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Social Impact Assessment

CONTINUATION OF BOGGABRI COAL MINE

SOCIAL IMPACT ASSESSMENT

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CONTINUATION OF BOGGABRI COAL MINE
SOCIAL IMPACT ASSESSMENT

for
Boggabri Coal Pty Limited

1 INTRODUCTION

This section describes the Background and provides a general description of the Continuation of Boggabri Coal Mine Project including the setting and general methodology for the social assessment.

1.1 BACKGROUND

Boggabri Coal Pty Limited (Boggabri Coal), a wholly owned subsidiary of Idemitsu Australia Resources Pty Ltd (IAR), operates the Boggabri Coal Mine. The Boggabri Coal Mine is located approximately 15 km north east of Boggabri in the Narrabri Shire Council (NSC) Local Government Area (LGA) in the central north of NSW.

On 22 August 1989 the NSW Minister for Planning granted development consent Departmental File Number 79/1443(z)2 (Development Consent) to the Boggabri Coal Joint Venture (BHP Minerals Limited, Agip Coal Australia Pty Ltd and Idemitsu Boggabri Coal Pty Limited) enabling the construction and operation of the Boggabri Coal Project which included a surface coal mine and associated infrastructure.

The Development Consent is supported by the *Environmental Impact Statement Joint Venture Boggabri Coal Project* (1987) (Boggabri EIS). The Development Consent approved the open cut coal mining of up to 5 Million tonnes per annum (Mtpa) of product coal for a period of 21 years from the date of the granting of a mining lease. CL 368 was granted on 15 November 1990 and consequently the Development Consent expires on 15 November 2011. Mining commenced shortly after approval was granted however, a full scale mining operation with ongoing production commenced in 2006.

1.2 THE PROJECT

Boggabri Coal is proposing to apply for approval to continue its open cut mining operations for a further 21 years. Project Approval is sought under Part 3A of the Environmental Planning and Assessment Act 1979 (EP&A Act) to gain a single, contemporary planning approval for the continuation of its mining operations within the Project Boundary (the Project).
The Project generally comprises the following:

- Continuation of mining operations via open cut methods up to 7 Mtpa product coal to the Merriown seam;
- Open cut mining fleet including excavators and fleet of haul trucks, dozers, graders, water carts and other equipment with the flexibility to introduce a dragline as required utilising up to 500 employees;
- Modifications to existing and continuation of approved (but not yet constructed) infrastructure including:

  - Coal Handling and Preparation Plant (CPP);
  - Modifications to existing site infrastructure capacities including: Run of Mine (ROM) coal hopper, second crusher, stockpile area, coal loading facilities, water management and irrigation system;
  - Rail loop and 17 km rail line across the Namoi River and flood plain including overpasses across the Kamilaroi Highway, Therribri Road and Namoi River;
  - Minor widening of the existing coal haul road including overpasses across the Kamilaroi Highway, Therribri Road and Namoi River;
  - Upgrading and relocating site facilities including offices, car parking and maintenance sheds as and when required;
- Closing a section of Leard Forest Road; and
- Upgrading the power supply capacity to 132 kilovolt (kV) high voltage lines suitable for dragline operations.

1.3 PROJECT SETTING

The nearest private landowners to the Project Boundary are located adjacent to the existing haul road and load out facility. Other private landowners are located to the south and east of the Project Boundary at least 2 km from the active mining area.

Boggabri is a small rural township located on the Kamilaroi Highway approximately 40 km and 60 km from the larger centres of Gunnedah and Narrabri respectively. The city of Tamworth is the main regional centre located 120 km south-east of Boggabri.

Due to the remote location of the site, the assessment of local social impacts associated with the Project has focused on the Narrabri and Gunnedah LGAs. The area of the combined LGAs is referred to as the local area. The local area forms part of the NSW Northern Statistical Division (SD).

1.4 METHODOLOGY

A Social Impact Assessment (SIA) has been undertaken to address the socio-economic issues associated with the Project, including those described in the Director General's Requirements (DGRs) and raised by stakeholders during the Environmental Assessment (EA) consultation program.

The information contained in the SIA has been drawn from a number of sources including studies commissioned by IAR for the Project, published background information and previous social and economic assessments in the region. The information was used to obtain a general understanding of the local setting and potential social impacts to the local area. Specific studies included:

- The Boggabri Coal Project (AMAX / BHP, 1982);
- The East Boggabri Coal Mine (Key Insights and Castlecrest Consulting, 2005);
- The Narrabri Coal Mine Stage 1 Assessment (Key Insights, 2007);
- The Narrabri Coal Mine Stage 2 Environmental Assessment (R. W. Corkery & Co. Pty Limited, 2009);

- Assessment of Opportunities for Narrabri Shire from Coal Mining and Gas Extraction in the Gunnedah Basin (Narrabri Shire Council, 19 June 2007 – prepared by Jenny Rand and Associates); and
- Narrabri Shire Council Draft Growth Management Strategy 2009 (EDGE Land Planning, 2009).

The statistical data referenced in this section is drawn from the census data compiled by the Australian Bureau of Statistics (ABS) for both 2001 and 2006 and population and housing projections from the New South Wales (NSW) Department of Planning (DoP).

The SIA methodology included the following key tasks:

- Development and analysis of the existing local socio-economic setting based on a review of existing information / data and the results of consultation undertaken with relevant stakeholders;
- Development and analysis of the Project workforce profile and workforce accommodation strategy for the construction and operation phases;
- Assessment of potential social impacts of the Project on the local area, including the social impacts associated with the workforce; and
- Development of appropriate mitigation and management measures for any adverse social impacts.

2 EXISTING SOCIO-ECONOMIC ENVIRONMENT

The following section provides an overview of the existing socio-economic setting for the Project and the key existing socio-economic issues facing the local community. An initial overview of the Gunnedah Basin is provided with more detailed socio-economic information provided for the local area.

2.1 GUNNEDAH BASIN

The Gunnedah Basin is one of the primary coal fields in NSW, along with the Hunter Valley, Newcastle, Southern NSW and Western NSW (Great People Systems Pty Ltd 2009). In the NSW Coal Fields there are 60 coal mines and 30 development projects. In the Gunnedah Basin alone there are 10 mines or mine proposals publically registered (see **Table 1** below). Recent estimates of employment in the mining industry in the Gunnedah Basin are reported in JRA 2007. The report estimates that 270 to 290 people were employed directly in the mines in the Gunnedah Basin in 2007 with a further 230 to 250 persons likely to be employed within the next 5-7 years.

The coal mines in the Gunnedah Basin are concentrated in the Boggabri - Baan Baa area, to the north-north west of Gunnedah, with a secondary node at Werris Creek in the south-east corner of the Basin. JRA 2007 reports that the regional centre of Gunnedah is emerging as the mining service centre for the area with a diverse range of services and facilities supporting not only the mining industry but also related emerging industries. A summary of the existing and proposed mining developments is included in **Table 1**.

Table 1
Proposed Mining Projects in Gunnedah Basin

Project	Owner / Proponent	Comment
Rocglen Mine	Whitehaven Coal Mining Ltd	New mine, 28 km north of Gunnedah
Boggabri Mine	Idemitsu Australia Resources Ltd	Existing mine 15 km east of Boggabri
Canyon Mine	Whitehaven Coal Mining Ltd	15 km east of Boggabri, existing but soon to close
Maules Creek Mine Proposal	Aston Mining Pty Limited	Will need to apply for mine lease in 2011. adjacent Project Boundary to the north west
Narrabri Coal Mine Stage 1	Narrabri Coal Pty Ltd (Whitehaven Coal Mining Ltd)	Mine underway with a two stage growth plan, North west of Baan Baa
Sunnyside Coal Project	Namoi Mining Pty Ltd (Whitehaven Coal Mining Ltd)	Underway, 15km west of Gunnedah
Tarrawonga Mine	Whitehaven Coal Mining Ltd – 70%, Idemitsu Australia Resources Pty Ltd – 30%	In production, immediately south of Boggabri Mine
Werris Creek Mine	Whitehaven Coal Mining Ltd	In production, Werris Creek
Watermark Project	Shenhua	Early in the development process, south east of Gunnedah
Caroona Project	BHP Billiton	Still conducting pre feasibility, south-east of Gunnedah

The communities of the Gunnedah Basin face a number of potential challenges associated with the expansion of the local coal mining industry. These may include:

- Limited housing availability for the qualified workforce required for the mining industry and the workforce associated with the service industries;
- Balancing the needs of the affected communities with the demands of the mining industry;
- Protecting and further enhancing the lifestyle and amenity of the towns of the Gunnedah Basin particularly Gunnedah, Narrabri and Boggabri; and
- Servicing the needs (health, education, recreation) of the resident populations.

These challenges are not dissimilar to those currently facing mining communities in the Bowen Basin (QLD) and the Hunter Valley (NSW).

2.2 LOCAL AREA SETTING

The local area is defined as the Narrabri and Gunnedah LGAs. **Table 2** and **Table 3** provide a summary of the key demographic characteristics of the local area which are discussed in further detail in the following sections.

Narrabri LGA

The Narrabri LGA is located in the Namoi Valley in north-western NSW. At the time of the 2006 census, the Narrabri LGA had a population of 13,106 persons. The main township in the LGA is Narrabri which in 2006 had a population of 6,234 persons which is 47.6% of the LGA population. The next largest settlements are Boggabri and Wee Waa which have 6.9% and 12.8% of the total LGA population respectively.

Over the past 20 years, the Narrabri LGA has experienced a loss of population across all towns, which is a trend evident in similar rural NSW Councils (Edge Land Planning 2009). Despite the population loss, the economy of the LGA has continued to grow with three coal mines recently commencing operations, another gaining consent, a new supermarket being developed and additional accommodation facilities being established in the town of Narrabri.

The Narrabri LGA is characterised by:

- Declining population, with the LGA population decreasing by 711 people (5.1%) between 2001 and 2006;
- Decreasing growth in the number of private dwellings across the LGA but increased growth in the number of private dwellings in the three main towns of Narrabri, Boggabri and Wee Waa;
- An ageing population, with the median population age increasing from 36 years in 2001 to 38 years in 2006;
- A large indigenous population, made up of a large proportion of youth with a relatively high unemployment rate;
- Changing employment industry with a reduction in employment in the agriculture and forestry industries, significant reduction in the manufacturing and wholesale trades and a corresponding significant increase in employment in the mining industry, with minor

increases in employment in the education, health care and administrative services industries;

- A relatively high unemployment rate although this has dropped marginally from 8.1% in 2001 to 7.1% in 2006;
- Declining labour force size. The size of the labour force reduced by 7.1% from 2001 to 2006, with a corresponding reduction of 8.3% in the number of people employed full time in the workforce for the same period; and
- Median individual, family and household income levels lower than average NSW income levels. The median household weekly income of $792 is 23.6% less than the NSW median household income of $1,036.

Gunnedah LGA

The Gunnedah LGA is located in the in the Namoi Valley in central northern NSW, 40 km from the Project. The main township in the LGA is Gunnedah and approximately 75% of the LGA population, which was 11,525 persons at the time of the 2006 census, live in either Gunnedah township or the largest outlying village of Curlewis.

The Gunnedah LGA is characterised by a:

- Declining population, with the LGA population decreasing by 451 people (3.8%) between 2001 and 2006;
- Ageing population, with the median population age increasing from 37 years in 2001 to 40 years in 2006;
- Decreasing number of occupied private dwellings (from 5,145 in 2001 to 5,015 in 2006);
- Stable labour force size with little change between 2001 and 2006 and only a marginal increase in the number of people employed full-time;
- A relatively high unemployment rate. The unemployment rate has dropped marginally from 9.3% in 2001 to 8.3% in 2006;
- Stable employment industry with the agricultural industry continuing to be the largest employment sector;
- A large indigenous population made up of a large proportion of youth with a relatively high unemployment rate; and
- Median income levels substantially lower than average NSW income levels. In 2006, median weekly household income levels in Gunnedah LGA were 31% less than the median NSW household income.

Table 2
Local and Regional Population Growth Statistics (2001 and 2006)

Town / LGA / State	Total Population (persons)		Population Change from 2001 to 2006	
	2001	2006	Persons	%
Narrabri LGA	13,800	13,106	-694	-5.0%
Narrabri township	6,102	6,234	132	2.1%
Boggabri township	803	901	98	1.1%
Gunnedah LGA	11,976	11,525	-451	-3.8%
Gunnedah Township	7,855	7,542	-313	-4.0%
Northern Statistical Division	172,862	172,396	-466	-0.3%
NSW	6,371,745	6,549,178	177,433	2.8%

Source: ABS Census of Population and Housing 2001 and 2006

Table 3
Local and Regional Demographic Statistics (2006)

Town / LGA / State	Median Age	Indigenous (% of pop)	Total Occ. Dwellings	Occupancy Rate	Industry of Employment (%)		
					Agriculture	Retail	Health & Education
Narrabri LGA	37	9.5%	4,832	2.5	25.3	16.2	14.3
Narrabri township	36	10.6%	2,259	2.5	8.7	22.9	16.3
Boggabri township	41	6.9%	345	2.5	16.0	16.9	16.0
Gunnedah LGA	40	10.2%	4,514	2.5	19.9	10.8	17.5
Gunnedah township	41	12.3	3057	2.4	7.9	12.9	18.9
Northern SD	38	7.9%	63,833	2.5	16.9	17.6	20.1
NSW	37	13.6%	114,076	2.6	2.7	17.7	18.0

Source: ABS Census of Population and Housing 2006

2.3 POPULATION AND AGE PROJECTIONS

Population and age projections for the Narrabri and Gunnedah LGAs from 2011 to 2031 are summarised in **Table 4**. The current pattern of population decline present in both LGAs is forecast to continue between now and 2031.

Table 4
Projected Population Changes for Narrabri and Gunnedah LGAs

Year	Gunnedah LGA		Narrabri LGA	
	Total population (persons)	Annual Population Growth	Total population (persons)	Annual Population Growth
2011	11,610	-0.6%	13,530	-0.7%
2016	11,290	-0.5%	13,070	-0.6%
2021	11,030	-0.5%	12,670	-0.6%
2026	10,790	-0.5%	12,290	-0.6%
2031	10,530	-0.5%	11,900	-0.6%

Source –DoP (2005), Edge Land Planning (2008)

2.4 LABOUR FORCE AND SKILL

Labour Force

Table 5 provides an indication of the available labour in the local area. There is a relatively high rate of unemployment in the local area compared to the Australian average and also a lower rate of workforce participation. The low workforce participation reflects what is known as 'hidden unemployment' which may occur if there is no prospect of work and people stop seeking work. As employment opportunities arise then this sector of the labour force can re-enter the workforce. The total number of people potentially available for employment across the local area is over 2,000 people. This indicates that the local area has the capacity to absorb a number of large scale projects.

Table 5
Available Labour in Gunnedah and Narrabri LGAs

	Gunnedah LGA	Narrabri LGA	Australia
Unemployment Rate %	8.3	7.1	5.7
Participation Rate %	57.2	61.3	65.5
Total Labour Force	5,108	6,198	10,793,100
Labour Surplus*	312	462	-
Unemployed	426	440	-
Not in Workforce	3,397	3,378	-
Hidden %	8.3	4.2	-
Hidden No.	282	142	-
Part Timers	1,592	1,338	3,150,000
% Part time	31	22	29

Source: ABS Census data 2006 and ABS 6202.0

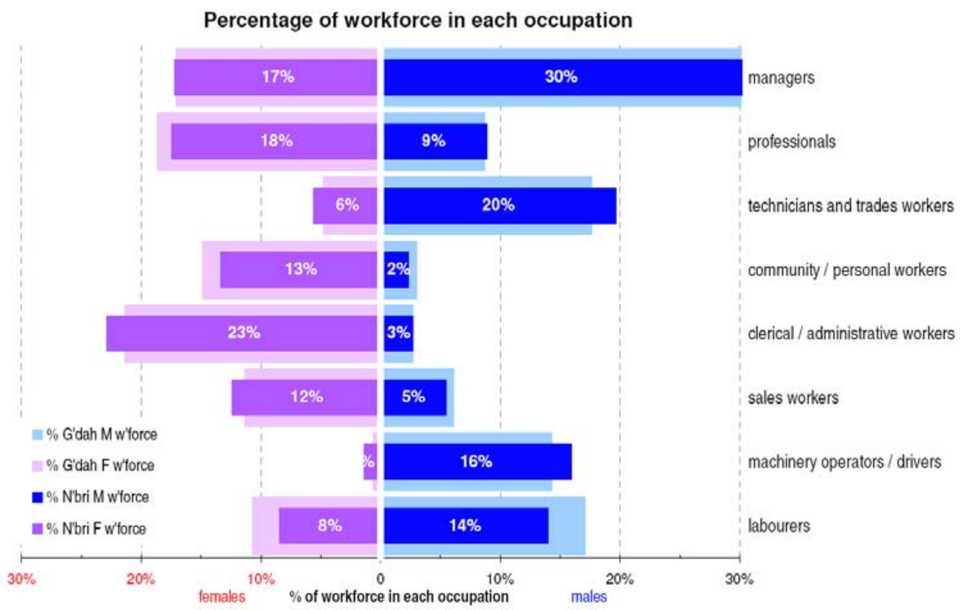
* A labour surplus is where the number of employed residents of an area exceeds the number employed within the area. This means, in net terms, the difference is employed people who went elsewhere to work e.g. next LGA.

Labour Skill

The local area exhibits a different set of characteristics in relation to labour force skill. Both the Narrabri and Gunnedah LGAs are primarily driven by agriculture, as demonstrated in the proportion of the workforce employed in the agricultural and wholesale industry sectors (see **Figure 1**). As can be seen in **Figure 1** the local community has a relatively small pool of skilled labour.

In 2008 the Gunnedah District Development Board (GDDB) commenced a Skills Project (GDDB 2008) to implement a holistic and joint approach to skills development in the New England and North West regions of NSW. The Skills Project was a response to the current labour shortages and anticipated future shortages. The proposed expansion in coal mining in the Gunnedah Basin was the major catalyst for the Skills Project. During forums and discussions held by the GDDB, concerns were raised that the local community may suffer a chronic skills shortage as people were leaving other industries to work in the mines thus causing hardships upon those other industries. This was reinforced through the results of an industry skills requirement survey competed by 109 local business representatives in which 66% of respondents expressed a belief that mining will impact on their business within 5 years and 71% identified that the region would experience skilled vacancy shortages in the future (within 5 years).

Figure 1
Percentage of Workforce in each occupation



Source: Public Practice (2009)

2.5 LAND SUPPLY

Table 6 provides a summary of the supply and demand for residential land in the Narrabri LGA. The information for Narrabri LGA has been derived from the *Narrabri Shire Draft Growth Management Strategy 2009* for which a land use survey was undertaken in 2008. Analysis of residential and rural residential demand and supply was carried out in the Narrabri LGA to enable an assessment of the amount of land that may be available for development in the future, to meet the accommodation demands of the future population.

Based on the findings of the land use survey, in particular the number of large land stocks available in the townships of Wee Waa, Narrabri, Baan Baa and Boggabri, EDGE Land Planning 2009 concludes that there is sufficient supply of residential land in the Narrabri LGA to meet the likely demands of the LGA for the next 10 years, even taking account of the potential increase in demand for housing in the Boggabri area as a consequence of additional mining developments.

Table 6
Existing Residential Land Supply and Demand in Narrabri LGA

Town	Number of Existing Dwellings	Total Potential Additional Lots	Dwelling Growth		Dwelling Supply (years) (All Land)	
			Low	High	Low Growth	High Growth
Boggabri	321	505	2	5	253	101
Narrabri	1,880	868	20	50	43	17
Baan Baa	39	832	1	2	833	416
Total Narrabri LGA	3,083	782	30	70	126	54

Source: EDGE Land Planning 2009

The Gunnedah LGA does not have a growth management strategy and has not to date quantified the amount of residential land available for future development. Information extracted from Corkery and Co (2009) suggests that at least 550 lots are currently available for residential development under the provisions of the current *Gunnedah Local Environment Plan (LEP)*. Further, from the results of the discussions with Gunnedah Shire Council and local real estate agents reported in Corkery and Co (2009) it can be concluded that the Gunnedah LGA has a good supply of homes and vacant blocks for sale in town and a relatively stable local housing market.

2.6 LOCAL HOUSING MARKET

Data on housing rent and sales for the local area has been drawn from the Rent and Sales Reports published quarterly by the Housing Analysis and Research unit of Housing NSW.

Dwelling type

The dominant dwelling type in the local area is separate houses which make up 80% of total dwellings. Units and flats constitute 15% of dwellings in the local area.

The form of accommodation in the local area is changing to reflect the demand by mining and related industries.

House Prices

The median house price in the Narrabri LGA, for the December 2008 quarter, was $230,000 compared to $205,000 for the Gunnedah LGA. The median house price in the Narrabri LGA has increased by 24.3% over the previous 12 months and almost 40% since the same period in 2006. The median house price in the Gunnedah LGA has dropped 6.8% over the preceding 12 months, but represents an increase of 10% since the same period in 2006.

According to data from the real estate website *www.realestate.com.au,* property demand in the Gunnedah township is currently outstripping supply, with a gradual decrease in the number of properties available for sale. In comparison, supply is currently outstripping demand in Narrabri township.

A search of the *realestate.com.au* on 2 December 2009 for the Narrabri township produced 61 houses / units for sale. A similar search for Gunnedah produced 172 houses / units for sale. There were 33 houses / units listed for sale in Boggabri.

Rental Prices

The private rental market represented 15.1% of all occupied private dwellings in the Narrabri township in 2006 compared to 17.4% in the Gunnedah township, an average of 17.3% in non-metropolitan NSW and 21.9% for the Greater Metropolitan Region (NSW DOH 2006).

Rental data available for March quarter 2009 indicates that the median weekly rent for a three bedroom property was $203 in the Narrabri LGA compared with $215 in the Gunnedah LGA. The median weekly rent in the Gunnedah LGA represents a 7.5% annual increase. No annual percentages were available for the Narrabri LGA. The March quarter 2009 median weekly rent for the Gunnedah LGA represents a significant increase on the 2006 figure of $170. The median weekly rent for a three bedroom property in Narrabri has only marginally increased from 2006.

Anecdotal evidence suggests that the rental market in Narrabri is tight. A search of www.realestate.com.au on 2 December 2009 for the Narrabri township resulted in three rental properties, all units / townhouses. A similar search for Gunnedah produced 41 houses and units for rent. Two properties were listed for rent in Boggabri.

Hotels, Motels and Caravan Parks

There are three hotels / motels and one caravan park in Boggabri. Gunnedah and Narrabri have a further 23 and 10 short term accommodation options respectively.

Public Housing

In Gunnedah, non-private housing options include housing stock held by the NSW Department of Housing, Homes North Community Housing and three indigenous organisations. In 2006, the share of total dwellings in public housing was 4.6%. There are currently around 378 social housing dwellings in Narrabri. In 2006, public housing represented 4.7% of all housing in Narrabri which is above the average for non-metropolitan NSW of 3.5%.

2.7 EXISTING COMMUNITY SERVICES AND FACILITIES

This section provides a brief overview of the services and facilities available in the Gunnedah and Narrabri LGAs. Both LGAs are well serviced with health and education facilities, a range of recreation facilities and retail and commercial enterprises. Social capital in both LGAs is high, demonstrated through the proliferation of community groups and organisations, sporting clubs, industry bodies and support networks. A summary of community facilities and services provided in the Gunnedah, Narrabri and Boggabri townships is provided in **Table 7**.

Education Facilities

Primary, secondary and tertiary educational facilities are provided in the Narrabri and Gunnedah LGAs. Many townships have childcare and pre-school facilities. The closest university facilities are provided in Armidale at the University of New England.

The following information on current enrolments and enrolment capacity at schools in Narrabri, Gunnedah and Boggabri was extracted from Corkery & Co (2009):

- There are currently 1,039 primary school children and 917 secondary school children attending the four primary schools and two high schools in Gunnedah. There is a combined capacity to enrol 1,212 in the primary system and 1,520 students in the secondary system;
- There are 896 primary school students and 595 secondary school students enrolled in the three primary schools and one secondary school in Narrabri; and
- There are 138 students enrolled in the state and catholic schools in Boggabri with a joint capacity of 205.

Health

The local area is served by local hospitals in the townships of Narrabri, Boggabri, Wee Waa and Gunnedah. The Narrabri hospital is a 40 bed facility and the Gunnedah Hospital is a 43 bed facility. Both provide general medical and surgical services and obstetric care. The Boggabri Hospital was constructed in 2002 and provides hospital and health services and 16 aged care places with associated facilities. Additional healthcare facilities are provided at community health centres in the towns of Narrabri, Boggabri, Wee Waa and Gunnedah. Aged care facilities are also available in the same communities. Home and Community Care (HACC) provides services in Gunnedah, Boggabri and Narrabri.

Recreation

The Narrabri and Gunnedah LGAs are both well served with a range of sporting and recreational facilities and cultural organisations (see **Table 7**) including:

- Olympic size swimming pool;
- Cinemas;
- Golf course;
- Restaurants;
- Sporting ovals;
- Tennis, squash, basketball and netball courts;

- Racecourse;
- Public libraries;
- Art Gallery; and
- Religious institutions.

Commercial, Retail Facilities and Services

The townships of Gunnedah and Narrabri boast an array of commercial and retail facilities including main line supermarkets, pharmacies, banks, drycleaners, fashion outlets and real estate agents. There are a number of professional services including insurance agencies, veterinary practices, accountants, agricultural consultants, solicitors, surveyors, etc. Both townships are self sufficient with residents having little need to travel to large centres for goods and services.

Boggabri supports a small variety of commercial and retail facilities, including a pharmacy, IGA supermarket, service station, RSL club, library and takeaway food stores.

Table 7
Summary of Community Services and Facilities

Service	Boggabri	Narrabri	Gunnedah
Emergency Services			
Police	Yes	Yes	Yes
Fire & Rescue	Yes	Yes	Yes
Emergency	Yes	Yes	Yes
Ambulance	Yes	Yes	Yes
Health / Medical			
Hospital	Yes (Community Hospital)	Yes (District Hospital)	Yes (District Hospital)
Child Health	Yes	Yes	Yes
Dentist	-	Yes	Yes (2)
Aged care facilities	Yes	Yes (2)	Yes (2)
General Practitioners	Yes (2)	Yes (8)	Yes (2)
Education and Training			
Pre-prep	Yes	Yes	Yes (2)
Primary	Yes (2)	Yes (3)	Yes (5)
Secondary	-	Yes	Yes (2)
Tertiary	-	Yes (TAFE)	Yes (TAFE)
Children's Services			
Child care	-	Yes (5)	Yes (4)
Playgroups	-	Yes	Yes (4)
After school care	-	Yes	Yes
Youth services	-	Yes	Yes
Housing			
Public / Department of	-	Yes	Yes

Service	Boggabri	Narrabri	Gunnedah
Housing			
Private rentals	Yes	Yes	Yes
Short-term Accommodation			
Hotels, motels and accommodation	Yes (4)	Yes (23)	Yes (10)
Cultural			
Library	Yes	Yes	Yes
Churches	Yes (4)	Yes (7)	Yes (11)
Cultural Centre / Museum	Yes	Yes (2)	Yes
Cinema	-	Yes	Yes
Government Offices			
Local	-	Yes	Yes
State	-	Yes	Yes
Access			
Road	Yes	Yes	Yes
Rail	Yes	Yes	Yes
Air	-	Yes	Yes
Public Transport			
Bus	-	Yes	Yes
Taxi	-	Yes	Yes
Sport			
Organisations	Yes	Yes (25)	Yes (>36)
Facilities	Yes	Yes	Yes
Community Organisations	Yes (11)	Yes (14)	Yes (30)

2.8 SUMMARY OF EXISTING ISSUES

The socio-economic issues currently present in the Narrabri LGA can largely be attributed (directly and indirectly) to the decline in the agricultural and wholesale trade employment sector, which is a result of severe and prolonged drought. The existing socio-economic issues have been well documented in earlier environmental assessment reports prepared for previously proposed mines in the region (e.g. Narrabri Coal Mine Stage 1 and Stage 2). The dominant issues relate to the need to:

- Halt the current pattern of population decline;
- Facilitate greater economic diversity in light of the decline being experienced in the agricultural industry;
- Manage labour force and skill shortages with the potential growth in the mining industry in the local area;
- Protect long-term housing availability and affordability, and ensure the timely delivery of housing to support economic growth; and
- Manage concerns about the potential impact of the growth in the mining industry.

3 PROJECT WORKFORCE

3.1 CONSTRUCTION WORKFORCE

Project construction is anticipated to commence in Year 1 and continue for a period of 4 years. The anticipated peak workforce during construction is 150 equivalent full time persons.

3.2 OPERATIONS WORKFORCE

The Project operations workforce is detailed in **Table 8**. The Project will employ approximately 234 persons in Year 1 with the continuation of production. The workforce will increase to 500 employees by Year 5 following full production (7 Mtpa) being achieved. The majority of recruitment will occur between Year 1 and Year 5. Based on the analysis of labour supply discussed in the following sections, this is an ideal timeframe to capitalise on the availability of local labour.

Table 8
Predicted Operations Phase Workforce

Workforce Occupation	Operation Year			
	Year 1	Year 5	Year 10	Year 21
Staff Labour	44	50	60	60
Mine Operating Labour	103	251	279	286
Maintenance Labour	51	110	124	112
CHPP Labour	36	39	37	15
Total	**234**	**450**	**500**	**473**
Production	2.5 Mtpa	7 Mtpa	7 Mtpa	7 Mtpa

Boggabri Coal 2010 Project Information

3.3 LABOUR FORCE SUPPLY

The Project is located between the townships of Gunnedah and Narrabri and hence is able to attract employees from either location. The workforce at the existing Boggabri Coal Mine consists of approximately 90 permanent staff and 20 contract staff, the majority of which have been sourced locally.

While a number of core experienced operators were brought in the majority of mine operators have been trained and developed from people with experience in areas such as local councils, farmers and small excavator operators.

For the Project, it is anticipated that:

- 60% (90 employees) of the construction workforce will be local hires and 40% (60 employees) non-local hires; and
- 49% (245 employees) of the operations workforce will be local hires and 51% (255 employees) will be non-local hires, with 14.4% (35 employees) of these drawn from outside the Northern SD and interstate.

Non-local hires will predominantly consist of experienced maintenance workers, mine operators and professional staff. Local hires will include local ancillary staff, apprenticeships and graduates.

3.4 LABOUR FORCE RESIDENCE LOCATION

Mine operators for the existing operations live predominantly in Gunnedah whilst contracted coal transport personnel are predominantly based in Narrabri. **Table 9** illustrates the residential towns which Boggabri Coal Mine has drawn upon for its existing workforce and the towns proposed to accommodate all future non-local hires for the Project.

The accommodation strategy for the Project anticipates a similar workforce residential distribution for the 245 local hires, however there will be an emphasis on Narrabri LGA as a place of residence for the 255 non-local hires. This will assist in managing any potential accommodation pressures experienced in Gunnedah in the event that the Project coincides with other mine developments in the Gunnedah LGA, as well as reducing competition for the labour.

Table 9
Existing and Potential Workforce Residential Pattern

Residential Location	Residential Pattern of Existing Workforce (%)	Anticipated Residential Pattern of new local hires (%)	Anticipated Residential Pattern of new non local hires (%)
Narrabri Township	25	25	55
Gunnedah Township	39	39	30
Boggabri Township	19	19	10
Other local areas	14	17	5
Other North Western NSW Areas	3	-	-

Boggabri Coal 2010 Project Information

4 CONSTRUCTION PHASE IMPACTS

4.1 HOUSING AND ACCOMMODATION IMPACTS

The demand for short-term accommodation for construction workers will be up to 150 units of accommodation (assuming one single accommodation unit per worker). Assuming 60% (90 employees) of the construction workforce is employed from the local area and can be accommodated in their existing housing, the remaining 40% (60 employees) will require accommodation in the local area. The proponent proposes to construct an accommodation camp for the purposes of housing the non local hires if required. It should be noted that upgrades to existing infrastructure and the construction of the CPP, rail loop and spur will occur in a staged approach over the first five years of the project as required. As such construction workforce numbers will fluctuate as works progress during this phase.

5 OPERATIONS PHASE IMPACTS

5.1 IMPACTS ON POPULATION AND DEMOGRAPHY

The accommodation strategy for the operations phase of the Project assumes that all employees will continue to be located permanently in the local area.

The Project will require 255 non-local hires. At an average household size of 2.5 persons (average for Narrabri LGA and Gunnedah LGA) the Project will result in a permanent population increase of 638 persons (255 x 2.5) across the local area and generate demand for 255 additional dwelling units.

Table 10 below summarises the potential estimated population increases in the main settlements of the local area which could be attributed to the operations phase of the Project. This information is based on the potential workforce residential plan described in **Table 9**.

Table 10
Potential Estimated Population Increase from the Project

Workforce Profile[1]	Total Persons	Narrabri Township	Gunnedah Township	Boggabri Township	Other Areas
Total Workforce	500	198	173	72	57
Non-local hires	255	140	77	25	13
Total incoming population	638	351	191	64	32
Estimated Adults (18+ yrs) – (73.9%)	471	259	141	47	24
Estimated children (<18 yrs) – (26.1%)	167	92	50	17	8
Estimated children <5 yrs – (6.6%)	42	23	13	4	2
Estimated primary school children – (10.2%)	65	36	20	7	3
Estimated secondary school children – (10.5%)	67	37	20	7	3

Notes: 1. Population breakdown is based on NSW Northern Statistical Division 2006 ABS Census Age Profile

The potential population increases described above relate solely to the workforce for the Project and do not take into account indirect employment opportunities generated by the project and the associated workforces. Given the anticipated growth in coal mining in the Gunnedah Basin it is inevitable that there will be growth in the population base which can be attributed to the provision of indirect employment opportunities.

5.2 IMPACT ON HOUSING AND ACCOMMODATION

The additional future demand for housing in the local area can be attributed to:

- Natural growth (organic growth of the existing population);
- Direct and indirect workforce and their families who move to the local area; and
- Other projects in the area and their imported workforce requirements.

Future population projections for both the Narrabri and Gunnedah LGAs forecast population decline rather than increase. These projections are based on historic population growth rates for the LGAs and do not consider any large scale industrial developments, which would bring in additional population.

The Project will draw an additional 638 people to the local area. The local area also has the potential for significant additional population growth resulting from other proposed coal mine developments.

The permanent population increase of 638 will generate demand for approximately 255 dwellings across the local area. **Table 11** summarises the potential Project accommodation demand across the local area. The assessment of demand is based on the residential pattern described in previous sections. The analysis of housing demand by dwelling type is based on the 2006 ABS census data for the three primary urban localities.

Table 11
Accommodation Demand Generated by Project Operations Phase

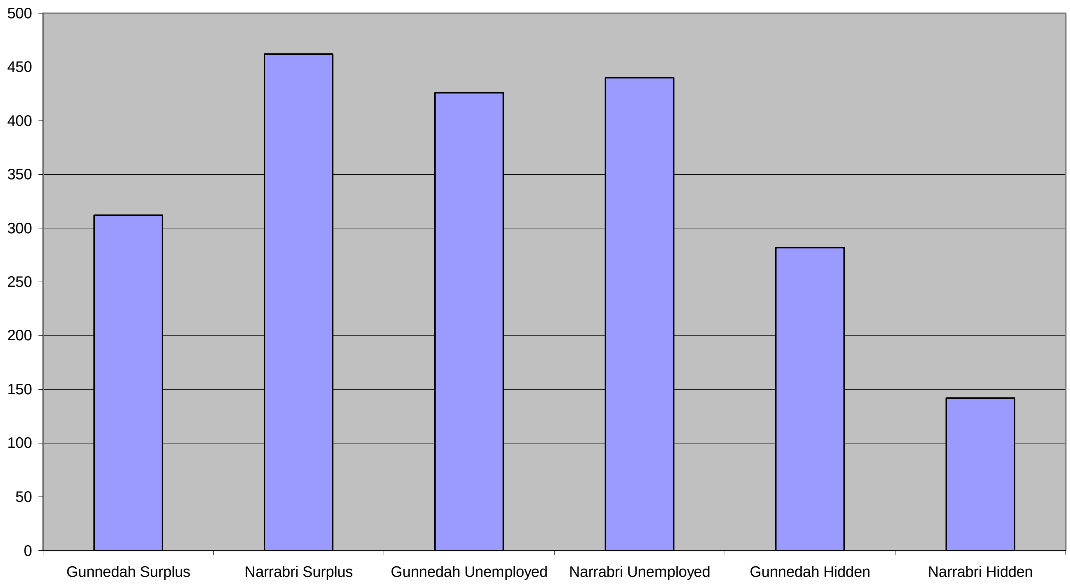
Township	Total Persons	Narrabri Township	Gunnedah Township	Boggabri Township	Other Areas
Incoming Workforce (Non-local hires)	255	140	77	25	13
Total Future Housing Requirements (dwellings)	255	140	77	25	13
Dwelling Type					
Separate House	216	114	67	22	13
Flat / Unit Apartment	30	21	8	1	-
Other dwellings	9	5	2	2	-

Notes: Number of dwellings is based on dwelling type % from 2006 Census data for each Locality

5.3 IMPACT ON LABOUR POOL

Figure 2 highlights the available labour in the local area. The total number of people potentially available for employment across the region is over 2,000 people. This indicates that the region does have capacity to absorb the Project.

Figure 2
Available Labour in the Local Area



Source: Compilation of data contained in Public Practice 2009

The impact of the existing and new mining projects within the Gunnedah Basin on labour supply for the Project was assessed and it is concluded that:

- The Watermark and Caroona Projects have the greatest potential to influence labour and accommodation demand and supply in the local area. Both projects are targeted to be developed in the next 3-5 years, with the Watermark Project's proponent in particular adopting an aggressive plan to be in production by 2014;
- There is currently available local labour to contribute to the Project in the 2010 to 2014 period;
- It is more than probable that the Project will be expanding in the context of a significant overall increase in the demand for labour as the decade progresses; and
- Recruitment strategies for all coal mining companies in the Gunnedah Basin will shift from local labour to imported labour as the major projects move to production.

5.4 IMPACT ON LABOUR SKILLS

As noted in **Section 1.2** the local area has a relatively small pool of skilled labour. During the initial stages of the Project this will necessitate a significant number of non-local hires to fill skilled labour positions.

5.5 IMPACTS ON SMALL BUSINESS

Local business owners have raised concerns regarding the impact of the mining industry on the local labour force, this is discussed further in **Section1.2**. It is recognised that there is only a small pool of tradespeople in the region with the skills to service the Project and that this pool is even smaller at the local level. Consequently, hiring of tradespeople locally will be a sensitive issue as the burden for filling the resulting vacancies will be the responsibility of the generally much smaller and less resourced local businesses.

5.6 IMPACTS ON COMMUNITY SERVICES AND FACILITIES

The local area is currently well serviced by a range of facilities and services. There is available capacity in local infrastructure, services and facilities to accommodate the population increases associated with the Project.

Education and health services have the capacity to meet any demand generated by the additional population. The estimated demand for primary and secondary school places in Narrabri, Boggabri and Gunnedah is illustrated in **Table 10**. The impact of the Project on education services includes:

- The estimated additional 36 primary and 37 secondary school age children who will attend schools in Narrabri represent an increase of 4% and 6% respectively to existing enrolments;
- The estimated additional 20 primary and 20 secondary school age children who will attend schools in Gunnedah represent an additional 2% to existing primary and secondary enrolments; and
- The estimated additional 7 primary school age children who will attend school in Boggabri represents an additional 3.4% increase on current primary school enrolments.

The additional population will increase demand for a range of health services including general practitioner and child health services as well as additional family support and children's' services such as playgroups. However, given that the Project and other proposed developments in the Gunnedah Basin will contribute to both economic diversity and economic growth in the local area, more service and facility operators and suppliers such as general practitioners are likely to locate to the area.

5.7 IMPACT ON COMMUNITY VALUES, ASPIRATIONS AND LIFESTYLE

Previous socio-economic assessments conducted for coal mines in the Gunnedah Basin, notably Environmental Assessments for Narrabri North Coal Mine Stage 1 and Stage 2, highlighted the potential positive social impacts of new mining operations on social capital and lifestyle in the local area. The Project will deliver a similar range of positive benefits to the local area primarily as a result of the:

- Potential employment opportunities offered;
- Long term up-skilling of the workforce; and
- Additional and new permanent population it will attract to the local area as a result of the direct and indirect employment opportunities offered.

The increase in permanent population brought about by the Project has the potential to:

- Increase participation in community service and sporting organisations which in turn will contribute to stronger social networks;
- Strengthen the volunteer services industry in the local area with a resulting indirect benefits to the social capital;
- Strengthen the local economy through local spending;
- Act as a catalyst for the development of local business enterprises; and
- Act as a catalyst for further subdivision and development of residential and commercial land.

The local employment opportunities provided by the Project has the potential to:

- Reduce social stress through provision of local jobs and enhanced economic well being;
- Encourage young people to stay in the local area through the direct and indirect provision of employment;
- Encourage local women, young people and indigenous people into the workforce; and
- Contribute diversity to the existing economic base of the Narrabri LGA which is currently heavily reliant on the ‘agricultural, forestry and fishing’ and ‘wholesale trade’ sector.

6 CUMULATIVE IMPACTS

There is a potential for cumulative impacts due to the number of existing and proposed mine projects identified in the Gunnedah Basin. Potential areas of negative cumulative impact in the local area include:

- Housing affordability and accessibility;
- Skill shortages; and
- Supply and demand for community services and facilities.

A number of studies recently completed for the NSC recognise the potential for these cumulative impacts and seek to quantify the existing pressures being experienced in a number of areas namely labour supply, housing provision and community service and facilities provision. Recent studies include:

- *Assessment of Opportunities for Narrabri Shire from Coal Mining and Gas Extraction in the Gunnedah Basin* (Narrabri Shire Council, 19 June 2007 –prepared by Jenny Rand and Associates); and
- *Narrabri Shire Council Draft Growth Management Strategy 2009* (EDGE Land Planning 2009).

7 MITIGATION AND MANAGEMENT

7.1 IMPACTS ON COMMUNITY SERVICES AND FACILITIES

Boggabri Coal will ensure the timely provision of information to facility and service operators in the local area (e.g. schools and health services), regarding the potential incoming population associated with the Project. This will assist in ensuring operators are equipped to address the additional demand generated by the Project.

7.2 IMPACTS ON HOUSING AND ACCOMMODATION

Based on the current supply of land for urban development (refer **Table 6**) and the existing availability of housing (refer **Section1.2**, **Table 6**) within the local area there appears to be adequate housing and land available for urban development to meet any demand generated by the Project. There may be some short-term deficiencies in accommodation supply during the peak construction period; however Boggabri Coal will assist the workforce with temporary accommodation during this period if deemed necessary.

7.3 IMPACTS ON SMALL BUSINESS

To address these issues and to build a sustainable program of local hiring Boggabri Coal will develop a program of local employment initiatives.

7.4 IMPACT ON LABOUR POOL

To ensure the timely recruitment of the Project workforce, and to protect long term workforce retention in light of competition from existing and proposed mines, Boggabri Coal will:

- Implement labour force recruitment strategies prior to approval of other major developments in the Gunnedah Basin coal mining sector; and
- Focus hiring strategies on the Narrabri LGA rather than the Gunnedah LGA. This is consistent with the focus of the accommodation strategy for all non-local hires.

A local hire strategy for operators, ancillary staff and trade apprentices will remain a strong and preferred option for the Project in the short to medium term, although it is noted that the commencement of other major mining projects in the region will influence the strategy.

The recruitment strategy for the operations workforce will focus on maximising the transition of existing contactors, identifying pre-production resources, national campaigns for the professional and maintenance workforce and local campaigns for operations and ancillary staff.

7.5 TRAFFIC AND TRANSPORT IMPACTS

Boggabri Coal is committed to road safety and fatigue management for mine employees and has in place a current Fatigue Management Plan (FMP). The FMP will be revised as required as part of the Project and to reflect the recently released guidelines released by the NSW Mine Safety Advisory Council (MSAC) - '*A guide to developing and implementing a fatigue management plan*'. This new guideline brings together advice on what contributes to fatigue, including work and non-work related causes, who needs a fatigue management plan, and how to manage the risks of fatigue.

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