data collected monthly at water storages, ramps and pits, sedimentation dams and sewage effluent outfalls on-site, and continually from creeks (upstream and downstream of mine); and	
<ul> <li>Visual surveillance including the use of digital photogrammetry / low level obligue or vertical aerial photography to monitor changes over time in the rehabilitation (e.g. changes in vegetation structure, erosion rates and landform drainage).</li> </ul>	
More specifically, monitoring of specific parameters will be undertaken to determine the level of achievement of success criteria.	
Maintenance of rehabilitated areas will be undertaken where necessary and in response to results of the monitoring program, to ensure success criteria are met, or in the case of progressive rehabilitation, are projected to be met at the time of mine closure. Depending on the criteria to be achieved, examples of maintenance works could include re-seeding or planting of tube stock of tree and/or shrub species to meet required revegetation parameters and implementation of erosion protection measures to reduce erosion rates.  Post-mining surveys of the rehabilitation will be undertaken across the site to determine whether the site meets success criteria and whether this result is being maintained over time. Once this	Volume 2, Section 25.1.15
occurs and the site is relinquished, the land will be returned to the relevant stakeholders and maintenance of the rehabilitation will no longer be required.	
A specific Infrastructure Decommissioning and Closure program will be developed and implemented, and will occur to meet legislative and EA conditions. The plan will include:  • Decommissioning of Infrastructure, Plant and Buildings	Volume 2, Section 25.2.1 and 25.2.2
<ul> <li>Site preparation</li> <li>Site services</li> <li>Infrastructure and buildings</li> </ul>	
<ul> <li>Contaminated land assessment</li> <li>Bulk earthworks and rehabilitation</li> </ul>	
Infrastructure, plant and buildings	
<ul> <li>Hardstand and haul roads</li> </ul>	
<ul> <li>Dam and Surface water features</li> </ul>	
At closure, a preliminary sampling and analysis program (Phase 1) will be implemented to determine whether an assessment (Phase 2 – detailed investigation of contamination involving drilling, etc) should be conducted to quantify the amount of contaminated material that will need to be bio-remediated on site.	Volume 2, Section 25.2.14

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Proponent Commitment	Relevant Section in Coal Mine EIS
Water will only be permitted to accumulate in the void if it maintains a quality that does not compromise its intended use or the quality of surrounding groundwater reserves.  Post-closure, a water monitoring program will need to remain in place to closely monitor any changes to chemistry within the void.	Volume 2, Section 25.2.3.2
To ensure the safety of the final void, the surrounding final slopes will be left in a condition where the risk of slope failure is minimized, for the low wall and high wall. A number of measures will be implemented and the geotechnical stability assessed. Prior to closure, further investigations will be undertaken to confirm the criteria above and appropriate action will be taken to ensure effective long term safety, stability and management of the void.	Volume 2, Section 25.2.3.2
Final void management will include:  Spontaneous combustion  Surface water  Safety; and Final void use	Volume 2, Section 25.2.3.2 and 25.2.3.3
Following closure of the mine the existing environmental monitoring program will be maintained until all decommissioning and rehabilitation works have been completed. Notwithstanding this, there may be the need to establish some additional monitoring sites depending on the nature of the decommissioning works and also in response to finding possible sources of pollutants to the environment.  The type and location of this monitoring will be determined further during the decommissioning phase of the mine site.	Volume 2, Section 25.2.4
At closure the mine will achieve the agreed rehabilitation success criteria.	Volume 5, Appendix P Section 3.7.22
Progressive rehabilitation of the disturbed areas will be undertaken on an availability basis.	Volume 5, Appendix P Section 3.7.22
An ongoing rehabilitation monitoring program will be undertaken against the agreed criteria.	Volume 5, Appendix P Section 3.7.22
Prior to closure information to support final void configuration will be developed.	Volume 5, Appendix P Section 3.7.22
The final voids will be designed to render them safe, stable and sustainable.	Volume 5, Appendix P Section 3.7.22

### F.2 Rail

### F.2.1 Climate

Proponent Commitment	Relevant Section in Rail EIS
Coordinate staff travel arrangements and maximise passenger loads on each trip.	Volume 3, Section 3.3
Develop construction staging plans with consideration to the climatic conditions.	Volume 3, Section 3.3

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Proponent Commitment	Relevant Section in Rail EIS
When undertaking works in the wet season, implement appropriate erosion controls in accordance an approved site management plan.	Volume 3, Section 3.3

### F.2.2 Geology

Proponent Commitment	Relevant Section in Rail EIS
If dispersive soils are necessary to be incorporated as construction material, undertake appropriate treatment of the soil.	Volume 3, Section 4.3.1
Ensure the railway line is designed in accordance with relevant standards and capable of withstanding cracking clays and mitigating impacts of shrink and swell.	Volume 3, Section 4.3.1
Undertake appropriate measures required to stabilise the soil moisture content of shrink and swell soils.	Volume 3, Section 4.3.1
Undertake a detailed geotechnical investigation prior to construction of the railway line.	Volume 3, Section 4.3.2
If rock is excavated reuse it on the construction site as beneficial fill.	Volume 3, Section 4.3.3
Remove excess waste material to a pre-designated and approved disposal site.	Volume 3, Section 4.3.3
Carry out blasting and heavy drilling operations during standard day hours.	Volume 3, Section 4.3.3
Undertake ground treatment where temporary access roads and storage areas are required.	Volume 3, Section 4.3.4
Locate temporary structures away from areas of cracking soils.	Volume 3, Section 4.3.4
Ensure detailed planning and engineering adopts a policy of minimizing sterilisation from future mining.	Volume 3, Section 4.3.5
If it is discovered that the rock in the work area contains fossils, all work is to stop and the Project Environmental Representative notified of the find. The area will be sectioned off and personnel will not disturb the area any further. The Environmental Representative should notify the Department of Environment and Resource Management (DERM) as soon as is practical for further advice.	Volume 3, Section 4.3.5.2
Ensure cleared vegetation is not left near river/creek banks or within the creek/river itself.	Volume 3, Section 4.3.6
Do not use water from creeks or rivers without an approved extraction licence.	Volume 3, Section 4.3.6
Do not discharge wastewater from the site to the creek or river without complying with the relevant Queensland Water Quality Guidelines 2009 and without relevant approvals from regulatory authorities.	Volume 3, Section 4.3.6

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### F.2.3 Soils, Topography and Land Disturbance

Proponent Commitment	Relevant Section in Rail EIS
Develop and implement a Drainage, Erosion and Sediment Control Plan.	Volume 3, Section 5.3.3
Appropriately manage works and avoid increasing the risk of erosion.	Volume 3, Section 5.1.3
Manage soils that are at risk of becoming waterlogged.	Volume 3, Section 5.2.3
Manage acidic and alkaline soils.	Volume 3, Section 5.2.3
Undertake soil analysis when required.	Volume 3, Section 5.2.3
Rehabilitate disturbed areas once construction is completed.	Volume 3, Section 5.2.3
Take erosion and sediment control principles into consideration prior to designing and constructing access tracks and construction roads.	Volume 3, Section 5.3.3
Construct water crossings in a manner than minimises environmental degradation.	Volume 3, Section 5.3.3
Implement soil and stockpile management measures.	Volume 3, Section 5.3.3
The use of sediment control devices are proposed to reduce the volume/concentration of suspended solids and other gross pollutants leaving the site.	Volume 3, Section 5.3.3.2
<ul> <li>However, from an erosion and sediment control perspective, the following principles will be considered in the construction of new unformed roads (DECC, 2008c): <ul> <li>The catchment area above the road or track may be reduced by locating the road along a ridge or as high as possible on side slopes;</li> <li>Unformed roads and tracks will have at least a slight cross-sectional grade to allow free surface drainage and to avoid excessive ponding in wheel tracks;</li> <li>The longitudinal grade of an unformed road or track will ideally be less than 10 degrees (18 %). However, short lengths of steeper grade may be needed subject to topography and geotechnical survey;</li> <li>Where grades of unformed roads are between 3% to 20%, easily trafficable diversion banks will be used to prevent scouring. Where higher grades occur then gravelling and more sophisticated road drainage will be required (e.g. turn outs);</li> <li>Approaches on service tracks to gully and creek crossings will be as flat as practicable. The track will be sloped to direct runoff to a table-drain. In some vulnerable areas, it may be necessary to spread and compact coarse aggregate appropriately around / along the approaches to the crossing to provide stable access and to reduce erosion;</li> <li>Where provision of access in gullies or creeks causes disturbance of vegetation, re-vegetation and stabilisation work will be undertaken;</li> </ul> </li> </ul>	Volume 3, Section 5.3.3.2
Undertake an Acid Sulphate Soil investigation where required.	Volume 3, Section 5.4.2.1
Implement suitable drainage controls in areas where vegetation	Volume 3, Section 5.6.3

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Proponent Commitment	Relevant Section in Rail EIS
has been cleared for grazing or agricultural use.	
Restore construction camps and storage areas located within a GQAL resource to pre-existing conditions following completion of the project.	Volume 3, Section 5.8.3
Restore drainage flows and pathways into the various catchments that will be affected by the project.	Volume 3, Section 5.8.3
Develop and implement a Decommissioning and Rehabilitation Plan after the completion of construction works.	Volume 3, Section 5.10

#### F.2.4 Land Use and Tenure

Proponent Commitment	Relevant Section in Rail EIS
Provide occupational crossing in accordance with landholder agreements.	Volume 3, Section 6.3.1
Install grade separated intersections, at specified road crossings.	Volume 3, Section 6.3.1
Construct bridges where appropriate, at specified stream crossings.	Volume 3, Section 6.3.1
Establish signalised level crossings as specified where required.	Volume 3, Section 6.3.4

### F.2.5 Landscape Character

Proponent Commitment	Relevant Section in Rail EIS
Avoid loss or damage to vegetation within the rail corridor and adjacent road reserves.	Volume 3, Section 7.3.2
Ensure work sites are not over-lit and minimise additional light spillage from the rail corridor into adjacent visually sensitive properties.	Volume 3, Section 7.3.2
Remove temporary hoardings, barriers, traffic management and signage when no longer required.	Volume 3, Section 7.3.2
Store materials and machinery tidily during the works.	Volume 3, Section 7.3.2
Ensure access roads to the rail corridor are free of dust and mud as far as reasonably practicable.	Volume 3, Section 7.3.2
Undertake rehabilitation planting where possible to replace vegetation that provided screening to adjacent sensitive visual receptors.	Volume 3, Section 7.3.2
Provide screen fencing adjacent to residential properties where screening vegetation or fencing has been removed as part of the project works.	Volume 3, Section 7.3.2

#### F.2.6 Land Contamination

Proponent Commitment	Relevant Section in Rail EIS
Undertake contaminated site investigations and assessment in accordance with the DERM Draft Guidelines.	Volume 3, Section 8.3.2
Conduct a preliminary contaminated land assessment prior to any activities in an EMR listed site that may contain contaminated soil.	Volume 3, Section 8.3.2

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Proponent Commitment	Relevant Section in Rail EIS
Develop appropriate disposal methods for contaminated soils and other materials.	Volume 3, Section 8.3.2
Carry out an inspection prior to commencement of vegetation clearing to identify any signs of contamination.	Volume 3, Section 8.3.2
Remove and remediate any contaminated soils identified.	Volume 3, Section 8.3.2
Dispose of contaminated soils to authorized facilities on-site or off- site in accordance with Disposal Permits.	Volume 3, Section 8.3.2
Treat contaminated water in accordance with relevant water quality objectives prior to disposal.	Volume 3, Section 8.3.2
Avoid or minimize disturbance of known contaminated areas in accordance with an approved site management plan.	Volume 3, Section 8.3.2
Develop a site management plan and detail management responses if contaminated land is identified.	Volume 3, Section 8.3.2
Design fuel, oil and chemical storage areas in accordance with Australian Standards.	Volume 3, Section 8.3.3
Remove, remediate or manage contaminated soils in accordance with an approved site management plan.	Volume 3, Section 8.3.3
Inspect and maintain all vehicles, plant and machinery so as to ensure they are not at risk of leaking, or spilling contaminants.	Volume 3, Section 8.3.3
Develop procedures for handling and using fuels, oils and other chemicals.	Volume 3, Section 8.3.3
Train workers in proper procedures for handling and use of fuels, oils and other chemicals.	Volume 3, Section 8.3.3
Incorporate spill response procedures into incident response plan.	Volume 3, Section 8.3.3
Train personnel in spill response.	Volume 3, Section 8.3.3
Maintain spill response kits and personal protective equipment in tanker trucks and at all locations where spills may occur.	Volume 3, Section 8.3.3
Ensure spill response kits are appropriately sized for the potential spill Volumes.	Volume 3, Section 8.3.3
Transport dangerous goods and potential contaminants in accordance with ADG Code.	Volume 3, Section 8.3.3
All storage facilities designed to Australian Standards.	Volume 3, Section 8.3.3
Ensure procedures for storage and handling including refuelling are put in place.	Volume 3, Section 8.3.3
Ensure procedures for inspecting and maintaining plant and equipment are put in place.	Volume 3, Section 8.3.3
Maintain all treatment systems to treat contaminated waters or wastewater from construction camps.	Volume 3, Section 8.3.3
Develop procedures to monitor and manager discharges to the environment.	Volume 3, Section 8.3.4
Develop a Weed Management Program.	Volume 3, Section 8.3.4
Develop and implement a maintenance program for trains transporting the coal.	Volume 3, Section 8.3.4

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### F.2.7 Terrestrial Ecology and Stygofauna

Proponent Commitment	Relevant Section in Rail EIS
Clearly identify the extent of areas to be cleared and those that must not be cleared or damaged on construction plans and in the field.	Volume 6, Appendix F2 Section 5.3.10
Employ an ecologist to accompany woody vegetation clearing teams during set out.	Volume 6, Appendix F2 Section 5.3.10
Locate all construction facilities such as equipment storage, offices and camps within already cleared areas.	Volume 6, Appendix F2 Section 5.3.10
Reuse hollow logs and hollow bearing trees.	Volume 6, Appendix F2 Section 5.3.10
Construct culverts in areas where the railway line bisects important habitat.	Volume 6, Appendix F2 Section 5.3.10
Restrict clearing of trees with large raptor nests.	Volume 6, Appendix F2 Section 5.3.10
Employ a qualified fauna spotter.	Volume 6, Appendix F2 Section 5.3.12
Develop a flora and fauna species relocation plan particularly for threatened species.	Volume 6, Appendix F2 Section 5.3.12
Erect temporary fencing around the construction zones in accordance with an approved site management plan.	Volume 6, Appendix F2 Section 5.3.12
Educate employees of environmental responsibilities during inductions.	Volume 6, Appendix F2 Section 5.3.12
Enforce on-site speed limits.	Volume 6, Appendix F2 Section 5.3.12
Establish and maintain a fauna mortality register.	Volume 6, Appendix F2 Section 5.3.12
Use appropriate lighting in work areas and related project areas and employ directional lighting with protective guards.	Volume 6, Appendix F2 Section 5.3.13
Ensure all equipment is appropriately serviced, maintained and certified weed free.	Volume 6, Appendix F2 Section 5.3.13
Implement dust suppression techniques during the construction stage of the Project.	Volume 6, Appendix F2 Section 5.3.14
Develop and implement a Weed and Pest Management Plan.	Volume 6, Appendix F2 Section 5.3.15
Develop and implement a Fire Management Plan.	Volume 6, Appendix F2 Section 5.3.16
Construct fauna underpasses within important habitat areas.	Volume 6, Appendix F2 Section 5.3.17
Develop and implement an Erosion and Sedimentation Management Plan.	Volume 6, Appendix F2 Section 5.3.18
Rehabilitate disturbed ground surfaces as soon as practicable to minimise exposed surface periods.	Volume 6, Appendix F2 Section 5.3.18
Fence the rail easement as necessary and progressively prior to construction and ensure the fence is made out of durable materials. If possible do not use barbed wire.	Volume 6, Appendix F2 Section 5.4.1
Re-vegetate habitats disturbed during construction.	Volume 6, Appendix F2 Section 5.4.1
Implement a Coal Dust Management Plan.	Volume 6, Appendix F2 Section 5.4.3
Conduct a post-construction weed audit of the project footprint at the end of the first wet season following completion.	Volume 6, Appendix F2 Section 5.4.4

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Proponent Commitment	Relevant Section in Rail EIS
Rehabilitate any disturbed wildlife areas outside the rail corridor after construction.	Volume 6, Appendix F2 Section 5.4.5
Establish protective vegetation and sediment ponds to buffer sensitive flora and fauna habitats from run-off and sedimentation.	Volume 6, Appendix F2 Section 5.4.6
Establish sediment traps, silt fencing and biofilters where appropriate.	Volume 6, Appendix F2 Section 5.4.6
Establish a water and sediment quality monitoring plan.	Volume 6, Appendix F2 Section 5.4.6
Conduct hydrology modelling of relevant areas.	Volume 6, Appendix F2 Section 5.4.7
Map and clearly mark on the ground the locations of populations of species of conservation significance.	Volume 6, Appendix F2 Section 5.5.1
Restrict access to ground within the drip line of any tree or shrub belonging to a species of conservation significance that is located next to impact areas.	Volume 6, Appendix F2 Section 5.5.1
Conduct clearing in accordance with a Species or Population Management Plan and under the supervision of a suitably briefed ecologist.	Volume 6, Appendix F2 Section 5.5.1
Collect seeds from black ironbox trees and where feasible other species of conservation significance that may occur within the project footprint prior to removal, for redistribution in adjacent areas, to be added to the seed stock of a suitable conservation group, or to supplement rehabilitation efforts in approved offset areas.	Volume 6, Appendix F2 Section 5.5.1
The extent of clearing is to be restricted to the minimal amount necessary, particularly in the REs listed as constituents of TECs, Endangered and Of Concern REs and threshold REs;	Volume 3, Section 9.3.1.2.2
Where clearing of conservation significant REs is absolutely unavoidable, offsets will be provided;	Volume 3, Section 9.3.1.2.2
Areas of high ecological value such as riparian corridors will be approached with care, and effort made so that connectivity is reestablished to the highest realistic extent;	Volume 3, Section 9.3.1.2.2
Offset in accordance with DERM policies and clearing permit conditions.	Volume 6, Appendix F2 Section 5.5.1
Minimise the width of the transport corridor within ephemeral creek habitats.	Volume 6, Appendix F2 Section 5.5.2
Develop a Management Plan to monitor potential changes in hydrology and water quality.	Volume 6, Appendix F2 Section 5.5.2
Design to include culverts with an area of dry passage within gilgaied landscapes and allow small fauna to cross beneath the rail alignment.	Volume 6, Appendix F2 Section 5.5.2

### F.2.8 Aquatic Ecology

Proponent Commitment	Relevant Section in Rail EIS
Design the rail corridor, through aquatic habitats with Q50 flows greater than 250 m <sup>3</sup> /s., to minimise habitat impacts as much as possible.	Volume 6, Appendix F1 Section 4.2.1

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Proponent Commitment	Relevant Section in Rail EIS
Clearly identify the extent of vegetation clearing and earthworks on construction plans and in the field.	Volume 6, Appendix F1 Section 4.2.1
Located construction areas and associated facilities within existing cleared areas and away from aquatic habitats.	Volume 6, Appendix F1 Section 4.2.1
Undertake appropriate offsets if clearing of marine plants in estuarine habitats is required.	Volume 6, Appendix F1 Section 4.2.1
When undertaking works within aquatic habitats in the wet season, implement measures to minimise habitat impacts in accordance with an approved management plan.	Volume 6, Appendix F1 Section 4.2.2
Develop an aquatic fauna species relocation plan for wetland.	Volume 6, Appendix F1 Section 4.2.2
Erect temporary bunding around aquatic habitats within the construction zone.	Volume 6, Appendix F1 Section 4.2.2
Educate employees of environmental responsibilities during inductions including treating all native fauna species as protected.	Volume 6, Appendix F1 Section 4.2.2
Enforce on-site speed limits.	Volume 6, Appendix F1 Section 4.2.2
Ensure in-stream flows are maintained via a flow diversion system.	Volume 6, Appendix F1 Section 4.2.3
Ensure a fauna spotter is available to capture and relocate fauna species trapped in isolated habitats.	Volume 6, Appendix F1 Section 4.2.3
Maintain water quality in accordance with Queensland Water Quality Guidelines.	Volume 6, Appendix F1 Section 4.2.3
Rehabilitate disturbed ground surfaces as soon as practical to minimise exposed surface periods.	Volume 6, Appendix F1 Section 4.2.4
Incorporate dust suppression techniques into construction activities.	Volume 6, Appendix F1 Section 4.2.4
Maintain clean operating conditions in vehicles and machines.	Volume 6, Appendix F1 Section 4.2.4
Develop and implement a Waste and Hazardous Materials Management Plan.	Volume 6, Appendix F1 Section 4.2.4
Ensure all rubbish and other refuse is appropriately disposed of.	Volume 6, Appendix F1 Section 4.2.6
Monitor turtle mortality rates at large palustrine habitats.	Volume 6, Appendix F1 Section 4.3.1
Develop and install turtle exclusion barriers in areas that demonstrate high risk of mortality.	Volume 6, Appendix F1 Section 4.3.1
Provide culverts at key areas within floodplain habitats.	Volume 6, Appendix F1 Section 4.3.2
Establish protective vegetation, sediment traps, silt fencing and biofilters at aquatic habitat locations.	Volume 6, Appendix F1 Section 4.3.3
Minimise introduction of oil and fuel through cleaning and maintaining trains.	Volume 6, Appendix F1 Section 4.3.4
Design train wagon to minimise loss of coal particles.	Volume 6, Appendix F1 Section 4.3.4
Construct ballast top bridge over aquatic habitats to minimise waterway contamination.	Volume 6, Appendix F1 Section 4.3.4
Ensure train operations are conducted in accordance with Coal Dust Management Plan.	Volume 6, Appendix F1 Section 4.3.4
Ensure train cleaning is undertaken regularly.	Volume 6, Appendix F1 Section 4.3.4

Proponent Commitment	Relevant Section in Rail EIS
Design appropriate lighting within or adjacent to aquatic habitat to minimize lighting disturbances.	Volume 6, Appendix F1 Section 4.3.5
Restrict speed limits within the Caley Valley Wetland.	Volume 6, Appendix F1 Section 4.3.5
Develop a Weed and Pest Management Plan.	Volume 6, Appendix F1 Section 4.3.5

#### F.2.9 Surface Water

#### F.2.10

Proponent Commitment	Relevant Section in Rail EIS
Minimise the period for which soil is left open to erosion.	Volume 6, Appendix G, Section 6 Table 3
Keep approved clearing areas as small as possible and demarcate them clearly.	Volume 6, Appendix G, Section 6 Table 3
Install temporary bunding or sediment transport during major earthworks.	Volume 6, Appendix G, Section 6 Table 3
Stockpile earth materials away from waterways, floodplains and overland flow paths.	Volume 6, Appendix G, Section 6 Table 3
Stabilise stockpiles that are left exposed for any period longer than two weeks.	Volume 6, Appendix G, Section 6 Table 3
Isolate and remediate existing erosion areas in the vicinity of the construction works to prevent further damage.	Volume 6, Appendix G, Section 6 Table 3
Restrict the area of vegetation and soil disturbance during the construction works to the smallest possible areas or to already disturbed areas.	Volume 6, Appendix G, Section 6 Table 3
Where possible use existing (access) tracks to avoid new ground and soil instability problems.	Volume 6, Appendix G, Section 6 Table 3
Where required, prevent and/or slow overland flow run-off by using sediment or silt barriers.	Volume 6, Appendix G, Section 6 Table 3
Install erosion control structures in appropriate areas.	Volume 6, Appendix G, Section 6 Table 3
Diverting water flows away from disturbed areas.	Volume 6, Appendix G, Section 6 Table 3
For construction sites: install erosion and sediment control measures in accordance with the Soil Erosion and Sediment Control – Engineering Guidelines for Queensland Construction Sites.	Volume 6, Appendix G, Section 6 Table 3
Stabilise and rehabilitate completed areas as soon as possible.	Volume 6, Appendix G, Section 6 Table 3
Restrict access to recently revegetated areas to allow for new vegetation to become established.	Volume 6, Appendix G, Section 6 Table 3
Re-contour sites to a stable form resembling the surrounding landscape.	Volume 6, Appendix G, Section 6 Table 3
Check the condition of any erosion/stormwater control structures during construction.	Volume 6, Appendix G, Section 6 Table 3
Regularly remove sediment from sediment control devices as required and in accordance with the Erosion and Sediment Management and Control Plan.	Volume 6, Appendix G, Section 6 Table 3

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Proponent Commitment	Relevant Section in Rail EIS
Reuse uncontaminated material, dispose of contaminated material.	Volume 6, Appendix G, Section 6 Table 3
Minimise any filling, draining, damming or alteration of waterways.	Volume 6, Appendix G, Section 6 Table 3
Develop and implement a Stormwater Management Plan for the construction phase of the project	Volume 6, Appendix G, Section 6 Table 3
Prevent any construction water flows from interfering with natural waterways.	Volume 6, Appendix G, Section 6 Table 3
Protect washing down plants from any overland flows.	Volume 6, Appendix G, Section 6 Table 3
Undertake detailed hydraulic modelling at the design stage to minimise the effects of increased flood heights and local flow velocity as the result of new bridges and culverts.	Volume 6, Appendix G, Section 6 Table 3
Minimise wetlands and riparian vegetation disturbance.	Volume 6, Appendix G, Section 6 Table 4
Establish and implement an Erosion and Sediment Control Management Plan.	Volume 6, Appendix G, Section 6 Table 4
Establish and implement a Waste Management Plan.	Volume 6, Appendix G, Section 6 Table 4
Conduct detailed scour analysis and design in the vicinity of the intersections between waterways and the Project.	Volume 6, Appendix G, Section 6 Table 4
Regularly inspect all erosion and sediment control structures.	Volume 6, Appendix G, Section 6 Table 4
Regularly inspect and maintain all drainage structures when necessary.	Volume 6, Appendix G, Section 6 Table 4

#### F.2.11 Groundwater

Proponent Commitment	Relevant Section in Rail EIS
Ensure storage areas for vehicles, machinery, equipment and chemicals have appropriate facilities for containment of spills, leaks and surface water run-off.	Volume 3, Section 12.3.2.2

### F.2.12 Air Quality

Proponent Commitment	Relevant Section in Rail EIS
Implement the EPA Document Best Practice Environmental Management – Environmental Guidelines for Major Construction sites (publication 480).	Volume 6, Appendix H Section 5.2
Minimise exhaust and coal dust emissions during the operation stage of the Project.	Volume 6 Appendix H Section 6.4

#### F.2.13 Greenhouse Gas Emissions

Proponent Commitment	Relevant Section in Rail EIS
A detailed GHG emissions assessment will be undertaken when there is more information available in the detailed design stage for a more accurate result.	Volume 3, Section 14.4

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Proponent Commitment	Relevant Section in Rail EIS
Develop a GHG emissions minimisation strategy for the construction and operation stage of the Project.	Volume 3, Section 14.4
Investigate the use of biofuels or other alternate fuel options and consult with equipment suppliers.	Volume 3, Section 14.4
Explore opportunities to backload on trucks.	Volume 3, Section 14.4
Use gravel instead of concrete slabs as a base for the demountable single units in the construction camps to reduce emissions.	Volume 3, Section 14.4
Investigate the disposal/reuse of surplus excavated material and if this material can be coordinated with concurrent construction activities in the vicinity.	Volume 3, Section 14.4
Coordinate staff travel arrangements to minimise aircraft and bus trips by maximise passenger loads on each trip.	Volume 3, Section 14.4
Include embodied energy considerations in material selection and procurement strategy during detailed design and for the life of the project	Volume 3, Section 14.4
Investigate opportunities to maximise the amount of revegetation on site.	Volume 3, Section 14.4
Consider the potential for alternative energy sources rather than grid connected electricity.	Volume 3, Section 14.4
Use Green Building Council of Australia Green Star assessment tools to minimise energy use in the Mine Industrial Area (MIA) and accommodation buildings.	Volume 3, Section 14.4
Where possible and subject to safety and operational constraints, select site transport vehicles based on energy consumption, with target environmental performance with no less than 5 points in greenhouse and air pollution rating	Volume 3, Section 14.4

#### F.2.14 Noise and Vibration

Proponent Commitment	Relevant Section in Rail EIS
Carry out a community notification program in advance of activities so as to notify the community of works that are scheduled to be undertaken.	Volume 6, Appendix I Section 5.2.4
Confine construction activities that are likely to generate noise to standard day-time working hours.	Volume 6, Appendix I Section 5.2.4
Minimise construction activities that are outside of the Project working hours.	Volume 6, Appendix I Section 5.2.4
Locate mobile plants (compressors, generators etc) as far as practicable away from neighbouring noise-sensitive places.	Volume 6, Appendix I Section 5.2.4
Direct principal noise sources away from noise sensitive places as far as possible.	Volume 6, Appendix I Section 5.2.4
Fit equipment with effective and properly maintained noise suppression equipment consistent with the requirements of the activity.	Volume 6, Appendix I Section 5.2.4
Ensure equipment utilised is maintained and operated as per	Volume 6, Appendix I Section 5.2.4

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Proponent Commitment	Relevant Section in Rail EIS
manufacturer's specifications.	
Establish times of blasting to suit local conditions.	Volume 6, Appendix I Section 5.4.4
Undertake building condition surveys at all impacted dwellings prior to commencement of vibration generating works.	Volume 6, Appendix I Section 5.4.4

#### F.2.15

### F.2.16 Waste Management

Proponent Commitment	Relevant Section in Rail EIS
Minimise vegetation clearing where possible.	Volume 3, Section 16.3.2
As far as practicable, ensure vegetation materials are mulched and used onsite for rehabilitation and revegetation works.	Volume 3, Section 16.3.2
Ensure larger vegetation materials such as hollow logs and hollow bearing trees are stockpiled for use in rehabilitation activities or placed in adjoining bush land.	Volume 3, Section 16.3.2
Where vegetation can not be reused as part of the project it will be disposed of as mulch	Volume 3, Section 16.3.2
Wherever practicable, reuse spoils onsite as backfill or as no load bearing fill.	Volume 3, Section 16.3.2
Transport any surplus spoil that cannot be reused off-site to an approved landfill site or to borrow pits.	Volume 3, Section 16.3.2
Locate material and stockpiling areas within the construction corridor until its ultimate destination is determined.	Volume 3, Section 16.3.2
Ensure detailed design and specifications are undertaken so as to minimise the generation of waste during construction and the durability of materials is considered.	Volume 3, Section 16.3.2
Set up designated waste transfer areas.	Volume 3, Section 16.3.2
Store recyclable waste separately from residual/non-recyclable waste.	Volume 3, Section 16.3.2
Appropriately manage stockpile areas and storage areas.	Volume 3, Section 16.3.2
Recycle steel-suitable steel off cuts or scrap.	Volume 3, Section 16.3.2
Reuse or recycle timber and plywood.	Volume 3, Section 16.3.2
Dispose non-recyclable construction materials at a licensed waste facility.	Volume 3, Section 16.3.2
Store all chemicals, fuels and oils at appropriately bunded areas in accordance with Australian Standards.	Volume 3, Section 16.3.2
Use pre-painted products to minimise use of paints and solvents.	Volume 3, Section 16.3.3
Provide recycling bins around construction camps, site offices and amenities.	Volume 3, Section 16.3.3
Store used oils, oily rags, solvents, lubricants and fuel in covered and bunded areas.	Volume 3, Section 16.3.3
Remove ballast and clean off site for reuse.	Volume 3, Section 16.3.3

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Recycle any ballast that cannot be reused as ballast, as possible.	Volume 3, Section 16.3.3
Send worn steel track to scrap metal recycler.	Volume 3, Section 16.3.3
Used furniture and equipment from decommissioning should be sold / reused / donated to charity where possible. Otherwise it would be disposed of at an appropriately licensed landfill. Other construction and demolition waste from decommissioning activities (such as concrete) should be recycled wherever practicable.	Volume 3, Section 16.6

### F.2.17 Transport

Proponent Commitment	Relevant Section in Rail EIS
Where maintenance works coincide with rail/road crossings and safety requirements require the closure of road lanes to road traffic, a special traffic management plan will be prepared in consultation with the local authorities	Volume 3, Section 17.3.4.1.6
Develop and implement a Transport Management Plan for construction activities.	Volume 3, Section 17.3

### F.2.18 Ingigenous Cultural Heritage

Proponent Commitment	Relevant Section in Rail EIS
Implement the Cultural Heritage Management Plan for the Project.	Volume 3, Section 18.3.2
Prepare and implement site specific management plans.	Volume 3, Section 18.3.2

### F.2.19 Non Indigenous Cultural Heritage

Proponent Commitment	Relevant Section in Rail EIS
Avoid impact on sites and places of significance.	Volume 3, Section 19.3
Employ a Heritage Consultant if dealing with sites of State significance.	Volume 3, Section 19.3
Avoid sites of State Archeological Significance.	Volume 3, Section 19.3
Manage unexpected cultural heritage material or sites in accordance with the EMP.	Volume 3, Section 19.3
Employ a historic archeologist during the construction phase of the project.	Volume 3, Section 19.3
Undertake a bi-annual survey of all heritage items identified within the study area.	Volume 3, Section 19.3

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Proponent Commitment	Relevant Section in Rail EIS
The Environmental Management Plan (EM Plan) developed for the Project will include a procedure for managing unexpected cultural heritage material or sites that may be encountered. This will include:	Volume 3, Section 19.3.2.8
<ul> <li>all work at the location of the potential material or site must cease and reasonable efforts to secure the site will be made</li> </ul>	
<ul> <li>a buffer zone of 20 m around the find is suitable;</li> </ul>	
<ul> <li>work can continue at a distance of 20 m from a find area.         Note that the material or site will not be removed or disturbed any further (barriers or temporary fences may be erected as a buffer around the find if required);         The Site Manager will be notified. They will then notify the Historical archaeologist appointed to the Project     </li> </ul>	
All staff will be educated as to where these sites are and what they consist of so that full avoidance of these sites is maintained	Volume 3, Section 19.10

#### F.2.20 Consultation

Proponent Commitment	Relevant Section in Rail EIS
Undertake ongoing stakeholder consultation in accordance with approved stakeholder management plans.	Volume 3, Section 20

#### F.2.21 Social

Proponent Commitment	Relevant Section in Rail EIS
Further develop and implement the Draft SIMP.	Volume 6, Appendix K Section 10.
Ensure that the Project design reduces the significance of potential social impacts (as per Draft SIMP).	Volume 6, Appendix K Section 9.3.
Develop the Good Neighbour Policy (as per Draft SIMP).	Volume 6, Appendix K Section 9.4.
Design appropriate policies and processes to specifically address the impacts in the construction stage of the Project (as per Draft SIMP).	Volume 6, Appendix K Section 9.4.1.
Design appropriate policies and processes to specifically address impacts in the operational phase of the Project (as per Draft SIMP).	Volume 6, Appendix K Section 9.4.2.
Negotiate a compensation package with the individual landholders (as per Draft SIMP).	Volume 6, Appendix K Section 9.5.
Engage with stakeholders in accordance with the Stakeholder Engagement Strategy.	Volume 6, Appendix K Section 9.6.
Maintain the existing community development fund throughout the construction and operation stages of the Project (as per Draft SIMP).	Volume 6, Appendix K Section 9.7.
Develop and implement an Employment and Procurement Policy in accordance with industry standards and relevant government guidelines (as per Draft SIMP).	Volume 6, Appendix K Section 9.8.
Further develop and implement the Monitoring and Reporting Program (as per Draft SIMP).	Volume 6, Appendix K Section 10.

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### F.2.22 Health and Safety

Proponent Commitment	Relevant Section in Rail EIS
Development and implement a Mosquito and Management Plan.	Biting Midge Volume 3, Section 21.3

#### F.2.23 Economics

Proponent Commitment	Relevant Section in Rail EIS
Promote opportunities for structured training, participation in construction and operation by trainees and indigenous workers and participation in construction and operation by local suppliers and contractors.	
Develop and implement a Local Industry Participation Plan.	Volume 3, Section 22. 3.4

### F.2.24 Sustainability

Proponent Commitment	Relevant Section in Rail EIS
Fulfil the objectives, goals and principles of the National Strategy for Ecologically Sustainable Development.	Volume 3, Section 23.2

#### F.2.25 Hazard and Risk

Proponent Commitment	Relevant Section in Rail EIS
Maintain minimum inventory of fuels on site.	Volume 3, Section 24.2
Manage all dangerous goods in accordance with standard guidelines.	Volume 3, Section 24.2
Prepare an Incident Management Manual (IMM) will be prepared for the construction and operations phase.	Volume 3, Section 24.3

### F.2.26 Decommissioning and Rehabilitation

Proponent Commitment	Relevant Section in Rail EIS
Undertake appropriate decommissioning and rehabilitation of relevant areas of the study area.	Volume 3, Section 25.2.3
Undertake rehabilitation of the study area in accordance with the rehabilitation criteria.	Volume 3, Section 25.2.4

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### F.3 EPBC Report

Proponent Commitment	Relevant Section in Coal Mine EIS	
Water Resources (mine)	Volume 4, Appendix C Section C.6.1.4	
<ul> <li>As described in the Site water management system, clean water from undisturbed catchments will be diverted around the mine site to Greentree and Lagoon Creeks as much as practical.</li> </ul>		
<ul> <li>Dirty water runoff from disturbed areas will be directed to sediment dams to encourage settling.</li> </ul>	Volume 4, Appendix C Section C.6.1.5	
<ul> <li>Captured water will be discharged to Lagoon Creek when water quality discharge criteria has been met, which will assist to maintain flows in the creek system. Water will be discharged at a single licensed discharge point located at the outlet of the final sediment dam.</li> </ul>		
•Contaminated runoff captured in-pit will be pumped to pit dewatering dams. Contaminated runoff from the CHPP, MIA and coal stockpile pads will be pumped to environmental dams.		
Pests and Weeds (mine)	Volume 4, Appendix C Section C.6.1.6	
<ul> <li>Declared weed species will be treated as per the relevant DEEDI fact sheet for each particular species</li> </ul>		
The following monitoring and reporting criteria are to be implemented for the Mine Study Area:	Volume 4, Appendix C Section C.7.1.3	
<ul> <li>A Weed and Pest Management Plan is to be developed for implementation during construction;</li> </ul>	Volume 4, Appendix C Section C.7.1.3	
<ul> <li>Monitoring in the form of annual observations by site personnel for weeds of management concern will be undertaken. These will be conducted following significant rain events in the wet season particularly in disturbed areas, roadsides, riparian zones and wash down facilities; and</li> </ul>		
•All materials will be certified as weed free prior to acceptance on- siteA weed audit of up to 20 percent of the Project footprint, at high risk locations, will be conducted after the Project footprint has been marked out, and preferably at a time when annual weeds can be recognised; and		
• A post-construction weed audit of the Project footprint will be undertaken at the end of the first wet season following completion.		
Proposed Offsets for Residual Impacts (mine)	Volume 4, Appendix C Section C.6.1.7	
<ul> <li>Although no EPBC listed communities will be impacted by the Project within the mine study area, the VM Act listed 'Of Concern' vegetation community of <i>Eucalyptus populnea</i> on alluvial plains (RE 11.3.2) is proposed to be impacted and will require the appropriate considerations for environmental offsetting. An Environmental Offset Program will be implemented where required and carried out in accordance with current policies for the offsetting of significant vegetation communities. This will include the development of a biodiversity offset strategy and management plan where it is required.</li> </ul>		
Vegetation Clearance (Rail)	Volume 4, Appendix C Section C.7.2.1	
Appropriate management strategies related to vegetation clearing will be developed for the rail study area. <i>These strategies are</i>	,	

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Proponent Commitment			Relevant Section in Coal Mine EIS
most likely to include the following management plans:			
•	A r	ehabilitation plan;	
•	A s	pecies-specific management plan; and	
•An overall management plan for populations of conservation- significant species.			
EP	EPBC Act Listed Fauna Species (rail)		Volume 4, Appendix C Section C.6.2.1.4
•	spe	igation measures relevant to EPBC Act listed fauna ecies that have been recorded or may occur within the rail dy area include:	
1.		nimise the width of the transport corridor within ephemeral ek habitats;	
2.		nstruct alternate dry season water resources such as ms where appropriate;	
3.	ren	sure a fauna spotter is located on site during all vegetation noval to identify, capture and relocate fauna from within as of vegetation as they are cleared;	
4.		velop a Management Plan to monitor potential changes in drology and water quality; and	
5.	gilg allo orn	sign to include culverts with an area of dry passage within gaied landscapes to allow uninterrupted surface flows and ow small fauna such as frogs and snakes, especially the amental snake dry passage to cross beneath the rail gnment.	
6.	WO	earing teams, particularly in the early stages of work when rking in vegetation to be retained after the Project, will be companied by an ecologist at all times.	
7.	by sho	llow logs and hollow bearing trees will be cleared of wildlife a licensed wildlife spotter, and wherever possible these buld be stockpiled for use in rehabilitation activities or erwise carefully placed in adjoining bushland;	
8.	pos	ees with large raptor nests will not be cleared, where ssible, after consideration of safety, operational and intenance issues.	
We	eds	and Pests (Rail)	Volume 4, Appendix C Section C.6.2.1.7
		on measures to reduce the impacts of weeds and pest include:	
•		velopment of a Weed and Pest Management Plan for olementation throughout the construction phase including:	
	1.	Vehicle wash down stations located along the rail study area, particularly wherever the Project footprint enters/leaves known parthenium 'hotspots' such as black soil plains, or ecologically sensitive areas such as major waterways (the Belyando River, the Suttor Creek, the Bowen River, Pelican Creek, the Bogie River, the Elliot River), wetlands, native grasslands;	
	2.	Training and orientation stressing the need to be thorough and conscientious in wash-down procedures;	
	3.	Develop procedures for washdown and provide training to all staff;	
	4.	Regular monitoring of pest species and weed	

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#### **Proponent Commitment**

#### **Relevant Section in Coal Mine EIS**

inspections; and

- Weed and pest control where necessary.
  - A weed audit of up to 20 percent of the Project footprint, at high risk locations, will be conducted after the Project footprint has been marked out, and preferably at a time when annual weeds can be recognised; and
  - A post-construction weed audit of the Project footprint will be undertaken at the end of the first wet season following completion..

#### Proposed Offsets for residual impacts (Rail)

An Offsets Package for the Project will be developed in consultation with DERM, DEEDI and DSEWPC, giving consideration to relevant state and Commonwealth policies relating to offsets. This package will include environmental offsetting for the three TECs listed under the EPBC Act that were identified within the rail study area, all of which are classified as endangered. These communities and their associated offset areas

- Brigalow (Acacia harpophylladominant and co-dominant) (110 ha);
- Natural Grasslands of the Queensland Central Highlands and the northern Fitzroy Basin (108.40 ha); and
- Semi Evergreen Vine Thickets of the Brigalow Belt (North and South) and Nandewar Bioregions (13.97 ha);

Where required, management of biodiversity offsets will include development of a strategy to address the requirements of the following policies:

- Queensland Government Environmental Offset Policy, 2008;
- Policy for Vegetation Management Offsets (DERM 2009); and
- Use of Environmental Offsets under the EPBC Act, 1999 (Commonwealth, 2007).

Objectives of the strategy will include:

- Identification of suitable potential offset areas with ecological values analogous to impacted ecological communities;
- Assessment of property extent and condition;
- Options available for pooling or consolidation of offset requirements; and
- · Options for securing offsets.

Further to the development of the offset strategy a site specific Biodiversity Offset Management Plan for identified offset properties will be developed and implemented over an appropriate time frame to accomplish the following specific aims:

- Assessment of the ecological value and equivalence of offsets to ensure suitable offset extent, species assemblage, floristic structure and ecological integrity utilising an appropriate biometric field methodology;
- Development of appropriate management prescriptions to ensure long term viability of offsets (e.g. pest control, livestock management, access exclusion, ameliorative

Volume 4, Appendix C Section C.6.2.2

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APPENDICES

Proponent Commitment	Relevant Section in Coal Mine EIS
plantings and fire regime management);	
<ul> <li>Placement of appropriate covenants for future conservation and management of offsets; and</li> </ul>	
•Development of appropriate monitoring and maintenance activities and performance review processes to ensure long term protection and viability of the offsets.	
Fauna (Rail)	Volume 4, Appendix C Section C.7.2.2
A fauna mortality register is to be kept and maintained to determine the location, frequency of mortality, and types of species most susceptible to enable further modifications to fauna conservation mechanisms to be made where necessary.	
Sedimentation, water-borne pollution and hydrology (rail)	Volume 4, Appendix C Section C.7.2.4
<ul> <li>Preparation and implementation of an Erosion and Sedimentation Management Plan; and</li> </ul>	
•Establish a water and sediment quality monitoring plan (adequate baseline information will be required) to monitor composition and condition of the important water sources with respect to potential pollution or contamination due to deposition of particulate matter in the water body and surrounds.	