Australia Pacific LNG Project

Volume 3: Gas Pipeline

Chapter 20: Social Impact Assessment

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20. Social impact assessment

20.1 Introduction

20.1.1 Purpose

This chapter discusses the social impact assessment (SIA) of the main gas transmission pipeline (gas pipeline) element of the Australia Pacific LNG Project (the Project). The SIA assesses the social impacts associated with the development, construction and operation of the gas pipeline. It identifies the nature, magnitude and significance of social impacts and identifies appropriate measures for impact management and mitigation, designed to mitigate potential impacts and improve the positive benefits and opportunities. Five steps were used in the SIA process:

- Baseline assessment of the social environment
- Stakeholder engagement
- Identification and assessment of potential impacts
- Identification of mitigation measures and opportunities for enhancement
- Development of a draft social impact management plan (SIMP).

The Australia Pacific LNG sustainability principles were drawn from to guide the preparation of the SIA and the draft SIMP. This plan identifies the strategies required to implement the proposed mitigation measures and enhancement of opportunities and benefits, as well as outlining mechanisms and indicators to monitor the social environment.

Using Australia Pacific LNG's 12 sustainability principles has ensured that the proposed strategies are consistent with the overall Project approach and that contribution to sustainable development is maximised. Specifically, the Australia Pacific LNG sustainability principles relevant to the social environment are:

- Fostering the health and wellbeing of Australia Pacific LNG's workforce
- Respecting the rights, interests and diverse cultures of the communities in which Australia Pacific LNG operates
- Engaging regularly, openly and transparently with people and communities affected by Australia Pacific LNG's activities, considering their views in its decision-making and striving for positive social outcomes
- Working cooperatively with communities, governments and other stakeholders to achieve positive social and environmental outcomes, seeking partnership approaches where appropriate
- Upholding exemplary ethical behaviour in all aspects of Australia Pacific LNG's business
- Identifying, assessing, managing, monitoring and reviewing risks to Australia Pacific LNG's workforce, its property, the environment and the communities affected by its activities
- Ensuring that all employees and contractors work consistently with its sustainability principles, commitments, values and systems.

Guided by these principles, Australia Pacific LNG aims to deliver sustainable long-term benefits to the communities within which it operates in collaboration with government, industry and communities.

Mechanisms to achieve this are outlined in the SIA and draft SIMP. Identifying opportunities for local and regional businesses and acting on these early through participatory mechanisms will play a key role in contributing to the sustainable community development. Australia Pacific LNG will select suppliers who demonstrate social responsibility, have high health, safety and environment standards and ethical practices.

Proposed mitigation measures and strategies for enhancing positive social benefits are aligned where possible with relevant regional community development plans. A key element of sustainability is partnerships. Strategies for enhancing opportunities and benefits focus on a collaborative approach with industry, government and community stakeholders to increase the likelihood of success and improve the contribution towards community development and capacity building. Guided by their sustainability principles, Australia Pacific LNG has worked with government and community stakeholders to identify possible impacts to existing social services and institutions, and through the SIA has developed strategies to mitigate potential impacts.

Strategies for enhancing employment opportunities for local and regional residents while seeking to mitigate disruptive impacts of the Project's workforce requirements on the existing local and regional labour pool is a key focus of the SIA. The provision of long-term employment opportunities that reach all sectors of the community, including under-represented groups, will contribute to sustainable development. Employment opportunities are underpinned by training programs that support the development of the Project, while providing diverse transferrable skills that provide employees with long-term career paths.

20.1.2 Scope of works

The SIA has been completed according to the terms of reference for the Project environmental impact statement as set by the Queensland Coordinator-General, December 2009. The specific requirements for SIA are:

> *The Social Impact Assessment should be conducted in consultation with the Department of Infrastructure and Planning (DIP) Social Impact Unit. Matters to be considered include the social and cultural area, community engagement, a social baseline study, a workforce profile, potential impacts and mitigation measures and management strategies.*

20.1.3 The study area

The gas pipeline is approximately 450km in length, stretching from the northern Walloons area near Miles and tracking north towards the liquefied natural gas (LNG) facility to be located on Curtis Island, near Gladstone. Development of the gas pipeline and associated infrastructure is to be completed by Origin on behalf of Australia Pacific LNG.

A complete list of communities consulted is provided in Volume 3 Chapter 2. Where project activities overlap between the gas fields and gas pipeline, the potential social impacts are discussed in more detail in Volume 2 Chapter 20. Where the project activities overlap between the gas pipeline and the LNG facility impacts, more details are provided in Volume 4 Chapter 20.

The SIA study area has been defined geographically according to the statistical local areas (SLAs) – Banana, Taroom and Calliope Part B[1] – as classified by the Australian Bureau of Statistics (ABS) (2007). These are shown in Figure 20.1, along with the urban localities of Miles, Gladstone, Biloela and Wandoan, which were statistically analysed as part of the gas pipeline study area.

1 'Part' is the ABS abbreviation for 'part', i.e. there is Calliope 'part' A and Calliope 'part' B SLA.

Table 20.1 summarises the gas pipeline statistical local areas (SLA) and studied urban localities (marked with an asterisk). Also included are communities located adjacent to, or within, the study area. These adjacent communities are not specifically included in the baseline assessment due to their small size and lack of location-specific information. These locations also offer less of an ability to support the Project (e.g. through the supply of accommodation, goods and services and so forth) due to their size. However, it is recognised that these communities may be impacted by the Project, especially for the construction of the gas pipeline where a male-dominated workforce of approximately 400 people will potentially be working and residing in close proximity to some of these localities. As such, these towns are considered when assessing potential impacts and developing strategies for mitigation and enhancement.

Table 20.1[2] lists the regional and shire councils traversed by the proposed gas pipeline, while the boundaries of the local authority areas are illustrated on Figure 20.2[3]. The majority of the gas pipeline traverses almost the entire length of Banana Shire local government area. Figure 20.1 indicates the pipeline study development area and statistical local areas boundaries.

Table 20.1 Regional councils, statistical local areas, urban localities – gas pipeline study area

Regional Council	Statistical local areas	Urban localities	Other affected communities
Banana Shire Council	Banana	Theodore[1], Biloela[1]	Moura, Cockatoo, Prospect, Cracow, Camboon
	Taroom	Taroom	
Western Downs Regional Council	Taroom	Wandoan[1]	
	Murilla	Miles	
Gladstone Regional Council	Calliope Part B	Gladstone[1]	Callide

[1] Studied urban localities

Taroom statistical local area is listed twice as it falls within both the Banana Shire Council and Western Downs Regional Council areas.

Miles is included in the studied urban localities for the gas pipeline area, as Miles is the closest urban centre near to where the gas pipeline commences, north of the Walloons gas field. Miles falls within the Murilla Statistical Local Area, which is assessed in detail in Volume 2 Chapter 20. Impacts to the Gladstone area are discussed in more detail in Volume 4 Chapter 20.

[2] For Figure 20.1: The letters in parenthesis following the name of individual SLAs refer to the ABS classification of SLAs as either town (T), shire (S) or city (C)

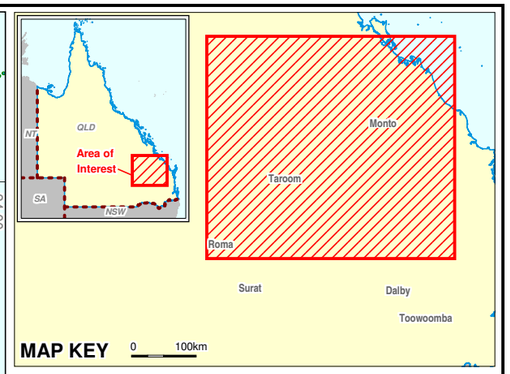
[3] For Figure 20.2: The letters in parenthesis following the name of individual LGAs refers to the whether the LGA is a shire (S) or regional council (R)

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24.00 25.00 26.00

Emerald (S)
Duaringa (S)
Mount Morgan (S)
GLADSTONE
Gladstone (C)
CALLIOPE
Calliope (S) - Pt A
Calliope (S) - Pt B
Miriam Vale
Miriam Vale (S)
Biloela
Moura
Banana (S)
Woorabinda (S)
Theodore
Monto
Monto (S)
Kolan (S)
Eidsvold (S)
Perry (S)
Biggenden (S)
Biggenden
Gayndah (S)
Mundubbera (S)
Taroom
Taroom (S)
Injune
Bungil (S)
Wandoan
Chinchilla (S)
Kilkivan (S)
Murgon (S)
Goomeri
Wondai (S)
Cherbourg (S)
Kingaroy (S)
Bendemere (S)
ROMA
Roma (T)
Miles
Chinchilla
Murilla (S)
Wambo (S)
Jandowae

Dawson Highway
Fitzroy Dev Road
Eidsvold - Theodore Road
Leichhardt Hwy
Warrego Highway
Roma - Taroom Road



LEGEND

- Major towns
- Major Drainage
- Railway
- Gas pipeline study area
- Road
- Gas pipeline route
- SLA Boundary

Statistical Local Area boundaries - the letters in parenthesis following the name of individual SLAs refers to the ABS classification of SLAs as either town (T), shire (S) or city (C).

Source Information

Statistical Local Area Digital Boundaries (ASGC 2006) sourced from http://www.abs.gov.au on 29/08/2007.

Preferred gas pipeline alignment
Origin Energy on 03/11/2009

Pipeline
Department of Mines and Energy, MERLIN Mining Tenures system and Database (MTDB) 2009
Commonwealth of Australia (Geoscience Australia) 2009

Road
Department of Main Roads, Queensland 2009

0 20 40km
SCALE - 1 : 1,250,000 (at A3)
Latitude/Longitude
Geocentric Datum of Australia 1994
N

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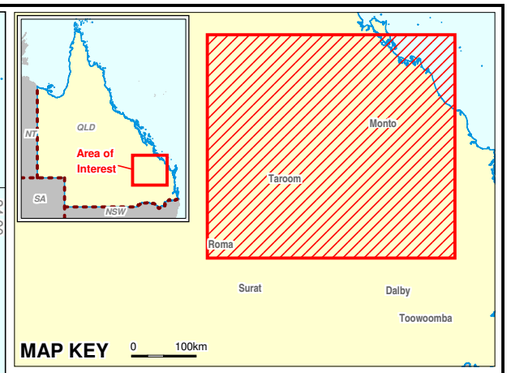
Volume 3 Chapter 20
Figure 20.1 Statistical Local Area Boundaries

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Mount Morgan
Rockhampton (R)
GLADSTONE
CALLIOPE
Gladstone (R)
Woorabinda (S)
Fitzroy Dev Road
Dawson Hwy
Callide
Biloela
Miriam Vale
Prospect
Moura
Dawson Highway
Central Highlands (R)
Theodore
Camboon
Monto
Bundaberg (R)
Leichhardt Hwy
Banana (S)
Eidsvold - Theodore Road
North Burnett (R)
Biggenden
Mundubbera
Gayndah
Taroom
Cockatoo
Injune
Wandoan
Western Downs (R)
South Burnett (R)
Goomeri
Murgon
Wondai
Kingaroy - Murgon Road
Roma - Taroom Road
Maranoa (R)
Warrego Highway
ROMA
Miles
Chinchilla
Jandowae
KINGAROY

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LEGEND

- Major towns
- Road
- Existing railway
- Proposed Railway
- Gas pipeline study area
- Major airports
- Gas pipeline route
- Pipeline licences (Application)
- Pipeline licences (Granted)

Source Information

Preferred gas pipeline alignment
Origin Energy on 03/11/2009

Local Government Area (LGA) Boundaries (2008)
Department of Natural Resources and Water, Queensland 2009

Pipeline
Department of Mines and Energy, MERLIN Mining Tenures system and Database (MTDB) 2009
Commonwealth of Australia (Geoscience Australia) 2009

Road
Department of Main Roads, Queensland 2009

0 20 40km
SCALE - 1 : 1,250,000 (at A3)
Latitude/Longitude
Geocentric Datum of Australia 1994

N

AUSTRALIA PACIFIC LNG PROJECT

Volume 3 Chapter 20
Figure 20.2 Local Government Boundaries

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20.2 Methodology

This section of the report outlines the methods used to complete the SIA.

20.2.1 Social baseline

The social baseline for the gas pipeline study area is presented in Volume 5 Attachment 42, and summarised in this chapter in Section 20.4. Social baseline study data was collected from government agencies and other sources to define the social environment. The most up-to-date data was used wherever possible, however most statistics have a time lag of several years between collection and publication. The basic population data sets used are sourced from the Australian Bureau of Statistics (ABS) and the Department of Infrastructure and Planning (DIP) - Planning Information and Forecasting Unit (PIFU). The data sets are assessed at the SLA or Queensland level unless otherwise stated. SLA statistics are drawn from the 1996, 2001, and 2006 Census collections. However, Census statistics for urban localities are only available for 2001 and 2006 due to a change in the Census collection boundaries from 1996 to 2001. Unless otherwise stated, Census data is based on location on Census night (place of enumeration). This is the mode most readily available for collecting data as a time series from the 2001 and 2006 Censuses.

A review of policies, programs, strategies and regional studies relevant to the gas pipeline study area was completed to provide the regional context in which the Project will be operating and to gain an understanding of the implications of the development for the social environment (refer to Volume 5 Attachment 42).

The gas pipeline SIA draws from the Banana Regional Council community survey, completed in 2008, to gauge community perceptions of wellbeing, amenity and livability. The survey was completed soon after the Queensland Council amalgamations and boundary changes, and contained questions relating to whether the respondents felt that their local Council changes would affect their community identity. Community values related to the Gladstone region are drawn from the Gladstone Regional Vision 2028 project (sponsored by the Rio Tinto Alcan Community Fund) and the Gladstone Region Social Infrastructure Strategic Plan (background report May 2009) being developed by the DIP, Gladstone Regional Council and Gladstone Economic and Industry Development Board. These are discussed in Volume 4 Chapter 2.

20.2.2 Stakeholder engagement

Stakeholder engagement for the Project began in late 2008 and will continue throughout the life of the Project. Stakeholder engagement activities specific to the EIS were undertaken between April and November 2009. Detailed accounts of the activities are presented in Volume 3 Chapter 2, Volume 2 Chapter 2 and Volume 4 Chapter 2. Stakeholder and community engagement is also anticipated to occur when the Australia Pacific LNG EIS is released for public comment in early 2010.

In addition to the above activities, community and stakeholder engagement specific to the SIA was undertaken to inform the assessment process. A summary of these activities and outcomes is presented in Section 20.3.3.

20.2.3 Impact identification and assessment

Identification of impacts

Potential social impacts were identified through a three-phased approach. The first phase involved a desktop investigation of the baseline assessment findings, analysis of stakeholder consultation outcomes and review of relevant studies. An internal workshop was then conducted to identify additional potential impacts and refine previously identified ones.

The second phase involved the completion of a hazards and sensitivities analysis to determine if there were any additional potential impacts not identified in the first phase. The first step in a hazards and sensitivities analysis is to define potential project hazards. Project hazards are elements, activities, operations and processes which have the potential to impact the social environment. For example, the construction of temporary accommodation facilities and laydown areas, increased road traffic, possible road closures, workforce and generation of waste materials are potential project hazards.

Parallel to the identification of hazards, a sensitivities analysis is carried out to identify the key aspects of the receiving social environment considered to be most sensitive. Sensitivities are defined as aspects of the social environment which support and sustain people. For example, access to accommodation, cost of living and employment opportunities. Potential impacts are identified though this process as a result of an interaction between a project hazard and a sensitivity. The hazards and sensitivities matrix is included in Figure 20.3. The matrix shows impact areas and at which stage of the project development (construction or operation) that the impact may occur. The impact categories are detailed in Table 20.8 and the full impact assessment including mitigation strategies is provided in Section 20.7. The draft SIMP is presented in Volume 3 Chapter 24.

The third and final impact identification phase was the stakeholder engagement completed specifically to inform the SIA. The engagement provided an opportunity for stakeholders to raise and discuss potential social impacts of the Project and to discuss the appropriateness and effectiveness of proposed mitigation strategies. Stakeholder engagement undertaken during this phase is summarised in Section 20.3.2 and the outcomes discussed in Section 20.3.3.

				Demographic profile					Income & affordability		Employment & business				Housing, Accommodation & Land									Community Health & Safety									Education & Training					Local facilities & services									Community values & lifestyles							
				Balance in gender	Balance in age	Balance in family structure	Balance in ethnicicity	Displacement of under-represented groups	Cost of living	Wage gap	Contracting	Procurement	Employment	Businesses	Availability of housing	Availability of rental accommodation	Availability of short-term accommodation	Availability of commerical real estate	Cost of housing	Cost of rental accommodation	Cost of short-term accommodation	Cost of commerical real estate	Low socio-economic housing	Land for development	Access to primary health care	Access to secondary health care	Access to tertiary health care	Access to emergency services	Alcohol and drug abuse	Criminal activity	Road safety	Mental health	Noise	Access to primary & secondary education	Access to tertiary education	Quality of education services	Access to apprenticeships	Skills profile	Transport	Transport corridors	Cultural facilities & services	Recreation facilities & services	Community facilities and services	Relocation & multicultural services	Childcare services	Youth facilities & services	Recreational Areas	Utilities	Community values	Lifestyles	Community cohesion	Volunteerism	Community resilience	Diversity	Choices relating to standard of living
				1.1	1.2	1.3		1.4	2.1	2.2	3.1	3.2	3.3	3.4	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.91	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.1	6.2	6.3	6.4	6.5	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	##	8.1	8.2	8.3	8.4	8.5	8.6	8.7
1.0	Space required	C	O																																																			
1.1	Gas & water gathering network	X	X								■																																			■							
1.2	Gas Plant Facilities & associated	X	X								■																																			■							
1.3	Construction camps & facilities	X																																							■					■						
1.4	Permanent camps & facilities	X	X																																					■					■						
1.5	Existing public access roads	X	X																																				■													
1.6	Existing private access roads	X	X																																				■									■					
1.7	Temporary access roads	X																																					■								■					
1.8	Roma Regional Office	X	X															■				■		■															■	■														
1.9	Brisbane Regional Office	X	X															■				■		■																													
1.91	Miles Regional Office	X	X															■				■		■																													
1.92	Laydown facilities at Port	X	X															■				■		■															■	■			■										
2.0	Utilities																																																				
2.1	Electricity	X	X																																													■						
2.2	Telecommunications	X	X																																											■						
3.0	Procurement																																																			
3.1	Goods	X	X						■			■	■	■																										■													
3.2	Services	X	X						■		■		■	■																										■	■	■	■											
4.0	Human resources																																																			
4.1	Construction workforce	X		■	■	■	■	■	■	■			■	■	■	■	■		■	■	■		■		■	■	■	■	■	■	■	■		■	■	■	■	■	■		■	■	■	■	■	■			■	■	■	■	■	■	■	■
4.2	Operational workforce		X						■	■			■	■	■	■	■		■	■	■			■	■	■	■	■	■	■	■			■	■	■	■			■	■	■	■	■	■	■			■	■	■	■	■	■	■
4.3	Influx of people (indirect)	X	X						■	■			■	■	■	■	■		■	■	■		■	■	■	■	■	■	■	■	■			■	■	■			■	■	■	■	■	■	■	■			■	■	■	■	■	■	■
4.4	Personnel transport	X	X										■	■																	■								■	■	■	■	■												
5.0	Emissions																																																			
5.1	Dust emissions	X	X																												■	■								■	■	■												■		
5.2	Noise emissions	X	X																												■	■								■	■	■												■		
5.3	Light emissions	X	X																												■	■								■	■	■												■		
5.4	Waste discharge	X	X																																																■		
5.5	Water discharge	X	X																																																■		

Figure 20.3 Hazards and sensitivities matrix

Assessment of impacts

The key stages in assessing potential impacts are illustrated in Figure 20.4. The first stage is to explain each of the impacts, describing why these are impacts and demonstrating clearly whether the impacts are assessed to be as positive or negative, direct or indirect, long-term or short-term, local or widespread and if they are reversible or irreversible.

The assessment has been completed using the draft guidelines for SIMP received from the DIP in November 2009. It should be noted that this methodology was adopted to ensure consistency with the draft guidelines and is consistent across the gas fields, the gas pipeline and the LNG facility SIAs. However, it differs to that adopted elsewhere in the EIS.

The qualification of each impact is based upon two assessment characteristics. These characteristics include an assessment of the probability of the impact occurring and an assessment of the actual result and scale of effect of an impact if it were to happen (i.e. potential consequences). These two steps make up stages two and three of the impact assessment process, respectively.

The probability of occurrence is assessed for each impact and is rated between 'low' and 'high,' as follows:

- High (81-100%)
- Medium (31-80%)
- Low (0-30%)

The potential consequences may vary between 'low', 'medium' and 'high', as follows:

- Low
  - Isolated issues or complaint that can be resolved via routine site procedures
  - Insignificant to minor social harm
  - No threat to social licence to operate
  - Medium
  - Repeated incidents or community complaints that require significant adjustment to overall site level and business level procedures
  - Moderate social harm
  - Medium threat to social license to operate
- High
  - Significant, widespread and enduring community issue or dissent
  - Major to severe or irreversible social harm
  - Direct threat to social license to operate.

The fourth and final stage of the impact assessment process is to identify mitigation measures and opportunities for enhancement. The purpose of mitigation is to identify measures to safeguard the environment and the community affected by the Project. Where impacts are assessed to be positive, or where there is no or only a minimal impact, opportunities for social enhancement are identified and measures for implementation are explained.

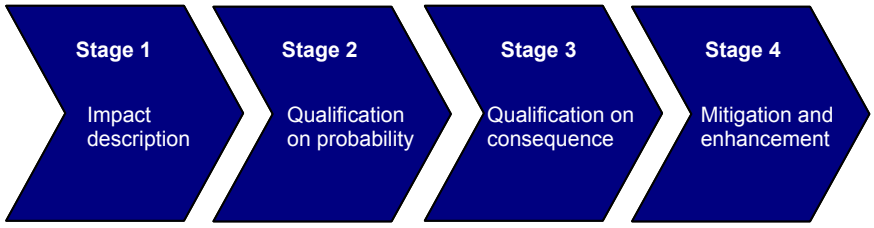


Figure 20.4 Key stages in impact assessment

Cumulative impacts

The first step within the cumulative impact assessment was to determine which projects to include. Projects to be assessed cumulatively in the gas pipeline SIA, as agreed with DIP, are:

- Dawson Expansion Project
- Gladstone LNG (GLNG)
- Moura Link
- Nathan Dam and associated pipeline
- Queensland Curtis LNG Project
- Queensland Gas Pipeline Expansion
- Surat Basin Railway
- Surat to Gladstone Pipeline
- Wandoan Coal Project.

This list refers to only those developments in proximity to the gas pipeline study area. Additional projects have been assessed for the gas fields (Volume 2 Chapter 20) and the LNG facility (Volume 4 Chapter 20).

Quantitative and qualitative tools (e.g. modelling and stakeholder consultation) were used to evaluate the collective information from the projects to assess the cumulative impacts to the gas pipeline region. Information about these projects that was considered in the cumulative impact assessment, included, but was not limited to:

- Construction and operational workforce numbers
- Location of the project
- Construction and operational timelines
- Potential for individually insignificant but cumulatively significant impacts.

20.2.4 Social impact management plan

The Queensland Government is developing guidelines to assist proponents develop a SIMP for all resource projects in Queensland. A draft SIMP has been developed for the Project to establish and define Australia Pacific LNG's management of social performance throughout the life of the Project. The Project's draft SIMP framework identifies and develops the strategies required to implement the proposed mitigation measures and opportunities for enhancement.

In particular, Australia Pacific LNG recognises that the Queensland Government has a significant role to play in the planning and delivery of core services such as health, education, emergency services, transport and infrastructure, and the Australian Government in relation to employment and training initiatives. Where relevant, the draft SIMP designates the appropriate Queensland or Australian Government department with a shared responsibility for the implementation and/or monitoring of a particular mitigation strategy.

The draft SIMP is presented in Volume 3 Chapter 24.

20.3 Community and stakeholder engagement

This section of the report provides a summary of the broader project stakeholder engagement program completed during the environmental impact statement process. It also outlines the stakeholder engagement undertaken specifically for the purpose of the SIA and then summarises the stakeholder engagement outcomes for both of the parallel processes.

The terms of reference for the Australia Pacific LNG Project EIS defines a 'stakeholder' as a person or organisation with an interest or stake in a project. The term 'community' has also been used to describe that stakeholder group which is comprised of both individual community members and community groups. For the purpose of this report, 'stakeholder engagement' relates to engaging community and stakeholders.

The potential impacts and concerns raised by stakeholders are addressed in Section 20.6.2.

20.3.1 Existing stakeholder engagement

Stakeholder engagement in the gas pipeline region, for the purpose of the Project, began in late 2008. However Origin (a joint venture partner in Australia Pacific LNG) has historically had a strong presence within the gas fields' areas. For the purpose of this document, reporting reflects interaction and feedback obtained from April to November 2009. It is also recognised that stakeholder engagement will be an ongoing activity undertaken throughout the life of the Project.

Key stakeholders involved in the environmental impacts assessment included the broader community, landholders, peak industry groups, Indigenous Australians, as well as local, Queensland and federal elected representatives and officers from regulatory bodies, and environmental, agricultural and business groups.

Face-to-face consultation was the preferred method of contact with the community. Direct contact allowed project details to be communicated to those who may have limited access to, or understanding of, certain information tools, such as the internet. Two-way communication flows also provided instant feedback about issues from a sample of the population and an invaluable testing platform for possible mitigation strategies.

A summary of the main stakeholder engagement activities is outlined below. Further details about the feedback received through the community engagement process are presented in Volume 2 Chapter 2, Volume 3 Chapter 2 and Volume 4 Chapter 2.

20.3.2 Social impact assessment stakeholder engagement

The SIA was able to leverage off the broader project stakeholder engagement program as well as findings from consultation undertaken in Gladstone recently by industry and government.

Stakeholder engagement completed for the SIA was undertaken in the form of one-on-one meetings with key stakeholders to assist with identifying and assessing social impacts and to discuss the appropriateness and effectiveness of proposed mitigation strategies.

Stakeholders engaged specifically as a part of the gas pipeline SIA process included:

- AgForce
- Australian Petroleum Production & Exploration Association
- Banana Shire Council
- Department of Communities
- Department of Education and Training
- Department of Employment, Economic Development and Innovation
- Department of Environment and Resource Management
- Department of Infrastructure and Planning - Planning Information Forecasting Unit
- Department of Infrastructure and Planning Social Impact Unit
- Enterprise Biloela Association Inc
- Environmental Property Protection Association
- Gladstone Economic Industry and Development Board
- Gladstone Regional Council
- Miles and District Chamber of Commerce
- Queensland Health
- Queensland Resources Council
- Taroom and District Development Association.
- Taroom Health Services
- Western Downs Regional Council
- 2028 Visioning Committee.

20.3.3 Stakeholder engagement outcomes

20.3.4 Social research

Findings from independent research indicate that Origin has historically effectively engaged with the broader local community. Respondents commented that Origin's approach to engagement and community consultation was industry leading. Notwithstanding such positive responses, it appears landholders feel a loss of independence due to the increasing presence of resource projects in the region. Furthermore, the study found any threat to their water supply was a major concern to study participants.

Particular areas of interest differed slightly between local leaders and community members, as shown in Table 20.2.

Table 20.2 Social research findings

Participant	Feedback
Local leaders	• Gas has brought prosperity and confidence to the area. • Economy is no longer reliant on rural enterprise only. • Employment opportunities, business growth and social diversity had developed. • Massive opportunity for road building and additional funding required. • Additional resources required to enhance infrastructure. • Optimistic that CSG water will make town water supply sustainable (expectation that gas companies will provide using an economic basis for distribution). • Salt problem will diminish as environmental controls are improving and water treatment is in place. • Landholders feel disenfranchised about issues relating to compensation and confidentiality restrictions were creating tension; yet the purchasing of properties has assisted with concerns.
Community members	• Businesses serving the gas industry are benefiting from CSG. • Demand for local services has increased. • Local people with skills have moved to the gas industry for jobs and higher pay. • Hundreds of fly-in/fly-out workers create demand for goods and services and assist the local business economy. • Slight population increase means more work. • Small businesses find it difficult to retain employees (higher wages difficult to match) and this creates tension between local business and gas companies. • Residents cannot access plumbers, electricians and other services. • Gas brings prosperity and promise of long-term viability, especially in drought. • Long-term water supply is a concern (breach of ponds or contamination of or reduced flows from bores). • Community initiatives are valuable, but sometimes companies can dominate not collaborate with locals. • Many townspeople are frightened by the volume and speed of road trains and other construction vehicles. • Gas companies have built some roads, but only in areas relating to their work (locals believe the problem extends further to other roads too). • Council, Government and industry should do more to improve the major roads. • The influx of activity and workers has not led to social inclusion. • House prices and rent have increased significantly in a relatively short time. • More detail about noise and dust from traffic, land clearing, road and fence building and drilling is required by landholders. • Concerns that drilling and production will affect their agricultural production capacity; property value and lifestyle.

Source: Bergent Research (2008)

20.3.5 Key issues

During the first phase of the community consultation process (late 2008 to May 2009), the most common issues related to land use, environment and accommodation. Given the communities' dominant agricultural identity, concerns relating to water and land use were expected to be of paramount concern to the gas pipeline community. The interests of stakeholders engaged during this phase of consultation also influenced the concern shown for environmental factors. Furthermore, the vast distance between towns and limited infrastructure along the gas pipeline route, attracted interest for how the Project intends to accommodate its workforce.

Building upon feedback provided by local councils to other LNG proponents, Australia Pacific LNG proactively engaged decisions-makers to realign perceptions and develop a collaborative response to concerns. For example, during the second round of community consultation, new realistic short and long-term water management solutions received favourable responses from local Councils. Australia Pacific LNG also acknowledged that where possible, construction and operational practices will complement existing local strategies and policies. Discussions about the location of vehicle inspection and cleaning facilities, construction methodologies and strategies suitable for inclusion within the Project's traffic management plan were developed to address local concerns relating to land use, weed management and use of local roads.

As a result of feedback received from the community engagement process, the following documents will be developed and implemented in close consultation with government, industry and community partners:

- Workforce strategy
- Housing and accommodation strategy
- Community investment strategy
- Indigenous engagement strategy
- Flexible work policy
- Local content strategy
- Emergency response plan
- Landowner charter.

Feedback from social service and education providers

Discussions with key social service and education providers were conducted in Miles in October 2009. Participants were encouraged to speak openly about the services, aspirations and challenges and general community values. The outcomes of these discussions are summarised below and represent the views of the stakeholders consulted only.

Employment and business

As new employment opportunities have emerged across the region, as have skills shortages, as workers begin to transition from traditional industries such as retail and agriculture to the resources sector. Stakeholders reported that migrant-workers holding 457 visas[4] are back-filling jobs of those who may have been attracted to the resources sector.

[4] Temporary Business (Long Stay) - Standard Business Sponsorship (Subclass 457)

Community health and safety

Like many rural areas in Australia, towns in the gas pipeline region are experiencing a shortage in general practitioners. Many doctors currently servicing these communities are flying in from other locations in Queensland to meet the shortages, which present challenges when patients want to build the traditional doctor-patient relationships. Extraordinary increases to rental prices were regarded as an influencing factor for not being able to attract medical personnel. Some community members believe the industry is placing additional strain on medical services.

Service providers discussed community health and safety initiatives and/or improvements that could be considered, including:

- Accessing the skills and experiences of workers' partners to supplement the existing services
- Provision of information regarding Project emergency response mechanisms to the community - especially with regard to impacts associated with an industrial emergency and demand for emergency services personnel.

The Project's intention to communicate and enforce Origin's code of conduct amongst employees and subcontractors was discussed and welcomed by law enforcement agencies.

Education and training

Primary and secondary schools across the gas fields and gas pipeline region have experienced steady growth in enrolments in recent years. Schools in Miles are reported as being under capacity, yet have experienced steady growth in recent years. Demand for the regional guidance officer was extremely high (case load of approximately 800 pupils). One recommendation related to assessing resourcing needs according to regional, not urban conditions. Educational concerns also extended beyond the formal system and included adult literacy problems. In the secondary school it was considered cultural connection was poor for the 12 students who identified themselves as Indigenous Australians. Despite this issue, in general, it was reported that the school community exhibited a strong family connection.

Existing and close relationships with industry had enabled training programmes to be developed, which were popular with students. This was evidenced by a 50:50 split for those completing vocational subjects and those pursuing overall positions in Year 12. The ratio of school-based traineeships to apprenticeships was 2:1.

Community values and lifestyle

The community in this region values their traditional rural lifestyle, but is keen to better understand how they can benefit from the development opportunities. The entrepreneurial nature of residents is highlighted by community members placing a high value on the notion that they can benefit economically from the Project.

Community members feel strongly connected to their local area, with many families having lived in the small communities for many generations. Relationships with families and partners are highly valued, as is ensuring that there are opportunities for young people to stay in towns if they choose. As traditional agricultural communities, water and the environment are regarded as important elements of rural life.

Comments made during consultation indicated community members were aware that changes to their lifestyle were linked to growth of the communities. Some participants mentioned that it was becoming more difficult to find parking in town and had to wait longer for services, such as plumbers and

electricians. The laid back nature of rural life is also highly valued and some community members believe this is being eroded as industry expands throughout the region.

Although the councils are still working through the changes associated with the recent amalgamation of local authorities, the region is being offered a diverse range of services for developing hospitality skills; celebrating cultural differences; supporting women within small businesses; providing child-friendly environments and offering information for adopting healthy lifestyles. A desire for long-term and short-term residents to mix more socially was also of paramount interest and appeared to acknowledge that the transient workforce had become embedded into their community character for a significant length of time.

A vibrant cultural and arts centre in Miles also promotes community engagement opportunities through access to IT services, a children's playground, library, art gallery, volunteering group and workshops with artists and authors. Further opportunities for enhancing the town's cultural presence are dependent on funding.

A community coordinator mentioned that other issues present within Taroom, Miles, Chinchilla, Wandoan and Tara related to the 'greed of the community', increased rent and housing availability drug availability and use, homelessness, and lack of job opportunities for people with disabilities, Indigenous Australians and unemployed youth.

Feedback from council and interest groups

Additional one-to-one discussions were held with AgForce, Murilla Landcare Group, Miles Historical Society, Miles and District Chamber of Commerce and Industry on 27-29 October 2009. Common themes from the discussions related to water and weed management, community investment opportunities, condition of local roads, lack of health services, opportunities for communities and business to prosper and the release of land for housing developments.

Table 20.3 outlines the key topics of discussions identified from consultation activities undertaken in communities within close proximity to the proposed gas pipeline. The feedback outlined above has been included within these summaries.

Table 20.3 Summary of key stakeholder issues from 1 April to 9 November 2009

Themes from discussions	Where discussed in EIS	Interest shown by whom
Land use		
• Collaboration with other industry recommended • Native title, environmental challenges and co-location of infrastructure corridor • Weed management • Shared pipes • Route of gas pipeline. • Changes to long-term land uses	Volume 3 Chapter 3 – Project description Volume 3 Chapter 6 – Land use and planning Volume 3 Chapter 8 – Terrestrial ecology Volume 3 Chapter 18 – Indigenous cultural heritage Volume 3 Chapter 19 – Non-Indigenous shared heritage	• Banana Shire Council • Rockhampton Regional Council • Western Downs Regional Council • Department of Environment and Resource Management • Department of Infrastructure and Planning • Fitzroy Basin Association • Community members

Themes from discussions	Where discussed in EIS	Interest shown by whom
Water access and management		
• CSG water and brine management. • Availability of water to temporary accommodation facilities. • Storage of water	Volume 3 Chapter 10 – Marine ecology Volume 3 Chapter 11 – Water resources Volume 3 Chapter 12 – Coastal environment Volume 3 Chapter 3 – Project description	• Banana Shire Council • Rockhampton Regional Council • Fitzroy Basin Association • Wildlife Preservation Society Qld
Environment		
• Australia Pacific LNG should consider purchasing land with the intention of converting to national park • Spoil management • Environmental management • Off-setting flora and fauna impacts • Common gas pipeline infrastructure	Volume 3 Chapter 8 – Terrestrial ecology Volume 3 Chapter 24 – Environmental management plan Volume 3 Chapter 3 – Project description Volume 3 Chapter 5 – Geomorphology, geology, soils and land contamination	• Banana Shire Council • Capricorn Conservation Council • Fitzroy Basin Association • Department of Environment and Resource Management
Accommodation		
• Housing and gas pipeline synergies • Impacts of workforce to local towns • Staging construction with other proponents to utilise common facilities • Location of temporary accommodation facilities	Volume 3 Chapter 20 – Social impact assessment Volume 3 Chapter 21 – Economic impact assessment Volume 3 Chapter 3 – Project description	• Banana Shire Council • Rockhampton Regional Council • Queensland Health
Common infrastructure		
• Gas pipeline logistics • Common corridor to alleviate environmental impact • Capacity of local roads	Volume 3 Chapter 17 – Traffic and transport	• Banana Shire Council • AgForce • Fitzroy Basin Association

Themes from discussions	Where discussed in EIS	Interest shown by whom
	Volume 3 Chapter 24 – Environmental management plan Volume 3 Chapter 3 – Project description	• Community members
Site selection		
• Depth of pipes • Route of gas pipeline • Use of easements • Co-location of temporary accommodation facilities	Volume 3 Chapter 3 – Project description	• Banana Shire Council • Queensland Government – local members • AgForce • Wildlife Preservation Society Qld

Table 20.4 outlines the secondary topics of discussion identified from consultation activities undertaken in communities within close proximity to the gas pipeline.

Table 20.4 Secondary stakeholder issues from 1 April to 9 November 2009

Themes from discussions	Location of detailed discussion in the EIS	Interest shown by whom
Community		
• Monitoring of social impacts • Collaborate with community to plan for long-term social services	Volume 3 Chapter 20 – Social impact assessment	• Fitzroy Basin Association • Community members
Employment		
• Source of workforce	Volume 3 Chapter 21 – Economic impact assessment	• Rockhampton Regional Council
Health		
• Limited medical support facilities and staff available in Biloela.	Volume 3 Chapter 20 – Social impact assessment	• Enterprise Biloela Association Inc.
Local infrastructure		
• Review the use of rail as an option for taking trucks off the road.	Volume 3 Chapter 17 – Traffic and transport	• Banana Shire Historical Society
Regulation		
• Government's role for monitoring the gas pipeline.	Volume 2 Chapter 3 – Project description	• Industry representative

20.4 Social baseline summary

20.4.1 Policy review

A detailed review of policies, programs, strategies and regional studies relevant to the study area is presented in Volume 5 Attachment 42. The review provides the regional context in which the Project will be operating and facilitates an improved understanding of the implications for the development of the social environment as well as informing the Project's mitigation measures and strategies for enhancement.

20.4.2 Town profiles

Detailed profiles of towns within the gas pipeline study area are presented in the social baseline assessment in Volume 5 Attachment 42, with a summary of key characteristics in Table 20.5.

Table 20.5 Summary of key characteristics for studied towns

Characteristics	Biloela	Theodore	Cracow	Taroom	Wandoan	Miles	Gladstone	Gas pipeline study area	QLD
Population, 2006	5,716	473	122	630	385	1,296[4]	30,734	19,638	4,091,546
Median age, 2006	34.4	39.7	31	42	40	41.5	33.7	36.6	37.2
Population AAGR[1], 1996 to 2006	0.03%	-0.6%	NA	NA	NA	1.5%[6]	1.5%	0.1%	2.1%
Estimated population AAGR, 2009 – 2031	0.02%	-0.8%	NA	NA	NA	0.4%	1.9%	0.5%	1.7%
Indigenous population, 2006	3.0%	11.2%	13.1%	3.17%	1.03%	7.3%	3.8%	3.0%	3.3%
Unemployment rate, March quarter 2009	3.2%[2]	3.2%[2]	3.2%[2]	0.4%[g]	0.4%[7]	1.1%[5]	4.3%	2.3%	4.0%
Median weekly household income, 2006 (A$)	$1,375	$1,093	$900	$795	$623	$789	$1,344	$1,323	$1,202
Completed up to Grade 12, 2006	34.40%	30.00%	31.5%	21.8%	26%	27.70%	35.20%	30.0%	41.3%
Median dwelling price, 2009 (A$)	$307,500	$172,500	NA	$180,000	$190,000	$175,000	$360,000	NA	$414,000[3]
Average weekly rent, October 2009 (A$)	$295	NA	NA	NA	NA	$223	$350	NA	$450[8]

[1] Average Annual Growth Rate
[2] based upon Banana SLA estimate as data at the town level was not available
[3] Brisbane only
[4] 2008 population estimate
[5] based upon Murilla SLA estimate as data at the town level were not available
[6] AAGR 1996 to 2008
[7] based on Taroom SLA estimate as data at the town level were not available
[8] Brisbane City

Source: ABS (2006), RP Data (2010), Your Investment Property (YIP) (2010) and Office of Economic and Statistical Research (OESR) (2009)

20.4.3 Key baseline statistics

Sources of data for the key baseline statistics summarised below are referenced in the social baseline assessment in Volume 5 Attachment 42.

Population

- The total population of the gas pipeline SLAs decreased from 19,887 in 2001 to 19,638 in 2006.
- The largest decline in population between 2001 and 2006 was experienced in Taroom SLA (9.4%, 261 people).
- As at 2008, the townships of Wandoan and Miles had a high proportion of non-resident workers 15.0% and 11.3% respectively.
- The resident population of the study area is projected to grow at 0.5% per annum between 2009 and 2031 with Banana SLA projected to grow the slowest (0.2% per annum) compared to state and national growth averages of 2.1% per annum and 1.4% per annum, respectively.
- The population of Theodore is estimated to decrease by -0.8% from 464 in 2009 to 387 in 2031.
- As at 2006, 54% of the population of the gas pipeline SLAs was made up of males, with the highest proportion in the 55 to 59 age cohort (58.0%).
- In 2006, the average age of residents in the urban localities varied between 34.4 years (Biloela) and 41.5 years (Miles) compared to the national average of 37 years.

Indigenous peoples

- In 2006, there were 1,617 resident persons of Aboriginal and/or Torres Strait Islander heritage in the study area with the majority (67% or 552) residing in Gladstone SLA.
- There were very low numbers of Indigenous persons in Taroom and Calliope Part B SLAs.
- The age distribution of the Indigenous population was very young, with 61% aged younger than 25 years.
- Out of 1,617 Indigenous persons, just 31 (1.9%) residents were over the age of 65 years.
- Couples with children households comprised the largest share (40%) of Indigenous households across the gas pipeline study area.
- In comparison to Queensland, single parent families were less represented, comprising 23% of total households.
- Overall, Indigenous households exhibited higher median weekly incomes than the Queensland average and only marginally lower median household incomes than the broader population in most SLAs in the gas pipeline study area.
- The exception to this was the Banana SLA where the weekly median income for Indigenous households was $762 compared with $1003 for non-Indigenous households.
- A considerably larger proportion of the Indigenous workforce in the study area was employed by the private sector (80%) in comparison to the Queensland average (60%) in 2006.
- Data from the 2006 census showed that there were 519 students of Aboriginal or Torres Strait origin who were attending preschool, primary school or secondary school in the study area.

Income and affordability

- Between 2001 and 2006, the average weekly household income increased by 22.6%, 36.9% and 38.5% in Taroom, Banana and Calliope Part B SLAs respectively.
- In 2006, the highest weekly household income was recorded in Banana SLA (A$1,370 per week), followed by Calliope Part B (A$1,122 per week) and then Taroom (A$987 per week).
- Between 2001 and 2006 the average weekly household income increased by the most in Theodore (71.0%).
- Biloela and Gladstone recorded the highest average weekly household income of A$1,375 per week and A$1,344 per week respectively, this compares to the national average of A$1,225 per week
- Of the three SLAs in the gas pipeline area, Calliope Part B SLA was the most under-represented in all three indexes, particularly for the Index of Education and Occupation.
- In 2007, 26.0% to 35.2% of residents in the gas pipeline corridor SLAs were receiving some form of government allowance (compared to 18.0% for Queensland).
- Across all geographic areas, age pensions were the main type of allowance.

Employment and business

- The workforce participation rate for the study area was 89.9% in 2006, significantly higher than the Queensland participation rate of 66.3%.
- Employment in the pipeline SLAs is dominated by the agricultural, mining[5] and manufacturing sectors.
- In 2006, the SLA with the strongest agricultural sector (by employment contribution) was Taroom SLA at 54.2%.
- Banana SLA had a strong mix of agricultural (15.3%) and mining[6] (17.4%) employment, while Calliope Part B SLA had a strong mix of agriculture (15.4%), manufacturing (15.3%) and construction (10.0%) employment.
- The proportion of persons employed in manufacturing in 2006 was particularly high in Gladstone (19.6%), Biloela (12.0%, up from 8.6% in 1996) and Theodore (12.8%).
- The unemployment rate decreased in all SLAs between the March quarter 2001 and March quarter 2007 and then increased in Banana and Calliope Part B SLAs to the March quarter 2008.
- Between March 2008 and March 2009, the unemployment rate in Calliope Part B and Taroom SLA decreased marginally, whilst Banana SLAs rate increased slightly.
- In comparison to the two other SLAs, Taroom had a significantly lower unemployment rate (at just 0.4%) and this was one of the lowest rates in Queensland.
- As at the March quarter 2009, Calliope Part B (5.5%) was the only SLA to record an unemployment rate higher than the Queensland average of 4.5%.

[6] 'Mining' also includes employment in the 'oil and gas' industry

Education and training

- In 2006, the urban locality with the lowest proportion of individuals leaving school at the end of year 12 or equivalent was Miles (27.7%).
- There are 17 public schools and eight private schools in the studied gas pipeline urban localities.
- At present the senior and primary state schools in the Gladstone area have the capacity to take an additional 300 to 450 children.
- Private schools in Gladstone also have the capacity to absorb additional students.
- Central Queensland University and the University of Queensland have direct interest in the study area. The former has a campus in Gladstone and the latter has teaching hospitals in Moura and Theodore.

Housing and accommodation

- For the period 2004 to 2008 the greatest increase in median house price was in Miles, increasing from A$81,340 to A$222,200, representing an annual average growth rate of 28.6%, compared to 11.7% for Australia as a whole for the same period.
- The median price for units in Biloela increased by some 307.1% during the same period and recorded a median price of A$403,000 in 2008, which equates to an annual average growth rate of 42.0%.
- At the time of this assessment there were four properties for rent in Theodore ranging from $160 to $300 per week and one property available in Wandoan which is advertised for $180 per week.
- At the time of this assessment no properties were available for rent in Taroom.
- Overall, public housing waiting periods are lower in the study area than Queensland more broadly.
- High demand and low supply of commercial accommodation is particularly evident in Wandoan (90% occupation).

Community health and safety

- The primary hospitals servicing the gas pipeline are Gladstone and Biloela hospitals.
- The total number of 'offences against the person' was lower in Gladstone district compared to Queensland as a whole.
- Roma district had a higher number of reported assaults compared to Gladstone district and Queensland as a whole.
- Offences against property were considerably lower in Roma district compared to Gladstone district and Queensland, mainly due to the lower incidences of unlawful entry, arson, other property damage and fraud.

Facilities and services

- Within the gas pipeline study area, Miles and Theodore recorded the highest number of child care facilities, with 3.4 and 3.0 facilities per 100 children aged zero to four, respectively.

- The Gladstone region is serviced by seven kindergartens and 11 child care centres and family day care schemes.
- Three of the private schools offer after-school care and the Gladstone Police and Citizens Youth Centre offers school-aged vacation care and after-school care.
- Waiting lists of 12 months are common for child care centres in Gladstone.
- The array of services, sporting and recreation options are extremely diverse throughout all urban localities, with a particularly large number of options available in Gladstone and Biloela.

Community values, attitudes and liveability

- A community survey found that residents in the Banana Shire believe the area is a good place to bring up kids (93%), is stable (83%), relaxed (85%) and a safe rural place to live (92%).
- The survey respondents also rated their connections with other community members - 'good mix of people' (87%) and 'the people are friendly' (92%) as an important contributor to their community spirit and positive sentiment to the Banana Shire.
- Survey respondents reported that they value that their community has an availability of social services and infrastructure, and also maintains its rural country lifestyle and identity.
- The survey respondents raised issues regarding the need for improvement of local roads and youth and medical services and facilities.
- With respect to further industrial development, Gladstone residents appear to embrace new industries, however are well aware of the challenges associated with social change caused by increased development and the need to manage these challenges closely.

20.5 Workforce profile

The Australia Pacific LNG environmental impact statement is utilising a 'maximum development' case for the gas fields. The construction and operational workforce numbers match this conservative case.

20.5.1 Construction

Construction of the gas pipeline is expected to take approximately 18 months, commencing in 2012 and concluding in 2013. Construction of the gas pipeline will require an estimated peak workforce of 805 employees, split into four groups as outlined in Table 20.6. The construction of the gas pipeline will commence in the vicinity of Miles, working towards the north for completion in Gladstone.

Table 20.6 Construction workforce split

Crew	Purpose	Workforce
Main crew	Main works	600
Fly group[1] one	Clearing, special crossings and restoration	30
Fly group two	Special purpose crew for Callide range and several other locations	75
Fly group three	Special purpose crew for the crossing of the narrows and associated wetlands	100
Total		805

[1] 'Fly groups' refer to specialist crews of workers. Refer to Volume 2 Chapter 3 for a more detailed description.

It is anticipated the construction workforce will work a roster similar to 28 days on, followed by nine days off roster, working 12 hours per day, with the exception of the horizontal directional drilling crews (part of the main crew), operating 24 hours a day, seven days a week. Limited construction may occur during the rostered days off period (nine days), with only a small number of employees remaining to perform care and maintenance duties.

Following completion of construction, a workforce of 60 will be required for commissioning of the gas pipeline (readying the pipeline for gas delivery). The commissioning workforce will be a rolling workforce who will work 12 hours per day, on a four weeks on/one week off roster. The commissioning phase is expected to take two months.

Construction work force numbers over the 18 month construction period are illustrated in Figure 20.5.

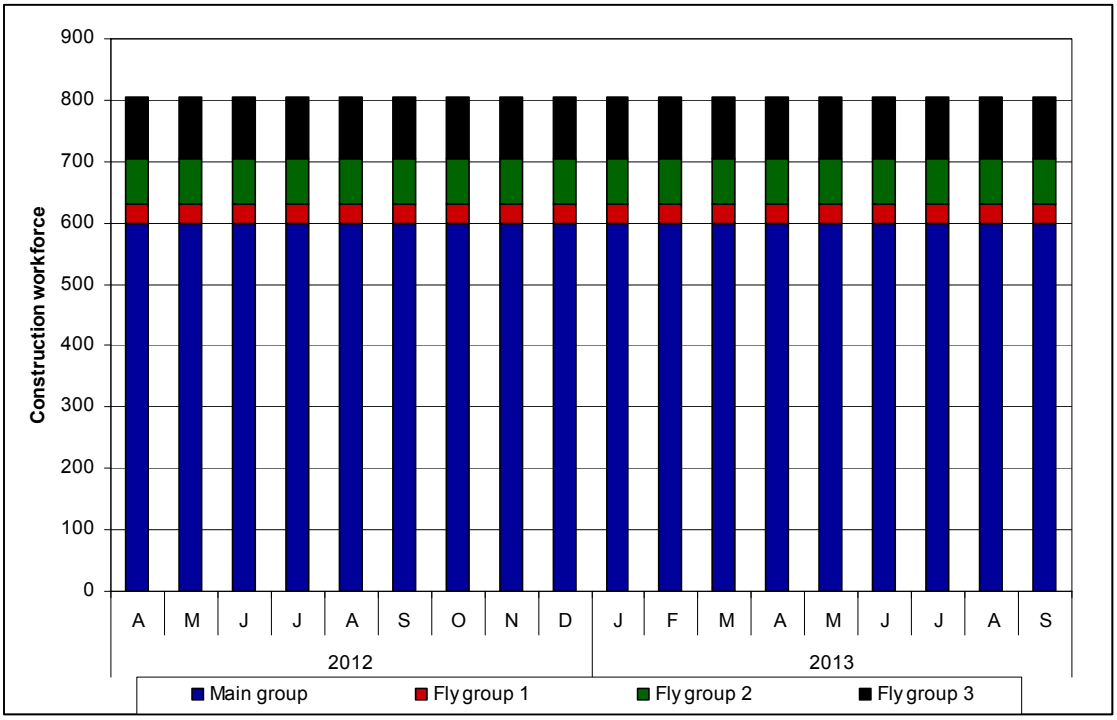


Figure 20.5 Construction workforce

The expected priority skills required (as defined by Energy Skills Queensland (2009a)) for the construction, commissioning and operational phases of the Project is outlined in Table 20.7.

Table 20.7 Gas pipeline workforce priority skills base

Construction	Commissioning	Operations
Cultural heritage personnel	Electrical and instrumentation technicians	Electrical and instrumentation technicians
Electrical, instrumentation and control engineers	Electrical, instrumentation and control engineers	Electrical, instrumentation and control engineers
Environmental advisors	Environmental advisors	Environmental advisors
Occupational health and safety advisors	Occupational health and safety advisors	Occupational health and safety advisors
Pipeline engineers	Maintenance technician	Superintendents and supervisors

Construction	Commissioning	Operations
Project engineers	Pipeline engineers	Pipeline engineers
Supervisors and superintendents	Production technicians	Pipeline technicians
Pipeline welders		
Utility staff		

Source: Energy Skills Queensland (2009a)

20.5.2 Operations

During the operational phase of the Project it is expected a workforce of 20 will be required to undertake operational and maintenance activities for the gas pipeline. The operational workforce will have varied rosters based upon roles and responsibilities to ensure adequate requirements are met.

20.6 Social impact identification

This section of the report provides a detailed discussion of the assessment of potential social impacts for the construction and operational phases of the gas pipeline component of the Project. Impacts are discussed for each of the social impact categories, including for cumulative effects resulting from other development projects (refer to Section 20.2.3). Following a description of the potential social impact, mitigation strategies are described. Where impacts are assessed to be positive, or where there is no, or only a minimal impact, opportunities for social enhancement have been identified and discussed.

The impact assessment and mitigation summary is presented in Section 20.7.

20.6.1 Identification of potential social impact categories

Potential social impacts have been classified according to the categories presented in Table 20.8. Social impact categories were identified through existing knowledge of the study area and contemporary SIA practices, and then refined during the internal impact assessment workshops (refer to Section 20.2.3). Each of the impact categories are explained within the context of potential implications of the Project to the social environment.

Table 20.8 Impact categories

Impact category	Implication to social environment
Population impact	Implications for demand for social infrastructure, services and population trends.
Demographic profile	Implications for community safety, attraction and retention of people to the region and demand for social infrastructure and services.
Indigenous Australians	Implications for Indigenous values, social harmony, access to services for Indigenous Australians, equality and health and wellbeing.
Income and affordability	Implications for quality of life, liveability, equality and social harmony.
Employment, training and business	Implications for economic diversity and resilience, sustainable communities, standard of living, opportunities for employment and addressing skills gap.

Impact category	Implication to social environment
Primary and secondary education	Implications for attraction and retention of people to the region and transition from school to work
Housing and accommodation	Implications for workforce, local businesses and industry, housing affordability, short-term accommodation, rental affordability and under-represented sectors of the community.
Community health and safety	Implications for provision of adequate primary, secondary and tertiary health care services, mental health, community safety, liveability and community cohesion.
Facilities and services	Implications for quality of life, liveability, attraction and retention of people to the region
Community values and lifestyle	Implications for community cohesion, resilience to change, workforce integration, liveability and social harmony.

20.6.2 Social impacts and mitigation

Population impact

Construction

An estimated workforce of 805 people will be required during the 18-month construction phase of the Project (second quarter 2012 to third quarter 2013), followed by a commissioning workforce of 60 for a period of two months. Population impacts are expected to be minimal given the relatively small workforce requirements (in comparison to the LNG facility and gas fields development), short construction period and commissioning period, and the housing of workers in temporary accommodation facilities moving along the gas pipeline as construction and commissioning progresses.

Potential cumulative construction workforce estimates are discussed in detail later in this section. The estimates depict a scenario based on maximum workforce requirements and assume the full operational workforce commences immediately after construction ceases. Based on these assumptions, a peak of 5,585 workers could be required in the gas pipeline study area in 2012.

Operations

During the operational phase of the Project it is expected a workforce of 20 will be required for operation of the gas pipeline, commencing in the fourth quarter 2013. It is anticipated the operational workforce will live in towns along the gas pipeline route and will have minimal population impacts due to the small workforce.

Mitigation

The population increase during the construction phase of the Project, and for the majority of projects assessed cumulatively, will be mitigated to some extent by accommodating workers in temporary accommodation facilities.

Australia Pacific LNG will work with government, the community and other industries to plan for potential cumulative impacts and share information relating to potential impacts and mitigation

measures. Continuing to participate in government local and regional planning processes and providing information about the Project to inform discussion and decision making will also play a key role in addressing any cumulative impacts.

Demographic profile

Construction

While the demographic profile of the construction workforce will most likely be younger and male dominated, it is not expected to impact on the demographics of the region as this group will be accommodated in temporary accommodation facilities, moving along the gas pipeline as it is constructed and therefore will not be in any one area for a prolonged period of time. There may be short-term impacts to community values as a result of an influx of construction workers and these are discussed in detail later in this section.

Impacts to the demographic profile from a cumulative perspective could be significant, especially in relation to community safety, community values, lifestyles, facilities and services. Potential impacts and mitigation measures are discussed in the following sections.

Operations

Due to the small workforce requirements, there will be minimal impacts to the demographic profile as a result of the Project's operational workforce and the cumulative projects.

Mitigation

Mitigation measures relating to potential impacts of the Project on community values and cumulative impacts as they relate to community safety, community values and lifestyles and facilities and services are discussed in the following sections. Australia Pacific LNG will work with government, the community and other industries to plan for potential cumulative impacts and share information relating to potential impacts and mitigation measures. Continuing to participate in local government and regional planning processes and providing information about the Project to inform discussion and decision-making will also play a key role in addressing any cumulative impacts to the demographic profile.

Indigenous Australians

Population demographics

The construction or operation of the gas pipeline is not expected to impact significantly on the Indigenous population or demographics due to the short-term nature of the construction period and the small workforce size during the operational stage. Potential cumulative impacts to Indigenous population will be similar to that of the non-Indigenous population and are discussed above in the 'population impact' and 'demographic profile' sections.

Indigenous income and affordability

Lower income levels in Indigenous communities are often attributed to factors such as a younger age profile, lower educational and training levels, higher participation rates in part-time employment and higher levels of unemployment. An increase in the cost of living relative to households where income levels do not increase at the same rate will result in lower levels of affordability. If the cost of living were to increase significantly, this will impact on Indigenous Australians, especially given the lower than average levels of disposable income found in this sector of the community. Through the

development of an Indigenous engagement strategy, Australia Pacific LNG aims to improve the positive contribution to Indigenous economic and social development. Specifically, Australia Pacific LNG will invest across a number of areas, including:

- Education and training
- Employment
- Business development and support
- Cultural heritage.

Investment in the above areas will provide an opportunity for the Project to have a positive impact on Indigenous economic and social development. Refer to Volume 4 Chapter 18 for more information.

Indigenous employment and business

Relevant to employment and business, the Indigenous engagement strategy will have two goals, as follows:

- Increase sustainable Indigenous participation in the workforce within Australia Pacific LNG's communities of interest
- Foster Indigenous business development and contracting opportunities in Australia Pacific LNG's communities of interest.

Australia Pacific LNG recognises the main challenges facing Indigenous Australians seeking to benefit from the Project through employment and business opportunities relate to lower educational and training levels, the need for more culturally appropriate recruitment and retention strategies and a lack of business training or experience. Australia Pacific LNG's Indigenous engagement strategy will outline strategies to improve the positive impact of the Project on employment and business opportunities for Indigenous Australians by addressing the above challenges.

Another challenge recognised by Australia Pacific LNG in improving employment and business opportunities for Indigenous Australians is the small Indigenous population in the gas pipeline study area

Indigenous education and training

Relevant to education and training, the goal of the Indigenous engagement strategy is to 'improve access to education and training levels achieved by Indigenous students in Australia Pacific LNG's communities of interest'. A potential positive impact of the Project will be improving Indigenous education through the provision of traineeships and scholarships.

Australia Pacific LNG will aim to improve the positive contribution to training opportunities for Indigenous Australians by continuing to work with Energy Skills Queensland, Queensland Minerals and Energy Academy and relevant training organisations to identify skills gaps and to address these gaps through the development and implementation of targeted training programs, mentoring support and career opportunities.

Indigenous housing and accommodation

A potential impact of the Project on housing and accommodation available for Indigenous Australians may be a reduced ability to access the private rental market and home ownership market due to inflated prices. Potential housing and accommodation impacts and mitigation measures for Indigenous Australians are similar to that of the broader community which are discussed under 'housing and

accommodation' impacts in the following sections. Impacts may be exacerbated for Indigenous Australians though, given the lower levels of home ownership and higher dependency on affordable rental housing.

To mitigate potential impacts to housing affordability and availability, Australia Pacific LNG's community programs will include working with Government and agencies that provide housing to people in financial distress. Australia Pacific LNG will work with government, the community and other industries to plan for potential cumulative impacts and share information relating to potential impacts and mitigation measures.

Indigenous facilities and services

Potential impacts to facilities and services for Indigenous Australians, and proposed mitigation measures, are the same as for the broader community and these are discussed in the following sections.

A potential positive impact of the Project will be to strengthen the quality of facilities and services specific to Indigenous Australians. Strategies to achieve this will be outlined in the community investment strategy which will be developed in consultation with affected communities.

Indigenous cultural values

Potential impacts to Indigenous cultural and heritage values in the gas pipeline area and proposed mitigation strategies are discussed in Volume 2 Chapter 18

Income and affordability

Construction

Construction of the gas pipeline is expected to have minimal impact on income and affordability in the gas pipeline study area as the majority of the construction workers will be working a fly-in/fly-out roster and accommodated in temporary accommodation facilities. It is anticipated that the Project will engage some employees locally; but the impacts associated with these local employees are expected to be minimal. This is due to the short construction period, requirement for specialised skills and limited availability of local labour.

Impacts to levels of affordability due to the construction of the gas pipeline are expected to be minimal and short to medium-term in nature.

Further detailed information pertaining to the impact of the Project on increased wages and standards of living for the regional, state and national population is provided in Volume 3 Chapter 21.

Operations

As the operational phase of the Project will only require 20 workers, this is expected to have minimal impact on income and affordability in the gas pipeline study area.

Mitigation

To reduce potential impacts to income and affordability, Australia Pacific LNG will aim to improve participation in the workforce by all sectors of the community, including under-represented groups, to ensure as many people benefit from the Project as possible. As well as addressing recruitment and retention of under-represented groups, the Australia Pacific LNG workforce strategy will also outline

mechanisms for working with industry groups to develop opportunities for scholarships, apprenticeships and cadetships, outside as well as within, industry.

Through implementation of the local content strategy, Australia Pacific LNG will improve the benefits to local and regional businesses by participating in or establishing programs which assist qualified local and regional businesses with the opportunity to tender for provision of goods and services for the Project. The community investment strategy will also support local business through education and capacity building programs.

Employment, training and business

Construction

While Australia Pacific LNG is aiming to improve opportunities for local people, it recognises the constraints of the limited availability of local labour due to extremely low unemployment rates in the study area as well as the need for specialised skills unlikely to be widely available locally. As such, it is expected the majority of the construction workforce will be sourced from throughout Queensland and nationally. Impacts to the local labour market in the gas pipeline study area are discussed in the Project economic impact assessment in Volume 3 Chapter 21.

For the purposes of cumulative assessment, construction and operational workforce estimates for the projects in the gas pipeline study area are either under investigation, committed or under construction are summarised in Table 20.9. Only projects under investigation or committed are assessed cumulatively as population impacts from projects under construction have been captured in the baseline assessment. The construction workforce estimates are for peak requirements and do not take into consideration situations where workforce numbers increase to a maximum load for a period of time and then drop off progressively until construction ceases.

Table 20.9 Workforce estimates for projects under investigation, committed or under construction

Project	Construction start date	Construction end date	Construction employment	Operational employment
Under investigation				
Gladstone LNG (GLNG)	2011	2012	1,000	20
Nathan Dam and associated pipelines	2012	2014	200	3
Queensland Curtis LNG Project	2011	2012	500	20
Surat Basin Railway	2010	2013	900	25
Surat to Gladstone Pipeline	2011	2013	450	Unknown
Wandoan Coal Project	2010	2012	1,380	Unknown
Committed				
Moura Link	2009	2012	350	Not applicable
Under construction				
Queensland Gas Pipeline Expansion	Commenced	2010	unknown	Unknown
Dawson Expansion Project	Commenced	Unknown	810	Not applicable

Source: Desktop research of proponents' websites and EIS documents.

Construction workforce estimates in the above table are illustrated cumulatively in Figure 20.6 and include contract and permanent staff for the assessed projects. This figure shows the cumulative workforce is anticipated to peak at approximately 5,550 workers in 2012. A potential impact of the workforce requirement could be increased pressure on labour force availability. This is discussed in more detail in the Project's economic impact assessment related to the gas pipeline, presented in Volume 3 Chapter 21.

Potential impacts of a large construction workforce in the region on housing and accommodation, income and affordability, community health and safety, and community values and lifestyle are discussed in the following sections.

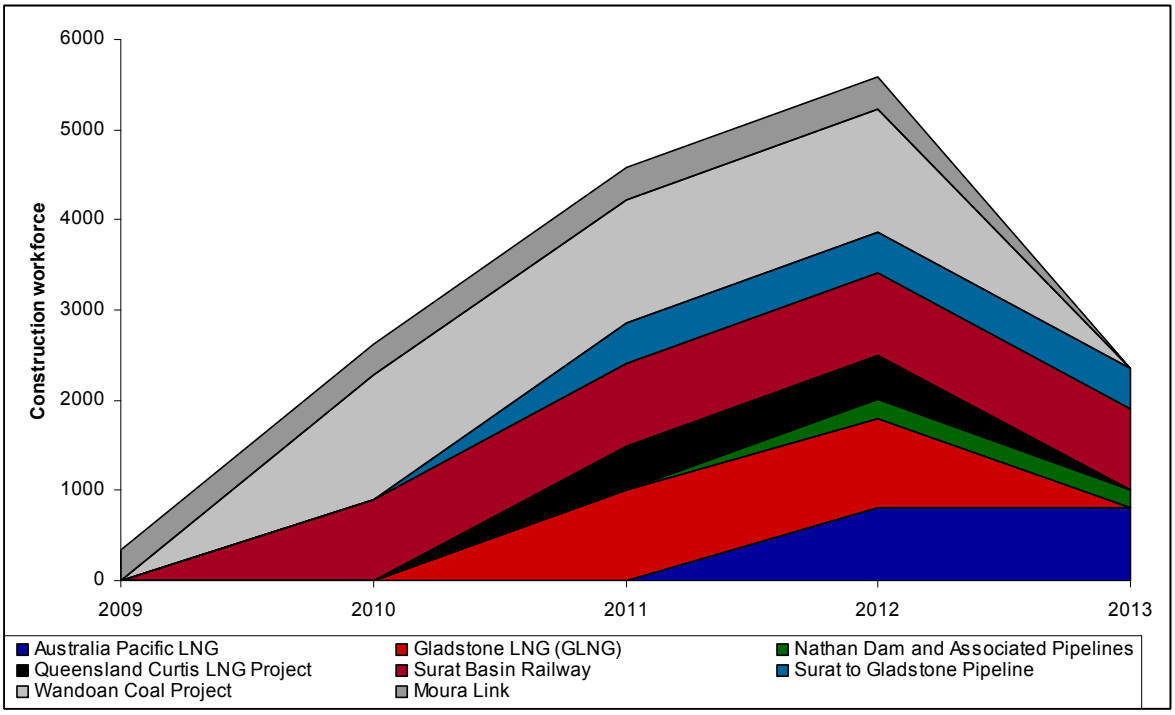


Figure 20.6 Potential cumulative construction workforce requirements, 2009 to 2013

Source: Desktop research of proponents' websites and EIS documents.

Energy Skills Queensland (2009b) predicts the greatest period of employment growth in the Queensland coal seam gas/liquefied natural gas sector to be in the next five years, in particular it will be in vocational occupations with technical skills. Construction workforce skill shortages identified in this study, relevant to the Project, include electrical and instrumentation technicians.

Gas pipeline construction projects are relatively short-term and mainly require workers with specialised skills which means there will be fewer opportunities for local recruitment. However, Australia Pacific LNG is committed to maximising opportunities for local people.

Local and regional businesses who supply goods or services to the Project will benefit, although this is not expected to be significant given the short-term construction period, progressive nature of construction and the location of workforce in temporary accommodation facilities some distance from regional towns. Potential impacts to local and regional businesses in the gas pipeline study area are discussed in Volume 3 Chapter 21.

Local and regional businesses are not expected to be impacted through loss of employees to the Australia Pacific LNG Project given that the majority of Australia Pacific LNG workers will be from

outside the local area. However, in a cumulative context, competition for labour may be significant enough to cause a noticeable drain on the availability of staff for local businesses.

The impact of the Project on farming activities will depend on the amount of land, the location of Project infrastructure relative to farming activities, the area and duration of the disruption or disturbance, the capacity to modify farming practices to accommodate Project infrastructure and the type of farming activities in the specific location. However, it is possible to say that fragmentation of agricultural land is expected to be a short-term effect associated with the construction of the gas pipeline. In the long term, the impacts on agricultural land due to the Australia Pacific LNG Project will be minimal, particularly for the gas pipeline as it will be buried after construction and the landowners will be able to regain access to the corridor and resume most agricultural activities. It is important to note that there will be multiple projects in the region, so the likely cumulative impact on agricultural land will be greater.

A detailed discussion of the impacts associated with changes in land use and associated mitigation strategies is provided in Volume 3 Chapter 6.

Another aspect of pipeline construction that could impact farm businesses is the potential risk of weed spread. Mitigation measures are discussed below.

Operations

It is not expected that the local labour market will be impacted significantly due to the operational phase of the Project as the number of workers required is small compared to the overall job market.

Although the cumulative requirements are not large, with an estimated 68 workers required across all projects (Table 20.9), the requirement for additional labour in an already stretched labour market will contribute to the regional skills shortage (especially with regard to electrical and instrumentation technicians and electrical engineers).

The expected skills base of the operational workforce is summarised in Section 20.5.2. Energy Skills Queensland 2009a predicts skills related to to the project operational phase such as electrical and instrumentation technicians and electrical engineers are likely to be in critically short supply.

The operational workforce will be recruited locally as much as practicable and it is envisaged that a small proportion of the operational workforce may be sourced from the gas pipeline construction workforce. Where non-local workers are employed, they may be required to relocate to the local area. The cumulative effect of a number of projects requiring skilled workers may pose a challenge to recruitment and retention and will be recognised in the Australia Pacific LNG workforce strategy. Aspects to be considered for sourcing the operational workforce will be outlined in the workforce strategy, including:

- Local employment
  - Participating in career fairs at local towns, such as Biloela
  - Providing targeted workshops to assist personnel in developing specific skills
  - Working with local Chambers of Commerce
  - Interaction with schools and other community bodies
- Employment of under-represented groups such as the disabled, women and Indigenous Australians
  - Review of demographics and skill sets

- Awareness programs.

Opportunities for local and regional businesses to supply goods and services during the operational phase of the Project will be limited due to the small workforce required and the limited inputs needed in operating a gas pipeline. Impacts to local and regional businesses losing employees to the Project are expected to be minimal given the small number of workers required.

Potential impacts to farm businesses during the operational phase of the Project are expected to be minimal as the gas pipeline will be buried and access to properties will only be required intermittently.

Mitigation

Australia Pacific LNG will develop a workforce strategy detailing its approach to employment and training during the construction and operational phases of the Project. The strategy will be developed in close collaboration with the gas pipeline construction contractor and will be developed and implemented to ensure the following:

- Adequate supply of labour
- Timely engagement of labour
- Appropriate competence development
- Timely competence development.

Specifically, the workforce strategy will include, but not be limited to, the following:

- In-house training programs
- Analysis of ongoing labour requirements
- Training strategies targeted to local labour
- Targeted employment and training programs
- Methods to attract local people to the workforce
- Methods to attract under-represented groups to the workforce.

Australia Pacific LNG will advertise positions through the local and mainstream recruitment channels (e.g. local, state and national print media, radio, on-line) and develop regular employment opportunities bulletins (to be posted at Centrelink, community noticeboards). To assist job seekers, readily accessible information and advice will be provided through the Australia Pacific LNG offices, shopfront/visitors centres in Roma and Gladstone, information sessions, open days, the online recruitment portal and workshops.

Identifying local workers who can obtain qualifications based on the principle of prior learning may enhance local employment opportunities. Australia Pacific LNG will work with the CSG/LNG industry through the CSG/LNG Skills Taskforce of Energy Skills Queensland to help address skill shortages by:

- Creating awareness of the industry in local communities
- Supporting vocational training
- Facilitating career advice and work readiness programs for new entrants and mature entrants from related industries.

Australia Pacific LNG will expand competency based training and skills development programs, including further development of the dedicated training facilities at the peat gas processing plant near

Wandoan. The Australia Pacific LNG workforce strategy will outline the resourcing requirements for the construction and operational phases of the Project and communicate demand to TAFE, universities, industry networks and training organisations to provide early and accurate information on the number and types of skills required. This will assist to mitigate the long lead time required to supply additional skills through apprenticeships, traineeships and tertiary education.

Key studies or programs that are underway, or completed, to assist this process include:

- Energy Skills Queensland recently completed a labour market analysis to investigate industry demand for skills, potential and known future labour, and skills supply markets. This study has improved industry's understanding of likely shortfalls in the availability of skilled labour and will inform Australia Pacific LNG's workforce strategy
- Gladstone Engineering Alliance is developing a program to assist job seekers obtain qualifications necessary to secure employment (e.g. working at heights, riggers, doggers and forklift tickets)
- The Education Queensland and Industry Partnership Program which aims to have high school students 'job-ready' when they graduate by providing on-the-job training. The program also oversees training programs, which are already in place, as does the Gladstone Schools Engineering Skills Centre (GSESC).

Australia Pacific LNG will also participate in CSG/LNG gateway programs with high schools in the Project region to implement programs that promote career opportunities and facilitate employment in the CSG/LNG industry. Collaboration on programs with government, training and education groups building the local skills base both to meet the specific needs of the industry and other impacted sectors will be a key component of the Australia Pacific LNG workforce strategy, as will the further development of its apprenticeship program. The existing Community Skills Scholarship Program will continue to encourage locals to participate in non-industry specific employment, which also targets under-represented groups.

Australia Pacific LNG will work with educators such as TAFE, Central Queensland University and secondary schools to raise awareness of the skills required and to support programs aimed at transition from school to work or higher education). Examples of transitionary programs include:

- Gladstone Area Group Apprentices Limited's Get Set For Work program (which addresses the learning and employment options available to young people and helps prepare them for employment)
- Gladstone Area Group Apprentices Limited's pre-trade program which provides training to Year 11 and 12 students interested in trade related careers and GSESC's transition to work program
- Education Queensland and Industry Partnership Program (see above paragraphs).

Australia Pacific LNG will work with government, the community and other industries to plan for potential cumulative impacts and share information relating to potential impacts and mitigation measures.

Local and regional businesses

Maximising benefits to local and regional businesses will be achieved through the development and implementation of a local content strategy. The plan will be based on an accurate understanding of current and potential future business capacity and developed in collaboration with industry support

organisations such as the Queensland Industry Capability Network, local and regional businesses and specialist training organisations.

A key component of the local content strategy will be a local business capacity building program providing business networking and development groups and businesses with regular Project updates, overview of goods and services packages and supply chain education. Where challenges facing businesses are identified, they will be addressed through participatory measures (e.g. workshops, one-on-one engagement).

Australia Pacific LNG will ensure contracts with suppliers and subcontractors are aligned with its sustainability principles.

Australia Pacific LNG is strongly committed to working with landowners and continually improving the process for liaising with landowners. A dedicated landowner liaison team exists to provide one point of contact for landowners and is expanding as the Project grows. In consultation with landowners, Australia Pacific LNG will integrate and manage project activities around the farm business in a way that ensures continuity of farm activities (refer to Volume 2 Chapter 2).

In 2008, the Land Access Working Group was established by the Queensland Government to foster improved relationships between minerals and energy explorers, rural landholders and the Queensland Government. Australia Pacific LNG is working with this Group to inform the development of an industry wide code of conduct for working with landowners.

The use of vehicle inspection and cleaning facilities at appropriate locations is integral to mitigating against the spread of weeds. The environmental management plan in Volume 3 Chapter 24 provides specific measures to prevent spread of noxious weeds, as well as outlining practices to rehabilitate disturbed farm land to appropriate standards. Gas pipeline infrastructure will be buried on farming land to ensure continuity of farming activities.

Primary and secondary education

Construction

Construction of the gas pipeline is not expected to impact on primary or secondary education as workers and their dependents will not be relocating to the region and therefore will not require educational services for their families.

Operations

Where operational workers relocate to the area and have dependents requiring primary or secondary education services, there will be an increase in demand. However, any impact is expected to be minimal given the operational workforce totals approximately 20 workers only, who are anticipated to live in a number of towns along the gas pipeline route.

Mitigation

No mitigation measures required.

Housing and accommodation

Construction

The construction workforce will be accommodated in temporary accommodation facilities located along the gas pipeline route as shown in Figure 20.7. The temporary accommodation facilities will be

constructed, used for approximately two months, deconstructed and mobilised to a new site following progression of gas pipeline construction. The temporary accommodation facilities will be of high quality with sufficient recreational activities. These facilities will be guided by the draft 'Queensland Development Code Part MP 3.3, Temporary Accommodation Buildings and Structures' and will comply with all local government and other regulatory approvals as outlined in Volume 1 Chapter 2.

Due to the short construction period (18 months) and accommodating the entire construction workforce in temporary accommodation facilities, the expected impact on local housing and accommodation is not expected to be significant. The same applies to the commissioning phase of the gas pipeline, which is expected to take two months for completion with workers accommodated either in temporary accommodation facilities or local commercial accommodation.

In a cumulative context, impacts to housing and accommodation may be more significant. Although the majority of proponents will be using temporary accommodation for their construction workforce, there will be some reliance on short-term commercial accommodation from contractors, consultants and support services. Furthermore, an increase in economic activity in the area has the potential to attract people and place pressure on the housing market.

Operations

Although the operational workforce and their dependents (where applicable) will be accommodated in permanent accommodation in towns along the gas pipeline route, they are expected to have a minimal impact on housing and accommodation because only 20 operators will be required.

In a cumulative context, impacts to housing and accommodation are also not expected to be significant with an estimated influx of approximately 70 workers across all projects. For analysis of potential impacts on property values during the construction and operational phases of the gas pipeline, including cumulative impacts, refer to the economic impact assessment in Volume 3 Chapter 21.

Mitigation

As described above, potential impacts to housing and accommodation as a result of the Australia Pacific LNG Project are not expected to be significant. In a cumulative context, impacts to housing and accommodation during the construction phase of multiple projects may be more significant due to the large workforce requirements.

Australia Pacific LNG's housing and accommodation strategy will be developed in the context of expected local economic growth, taking into account potential cumulative impacts resulting from increased demand from all projects under investigation or committed in the study area. Australia Pacific LNG will work with government, the community and other industries to plan for potential cumulative impacts and share information relating to potential impacts and mitigation measures

Community health and safety

Construction

Gas pipeline construction is generally physically demanding and undertaken in isolated areas. As such, the work attracts a young and male dominated workforce.

While the construction workforce will be located in temporary accommodation facilities it is expected there will be some interaction with the existing community, particularly during shift change which may

result in impacts to community safety and health, access to facilities and services, and community values and lifestyle. These are discussed in more detail later in this section.

Construction of the gas pipeline will cause a significant increase in road, air and shipping movements as a direct result of the transport of people, materials and equipment. The potential impact on road and maritime safety (and congestion) related to the gas pipeline is discussed in detail in Volume 3 Chapter 17, which also discusses the potential cumulative impacts.

149.00
150.00
151.00
-24.00
-25.00
-26.00
Curtis Island National Park
Mount Morgan
KP359
GLADSTONE
Temporary accommodation facility and laydown (10ha)
Dev Rd
Don River State Forest
Dawson Hwy
Temporary accommodation facility and laydown (15ha)
Laydown (15ha)
Dan Dan State Forest
Baralaba
Overdeen State Forest
Fitzroy
Preferred scraper station site (1ha)
Miriam Vale
Kroombit Tops National Park
Biloela
Alternate scraper station site (1ha)
Bruce Hwy
Moura
Potential temporary accommodation facility (15ha)
Laydown 1 (15ha)
Belmont State Forest
Laydown 2 (15ha)
Monto
Montour State Forest
Coominglah State Forest
Theodore
Palmgrove National Park (Scientific)
Theodore State Forest
Temporary accommodation facility (10ha)
Camboon State Forest
Presho State Forest
Isla Gorge National Park
Hwy
Expedition (Limited Depth) National Park
Fitzroy
Dev Rd
Calrossie State Forest
Borania State Forest
Precipice National Park
Eidsvold - Theodore Rd
Leichhardt
Belington Hut State Forest
Rockybar State Forest
Rockybar State Forest
Taroom
Temporary accommodation facility (10ha)
Ballymore State Forest
Gayndah
Laydown (15ha)
Wandoan
Temporary accommodation facility (10ha) Option 1
Barakula State Forest
KP0
Temporary accommodation facility (10ha) Option 2
KP0
Gurulmundi State Forest
Temporary accommodation facility (10ha) Option 3
Miles
KP0
Chinchilla
0 25 50km
N
SCALE - 1 : 1,000,000 (at A3)
Latitude / Longitude
Geocentric Datum of Australia 1994
NT
QLD
SA
Area of Interest
SOURCE INFORMATION
Preferred gas pipeline alignment provided by Origin Energy 03/11/2009
Gas pipeline laydown areas and temporary accommodation facilities locations RevB provided by Origin 14/10/2009 and revised to exclude compressor station locations (AM&JT) 19/10/2009
Roads
Department of Main Roads, Queensland 2009
Protected Areas
Department of Environment and Resource Management (DERM) 2009
Pipelines
Department of Mines and Energy, MERLIN Mining Tenures system and Database (MTDB) 2009
Commonwealth of Australia (Geoscience Australia) 2009
LEGEND
Town
Road
Railway
Existing pipline
National Park
State Forest
Walloons gas fields development areas
Proposed Infrastructure
Gas pipeline route
Gas pipeline laydown area and temporary accommodation facilities location
AUSTRALIA PACIFIC LNG
AUSTRALIA PACIFIC LNG PROJECT
Volume 3 Chapter 20
Figure 20.7 - Main gas pipeline laydown areas and temporary accommodation facilities
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Operations

The operational workforce and their dependents (where applicable) will be accommodated in permanent accommodation in towns along the gas pipeline route. This is not expected to have a significant impact on community health and safety due to the relatively small workforce of influx.

Impacts to road safety and congestion during the operational phase are not expected to be significant due to the relatively few additional traffic movements to the existing network. This is discussed in detail in Volume 3 Chapter 17.

Mitigation

The good behaviour of project employees and contractors during construction of the gas pipeline will be a key component of mitigating potential impacts to community health and safety. There are two components to this:

- Workforce culture
- Workforce health promotion programs.

Creating a culture of good behaviour, responsibility for actions and respect for the existing community to ensure harmony and minimal disturbance will be partly achieved by the design and construction of high quality temporary accommodation facilities with sufficient recreational activities. As well as these high quality facilities, Australia Pacific LNG will manage its employees and contractors through its code of conduct and project rules to ensure high standards of behaviour extend beyond the accommodation facilities and into the general community.

The code of conduct is based upon Australia Pacific LNG's existing commitments, principles and values and outlines how Australia Pacific LNG employees and contractors are expected to behave. The board and senior executives of Australia Pacific LNG are committed to this code of conduct in order to care for their business, people and reputation. The purpose of this code of conduct is to guide all directors, employees and other persons acting on behalf of the company, to perform their job in line with high ethical standards and applicable legal requirements.

The code of conduct applies to both direct employees and contractors that may be employed for Australia Pacific LNG construction, operation or maintenance activities.

The code of conduct includes key policy and directives in relation to:

- Equal employment opportunity
- Discrimination and harassment prevention
- Bullying prevention
- Health, safety and environment management
- Drugs and alcohol
- Email and internet use
- Dealing in securities
- Gifts and gratuities
- Conflicts of interest
- Confidentiality and privacy

- Continuous disclosure
- Trade practices.

The implementation of workforce health promotion programs will assist to mitigate potential impacts to community health and safety. Australia Pacific LNG will implement health promotion programs amongst its workforce such as 'fit for work' and 'drug and alcohol' policies to ensure high standards of behaviour are maintained.

Australia Pacific LNG will work with government, the community and other industries to plan for potential cumulative impacts and share information relating to potential impacts and mitigation measures.

Australia Pacific LNG will continue consultation and engagement programs with stakeholders to ensure their views are understood and considered throughout the life of the Project and will implement a community complaints procedure for stakeholders to raise concerns and in turn have the enquiries addressed within in a timely manner.

Emergency response planning related to the gas pipeline is addressed in Volume 3 Chapter 22 and safe transportation management practices are addressed in detail in Volume 3 Chapter 17. Key mitigation measures to address traffic safety and congestion include developing and implementing a range of road safety programs for employees and community members targeting fatigue and safe driving, designing workforce transport to reduce potential for traffic congestion and diverting travel routes away from sensitive receptors (e.g. schools, hospitals). Australia Pacific LNG will maintain regular dialogue with all levels of government in relation to road conditions and safety.

Facilities and services

Construction

The construction workforce will be located in self-sufficient temporary accommodation facilities progressing along the gas pipeline route which will be constructed over a period of 18 months. It is expected that impacts to local facilities and services will not be significant. The exception will be the non-resident component of the construction workforce which will place pressure on regional airports and local roads respectively. The potential impacts are discussed in Volume 3 Chapter 17.

The Project will be well equipped to handle emergency situations. However, it may be necessary to draw upon the expertise and assistance of local emergency services during an emergency situation. Potential impacts for hazard and risk as they relate to emergency services are discussed in Volume 3 Chapter 22.

Construction of the gas pipeline is not expected to have an impact on the use of recreational areas (such as a river or parks that are used for recreational purposes) located along the gas pipeline route. Impacts are expected to be short-term and only experienced during construction of a particular section of the gas pipeline due to the progressive nature of the works, following which the area will be made available again for recreational purposes.

In a cumulative context, potential impacts to local facilities and services could be more significant, especially for airports, transport services, medical facilities and services and social infrastructure.

Operations

The operational workforce is not expected to have a significant impact on facilities and services due to the small workforce size. Cumulative impacts from the operational phases of all projects are also not expected to be significant given the small overall workforce size.

Mitigation

In developing mitigation strategies for potential impacts to facilities and services, Australia Pacific LNG will consult with the relevant local and Queensland Government departments and be guided by the relevant local and regional plans.

Australia Pacific LNG is conducting a number of risk assessment studies to further define the hazards and risks and the need and extent of medical facilities that will be required. Specialists have been engaged by Australia Pacific LNG to review the risks and hazards associated with the construction activities and to provide advice on the medical facilities which will be required. A collaborative approach is being undertaken, with a review of the needs of other projects also considered. The review will address the medical facilities requirements ranging from on-site requirements through to 'medivac' requirements.

The Project health, safety and environment management system will also protect and enhance the health of the workforce and their families by addressing common health issues. Australia Pacific LNG will also implement employee and family well-being programs and conduct regular education campaigns to improve health and well-being such as the 'fit for work' and 'drug and alcohol' policies.

To address potential project and cumulative impacts to medical and health services, Australia Pacific LNG will collaborate with government, industry and other providers to mitigate the impact on health services in local communities.

Australia Pacific LNG will continue consultation and engagement programs with stakeholders to ensure their views are understood and considered throughout the life of the Project and will communicate the extent and timing of any impacts to affected stakeholders and schedule works around minimal disturbance.

In the event there are community complaints they will be addressed through the community complaints procedure, which is outlined in the draft SIMP (Volume 3 Chapter 24).

Through the community investment strategy, Australia Pacific LNG will consult with relevant stakeholders to identify programs targeting community support services and provide support for these as appropriate. Australia Pacific LNG will be an advocate for, and participate in, regional assessments and planning processes to anticipate demand for community support services and facilities, highlighting any shortfalls to relevant local or Queensland government departments.

Strategies to mitigate against the potential impacts to transport related facilities and services in the gas pipeline area are discussed in Volume 3 Chapter 17. Mitigation measures for hazard and risk as they relate to emergency services in the gas pipeline area are discussed in Volume 3 Chapter 22.

Community values and lifestyle

Construction

Central Queensland University completed a Banana Shire 'Survey of Residents' (2008) on behalf of Banana Shire Council. The survey examined community perceptions and expectations of Banana Shire Council and local infrastructure and services. Overall, the survey results suggest residents in the

Banana Shire have a very positive outlook on their future and have values that support resilience to change.

The survey found respondents rated Banana Shire as a good place to bring up kids (93% of respondents), and as a stable (83%), relaxed (85%) and safe (91%), rural place to live (92%). The survey respondents also rated their connections with other community members – a 'good mix of people' (87%) and 'the people are friendly' (92%) – as an important contributor to their community spirit and positive sentiment to the Banana Shire. The majority of respondents reported that Banana Shire has a distinct character and is a special place. Respondents most commonly mentioned dissatisfaction related to distance required to access major centres, poor roads, droughts, and lack of facilities and services (particularly medical, youth and retail) in the area.

Given the short-term construction period and the accommodation of the workforce in temporary accommodation facilities, potential impacts to community values and lifestyle in towns is not expected to be significant. Impacts to landowners located on, or in close proximity to, the gas pipeline route may be more significant, albeit short-term. Potential impacts are expected to mainly relate to dust, noise, lighting and traffic. Australia Pacific LNG community liaison personnel will endeavour to identify potential issues early to enable them to be addressed in a timely manner as they may arise.

Contact details for the community liaison team will be provided to local communities. Potential impacts for the gas pipeline area are discussed in the following chapters:

- Lighting – Volume 3 Chapter 7
- Dust – Volume 3 Chapters 5 and Volume 3 Chapter13
- Noise – Volume 3 Chapter 15
- Traffic – Volume 3 Chapter 17.

In the context of cumulative impact, community values and residents' lifestyle may be impacted. This is expected to be mainly as a result of the influx of young, male dominated workers with higher than average levels of disposable income into the region. This impact could be experienced through an increased perception within the community of reduced safety and/or a change in the make up and characteristics of the communities. However, all project teams are expected to manage their workforces through processes designed to reduce the potential for this type of impact.

Operations

The operation of the gas pipeline is not expected to impact on community values and lifestyle due to the small workforce size and because the buried pipeline is unobtrusive and interaction between the operational workforce and landowners along the gas pipeline route will be minimal. Regular contact with affected landowners will be maintained throughout the life of the Project to monitor for interference with existing activities.

Mitigation

To mitigate against the potential impact of anti-social behaviour from workers impacting on community values and lifestyle, Australia Pacific LNG will uphold a high standard of behaviour and will communicate and strictly enforce its code of conduct and project rules for all employees and contractors to ensure high standards of behaviour extend beyond the temporary accommodation facilities and into the general community. Mitigation strategies in relation to potential anti-social behaviour of the construction workforce were discussed in Section 20.3.5.

In the event there are stakeholder complaints, they will be addressed promptly and appropriately through the Project community complaints procedure. Details on the community complaints procedure are contained within the draft SIMP (Volume 3 Chapter 24).

Australia Pacific LNG is committed to upholding, and improving where possible, the environmental and social values of the region. Strategies to mitigate against potential impacts of lighting, noise, traffic and dust on community values and lifestyles are discussed in:

- Volume 3 Chapter 7 for lighting
- Volume 3 Chapter 15 for noise
- Volume 3 Chapter 17 for traffic
- Volume 3 Chapter 13 and Volume 3 Chapter 5 for dust.

20.7 Impact assessment and mitigation summary

Table 20.10 contains a summary of the social impacts identified for the construction and operation stages of the gas pipeline and the corresponding mitigation measures.

The format of the 'impact assessment and mitigation summary' table was completed using the draft guidelines for SIMPs received from DIP in November 2009. The risk categories used to assess probability and consequence were also received from DIP (refer to Section 20.2 for methodology).

Social impacts have been classified according to the categories presented in 20.6.1. Each of the impact categories are explained within the context of potential implications of the Project to the social environment.

Table 20.10 Impact assessment and mitigation summary

H = High M = Medium L = Low Cons = Construction phase Ops = Operational phase + = positive impact

Potential impact	Phase of Project	Probability (H, M, L)	Consequence (H, M, L)	Mitigation or enhancement measures	Residual risk level
Population impact					
Cumulative: Increase in regional population.	Cons	M	M	• Australia Pacific LNG will provide housing for non-local construction staff and contractors in temporary accommodation facilities and will consult with stakeholders including the local councils as part of the site selection process. • Australia Pacific LNG will work with government, the community and other industries to plan for potential cumulative impacts and share information relating to potential impacts and mitigation measures. • Australia Pacific LNG will continue to participate in local government and regional planning processes and provide information about the Project to inform discussion and decision making in a timely manner.	L
				Demographic profile	
Cumulative: Increase in the proportion of young males due to construction workforce demographics.	Cons	M	M	• Australia Pacific LNG will provide housing for non-local construction staff and contractors in temporary accommodation facilities and will consult with stakeholders including the local council as part of the site selection process. • Australia Pacific LNG will uphold a high standard of behaviour and will communicate and strictly enforce its Code of Conduct and Project Rules for all employees and contractors. • Australia Pacific LNG will continue to participate in local government and regional planning processes and provide information about its Project to inform discussion and decision making in a timely manner. *Refer to Volume 3 Chapter 22 for community health and safety mitigation measures.*	L

Potential impact	Phase of Project	Probability (H, M, L)	Consequence (H, M, L)	Mitigation or enhancement measures	Residual risk level
				Indigenous Australians	
Cumulative: reduced ability to access affordable housing.	Cons	L	H	• Australia Pacific LNG will work with government, the community and other industries to plan for potential cumulative impacts and share information relating to potential impacts and mitigation measures. • Australia Pacific LNG community programs will include working with government and agencies that provide housing to people in housing distress.	L
Difficulty in securing and retaining employment to the Project.	Cons Ops	H M	M M	• Australia Pacific LNG will continue to use and develop methods to attract under-represented groups to the workforce. • Australia Pacific LNG will aim to build collaborative partnerships with government and community organisations to enhance the capacity of employers to provide jobs and the capacity of locals to develop skills and secure jobs. For example through the Community Skills Scholarship program (a current program run by Origin). • Australia Pacific LNG will develop an Indigenous engagement strategy to address recruitment and retention strategies specific to Indigenous Australians.	M M
Lack of business development opportunities realised.	Cons	H	M	• Australia Pacific LNG will implement a local content strategy whereby we participate in or establish programs which assist qualified local and regional businesses with the opportunity to tender for provision of goods and services for the Project. • Australia Pacific LNG will ensure contracts with suppliers and sub-contractors are aligned with Australia Pacific LNG's sustainability principles. • Australia Pacific LNG will develop an Indigenous engagement strategy to identify business opportunities and programs for development.	L

Potential impact	Phase of Project	Probability (H, M, L)	Consequence (H, M, L)	Mitigation or enhancement measures	Residual risk level
Lack of respect for Indigenous Australians	Cons Ops	M L	H H	• Australia Pacific LNG will continue to implement cultural awareness programs. • Australia Pacific LNG work with Indigenous stakeholders in Caring for Country[7]. • Australia Pacific LNG will engage with Indigenous Australians in a respectful and culturally appropriate way, in accordance with the Code of Conduct.	L
Income and affordability					
Cumulative: increased cost of living due to inflationary pressure from higher average weekly incomes	Cons	M	M	• Australia Pacific LNG will provide housing for construction staff and contractors in temporary accommodation facilities and will consult with stakeholders including the local councils as part of the site selection process. • Australia Pacific LNG will continue to use or develop methods to attract local people to the workforce. • Australia Pacific LNG will continue to use or develop methods to attract under-represented groups to the workforce. • The Australia Pacific LNG workforce strategy will outline mechanisms for working with industry groups to develop opportunities for scholarships, apprenticeships and cadetships, outside as well as within, industry to ensure as many people benefit as possible. • Australia Pacific LNG will work through committees established under the Sustainable Resource Communities Policy to identify housing market issues, forecasts and possible responses.	L

7 Caring for our Country is a Commonwealth Government initiative which commenced in 2008 and integrates delivery of the Australian Government's previous natural resource management programs, including the Natural Heritage Trust, the National Landcare Program, the Environmental Stewardship Program and the Working on Country Indigenous land and sea ranger program. The program includes supporting Indigenous employment in natural resource management and heritage related activities.

Potential impact	Phase of Project	Probability (H, M, L)	Consequence (H, M, L)	Mitigation or enhancement measures	Residual risk level
				• To mitigate potential impacts to housing affordability and availability, Australia Pacific LNG community programs will include working with government and agencies providing housing to people in housing distress.	
Employment, training and business					
Opportunity to increase labour-force participation and increase local skills capacity	Cons	L	+	• The Australia Pacific LNG workforce strategy will address: – In-house training programs, including potential opportunities for on-site training – Analysis of ongoing labour requirements – Training strategies targeted to local labour – Targeted employment and training programs – Methods to attract people local to the region to the workforce – Methods to attract under-represented groups to the workforce • Australia Pacific LNG will work with government, the community and other industries to plan for potential cumulative impacts and share information relating to potential impacts and mitigation measures. • Australia Pacific LNG will work together with the coal seam gas/liquefied natural gas industry through the CSG/LNG Taskforce of Energy Skills Queensland to help address skill shortages by: – Raising awareness of the coal seam gas / liquefied natural gas industry in local communities – Supporting vocational training	+
	Ops	M	+		+

Potential impact	Phase of Project	Probability (H, M, L)	Consequence (H, M, L)	Mitigation or enhancement measures	Residual risk level
				– Facilitating career advice and work readiness programs for new entrants and mature entrants from related industries • Australia Pacific LNG will participate in CSG/LNG gateway programs with high schools in the Project region to implement programs that promote career opportunities and facilitate employment in the CSG/LNG industry. • Australia Pacific LNG will continue to collaborate on programs with government and training and education groups that build the local skills base both to meet the specific needs of the industry and other impacted sectors. This will include further development of apprenticeship, traineeship, scholarship and higher education programs and potentially including those that recognise prior learning. • To assist job seekers, readily accessible information and advice will be provided through the Project shopfront in Roma, open days, the on-line recruitment portal and workshops.	
Opportunities for local and regional businesses to supply goods and services to the Project	Cons Op	M L	+ +	• Australia Pacific LNG will implement a local content strategy whereby it participates in or establishes programs which assist qualified local and regional businesses with the opportunity to tender for provision of goods and services for the Project. • Australia Pacific LNG will ensure contracts with suppliers and sub-contractors are aligned with Australia Pacific LNG's sustainability principles.	+ +
Cumulative: impact to local and regional businesses losing employees to the Project	Cons	M	M	• Australia Pacific LNG will work with government, the community and other industries to plan for potential cumulative impacts and share information relating to potential impacts and mitigation measures.	L

Potential impact	Phase of Project	Probability (H, M, L)	Consequence (H, M, L)	Mitigation or enhancement measures	Residual risk level
				• Australia Pacific LNG will continue to participate in local government and regional planning processes and provide information about its Project to inform discussion and decision making in a timely manner.	
Impact on operation of agricultural businesses	Cons Ops	M L	M L	• Australia Pacific LNG will integrate and manage Project activities in consultation with landowners (refer to Volume 3 Chapter 2). • Australia Pacific LNG will continue to work with the Government's Land Access Group to inform the development of an industry wide Code of Conduct for working with landowners. • Vehicle inspection and cleaning facilities will be used for the Project at appropriate locations to mitigate against the spread of weeds. • Australia Pacific LNG will bury pipeline infrastructure on farming land to ensure continuity of farming activities. • Australia Pacific LNG's community investment programs will support sustainable community development.	L L
Opportunities for apprenticeships, scholarships and vocational training	Ops Cons	M L	+ +	• Australia Pacific LNG will continue to collaborate on programs with government and training and education groups that build the local skills base both to meet the specific needs of the industry and other impacted sectors. This will include further development of apprenticeship, traineeship, scholarship and higher education programs and potentially including those that recognise prior learning. • Australia Pacific LNG will work with government, the community and other industries to plan for potential cumulative impacts and share information relating to potential impacts and mitigation measures.	+ +

Potential impact	Phase of Project	Probability (H, M, L)	Consequence (H, M, L)	Mitigation or enhancement measures	Residual risk level
				• Australia Pacific LNG will continue to participate in local government and regional planning processes and provide information about its Project to inform discussion and decision making in a timely manner.	
Opportunity to support work readiness programs and pre-trade training concepts.	Ops Cons	M L	+ +	• Australia Pacific LNG will continue to develop or utilise existing local partnerships to assist students to transition from school to work or higher education. • Australia Pacific LNG will work together with the coal seam gas/liquefied natural gas industry through the CSG/LNG Skills Taskforce of Energy Skills Queensland to help address skill shortages by: – Raising awareness of the coal seam gas / liquefied natural gas industry in local communities – Supporting vocational training – Facilitating career advice and work readiness programs for new entrants and mature entrants from related industries Australia Pacific LNG will participate in coal seam gas/liquefied natural gas gateway programs with secondary schools in the Project region in partnership with providers such as the Queensland Minerals and Energy Academy to implement programs promoting career opportunities and facilitate employment in the coal seam gas/liquefied natural gas industry.	+ +

Potential impact	Phase of Project	Probability (H, M, L)	Consequence (H, M, L)	Mitigation or enhancement measures	Residual risk level
Housing and accommodation					
Cumulative: increase in housing and/or rental prices caused by increased demand and limited supply resulting in poor levels of housing affordability and an over-inflated market.	Cons	M	M	• Australia Pacific LNG will provide housing for construction staff and contractors in temporary accommodation facilities and will consult with stakeholders including the local councils as part of the site selection process for these facilities. • Australia Pacific LNG will work with government, the community and other industries to plan for potential cumulative impacts and share information relating to potential impacts and mitigation measures. • Australia Pacific LNG will continue to participate in local government and regional planning processes and provide information about its Project to inform discussion and decision making in a timely manner. • Australia Pacific LNG will work through committees established under the Sustainable Resource Communities Policy to identify housing market issues, forecasts and possible responses. • To mitigate potential impacts to housing affordability and availability, Australia Pacific LNG community programs will include working with Government and agencies that provide housing to people in housing distress.	L
Concerns that temporary accommodation facilities will foster anti-social behaviour and impact on host community.	Cons	M	H	• Australia Pacific LNG will continue consultation and engagement programs with communities and stakeholders to ensure their views are understood and considered throughout the life of the Project. • Australia Pacific LNG will uphold a high standard of behaviour and will communicate and strictly enforce its Code of Conduct and Project Rules upon all employees and contractors.	L

Potential impact	Phase of Project	Probability (H, M, L)	Consequence (H, M, L)	Mitigation or enhancement measures	Residual risk level
				• Australia Pacific LNG will design and construct a high quality temporary accommodation facility with sufficient social and recreational facilities. • Australia Pacific LNG will continue to implement community complaints procedure for community members and stakeholders to raise concerns, and in turn have them addressed in a timely manner.	
Cumulative: increased demand for hotel/motel accommodation presents challenges for competing local industry and businesses.	Cons	M	M	• Australia Pacific LNG will provide housing for construction staff and contractors in temporary accommodation facilities and will consult with stakeholders including the local council as part of the site selection process for these facilities. • Australia Pacific LNG will work with government, the community and other industries to plan for potential cumulative impacts and share information relating to potential impacts and mitigation measures. • Australia Pacific LNG will continue to participate in local government and regional planning processes and provide information about its Project to inform discussion and decision making in a timely manner.	L
Community health and safety					
Potential for socially unacceptable behaviour	Cons	M	H	• Australia Pacific LNG will continue consultation and engagement programs with stakeholders to ensure their views are understood and considered throughout the life of the Project. • Australia Pacific LNG will uphold a high standard of behaviour and will communicate and strictly enforce its Code of Conduct and Project Rules upon all employees and contractors. • Australia Pacific LNG will design and construct high quality temporary accommodation facilities with sufficient social and recreational facilities.	L

Potential impact	Phase of Project	Probability (H, M, L)	Consequence (H, M, L)	Mitigation or enhancement measures	Residual risk level
				• Australia Pacific LNG will continue to implement community complaints procedure for stakeholders to raise concerns, and in turn have them addressed in a timely manner. • Health promotion programs relating to the 'Fit for Work' and 'Drug and Alcohol' policies will be implemented by Australia Pacific LNG.	
Increase in road, air and shipping movements impacting on road and maritime safety, and congestion.	Cons	M	H	• Australia Pacific LNG will work with the federal, state and local government and industry in regard to potential upgrades required to meet the increase demands on regional infrastructure. • Australia Pacific LNG will develop a logistics management plan to efficiently move people and materials and to reduce the impact of traffic and transport on communities by: – consolidation of material prior to transport to reduce truck movements – siting logistic hubs (warehouses and lay down facilities) that divert traffic flows around local towns – the use of buses for personnel site access during construction and operations – appropriate travel restrictions – development and implementation of safe transportation management practices to reduce the impact to the local environment. – avoid travel along school routes during set down pick up times – night time travel managed where routes pass sensitive sites, e.g. residential and schools	M

Potential impact	Phase of Project	Probability (H, M, L)	Consequence (H, M, L)	Mitigation or enhancement measures	Residual risk level
				– speed restrictions especially next to sensitive sites – residential, schools or along unsealed roads to reduce dust creation – vehicles lights and warning lights illuminated as appropriate – implementation of driver training program • Australia Pacific LNG will expand the Community Safety Awareness program in conjunction with industry partners, government and community groups to develop responses to community safety concerns in the region *Refer to Volume 3 Chapter 17 for mitigation measures for traffic and transport.*	
				Facilities and services	
Cumulative: increased demand on medical and health services.	Cons	M	M	• Australia Pacific LNG will collaborate with government, industry and other providers to mitigate the impact on health services in local communities including providing the appropriate level of medical facilities for its temporary accommodation facilities and operating facilities. • Australia Pacific LNG will continue to participate in local government and regional planning processes and provide information about its Project to inform discussion and decision making in a timely manner. • Health promotion programs relating to the 'Fit for Work' and 'Drug and Alcohol' policies will be implemented by Australia Pacific LNG.	L
Temporary reduction in access to recreational areas.	Cons	L	L	• Australia Pacific LNG will continue consultation and engagement programs with stakeholders to ensure their views are understood and considered throughout the life of the Project and will communicate the extent and timing of any impacts to affected stakeholders and schedule works around minimal disturbance.	L

Potential impact	Phase of Project	Probability (H, M, L)	Consequence (H, M, L)	Mitigation or enhancement measures	Residual risk level
				• Australia Pacific LNG will continue to implement community complaints procedure for stakeholders to raise concerns, and in turn have them addressed in a timely manner.	
Increased demand on emergency services.	Cons	L	M	• Australia Pacific LNG will continue to participate in government planning processes and provide information about its project to inform discussion and decision making in a timely manner. • Australia Pacific LNG will collaborate with government, industry and other providers to mitigate the impact on health services in local communities including providing the appropriate level of medical facilities for its temporary accommodation facilities. *Refer to Volume 3 Chapter 22 for mitigation measures relating to emergency services in the gas pipeline area.*	L
Cumulative: increased demand for community support services and facilities (for example child care, airport, family services).	Cons	L	M	• Australia Pacific LNG will collaborate with government, industry and community partners on research programs to understand the social impacts and opportunities created by development in communities in which it operates. • Australia Pacific LNG's community investment programs will support sustainable community development by identifying and supporting programs targeting community support services. • Australia Pacific LNG will work with government, the community and other industries to plan for potential cumulative impacts and share information relating to potential impacts and mitigation measures. • Australia Pacific LNG will continue to participate in local government and regional planning processes and provide information about its Project to inform discussion and decision making in a timely manner.	L

Potential impact	Phase of Project	Probability (H, M, L)	Consequence (H, M, L)	Mitigation or enhancement measures	Residual risk level
				Refer to Volume 3 Chapter 17 for mitigation measures for impacts to traffic and transport services and infrastructure in the gas pipeline area.	
				Community values and lifestyle	
Cumulative: the high level of construction activity will impact local community values and residents' lifestyle patterns.	Cons	M	M	• Australia Pacific LNG will collaborate with government, industry and community partners on research programs to understand the social impacts and opportunities created by development in communities in which it operates. • Australia Pacific LNG's community investment programs will support sustainable community development. • Australia Pacific LNG will ensure contracts with suppliers and sub-contractors are aligned with Australia Pacific LNG's sustainability principles. • Australia Pacific LNG will continue consultation and engagement programs with stakeholders to ensure their views are understood and considered throughout the life of the Project. • Australia Pacific LNG will uphold a high standard of behaviour and will communicate and strictly enforce its Code of Conduct and Project Rules upon all employees and contractors.	L
Impact of lighting, dust, noise and traffic to community amenity and lifestyle.	Cons	M	H	• Australia Pacific LNG will work with government, the community and other industries to plan for potential cumulative impacts and share information relating to potential impacts and mitigation measures. • Australia Pacific LNG will continue consultation and engagement programs with stakeholders to ensure their views are understood and considered throughout the life of the Project.	L

Potential impact	Phase of Project	Probability (H, M, L)	Consequence (H, M, L)	Mitigation or enhancement measures	Residual risk level
				• Australia Pacific LNG will continue to participate in local government and regional planning processes and provide information about its Project to inform discussion and decision making in a timely manner. *See Volume 3 Chapter 7 for mitigation measures for potential visual amenity impacts.* *See Volume 3 Chapter 7 for mitigation measures for potential lighting related impacts.* *See Volume 3 Chapter 5 and Volume 3 Chapter 13 for mitigation measures for potential dust related impacts.* *See Volume 3 Chapter 17 for mitigation measures for potential traffic related impacts.* *See Volume 3 Chapter 15 for mitigation measures for potential noise related impacts.*	

20.8 Conclusions

20.8.1 Assessment outcomes

The Project has the potential to impact the social environment and communities within the gas pipeline study area. Some impacts will be beneficial to communities whilst others, if not appropriately mitigated, may be detrimental. Project benefits include growth in local skills, employment and business opportunities and the potential for sustainable community development through the establishment of partnerships with governments and community groups. Without mitigation, the Project could also directly impact on access to affordable housing, increase pressure on local services and facilities, increase demand on the local workforce and further polarise socio-economic groups in the community.

20.8.2 Commitments

Australia Pacific LNG has committed to a range of strategies which improve the level of benefits of the Project and mitigate those impacts which could be detrimental to local communities. These commitments are aligned with Australia Pacific LNG's 12 sustainability principles and are detailed, along with associated performance measures, in the draft SIMP (Volume 3 Chapter 24). A summary of the key social commitments made by Australia Pacific LNG are presented below.

Employment and business

Australia Pacific LNG will:

- Continue to use existing methods or develop new methods to attract people to the workforce who are local to the region, as well as those from under-represented groups
- Implement a local content strategy, to participate in or establish programs to assist qualified local and regional businesses with tendering opportunities for providing goods and services for the Project
- Aim to build collaborative partnerships with government and community organisations, to enhance the capacity for employers to provide jobs and for local people to develop skills and obtain employment (e.g. through the Community Skills Scholarship program)
- Continue to use existing methods or develop new methods to attract under-represented groups to the workforce.
- Work with government, the community and industry to plan for potential cumulative impacts and to share information about potential impacts and mitigation measures
- Ensure contracts with suppliers and contractors are aligned with Australia Pacific LNG's sustainability principles and objectives
- Work closely with Energy Skills Queensland's CSG/LNG Skills Taskforce to help meet the growing skills demand by:
  - Creating community awareness about the industry and opportunities
  - Enhancing vocational training
  - Facilitating career advice and work readiness programs for new entrants and mature entrants from related industries.

Stakeholder engagement and consultation

Australia Pacific LNG will:

- Continue consultation and engagement programs with stakeholders to ensure their views are understood and considered throughout the life of the Project
- Continue to participate with government in local and regional planning processes and provide timely information about the Project to inform discussion and decision making
- Continue to work to mitigate project impacts on local landowners throughout the project life by:
  - Engaging with each landowner within the project area prior to any project activity on their land
  - Where possible, working towards mutually beneficial outcomes
  - Assigning a dedicated liaison officer to each landowner in the project area
  - Locating and scheduling project activities to reduce impacts on landowner activities.

Education and training

Australia Pacific LNG will:

- Implement CSG/LNG gateway programs with high schools in the region, in partnership with providers such as the Queensland Minerals and Energy Academy, to promote career opportunities and facilitate employment in the CSG/LNG industry
- Continue to collaborate on programs with government, training and educational groups that build the local skills base, to meet the specific needs of the industry and other impacted sectors. This includes ongoing development of apprenticeship, traineeship, scholarship and higher education programs.

Community health and safety

Australia Pacific LNG will:

- Expand its community safety awareness program in conjunction with industry partners, government and community groups, to develop responses to project-related community safety issues in the region
- Communicate and strictly enforce its code of conduct for all staff and contractors, to uphold a high standard of behaviour
- Collaborate with government, industry and other providers to mitigate the impact on health services in local communities, including providing the appropriate level of medical facilities for operating plants and accommodation facilities.

Local services and facilities commitments

Australia Pacific LNG will:

- Collaborate on research programs with government, industry and community partners to understand social impacts and opportunities the development creates in the communities in which we operate

- Implement community investment programs to support sustainable community development.

Housing and accommodation commitments

Australia Pacific LNG will:

- Provide temporary accommodation facilities for non-local construction staff and contractors, and consult with stakeholders during the site selection process for these facilities
- Mitigate pressure on housing affordability during operations, temporary accommodation will be provided for personnel wishing to relocate until such time as housing stock becomes available
- Work through committees established under the Queensland Government's Sustainable Resource Communities Policy to identify housing market issues, forecasts and possible responses
- Mitigate potential impacts on housing affordability and availability, through community programs that involve working with government and agencies that provide housing to people in distress.

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