

APPENDIX T

Workforce accommodation study





Workforce accommodation study

Cobbora Coal Project

Prepared for Cobbora Holding Company Pty Limited | 17 September 2012

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Workforce accommodation study

Final

Report J11030RP6 | Prepared for Cobbora Holding Company Pty Limited | 17 September 2012

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Executive Summary

ES1 Mine workforce

This report has been prepared to assess the likely supply and demand for workforce accommodation for the Cobbora Coal Project (the Project) during both construction and operations.

The proposed mine construction workforce will average approximately 350 persons over a 26 month period from Q3 2013 to Q2 2016. It will peak at about 550 persons during mid to late 2014. This workforce will typically be employed for up to 12 hours each day at a range of construction sites, namely:

- approximately 370 persons working in the mine operations and infrastructure area;
- approximately 100 persons working on the rail spur line construction, east of the mine operations area;
- approximately 60 persons working on the construction of road realignments or upgrades, largely to the-west of the mine operations area; and
- approximately 20 persons working on the water pipeline and pumping station, largely to the south of the mine operations area.

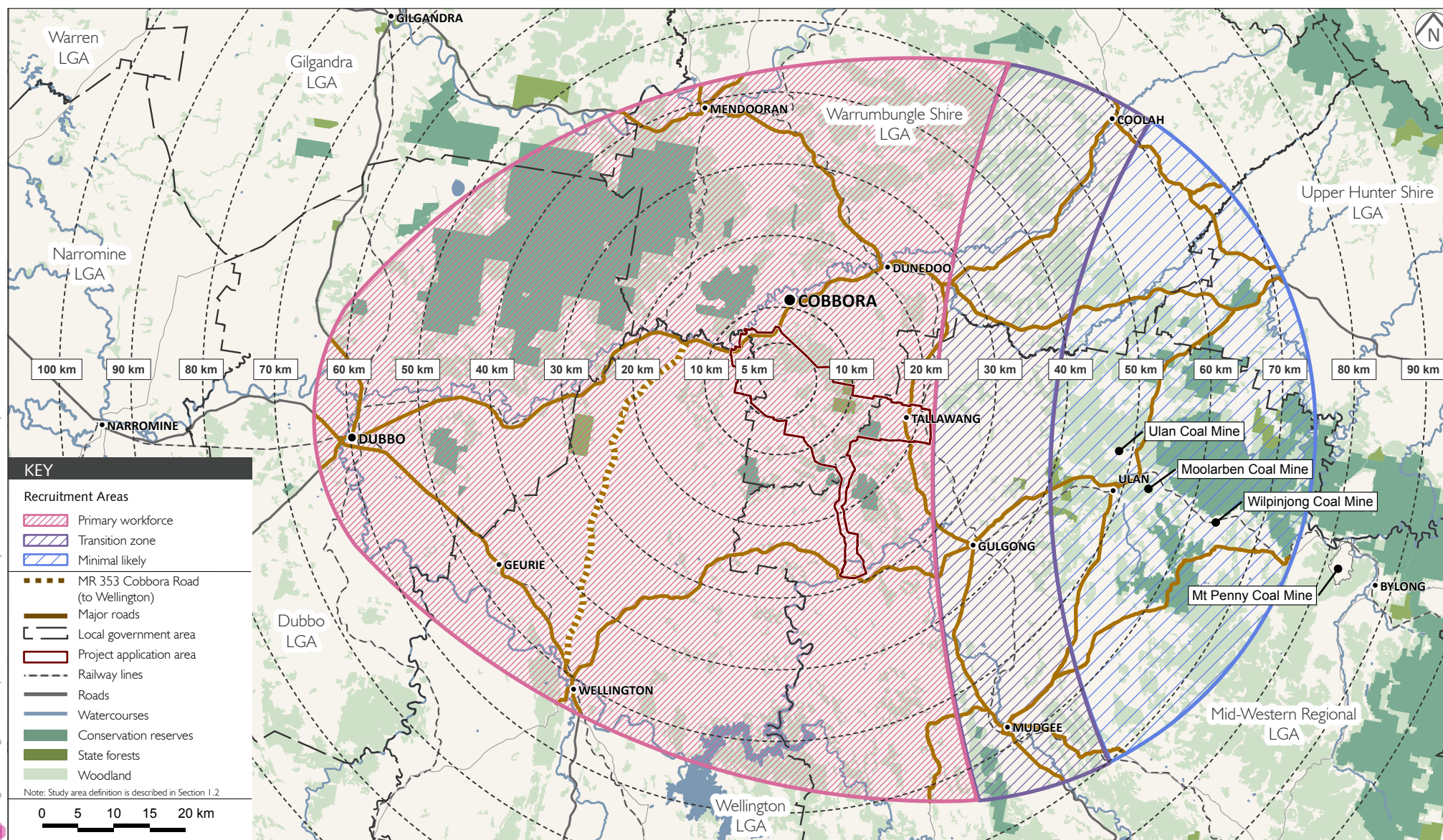
The proposed mine operations workforce will be 171 persons in 2015, increasing to approximately 300 persons during the first two years of full production in 2016 and 2017 and increasing steadily over the next ten years to reach a peak level of approximately 590 persons between 2027 and 2030. With local training opportunities, it is estimated that at least 50% of this longer term operations workforce (295 persons) will be able to be recruited locally. The operations workforce will largely be based in the main mine operations and infrastructure areas, and will include management, administration, technical, machine operators and maintenance personnel. There will be two shifts per day at the mine. The maximum number of persons present per shift will be approximately 150 persons, including the mine management, technical and administration staff.

ES2 Mine workforce and accommodation demand

There are four local government areas (LGAs) within the expected daily commuting distance from the mine site of 60 to 70 minutes travel each way on good sealed roads. The study area extends further generally to the west due to the alignment of the Golden Highway and includes most of the Dubbo, Wellington, Warrumbungle and Mid-Western Regional LGAs (Figure E.1).

There are currently low unemployment rates in most of these LGAs. The maximum potential proportion of the Cobbora mine workforce which will be able to be recruited locally, without significant training, has been estimated as:

- approximately 210 persons during construction (37% of the peak workforce); and
- approximately 125 persons during operations (22% of the peak workforce).



Workforce Accommodation Study Area

Cobbora Coal Project - Workforce Accommodation Study

Figure E.1

In the eastern part of the study area, competing employment opportunities at existing and proposed mines such as Ulan, Moolarben, Wilpinjong, Mt Penny and Bylong will significantly limit potential recruitment of new employees to Cobbora from either Mudgee or Gulgong. However, in the western LGAs particularly Dubbo and Wellington there is less competition for labour and with suitable training, more employees will be able to be recruited there.

The proponent, Cobbora Holding Company Pty Limited (CHC), will liaise closely with government agencies, education providers and councils to maximise local recruitment for the operations stage of the Project. With necessary training and re-skilling is estimated that at least the following local recruitment will be possible:

- 125 persons by 2015 (73% of the workforce in 2015);
- 235 persons by 2020 (50% of the workforce in 2020); and
- 295 persons by 2027 and onwards (50% of the workforce in 2027).

Nevertheless, during construction, a potential in-migrating workforce of at least 340 persons will need to be sourced from outside the region and will need either short-stay or long-stay accommodation in the study area.

A temporary construction workforce accommodation village is proposed to ensure that the Project will have access to a reliable source of construction workers. This will be situated within the Project Application Area and will have up to 400 beds. The accommodation village will be closed after construction and will not be available to accommodate the Project's operational workforce.

It is expected that after construction is completed, most of the in-migrating operations workforce will choose to reside in one of the major urban centres (eg Dubbo, Wellington or Mudgee) and a smaller proportion in one of the smaller townships (eg Gulgong or Dunedoo).

This assessment has assumed that good sealed road access will exist by the start of operations between these towns and the mine. The main road from Wellington to Cobbora (Main Road 353) has recently been upgraded and sealed with the exception of 8 km of its 50 km length. It is understood that the sealing of the two remaining 4 km unsealed sections will be completed by Wellington Council within the next two years, which will be prior to the Project construction or operations commencing.

ES3 Accommodation supply for mine construction workforce

The likely available supply of vacant short-stay accommodation for the construction workforce has been determined from the existing supply of accommodation in hotels/motels, caravan parks and short-stay rental properties.

Dubbo LGA currently has approximately 3,140 beds in a variety of hotel/motel units and apartments, which corresponds to a supply of approximately 1,700 accommodation rooms or units.

Warrumbungle LGA has approximately 903 short-stay accommodation beds, of which approximately half (450 beds) have been assumed to be within accessible daily commuting distance of the mine in locations such as Dunedoo, Coolah and Mendooran. This corresponds to a total local short-stay accommodation supply of approximately 245 rooms/units.

Wellington LGA has approximately 157 units and rooms available in a variety of hotels, motels, apartments and caravan parks. These are all within daily commuting distance of the mine.

Mid-Western Regional LGA has approximately 1,222 beds in hotel/motel units and rental apartments. There are a total of 665 accommodation rooms or units of which 122 are in Gulgong and its surrounds. Overall, the proportion within the two townships of Gulgong and Mudgee, within reasonable proximity of the mine is estimated as 333 rooms/units.

The total vacant short-stay accommodation potentially available to the Project's construction workforce during the years 2014 and 2015 has been calculated based on current average occupancy rates for the existing accommodation supply, which are 60 – 70% typically. Assuming no net increase or decrease in the overall accommodation supply over the next three years, there would typically be 1,530 vacant hotel/motel rooms or other short-stay accommodation units in the study area during 2014 and 2015, available in the following types of accommodation:

- 853 rooms in hotel/motel type accommodation;
- 120 rooms in available rental dwellings (assuming two bedrooms per dwelling on average); and
- 557 van sites or cabins in caravan parks.

Thus, if no additional supply of short-stay rental accommodation is constructed within the study area, the estimated peak accommodation requirements of the in-migrating construction workforce of 344 persons could generally be met and still leave a surplus of approximately 1,186 vacant rooms/other accommodation units in the study area.

However, there is uncertainty in this assessment due to the potentially competing accommodation demand from the construction of other new and proposed coal mines in the area to the east around Ulan, Wollar and Bylong. These mines are likely to create significant competing demand for the supply of available short-stay accommodation in the Mid-Western Regional LGA towns of Gulgong and Mudgee during 2014 and 2015.

While it will be feasible to accommodate the estimated peak in-migrating construction workforce using existing accommodation in the study area, the provision of a Project specific construction accommodation village will be beneficial for the Project and the surrounding area by:

- reducing local traffic congestion, noise and road safety concerns by providing buses and car-share to shuttle workers from the accommodation village to the Project's work sites and to/from the major regional airport at Dubbo;
- reducing potential construction delays by providing quality temporary accommodation to attract and retain suitably skilled employees;
- reducing pressure on the local short stay and housing market thus maintaining capacity for functions such as weddings and tourism; and
- insulating the construction workforce and local residents from potential rental price rises due to shortages of available accommodation.

ES4 Accommodation supply for mine operations workforce

For the operations workforce, the preferred accommodation option will be the purchase or rental of long-stay accommodation in either established or newly developed residential areas. Given the typical expected family size of about three people, three bedroom homes will be most sought after.

There are currently approximately 1,220 vacant residential lots suitable for new family home construction in Dubbo and 600 in Wellington. The current supply of vacant residential lots is more constrained in Dunedoo, Gulgong and Mudgee, but the numbers available are still significant. Dubbo's recently gazetted Local Environmental Plan rezoned a further 9,000 residential lots, significantly increasing the existing supply.

The current construction rates of new housing each year in the four areas are as follows:

- Dubbo LGA: 213 new dwellings in detached and multi-unit housing;
- Warrumbungle LGA: 13 new detached dwellings;
- Wellington LGA: 8 new detached dwellings; and
- Mid-Western Regional LGA: 46 new dwellings in detached and multi-unit housing.

At current construction rates, the total number of new dwellings which is likely to become available within the study area over the next four years, for rental or purchase will be 1,120. The in-migrating Project operations workforce at the start of operations in 2015 is predicted to be 46 workers, which should easily be accommodated in the area, representing 4% of the potential new dwelling supply.

The peak Project operations workforce will not be reached until 2027, when it is estimated that 295 new workers will have moved to the area. Based on current construction rates, 4,480 potential new dwellings will be constructed from 2012 to 2027. Therefore, the in-migrating operations workforce will occupy approximately 7% of the new dwellings supply over this period.

ES5 Temporary construction workforce accommodation village

The construction workforce assessment concluded that, without an accommodation village, there is a risk of creating added pressure on the local rental market in townships such as Gulgong, Mudgee and Dunedoo. Therefore, the provision of a 400 bed construction accommodation village is proposed. This facility will also facilitate attraction of skilled construction workers to the Project and reduce the potential for delays.

At the time of peak construction activity, in mid-late 2014, there will be at least 340 persons residing at the workforce accommodation village. These workers will typically fly-in and fly-out (FIFO) or drive-in and drive-out (DIDO) on a weekly or a fortnightly basis. It is anticipated that approximately half of the village residents will live in areas of coastal or inland NSW where it will be feasible to drive to and from the accommodation village. The remaining half will probably fly-in and fly-out and will generally require bus shuttle transport each week or fortnight between the accommodation village and Dubbo airport.

ES6 Potential need for accommodation village in operations stage

Due to the staged increase in the operations workforce numbers between 2015 and 2027, the current construction capacity for new dwellings in the four LGAs will be more than sufficient to meet the anticipated demand for new residential accommodation. The construction accommodation village will not be needed to serve the mine operations workforce and it will be dismantled when the Project becomes operational. However, some short stay accommodation may be retained in or close to the main mine compound area, for future use by maintenance staff during equipment outages.

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Abbreviations

ABS	Australian Bureau of Statistics
CHC	Cobbora Holding Company Pty Limited
DCP	Development Control Plan
DEEWR	Department of Education, Employment and Workplace Relations
DIDO	Drive-in drive-out
FIFO	Fly-in fly-out
LGA	Local Government Area
LEP	Local Environment Plan
PAA	Project Application Area
SLA	Statistical Local Areas

1 Introduction

The Cobbora Coal Project (the Project) is an open cut coal mine proposed by the Cobbora Holding Company Pty Limited (CHC). The mine will primarily supply thermal coal to power stations in NSW. Some coal from the Project will also be produced for export or the spot domestic market. The Project is located approximately 11 km south of Cobbora, 22 km south-west of Dunedoo, 58 km north-west of Mudgee and 60 km east of Dubbo in the central west of NSW.

1.1 Objectives of the study

The object of this study is to determine the accommodation needs of the Project's construction and operations workforce based on an assessment of a range of factors, including:

- population and demographics in the mine employment catchment area (the study area, Figure 1.1);
- the existing workforce skill levels and unemployment rates in the study area which determine the proportion of the mine workforce that can be recruited locally;
- the number of additional workers which will be needed to supply the balance of the construction and the operations stage peak workforce requirements; and
- the available local accommodation supply and other factors which will determine the most likely short-stay or long-stay residential locations of the in-migrating Project workforce.

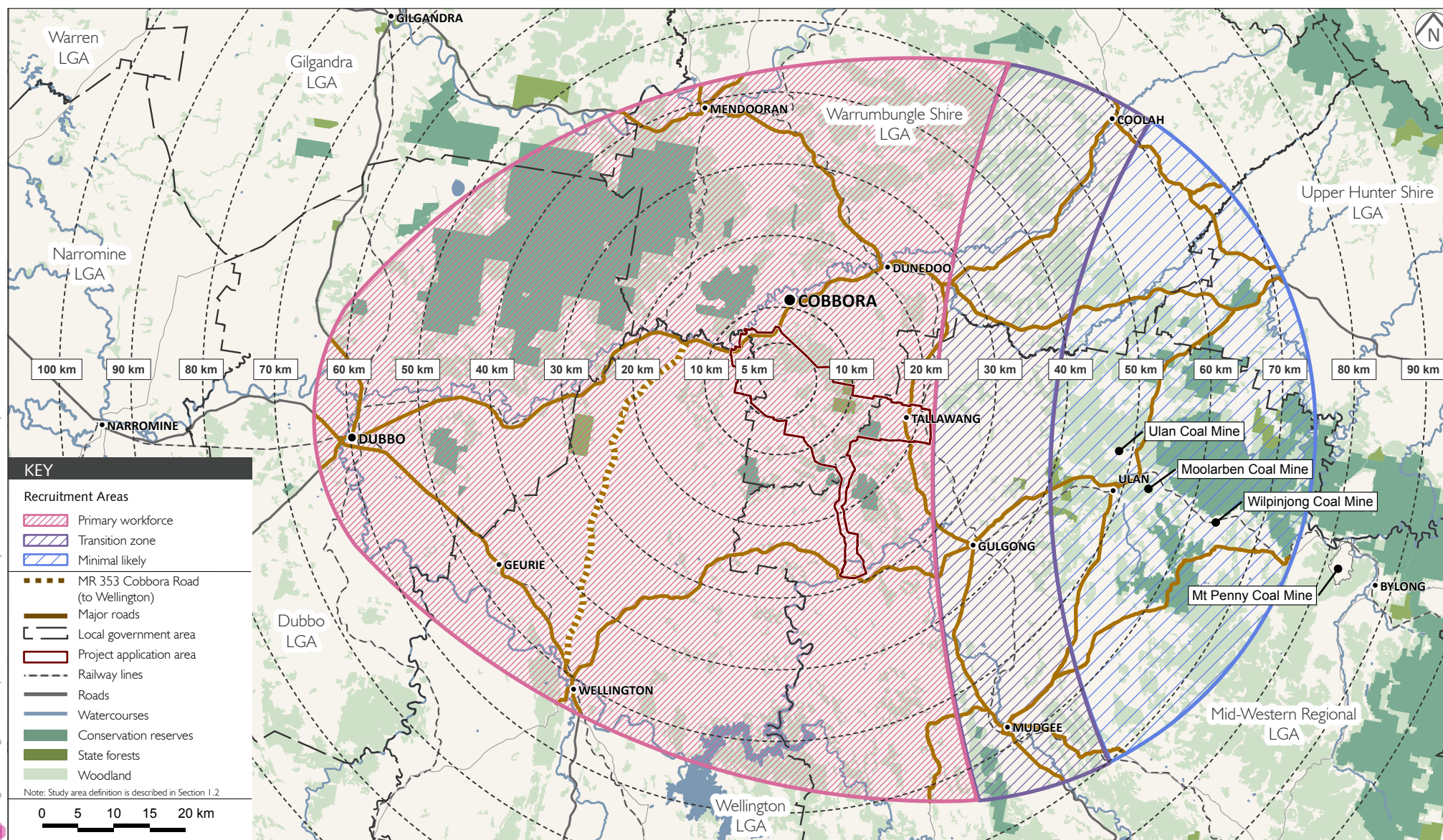
This is a baseline study to assist CHC to understand the existing workforce demographic and skills base. CHC will liaise closely with government agencies, education providers and councils to assist with the training to maximise local recruitment. This will be addressed further in the Project's social impact assessment.

1.2 Project location

The study area, where the Project will potentially influence the population, workforce, demographic and economic conditions, generally includes all of the LGAs of Dubbo and Wellington, the northern half of the Mid-Western Regional LGA and the southern half of Warrumbungle LGA (Figure 1.1).

The nearest towns to the Project are Dunedoo and Gulgong, both of which are approximately 25 km by road. The Project area is located approximately 60 km east of Dubbo by road and 58 km north-west of Mudgee by road (Figure 1.1). Other towns within the potential area of influence of the mine are Wellington to the south-west and Coolah and Mendooran to the north, which are all approximately 50 to 60 km by road from the Project area.

Travel distances and their associated fatigue effects are expected to limit future mine employees being directly sourced from the Gilgandra and Upper Hunter LGA workforces. Also, the Upper Hunter LGA workforce is already heavily committed to servicing the broad range of employment opportunities available there.



Workforce Accommodation Study Area

Cobbora Coal Project - Workforce Accommodation Study

Figure 1.1

Smaller local settlements such as the villages of Cobbora, Elong Elong and Ballimore on the Golden Highway and Geurie and Goolma to the south towards Wellington are also within the mine's employment catchment area. However, their populations are small and they are not expected to contribute significantly towards the Project's workforce requirements. Nevertheless, there is potential for some mine related residential developments to occur in these localities.

This assessment has assumed good sealed road travel conditions will exist between the mine and all of the towns considered. The road from Wellington to Cobbora (Main Road 353) has recently been upgraded and sealed with the exception of 8 km of its 50 km length. It is understood that sealing of the two remaining 4 km sections will be completed within the next two years (D Bavesi, Wellington Council, 2011, pers comm., 9 September). This will occur prior to the Project construction or operations commencing.

1.3 Access to the Project area

The Project's mining and infrastructure areas will be located in the north of the Project Application Area (PAA) and will generally be accessed via the Golden Highway. The majority of the construction and operations workforce will be employed in these areas.

In addition, three other infrastructure construction areas will be significant employment nodes, namely:

- the rail loop and train loading infrastructure, extending east from the main mine area towards Brooklyn Road and the Castlereagh Highway near the locality of Tallawang;
- the water pipeline and pumping station, extending south from the main mine area to the Cudgegong River, near the localities of Mebul, Beryl and Goolma; and
- the road diversion and upgrade works which will be generally around the western edge of the mine infrastructure area on roads such as Sweeneys Lane and Dapper, Brooklyn and Suzanne Roads.

1.4 Workforce and workforce accommodation requirements

The construction workforce will average approximately 350 persons over a 33 month period from Q4 2013 to Q2 2016. It will peak at about 550 persons during mid to late 2014. This workforce will typically be employed for up to 12 hours each day including crews working on the public road realignments. Construction may occur up to 24 hour per day at certain times (eg during major concrete pours).

The operations workforce is estimated to be 171 persons in 2015, increasing to 300 persons during the first two years of full production in 2016 and 2017, and to reach a peak level of approximately 590 persons between 2027 and 2030. This workforce will largely be employed in the mine operations and infrastructure area in the northern part of the PAA. There will generally be two shifts per day at the mine, where mining operations will take place 24 hours per day, 365 days per year. The maximum number of persons per shift at the mine is estimated to be 150 persons, including management and administration staff.

The following factors have been considered in the assessment of the potential Project construction "short-stay" workforce accommodation supply:

- the total number of short-stay rooms/beds currently available in each locality;
- the typical prevailing occupancy rates in short-stay accommodation;

- the typical current rental costs of short-stay accommodation;
- the proximity to the Project, ie the typical daily travel distance to the main mine area and satellite construction sites; and
- the proximity to an airport (eg Dubbo or Mudgee) for workers who may wish to fly-in and fly-out on a weekly or fortnightly basis.

The following factors were considered in the assessment of the potential operations “long-stay” workforce accommodation supply:

- the availability of land zoned for residential development;
- the capacity of the local residential building industry;
- the typical rental or purchase cost of suitable family accommodation;
- the relative proximity, ie the daily travel distance to the main mine area;
- the availability of schools, shops, hospitals and social/recreational facilities in the alternative towns; and
- the availability of public transport, both local and regional, to other centres and capital cities.

1.5 Methods

The Project’s potential labour catchment (the study area) was determined based on estimated daily travel times from surrounding towns. The area included is within an approximate 70 to 80 km radius of the mine, including the larger urban areas of Dubbo, Wellington, Mudgee and Gulgong (Figure 1.1). Australian Bureau of Statistics (ABS) and other data were then used to characterise the existing “unemployed” or “under employed” workforces. The proportions of existing unemployed persons and persons with suitable skills or potential for retraining in employment positions offered by the mine (eg managers, professionals, technicians, clerical staff and labourers) were then quantified.

The remaining “non-locally available” proportion of the mine workforce was then calculated, this being the number of people who would need to move into the study area. The corresponding accommodation requirements for the in-migrating workforce were then determined by considering whether they would typically need short-stay accommodation (construction workforce) or if they would be more likely to relocate permanently to the area with their families (operations workforce). The latter are predominately expected to purchase new or existing family style homes in the larger urban areas within a reasonable daily commuting distance of the mine.

The assessment also determined whether specific fly-in fly-out or drive-in drive-out travel arrangements would be required for any component of the workforce and whether a locally based workforce accommodation village would need to be constructed.

1.6 Experience from other mines

Underground and open cut coal mines have operated in the Ulan area since the 1920s. A number of new coal mining developments have or are being, established in the region east of the Cobbora Project. These mines will result in some competition for workforce accommodation, particularly in the eastern part of the study area, in towns like Mudgee and Gulgong.

The existing and proposed workforce accommodation arrangements for the Wilpinjong, Moolarben, Ulan West and Mount Penny mine developments have been reviewed. Also, details of proposed workforce accommodation villages at Werris Creek (MAC Group) and Gulgong have been examined.

The Wilpinjong mine is operated by Peabody Pacific. The mine was approved and constructed during 2006 and coal production commenced in 2007. The mine is near Ulan but is relatively remote from other towns, with the nearest being Gulgong, approximately 30 to 40 km to the west and Mudgee approximately 40 km to the south-west. The approvals report quoted the average construction workforce at the mine as 200 persons (Department of Planning 2006). A temporary workforce accommodation village for 100 persons was provided at the mine site for the duration of the construction period. The smaller operations workforce (100 persons on average and 162 persons at peak production) did not require any mine specific accommodation and so the temporary accommodation facility was closed.

The Moolarben mine is operated by Yancoal. It is also near Ulan and approximately 40 km by road from Mudgee. The Stage 1 construction works were completed in 2009 and coal production commenced in 2010 (Moolarben Coal 2011). Further approvals are pending for the Stage 2 expansion of the mine which will lead to the eventual employment of a total workforce of 450 persons. The estimated construction workforce for the Stage 1 development was the direct employment of 108 persons with an estimated flow-on employment of a further 108 persons locally (Moolarben Coal 2006). It was anticipated that construction workforce requirements for Stage 2 would affect accommodation available in Gulgong, Rylstone, Kandos and Mudgee.

A development application by Xstrata Coal for the continuing operations of the Ulan Mine, including the construction of the new "Ulan West" mine, approximately 20 to 30 km north-east of Gulgong has recently been approved. The social impact assessment (Coakes 2009) noted that there would be a peak construction workforce of approximately 270 persons at the Ulan mine site, of which only 20% would be recruited locally. A review of the local short-stay accommodation market capacity in Ulan, Gulgong and Mudgee was undertaken which estimated a total accommodation supply of approximately 546 rooms (1,066 beds). At the prevailing occupancy rate of 63%, this would leave an estimated 202 rooms available for the non-resident mine construction workforce. This accommodation supply was considered to be sufficient to meet the predicted demand from 216 persons, as some sharing of rooms could be assumed.

It was noted in the *Ulan Mine Continuing Operations Planning Approval Summary Report* (Minister for Planning 2010) that the mine's estimated operations workforce of 350 workers would create a demand for an additional 74 new residential lots in Ulan. For the purposes of this report, three scenarios have been assumed: that the Ulan mine expansion construction work could occur before, concurrently, or after Cobbora's construction period.

A Preliminary Environmental Assessment report for the proposed Mount Penny Coal Mine has been submitted to the Department of Planning and Infrastructure (Wells Environmental Services 2011) and a draft Environmental Assessment (EMM 2012) has recently been completed. Mt Penny is located approximately 40 km from Ulan and other proximal towns are Rylstone (55 km), Mudgee (60 km), Gulgong (75 km), Denman (80 km) and Muswellbrook (105 km). The draft EA forecasts that suitable accommodation will be available for in-migrating mine workers in these locations mostly in Mudgee. Mount Penny's construction period is scheduled between Q3 2012 to end 2014 and its requirements could create competing demand for short-stay accommodation in towns such as Mudgee, Gulgong and Ulan.

A development application was submitted by MAC to the Liverpool Plains Shire Council in July 2011 for a new miner's accommodation village of 1,500 rooms (Mitchel Hanlon 2011). It would be located approximately 1 km outside of the town of Werris Creek. No details of the target market of existing and/or proposed coal mines which could be serviced by the facility were provided in the application. The daily travel distance of approximately 200 km each way from Werris Creek to Cobbora would be too great for construction or operations workers at Cobbora. The proposed accommodation facility at Werris Creek is primarily of interest as an example of the type of facility that mining employment is creating in other areas of NSW.

In late 2011, MAC also submitted an application to Mid-Western Regional Council for a 400 bed accommodation village in Gulgong. The proposed facility could potentially service a number of mines in the area. At the time of writing this report, the development application had been considered by the Western NSW Joint Regional Planning Panel on 14 June 2012, but no determination was made because of uncertainty about the permissibility of the facility in the subject zone. In this assessment, the Cobbora Project does not rely on any use of this proposed village at Gulgong.

1.7 Cumulative impact of other mines

Construction of the Cobbora Project could coincide with construction of some or all of the projects summarised above.

Should these mining projects proceed as currently scheduled there is a high probability that no spare suitable accommodation will be available for Cobbora's construction workforce in either Mudgee or Gulgong. However, other accommodation could be available in towns to the west, north and south of the Project area, in the Dubbo, Wellington and Warrumbungle LGAs.

2 Existing study area population and workforce demographics

The ABS census data for the four LGAs in the study area (or region) have been reviewed to determine:

- the current size and growth rate of the local population and workforce;
- any differences or unusual features evident in the current growth rates; and
- other relevant demographic characteristics of the various towns and rural localities.

The 2011 Census data has been progressively released since mid 2012. However, labour force and industry demographics will only be available from October 2012. Therefore, the 2006 census data has been applied where necessary.

2.1 Population

The total regional population in the 2011 Census was 79,205 persons, distributed as shown in Figure 2.1.

Figure 2.1 Regional population in 2011 census (percentage of regional population)

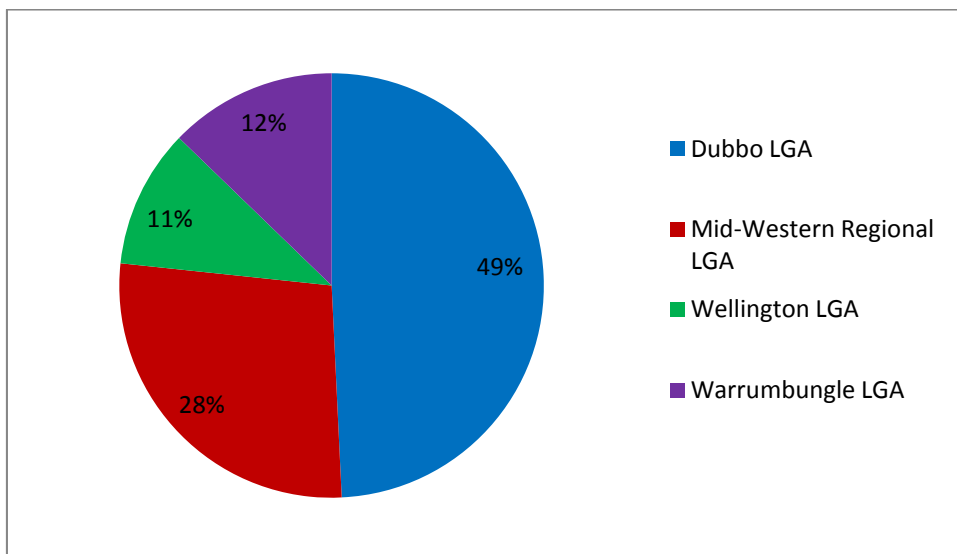


Table 2.1 summarises the recent regional population growth in the four LGAs as of June 2011 (ABS 2012). The population of the Dubbo LGA in 2011 was approximately 38,800 persons (ABS 2012). The Mid-Western Regional SLA has had the strongest population growth, averaging 1.2% per annum growth, since 2006. Recent population growth rates have generally been lower (less than 1%) in the other LGAs over the same periods.

Table 2.1 **Summary of regional population growth**

Regional Population Growth to June 2011	Dubbo LGA (Part A) Urban Area	Dubbo LGA (Part B) Rural Area	Mid-Western Regional LGA (Part A)	Mid-Western Regional LGA (Part B)	Warrumbungle LGA	Wellington LGA	Total
Population at June 2011	35,347	3,458	18,977	3,342	9,588	8,493	79,205
Change 2006-2011 (+persons)	1,027	-67	1,298	-63	-222	373	2,346
Annual Growth Rate 2006-2011 (%) (2)	0.59	-0.38	1.46	-0.37	-0.45	0.91	0.29
Area (km ²)	330	3,098	5,916	2,842	12,381	4,113	28,680
Population density 2011 (persons/km ²)	107.11	1.12	3.20	1.17	0.77	2.06	2.76

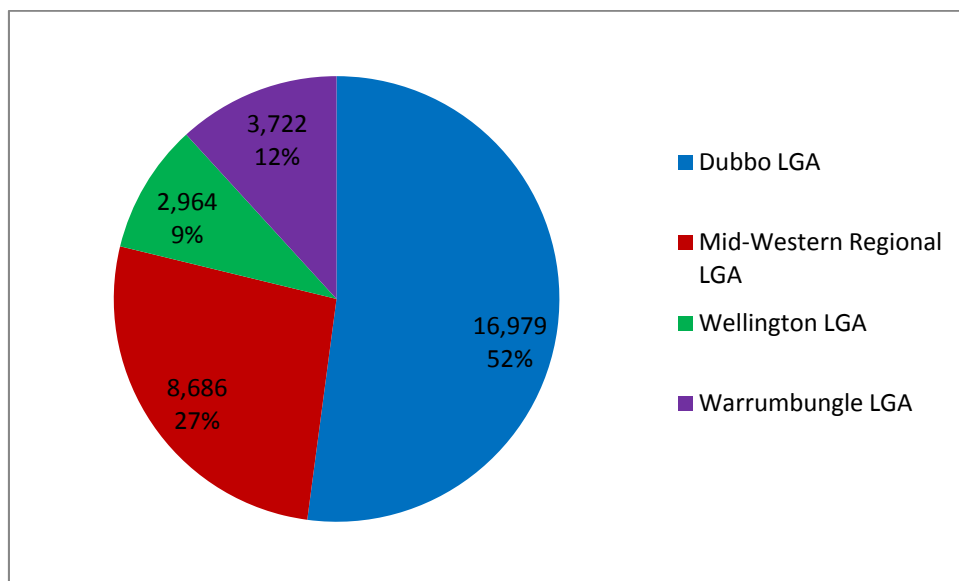
Notes: 1. Source ABS 2011 Census (ABS 2012).

2. Percentages have been rounded

2.2 Workforce

The total regional labour force in 2006 was 32,351 persons (including unemployed persons). The distribution of this labour force between each of the LGAs is shown in Figure 2.2. The labour force statistics for each LGA by industry of employment are discussed in more detail in Section 3.2. The total regional labour force increased by 4,458 persons, between the 2001 and the 2006 censuses.

Figure 2.2 Regional workforce (labour force) in the 2006 census



2.3 Unemployment rates

The most recent unemployment statistics from the ABS are shown in Table 2.2 (ABS 2010). The size of the total labour force in the four LGAs has been continuing to grow strongly to over 43,000 persons in 2010. The unemployment rate has fallen in all of the LGAs since the 2006 census, but overall the actual number of unemployed people has risen.

Table 2.2 Year 2006 – 2010 trends in study area workforce and unemployment

LGA	Total workforce (year)		Unemployed persons (year)		Unemployment rate (year)	
	(2006)	(2010)	(2006)	(2010)	(2006)	(2010)
Dubbo	16,979	22,394	963	972	5.6%	4.3%
Mid-Western Region	8,686	11,544	671	694	7.7%	6.0%
Warrumbungle	3,772	5,068	340	314	9.0%	6.2%
Wellington	2,964	4,046	273	347	9.2%	8.6%
Total	32,351	43,052	2,247	2,327	6.9%	5.4%

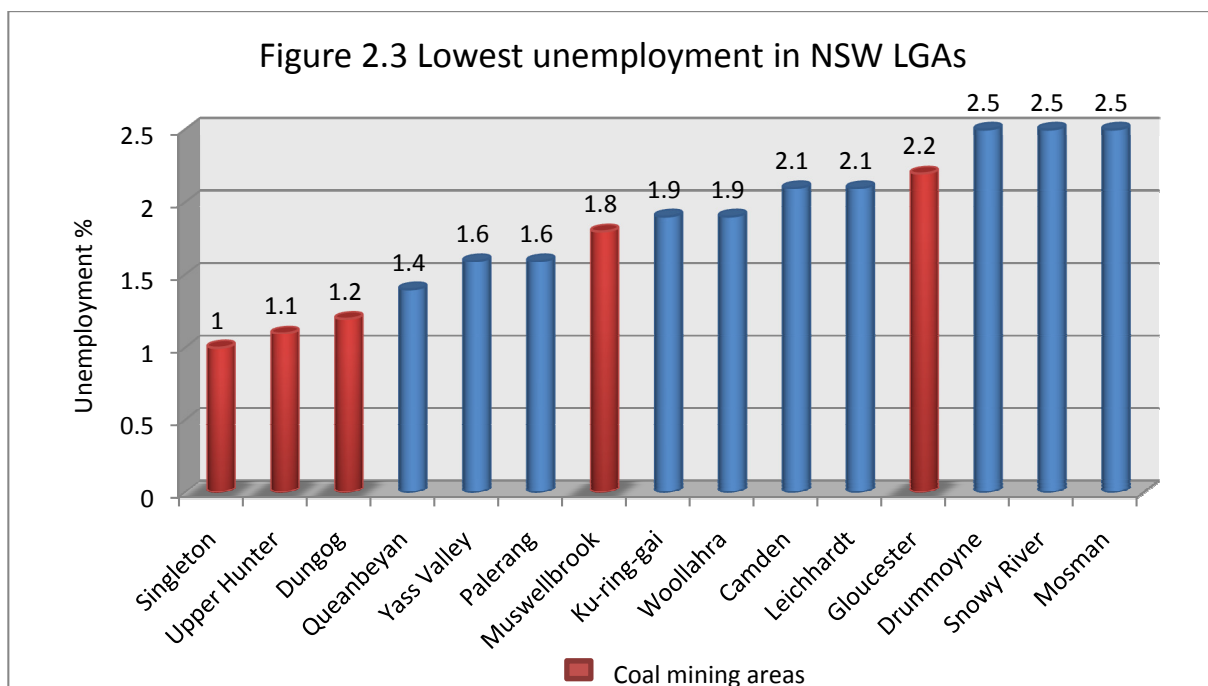
Source: (ABS 2010).

A falling unemployment rate is generally a sign of strong economic growth and an increasing range of employment opportunities in an area. In the study area, coal mining is already contributing significantly towards regional population growth and economic development in the more easterly towns, such as Mudgee and Gulgong in the Mid-Western Regional LGA and Coolah in Warrumbungle LGA.

In the western parts of the study area, Dubbo has had strong recent population growth and has a declining unemployment rate, indicating good economic conditions. In comparison, Wellington appears to have had much poorer economic conditions as it is subject to strong competition for business and retailing activity from both Orange and Dubbo. Its unemployment numbers have increased in recent years, although the actual unemployment rate has decreased slightly.

The historic minimum unemployment rate for the labour force in any locality is normally around 2%. However, the most recent Commonwealth government data show several LGA in NSW now have very low unemployment rates, as low as 1% (DEEWR 2011). Of the 15 NSW LGAs with the lowest unemployment rates, five are in coal mining areas as shown in Figure 2.3.

Figure 2.3 **Lowest unemployment in NSW LGAs**



An unemployment rate of 2% is as close to full employment as is realistically possible. A “low” unemployment rate of between 2 to 5% can generate employee shortages in key industries and local inflationary pressures in the labour and housing markets.

Future unemployment rates in the region could fall to be within 2 to 5%, with a likely regional average of 3.5% in 2014/15 following Cobbora's main construction phase and the commencement of operations in 2014 and 2015. This assumes continued strong agricultural employment. A 3.5% average unemployment rate is used to estimate the surplus pool of available labour in the four LGAs as discussed in Chapter 3.

3 Trends in workforce growth and employment

The potential for the Project to recruit local workers will primarily be determined by their existing skill levels and potential for retraining.

3.1 Existing workforce skills

The current occupations and skill levels of the workforce in the four LGAs have been characterised to determine their likely future availability for the Project in Table 3.1.

At the commencement of operations, workers who could be recruited without further training will generally be persons with trade or technical qualifications, particularly machinery operators or drivers. During construction, significant numbers of labourers will also be required.

Table 3.1 Existing trade and skill levels of study area workforce

Occupation (employed persons aged 15 years and over)	Dubbo LGA		Warrumbungle LGA		Wellington LGA		Mid-Western Regional LGA	
	persons	% of workforce	persons	% of workforce	persons	% of workforce	persons	% of workforce
Technicians and trades workers	2,571	15.1%	409	11.0%	351	11.8%	1,389	16.2%
Machinery operators and drivers	1,062	6.2%	257	6.9%	182	6.1%	823	9.6%
Labourers	2,115	12.4%	538	14.4%	411	13.8%	1,206	14.1%
Total suitable employment pool	5,748	33.7%	1,204	32.0%	944	31.7%	3,418	39.9%
Total excluding labourers	3,633	21.3%	666	17.6%	533	17.9%	2,212	25.8%

Source: ABS 2006

3.2 Existing workforce variations by industry type

The recent trends in the most common ‘industries of employment’, for the workforce in each LGA are provided in Tables 3.2 to 3.5 (ABS 2006b). The local economy in two of the four surrounding LGAs has historically been dominated by agriculture. However, mining is already a significant component of the economy in the Mid-Western Regional LGA. The construction, manufacturing, road freight transport, education, public administration and health care services for the region are now generally concentrated in Dubbo. The total regional retail catchment population of Dubbo, which includes areas to the north and west, is approximately 120,000 persons.

Table 3.2 Existing industries of employment for the Dubbo LGA workforce

Dubbo LGA	% total workforce		
	1996	2001	2006
Agriculture, forestry & fishing	6.3%	5.7%	4.0%
Mining	0.5%	0.2%	0.3%
Manufacturing	8.0%	8.3%	7.6%
Electricity, gas, water & waste services	1.3%	1.1%	1.3%
Construction	6.6%	6.2%	7.3%
Wholesale trade	6.3%	7.1%	4.7%
Retail trade	13.5%	13.1%	13.7%
Accommodation & food services	7.7%	7.5%	7.0%
Transport, postal & warehousing	5.3%	4.8%	4.9%
Information media & telecommunications	2.4%	2.3%	1.5%
Financial & insurance services	3.1%	2.8%	2.7%
Rental, hiring & real estate services	1.2%	1.5%	1.4%
Professional, scientific & technical services	3.1%	4.3%	4.2%
Administrative & support services	1.9%	2.6%	2.3%
Public administration & safety	5.2%	5.5%	7.0%
Education & training	7.6%	7.5%	8.8%
Health care & social assistance	10.9%	11.4%	13.2%
Arts & recreation services	1.3%	1.4%	1.2%
Other services	4.9%	4.8%	4.6%
Inadequately described/not stated	2.4%	2.0%	2.2%
Total workforce	15,549	16,627	16,979

Source: ABS 2006

Table 3.3 Existing industries of employment for the Warrumbungle LGA workforce

Warrumbungle LGA	% total workforce		
	1996	2001	2006
Agriculture, forestry & fishing	33%	33.7%	20.0%
Mining	0.2%	0.3%	0.3%
Manufacturing	3.7%	3.7%	5.4%
Electricity, gas, water & waste services	0.5%	0.7%	1.4%
Construction	3.5%	4.6%	7.0%
Wholesale trade	3.2%	3.8%	2.9%
Retail trade	8.6%	9.5%	8.4%
Accommodation & food services	7.0%	6.9%	6.9%
Transport, postal & warehousing	4.0%	3.4%	4.1%
Information media & telecommunications	0.8%	0.7%	0.6%

Table 3.3 Existing industries of employment for the Warrumbungle LGA workforce

Warrumbungle LGA	% total workforce		
	1996	2001	2006
Financial & insurance services	1.5%	1.0%	0.9%
Rental, hiring & real estate services	0.5%	0.3%	1.0%
Professional, scientific & technical services	2.5%	2.3%	3.2%
Administrative & support services	1.4%	1.3%	1.8%
Public administration & safety	4.4%	5.2%	7.9%
Education & training	8.9%	8.6%	9.5%
Health care & social assistance	7.9%	8.0%	12.0%
Arts & recreation services	2.1%	0.9%	1.0%
Other services	3.1%	2.6%	2.9%
Inadequately described/not stated	3.4%	2.7%	2.6%
Total workforce	3,915	3,841	3,722

Source: ABS 2006

Table 3.4 Existing industries of employment for the Wellington LGA workforce

Wellington LGA	% total workforce		
	1996	2001	2006
Agriculture, forestry & fishing	23.9%	22.8%	30.2%
Mining	2.0%	0.4%	0.2%
Manufacturing	4.8%	5.3%	4.1%
Electricity, gas, water & waste services	1.7%	0.9%	0.9%
Construction	6.0%	4.5%	3.7%
Wholesale trade	4.1%	3.5%	2.2%
Retail trade	10.6%	13.6%	10.3%
Accommodation & food services	5.5%	5.1%	6.5%
Transport, postal & warehousing	3.1%	2.5%	4.5%
Information media & telecommunications	1.2%	1.4%	0.6%
Financial & insurance services	1.6%	1.0%	0.8%
Rental, hiring & real estate services	0.5%	1.5%	0.8%
Professional, scientific & technical services	3.2%	3.0%	2.6%
Administrative & support services	1.8%	1.2%	1.0%
Public administration & safety	3.9%	5.6%	5.9%
Education & training	7.4%	8.1%	10.1%
Health care & social assistance	10.8%	11.7%	9.4%
Arts & recreation services	1.4%	1.7%	0.8%
Other services	3.6%	2.7%	2.7%
Inadequately described/not stated	3.8%	3.5%	2.8%
Total workforce	2,936	2,842	2,964

Source: ABS 2006

Table 3.5 Existing industries of employment for Mid Western Regional LGA workforce

Mid-Western Regional LGA	% total workforce		
	1996	2001	2006
Agriculture, forestry & fishing	14.4%	15.8%	12.9%
Mining	8.0%	4.8%	7.3%
Manufacturing	11.3%	12.2%	8.4%
Electricity, gas, water & waste services	1.0%	1.0%	1.1%
Construction	4.2%	5.4%	7.5%
Wholesale trade	3.2%	6.0%	2.9%
Retail trade	11.2%	11.4%	13.1%
Accommodation & food services	7.4%	7.2%	8.2%
Transport, postal & warehousing	3.8%	3.4%	3.2%
Information media & telecommunications	1.5%	1.1%	0.9%
Financial & insurance services	1.7%	1.2%	1.2%
Rental, hiring & real estate services	1.0%	1.1%	1.2%
Professional, scientific & technical services	3.0%	3.1%	4.1%
Administrative & support services	1.5%	1.9%	1.8%
Public administration & safety	4.5%	3.8%	4.2%
Education & training	6.8%	7.2%	7.0%
Health care & social assistance	8.1%	7.5%	8.3%
Arts & recreation services	0.6%	0.9%	0.7%
Other services	3.1%	2.7%	3.2%
Inadequately described/not stated	3.4%	2.3%	2.6%
Total workforce	7,588	8,170	8,686

Source: ABS 2006

3.3 Potential mine workers in study area

The likely number of persons who could initially be recruited from the local workforce is given in Table 3.6 for the construction and operations phases of the Project, based on the existing skill levels and qualifications, and proximity to the Project site. With respect to the last factor, potential recruitment from Warrumbungle and Mid-Western Regional LGAs has been reduced by 50% (Table 3.6), due to only approximately 50% of the labour force in these two LGAs living in areas within practical daily commuting distance of the PAA.

Table 3.6 Potential local recruitment for Cobbora mine workforce

LGA	Unemployed persons in June 2010 (unemployment rate %)	% living within daily commuting distance of mine	% with suitable skills to work in mine construction	% with suitable skills to work in mine operations	Potential local recruitment for mine construction workforce	Potential local recruitment for mine operations workforce
Dubbo	972 (4.3%)	100	33.7	21.3	61	39
Warrumbungle	314 (6.2%)	50	32.0	17.6	22	12
Wellington	347 (8.6%)	100	31.7	17.9	65	37
Mid-Western Regional	694 (6.0%)	50	39.9	25.8	58*	37*
Total (all LGAs)	2,327 (5.4%)	-	-	-	206	125

Note: *Due to competition for this workforce from other new and expanding mines within and adjacent to this local government area, the potential recruitment for the Cobbora Project may be lower.

The data in Table 3.6 indicates that, based on the existing workforce skill and unemployment levels, and assuming no additional training is provided, the maximum potential size of the Project's workforce which should be able to be recruited locally will be:

- approximately 210 persons (rounded up from 206) during construction; and
- approximately 125 persons during operations.

This represents a worst case scenario which would be applicable if no training is undertaken to re-skill local workers.

At the start of construction the short-term recruitment needs will make it difficult to train-up a significant additional local workforce to meet the Project timeline. However, the potential local recruitment analysis given in Table 3.6 will still be broadly applicable for the overall local recruitment of construction personnel. There will be exceptions- the Project will probably recruit a lower proportion of this workforce from Mid-Western Regional LGA, than is estimated in Table 3.6, due to the competing demand for workers from other nearby new and expanding mines.

During operations, as is discussed in more detail below, the longer lead-in time for recruitment will permit significant levels of retraining of the existing locally available workers in towns such as Wellington and Dubbo. This will enable at least 50% of the longer term Project operations workforce (295 persons) to be recruited locally.

CHC will maximise local employment and provide training and education opportunities by:

- offering apprenticeships, traineeships and scholarships for young people through partnerships with local tertiary and educational providers;

- preparing a labour force recruitment strategies that initially focuses on in-house training for less skilled operator positions;
- actively pursuing an equal employment opportunity approach in workforce hiring; and
- working closely with the Aboriginal community to promote ongoing meaningful employment.

CHC is actively working with local training providers and participating in local forums with agencies, councils, education providers and businesses to discuss and promote employment and training opportunities in the region. These include:

- working with TAFE NSW Western Institute to create a new education module dedicated to training individuals for a mining industry career. The course will give students entry level employment qualifications for surface extraction mining. It will be designed to include mobile simulator training to allow students from smaller towns in the region, such as Dunedoo, Coolah and Wellington, to participate;
- playing a central role in both the Central West and Orana regions' Education Skills and Industry forums recently facilitated by Regional Development Australia in Orange and Dubbo. The focus in these forums will be on developing better pathways to employment for people within both regions;
- developing a pilot training program with local councils and industry groups to ensure a strong supply of apprentices in the region. The program aims to alleviate potential shortages in the future availability of suitably trained apprentices. Consultation is continuing with TAFE NSW Western Institute, State Training Services and a number of secondary schools in the region that have access to trade training facilities on campus;
- developing a Scholarship and Graduate Training Program that will support local students in mine-relevant tertiary education, that will lead to employment upon completion; and
- partnering with Aboriginal Affairs NSW to drive the development of the Central West Aboriginal Mining Steering Committee. The committee aims to develop, implement and monitor the Central West Aboriginal Mining Memorandum of Understanding (MOU), negotiated by mining companies, government agencies, service providers, Aboriginal traditional owners, Aboriginal land councils and the community. In partnership with TAFE NSW Western Institute, the committee aims to develop strategies to assist Aboriginal participants complete the newly created mining module.

4 Meeting workforce needs

4.1 Estimated shortfall in locally available workers

The estimated shortfall in available workers has been determined by subtracting the locally available workers (see Table 3.6) from the total required workforce. The results are summarised in Table 4.1 for the peak stage of construction in mid-late 2014 and for three years (2015, 2020 and 2027) which are the key stages in the ramp-up of operations.

Table 4.1 Estimated shortfall in the locally available workforce (no additional training)

Mine stage	Project component	Peak workforce	Potential workforce able to be sourced locally	Estimated shortfall
Construction peak (mid-late 2014)	Mine infrastructure area	370	148	222
	Water pipeline corridor and pump station	20	9	11
	Rail loading spur and balloon loop	100	27	73
	Local road detours & reconstruction	60	22	38
Total construction	Peak construction workforce	550	206	344
Operation	Predicted workforce (2015)	171	125	46
	Predicted workforce (2020)	469	125	344
Total operations (2027 onwards)	Predicted peak workforce (2027 onwards)	590	125	465

The predicted shortfall in the locally available construction workers is estimated to be 344 persons at the peak in mid-late 2014.

During operations, the initial shortfall in the locally available workers will be approximately 46 workers in 2015. This could potentially increase to 344 workers in 2020 and 465 workers in 2027 based on the current availability of appropriately skilled workers in the region (predominantly from the Dubbo and Wellington LGAs). However, this assumes no additional training of the local workforce.

4.2 Training and re-skilling local workers

i Construction phase

It is unlikely that training will significantly increase the overall number of construction workers available locally. Some training will be possible and necessary to compensate for the non-availability of workers from Mid-Western Regional LGA who will be committed to other mining projects. CHC will maximise local employment by:

- offering apprenticeships, traineeships and scholarships to young people through partnerships with local tertiary and educational providers;
- preparing labour force recruitment strategies that initially focus on in-house training for less skilled operator positions;
- actively pursuing equal employment opportunity in hiring workers; and
- working closely with the Aboriginal community to promote employment opportunities.

ii Operations phase

CHC will liaise closely with government agencies, education providers and councils, in particular Dubbo and Wellington, to maximise the proportion of the operations workers who can be recruited locally. The analysis of the skills required during operations shows that the majority of work can be performed by workers from other sectors. The estimated shortfall in the locally available workers with additional training, is summarised in Table 4.2 for these key stages of the Project.

Table 4.2 Estimated shortfall in the locally available workforce (with additional training)

Mine stage	Project component	Predicted peak workforce	Potential workforce	Proportion of workforce available locally	Estimated shortfall
Operation	Predicted workforce (2015)	171	125	73%	46
	Predicted workforce (2020)	469	235	50%	234
	Predicted workforce (2027 onwards)	590	295	50%	295

With training and re-skilling, it is estimated that the following proportion of the required workforce will be recruited locally:

- 125 trained persons by 2015 (73% of operations workforce);
- 235 trained persons by 2020 (50% of operations workforce); and
- 295 trained persons by 2027 (50% of operations workforce).

It is envisaged the majority of the training and re-skilling will occur in Dubbo and Wellington LGAs.

4.3 Potential in-migrating workforce requirement

4.3.1 Construction phase

Training will be provided to the maximum extent possible. This will partially address the reduced availability of construction workers from Mid-Western Regional LGA but a predicted shortfall of approximately 340 workers during the peak period (mid-late 2014) will remain. This will be made up by in-migrating workers.

4.3.2 Operation phase

Necessary training and re-skilling will be provided during operations to reduce the need for in-migrating workers.

In 2020, it is estimated this will reduce the predicted shortfall in locally recruited workers from 344 persons (73% of the operations workforce) to 234 persons (50% of the operations workforce) and from 2027 onwards, from 465 persons (80% of the operations workforce) to 295 persons (50% of the operations workforce). The estimated Project in-migrating workforce requirements are therefore as follows:

- 46 workers to meet the estimated shortfall for initial operations in 2015;
- 234 workers to meet the estimated shortfall at the end of the initial production ramp-up period in 2020; and
- 295 workers to meet the estimated shortfall during peak operations from 2027.

5 Accommodation of construction workers

5.1 Short-stay accommodation supply

In-migrating construction workers will typically require short-stay hotel/motel or rental accommodation. The current supply of such accommodation in each LGA has been determined from ABS data and discussions with council planning and economic development officers with the following results:

- Dubbo LGA has approximately 3,140 beds in a variety of hotel/motel units and apartments (R Poisson, 2011, Dubbo City Development Corporation, pers comm., 9 September). There are approximately 1,700 accommodation rooms or units. The Council's economic development officer has indicated that the average yearly occupancy rates are typically 65 to 69%;
- Warrumbungle LGA has approximately 900 short-stay accommodation beds (ABS 2010). Approximately half of these (450 beds) are within daily commuting distance of the Project area, in and around the towns of Dunedoo, Coolah and Mendooran. This corresponds to a total short-stay hotel/motel accommodation supply of 245 rooms/units;
- Wellington LGA has approximately 157 short-stay rooms and units available in a variety of hotels, motels and apartments (P Mills, 2011 Wellington Council pers comm., 9 September); and
- Mid-Western Regional LGA has approximately 1,222 beds in hotel/motel units, apartments and caravan parks (ABS 2010). Only approximately 122 of these are in the town of Gulgong and surrounds. Overall the total supply of rooms/accommodation units which are located in the Mudgee and Gulgong areas is estimated to be 333 rooms/units.

The total short-stay accommodation supply in the study area is 2,435 rooms/units. The prevailing occupancy rates of this accommodation are within the range 60 to 70%. Therefore, approximately 35% of this type of accommodation can be considered as potentially available for short term residential use by the Project construction workforce.

A relatively large supply of approximately 1,114 van sites or cabins in caravan parks are available throughout the study area (ABS 2010). Of these, approximately 50% are normally available at most times of the year (based on discussions with council officers) resulting in a total net supply of approximately 557 caravan park or van sites/cabins potentially available for use by the Project construction workforce.

Although there is a large supply of private rental accommodation in the study area, the turnover rate, and hence the availability of new tenancies, is low, being no more than 1-3% typically throughout all the townships of the study area. For this reason, the available supply of private rental dwellings for use by construction workers is relatively small. Assuming a typical average of two bedrooms per rental property, the available rental accommodation supply would be a maximum of approximately 120 rooms in 60 private rental dwellings, mainly in Dubbo.

The maximum potential supply of all short-stay accommodation types available in the study area is summarised in Table 5.1. This analysis assumes that during most of 2014, the main construction stages of other mining expansion projects to the east (e.g. Moolarben and Ulan West) will either have been completed or not yet commenced.

Table 5.1 Maximum potential short-stay accommodation supply in the study area

LGA	Total short-stay hotel motel supply	Proportion typically available (35%)	Total private rental dwelling supply	Proportion typically available (1-3%)	Caravan parks	Typically available (50%)	Total available accommodation supply
	Rooms or units	Rooms or units	Rooms	Rooms	Van sites or cabins	Van sites or cabins	Rooms, units, van sites and cabins
Dubbo	1,700	595	5,400	70	458	229	894
Warrum bungle	245	86	300	10	126	63	159
Wellington	157	55	800	10	136	68	133
Mid-Western Regional ¹	333	117	2,460	30	394	197	344
Total	2,435	853	8,960	120	1,114	557	1,530

Notes: 1. Assumes minimum competition from other mining projects.

The data in Table 5.1 shows that the potential maximum supply of short-stay accommodation during 2014 would be 1,530 rooms/other accommodation units. This assumes no net increase or decrease in the overall accommodation supply over the next two years. The total is as follows:

- 853 rooms in hotel/motel type accommodation (56% of the available supply);
- 120 rooms in rental dwellings, assuming 2 bedrooms per dwelling on average (8% of the available supply); and
- 557 van sites or cabins in caravan parks (36% of the available supply).

In comparison to the Project's in-migrant construction workforce of 344 persons a reasonable surplus of approximately 1,186 available hotel/motel rooms or other accommodation units would remain. This surplus would be available for tourists or other visitors.

Even if the Mudgee-Gulgong component of this accommodation supply (344 rooms/units) is assumed to be unavailable during mid-late 2014, due to high concurrent demand from other coal mining construction projects in the region, a significant surplus of 836 available rooms/other accommodation units would still remain.

5.2 Cost of accommodation

The typical nightly cost for deluxe hotel/motel accommodation in Dubbo is approximately \$100 to \$140 and \$85 to \$105 per night for similar accommodation in Wellington. Traditional hotel single room accommodation, where this is available, is normally \$30 to \$40 per night.

Housing NSW produces a range of publications which list the median rental cost and house purchase prices (Housing NSW 2011). Typical costs for new rentals for one and three bedroom rental properties have been increasing in recent years in many parts of the study area, in particular in Mid-Western Regional LGA.

The recent rental cost increases are illustrated by the two charts for one and three bedroom properties in Figures 5.1 and 5.2 respectively. However, only the Dubbo and Mid-Western Regional LGAs have reliable statistics for one bedroom properties. The other two LGAs do not have enough of this type of property (less than 10 new rentals in a quarter typically) for Housing NSW to be able to publish a reliable figures.

Figure 5.1 Typical weekly cost for new rentals (one bedroom properties) 1997 to 2011

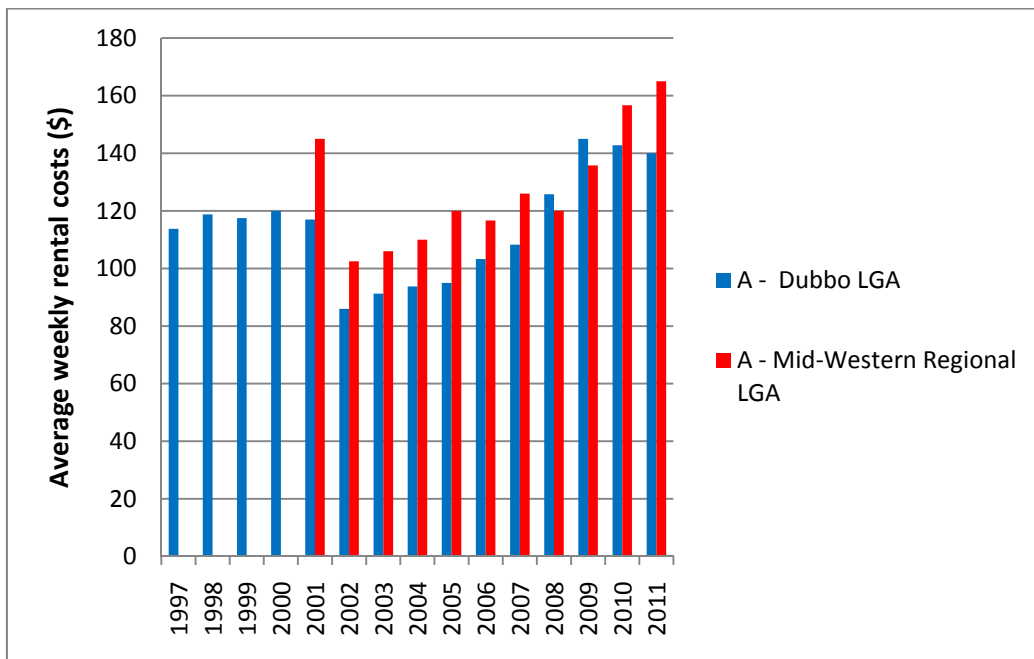
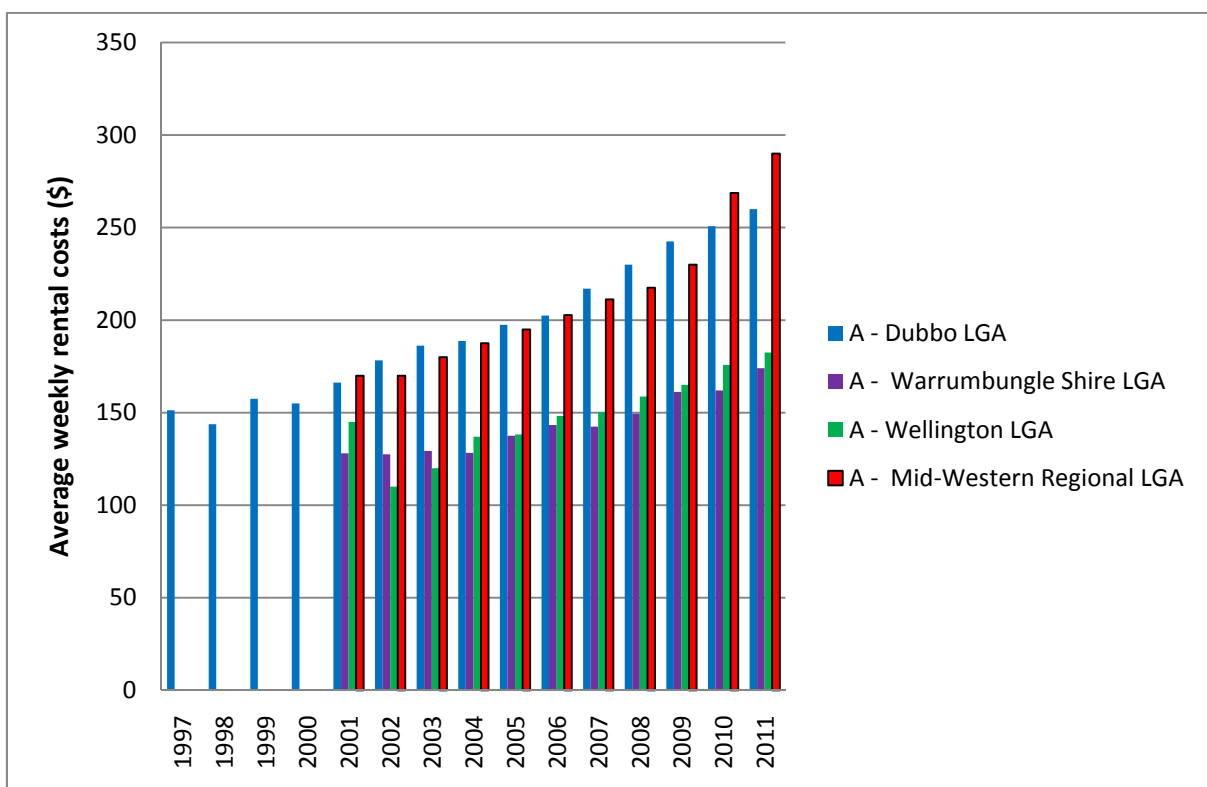


Figure 5.2 Typical weekly cost for new rentals (three bedroom properties) 1997 to 2011



5.3 Assessment of no construction village scenario

The locality characteristics which will most affect the potential demand for accommodation in the surrounding townships are the available supply and cost of rental accommodation, the likely travel distances to and from construction worksites each day and the accessibility to an airport for easy travel to and from the region at weekends.

The in-migrant construction workforce will include a high proportion of younger persons and a high proportion of persons without accompanying families. If no accommodation village is provided many of these workers may prefer to stay in the smaller townships closer to the Project area taking up nearly all of the available supply. This situation would create additional pressure in the short-stay rental market in these areas.

In the absence of a construction village for the Project, the maximum available supply of short-stay accommodation is 1530 rooms. But, in practice, the following is likely to occur:

- Dubbo is the main population centre in the region and has the capacity to provide necessary overflow residential accommodation when required during peaks in mine construction;
- Dubbo is able to provide an overnight accommodation and act as a staging point for construction workers who would fly-in and fly-out, as Dubbo Airport is the major airport in the region;
- there is likely to be competing demand from other developing mines for the limited supply of short-stay accommodation in Gulgong and Mudgee. The actual available supply of short-stay accommodation in these towns is likely to be very small; and
- the other smaller townships in the Warrumbungle Shire -Dunedoo, Coolah and Mendooran- have relatively small populations and correspondingly more limited scope to provide significant amounts of construction stage workforce accommodation.

In addition, consultations with officers from Dubbo and Wellington Councils have indicated that both will provide the necessary assistance to enable workers from the Project to reside in their towns. In combination, the above factors would create construction stage workforce accommodation demand in each locality, as outlined in Table 5.2.

Table 5.2 Demand factors for construction workforce accommodation (no accommodation village scenario)

LGA	Unconstrained proportion of total accommodation supply (%)	Access to airports for fly in fly out workforce	Competing demand for accommodation from other mines	Likely proportional demand for accommodation rooms/units in LGA
Dubbo	56	Excellent	No	60% (207 rooms/units)
Warrumbungle	10	Poor	No	10% (34 rooms/units)
Wellington	12	Average	No	20% (69 rooms/units)
Mid Western Regional	22	Good	Yes	10% (34 rooms/units)

The resulting net surplus in the short-stay accommodation supply during peak demand has been calculated and is summarised in Table 5.3.

Table 5.3 Construction accommodation demand versus supply (no accommodation village scenario)

LGA	Likely short-stay accommodation demand (rooms/units)	Existing short-stay accommodation supply (rooms/units)	Predicted surplus available for other users (rooms/units)
Dubbo	207	894	+687
Warrumbungle	34	159	+125
Wellington	69	133	+ 64
Mid-Western	34	344	+310
Total	344	1,530	+1,186

In the scenario with no workforce accommodation village, the net available supply of short-stay hotel/motel, caravan park and rental accommodation within the study area should still generally be sufficient to meet the peak demand in all localities. However, in the towns of Dunedoo, Gulgong, Mudgee and Wellington, there would be likely to be increased pressure in the local rental market. Also, to facilitate the high proportional demand in Dubbo (60%), some form of transport assistance would need to be offered (e.g. shuttle bus travel), to make Dubbo a practical accommodation option.

5.4 Proposed construction accommodation village

Despite the analysis of available short-stay accommodation indicating that there may be sufficient accommodation available for the peak Project construction workforce there would still be considerable advantages in having an on-site construction accommodation village and they are outlined below.

i Minimising risk of construction delays

Accommodation is considered to be an important decision-making factor in attracting a construction workforce, especially for skilled workers who may have multiple job offers. A construction accommodation village will assist in attracting and retaining suitably skilled employees. In discussions with large construction companies with mining project experience in NSW, Queensland and Western Australia, there was unanimous agreement that an on-site, serviced accommodation facility would be required for a project of this size to attract sufficient construction workers to minimise risks of delays.

ii Minimising pressures on the local housing market

Discussions with the four surrounding councils have identified concerns about a shortfall of quality temporary accommodation in some areas due to competing demand from other mining projects, tourism and events. It is important to ensure that the Project does not place excessive pressure on the local housing market. A construction accommodation village would insulate both the construction workforce and local residents from potentially high local accommodation costs due to shortages of suitable accommodation.

iii Traffic reduction and residential amenity benefits

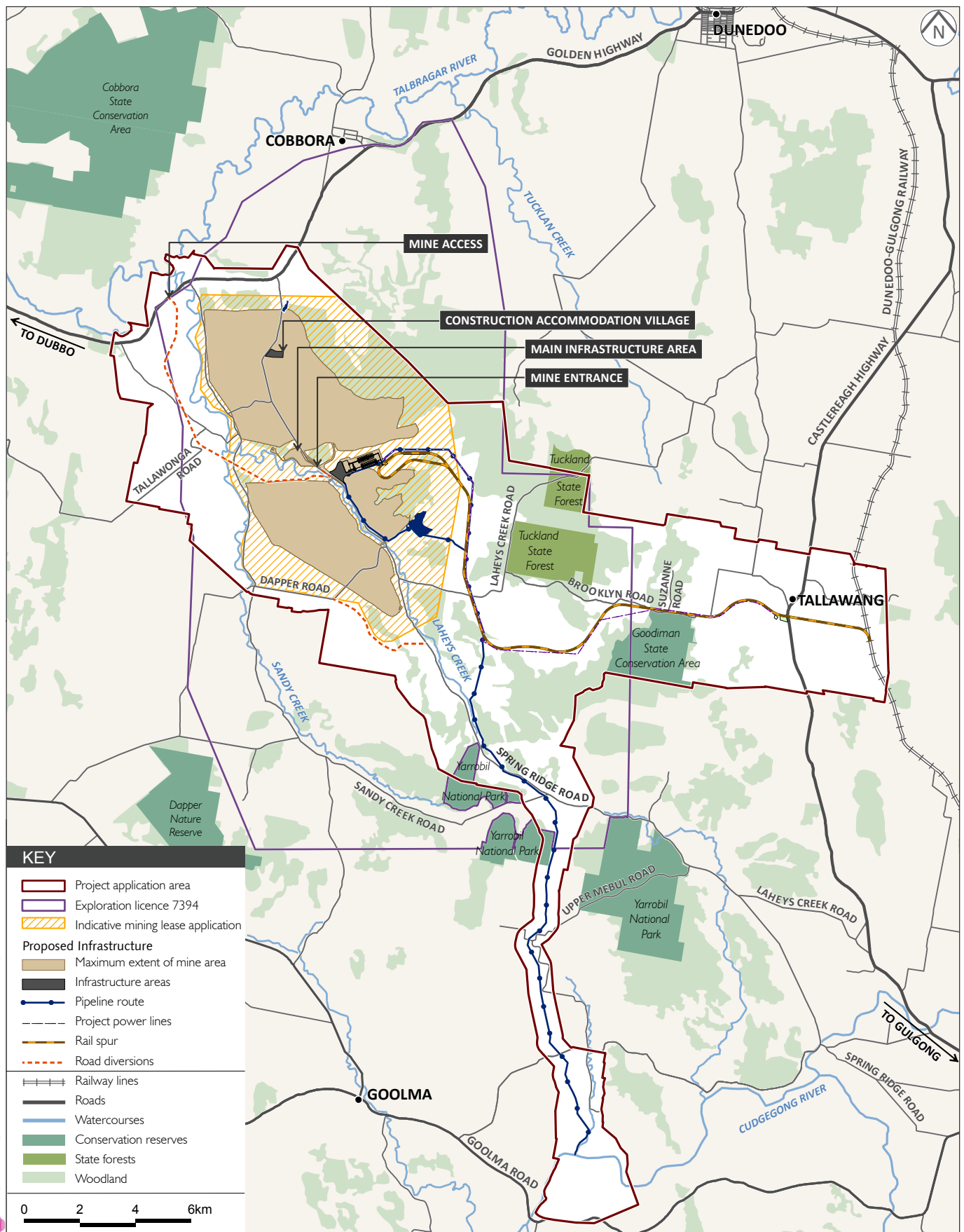
The main vehicle access route to the mine and infrastructure construction worksites will be from the Golden Highway to the north, as it provides links to and from the Dubbo, Warrumbungle and Wellington LGAs. There will be limited light vehicle access from the south via Spring Ridge Road, which may be used by traffic travelling to and from Mid-Western Regional LGA.

The proposed construction workforce accommodation village, which will be located approximately 3 km south of the Golden Highway (Figure 5.3), will utilise shuttle buses to transport workers from the accommodation village location to all construction worksites. Shuttle bus/coach transport will also be available for transport to and from the major regional airport (Dubbo) for construction workers at the commencement and end of the weekly or fortnightly shifts.

These transport initiatives will greatly reduce construction traffic on the Golden Highway and other local roads such as Spring Ridge Road. This will minimise the potential residential amenity impacts of Project traffic in urban areas.

The construction workforce village will operate for the whole of the construction phase (two years approximately). It will consist of approximately 40 moveable buildings and include laundries, recreation buildings, offices, landscaping, internal roads and other facilities.

A peak in-migrating construction workforce of approximately 340 workers has been estimated for the Project. The proposed 400 bed accommodation village will meet all of the associated accommodation needs.



Construction Accommodation Village Location
Cobbora Coal Project - Workforce Accommodation Study

Figure 5.3

6 Accommodation for the operations workforce

6.1 Residential accommodation supply

The majority of in-migrating operations workers will typically purchase or rent family housing (e.g. dwellings with three bedrooms) in areas where this type of accommodation is widely available.

Dubbo City Development Corporation (R Poisson, 2011 Dubbo City Development Corporation pers comm, 15 September) has indicated that the new build residential property market in Dubbo currently provides:

- approximately 200 new residential properties for sale each year; and
- 1,225 vacant available lots for new two, three and four-bedroom houses.

Also, the recent gazettal of Dubbo's LEP in 2011 will see the supply of residential lots available increase greatly to over 9,000 vacant lots.

Wellington Council, (P Mills, Wellington Council 2011, pers comm, 9 September) provided recent data on the availability of housing in the residential property market in Wellington LGA:

- currently listed properties are usually vacant land blocks or groups of vacant lots listed at between \$25,000 and \$85,000 each. There are up to 600 vacant residential lots (including approved subdivisions) yet to be developed, mainly in areas around the township of Wellington;
- there are approved estates currently listed for sale, including one entire 30 lot subdivision at \$535,000; and
- a new home construction incentive of \$6,250 is provided to builders by the council.

The Mid-Western Regional Comprehensive Land Use Strategy (Parsons Brinkerhoff 2009) estimated that Mudgee had about five to six year's residential land supply, Gulgong 15 year's supply, Rylstone 10 year's supply and Kandos over 20 year's supply. It also predicts that from around 2021 there could be a shortage of residential land. Various areas were identified to augment supply and assuming the necessary infrastructure works are undertaken a further 25 years supply would be available.

Information on the current supply of vacant residential land in Warrumbungle LGA was not available at the time of writing of this report. Despite this, the new housing supply which is likely to become available in the four years before operations commence in 2015, can be estimated from the recent annual rates of housing construction. The recent annual rates of housing construction in each LGA are listed in ABS 2010 and are as follows:

- Dubbo LGA: 213 new dwellings made up of 179 new houses and 34 new dwellings in multi-unit residential buildings;
- Warrumbungle LGA: 13 new houses;
- Wellington LGA: 8 new houses; and
- Mid-Western Regional LGA: 46 new dwellings made up of 26 new houses and 20 new multi-unit dwellings.

Over a four year period, from 2012 to the commencement of mine operations in 2015, continuation of the current rate of construction of new dwellings could provide a total additional housing supply of approximately 1,120 new dwellings within the study area, distributed as follows:

- Dubbo LGA: 852 new dwellings (76% of new supply);
- Warrumbungle LGA: 52 new houses (5% of new supply);
- Wellington LGA: 32 new houses (3% of new supply); and
- Mid-Western Regional LGA: 184 new dwellings (16% of new supply).

Assuming this historic growth rate of new housing remains constant in the years after 2015, the following additional housing supply will become available over the sixteen year period from 2012 to 2027:

- Dubbo LGA: 3,408 new dwellings;
- Warrumbungle LGA: 208 new houses;
- Wellington LGA: 128 new houses; and
- Mid-Western Regional LGA: 736 new dwellings.

This continued rate of new housing supply could provide a total of approximately 4,480 new dwellings in the study area by 2027.

6.2 Cost of accommodation

The quarterly *Rent and Sales Report* (Housing NSW 2011) has been used to determine the current cost and recent trends in both median house prices and average rental costs for three-bedroom dwellings in each LGA (Figure 6.1 and Figure 6.2 respectively).

Mudgee data is used to represent the Mid-Western Regional LGA and Coonabarabran is used to represent the Warrumbungle LGA for 2001 to 2005. During this period amalgamations occurred in these two LGAs making LGA-wide comparisons impractical.

In the Dubbo and Mid-Western Regional LGAs, new house prices have been relatively static with virtually no growth in the median house price between 2006 and 2011. However rental costs in these LGAs have been increasing consistently each year since 2006. This general levelling-off in the demand for new home purchases in these LGAs after 2006, with concurrent strongly increasing rental costs after 2006, indicates many potential new home purchasers are choosing to rent rather than purchase homes.

Figure 6.1 Recent median house prices for typical home purchase 2001 to 2011

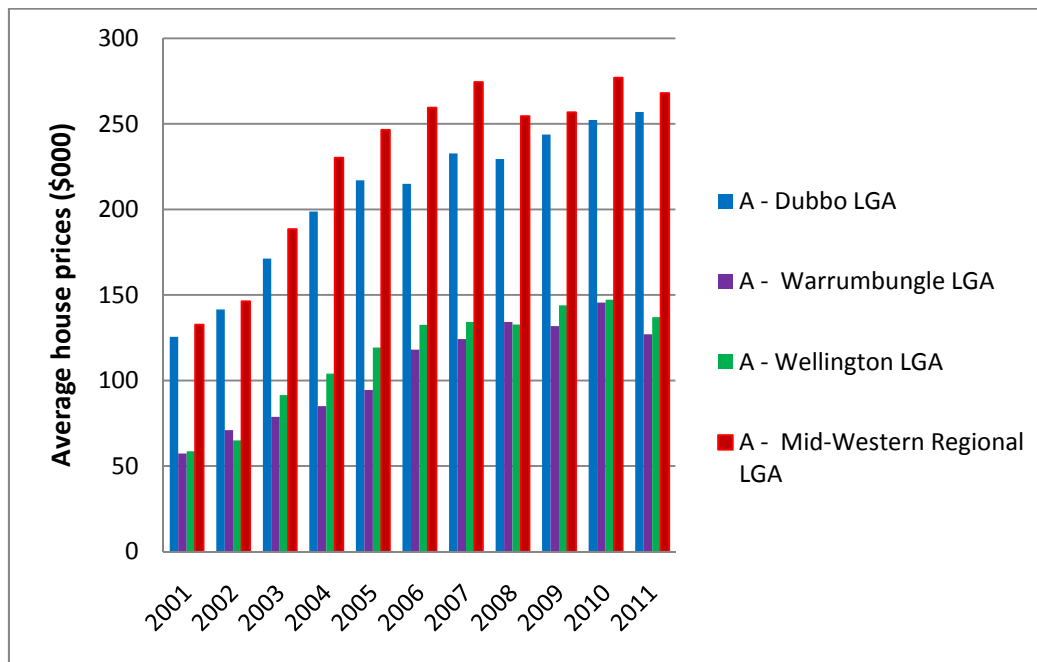
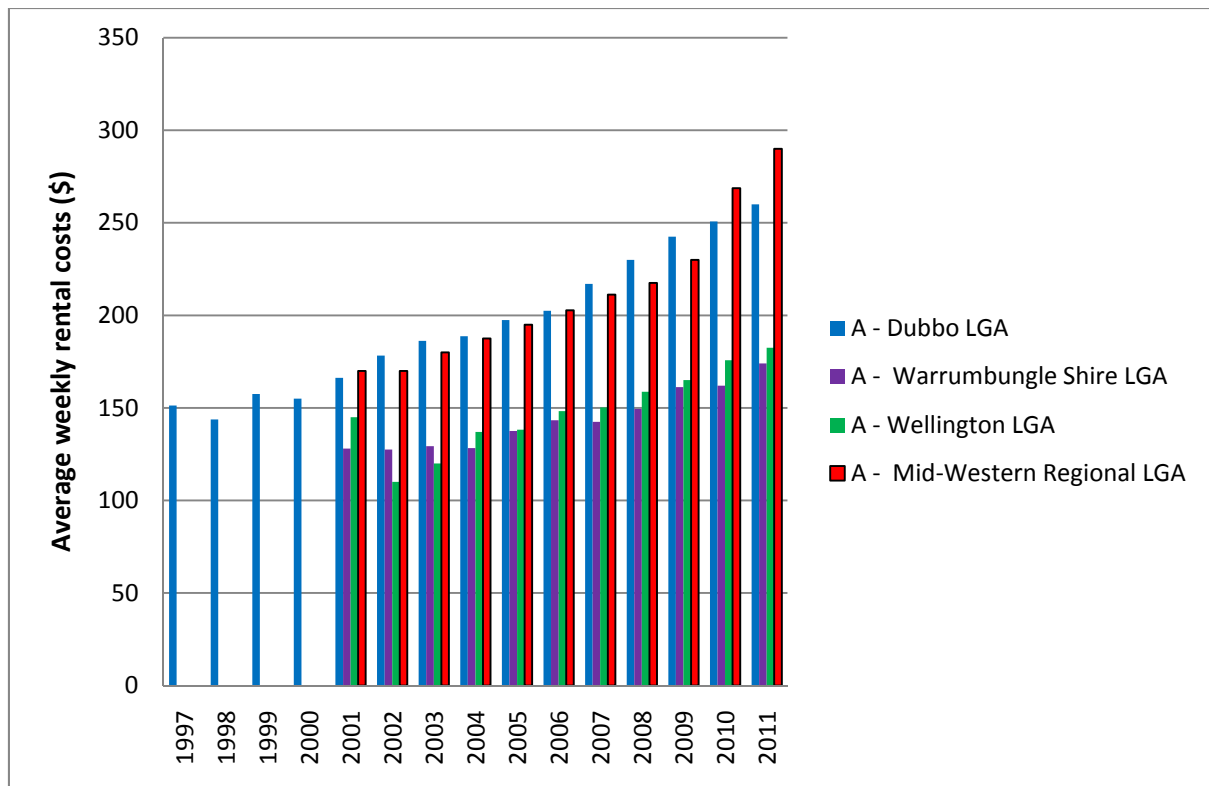


Figure 6.2 Recent rental cost trends for three bedroom family homes (new rentals) 1997 to 2011



6.3 Likely residential distribution of operations workforce

In-migrating operations workers will generally be accompanied by their families, have children and be longer-term residents. As such, the future attractiveness factor of each town for in-migrating workers will be mainly based on the available supply and cost of new homes, and the availability of retail, and community facilities, particularly education and health facilities. Other relevant factors are:

- Dubbo, as the major population centre in the region would also be attractive for reasons such as its proximity to a major airport and other regional facilities;
- Warrumbungle Shire townships of Dunedoo, Coolah and Mendooran will be attractive to persons seeking a rural lifestyle who may wish to live closer to the mine than Dubbo but the supply of rural-residential lots may be limited;
- Wellington LGA has relatively limited employment opportunities currently. It has numerous smaller rural communities and the town of Wellington which may be attractive to new mine workers in-migrating to the area; and
- Mid-Western Regional LGA already has a high demand for residential property with strongly increasing rental and purchase price trends.

The estimated accommodation demand for the operations stage workforce in each LGA is summarised in Table 6.1.

Table 6.1 Likely demand factors for operations stage workforce accommodation

LGA	Potential supply of new accommodation (%)	Potential for rural lifestyle	Likely cost of new housing or other accommodation*	Likely demand for accommodation (%)	Facilities available in towns
Dubbo	76	No	More expensive	60	All
Warrumbungle	5	Yes	Less expensive	15	Least
Wellington	3	Yes	Less expensive	15	Least
Mid-Western Regional	16	Possibly	More expensive	10	Most

Note: * See charts in Figure 6.1 and Figure 6.2.

The demand for additional dwellings for in-migrating Project workers in each LGA, at the start of operations in 2015 and at the peak in 2027, is given in Table 6.2, based on the above demand factors.

Table 6.2 Comparison of new dwelling demand versus supply for each locality

LGA	Start of operations (2015)			Peak operations (2027)		
	Net new dwelling demand	Estimated new dwellings construction (2012-2015)	New dwellings surplus or shortfall	Net new dwelling demand	Estimated new dwellings construction (2012-2027)	New dwellings surplus or shortfall
Dubbo	27	852	+825	177	3,408	+3,231
Warrumbungle	7	52	+45	44	208	+164
Wellington	7	32	+25	44	128	+84
Mid-Western	5	184	+179	30	736	+706
Total	46*	1,120	+1,074	295*	4,480	+4,185

Note: * Total new dwelling demand for in-migrating workforce, including workforce training, is determined in Table 4.2.

At current construction rates, an estimated 1,120 new dwellings are likely to be constructed in the study over the next four years (from 2012 to 2015), for either rental or purchase.

The in-migrating Project workforce at the start of operations in 2015 is estimated to be 46 persons, which will easily be accommodated in the study area, occupying approximately 4% of the estimated construction of new dwellings.

Approximately 4,480 new dwellings are likely to be constructed between 2012 and 2027 in the study area, based on current construction rates.

The peak operations workforce is expected to be reached in 2027, when it will include approximately 295 persons who have relocated to the area. The in-migrating workforce in 2027 will occupy approximately 7% of the estimated new dwellings which are likely to be constructed in the intervening period.

An operations phase workforce accommodation village is not required and is not proposed. However, some short-stay future accommodation capacity may be retained within or close to the main mine operations compound area, for future use by mine maintenance staff during equipment outages.

7 Conclusions

7.1 Construction workforce accommodation needs

At the peak of construction, in mid-late 2014, there will be at least 340 persons residing at the workforce accommodation village. These construction workers will normally either fly-in and fly-out or drive-in and drive-out on a weekly or fortnightly basis.

It is anticipated that about half of these construction workers will be sourced from areas where it will be more convenient to drive to and from the accommodation village at Cobbora in preference to air travel.

The other half of the total construction workforce will normally fly-in and fly-out and require bus shuttle transport each week or fortnight between the accommodation village and Dubbo airport.

7.2 Potential longer term need for accommodation village during operations

By the commencement of mine operations in 2015, it is estimated that continuation of current levels of residential construction activity in the four LGAs will provide more than sufficient new dwellings to meet the Project's in-migrant operational workforce needs.

The peak operations workforce of 590 persons in 2027 will potentially include 295 people who have relocated to the area. These workers will occupy approximately 7% of the potential new dwellings constructed over this period. Continued operation of the Project's accommodation village will not, therefore be necessary after 2015.

CHC will liaise closely with the government agencies, education providers and councils in the region to maximise the proportions of the Project operational workforce drawn from the region.

7.3 Workforce accommodation strategy

A construction accommodation village will be built on-site to accommodate the in-migrating construction workers.

In-migrating operations workers will be only a small proportion of the total future population of the study area. Overall, the Project will place most demand on housing in Dubbo.

Warrumbungle and Wellington LGAs combined will accommodate about half of the demand going to Dubbo Mid-Western Regional LGA may be an attractive option for some in-migrating workers but competition from other large development projects may reduce its appeal due to price and housing supply factors.

Consequently, Mid-Western Regional LGA is estimated to only accommodate about 10% of the in-migrating operations workers. CHC is working with the four councils to put in place development agreements to ensure adequate housing supplies will be available in each council area and to ensure social pressures associated with the in-migrating workforce are minimised.

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