

Adani Mining Pty Ltd

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Carmichael Coal Mine and Rail Project Draft Social Impact Management Plan

> Volume 4, Appendix G 27 September 2012





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Table of contents

1.	Intro	duction	1-1
	1.1	Project Overview	1-1
	1.2	Purpose of this Report	1-3
	1.3	Social Impact Management Plan Methodology	1-3
	1.4	Stakeholder Engagement for the SIA and SIMP	1-4
	1.5	Structure of the SIMP	1-5
2.	Socia	al Impact Assessment	2-1
	2.1	Introduction	2-1
	2.2	Social and Cultural Area of Influence	2-1
	2.3	Workforce Profile and approach	2-1
	2.4	Key Stakeholder Issues	2-6
	2.5	Potential Social Impacts	2-7
	2.6	Management Response	2-12
3.	Draft	t Action Plans, Monitoring and Reporting	3-1
	3.1	Project Design	3-1
	3.2	Landholder Agreements and Land Management	3-2
	3.3	Housing and Accommodation	3-3
	3.4	Workforce Management	3-4
	3.5	Local Industry Participation Plan	3-5
	3.6	Community Health and Safety	3-6
	3.7	Emergency Services Planning and Consultation	3-7
	3.8	Community Development	3-8
4.	Stak	eholder Engagement Strategy	4-1
	4.1	Goal and objectives	4-1
	4.2	Communication and engagement approach	4-1
	4.3	Strategic approach	4-2
	4.4	Key principles of engagement	4-2
	4.5	Communication tools and techniques	4-3
5.	Refe	rences	5-1

Table index

Table 1-1 Summary of Stakeholder Consultations for the SIA and SIMP	1-4
Table 2-1 Summary of Key Social Impacts and Significance	.2-9
Table 2-2 Impacts and Key Mitigations Matrix	2-13

Figure index

Figure 1-1 Project Location	1-2
Figure 1-2 SIMP Methodology	1-4
Figure 2-1 Total Anticipated Project Workforce	2-2
Figure 2-2 Total Workforce Skills	2-3
Figure 2-3 Mine Workers Accommodation Village	2-4
Figure 2-4 Location of Rail Construction Camps	2-5
Figure 4-1 IAP2 Spectrum of Engagement	4-2

Appendices

- A. Workforce Profile
- B. Integrated Housing Strategy

1. Introduction

1.1 Project Overview

Adani Mining Pty Ltd (Adani) is proposing to develop a 60 million tonne (product) per annum (Mtpa) thermal coal mine in the north Galilee Basin approximately 160 kilometres (km) north-west of the town of Clermont, Central Queensland. All coal will be railed via a privately owned rail line connecting to the existing Goonyella rail system, and shipped through coal terminal facilities at the Port of Abbot Point and/or the Port of Hay Point (Dudgeon Point expansion). The Carmichael Coal Mine and Rail Project (the Project) will have an operating life of approximately 90 years.

The Project comprises of two major components:

- The Project (Mine): a greenfield coal mine over EPC1690 and the eastern portion of EPC1080, which includes both open cut and underground mining, on mine infrastructure and associated mine processing facilities (the Mine) and the Mine (offsite) infrastructure including:
 - A workers accommodation village and associated facilities
 - A permanent airport site
 - Water supply infrastructure
- The Project (Rail): a greenfield rail line connecting the Mine to the existing Goonyella rail system to provide for the export of coal via the Port of Hay Point (Dudgeon Point expansion) and/or the Port of Abbot Point; including:
 - Rail (west): a 120 km dual gauge portion from the Mine site running west to east to Diamond Creek
 - Rail (east): a 69 km narrow gauge portion running east from Diamond Creek connecting to the Goonyella rail system south of Moranbah.

The Project has been declared a 'significant project' under the *State Development and Public Works Organisation Act 1971* (SDPWO Act) for which an Environmental Impact Statement (EIS) is required. The Project is also a 'controlled action' and requires assessment and approval under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The Project EIS has been developed with the objective of avoiding or mitigating all potential adverse impacts to environmental, social and economic values and enhancing positive impacts. Detailed descriptions of the Project are provided in Volume 2 Section 2 Project Description (Mine) and Volume 3 Section 2 Project Description (Rail).

Figure 1-1 shows the Project location.



1.2 Purpose of this Report

The final Project terms of reference (ToR) were issued in May 2011 (with draft ToR issued in February 2011) by the Queensland Coordinator-General which specified the requirement of a Social Impact Assessment (SIA) and a Social Impact Management Plan (SIMP) as part of the EIS. The ToR also stipulated that the draft SIMP should be consistent with the Social Impact Assessment: Guideline to Preparing a Social Impact Management Plan (2010).

The SIMP has a range of functions, including to:

- Summarise the social impacts and affected stakeholders as identified through the SIA process
- Describe Adani's impact management activities and commitments to minimise the negative social impacts and enhance the benefits to the communities and other stakeholders
- Describe the mechanisms to monitor the impacts and adjust mitigation strategies and Action Plans
- Identify and establish stakeholder partnerships to develop and implement the mitigation strategies throughout the life of the Project
- Determine a timeframe for the development and implementation of the management strategies
- Provide guidance to Adani's social performance activities.

1.3 Social Impact Management Plan Methodology

An overview of the SIMP methodology for this Project is graphically represented in Figure 1-2. The SIMP is based on rigorous and methodical foundations of the SIA process (refer to SIA Report in the EIS Volume 4, Appendix F). The SIA process identified and prioritised impacts and identified a set of mitigation strategies through consultations with the SIAU, local government, state agencies, communities and service providers. Specific engagement that influences the content of this SIMP included:

- Ongoing discussions with Adani's management and technical leads , including a workshop to identify mitigation strategies
- Workshops with local government, state agencies, communities and service providers to comment on mitigation strategies developed for the Project. The objective of the workshops was to determine roles and responsibilities and future actions particularly where specific mitigations are not developed.

Based on the outcomes of the workshops and the findings of the SIA, action plans were developed for each of the priority impact areas and compiled into the draft SIMP report (this report).

The SIMP is developed for a 10 year rolling period, which is to be reviewed on an annual basis. Every 10 years, the SIMP will be reviewed in its entirety. The 10 years rolling period was determined on the basis that it is suitable to develop management strategies over the 90 year period, taking into account likely changes in the area.

Figure 1-2 SIMP Methodology



1.4 Stakeholder Engagement for the SIA and SIMP

Consultation undertaken as part of the SIA process was closely integrated with the whole of EIS public consultation process. An SIA team member participated in relevant public consultation events. Table 1-1 summarises the stakeholder consultation activities undertaken to inform the SIA and the SIMP. (For full details of the EIS public consultations refer to the Consultation Report in Volume 4 Appendix I).

Timing	Component of EIS	Stakeholder	Purpose/Outcome
March 2011	EIS Public consultations	Government agencies	EIS Agency briefings
March 2011	EIS Public consultations	Community in the regional study area	Community information sessions (EIS commencement and Project introduction)
March 2011	SIA milestone meeting #1	SIAU	Confirmation of SIA scope, method and social and cultural area of influence
March 2011	SIA	IRC	Initial discussion on SIA methodology

Table 1-1 Summary of Stakeholder Consultations for the SIA and SIMP

Timing		Ctokoholdor	
Timing	Component of EIS	Stakeholder	Purpose/Outcome
June 2011	SIA baseline study consultation	IRC	Meetings with council representatives and officers to collect, verify and interpret regional baseline data
June 2011	SIA baseline study consultation	Service providers (Clermont and Moranbah)	Focus groups meetings to collect, verify and interpret regional baseline data
June 2011	SIA milestone meeting #2	SIAU	Meeting with SIAU for a progress update and outline initial findings of the regional baseline
August 2011	EIS public consultations	Community in the regional study area	Progress update on preliminary findings of EIS technical studies
November 2011	SIA	IRC and CTRC	Meetings with council representatives and officers in Moranbah and Clermont for impact identification in regional study area
November 2011	SIA	Service providers (Clermont and Moranbah)	Focus groups for impact identification in the regional study area
November 2011	SIA	Landholders	Landholder case studies for baseline and impact identification in the local study area
December 2011	SIA	Cross Agency Reference Group	Presentation of identified social impacts and preliminary mitigation strategies
July 2012	SIMP	SIAU	Meeting
July - August 2012	SIA (SIMP – management and monitoring)	Service Providers, stakeholders and Councils within the regionals study area	Meetings in Townsville, Emerald, Clermont, Moranbah, Mackay, Charters Towers and Brisbane

1.5 Structure of the SIMP

The SIMP includes the following:

- Summary of the Carmichael Coal Mine and Rail Project
- Purpose and methodology
- Summary of social impacts identified through the SIA process
- Existing policy and planning framework to develop mitigations
- Impact management strategies, including stakeholder engagement
- Action plans for key impact areas, along with monitoring and reporting.

2. Social Impact Assessment

2.1 Introduction

A comprehensive Social Impact Assessment has been undertaken and is included in Volume 4 of the EIS. This section provides a brief summary to provide contextual information for better understanding Sections 3 and 4.

2.2 Social and Cultural Area of Influence

2.2.1 Local Study Area

The local study area of influence is the previous Belyando Shire, now part of Isaac Region. The Belyando Shire includes the majority of the Project footprint (with the exception of a very small area within Charters Towers region), the landholders directly impacted by the project and those with land adjacent to the mine site and rail line, as well as the localities of Clermont and Moranbah. Clermont and Moranbah are included in this area as they are the closet townships to the Project. Clermont is approximately 160 km south-east of the proposed mine, and the eastern most extent of the proposed rail line is close to Moranbah approximately 200 km east of the proposed mine. It is anticipated a significant intensity of activities are likely to impact this area.

2.2.2 District Study Area

The district study area includes the regional council areas of Isaac Local Government Area (LGA) (where majority of the proposed Project footprint lies) and Charters Towers LGA. Charters Towers is likely to not only be a source of workforce, but will also experience significant traffic movements from the project via the Gregory Development Road and Flinders Highway.

2.2.3 Regional Study Area

The regional study area includes the following areas:

- Charters Towers region
- Townsville city
- Whitsunday region
- Mackay region
- Isaac region
- Central Highlands region.

2.2.4 State

The state of Queensland forms the wider social, cultural and economic context for the Project and is included as part of the area of influence of the Project where data is available.

2.3 Workforce Profile and approach

Data relating to the total Project (Mine and Rail) workforce is provided in this section of the SIMP. Section 5 of the SIA (EIS Volume 4, Appendix F) provides more detailed information regarding the workforce, including a breakdown of the Project (Mine) and Project (Rail) workforce along with construction and operation.

It should be noted that the construction phase for the Project (Mine) includes works such as construction of the open cut and underground mining operations, haul roads, train load out and coal handing processing plant (CHPP), conveyors, feeders, workshops, equipment storage, administration building, and other components within the mine infrastructure area, as well as offsite infrastructure. Offsite infrastructure will include:

- Council road upgrade
- Airstrip construction
- Dams and pipelines
- Workers accommodation and associated facilities

Workforce numbers are included in Appendix A. Figure 2-1 shows the build-up of workers over time with an anticipated peak in 2015 of approximately 3,700 workers, mainly influenced by rail construction, then a reduction as rail construction activities are completed. During operations a peak workforce of approximately 3,000 will be required when the mine is in full production, predicted to occur approximately 10 years from commencement of construction.



Figure 2-1 Total Anticipated Project Workforce

Figure 2-2 shows the skill breakdown of the workforce for the first ten years of construction and operation.



Figure 2-2 Total Workforce Skills

Both construction and operation workforces are intended to be sourced on a fly in-fly out (FIFO) basis with Adani providing flights between the proposed airport at the mine site and major population centres on the east coast of Queensland. During the early stages of construction, existing airstrips at Doongmabulla, Labona or Moray Downs will be used, until the proposed air strip is constructed. Workers constructing the eastern end of the proposed rail alignment will be flown to Moranbah airport and transported by bus to temporary accommodation camps along the rail alignment (refer Figure 2-4).

During construction, mine construction workforce and some of the rail construction workforce will be accommodated at the workers accommodation village close to the proposed mine and airport. Three additional temporary accommodation camps will be established along the proposed rail alignment for rail construction workers.

During operation, all workers will be accommodated at the worker accommodation village near the proposed mine. Figure 2-3 shows an indicative layout for the worker accommodation village servicing the proposed mine.

Depending on interest, workers for the operation phase may also be recruited from local and regional communities such as Clermont, Emerald and Charters Towers and would be transported to the mine site on a bus in-bus out (BIBO) basis. Due to road distances, there is no opportunity for workers to travel between the proposed mine and their homes between shifts; all workers will be required to stay at the workers accommodation village when on-roster.





Source: Gassman 2012



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Data source: DERM: DEM (2008), DCDB (2010), Physical Road Network (2011); DME: EPC1690 (2010), EPC1080 (2011); © Commonwealth of Australia (Geoscience Australia): Localities, Railways (2007);

Adani: Alignment Opt9 Rev3 (SP1&2) (2012), Construction Camps (2011); Gassman/Hyder: Mine (Offsite) (2012). Created by: BW, jvc

2.4 Key Stakeholder Issues

2.4.1 Landholder Issues

Landholders have various attitudes towards mining in the area and varying concerns. For many landholders their attitude is shaped by the potential social and environmental issues associated with mining development. Engaging in purposeful landholder negotiation and giving appropriate compensation has an impact on property owner attitudes towards mining. Some of the issues include, but are not limited to:

- Potential changes to the living environment from increased noise and dust and reduced visual amenity
- Potential changes to the natural environment from changes to overland flow paths with potential for increased ponding/flooding
- Restriction of stock movements and increased labour requirements to manage the cattle operations
- Impacts on drinking water supplies, water bores and groundwater
- Increased fire risk along the rail corridor.

2.4.2 Local/Regional Community Issues

Mine development can deliver positive outcomes for local communities but can also have negative impacts. Some of the issues identified at the community level include, but are not limited to:

- Draw of labour from local business into the mining sector reducing the ability of local business to meet demands for goods and services
- Housing availability and affordability issues and related higher cost of living
- Increased pressure on emergency (social) housing as a result of increased mining activity
- Increased traffic on the local roads and the Gregory Development Road and the resultant safety issues, delays to emergency response services and increase need for upgrade and road maintenance
- Increased demands on emergency services, including police, as well as health and education services and telecommunication services as a result of an increased population in the Project area
- Increased demands on social services to respond to the needs of the FIFO workforce
- Potential or perceived increase in crime and antisocial behaviour from the workforce in camps impacting on social values of the communities.

2.4.3 Indigenous Community Issues

Some of the issues expressed by the two Indigenous groups consulted to date are:

Consider each indigenous group separately.

Each group has had differing experiences in the past (in terms of the degree of alienation from their traditional country), different leadership and community structures and cultural/spiritual responsibilities.

• Involve indigenous people in projects from the outset.

Across much of the area there has been significant disturbance of cultural and natural values of the land and waterways due to clearing of the timber, changes to waterways

and poor waste water treatment in previous mining operations. This has meant there have been significant changes in the flora of the area and the existence and migratory patterns of local fauna. The result has been that even Indigenous people that were intimately familiar with their country have had to re-learn it. By involving people in projects from the outset they may better understand the Project and can be a part of changes as they happen to their country.

- Respect and acknowledge differing cultural practices and requirements of Indigenous and non-Indigenous groups of people
- High values on water quality and waterways in particular

In the past waterways around the Nebo area (outside of the Project area) were a focus for food gathering (ducks and seafood) and drinking water supply. Poor previous mining practices in the past has degraded these waterways to they can no longer be used for food gathering

• Maintain the ability for indigenous people to access country.

One Aboriginal group currently uses trips to their traditional lands to reconnect disengaged Indigenous youths from the region, teaching them the history and understanding of the country of their people, showing them hunting and survival skills involving camping, hunting and fishing. It is important that this activity can still be undertaken.

2.5 Potential Social Impacts

The potential impacts of the Project have been identified through SIA consultations, desktop review of literature, and information from discussions with landholders undertaken by Adani personnel.

Adani is already working with landholders regarding land acquisition and compensation. Land acquisition processes can be stressful and time consuming for landholders and Adani is following established protocols in this regard. Landholders also have access to support from valuers, legal advisers and other professionals at no cost to themselves as part of the land acquisition and compensation process.

The proposed rail line and, to a lesser extent the proposed mine, will sever properties and create access issues for landholders. As part of land negotiations stock and occupational crossing locations will be agreed so as to minimise these impacts. It is also proposed to fence the majority of the proposed alignment.

Noise and air quality studies for the mine and rail have determined that noise and dust emissions from these components of the project are within levels specified in State government environmental protection policies and impacts on landholders and other members of the community are not expected. A visual impact assessment was also undertaken and found minimal impact on landholders and the community.

Given the proposed workforce strategy, including accommodation of all workers in accommodation village or camps, and remoteness of the project from the nearest communities, negative social impacts commonly associated with non-resident workforces are not expected for the Project. During construction, there is some potential for workers from the eastern termporary accommodation camps to visit Moranbah when not on shift, however the numbers involved will be small and significant issues are not expected.

Workforce behaviour in the community, in accommodation facilities and while at work is an important issue and Adani will develop a code of conduct for workers that will set out its

expectations in relation to behaviour. Terms of employment will include consequences for workers not in accordance with this code of conduct.

Recent studies have indicated that worker wellbeing can be affected by separation from families and social networks while on roster and that tensions may arise in family relationships as a result of FIFO work. Adani intends to incorporate employee wellbeing and support programs into its health and safety management plans to assist workers and their families to manage these issues, as well as their general health.

The project does offer significant employment opportunities. As there are skills shortages in some of the areas required for mine and rail construction and operation there are also opportunities to gain training and qualifications. Skills shortage is a risk to the project and Adani will need a coherent workforce recruitment, education and training program to ensure a stable and sustainable workforce.

While unemployment is very low in the Isaac Region, Adani will look into opportunities to recruit people already residing in the local area. It is likely that a number of employees will be employed from within the district and regional study areas, and elsewhere in Queensland. Travel distances to the mine site preclude workers returning home after each shift, and this is likely to discourage workers and their families from relocating to local and regional centres.

Resident population growth associated with the Project is expected to be limited. The proposed workforce arrangements will limit workers and their families relocating to the local and regional area. Economic stimulation in the local, district and regional study area as a result of Adani's Local Buying Strategy and proposed local industry participation plan may result in indirect population growth if businesses seek to employ more workers to service contracts with Adani. Such growth is likely to be within population growth forecasts for the region as OESR factors this type of population growth into its forecast methodology.

On this basis, increased pressure on housing affordability and availability and on community services and infrastructure is not expected. Through membership of the Clermont Preferred Futures Group and ongoing liaison with regional councils, Adani will track demographic changes potentially arising from the Project and if adverse impacts appear likely, work with these stakeholders to develop mitigation approaches.

The hazard and risk assessment conducted for the EIS identified that accidents involving person or vehicle interactions with the proposed rail line were a significant risk, as were accidents associated with interactions with construction traffic. This has been addressed through design measures wherever possible, such as grade separation of all but minor road crossings and fencing of much of the alignment. Construction traffic management plans will also be a critical part of addressing this risk.

One particular concern is the potential impact on emergency service providers, who are reporting resourcing concerns and challenges associated with the remoteness of the area and unpredictability in relation to projects and associated population growth. Adani will seek to be as self sufficient as possible in relation to medical and fire fighting services and will also have security at the workers accommodation village. However, there are instances when emergency services support will be required, for example, if injured or sick persons need to be transported, or if a crime is suspected and police are required to investigate. Fire services may also be required to assist if a large fire occurs, and if road accidents occur, Queensland Police Service and Queensland Ambulance Service are likely to be required to attend.

Adani will continue to liaise with emergency services and involve emergency services in development of emergency management and response plans. Adani will also provide regular information updates to emergency service providers and provide support to emergency services personnel required to attend the proposed mine.

Table 2-1 presents a summary of the potentially social impacts associated with the Project as identified through the SIA. For the detailed social impact assessment refer to the EIS Volume 4, Appendix F.

Impact	Timing / Project Phase	Status of Impact	Unmitigated L/C Rating	Impacted Party	Mitigated L/C Rating
Housing and Accommodation					
Mine Higher cost of living in Clermont as a result of higher housing prices, rental prices as workers in support industries seek to reside in the local community	Construction and Operation	Negative	Medium	Local and district communities, and smaller centres in the regional area	Low
Workforce Management			_		
Mine					
Physical and mental health isolation, separation from families, etc)	Construction and Operation	Negative	Medium	Workforce	Low
Impacts on families in source communities through separation	Construction and Operation	Negative	Medium	Workforce and families	Low
Rail					
Physical and mental health isolation, separation from families, etc)	Construction and Operation	Negative	Medium	Workforce	Low
Impacts on families in source communities	Construction and Operation	Negative	Medium	Workforce and families	Low
Economic Growth and Regional D	Development				-
Mine					
Employment, apprenticeships, training associated with local businesses to attract and retain people within the local community working for local businesses.	Construction and operation	Positive	High	Local community	High
Provision of goods and services to the project from local businesses in Clermont increasing the ability of local business to remain stable or grow	Construction and operation	Positive	Medium	Local community	Medium
Providing employment and training opportunities for Indigenous people	Construction and operation	Positive	Medium	Indigenous community	Medium
Development of the local, district and parts of the wider regional area through Royalties for the Region	Operation	Positive	High	Local, district and parts of the regional community	High
People move from being employed in local business into the mining sector reducing the ability of local business to meet demands for goods and services.	Construction and operation	Negative	Medium	Local community	Low
Rail					
Employment, apprenticeships, training within local businesses in Clermont and Moranbah supplying	Construction	Positive	High	Local community	High

Table 2-1 Summary of Key Social Impacts and Significance

Impact	Timing / Project Phase	Status of Impact	Unmitigated L/C Rating	Impacted Party	Mitigated L/C Rating
the rail construction	T Habb				
Provision of goods and services to the project from local businesses in Clermont increasing the ability of local business to remain stable or grow	Construction	Positive	Medium	Local community	Medium
Providing employment and training opportunities for Indigenous people	Construction and operation	Positive	Medium	Indigenous community	Medium
People move from being employed in local business to take advantage of potential higher paid construction work reducing the ability of local business to meet demands for goods and services	Construction	Negative	Medium	Local community	Low (no DIDO)
Roads, Traffic and Safety					
Mine					
Traffic disruption along the Gregory Development Road and Flinders Highway (from Townsville), Peak Downs Highway (from Mackay), during construction	Construction	Negative	Medium	Road users	Medium
Increased traffic on the Gregory Development Road, including safety of tourist traffic not familiar with large heavy vehicles on narrow roads	Operation	Negative	Medium	Road users	Medium
Increased maintenance requirements on local and state roads as a result of mine construction and operation	Construction and operation	Negative	Medium	Road users, Council and Transport and Main Roads	Low
Rail					
Traffic disruption along the Gregory Development Road and Flinders Highway (from Townsville), Peak Downs Highway (from Mackay), during construction	Construction	Negative	Medium	Road users	Medium
Delays to traffic, including emergency services as a result of level crossings along the rail corridor	Operation	Negative	Medium	Road users	Low
Landholder and Amenity Impacts					
Mine					
Changes to the living environment from increased noise and dust and reduced visual amenity.	Construction and operation	Negative	Medium	Landholders	Low (bought property)
Disruption to cattle operations and increased labour requirements	Construction and operation	Negative	Medium	Landholders	Low (landholder agreements in place)
Rail					
Changes to the living environment from increased noise and dust and reduced visual amenity	Construction and operation	Negative	Medium	Landholders	Low (design located away from homesteads)
Changes to the natural	Construction	Negative	Medium	Landholders	Low

Impact	Timing /	Status of	Unmitigated	Impacted	Mitigated
	Project Phase	Impact	L/C Rating	Party	L/C Rating
environment from changes to overland flow paths with potential for increased ponding	and operation				
Disruption to cattle operations and increased labour requirements.	Construction and operation	Negative	Medium	Landholders	Medium
Increased fire risk along the rail corridor.	Construction and operation	Negative	High	Landholders	Medium
Impacts on Social Services and In	frastructure				
Mine					
Increased demands on emergency services, including police, as well as health and education services as a result of an increased population at the mine site.	Construction and operation	Negative	Medium	Government agencies and services	Low
Increased demands on social services to respond to the needs of the FIFO population.	Construction and operation	Negative	Medium	Service providers in the local community as well as source communities	Low
Rail					
Increased demands on emergency services, including police, as well as health and education services as a result of populations in construction camps	Construction	Negative	Medium	Government agencies and services	Low
Increased demands on social services to respond to the needs of construction workers	Construction	Negative	Medium	Service providers in the local community as well as source communities	Low
Impacts on Community Values					
Mine					
Increased crime and antisocial behaviour within the local communities from the FIFO workforce.	Construction and operation	Negative	Low	Local communities	Low
Rail					
Increased crime and antisocial behaviour within the local communities from the FIFO workforce.	Construction	Negative	Low	Local communities	Low

2.6 Management Response

Adani has developed a range of strategies to address key social impacts. Table 2-2 shows the extent to which the various strategies address identified social impacts. Draft action, monitoring and reporting plans are provided in Section 3. Management and mitigation of social impacts will also be supported by a stakeholder engagement plan as set out in Section 4.

As discussed in the SIA, social impact assessment and management is very temporal in nature, and changes in demographic characteristics, micro and macro economic performance and a range of other factors can significantly change the nature and significance of impacts associated with a project. Hence, the management strategies presented in this SIMP are intended to be regularly reviewed.

Table 2-2 Impacts and Key Mitigations Matrix

	Mitig	gation S	trategi	es							
Impacts	Project design	Landholder agreements and land management	Stakeholder Engagement	Housing and accommodation	Workforce management - behaviour	Workforce management – recruitment, education and training	Workforce Management Health, Safety and Wellbeing	Local Industry Participation Plan	Community health and safety	Emergency services planning and Consultation	Community Development
Housing and Accommodation											
Increased cost of housing			\checkmark	✓				\checkmark			\checkmark
Workforce Management											
Physical and mental health isolation, separation from families, etc)						✓	√				
Impacts on families in source communities							✓				
Economic Growth and Regional Dev	/elopr	nent									
Employment, apprenticeships, training			✓			✓	√	✓			
Local business supply of goods and services			~	✓				✓			
Retention of staff in local businesses			~				\checkmark	✓			
Indigenous employment			\checkmark			✓	✓	\checkmark			\checkmark
Community Health, Safety and Secu	ıritv										
Road, Traffic and Safety											
Traffic disruption during construction	✓	✓	~						✓	✓	
Increased traffic during construction and operation	✓	✓	~						✓	✓	
Increased maintenance requirements for roads	~		~								√
Delays to emergency services at rail crossings	✓		~						~	√	
Landholder and Amenity											
Increased noise and dust and reduced visual amenity	✓	√	~								
Changes to overland flow paths and increased flooding	✓	√	~								
Disruption to cattle operations and increased labour requirements	✓	√	~								
Increased fire risk along the rail corridor	~	√	~							√	
Social Infrastructure and Services											
Increased demands on emergency services, health and education			~				✓			✓	~
Increased demands on social services			~	~			\checkmark				\checkmark
Community Values and Change											
Increased crime and antisocial behaviour			~		~						~

Other technical study management plans that will also influence the management of potential social impacts are opportunities include:

- Environmental Management Plan (construction and operation)
- Cultural Heritage Management Plan
- Traffic Management Plan
- Emergency Response Plan.

3. Draft Action Plans, Monitoring and Reporting

3.1 Project Design

Draft Action Plan	Project Design
Approach	
Summary of Issues	 There are a number of potential impacts on landholders and road users that can be addressed through project design. In particular, issues relating to access, rail safety, road safety
	and flooding can be addressed through design
Management Objectives	• Design measures respond to safety risk profile for community, road users and landholders
	 Impacts on access via road network or within properties are minimised
	 Land productivity in flood prone areas is not further degraded by flooding and afflux
Mitigation Approach	 Alignment of the rail corridor to follow property boundaries as far as practicable
	 Optimisation of the rail corridor, temporary construction areas and off-site mine infrastructure to avoid dwellings, other farm buildings, stock yards and other farm infrastructure wherever possible
	 Grade separation between rail and existing roads at Gregory Development Road, Kilcummin Diamond Downs Road, Amaroo Road and Avon Road.
	 Railway design to manage stream and overland flows such that ponding and exacerbation of flooding is controlled.
	Fencing of the alignment
	 Stock and occupational crossings as negotiated with landholders
	 Upgrade of Carmichael Moray Road and intersection with Gregory Developmental Road
	 Construction access routes to minimise impacts on local road users
Preliminary Performance	Incidents involving members of the public
Indicators	Design criteria are met
	 Satisfaction of landholders as per Action Plan for Landholder Agreements and Land Management
	 Accreditation as railway Infrastructure and Operations Manager compliance with legislative requirements in relation to rail safety
Monitoring and Reportin	a

Monitoring and Reporting

- Incident reporting in relation to incidents involving members of the community through construction and operation
- Design checklist

Stakeholders

- Adani
- Landholders
- Road users
- Isaac Regional Council

Applicable to:

- Mine construction
- Rail construction
- Mine operation
- Rail operation

3.2 Landholder Agreements and Land Management

Draft Action Plan	Landholder Agreement and Land Management						
Approach							
Summary of Issues	Minimal impacts on amenity are predicted						
	 Rail line in particular will sever properties and affect property and stock management 						
	 Concern regarding potential for exacerbation of flooding and afflux 						
	Concerns regarding potential for fire from trains and vehicles						
Management Objectives	Impacts on landholdings are minimised						
	Impacts on landholders are minimised						
	Positive ongoing landholder relations						
Mitigation Approach	Land access protocols						
	 Statutory requirements in relation to land acquisition and compensation are followed 						
	 Close consultation with landholders regarding project design measures to minimise impacts 						
	 Ongoing program of landholder liaison during construction and operation in Stakeholder Engagement Strategy 						
	Fire and dust management programs						
Preliminary Performance	Evidence of regular interfacing with landholders						
Indicators	 Satisfaction with acquisition and compensation process, as measured through complaints and appeals 						
Menitorian and Departin	Compliance with agreed land access protocols						

Monitoring and Reporting

- Evidence that statutory processes have been adhered to from compensation and acquisition records
- Evidence of timely response to complaints and enquiries from Consultation Manager database
- Quantitative Monthly Reports via Consultation Manager database
- Note that outcomes of compensation and acquisition negotiations will remain confidential between Adani and landholders

Stakeholders

- Adani
- Landholders

- Mine construction
- Rail construction
- Mine operation
- Rail operation

Draft Action Plan	Housing Accommodation
Approach	
Summary of Issues	
Summary of issues	 Stakeholders identified pressure on housing availability and affordability
	 Proposed workforce strategy requires all construction and operation workers to utilise accommodation village/temporary construction camps and thus, there will be no direct increase in depand for housing
	 Rail operations workforce may live locally at Bowen or Mackay but will be a very small number
	 Population growth may occur dur to economic stimulation in the local, district and regional study areas but is likely to be within population forecasts
Management Objectives	 Utilisation of Adani accommodation village/temporary construction camps by construction and operations workforce
	 Respond to housing and accommodation issues in local and regional communities if required
Mitigation Approach	 Provision of accommodation in village/temporary construction camps for all construction and operation workers
	All mine workers resident in worker accommodation village while on roster
	Membership of the Clermont Preferred Futures Group and the Isaac Affordable Housing Trust
	 Additional measures if impacts attributable to the project are identified
Preliminary Performance Indicators	Utilisation of Adani worker accommodation village/temporary accommodation camps
	 Worker satisfaction with worker accommodation village/temporary accommodation camps
	 Further mitigation if project related population growth in local and regional communities exceeds population forecasts
Monitoring and Reportin	g

3.3 Housing and Accommodation

- Rail construction workforce accommodation statistics
- Growth in employee numbers local businesses due to project related contracts
- Worker satisfaction surveys regarding accommodation

Stakeholders

- Adani
- Workers
- Clermont Preferred Futures Group
- Isaac Regional Council

- Mine construction
- Rail construction
- Mine operation

3.4 Workforce Management

Draft Action Plan	Workforce Management				
Approach					
Summary of Issues	• Presence of non-resident workforces causes community concern in relation to behaviour and increased demand for scarce community services and infrsatructure				
	 The proposed workforce approach will minimise presence of workers in existing communities 				
	 There is a current skills shortage in some key areas required for construction and operation 				
	 The project provides significant opportunities for employment and training for residents at the district and regional level as well as throughout Queensland and Australia 				
	 Data is emerging regarding potential health and wellbeing impacts on people working remotely from their home or family base, and effects on families when one adult is away at work. 				
	 There are stringent requirements regarding workplace health and safety that must be complied with at all worksites and accommodation village/temporary construction camps. 				
Management Objectives	 A positive, tolerant and safety oriented culture is established amongst the workforce 				
	 Recruitment and training programs address skills shortages and sustainably maintain a reliable, skilled workforce 				
	 Recruitment and training programs address potential hurdles to traditionally under-represented groups joining the mining industry 				
	 Worker health, safety and wellbeing is recognised as fundamental to successful operations 				
Mitigation Approach	 A code of conduct will be in place with clear consequences for employees and contractors if the code is not followed 				
	 All construction and operation workers to be accommodated in worker accommodation village/temporary accomdoation camps 				
	 A recruitment, education and training plan will be developed addressing skill shortages and under-represented groups 				
	 Local and regional recruitment and training providers will be approached in relation to recruitment and training 				
	 Requirements of the Coal Mining (Safety and Health) Act 1999 and Work Health and Safety Act 2011 will be strictly adhered to. 				
	Health and safety plans will include a wellbeing program				
Preliminary Performance Indicators	• As Adani is a new entrant into Queensland and Australia, and given the remoteness of the site and low unemployment in the district and region, Adani has not set performance indicators at this stage of the project.				

Monitoring and Reporting

- Proportion of traditionally under-represented groups recruited and trained
- Proportion of workers from district and region and from Queensland
- Number of employees undertaking or completed traineeships, apprenticeships and other training activities
- Results of annual worker health and wellbing survey
- Workforce retention rates

Stakeholders

- Adani
- Workers
- Training and recruitment providers

Skills Queensland

Applicable to:

- Mine construction
- Rail construction
- Mine operation
- Rail operation

3.5 Local Industry Participation Plan

Draft Action Plan	Local Industry Participation Plan					
Approach						
Summary of Issues	 There are a number of business in the district and regional study areas that provide goods and services that will be required during the construction and operation phases A large, long term mining operation can provide significant opportunities for smaller district and regional businesses As smaller businesses can find it difficult to compete with large businesses, proactive strategies are required to 					
	maximise benefits to district and regional businesses					
Management Objectives	 Maximise opportunities for businesses in the district and regional areas to provide goods and services to the project Comply with Adani Local Buying Policy 					
Mitigation Approach	 Prepare a Local Industry Participation Plan (LIPP) in accordance with the Local Industry Policy – a fair go for local industry and associated Guidelines. 					
	 Collaborate with Central Highlands, Isaac and Charters Towers Regional Councils, Clermont Preferred Futures Group, and local businesses in conjunction with Office of Advanced Manufacturing and the Industry Capability Network in developing the LIPP 					
Preliminary Performance Indicators	 As Adani is a new entrant into Queensland and Australia, Adani has not set performance indicators at this stage of the project. Adani has a Local Buying Policy in place 					
Monitoring and Reporting						

- Number, proportion and value of contracts for business based in Clermont
- Number, proportion and value of contracts for business based in Isaac Region, Charters Tower Region and Central Highlands Region
- Adherence to Local Buying Policy

Stakeholders

- Adani
- District and regional businesses
- Central Highlands, Isaac and Charters Towers Regional Councils,
- Clermont Preferred Futures Group,
- Office of Advanced Manufacturing
- Industry Capability Network

- Mine operation
- Rail operation

3.6 Community Health and Safety

Draft Action Plan	Community Health and Safety				
Approach					
Summary of Issues	 Increased risk of accident involving project-related vehicles and trains was a key concern of stakeholders including landholders, road users and emergency service providers and was a significant risk identified in the hazard and risk assessment, requiring mitigation Operation of rail facilities is subject to legislative requirements The hazard and risk assessment did not identify any significant community health and safety issues associated with the mine or other significant risks associated with the rail 				
Management Objectives	• No increase in risk of accidents to landholders and road users				
Mitigation Approach	 Design measures including fencing of the railway, grade separation of all but minor road crossings and provision of occupational and stock crossings for landholders Adherence to Australian standards and all legislative requirements in relation to safe operation of the rail component Preparation and implementation of traffic management plans in consultation with Queensland Department of Transport and Main Roads, Isaac Regional Council and emergency service providers Communication with road users regarding potential traffic changes and delays Road and intersection upgrades as required to address increased traffic volumes Stock routes managed through agreement with landholders and Department of Natural Resources and Mines 				
Preliminary Performance Indicators	 Incidents involving members of the public Design criteria are met Accreditation gained and maintained as Railway Infrastructure Manager and a Railway Operations Manager under the provisions of the Transport (Rail Safety) Act 2010 				
Monitoring and Reporting					
Incident reporting in relation to incidents involving members of the community through					

- Incident reporting in relation to incidents involving members of the community through construction and operation
- Design checklist
- Information releases regarding traffic changes and potential delays
- As required in relation to Railway Operations and Infrastructure Manager accreditation

Stakeholders

- Adani
- Road users
- Landholders
- Department of Transport and Main Roads
- Isaac Regional Council
- Emergency service providers

- Rail construction
- Mine construction
- Rail operation

Draft Action Plan	Emergency Services Planning and Consultation		
Approach			
Summary of Issues	 Emergency service providers indicated concern regarding resources and ability to respond, particularly to large and remote incidents 		
	 Although Adani seeks to be selfsufficient in relation to emergency management, there are some circumstances where Queensland Police Service or Queensland Ambulance Service has statutory responsibilities 		
	 Legislative requirements are in place regarding workplace health and safety management as well as fire safety in buildings and other installations 		
Management Objectives	• Provide medical, security and fire fighting services to minimise additional pressure on emergency services		
	 Proactively engage with emergency services in relation to emergency response planning and provision of information required to allow forward planning by emergency services. 		
Mitigation Approach	 Initial and ongoing consultation with Queensland Ambulance Service, Queensland Fire and Rescue Service and Queensland Police Service in relation to emergency response planning 		
	 Involvement of emergency services in the development of the site emergency management plan, including evacuation procedures, collaboration between site and emergency services personnel, patient transport and emergency response. 		
	 Provision of information regarding workforce size, activities being undertaken and emergency response services and facilities at the mine site 		
	Ongoing consultation and information updates		
	 Making resources available to emergency service providers when at the mine site, ranging from office space to use of equipment. 		
	 Registration of the proposed airstrip with the RFDS. 		
Preliminary Performance Indicators	• To be agreed with emergency services during consultation		
Monitoring and Reporting	9		
No external reporting			

3.7 Emergency Services Planning and Consultation

• Reporting to emergency services on agreed indicators (for example workforce numbers, on-site facilities, upcoming activities)

Stakeholders

- Adani
- Emergency service providers

- Rail construction
- Mine construction
- Rail operation
- Mine operation

3.8 Community Development

Draft Action Plan	Community Development				
Approach					
Summary of Issues	 Clermont is the nearest community to the proposed mine, and is located about 160 kilometers by road from the proposed mine site 				
	 The next nearest communities are Charters Towers, around 300km to the north and Emerald, around 300km to the south- east 				
	 Targeted strategies and interaction with community representative bodies will be required if project benefits are to flow to the district and regional communities. 				
	• While the project is not predicted to have significant adverse impacts on the local and regional community, Adani takes responsibility for avoiding, minimising and mitigating adverse impacts that may emerge as part of its role as a corporate member of the community				
Management Objectives	 Adani seeks to make positive contributions to the community in which they operate 				
	 Proactive and positive community relations will provide benefits for both Adani and the local and regional community. 				
Mitigation Approach	 Establish a community fund providing financial support targeting community activities, capacity and services. 				
	 Work collaboratively with Isaac Regional Council and other representative bodies, including the Clermont Preferred Futures Group to provide strategic direction and investment for whole community benefit. 				
	 Work with Clermont Preferred Futures Group and Isaac Regional Council to track demographic changes and any related impacts on housing or services that may be attributable to the Carmichael Coal project. 				
	 Where adverse impacts appear to have occurred, Adani will develop responses in collaboration with the relevant stakeholders. 				
Preliminary Performance Indicators	Membership of and participation in relevant groups				

Monitoring and Reporting

- Demographic changes in relation to local industry participation
- Community development fund allocation

Stakeholders

- Adani
- District community
- Clermont Preferred Futures Group
- Isaac Regional Council

Applicable to:

- Rail operation
- Mine operation

* local medical centres refers to those that are not considered by Queensland Health to have the capacity to treat trauma.

4. Stakeholder Engagement Strategy

Engagement with stakeholders is an important component to managing and monitoring the potential social impacts and opportunities of the Project. Stakeholder consultations will continue throughout the Project. Outlined below is a framework which is being used to guide the development of the strategy.

4.1 Goal and objectives

The development of the strategy will seek to achieve the following goal and objectives.

Goal

To establish and maintain a social licence to operate where the community respects and trusts Adani through:

- Building awareness, understanding, and acceptance of the project by community stakeholders to avoid and/or minimise their dissatisfaction
- Establishing and maintaining community partnerships that benefit a range of stakeholders
- Enhancing Adani's understanding of stakeholder needs, issues and expectations.

Objectives

- Identify and inform stakeholders about the project's scope, timing and potential impacts and benefits
- Engage stakeholders through a variety of channels and capture their concerns and opinions about the project to inform the project team's decision making process
- Ensure early identification of potential stakeholder issues and implement timely and appropriate mitigation strategies
- Create awareness and acceptance of the project with stakeholders
- Manage land access and acquisition processes to minimise project delays
- Position Adani as a good corporate neighbour that values community input.

4.2 Communication and engagement approach

The communication and engagement approach will be guided by the core values and principles of the International Association for Public Participation (IAP2). From an engagement perspective, a core principle will be to clearly communicate the level of involvement stakeholders and the community will have in the various aspects of the project.

IAP2 has developed a spectrum to define the level of public participation as shown in Figure 4-1. In most cases the level of participation for this project is anticipated to be Inform and Consult, however it is expected that through memberships of groups such as the Clermont Preferred Futures Groups and others, that a level of Involve will be appropriate.

Figure 4-1 IAP2 Spectrum of Engagement

	Inform	Consult	Involve	Collaborate	Empower
Public participation goal	To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.	To obtain public feedback on analysis, alternatives and/or decisions.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solutions.	To place final decision-making in the hands of the public.
Promise to the public	We will keep you informed.	We will keep you informed, listen to you and acknowledge concerns and aspirations and provide feedback on how public input influenced the decision.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.
Example techniques	Fact sheetsWebsiteOpen houses	 Public comment Focus group Surveys Public meetings 	 Workshops Deliberative polling 	 Citizen advisory committees Consensus- building 	 Ballots Citizen juries Delegated decision Referendum

INCREASING LEVEL OF PUBLIC PARTICIPATION

Source: International Association for Public Participation (www.iap2.org)

4.3 Strategic approach

The strategy will focus on developing and maintaining partnerships.

Relationships developed during the EIS will be further developed with a view of taking a partnership approach to many relationships. Adani is going to be a member of the Isaac and wider community for many years and will seeking to establish itself as a responsible corporate member of the community through a partnership approach. Adani is seeking membership of the Clermont Preferred Futures Group in line with Isaac Regional Council's preference for this group to represent the Northern Galilee Basin. They are also a member of the Whitsunday Industry Workforce Development (WIWD) Steering Group, which meets regularly. Adani is at present also exploring membership of a range of other groups within the wider region.

Engagement undertaken and relationships developed during the EIS stage of the project will continue and all conditions within the EIS approval will be incorporated into the strategy/plan.

Adani will work in partnership with affected landowners and develop a communication approach to suit both parties. All contact with landholders will be coordinated and a single point of contact for landholders will be provided. All communication with landholders, not already agreed, will be through that single contact.

Collaboration

Adani is actively in discussions with other mining proponents in the Galilee Basin to discuss potential for a coordinated approach to a range of infrastructure. These discussions are preliminary only and the outcome will depend upon the commercial decision of each of the proponents, however the relationships have been established and the discussions will continue.

4.4 Key principles of engagement

The following key principles of engagement will be included in the strategy:

- Be accessible to stakeholders and the community
- Be responsive and provide information in a timely manner
- Be open and honest to develop trust and respect, communicate to the public what you are doing and where possible show them.

4.5 Communication tools and techniques

The following tools and techniques are to be considered, but not limited to, in the strategy:

• Membership of relevant community development groups (such as Clermont Preferred Futures Group)

The existing group established in Clermont that will provide the function of the northern Galilee consultative group for all mining proponents, existing miners and other key stakeholders.

Community Liaison

A full-time Community and Landholder Liaison role, based within the region.

• Visitor Centre, Shop front or virtual portal

A fixed presence in the regional area, possibly as space within an existing community premise where people can come to view more information about the project and at set times possibly meet with and speak to a representative. Alternatively, given distances between centres, a virtual portal to Adani and the project may be more practical.

• 1800 enquiry line

A 1800 telephone number will be established by Adani for the duration of the project.

Stakeholder meetings and agency briefings

Face-to-face stakeholder meetings and agency briefings will be conducted as required.

Notification letters

A range of notification letters will be prepared and distributed to stakeholders as required throughout the project.

Email updates

Updates on the project's key milestones will be regularly emailed to key stakeholders.

• Stakeholder database

A consultation database will be maintained for the project.

• Records of contact

Records of contact will be prepared when meeting with or speaking to a stakeholder and entered into the consultation database.

• Protocols documents

A series of protocol documents will be prepared identifying Adani standards and guidelines relating to stakeholder interactions, land access and any other relevant issues as they arise. The purpose of these documents is to ensure a consistent, professional representation of Adani in the public arena and ensure staff are aware of what is and what is not acceptable when on private property. These documents will be distributed to field staff and other relevant staff at tool box talks.

Email enquiry address

An email enquiry address will be established for the duration of project.

Reply paid postal address

A reply paid postal address will be established.

Public displays

Public displays will be conducted as required.

Presentations

Presentations will be provided to a range of key stakeholder groups at key milestones throughout the project, and on request when suitable.

Newsletters

Project newsletters at will be developed on a regular basis. In addition to reporting on activities at the mine, upcoming events, etc, the newsletter can also provide a snapshot of KPIs as they relate to mine operation with the intention of providing up-to-date, realistic information on forecasts for mining operations, workforce (including contractors) and project changes.

• Fact sheets and posters

Project fact sheets and posters will be developed for key milestones.

• Website and text updates

Website text will be prepared for the project.

Public notices

Public notices will be developed at key milestones.

• Frequently Asked Questions (FAQs)

A FAQ document will be prepared and uploaded to the website.

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Appendix A - Workforce Profile

Construction Phase Workforce Profile - Infrastructure

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total Headcount	560	1000	1150	650	550	250	350	450	250	250
comprised of:										
Construction areas										
Train load out, CPP and conveyors, feeders	50	300	500	200	200	200	300	400	200	200
Site workshop	50	50	50							
Site offices	50	50	50							
Site haul roads	50	50	50	50	50	50	50	50	50	50
Council road upgrade	60	100	100	100	100					
Airstrip construction	50	100	100							
Dams and pipelines	50	200	300	200	100					
Mine Village construction	150	150		100	100					
Occupation										
Superintendents and managers	17	30	35	20	17	8	11	14	8	8
Designers and engineers		30	35	20	17	8	11	14	8	8
Tradespeople being fabrication, boilermakers, carpenters, plumbers and electrical		250	288	163	138	63	88	113	63	63
Construction – equipment operators and supervision	386	690	794	449	380	173	242	311	173	173

Operational Phase Workforce Profile - Mine

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total Headcount	315	793	1152	1916	2107	2115	2451	2641	2764	2821
comprised of:										
Occupation										
Superintendents andmManagers	8	19	28	46	51	51	59	63	66	68
Equipment operators and direct supervisors	188	474	688	1145	1259	1263	1464	1578	1651	1685
Mining engineers, geologists and surveyors	6	15	22	36	40	40	46	50	52	53
Coal quality including metallurgical and lab technicians	2	6	8	14	15	15	17	19	20	20
Mechanical, electrical engineers and maintenance Planners		15	22	36	40	40	46	50	52	53
Fitters	59	149	217	360	396	398	461	497	520	531
Electricians	4	11	16	27	30	30	35	37	39	40
Auto electricians	3	7	11	18	20	20	23	25	26	27
Boilermakers	3	7	11	18	20	20	23	25	26	27
Trades assistants (including tyre fitters, and service technicians)		22	33	54	59	60	69	75	78	80
Fitter/electrical operators for CPP/loadout		11	16	27	30	30	35	37	39	40
Administration including HR, safety, environmental, emergency services, finance and warehouse		19	27	45	50	50	58	62	65	66
Mine Village and airstrip management	15	37	54	90	99	99	115	124	130	133

Note that this also includes construction of pits, access roads into pits and other associated "construction" work, excluding permanent haul roads which are include in "Construction Phase Workforce Profile – Infrastructure".

Construction Phase Workforce Profile - Rail

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total Headcount	400	1350	1350	400	0	0	0	0	0	0
comprised of:										
Occupation		FTE								
Superintendents and managers		30	30	10						
Designers and engineers		30	30	10						
Tradespeople being fabrication, boilermakers, carpenters, fitters, and electrical		440	440	130						
Construction – equipment operators and supervision		850	850	250						

Operational Phase Workforce Profile - Rail

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total Headcount	0	0	15	40	60	120	120	120	120	120
comprised of:										
Occupation	FTE									
Superintendents and managers			3	3	4	5	5	5	5	5
Planners and engineers			5	5	6	10	10	10	10	10
Rail operators			7	32	50	105	105	105	105	105

Appendix B - Integrated Housing Strategy



Adani Mining Pty Ltd

adani

Adani Mining Pty Ltd Carmichael Mine and Rail Project Draft Integrated Housing Strategy

27 September 2012



Table of contents

1.	Introc	duction and Overview	1-1
	1.1	Project Overview	1-1
	1.2	Purpose of Report	1-3
	1.3	Stakeholder Consultation	1-3
2.	Policy	y Framework	2-5
	2.1	Sustainable Resource Communities Policy	2-5
	2.2	Major Resource Projects Housing Policy	2-5
	2.3	Queensland Housing Affordability Strategy (2007)	2-6
	2.4	Queensland Regionalisation Strategy	2-6
	2.5	Mackay, Isaac and Whitsunday Regional Plan	2-6
3.	Hous	ing Context in the Project Area	3-9
4.	Over	view of Project Workforce	4-1
	4.1	Directly Employed	4-1
	4.2	Indirect Employment	4-3
5.	Propo	osed Worker Housing Strategy	5-1
	5.1	Exploration	5-1
	5.2	Rail Construction	5-2
	5.3	Rail Operation	5-2
	5.4	Mine Workers Accommodation Village	5-5
6.	Mana	agement Strategies	6-1
7.	Refer	rences	7-1

Table index

Table 5-1: Location and Capacity of Temporary Construction Camps	5-2
Table 6-1: Housing and Accommodation	6-1
Table 6-2: Workforce Management	6-2

Figure index

Figure 1-1: Project Location	1-2
Figure 4-1 Total Anticipated Project Workforce	4-1
Figure 4-2 Workforce Skills – Years 1 to 10	4-2
Figure 5-1 Location of temporary workers accommodation villages	5-3
Figure 5-2 Workers Accommodation Village - Mine	5-6

1. Introduction and Overview

1.1 Project Overview

Adani Mining Pty Ltd (Adani) is proposing to develop a 60 million tonne (product) per annum (Mtpa) thermal coal mine in the north Galilee Basin approximately 160 kilometres (km) northwest of the town of Clermont, Central Queensland. All coal will be railed via a privately owned rail line connecting to the existing QR National rail infrastructure either at Moranbah and/or North Goonyella, and shipped through coal terminal facilities at the Port of Abbot Point and the Port of Hay Point (Dudgeon Point expansion). The Carmichael Coal Mine and Rail Project (the Project) will have an operating life of approximately 90 years.

The Project comprises of two major components:

- The Project (Mine): a greenfield coal mine over EPC1690 and part of EPC1080, which includes both open cut and underground mining, on mine infrastructure and associated mine processing facilities (the Mine) and offsite infrastructure.
- The Project (Rail): greenfield multi user rail corridors connecting the Mine to the existing Goonyella rail system and existing Goonyella to Abbot Point/Newlands rail system to provide for export of coal via the Port of Abbot Point and/or the Port of Hay Point (Dudgeon Point expansion).

The Project has been declared a 'significant project' under the *State Development and Public Works Organisation Act 1971* (SDPWO Act) and, as such, an Environmental Impact Statement (EIS) is required for the Project. The Project is also a 'controlled action' and requires assessment and approval under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The Project EIS has been developed with the objective to identify potential environmental, social and economic impacts of the Project and prescribe mitigation measures to avoid or mitigate such impacts.

Detailed descriptions of the Project are provided in Volume 2 Section 2 Project (Mine) and Volume 3 Section 2 Project (Rail).

Figure 1-1 shows the Project location.



1.2 Purpose of Report

The purpose of this report is to provide a Draft Integrated Housing Strategy (IHS) for the construction and operations phases of the Project.

The IHS has been developed as part of the Social Impact Assessment (SIA) and the Social Impact Management Plan (SIMP) as specified in the Project Terms of Reference (TOR). Along with the TOR the development of the IHS is also guided by the Major Resource Projects Housing Policy (August, 2011). Objectives of the Draft IHS are:

- Understand supply constraints of the housing market in the local and regional project area
- Provide details of the project workforce and develop sustainable workforce housing options.
- Open and engage in an ongoing dialogue with relevant stakeholders in the project's local and regional area of influence to determine positive, long term housing outcomes for the project as well as the closest regional communities
- Minimise short term and long term project impacts on the local and regional housing affordability and availability
- Provide specific actions/way forward to developing a final Carmichael Project Integrated Housing Strategy.

It is recognised that the Carmichael Mine will be unique in the history of recent developments within the Queensland Coal industry, given its' location 160kms from Clermont as the nearest town. Most mines developed in the last 10 years such as Clermont Coal (Clermont), Caval Ridge, Broadmeadow, Daunia, Poitrel, Isaac Plains, Carborough Downs (Moranbah), Lake Vermont (Dysart) and Lake Lindsay (Middlemount) have been within reasonable travel distances of existing towns and have had to consider the positive and negative impacts that this ensures. However, the Carmichael site is two hours drive from Clermont and four hours to Charters Towers, and hence cannot use those towns as daily bases for operations.

1.3 Stakeholder Consultation

In consultations with the SIAU and in accordance with Major Housing Policy, consultation was undertaken with the organisations and agencies listed below in the development of the IHS. Adani will undertake further consultation with stakeholders, including unions as it continues to develop the detail of its workforce planning as part of the SIMP finalisation process. As discussed and agreed with the SIAU in 2011, until such time that Adani is more advanced in their planning, particularly regarding workforce planning, it was not seen as appropriate to engage with unions regarding housing and accommodation.

- Department of State Development, Infrastructure and Planning
- Isaac Regional Council (who also administers the Isaac Affordable Housing Trust)
- Charters Towers Regional Council
- Central Highlands Regional Council
- Whitsunday Sunday Regional Council
- Townsville City Council
- Mackay Regional Council
- ULDA.

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2. Policy Framework

2.1 Sustainable Resource Communities Policy

The Queensland Government's Sustainable Resource Communities Policy, September 2008 was developed to focus on the needs of rapidly developing resource communities in Queensland. The policy was developed to address social impacts on community infrastructure and services and the social structure of the regional communities that support new and expanded resource developments. The policy was targeted towards the resource rich regions of Bowen Basin, Surat Basin and the North West Mineral Province. The aims of the policy were to:

- Strengthen the Government's coordination role in terms of assessing the social impacts associated with resource developments
- Improve linkages between social impact assessment and regional planning
- Foster partnerships with local government, industry and community
- Enhance regulatory environment for social impact assessment.

The policy identified housing as a significant issue experienced in resource communities, in response to which the Government declared the development of the Major Projects Housing Policy to address the availability and supply of housing to support major projects and to guide investment in the provision of housing.

2.2 Major Resource Projects Housing Policy

The Major Resource Projects Housing Policy was brought into effect by the Queensland Government from August 2011. The policy sets out the Government's requirements for the provision of housing to accommodate major project workforces as part of the Project's SIA process. Salient principles of the policy include:

- Project proponents are responsible for accommodating employees working on a resource project and must put forward a clear and detailed strategy for accommodating project workforces in their EIS
- The accommodation strategy for resource project workforces must describe the projected size, nature and location of the workforce for the resource project (for pre-construction, construction and operational phases) including the projected proportion of workers who will fly, drive or ferry in and out; towns and cities in which fly-in, fly-out (FIFO) or drive-in, drive-out (DIDO) employees are likely to be permanently residing and plans for accommodating the proportion of the workforce who will not readily access local accommodation during pre-construction, construction and operational phases
- Project proponents must take into account the projected accommodation and locational preferences of workers and provide workers with the choice of where and how they live and work
- Where a FIFO workforce is proposed, the proponent must engage early in the process with community stakeholders and work with local communities, councils, unions and the state government to make sure that the liveability and sustainability of towns is protected and that workers have a choice about where they live. To do so resource project proponents must where practicable and sustainable, locate a proportion of their operational workforce in resource towns
- The policy also specifies design and management considerations for workers accommodation villages proposed by resource companies.

2.3 Queensland Housing Affordability Strategy (2007)

In 2007, the Queensland Government released the Queensland Housing Affordability Strategy. The goal of the strategy was to bring State land to market more quickly, and to help the market to respond more effectively to providing housing. The strategy provides for a more competitive and responsive land and housing market by significantly reducing the timelines and associated holding costs of bringing new homes to the market. To achieve housing affordability the following actions were put forward:

- Establish an Urban Land Development Authority
- Amend the planning and development assessment process
- Increase the supply of land ready for development
- Regulate infrastructure charging plans across Queensland
- Designate land for housing in regional areas of high demand
- Identify and develop appropriate underutilised government land for urban proposals
- Allow local governments to facilitate private sector financing of infrastructure.

2.4 Queensland Regionalisation Strategy

The draft Queensland Regionalisation Strategy, July 2011 was developed to attract and retain people to the regions where and when they are needed. The housing and regional workforce development considerations included in the strategy are:

- Existing initiative of providing a temporary grant of \$10 000 in addition to the existing \$7000 First Home Owners Grant towards the construction or purchase of a new home for six months commencing 1 August 2011
- Proposed actions include development of regional workforce through coordination of skills development, attraction and retention efforts to encourage participation by existing residents and support workers to relocate with their families for employment opportunities.

2.5 Mackay, Isaac and Whitsunday Regional Plan

The final Mackay, Isaac and Whitsunday Regional Plan was issued in February 2012. It establishes a vision and direction for the region 2031 and prioritises areas of development for the region. In terms of housing, the plan identified housing choice and affordability as a strategy for development under the principle that affordable, safe and secure housing is a basic human need, and a critical component of community wellbeing, labour market efficiency and social cohesion. Reduced housing availability and affordability are key challenges for the region, particularly among the low-income households. To address the housing shortage issues the plan outlines the following key policies:

- Encourage the incorporation of affordable housing, including suitable housing for entrylevel buyers and low-income earners
- Encourage settlement in mining communities by providing sufficient urban land supply and diverse housing stock that can adequately accommodate predicted population growth
- Provide a mix of dwelling types and sizes to attract long-term residents and a sustainable population in resource communities. This accommodates different family types, dynamics and housing needs

- Provide housing and accommodation for temporary residents and employees involved in industrial development, mining and construction, and seasonal work
- Ensure the scale and number of people accommodated by non-resident worker accommodation is compatible with the nearby permanent resident population
- Facilitate the location of non-resident worker accommodation to ensure access to services and community integration, and social cohesion with the existing community.

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3. Housing Context in the Project Area

The development of the IHS has been informed by the Social Impact Assessment (SIA), the identified social impacts and associated management strategies. The SIA incudes comprehensive baseline data regarding housing and accommodation within the Project study areas.

The nearest towns to the Carmichael Mine will be Clermont, Charters Towers and Emerald. Due to existing resource activities in and around these towns, some of these communities have been experiencing housing stress in more recent years.

SIA research in the Isaac and Charters Towers region indicated that there are currently some issues associated with accommodation in the towns of Moranbah and Clermont in that housing is limited and prices are rising. The issue of housing availability and rising property values/prices was exacerbated due to land and housing supply constraints in the region particularly in Moranbah, and increasingly in Clermont. However, during consultations Isaac Regional Council officers indicated that Council has identified sufficient residential zoned land to support future town expansion in Clermont, with a 15 year supply available and that the new planning scheme will continue to support growth associated with regional industries. Other initiatives in the region include housing developments in Clermont with 80 townhouses in Stage 1 of a multiple stage residential development nearing completion. SIA consultation indicated that 40 of the townhouses have been purchased by Rio Tinto and 40 have been sold on the open market. Stage 2 of the development is expected to commence as soon as Stage 1 is complete. In addition, BMA has introduces an initiative to place a rent cap on the properties they lease for their workers in Isaac region. This initiative was considered by several organisations consulted to have had an immediate and positive impact on housing in Moranbah in particular.

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4. Overview of Project Workforce

4.1 Directly Employed

Data relating to the total Project (Mine and Rail) workforce is provided in this section of the SIMP. Section 5 of the SIA (EIS Volume 4, Appendix F) provides more detailed information regarding the workforce, including a breakdown of the Project (Mine) and Project (Rail) workforce along with construction and operation.

It should be noted that the construction phase for the Project (Mine) includes works such as construction of the open cut and underground mining operations, haul roads, train load out and coal handing preparation plant, conveyors, feeders, workshops, equipment storage, administration building, and other components within the mine infrastructure area, as well as offsite infrastructure. Offsite infrastructure will include:

- Council road upgrade
- Airstrip construction
- Dams and pipelines
- Workers accommodation village construction.

Workforce numbers are included in Appendix A of the SIMP. Figure 4-1 shows the build-up of workers over time with an anticipated peak in 2015 of approximately 3,700 workers, mainly influenced by rail construction, then a reduction as rail construction activities are completed. During operations, a peak workforce of around 3000 will be required when the mine is in full production, predicted to occur approximately 10 years from commencement of construction.



Figure 4-1 Total Anticipated Project Workforce

Figure 4-2 shows the skill breakdown of the workforce for the first ten years of construction and operation.



Figure 4-2 Workforce Skills – Years 1 to 10

Both construction and operation workforces are intended to be sourced on a fly in-fly out (FIFO) basis with Adani providing flights between the proposed airport at the mine site and major population centres on the east coast of Queensland. During the early stages of construction, existing airstrips at Doongmabulla, Labona or Moray Downs will be used, until the proposed air strip is constructed. Workers constructing the eastern end of the proposed rail alignment will be flown to Moranbah airport and transported by bus to temporary accommodation villages along the rail alignment.

During construction, mine construction workforce and some of the rail construction workforce will be accommodated at a permanent workers accommodation village close to the proposed mine and airport. Three additional temporary villages will be established along the proposed rail alignment for rail construction workers.

During operation, all workers will be accommodated at the worker accommodation village near the proposed mine.

Depending on interest, workers for the operation phase may also be recruited from local and regional communities such as Clermont, Emerald and Charters Towers and would be transported to the mine site on a bus in-bus out (BIBO) basis. Due to road distances, there is no opportunity for workers to travel between the proposed mine and their homes between shifts; all workers will be required to stay at the workers accommodation village when on-roster.

4.2 Indirect Employment

The SIA identified that, due to Adani's local buying policy, and commitment to develop and implement a Local Industry Participation Policy, there was potential for local and regional economic stimulation to occur. This in turn may result in population growth as businesses providing goods and services to the Carmichael Coal project expand and seek to employ more staff.

The rate and magnitude of such growth is likely to be small and within forecast populations and housing impacts are not predicted. However, Adani has included monitoring of this potential impact in the SIMP.

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5. Proposed Worker Housing Strategy

5.1 Exploration

A range of activities are being carried out on the site in order to complete the feasibility study for the project. Such activities include:

- Drilling to establish coal properties
- Land clearances / cultural heritage
- Sampling of water and dust
- Civil pre-works, including upgrading of temporary roads and airstrips
- Various investigations needed to establish the EIS.

The peak manning numbers during the exploration stage are approximately 350 and this work should be largely completed by mid-2013.

Contractors are mainly carrying out the exploration stage work, and personnel will require accommodation in order to complete the work. During this time, staff from the Adani Brisbane office, and their consultants are required to attend site on a regular basis. At this stage such staff are not permanently employed at the Project site, but remain employed through the Brisbane office and will FIFO to the site.

Due to the temporary nature of the activities being carried out during this period, and the lack of permanent staff being employed directly attributed to the Project, a long term accommodation approach is not warranted. Adani considered camp or motel style accommodation in Clermont for the exploration stage work. However this is not practical due to travel distances and the need to manage fitness for work.

A temporary camp of up to 400 rooms is being developed on the Carmichael Mine site for the duration of the Exploration Stage. This camp is being developed to have single rooms, compliant with the Queensland Development Code MP 3.3 Temporary Accommodation Buildings and Structures. The exploration camp will develop to include the following facilities:

- Kitchen and dining area
- Tavern/Recreation room
- Ablution Block and showers
- Sewage and Water Treatment Plants
- Generators and fuel farm
- Site Office, shop and Storage Areas
- Site workshop
- Training room
- BBQ areas
- Gymnasium
- Covered walkways.

Staff are generally FIFO from Brisbane on chartered flights, landing at the local "temporary" airstrip of Dongmabulla adjacent to the mine. In the event that this strip is unavailable, planes land at either Moray Downs, Labona strips. Staff are transported by bus or 4WD.

5.2 Rail Construction

A peak workforce of approximately 1350 will be required to construct the 185km length of connecting rail line from Carmichael mine-site to the Queensland Rail network. The construction is expected to commence in 2013 and extend over a four year period.

Rail construction workforce will be recruited and managed by contractors and camp-type accommodation will be provided for all construction workers at three camps along the proposed alignment or, for the westernmost end, at the proposed mine worker accommodation village. Indicative rail construction camp locations are shown in Table 5-1.

Camp	Location (east-west)	Capacity	Lot on Plan
1	Rail (East) (35.0 km)	400	Lot 7 on SP233102
2	Rail (west) (94.9 km)	400	Lot 10 on BL49
3	Rail (west) (151.9 km	400	Lot 662 on PH1491
4	Rail (west)	400	Lot 662 on PH1491 (co-located with the Project (Mine) workers accommodation village on Moray Downs)

Table 5-1: Location and Capacity of Temporary Construction Camps

Rail construction accommodation camps will have capacities from 150 persons to 400 persons and will have similar facilities as for the exploration camp described in 5.1. The camps are expected to be in place for up to four years.

Indicative locations are shown on Figure 5-1.

5.3 Rail Operation

The operational workforce required for the rail is about 120 persons. Accommodation facilities will not be provided for the rail workforce, however drivers and crews will rest at the mine workers accommodation village as required to meet fatigue management requirements and maintenance crews conducting maintenance at the mine end of the alignment will also live at the workers accommodation village when on roster. It is expected that rail operations workers will be resident in or around Bowen and Mackay as the rail operations will terminate at the ports of Hay Point and Abbot Point. As these are both large population centres, it is not considered necessary to undertake development of a housing strategy for the small rail operation workforce.



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Data source: DERM: DEM (2008), DCDB (2010), Physical Road Network (2011); DME: EPC1690 (2010), EPC1080 (2011); © Commonwealth of Australia (Geoscience Australia): Localities, Railways (2007); Adani: Alignment Opt9 Rev3 (SP1&2) (2012), Construction Camps (2011); Gassman/Hyder: Mine (Offsite) (2012). Created by: BW, jvc

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5.4 Mine Workers Accommodation Village

All mine construction and operation workers will be accommodated at the mine workers accommodation village which is to be constructed approximately 15 km east of the Project (Mine) site with access from the Moray Carmichael Road.

The workers accommodation village will be developed in three stages as shown in Figure 5-2:

- Stage 1 with an initial capacity of 250 beds, to be constructed at commencement of construction activities.
- Stage 2 adding 1000 beds to bring capacity to 1250 beds. This is expected to be required in the second year of construction
- Stage 3 adding 750 beds to bring the total capacity of the WAV to 2000 beds by commencement of mining operations.

The workers accommodation village will be developed with an elevated sense of community, as a series of accommodation unit clusters to promote a community environment, with each cluster having access to its own recreation and other facilities.

The design philosophy for the workers accommodation village was centred on providing an attractive living environment for the construction and maintenance workers in the short term whilst also establishing a framework whereby the settlement can ultimately be integrated into the permanent workers accommodation village. The design has sought to create an environment where every living unit is within 400 metres of centralised facilities where everyday services can be accessed. These facilities will be accessed by green corridors that permeate through the settlement, providing buffers between residential clusters, passive recreation and environmental connectivity. The street network has been designed in a manner that acknowledges the specific climatic conditions of the site. The workers accommodation village will have the following features:

- single rooms with ensuite bathrooms
- kitchen and dining areas
- Recreational facilities including gymnasium, pool, barbecue areas, a tavern and landscaped areas
- Water supply and treatment
- Laundry facilities
- Sewage treatment
- An initial power supply generated on-site with subsequent connection to grid power
- Shopping and banking facilities
- Wireless internet and mobile communications.

Health and medical facilities will be located at the workers accommodation village and mine training facilities may also be located at the village.

Buildings and facilities will comply with building and fire regulations and with Queensland Development Code MP 3.3 Temporary Accommodation Buildings and Structures.

Figure 5-2 Workers Accommodation Village - Mine



6. Management Strategies

A range of management strategies were included in the SIMP that are relevant to management of workforce in worker accommodation facilities, and also to the potential impacts of indirect population growth due to local economic stimulation.

Those directly relevant to housing and accommodation issues are shown in Table 6-1 and Table 6-2.

Table 6-1: Housing and Accommodation

Draft Action Plan	Housing Accommodation
Approach	
Summary of Issues	 Stakeholders identified pressure on housing availability and affordability Proposed workforce strategy requires all construction and operation workers to utilise accommodation villages and thus, there will be no direct increase in demand for housing Rail operations workforce may live locally at Bowen or Mackay but will be a very small number Population growth may occur due to economic stimulation in the local, district and regional study areas but is likely to be within population forecasts
Management Objectives	 Utilisation of Adani accommodation villages by construction and operations workforce Respond to housing and accommodation issues in local and regional communities if required
Mitigation Approach	 Provision of accommodation in villages for all construction and operation workers All mine workers resident in worker accommodation village while on roster Membership of the Clermont Preferred Futures Group and the Isaac Affordable Housing Trust Additional measures if impacts attributable to the project are identified
Preliminary Performance Indicators	 Utilisation of Adani worker accommodation villages Worker satisfaction with worker accommodation villages Further mitigation if project related population growth in local and regional communities exceeds population forecasts
Monitoring and Reportin	g

- Rail construction workforce accommodation statistics
- · Growth in employee numbers local businesses due to project related contracts
- Worker satisfaction surveys regarding accommodation

Stakeholders

- Adani
- Workers
- Clermont Preferred Futures Group
- Isaac Regional Council

Applicable to:

- Mine construction
- Rail construction
- Mine operation

Table 6-2: Workforce Management

Draft Action Plan	Workforce Management
Approach	
Summary of Issues	 Presence of non-resident workforces causes community concern in relation to behaviour and increased demand for scarce community services and infrastructure The proposed workforce approach will minimise presence of workers in existing communities There is a current skills shortage in some key areas required for construction and operation The project provides significant opportunities for employment and training for residents at the district and regional level as well as throughout Queensland and Australia Data is emerging regarding potential health and wellbeing impacts on people working remotely from their home or family base, and effects on families when one adult is away at work. There are stringent requirements regarding workplace health and safety that must be complied with at all worksites and accommodation villages.
Management Objectives	 A positive, tolerant and safety oriented culture is established amongst the workforce Recruitment and training programs address skills shortages and sustainably maintain a reliable, skilled workforce Recruitment and training programs address potential hurdles to traditionally under-represented groups joining the mining industry Worker health, safety and wellbeing is recognised as fundamental to successful operations
Mitigation Approach	 A code of conduct will be in place with clear consequences for employees and contractors if the code is not followed All construction and operation workers to be accommodated in worker accommodation villages A recruitment, education and training plan will be developed addressing skill shortages and under-represented groups Local and regional recruitment and training providers will be approached in relation to recruitment and training Requirements of the Coal Mining (Safety and Health) Act 1999 and Work Health and Safety Act 2011 will be strictly adhered to. Health and safety plans will include a wellbeing program
Preliminary Performance Indicators	• As Adani is a new entrant into Queensland and Australia, and given the remoteness of the site and low unemployment in the district and region, Adani has not set performance indicators at this stage of the project.

Monitoring and Reporting

- Proportion of traditionally under-represented groups recruited and trained
- Proportion of workers from district and region and from Queensland
- Number of employees undertaking or completed traineeships, apprenticeships and other training activities
- Results of annual worker health and wellbeing survey
- Workforce retention rates

Stakeholders

- Adani
- Workers
- Training and recruitment providers
- Skills Queensland

Applicable to:

- Mine construction
- Rail construction
- Mine operation
- Rail operation •

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