



10. List of Proponent Commitments

10.1 Introduction

The Project ToR requires a list of all commitments made by Adani in the Project EIS, together with a reference to the relevant section of the EIS. The commitments listed below expand upon those mitigation measures recommended and proposed through the impact assessment process. As the Project comprises two components, the commitments have been listed in accordance with the EIS structure:

- ▶ Volume 1 – Project Wide
- ▶ Volume 2 – Mine
- ▶ Volume 3 – Rail

10.2 Volume 1 Project Wide

Table 10-1 Volume 1 Section 3 Social Impact Assessment

Adani Commitment	Relevant Section in Volume 1 of Project EIS
Development of recruitment and training programs that address skills shortages and sustainably maintain a reliable, skilled workforce, and address potential hurdles to traditionally under-represented groups joining the mining industry.	Section 3.4
Development of a Local Industry Participation Plan that complies with Adani's Local Buying Policy and maximises opportunities for businesses in the district and regional areas to provide goods and services to the project.	Section 3.3
Working collaboratively with IRC and other representative bodies, such as the Clermont Preferred Futures Group, to provide strategic direction and investment for whole of community benefit, including establishing a community fund providing financial support targeting community activities, capacity and services.	Section 3.4
Development of a Workforce Management Plan that includes a comprehensive employee induction programme addressing, among other things, a Code of Conduct for Employees and contractors regarding behaviour, alcohol and drug use, cultural awareness and safety.	Section 3.3
Development of a Housing and Accommodation Strategy that provides a workers accommodation village and temporary construction camps for the construction and operations workforce and responds to housing and accommodation issues in local and regional communities.	Section 3.3.5



Adani Commitment	Relevant Section in Volume 1 of Project EIS
For properties impacted by the project (Rail) there will be the need to relocate some fences, build new ones to fully fence the rail corridor and construct occupational crossings and additional stock holding yards where required.	Section 3.3.7
An emergency management plan will be developed for all components of the Project and this will include response to injuries and medical evacuations as well as fire response and response to road accidents.	Section 3.3.8

Table 10-2 Volume 1 Section 4 Social Impact Management Plan

Adani Commitment	Relevant Section in Volume 1 of Project EIS
Development of a Recruitment and training programs that address skills shortages and sustainably maintain a reliable, skilled workforce, and address potential hurdles to traditionally under-represented groups joining the mining industry.	Section 3.3.2
Development of a Local Industry Participation Plan that complies with Adani's Local Buying Policy and maximises opportunities for businesses in the district and regional areas to provide goods and services to the project.	Section 3.3.4
Development of a Workforce Management Plan that includes a comprehensive employee induction programme addressing, among other things, a Code of Conduct for Employees and contractors regarding behaviour, alcohol and drug use, cultural awareness and safety.	Section 3.3.2
Development of a Housing and Accommodation Strategy that provides a workers accommodation village and temporary construction camps for the construction and operations workforce and responds to housing and accommodation issues in local and regional communities.	Section 3.3.5
Provide medical, security and fire fighting services at the workers accommodation village to minimise additional pressure on emergency services and proactive engagement with emergency services in relation to emergency response planning along with provision of information required to allow forward planning by emergency services.	Section 3.3.8
Work collaboratively with IRC and other representative bodies, such as the Clermont Preferred Futures Group, to provide strategic direction and investment for whole of community benefit, including establishing a community fund providing financial support targeting community activities, capacity and services.	Section 3.3.9



Table 10-3 Volume 1 Section 5 Indigenous and Non-Indigenous Cultural Heritage

Adani Commitment	Relevant Section in Volume 1 of Project EIS
Adani will comply with the Cultural Heritage Management Plans (CHMPs) developed with the relevant Aboriginal parties and approved by DERM.	Section 5

Table 10-4 Volume 1 Section 6 Economics

Adani Commitment	Relevant Section in Volume 1 of Project EIS
An Indigenous Employment and Training Strategy will be developed reflecting the requirements of the Mackay Isaac and Whitsunday Regional Plan.	Section 6.3.2.1

Table 10-5 Volume 1 Section 7 Community Consultation

Adani Commitment	Relevant Section in Volume 1 of Project EIS
No specific commitments	

Table 10-6 Volume 1 Section 8 Cumulative Impacts

Adani Commitment	Relevant Section in Volume 1 of Project EIS
N/A	

Table 10-7 Volume 1 Section 9 Draft Offsets Strategy

Adani Commitment	Relevant Section in Volume 1 of Project EIS
The Offset Strategy will be further developed and finalised following liaison and meetings between the key stakeholders including the client, relevant government agencies (i.e. DSEWPac and DEHP) and an environmental offset broker to discuss final offset requirements and proposed offset options for the Project.	Section 9

10.3 Volume 2 Project (Mine)

Table 10-8 Volume 2 Section 1 Introduction

Adani Commitment	Relevant Section in Volume 2 of Project EIS
No specific commitments	



Table 10-9 Volume 2 Section 2 Project Description

Adani Commitment	Relevant Section in Volume 2 of Project EIS
Emergency response equipment including a fire station and ambulance as well as mine rescue equipment will be available during the construction and operation of the Project.	2.7.1 Mine Infrastructure

Table 10-10 Volume 2 Section 3 Climate, Natural Hazards and Climate Change

Adani Commitment	Relevant Section in Volume 2 of Project EIS
No specific commitments	

Table 10-11 Volume 2 Section 4 Land

Adani Commitment	Relevant Section in Volume 2 of Project EIS
Section 4.1 Scenic Amenity and Lighting	
No specific commitments (see Mine and Offsite EMPs for general mitigation measures)	Section 13 and Section 14
Section 4.2 Topography, Geology and Soils	
A detailed topsoil management plan will be developed for the Project (Mine). The aim of any such plan should be to ensure optimal allocation of available primary and secondary growth media reserves across all future rehabilitation activities proposed for the mine.	Section 4.2.4
More detailed surveys will be conducted over specific areas to be disturbed by mining operations to more accurately define topsoil management plans and depth of useable soil material.	Section 4.2.4
Section 4.3 Land Contamination	
Sewage will be treated on-site with a package sewage treatment plant. Disposal options will be assessed during the design phase of the Project.	Section 4.3.6.6 Sewage
Section 4.4 Land Use and Tenure	
Progressive rehabilitation of the Project Area will be undertaken, with first round of rehabilitation planned to be undertaken from 2018-2027. Upon completion of the Project (Mine) life, decommissioning of the Project Area will be undertaken.	Section 4.4.5
Where closure of Stock Routes is required Adani will conduct discussions with DNRM regarding re-alignment.	Section 4.4.5.5 Alteration of Stock Route Network



Table 10-12 Volume 2 Section 5 Nature Conservation

Adani Commitment	Relevant Section in Volume 2 of Project EIS
Weed mapping will be undertaken prior to commencement of construction. Mapping will cover the whole site but be particularly focused at high risk locations, such as areas of black soil so that weed hotspots can be identified. Baseline field surveys of identified hotspots within and near construction areas will be undertaken prior to commencement of construction.	Section 5.4.5
Weed control will be undertaken in areas that are very heavily infested or where WONS or Class 1 or 2 weeds declared under the LP Act are present prior to disturbance	Section 5.4.5
Weed levels will be monitored in areas adjacent to construction activities, in onsite and offsite habitat management areas and any areas that are rehabilitated after construction. Monitoring will be undertaken annually, with results to be considered in terms of baseline information (collected prior to construction) and with reference to appropriate control (reference) sites.	Section 5.4.5
The ecological management framework will further be supported by the development and implementation of a Project Rehabilitation Plan and a Project Offset Strategy.	Section 5.4.2.3
Management of impacts to the black-throated finch (southern) will seek to contribute to the recovery of the subspecies, as per the objectives of the <i>National Recovery Plan for the Black-throated Finch Southern Subspecies</i> (Black-throated Finch Recovery Team, 2007). The onsite and offsite habitat management and research program to be implemented will be informed by the <i>National Recovery Plan for the Black-throated Finch Southern Subspecies</i> (Black-throated Finch Recovery Team, 2007), and developed in consultation with the Black-throated Finch Recovery Team, and other relevant stakeholders (i.e. Commonwealth and State governments, natural resource management groups, landholders etc.). The plan will incorporate concepts of adaptive management.	Section 5.4.2.1
With regards to the Black-throated finch, (southern) Adani will develop and implement a long term monitoring program to gain a better understanding of the population size, seasonal movements and key habitat areas used by the Black-throated finch (southern).	Section 5.4.2.3
Targeted research will be undertaken to identify the location and number of Black-throated finch (southern) breeding sites within the Moray Downs and broader landscape.	Section 5.4.2.3
With regards to the yakka skink, additional field studies will be required to determine the presence of individuals and/or populations/colonies as the species was not detected during surveys, but is considered likely to occur. In the event the species is detected, a Species Specific Management Plan will be developed to manage impacts of the Project.	Section 5.4.2.3



Adani Commitment	Relevant Section in Volume 2 of Project EIS
<p>With regards to the ornamental snake, additional field studies will be required to determine the presence of individuals and/or populations/colonies as the species was not detected during surveys, but is considered likely to occur. In the event the species is detected, a Species Specific Management Plan will be developed to manage impacts of the Project.</p>	Section 5.4.2.3
<p>For those unavoidable impacts related to black-throated finch (southern) habitat loss, offsets will be provided in accordance with the Project Offsets Strategy (Volume 1 Section 9).</p>	Section 5.4.2.3
<p>The health of the Carmichael River fringing open forest community will be monitored on a quarterly basis, with a focus on canopy health and the species composition of the ground layer. Permanent CORVEG primary monitoring plots and transects (the latter over at least 100 m) should be established at regular intervals along the river for this purpose.</p>	Section 5.4.4.1
<p>Fire management strategies will be implemented for all phases of the Project to reduce the potential for destructive high intensity fires to disturb habitats at and near the Study Area.</p>	Section 5.4.6.2
<p>To avoid mortality of aquatic fauna during drainage of Brigalow Dam and the dams on North Creek and Obungeena Creek, fauna salvage and relocation may be required where there is water in the dams at the time of construction. This will require survey of the dam to identify the fish and large-crustacean species present just prior to draining, followed by the development of appropriate relocation techniques to capture species and identify appropriate locations for relocation. Monitoring during drainage of dams to check for stranding will also be undertaken.</p>	Section 5.3.3.4
<p>The design of the MIA, workers accommodation village, industrial precinct and airport will incorporate stormwater management infrastructure and mechanisms to manage runoff.</p>	Section 5.3.3.5
<p>A 500 m wide strip on each bank of the Carmichael River will not be cleared of vegetation for operation of the project which will assist in protecting the riparian ecosystem from direct impacts of mining operations.</p>	Section 5.4.3.1
<p>Measures to minimise the impact of the crossing of the Carmichael River include engineering solutions and management actions:</p> <ul style="list-style-type: none"> ▶ Design and layout of the crossing will incorporate a bridge design that spans the watercourse bed and avoids construction within the banks as much as possible. ▶ Design of the bridge crossing will consider fish passage requirements. 	Section 5.4.3.1



Adani Commitment	Relevant Section in Volume 2 of Project EIS
<p>Riparian zone establishment and habitat structure establishment actions will assist in promoting colonisation by aquatic species. The Rehabilitation Management Plan for the Project will incorporate measures to enhance aquatic habitats that may be created throughout the mining operation, where suitable</p>	<p>Section 5.4.3.3</p>

Table 10-13 Volume 2 Section 6 Water Resources

Adani Commitment	Relevant Section in Volume 2 of Project EIS
<p>The potential alteration of flow regime associated with a crossing at the Carmichael River will be managed/mitigated via engineering and construction management solutions including:</p> <ul style="list-style-type: none"> ▶ Development of a crossing corridor across Carmichael River, with construction within the bed and banks restricted to the minimum amount necessary. ▶ Crossing infrastructure will comply with the Fish Habitat Management Operational Policy FHMOP 008. 	<p>Section 6.2.3.2 of Appendix Q Mine Water Quality Report</p>
<p>Construction of bunded areas for chemical storage will be completed prior to any chemicals being delivered to site.</p>	<p>Section 6.2.3.2 of Appendix Q Mine Water Quality Report</p>
<p>Construction of a flood protection levee along either side of the Carmichael River designed to withstand with a 1,000 year ARI immunity.</p>	<p>Section 6.2.2.2 of Appendix Q Mine Water Quality Report</p>
<p>Construction of watercourse diversions around open cut pits to divert clean water from entering the site, maintain existing flows in waterways as practicable, and minimise disturbance to existing waterways. These diversions link existing sections of waterway to minimise changes to existing hydrology downstream of the mine site.</p>	<p>Section 6.2.2.2 of Appendix Q Mine Water Quality Report</p>
<p>Construction of sediment basins to collect runoff from waste rock heaps for treatment of suspended sediments in water.</p>	<p>Section 6.2.2.2 of Appendix Q Mine Water Quality Report</p>
<p>Construction of mine affected water (MAW) storage dams to receive dewatering product from the mine areas. The site water management strategy aims to reuse MAW as much as possible to limit water supply requirements and discharges to the environment.</p>	<p>Section 6.2.2.2 of Appendix Q Mine Water Quality Report</p>



Adani Commitment	Relevant Section in Volume 2 of Project EIS
<p>Waters to be released to the environment must comply with the contaminant release limits which will be identified in a Receiving Environment Monitoring Program. Site specific contaminant release limits will be identified to protect the environmental values of the region. This will be done following the survey design protocols contained in the Queensland Water Quality Guidelines (QWQG) (DERM, 2009a) to ensure that data are scientifically robust to effectively describe seasonal variation of the system. Where appropriate, site specific contaminant release limits will be identified for parameters identified in the Mine Water Quality report (Volume 4, App Q). The data collected as part of this monitoring program can be used to facilitate this process however, additional temporal information will need to be collected to achieve QWQG (DERM, 2009a) survey design protocols.</p>	<p>Section 6.2.2.2 of Appendix Q Mine Water Quality Report</p> <p>Section 6.4.3.2 of Appendix Q Mine Water Quality Report</p>
<p>Ongoing water quality monitoring is being undertaken to assist in the determination of site specific WQOs and the intention is to finalise these during the development of the final Environmental Management Plan.</p>	<p>Section 8 of Appendix Q Mine Water Quality Report</p>
<p>Once the final mine design and layout have been developed, a review of the adequacy of the current groundwater monitoring network and the additional monitoring proposals will be undertaken. The findings of this review will form a key component of a groundwater management plan, which will be developed prior to commencement of construction of the Project (Mine).</p>	<p>Section 7.8.11 of Appendix R Mine Hydrogeology Report</p>
<p>Potential impacts on groundwater quality due to the discharge of potentially contaminated runoff will be prevented through the development and operation of a suitable surface water management system and associated management plan (SWMP). The overall aim of the system and plan would be to ensure that all water leaving the operational mine site is captured, treated and recycled (where possible).</p>	<p>Section 6.3 and Section 7.8.8 of Appendix R Mine Hydrogeology Report</p>
<p>Prior to the commencement of construction activities, the status of each of the existing registered bores that could be significantly affected by the proposed Project (Mine) will be confirmed and a baseline assessment undertaken at each of the active bores in order to establish their pre-operational condition.</p> <p>Where operational registered bores are identified, which may be impacted by the development, then consideration would be given to incorporating them into the Project (Mine) monitoring network and/or installing observation bores in the area between the mine and the bores in order to identify the development of the mine cone of depression in the direction of the bores.</p> <p>Any monitoring of registered bores will be incorporated into the EMP.</p>	<p>Section 7.8.2 of Appendix R Mine Hydrogeology Report</p>



Adani Commitment	Relevant Section in Volume 2 of Project EIS
Continued detailed monitoring of groundwater levels and flows in the Carmichael River corridor will be undertaken. In particular, further manual gauging will be undertaken at the existing upstream and downstream level monitoring sites so that a reliable pre-development flow record can be developed for these gauges	Section 7.8.5 of Appendix R Mine Hydrogeology Report
Establishment and operation of a dedicated groundwater monitoring network around the perimeter of the proposed above ground tailings dam, comprising a minimum of four locations, prior to commencement of the operation of the dam.	Section 7.8.7 of Appendix R Mine Hydrogeology Report
Establishment and operation of a dedicated groundwater monitoring network around the perimeter of the landfill, comprising a minimum of four locations, prior to commencement of the operation of the facility.	Section 7.8.10 of Appendix R Mine Hydrogeology Report
Once the final mine design and layout have been developed, a review of the adequacy of the current groundwater monitoring network and the additional monitoring proposals will be undertaken. The findings of this review will form a key component of a groundwater management plan, which would be developed prior to commencement of construction of the Project (Mine).	Section 7.8.11 of Appendix R Mine Hydrogeology Report
All pipelines will include flow meters and all pumps will be controlled remotely to ensure that permitted groundwater extraction volumes are not exceeded.	Volume 2, Section 6.5.1.2
Storage extension works will be undertaken offline from the existing storages to minimise the duration of lowered water levels. During initial fill of the storages, low flows will be released to ensure local flow conditions are maintained downstream.	Volume 2, Section 6.5.1.2
In the event that groundwater level and/or surface water flow impacts are identified post development, Adani will work with relevant parties to compensate the water balance for identified losses.	Volume 2, Section 6.4.4.3
Belyando River and North Creek flood harvesting stations will be constructed during non-flood periods to minimise impact to water quality. Belyando River and North Creek Flood harvesting stations will operate according to operating rules developed using the IQQM to limit impacts to downstream users.	Volume 2, Section 6.5.2.2
If a registered bore is found to be impacted as a result of the offsite infrastructure boreholes, groundwater losses will be accounted for in a <i>made good</i> agreement with Adani.	Volume 2, Section 6.5.2.2



Table 10-14 Volume 2 Section 7 Air Quality

Adani Commitment	Relevant Section in Volume 2 of Project EIS
No specific commitments (see Mine EMP for management measures).	Section 13 and Section 14

Table 10-15 Volume 2 Section 8 Greenhouse Gas Emissions

Adani Commitment	Relevant Section in Volume 2 of Project EIS
A detailed energy efficiency assessment will be conducted for the Project (Mine).	Section 8.3.3.2
The procurement strategy will consider fuel efficiency.	Section 8.3.3.2

Table 10-16 Volume 2 Section 9 Noise and Vibration

Adani Commitment	Relevant Section in Volume 2 of Project EIS
Monitor vibration levels during construction to prevent sustained vibration levels causing unacceptable loading.	Section 9.3.5.1
A complaint system will be implemented during construction of the Project (Mine).	Section 9.3.5.2

Table 10-17 Volume 2 Section 10 Waste

Adani Commitment	Relevant Section in Volume 2 of Project EIS
10.1 Mine Waste	
Wastewater would be treated using package collection and treatment systems that comply with Queensland standards and regulations.	Section 10.1.4
10.2 Mine Waste	
Suitable precautions will be undertaken to prevent water contact with dispersive materials	Section 10.2.2.1
Soils, clays and weathered mudstone, claystone and siltstone which show a high potential for dispersion will be stored within the core of the overburden storage areas.	
A mineral waste management plan will be developed and will clearly define mine waste validation sampling, analysis and reporting throughout the life of the mine.	Section 10.2.2.1



Adani Commitment	Relevant Section in Volume 2 of Project EIS
To further define the geochemical risk of AMD and/or saline drainage, additional coal samples will be analysed from the late November 2012 sampling and assessment program. Additionally, mine tailings will undergo geochemical assessment as they become available.	Section 10.2.2.2
The C-seam inferior coal that will not be processed, and therefore mined as waste will be sampled.	Section 10.2.3
Additional sampling from drill holes spaced between 1000 m and 3000 m apart will be conducted to further investigate the spatial variability of total S, ANC and NAPP.	Section 10.2.3

Table 10-18 Volume 2 Section 11 Transport

Adani Commitment	Relevant Section in Volume 2 of Project EIS
A Construction Traffic Management Plan will be developed for the construction phase of the project.	Section 11.3.6.1
A Traffic Management Plan will be developed for the operational phase of the project.	Section 11.3.6.2

Table 10-19 Volume 2 Section 12 Hazard and Risk

Adani Commitment	Relevant Section in Volume 2 of Project EIS
The Project will develop a fire and evacuation plan with adequate instructions to people concerning the action to be taken by them in the event of fire will be provided in a building as required under the <i>Fire and Rescue Service Act 1990</i> .	Section 12.3.3
The Project will establish and implement a Safety Management System (SMS) for the management of risk to a level that is as low as is reasonably practical.	Section 12.3.6.1
The Project will develop a fire management system (FMS) for the prevention, early detection and suppression of fires at their coal mines and accommodation village.	Section 12.3.6.2
A fire station, fully equipped with fire truck and other fire fighting equipment will be constructed at the mine site. During the detailed design phase, the Project will consult the emergency services (including QFRS) to comply with their requirements.	Section 12.3.6.2
An Emergency Response Team will be established at the mine site to ensure trained and equipped personnel are available in the event of an incident.	Section 12.3.7.1
Adani will prepare an Emergency Response Plan (ERP) for construction, operations and decommissioning phase.	Section 12.3.7.5



10.4 Volume 3 Project (Rail)

Table 10-20 Volume 3 Section 1 Introduction

Adani Commitment	Relevant Section in Volume 3 of Project EIS
No specific commitments (refer to Rail EMP for management and mitigation measures)	Section 13

Table 10-21 Volume 3 Section 2 Project Description

Adani Commitment	Relevant Section in Volume 3 of Project EIS
A Decommissioning and Rehabilitation Plan will be developed with the overall aim of minimising the amount of land disturbed at any one time during the life of the Project (Rail).	Section 2.8.1

Table 10-22 Volume 3 Section 3 Climate, Natural Hazards and Climate Change

Adani Commitment	Relevant Section in Volume 3 of Project EIS
No specific commitments.	

Table 10-23 Volume 3 Section 4 Land

Adani Commitment	Relevant Section in Volume 3 of Project EIS
Section 4.1 Scenic Amenity and Lighting	
Co-locate construction facilities as far as is practicably possible with the Project (Mine), for example construction camp	Section 4.1.6.3
Vegetation will be planted around maintenance facilities and alongside the Project (Rail) corridor in sensitive locations	Section 4.1.6.4
Section 4.2 Topography, Geology and Soils	
Further geotechnical investigations undertaken during detailed design will refine data with regard to soil salinity level, substrate lithology and other geological features.	Section 4.2.3.3
If extended dewatering is identified during detailed design and major drawdown of the alluvial aquifer is expected, a groundwater management plan may be required	Section 4.2.3.3
Further soil surveys will be developed and undertaken to determine the actual presence of strategic cropping land (SCL) prior to construction. This survey will evaluate soils within the western cropping zone and in particular those mapped as SCL against eight criteria prescribed by the legislation.	Section 4.2.3.8



Adani Commitment	Relevant Section in Volume 3 of Project EIS
If areas are confirmed as SCL, a cropping history assessment will be undertaken.	Section 4.2.3.8
If areas are confirmed as SCL mitigation will be required for infrastructure and activities considered permanent (i.e. rail and service road infrastructure, and powerline tower footprint. A Deed of Agreement will be established between Adani and the Department of Agricultural, Fisheries and Forestry (DAFF) to facilitate mitigation.	Section 4.2.3.8
Section 4.3 Land Contamination	
Sewage will be treated on-site with a package sewage treatment plant. Disposal options will be assessed during the design phase of the Project.	Section 4.3.5.6
Undertake a Site Contamination Assessment (SCA) in accordance with the National Environment Protection (Assessment of Site Contamination) Measure 1999 (NEPM, 1999)	Section 4.3.5.2
Where contamination is identified, will be managed and / or remediated via a DEHP approved Site Management Plan (SMP) and / or a Remediation Action Plan (RAP).	Section 4.3.5.2
Section 4. 4 Land Use and Tenure	
Gregory Developmental Road will be grade separated at crossings to accommodate increased traffic.	Section 4.4.3.5
Stock crossings at Amaroo Road and Mistake Creek will be grade separated to minimise disruption to stock movement.	Section 4.4.3.5
Holding yards will be established at either side of stock crossings as necessary.	Section 4.4.3.6
Kilcummin Diamond Downs Road will be at grade (passive crossing).	Section 4.4.3.5
Stock crossings at Kilcummin Diamond Downs Road will be by culvert	Section 4.4.3.5
Disused stock crossings may be reopened during the operation of the Project.	Section 4.4.3.6
Ongoing discussions with the proponents of proposed pipelines will seek to identify to mitigate any potential interactions between the Project and proposed water pipelines.	Section 4.4.3.7
Measures to mitigate the potential impacts of the construction and operation of the Project on power lines will be addressed in the Construction Management Plan for the Project.	Section 4.4.3.8



Table 10-24 Volume 3 Section 5 Nature Conservation

Adani Commitment	Relevant Section in Volume 3 of Project EIS
<p>Design and layout of the temporary and permanent structures and infrastructure within the construction footprint (including construction areas, such as site offices, construction stockpile locations, machinery/equipment laydown areas and storages, access tracks and accommodation camps) will as far as possible avoid areas of remnant vegetation (in particular endangered, of concern and threatened REs) and make use of previously cleared, non-remnant land.</p>	<p>Section 5.3.1.2 Section 5.3.1.3</p>
<p>Where clearing TECs and REs of conservation significance is absolutely unavoidable, offsets will be provided in accordance with the offset strategy (refer Volume 1 Section 10 Draft Offsets Strategy).</p>	<p>Section 5.3.1.2</p>
<p>A Project Land Rehabilitation Plan will be developed for the management of previously disturbed land. This plan will provide key performance indicators and detail how the disturbed land will be managed and rehabilitated..</p>	<p>Section 5.3.1.2</p>
<p>Landscape permeability will be retained where possible. Where fencing is required around cleared areas, it will be designed such that fauna can move through it (excluding those instances where fenced areas seek to protect fauna from threats such as trenches, human contact). Consideration will be given to not using barbed wire on the top strand of wire fences.</p>	<p>Section 5.3.1.5</p>
<p>Fauna underpasses/ culverts will be incorporated into the design within suitable habitats and mapped bioregional corridors (often at watercourses) to promote fauna movement and reduce the ecological impacts that the rail corridor incurs. Fauna underpasses should be vegetated, sized and fenced appropriately to encourage fauna use.</p>	<p>Section 5.4.1</p>
<p>Design will consider suitable watercourse crossing structures, for example bridge spans, culverts and openings such that fauna passage is facilitated across the Project (Rail) footprint.</p>	<p>Section 5.3.1.5</p>
<p>Design and layout of the components of the infrastructure will maximise development on existing cleared lands as priority to avoid impacts to the creek bed, banks and riparian areas and the aquatic values that may be provided when inundated (mainly during high water flows).</p>	<p>Section 5.3.2.3</p>
<p>The impact to estuarine and lacustrine/palustrine hydrology will be minimised by avoiding fragmenting these habitats during the design phase.</p>	<p>Section 5.4.2.4</p>
<p>Culverts will be provided at key areas within floodplain habitats (i.e. lacustrine/palustrine habitats).</p>	<p>Section 5.4.2.4</p>



Adani Commitment	Relevant Section in Volume 3 of Project EIS
Design and layout of watercourse crossings and use of culverts to bridge aquatic habitats will consider the requirement for fish movement including under flow conditions. This will be done in accordance with DEEDI guidelines for the design of stream crossings for fish passage (Cotterell, 1998).	Section 5.4.2.4
Design will consider suitable watercourse crossings structures, for example bridge spans, culverts and openings such that sufficient flows are maintained across the Project (Rail).	Section 5.4.2.4
Iterative hydrological modelling will be undertaken through the design phase to better inform flood hydrology and refine the likelihood of potential adverse impacts.	Section 5.4.2.4
Noise and dust monitoring will be undertaken during the operational phase at selected areas.	Section 5.4.3.2
An offset strategy will be prepared which clearly identifies the Project impacts and associated offset requirements, and proposes various offset options that meet relevant legislative requirements.	Section 5.5

Table 10-25 Volume 3 Section 6 Water Resources

Adani Commitment	Relevant Section in Volume 3 of Project EIS
Section 6.1 Hydrology	
A surface water monitoring program will be developed and implemented for the Belyando River in accordance with the Australian Guidelines for Water Quality Monitoring and Reporting (NWQMS 2000) for the construction phase of the Project (Rail).	Section 6.1.4.2
Select generally longer bridge length scenarios, which will tend to limit the increase in flow velocity.	Section 6.1.4.2
Incorporate into the detail design scour protection measures at all locations where analysis of the in-situ material and modelled flow velocities suggest the potential for scour. Erosion prevention measures include: rip-rap pads, wing walls on embankments, shotcrete, rip rap and / or gabion bed protection	Section 6.1.4.2
Further investigations, including detailed identification and consideration of all afflux affected property and asset owners, will be conducted in order to determine afflux levels appropriately. A hydrological/hydraulic report will be prepared to determine drainage structure dimension requirements.	Section 6.1.3



Adani Commitment	Relevant Section in Volume 3 of Project EIS
Section 6.3 Hydrogeology	
During detailed design, fill and capping material details will be defined and water demand curves formulated. A range of water sources will be investigated and developed.	Section 6.2.3.2
If extended dewatering is identified during detailed design and major drawdown of the alluvial aquifer is expected, a groundwater management plan may be required. The management plan will include objectives and targets to be met and detail monitoring requirements.	Section 6.2.3.4
Water supply options for construction camps will be further investigated during detailed design and water demand curves formulated. A range of water sources will be investigated and developed.	Section 6.2.3.2
If extensive loading or compaction of alluvium at watercourse crossings is required for construction, alternative design concepts will be explored to minimise this (e.g. piles).	Section 6.2.3.7
River crossing points will be designed such that compaction of alluvial sediments and upstream ponding of surface water flow is minimised.	Section 6.2.4

Table 10-26 Volume 3 Section 7 Air Quality

Adani Commitment	Relevant Section in Volume 3 of Project EIS
Measures to mitigate the emissions will be investigated and applied through the Project (Rail) Environmental Management Framework that will consider the recommendations made in the QR Limited Coal Dust Management Plan (QR Network, 2010).	Section 7.3.5

Table 10-27 Volume 3 Section 8 Greenhouse Gas Emissions

Adani Commitment	Relevant Section in Volume 3 of Project EIS
No specific commitments	Section 8.3

Table 10-28 Volume 3 Section 9 Noise and Vibration

Adani Commitment	Relevant Section in Volume 3 of Project EIS
Refine construction noise and vibration predictions (as necessary) once a construction methodology for detailed design has been determined and implement and manage further controls through development of a Construction Noise Management Plan.	Section 9.3.1.1



Adani Commitment	Relevant Section in Volume 3 of Project EIS
Undertake pre-construction building and infrastructure surveys on properties potentially susceptible to vibration damage from construction of the railway.	Section 9.3.1.2
Monitor vibration levels during construction to prevent sustained vibration levels causing unacceptable loading.	Section 9.3.1.2
Building condition surveys would be undertaken at all potentially impacted dwellings prior to commencement of vibration generating works (such as blasting). These would be repeated at works completion.	Section 9.3.1.3
Refine further noise modelling as the Project (Rail) design progresses and develop additional controls as appropriate. Although control measures would not be expected to be required, such measures may include installation of noise barriers and construction of embankments to deflect noise.	Section 9.3.2

Table 10-29 Volume 3 Section 10 Waste

Adani Commitment	Relevant Section in Volume 3 of Project EIS
A project procurement plan will outline requirements to avoid the purchase of excess materials: quantities of materials will be carefully managed during procurement to avoid ordering and delivery of excess materials which may be wasted.	Section 10.3.2
Sewage and grey water be treated on-site prior to disposal and site specific wastewater management plans will be developed and implemented to ensure compliance with effluent treatment and discharges requirements.	Section 10.3.2.6
Temporary site drainage and surface water runoff management (erosion and sediment control plans) will be developed and implemented, including on-site treatment prior to discharge to waterways.	Section 10.3.2.6
Prior to the commencement of construction, operation and decommissioning phases a Waste Management Plan (WMP) will be developed that will include waste management measures controls, monitoring and other safeguards, in line with the relevant legislation and government waste reduction strategies.	Section 10.4.3



Table 10-30 Volume 3 Section 11 Transport

Adani Commitment	Relevant Section in Volume 3 of Project EIS
An important measure relating to construction traffic impacts is the implementation of a community information awareness program. This program will be initiated prior to construction commencing and throughout the entire construction period to ensure that local residents are aware of the construction activities, with particular regard to construction traffic issues.	Section 11.3.4.7
Traffic management issues will be addressed through the preparation and implementation of a Construction Traffic Management Plan, which will be developed during the detailed design phase.	Section 11.4

Table 10-31 Volume 3 Section 12 Hazard and Risk

Adani Commitment	Relevant Section in Volume 3 of Project EIS
The Project will develop and implement water supply management plans to address water usage, treatment of the recycled water and compliance with the requirements of Queensland Water Recycling Guidelines.	Section 12.2.2.3
Railway corridor will be fenced and warning signs installed.	Section 12.3.7
During detailed design the Project will evaluate the risk of tropical cyclones and appropriate design standards will be adopted to ensure that all structures, including those that contain hazardous materials, are designed to withstand wind and rain associated with cyclonic events.	Section 12.3.2
A traffic management plan will be developed in consultation with DTMR and Council during the detailed design phase.	Section 12.6.3
Liaise with Queensland Rail (QR) on coal dust management.	Section 12.3.7
A geotechnical investigation will be conducted to assess potential for landslides especially during and after heavy rains. Detailed design will consider issues around landslides.	Section 12.3.7
The Project will develop a fire management system (FMS) for the prevention, early detection and suppression of fires at their coal mines and accommodation village. A Fire Management Plan (FMP) will be developed during the detailed design phase with an approach to safety.	Section 12.4.3
A fire station, fully equipped with fire truck and other fire fighting equipment will be constructed at the mine site. During the detailed design phase, the Project will consult the emergency services (including QFRS) to comply with their requirements.	Section 12.4.3



Adani Commitment	Relevant Section in Volume 3 of Project EIS
An Emergency Response Team will be established at the mine site to ensure trained and equipped personnel are available in the event of an incident.	Section 12.4.7
The Proponent will prepare an Emergency Response Plan (ERP) and sub-plans for construction, operations and decommissioning phase.	Section 12.4.3



Carmichael Coal Mine and Rail Project