



APPENDIX N

SOCIAL IMPACT ASSESSMENT

WILPINJONG EXTENSION PROJECT

SOCIAL IMPACT ASSESSMENT
NOVEMBER 2015



elliottwhiteing
SOCIAL PLANNING SOLUTIONS

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ACRONYMS

Abbreviation	Definition
ABS	Australian Bureau of Statistics
ASGC	Australian Standard Geographical Classification
ASGS	Australian Statistical Geography Standard
CCC	Community Consultative Committee
CWRAP	Central West Regional Action Plan
DPI	New South Wales Department of Planning and Infrastructure
DP&E	New South Wales Department of Planning and Environment
EIS	Environmental Impact Statement
EL	Exploration Licence
EP&A Act	New South Wales <i>Environmental Planning and Assessment Act, 1979</i>
ETL	Electricity transmission line
FTE	Full Time Equivalent
GL	Gazetted Locality
GP	General Practitioner
ha	Hectares
HHS	Hospital and Health Service
HSE	Health, Safety and Environment
km	Kilometres
Km ²	Square kilometres
LEP	Local Environmental Plan
LGA	Local Government Area
ML	Mining Lease
Mtpa	Million tonnes per annum
MWRC	Mid-Western Regional Council
NSW	New South Wales
PEA	Peabody Energy Australia Pty Limited
PHIDU	Public Health Information Development Unit
RFS	Rural Fire Service
ROM	Run-of-mine
SA1	Statistical Area Level 1
SA2	Statistical Area Level 2
SEARs	Secretary's Environmental Assessment Requirements
SEIFA	Socio-Economic Index for Areas
SIA	Social Impact Assessment
SRLUP	Strategic Regional Land Use Plan
SSC	State Suburb Code
WCM	Wilpinjong Coal Mine
WCPL	Wilpinjong Coal Pty Limited
%	Percent

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EXECUTIVE SUMMARY

This report presents a Social Impact Assessment (SIA) as part of the Environmental Impact Statement for the Wilpinjong Extension Project (the Project). The assessment has been undertaken by social and community planning specialists Elliott Whiteing Pty. Ltd. on behalf of Wilpinjong Coal Pty Limited (WCPL).

The Project refers to the extension of the Wilpinjong Coal Mine (WCM), an established open cut coal mining operation located in the Mid-Western Regional Local Government Area (LGA) in central New South Wales (NSW).

APPROACH TO UNDERTAKING THE SIA

The SIA has been prepared in accordance with the Secretary's Environmental Assessment Requirements (SEARs) for the Project. The SIA describes the likely social impacts at a local and regional level, including the demand for local infrastructure and services, and the cumulative impact on local residents, as requested by the Mid-Western Regional Council (MWRC). The SIA was furthermore informed by the outcomes of stakeholder consultations, and the planning priorities identified for the MWRC and its LGA.

The study area for the SIA has been defined as:

- the local area around and including the village of Wollar, this being the closest locality to the Project;
- at a regional level, the Mid-Western Regional LGA, including the centres of Mudgee and Gulong, where impacts and opportunities are likely; and
- adjacent LGAs from which the Project's workforce may be drawn, these being the Singleton, Muswellbrook and Upper Hunter LGAs.

Project impacts and opportunities were assessed relative to a social baseline. The social baseline encompasses the range of social characteristics, conditions and indicators that describe the study area, and that may be affected by the Project. Key baseline findings include:

- At the local level, past acquisitions of properties by the existing mining operation have contributed to a declining rural population. Residents of Wollar have experienced a reduction in village amenity and social infrastructure.
- At a regional level, communities are sustained by farming, wine making and coal mining activities, and rural values are strong. There is a broad range of social infrastructure (facilities and services), and housing affordability and availability is generally good. Nonetheless, the region scores below the NSW average on various community health and wellbeing indicators, and unemployment has been rising in the Mid-Western Regional and adjacent LGAs.

POTENTIAL IMPACTS AND OPPORTUNITIES OF THE PROJECT

The Wollar area, comprising the village of Wollar and rural properties on the Barigan and Mogo Roads areas, has a population of 40 to 50 people. The Project would bring the WCM closer to Wollar, and additional property purchases that may be undertaken would contribute to a decline in Wollar population. Amenity in and around the village is likely to be affected and exceed levels that some residents already find intrusive.

Given that Wollar's population is very small and that the viability of local services is already marginal, the village may lose access to key services regardless of whether the Project proceeds. However, the additional decreased amenity and uncertainty about the future is likely to accelerate the decline of Wollar village.

On a regional scale, the Project represents a potential positive benefit for quality of life and community wellbeing. WCM is an important element of the Mid-Western Regional LGA's employment base, and supports a range of community events and activities. The Project would sustain WCM's current operational workforce of 550 personnel, and would provide additional employment of approximately 75 new jobs during the Project's operational phase. More than 460 WCM employees live in the Mid-Western Regional LGA, and the Project represents a significant benefit both to existing employees, their families and the general community. Sustained employment would support regional economic activity and stability, while construction and supply contracts originating from the Project would also benefit regional businesses and the regional economy.

Taken on its own, the Project's contributions to population and housing demands at the regional level are expected to be negligible. Three other mining-related projects are currently under development in the region, although their timeframes are uncertain. It is possible, although considered unlikely, that the construction periods associated with these three projects may coincide with construction of the Project, if approved. In this event, the Project's contribution to cumulative population growth, housing demand and demand for government services would be modest. However, the significance of cumulative population growth should be monitored by MWRC and relevant State agencies.

MITIGATION STRATEGIES

A range of strategies to mitigate the potential social impacts of the Project are recommended, including:

- continuing the practice of preparing valuations for properties that may be purchased on the basis of comparison with properties that offer similar lifestyle values for property owners;
- engaging with key stakeholders to identify alternative models for service provision in the community of Wollar;
- offering employment and supply opportunities to the local workforce and local businesses;
- liaising with service providers and engaging with the workforce to manage any health care demands and impacts on public safety; and
- maintaining support for community investment programs and initiatives, with a specific focus on the Wollar community.

Appropriate indicators have been developed to track and monitor progress on these strategies, and enable an assessment of their effectiveness.

1 INTRODUCTION

Elliott Whiteing was commissioned by Wilpinjong Coal Pty Limited (WCPL) to prepare a social impact assessment (SIA) for the Wilpinjong Extension Project (the Project). The Project refers to the extension of the Wilpinjong Coal Mine (WCM), an existing open cut coal mining operation situated in the Mid-Western Regional Local Government Area (LGA) in central New South Wales (NSW).

1.1 SOCIAL IMPACT ASSESSMENT

Under Federal and NSW legislation, the Project proponents are required to address the likely social and economic impacts of the Project, and to consult with relevant local, State or Commonwealth authorities, and with other stakeholders.

This SIA has been prepared in accordance with the Secretary's Environmental Assessment Requirements (SEARs). The SIA addresses the matters raised for consideration by government agencies, community organisations and stakeholders. The objectives of the SIA are to provide:

- a robust knowledge base about the Project's potential area of social influence;
- an understanding of the experience and views of people who may be directly affected by the Project;
- an understanding of the Project's potential impacts on a range of socio-economic factors at a local and regional level, including on population growth and change, social infrastructure and services, housing demands and affordability, and local and regional community values;
- an evaluation of the significance of potential Project impacts and benefits; and
- mitigation measures, including measures for creating or enhancing the potential socio-economic benefits of the Project.

1.2 REPORT STRUCTURE

This SIA has been structured as follows:

- Section 2 describes the Project, as well as the local and regional context within which it would take place, and which serves as the basis for identifying the Project impacts on different groups of stakeholders.
- Section 3 sets out the framework that has been applied to undertake the SIA for the Project, including the matters that must be addressed under legislation, the consultations that have been undertaken and their outcomes, and the approach to undertaking the SIA.
- Section 4 describes the social baseline, in terms of a range of indicators that have been informed by relevant planning documents, against which the potential Project impacts and opportunities have been assessed.
- Section 5 describes the likely impacts and opportunities arising from the Project on local and regional stakeholders relative to the social baseline, including cumulative impacts arising from other mining projects within the region.

- Section 6 sets out recommendations for a range of impact management and monitoring strategies aimed at limiting any adverse impacts of the Project.
- Section 7 contains the conclusions.

The analysis in this report is supported by appendices that offer additional background information:

- Appendix A describes the community survey that was undertaken.
- Appendix B provides the detailed data used to compile the social baseline, including: demographic and socio-economic characteristics; indicators of community health and wellbeing; labour force, industry and employment characteristics; and information on social infrastructure, police and emergency services for the study area.
- Appendix C provides detailed data about the housing profile for the study area, including: housing stock and tenure, rental vacancies, rental costs and availability, purchase availability, indicators of housing stress, and building approvals.

2 PROJECT CONTEXT

This section describes the Project and the local and regional context within which it would take place:

- Section 2.1 focuses on the Project layout and activities, as well as planned workforce arrangements;
- Sections 2.2 to Section 2.4 describe neighbouring communities, proximate regional centres, and the LGAs that serve as the basis for identifying the Project impacts on different groups of stakeholders; and
- Section 2.5 briefly describes the Aboriginal history and community in the area.

2.1 WILPINJONG COAL MINE

WCM is an existing open cut coal mining operation situated in the Western Coalfield approximately 40 kilometres (km) north-east of Mudgee, within the Mid-Western Regional LGA in central NSW. WCPL, a wholly owned subsidiary of Peabody Energy Australia Pty Limited (PEA), is the owner and operator of WCM. The mine operates in accordance with Project Approval 05-0021, granted in 2006 (as modified).

2.1.1 Wilpinjong Extension Project

WCM is approved to produce 16 million tonnes per annum (Mtpa) of run-of-mine (ROM) coal and to transport 12.5 Mtpa of thermal coal products by rail to domestic customers for use in electricity generation and to port for export. WCPL is seeking development consent to extend the WCM, including both physical extensions to the mine footprint, and an extension to the approved life of the mine (the Project). The application also includes the existing approved operations of the WCM.

An Environmental Impact Statement (EIS) for the Project, including this SIA, is being prepared in accordance with the SEARs under the *Environmental Planning and Assessment Regulation, 2000* (NSW). Project components that are relevant to the SIA include:

- approximately 800 hectares (ha) of open cut extensions including:
 - approximately 500 ha of incremental extensions to the existing open cut pits in areas of Mining Lease (ML) 1573 and Exploration Licence (EL) 6169; and
 - the development of a new open cut pit of approximately 300 ha in EL 7091 (Pit 8);
- the extension to WCM to enable:
 - continued production of up to 16 Mtpa of ROM coal; and
 - rail transport of approximately 13 Mtpa of thermal product coal to domestic and export customers (within existing maximum and annual average daily rail limits);
- the continued use of the WCM Coal Handling and Preparation Plant, coal handling and rail loading facilities and other existing mine infrastructure;
- the relocation of a section of the TransGrid Wollar to Wellington 330 kilovolt electricity transmission line (ETL) to facilitate mining in Pit 8;

- the realignment of Ulan-Wollar Road and associated rail level crossing, and relocation of local ETLs and services;
- the construction and operation of additional mine access roads to service new mining facilities located in Pits 5 and 8;
- the construction and operation of new ancillary infrastructure including: mine infrastructure areas, haul roads, electricity supply, communications installations, light vehicle roads, access tracks and water management structures;
- the extension of the approved mine life by approximately seven years (i.e. from approximately 2026 to 2033);
- a peak operational workforce of approximately 625 people (an increase of up to 75 personnel on existing operations figures by 2024);
- ongoing exploration activities; and
- other associated minor infrastructure, plant and activities.

Figure 2-1 provides a map of the approved WCM and the Project general arrangement.

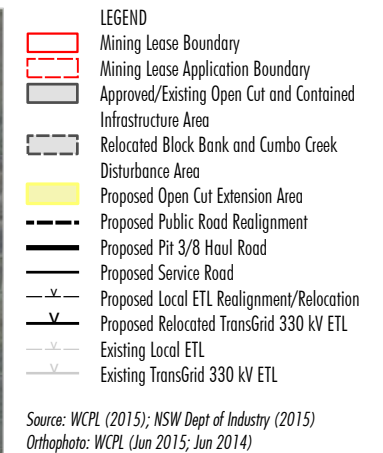
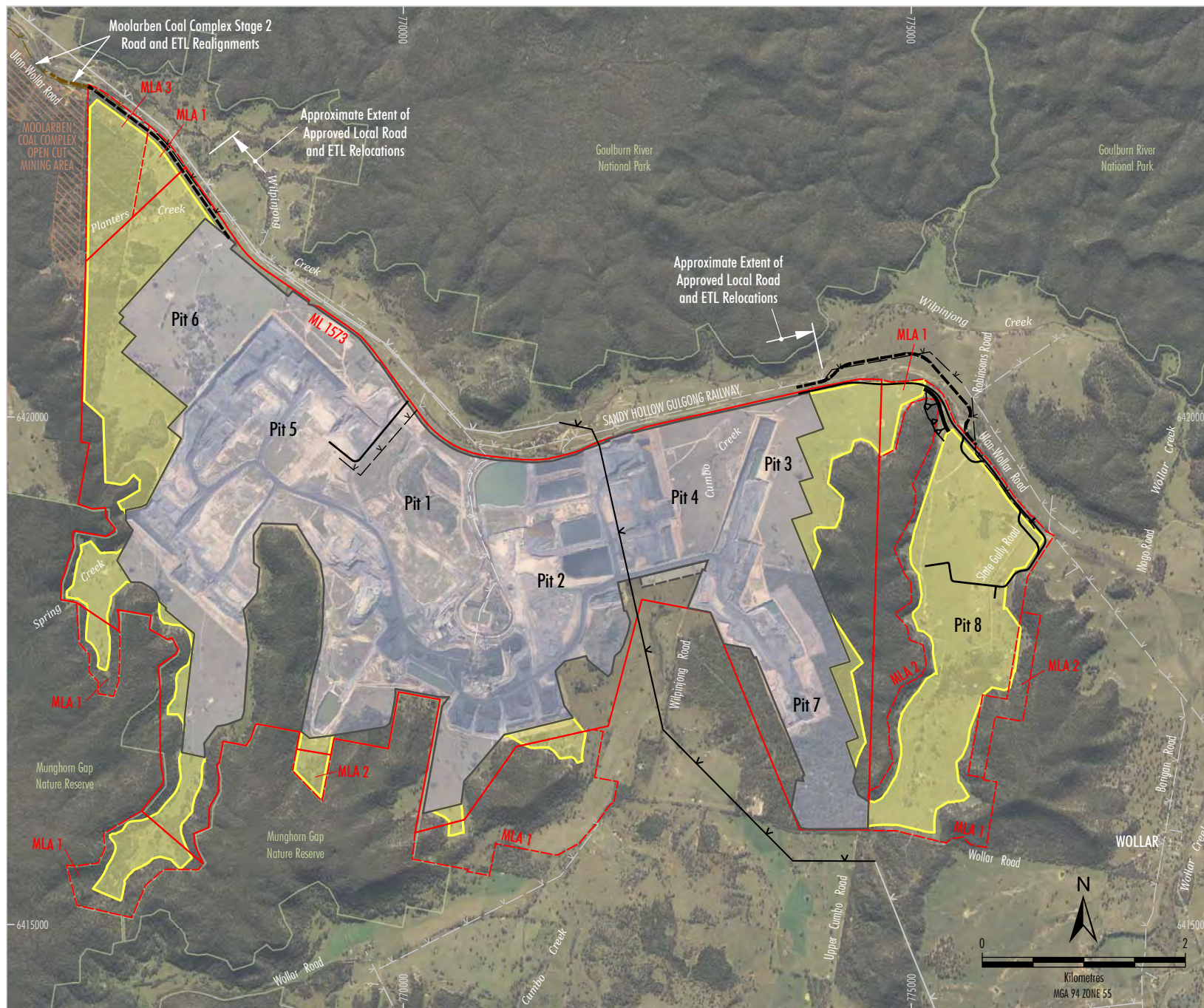


Figure 2-1

2.1.2 Project workforce

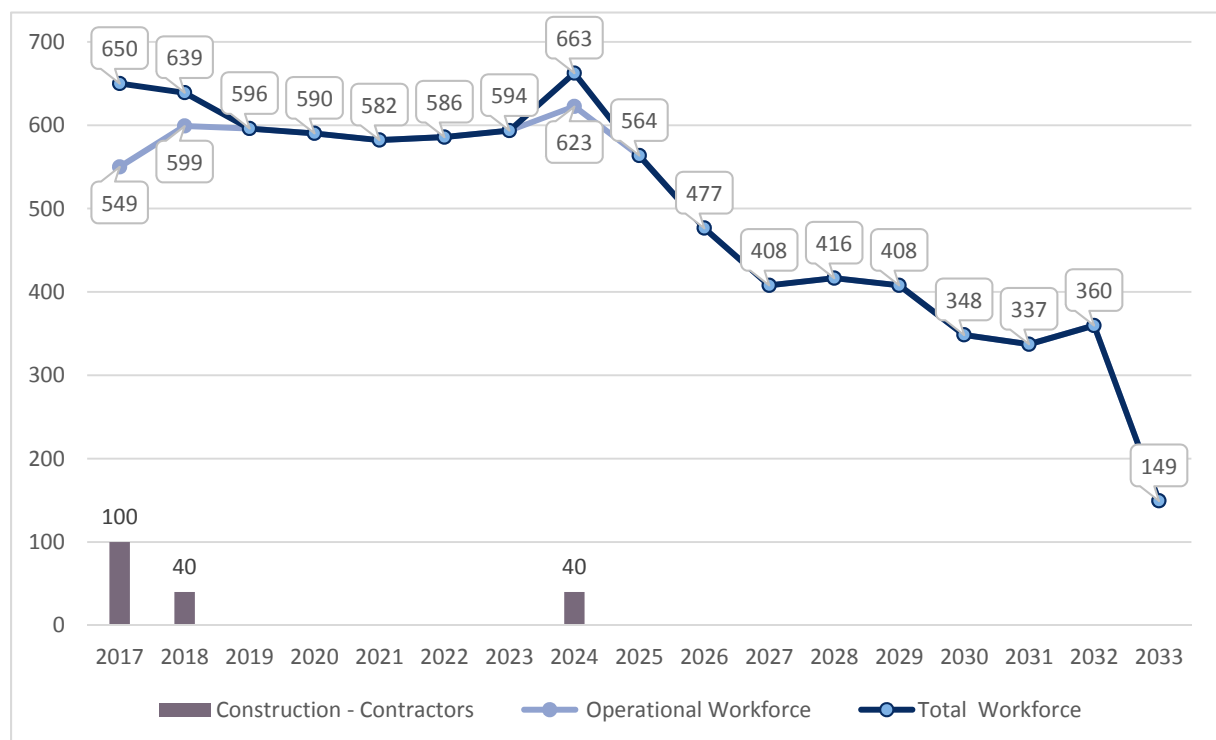
This section describes the anticipated workforce for the Project's construction and operation if the Project is approved.

2.1.2.1 Construction

It is estimated that construction would require a peak of approximately 100 personnel during 2017 and 40 personnel in 2018. A second construction period in 2024 would also provide up to 40 construction jobs.

Figure 2-2 shows the number of personnel required for the construction of the Project, along with the total workforce estimated to be required for the WCM if the Project proceeds. Figure 2-2 indicates peak employment periods of approximately 650 people in 2017 and 663 in 2024, when construction and operation activities are expected to be undertaken simultaneously.

Figure 2-2: Total Wilpinjong Coal Mine Workforce – With the Project



2.1.2.2 Operation

WCM has a current operational workforce of approximately 550 people. If the Project proceeds, WCM's total operational workforce would increase from a pre-project baseline of approximately 550 operational jobs in 2016 to a peak of 623 operational jobs in 2024, before declining over the ensuing nine years and ceasing in 2033-34 (Figure 2-3).

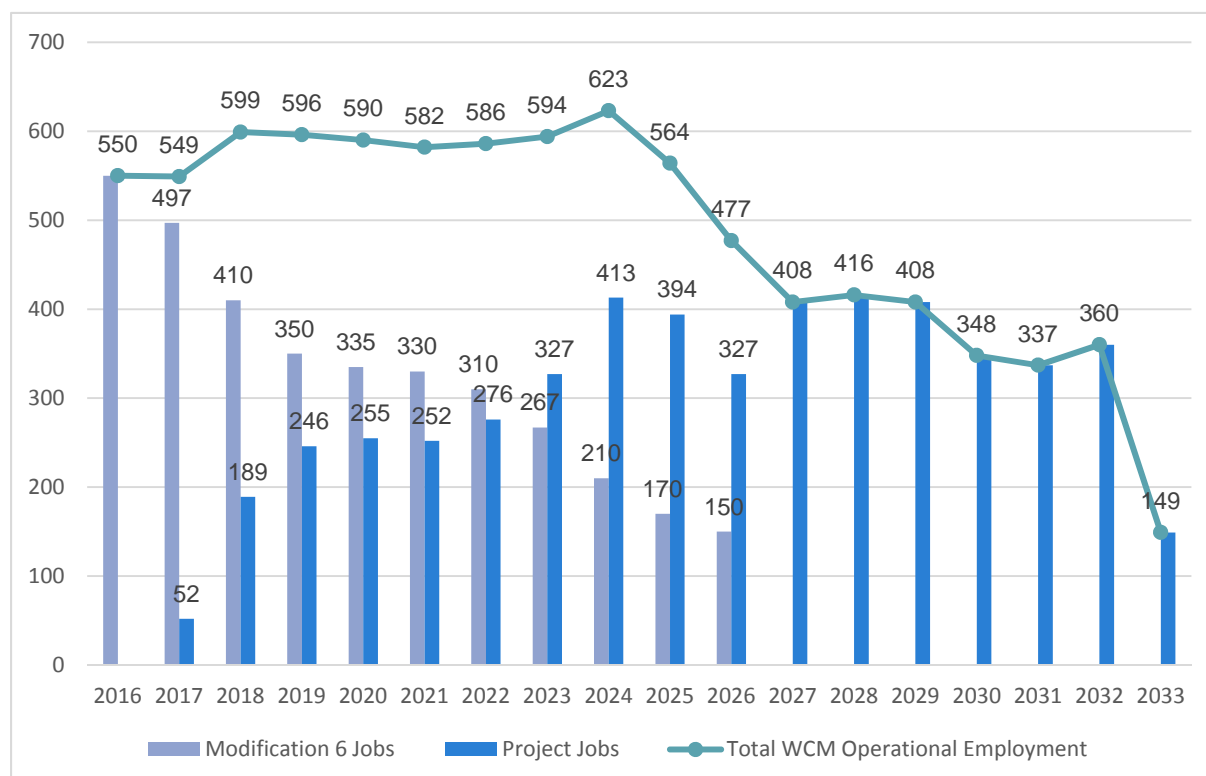
The Project would result in a sustained increase in operational employment at the WCM relative to operational employment under the existing approvals:

- an average of 40 additional operational jobs in technical and trades roles, labouring, maintenance and processing would be available between 2018 and 2023, resulting in a total of 591 jobs (average) in each year;

- a peak of 73 additional operational jobs would be available in 2024, for a total workforce of approximately 623 personnel; and
- the duration of employment at the WCM would be extended by up to seven years.

In the absence of the Project being approved, the number of jobs at the WCM would decline to approximately 497 jobs by 2017, and then to 150 jobs by 2026, with production and employment ceasing in 2026 (Figure 2-3).

Figure 2-3: Operational Jobs Created or Sustained by the Project



Notes: 'Modification 6' refers to a modification application that was approved by the Planning Assessment Commission for an increase in the ROM coal production rate from 15 Mtpa to approximately 16 Mtpa.

2.2 LOCAL PROJECT CONTEXT

The village of Wollar is the closest locality to the WCM. If the Project is approved, the new ML boundary would be located approximately 1.5 km from the village boundary. Where the term 'local' is used in this report, it therefore generally refers to the Wollar area, including the village and properties which relate to Wollar as their nearest local centre – primarily nearby dwellings on Mogo Road and Barigan Road.

2.2.1 Wollar

Wollar is a small rural settlement near the boundary of the Goulburn River National Park, some 45 km north east of Mudgee and approximately 40 km east of Gulgong. PEA has purchased the majority of houses in Wollar village and the surrounding rural area, some of which now accommodate WCM employees.

The Village of Wollar (Figure 2-4) was established during the 1860s as a hub to support the surrounding pastoral properties.¹ The population fluctuated over the following decades, swelling for example during the Gulgong gold rush of the 1870s and during the construction of the Sandy Hollow Gulgong freight railway line in the 1930s. Residents and ex-residents interviewed for the SIA generally described Wollar as a working class village, developed to support cattle and sheep farming, including a travelling workforce that would stay locally for long periods. The village grew to accommodate farm labourers' families, business owners and people who moved in from outlying properties to live in Wollar on a permanent or part time basis.

Figure 2-4: Wollar Street Signage



At the height of local activity during the 1950s and 1960s, Wollar had two butchers, a bakery, a butter factory (short-term), the Community Hall (Figure 2-5), a hotel, two churches, a memorial hall, a police station, a rural fire brigade, and a general store. During these decades, residents estimated that the Wollar Public School had a peak of up to 40 enrolments, with an average of 25-30.

Long-term (inter-generational) landholders indicated that Wollar began to experience a decline in population from the 1960s, which was attributed to a range of factors including:

- the introduction of farming machinery, leading to a reduced need for casual workers;
- the introduction of sealed roads and greater mobility of the local population;
- the closure of the hotel, which was a hub for community connectivity, in the 1960s;
- the sub-division of large (20,000 acre) land holdings to 25 acre 'lifestyle blocks' in the 1970s, attracting different land management interests resulting in a turnover in the population; and
- a predominantly older population, with few local employment opportunities for younger community members.

From around 1974, some of the large farming properties were subdivided into smaller 'lifestyle' blocks. The affordability of these smaller blocks and the area's natural environmental values drew people to Wollar village and the surrounding area. Locals noted that there was an increase in Wollar village's population and vitality during the 1980's, with the development of sporting clubs, a playgroup, a branch of the Country Women's Association, horse riders' and motorcycle groups, and active groups such as Landcare, as well as the continuation of the longstanding Wollar Progress Association.

¹ Mudgee History. 2012.

A locally produced Wollar phone book from the 1980s showed approximately 140 households in the area.² The newcomers included families and individuals who bought properties in the village and built their own homes and businesses, including a community of people seeking an alternative lifestyle in the more remote Mogo Road area. As described in the History of Wollar,³ *'some people just came and went while others stayed and made a great contribution to the community'*. In particular, there were around 25 households who moved to the Araluen estate, and up to 14 households in the Mogo Road area. There were also a number of families living in the nearby Cumbo Valley.

The population resurgence in Wollar village and the surrounding area began to wane during the 1990s as 'lifestyle farms' failed, people aged and sought better access to services, and local young people drifted to regional and coastal centres for employment. Unpublished NSW Education and Communities data provide an indication of the population trend as reflected by primary school enrolments from 1979. The peak year for school enrolments was 1990, when there were 32 children at the school, however this fell to 14 students in 1996.

From 2006, a process of property acquisition commenced to facilitate the development of WCM, which contributed to the decline in population of the Wollar community. As of the 2011 Census, Wollar had a total of 175 private dwellings, just over half of which were occupied, and a total population of 260 people.

A proportion of the community has since left the Ulan and Wollar area, many through property acquisition by the three mining companies operating in the area. In early 2015, the Wollar community included approximately seven households and a business owner on private property in the Wollar village area, approximately seven households in the Mogo Road area to the north-east of Wollar village, and approximately eight households in the Barigan Road area to the south. A typical grazing property in the vicinity of Wollar is shown on Figure 2-6.

With approximately 23 households in the Wollar community, the 2015 population is likely to be between 40 and 50 people (excluding WCM employees). There are approximately 20 WCM employees staying in PEA housing in Wollar whilst on shift or living permanently in PEA housing in the Wollar/Wilpinjong area.

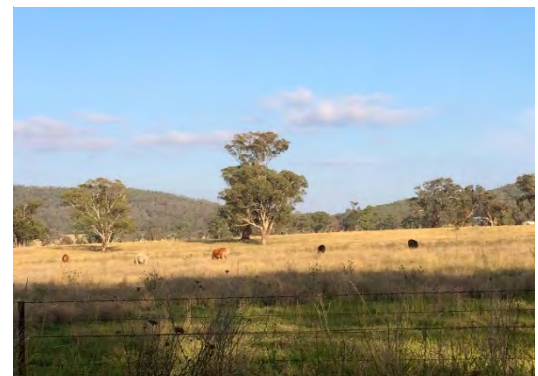
2.2.2 Ulan

The village of Ulan is located approximately 22 km west of Wollar village and 22 km east of Gulgong. The Project is unlikely to have any direct social impact in Ulan.

Figure 2-5: Community Hall



Figure 2-6: Grazing Property, Wollar Outskirts



² Property of a Wollar resident, shared with the SIA team.

³ MacDermott, G et al. 2011. History of Wollar.

Ulan is located in close proximity (1.5 km) to the operation of the Ulan Mine Complex. As is the case for Wollar, Ulan was settled by pastoralists in the early 1880s. Coal was discovered at Ulan some 40 years later, and by the 1950s a power station was built and supplied by a nearby mine.⁴ The power station closed in 1969; however, mining continued on a small scale to supply other domestic markets, later growing to extract coal for export.

The Ulan Public School provides vital support and a centre of activity for children and families on surrounding properties. The level of amenity is otherwise poor and the streetscape reflects sparse open areas, dilapidated structures, and the absence of community activity.

Key factors which have influenced Ulan's social environment include the subdivision of agricultural holdings into small lots, which reduced the already marginal productivity and were affordable for families with very low socio-economic resources, as well as the development of the Ulan Mine Complex and Moolarben Coal Complex, which have acquired holdings around the village.

2.3 REGIONAL PROJECT CONTEXT

The Project is located within the Mid-Western Regional LGA in the Central West of NSW, approximately 210 km from Sydney. The Mid-Western Regional LGA was formed in 2004 by amalgamating the former Mudgee Council with a majority of the former Rylstone Council and a small proportion of the former Merriwa Council.

The Mid-Western Regional LGA has a population of approximately 23,000 people. The region has a diverse and growing economy based on agriculture, viticulture, mining, tourism and related industries. The Mid-Western Regional LGA includes the centres of Mudgee and Gulgong (40 km south-west and 40 km west respectively of the WCM).

2.3.1 Mudgee

Mudgee is the regional centre for the Mid-Western Regional LGA, supporting the smaller towns of Rylstone, Kandos and Gulgong with respect to district level social infrastructure and retail services. In 2011, the resident population of the town of Mudgee was 10,483 people.⁵

Mudgee was settled around 1821 and initially operated as a service centre for the local goldfields.⁶ Mudgee village was gazetted in 1838. The Castlereagh Highway is the major connection between Mudgee and Lithgow (120 km south of Mudgee), with northern links to Gulgong.

Mudgee functions as a vibrant regional centre with good access to higher order services, while maintaining the appearance and character of a close and 'small' country community with strong employment opportunities in the agricultural, viticultural, tourism and mining sectors. The Mudgee area is recognised for its production of wine, fine wool, thoroughbred horses, honey, olives, hazelnuts and local produce.

⁴ Mudgee History. 2012.

⁵ ABS Census. 2011. As the statistical boundaries used by the Australian Bureau of Statistics do not perfectly match the geographical limits of relevant localities, the closest matches for statistical areas have been used (Table 3-8). The Statistical Area 2 (SA2) which most closely mirrors the limits of Mudgee town is the Mudgee SA2 (population 10,483).

⁶ Mudgee Chamber of Commerce. 2015.

The Mudgee region has been producing wine since the 1860s and descendants of the first German winemaking families still live in the area.⁷ Mudgee's key industries are supported by a thriving artisan and local produce culture.

2.3.2 Gulgong

Gulgong, established in the 1870s during the gold rush, is a local centre within the Mid-Western Regional LGA.⁸ The population associated with the gold rush declined in the 1890s, however the Gulgong community has continued to operate as a small hub supporting farmers, pastoralists, miners and wine makers in the area. In 2011, Gulgong had a population of approximately 2,383 people. The Castlereagh Highway is the primary connection from Mudgee to Gulgong, connecting to Ulan via Cope Road and Ulan Road, and to Wollar via Ulan-Wollar Road. Gulgong is located on the Sandy Hollow Gulgong Railway line.

2.3.3 Other local centres

Other local centres within Mid-Western Regional LGA include Rylstone, located approximately 40 km south-east of Mudgee, and Kandos, approximately 7 km further south of Rylstone. Rylstone's European settlement dates back to the mid-1880s,⁹ while Kandos was established in 1913.¹⁰ Both settlements have a pastoral and mineral-rich history with surrounding land supporting farming operations (including sheep, cattle, dairy, wheat and corn), as well as mining activity (including coal, shale, marble, limestone and cement manufacturing).¹¹ In 2011, Rylstone and Kandos had a collective resident population of 2,158 people (874 and 1,284 respectively).¹²

2.4 ADJACENT LOCAL GOVERNMENT AREAS

Adjacent LGAs from which the Project's workforce may be drawn include the Muswellbrook, Singleton and Upper Hunter LGAs.

Muswellbrook LGA is centrally located in the Upper Hunter Valley, covering an area close to 3,400 km². The LGA includes two larger towns: Muswellbrook, which functions as a district centre and Denman, which is a local centre. The LGA also includes rural communities, including Sandy Hollow, Wybong, Baerami, Martindale, Widden, McCullys Gap and Muscle Creek. Muswellbrook LGA is a main centre for NSW power generation. It has also become the major centre of Upper Hunter coal mining, recognised as having the largest concentration of open cut mines with the second highest rate of coal extraction in the state.

The Singleton LGA covers approximately 4,900 km² and includes the township of Singleton, as well as villages including Broke, Jerrys Plains, Putty and rural areas such as Whittingham, Mount Olive, and Elderslie.

⁷ The Property Shop Mudgee. 2011.

⁸ Gulgong Chamber of Commerce. 2014.

⁹ Rylstone and District Historical Society (RDHS Wiki). 2014; Mudgee Region Tourism. 2013

¹⁰ VisitNSW, Destination NSW 2014.

¹¹ Mudgee History. 2012.

¹² ABS Census. 2011.

The Upper Hunter LGA covers approximately 8,100 km². It is located in the NSW Hunter Valley, on the New England Highway and Great Northern Railway line, approximately 200 km from Sydney.¹³ The largest urban centre in the LGA is Scone, followed by Aberdeen, Merriwa and Murrurundi.

2.5 ABORIGINAL COMMUNITY

The Project is within the area identified as the traditional country of the Wiradjuri Nation. The Mudgee region holds many Aboriginal sites including the well-known sites of Hands on Rock (approximately 20 km north-northwest of the Project) and The Drip (approximately 19 km north-northwest of the Project). Many localities in the Mid-Western Regional LGA were named after Wiradjuri tribal areas, including Wollar (a rock water hole), Gulgong (a gully) and Mudgee (nest in the hills).¹⁴

Displacement of Aboriginal people commenced with pastoralism and intensified during the gold rush, particularly around Mudgee, Bathurst and Gulgong.¹⁵ Records indicate that many Aboriginal people moved to the plateau above Hill End (west of Mudgee) and to Wollar. Displacement from the Wollar area also occurred in 1900 in response to violence between Aboriginal people and settlers, when Aboriginal residents of Wollar were forcibly moved to a mission station some 400 km north-west, at Brewarrina near Bourke.¹⁶ Large communities of Wiradjuri Nation people have since settled in the NSW towns of Condobolin and Peak Hill and throughout larger regional areas such as Bathurst, Orange and Lithgow.

¹³ Upper Hunter Shire Council. 2013; Upper Hunter Shire Council. 2006.

¹⁴ Mudgee History. 2012.

¹⁵ Gulgong Chamber of Commerce. 2013.

¹⁶ Mudgee History. 2012.

3 FRAMEWORK FOR THE SOCIAL IMPACT ASSESSEMENT

This section describes the framework that has been applied for undertaking the SIA for the Wilpinjong Coal Project:

- Section 3.1 describes the requirements that must be met by the SIA;
- Section 3.2 describes stakeholder engagement and the consultations that were conducted, as well as the outcomes of these consultations;
- Section 3.3 focuses on relevant planning documents prepared by local and regional government agencies; and
- Section 3.4 details the methodology applied in this SIA, including the study area, the application of a social baseline as a reference for evaluating Project impacts, and investigations undertaken as part of the impact assessment.

3.1 ASSESSMENT REQUIREMENTS

The *Environmental Planning and Assessment Act, 1979* (NSW) (EP&A Act) defines ‘environment’ as including ‘all aspects of the surroundings of humans, whether affecting any human as an individual or in his or her social groupings’.¹⁷

3.1.1 Environmental Assessment Requirements

The NSW Department of Planning and Environment (DP&E) SEARs provide the framework for the Project’s environmental assessment and SIA.¹⁸ Among other things, the EIS for the Project must include:

- an assessment of the likely social impacts of the development; and
- an assessment of the likely economic impacts of the development, paying particular attention to:
 - the significance of the resource;
 - economic costs and benefits of the project; and
 - the demand for the provision of local infrastructure and services, having regard to Mid-Western Region Council’s requirements.

Mid-Western Regional Council’s (MWRC’s) submission to the DP&E SEARs notes that modifications to the WCM over time have had “a significant impact on the village of Wollar and a significant reduction in the number of residents... Council requests that the cumulative impact on all remaining sensitive receptors is adequately addressed to protect the amenity of residents in the locality.”¹⁹

¹⁷ NSW Government. *Environmental Planning and Assessment Act, 1979*.

¹⁸ NSW Department of Planning and Environment. *Secretary’s Environmental Assessment Requirements: Wilpinjong Extension Project*. December 2014.

¹⁹ Ibid.

3.1.2 Purpose and scope of the Social Impact Assessment

The purpose of this SIA is to assess the likely social impacts of the Project. WCM's contribution to social conditions in the study areas are described as part of the social baseline. Potential changes to existing impacts and opportunities as a result of the Project would take place relative to this baseline.

The SIA has been prepared in accordance with the SEARs, addressing likely social impacts at local and regional levels, including the demand for local and regional social infrastructure and services, as required by MWRC. The scope of the SIA was additionally informed by the outcomes of the stakeholder engagement and consultation processes, and the broader planning context, as described in the following sections. As such, the SIA includes an assessment of the potential impacts and opportunities as they relate to:

- population size and characteristics;
- housing demand and supply;
- social infrastructure at local and regional levels;
- community values (including amenity, sense of place, quality of life and community cohesion);
- employment and local commercial opportunities;
- labour demands in the broader regional area; and
- local and regional planning objectives.

The SIA also considers potential changes to social conditions that are likely to occur if the Project does not proceed.

3.2 STAKEHOLDER ENGAGEMENT AND CONSULTATION

The SIA has drawn on the results of ongoing consultation conducted by WCPL, including data from landholder consultation, the Community Consultative Committee (CCC), consultation with Indigenous parties, and data from the complaints and feedback line.

Engagement activities undertaken as part of the SIA included:

- interviews with Wollar residents, ex-residents and local stakeholders;
- engagement with community members in the Mid-Western Regional LGA via a community survey;
- a WCM employee survey;
- interviews with MWRC, including officers responsible for social, strategic and environmental planning;
- interviews with social infrastructure providers (including school principals, GPs and emergency services managers) who have insight into the community and provide services which may be affected; and
- NSW Government agencies managing services or facilities for which demand may change.

Engagement for the Project's SIA commenced in October 2014, using early baseline findings to facilitate discussion with social infrastructure providers. Further consultation was undertaken during February and March 2015. This included interviews with local residents, ex-residents and property owners in Wollar, an interview with MWRC, interviews with the Department of Education and Wollar School, and a community survey, including on-line access.

The objectives of the SIA engagement were to:

- enable people who are potentially most affected by the Project to provide input to the assessment;
- facilitate consideration of a range of perspectives and values;
- obtain community and informed stakeholder input to the social baseline; and
- enable stakeholders to provide input on the scope of impacts and proposed mitigation strategies.

Engagement undertaken as part of the SIA and key results are described below.

3.2.1 Consultation with the Wollar community

Fifteen SIA interviews were held during February and March 2015, including eleven interviews with existing residents of Wollar and the surrounding area (Mogo Road and Barigan Road), and four interviews with former residents. All former residents maintained business or farming interests around Wollar.

Interviews were structured to discuss:

- what Wollar was like in previous decades;
- social changes over time before the WCM commenced;
- social changes since the WCM commenced; and
- the current Project context, including scoping of impacts and opportunities.

The SIA engagement process was clear in distinguishing the proposed Project from the existing WCM. However, many residents who live in the village anticipated that the Project would exacerbate a range of community impacts that they attribute to the WCM, and many suggested that the Project would ultimately result in the 'death of Wollar'. Most Wollar residents noted that they oppose the Project, whilst most ex-residents, who maintain business or family interests in the area, support it.

The following tables summarise the outcomes of the consultation with the Wollar community. Issues have been documented as they relate to the existing WCM operation or previous PEA property acquisitions (Table 3-1) as distinguished from issues relevant to the Project (Table 3-2), but identifying where residents anticipated the Project would exacerbate existing issues.

Table 3-1: Wollar Stakeholders' Inputs – WCM Operations and PEA Land Acquisitions

Key Factors	Potential Impacts and Opportunities Relating to Existing WCM Operation
Planning and regulation	<ul style="list-style-type: none"> Concerns about NSW Government noise and dust criteria being inappropriate in a rural village setting.
Communication and engagement	<ul style="list-style-type: none"> Irregular communication regarding WCM operations and dissatisfaction with communication mechanisms. Insufficient communication regarding impact identification and mitigation and resulting impacts on amenity. Former landholders generally experienced positive relationships with the WCM.
Amenity	<ul style="list-style-type: none"> Noise which disturbs sleep. Dust inside and outside residences, impacting residential amenity and raising concerns of health risks. Increase in vacant houses in and around the village, many of which are dilapidated and require substantial maintenance or demolition. Adverse change to village appearance for travellers and visitors – no longer being representative of the community and its values.
Population	<ul style="list-style-type: none"> WCM operation accelerated the decline of the population at a rate to which the village has been unable to adapt.
Social character	<ul style="list-style-type: none"> Through loss of critical population mass, the community's capacity to maintain the village is experiencing significant strain. Loss of community networks of neighbours and friends. Loss of services and community capacity to maintain highly valued 'self-help' structures. Mine workers and Wollar village residents do not integrate. Some members of the community have experienced stress, loss and grief as a result of land acquisitions.
Community wellbeing	<ul style="list-style-type: none"> The mine (and/or cumulative impacts from the three mines and associated rail movements) causes black dust in the village, including in water tanks. Spontaneous combustion (odour and fear of toxicity) has been a major concern. Some reports of community members' health affected by stress. Speeding traffic compromising the safety of children within the village and local drivers. Wollar is currently vulnerable in times of emergency such as fire. Former landholders have been enabled to move on, with generally positive effects for those interviewed.
Employment	<ul style="list-style-type: none"> Some local employment opportunities have been realised. Larger proportion of employment uptake has occurred across Mid-Western Regional LGA and adjacent LGAs. Local stakeholder expectation of increased local employment and business opportunities not satisfied.
Social infrastructure	<ul style="list-style-type: none"> Concern for future of school and general store. Loss of community networks through closure of local churches (diocesan decisions). Concern that ongoing access to visiting health services would be difficult to justify for a small population. Access issues and potential delays for Cooks Gap RFS due to cumulative impacts of coal trains on rail crossings. Local access to RFS training and certification processes an issue and loss of community identity with name change of Wollar RFS Shed to Cooks Gap.
Housing	<ul style="list-style-type: none"> Condition of unoccupied houses declining through lack of maintenance. Loss of financial control to invest in local housing assets, re-mortgage, rent or buy due to proximity of mine.

Table 3-2 summarises inputs from Wollar stakeholders regarding their concerns about social impacts which they believe could result from the Project.

Table 3-2: Wollar Stakeholders' Inputs – Project Potential Impacts and Opportunities

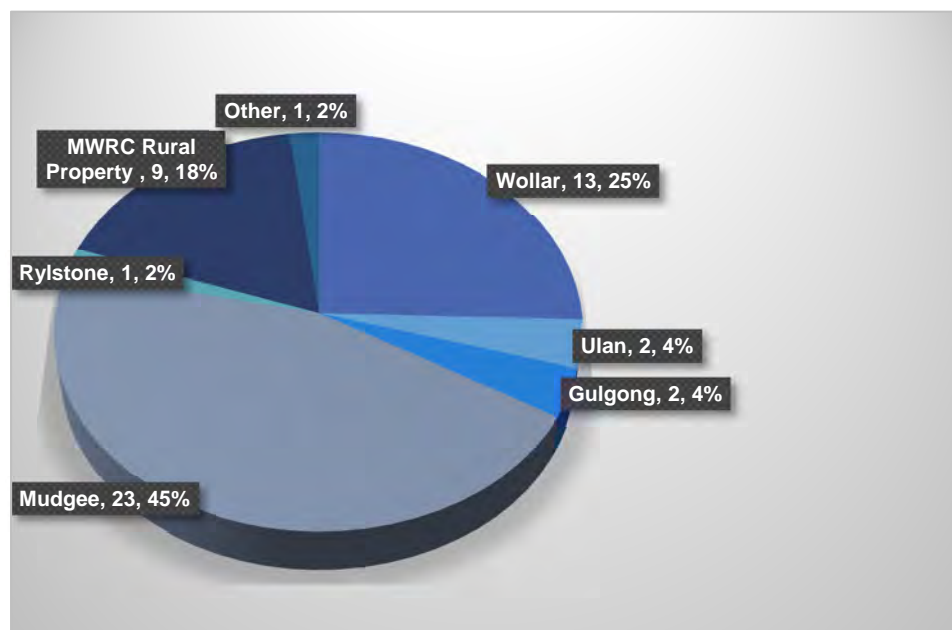
Key Factors	Potential Impacts and Opportunities Relating to the Project
Planning and assessment	<ul style="list-style-type: none"> Concerns that planning and regulation processes do not adequately address landholder interests or value their connection to land and community. Concerns about NSW Government noise and dust criteria being inappropriate to apply in a rural village setting.
Population change	<ul style="list-style-type: none"> Further decline in population as a result of property purchase processes and out-migration.
Social character	<ul style="list-style-type: none"> Loss of community networks of neighbours and friends with ongoing acquisitions. People feeling additional stress and loss if others leave town as a result of the Project.
Amenity	<ul style="list-style-type: none"> Changes to amenity with potential closure of the school and general store. Ongoing concern regarding the condition of unoccupied local houses and the overall presentation of Wollar to visitors. Potential for increased frequency of sleep disturbance caused by noise.
Quality of life	<ul style="list-style-type: none"> Potential for health issues relating to stress, dust and sleep disturbance. Project may exacerbate decline in services in the area. Property values impacted. Potential for the 'death of the village' as some remaining residents move away.
Access to services	<ul style="list-style-type: none"> Increased travel distances for essentials and groceries if the store closes. Access and potential delay for incident response by Cooks Gap RFS due to distance from Wollar and increased use of rail crossings.
Employment	<ul style="list-style-type: none"> Continued employment of up to 550 people and a small incremental increase in employment acknowledged as positive.
Housing	<ul style="list-style-type: none"> Concern regarding potential for houses or community buildings such as the churches to be affected by blasting. Current purchase negotiations are viewed as not representative of the cost for families to relocate to another property of a like nature.

3.2.2 Community survey

A community survey was conducted to enable a broad range of community members to participate in consultation, obtain information for the social baseline, and seek community members' views about the Project's potential impacts and opportunities. Copies of the survey were provided to all interviewees and households in Wollar, and to people and organisations on WCPL's stakeholder register. The survey was also available on-line via "Survey Monkey", and was advertised in the Mudgee Guardian and accompanied by an editorial article. Detailed results of the community survey are presented in Appendix A.

51 surveys were returned, of which seven were in hard copy and 44 were completed online. The location of survey respondents is shown in Figure 3-1. Around a quarter of respondents were from the Wollar area, with the remainder (apart from one) from within the Mid-Western Regional LGA. No surveys were received from Kandos residents.

Figure 3-1: Respondent Location



The results of the survey need to be interpreted with caution, given the low participation rate and the likely presence of 'self-selection' bias. The implication is that the results of the community survey are unlikely to be statistically representative of the views of the broader population.

The approach that has been adopted is to accept that there is a degree of sampling bias in the community survey whose direction and extent is unknown. The community survey responses have therefore been incorporated in this SIA and are addressed in subsequent sections. Table 3-3 provides a summary of the main potential impacts and opportunities identified in the community survey. Many of these are similar to the comments made in the course of stakeholder consultations.

Table 3-3: Summary of Community Survey Responses

Key Factors	Potential Impacts and Opportunities Relating to the Project
Past Community Changes	<ul style="list-style-type: none"> Residents from Wollar and other rural properties noted noise and dust levels from mining, feeling stress and uncertainty due to WCM impacts, and an increase in traffic and people. Residents from other parts of Mid-Western Regional LGA commented positively on population and economic growth.
Expected Community Changes from the Project	<ul style="list-style-type: none"> Residents from Wollar and other rural properties expected a continuation of past (negative impacts) and feared the impacts on Wollar. Residents from other parts of Mid-Western Regional LGA commented positively on future impacts on businesses, and noted risks to the local economy from a mining downturn.
Values	<ul style="list-style-type: none"> Residents from the Wollar area felt that the community was family-oriented and harmonious. The majority of residents did not consider that Wollar has a stable local economy.
Local impacts and opportunities from the Project	<ul style="list-style-type: none"> Concerns for the future of Wollar, the local shop, the local school, a further loss of population in Wollar, local air quality, and heritage listed buildings.
Regional impacts and opportunities from the Project	<ul style="list-style-type: none"> Concerns about short-term employment effect and transient workers. Benefits and costs would be distributed unequally. Short-term improvements to job stability. Improved local economy and additional rates to finance Council infrastructure. Additional donations and sponsorships for local groups.

3.2.3 Peabody Energy employees

A survey was conducted with WCM employees to identify how they interact with the local social environment, including:

- residential location and housing arrangements;
- local and regional expenditure; and
- contribution to social networks and social resources.

The survey sample of 325 survey responses represents approximately 60 percent (%) of the total workforce (approximately 550 people) working at WCM, and includes both direct employees and contracted staff. Key findings are summarised in Table 3-4.

Table 3-4: Employee Survey – Key Findings

Key Factors	Employee Input
Location	<ul style="list-style-type: none"> • Of the responses received that detailed residential locations (20% of participants did not respond to this question), a large proportion (55%) of the workforce lived in Mudgee, while 13% lived in Gulgong and a small proportion (3%) lived in Wollar. • Smaller workforce numbers were distributed across residential locations including Kandos, Rylstone and Ulan. Approximately 15% identified their residential location as elsewhere in the Mid-Western Regional LGA, and 11% identified a location other than the options listed. • Respondents living in Wollar rent PEA-owned housing, and 3% of the survey sample identified as renting company-owned housing.
Workforce composition	<ul style="list-style-type: none"> • One third of the existing workforce (33%) were aged between 25 and 34 years, while approximately 5% were under the age of 25. • There were good general levels of workforce diversity with women representing approximately 11% of the workforce, and Aboriginal or Torres Strait Islander employees representing approximately 7%. • WCM has a family-focused workforce, with approximately 78% of workers either married or in a domestic relationship and 75% of workers with children (including 58% of respondents who had children living with them).
Local expenditure	<ul style="list-style-type: none"> • More workers did their weekly shopping in Mudgee (76%) than lived there (55%), which indicates the availability of a larger and more diverse range of shops and products, although some workers preferred shopping in Gulgong (11%) and Kandos (2%) which is likely to align with their residential location. • Mudgee was the main recipient of workforce weekly spending, with 47% of the workforce spending \$500 or more in the area on a weekly basis. Some 4% of the workforce spent \$500 or more in Wollar/Ulan, which is likely to correlate with those living there, while 42% of respondents participated in smaller weekly spend activity (\$100 or less) in Wollar/Ulan. • Gulgong received the least direct workforce expenditure as 62% of the workforce identified that they did not shop there at all, while 10% of the workforce spent \$200 or more, which is likely to correlate only with those living in the area.
Social networks and resources	<ul style="list-style-type: none"> • Workers financially contribute to social resources, with 90% of respondents donating to a charity or community organisation on an annual basis, while approximately half (48%) participated in a voluntary organisation.
Housing	<ul style="list-style-type: none"> • High rates of home ownership or property under purchase (collectively representing 67% of worker accommodation arrangements), which reflects longevity in workforce plans to live and work in the area. • A proportion of the workforce (17%) maintained a drive-in-drive-out arrangement, living in other accommodation while on shift, including those living in company-owned housing while on shift.
WCM existing social and environmental	<ul style="list-style-type: none"> • The majority of workers surveyed rated the environmental and social performance of the existing WCM as good or excellent, however 7% of respondents rated its current

Key Factors	Employee Input
performance	environmental performance as poor or very poor and 11% rated its relationship with local communities as poor or very poor.
Potential Project-related impacts and opportunities	<ul style="list-style-type: none"> The majority of workers surveyed identified the potential for positive impacts to accrue as a result of the Project, most likely for local business and economic development (identified by 46% of respondents) and employment (identified by 21%) (it should be noted that responses are influenced by the benefits such as employment they would experience from the Project proceeding). A large proportion of the workforce (59%) did not anticipate the Project would have a negative impact on key social factors addressed in the SIA, while 11% thought community character, values and lifestyle would be negatively affected by the Project.

3.2.4 Social infrastructure providers

Gulgong and Mudgee are local and district service centres (respectively) for the Mid-Western Regional LGA. Engagement with service providers included interviews with:

- the NSW Department of Education District Manager;
- Wollar Public School;
- Ulan Public School;
- Cooks Gap Rural Fire Service (RFS, which includes the formerly separate Wollar RFS);
- Mudgee Medical Clinic;
- NSW Ambulance Service, Central West Zone Western Sector Regional Division; and
- the NSW Police Inspector, Mudgee Local Area Command.

Key inputs from service providers are summarised in Table 3-5.

Table 3-5: Social Infrastructure Providers – Key Findings

Key Factors	Providers Inputs
Capacity of local services	<ul style="list-style-type: none"> Existing shortage of childcare and pre-school services. Plans to increase capacity underway through MWRC with 4-5 new centres catering to different age groups planned around Mudgee. Wollar Public School has limited capacity and few enrolments. Future plans for the school are under review by the Department of Education. Adequate capacity within the region's high school network, although capacity of Mudgee Public High School has previously been vulnerable to increased demand. Existing monthly visiting (preventative) health service to Wollar. Unclear of future plans for this service. Access to clinics and hospitals available in Mudgee and Gulgong. Wait times have reduced in the past three years but service capacity, particularly in Mudgee, remains vulnerable to increased demand. Adequate capacity in police and ambulance services to meet Project-related demand. RFS capacity has strengthened through local WCM employee volunteers and two fire trucks are located in Wollar. Local equipment is also available although Cooks Gap RFS is a 40 minute drive away and the local route involves freight rail crossings.
Potential impacts	<ul style="list-style-type: none"> Potential for further population out-migration from Wollar to affect small enrolment figures and future operation of Wollar School. Risk of limited health service access and potential for poorer health outcomes in Wollar should the visiting medical service cease.

Key Factors	Providers Inputs
	<ul style="list-style-type: none"> • Potential for increased demand on police and ambulance services for minor incident response (which can be reduced through local protocols), or in context with cumulative project demands. • Advanced notice required for ambulance participation in familiarisation or site-based exercises.
Potential opportunities	<ul style="list-style-type: none"> • Establishment of local agreement / review of WCM's working arrangements with ambulance, police and RFS. • Continued support of RFS by Project employees (volunteering), with potential to improve access to localised training sessions. • Continued management of alcohol culture across local communities (recognising employees would also be community members). • Maintain strong self-reporting and safety culture with respect to road and driver safety. • Support and enhancement of interactions between the local education network (Wollar and Ulan Public Schools). • Potential opportunities associated with Project-related improvements to transport infrastructure.

3.2.5 Mid-Western Regional Council

MWRC officers (Director Development and Community Services and Manager Strategic Planning) were consulted in February 2015 to obtain input on:

- existing community issues in the Wollar area;
- MWRC's community plans, programs and priorities, particularly with relevance to the Wollar area;
- the adequacy of existing social infrastructure and services in Mudgee and the Mid-Western Regional LGA;
- any plans for MWRC works or future land development in the Wollar area;
- potential social impacts identified by MWRC in relation to the Project; and
- potential opportunities or benefits identified by MWRC in relation to the Project.

Key findings from consultation with MWRC are summarised in Table 3-6.

Table 3-6: Mid-Western Regional Council – Key Findings

Key Factors	Providers Inputs
Planning considerations	<ul style="list-style-type: none"> • Ongoing maintenance of MWRC assets and park land in Wollar. • No capital works planned for Wollar in near future. • Mudgee offers benefits of critical mass in terms of social infrastructure and housing to meet growing community needs. • Overall MWRC objective to maintain viability of the Mid-Western Regional LGA's larger tourist villages (Local Environmental Plan [LEP] priorities include protecting the settings of Mudgee, Rylstone, Kandos and Gulgong).
Social infrastructure capacity	<ul style="list-style-type: none"> • Childcare and pre-school shortages being addressed with plans for 4-5 new centres catered to different age groups. • Medical service shortage in peak demand periods and indications capacity remains vulnerable to increased or cumulative demand. • Local bushfire management and resourcing is an ongoing concern for the Wollar community. • MWRC (with assistance from Moolarben Coal Complex, Ulan Mine Complex and WCM) subsidised Mudgee airport which has now reopened.
Housing capacity	<ul style="list-style-type: none"> • Volatile market and previous housing supply issues during peak demand periods. • MWRC has recently finalised its Urban Land Release Strategy and is monitoring land release and development applications to support planning, as well as communications to investment and trade sectors. • Labour shortages are an issue – particularly for builders and tradespeople.
Business context	<ul style="list-style-type: none"> • General low business confidence in Mudgee and surrounding district. • Retail has been significantly affected by the mining industry / economic downturn.
Potential social impacts	<ul style="list-style-type: none"> • Cumulative impacts, in the context of potentially concurrent project timeframes, with consideration for employment. • Future of Wollar village – depopulation and service access issues.
Potential opportunities	<ul style="list-style-type: none"> • Investment in Mudgee social infrastructure and artisan culture – MWRC currently prioritising development of Regional Gallery and associated arts and cultural features.

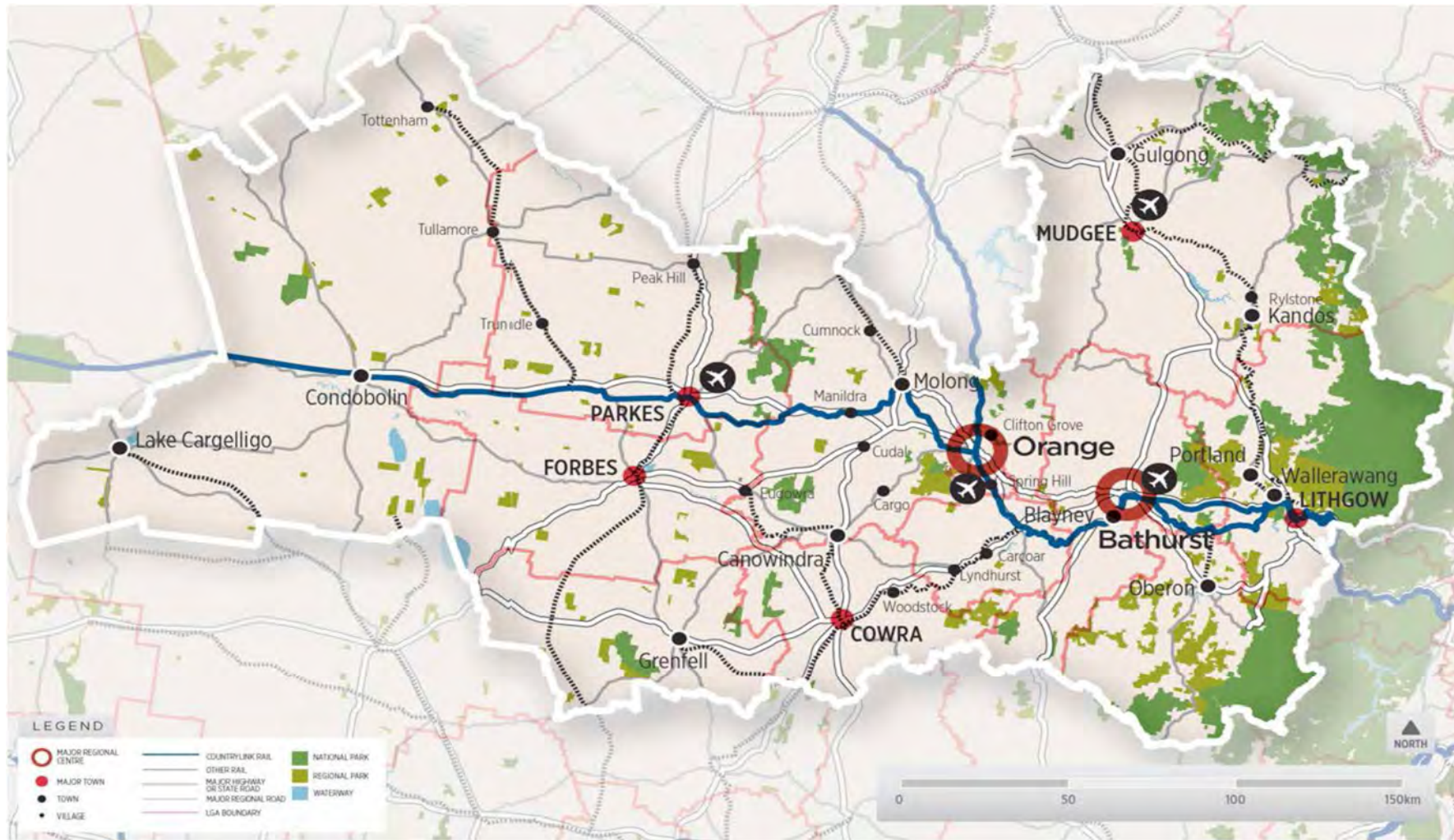
3.3 PLANNING CONTEXT

In addition to the outcomes from the stakeholder engagement, the assessment of Project impacts was informed by the planning priorities identified by local and regional governments.

3.3.1 Central West Regional Action Plan

The Central West Region encompasses the LGAs of the City of Lithgow, Mid-Western Regional, Oberon, Bathurst, Blayney, City of Orange, Bland, Cabonne, Cowra, Weddin, Lachlan, Parkes and Forbes (Figure 3-2).

Figure 3-2: Central West Region, NSW



Source: NSW Department of Premier and Cabinet. 2012.

The Central West Regional Action Plan (CWRAP) was released by the NSW Government in 2012.²⁰ It describes the region as featuring quality national parks, clean and reliable water catchments, strong industry sectors including agriculture, manufacturing, education, industry services and a growing mining sector.

The CWRAP also notes that the region offers extensive road and rail infrastructure and is in close proximity to major centres including Sydney, Newcastle, Wollongong and Canberra. Economic development priorities identified for the Central West Region include fostering growth in agriculture, tourism, mining and related industries, and balancing economic growth linked to mining with the protection of agricultural land.

The CWRAP focuses on increasing local employment opportunities by improving access to education services, and encouraging businesses to establish within the region. Priorities within the CWRAP have been aligned to the 'NSW 2021' plan to:

1. support economic growth within the region;
2. improve regional infrastructure;
3. support Aboriginal people and communities to develop and implement effective governance structures;
4. improve education and training opportunities for young people;
5. provide integrated and coordinated health and human services; and
6. improve community safety.

3.3.2 Strategic Regional Land Use Plan – Upper Hunter

The Strategic Regional Land Use Plan – Upper Hunter (SRLUP) was finalised by the NSW State Government in September 2012.²¹ While the geographic scope of the SRLUP does not include all of the Project study area, the Plan incorporates linkages to the broader Hunter Region (which contains the LGAs of Singleton, Muswellbrook and Upper Hunter) and gives consideration to significant mining activity underway in the Bylong-Wollar-Ulan corridor.

The SRLUP sets out the Government's proposed framework to '*support growth, protect the environment and respond to competing land uses, whilst preserving key regional values over the next 20 years.*' The SRLUP describes the broader Hunter Region as underpinned by coal mining and agricultural activity (particularly dairy and beef cattle and pasture production), electricity production and tourism. The broader Hunter region's key agricultural sectors and industries of national significance include thoroughbred breeding and viticulture/wine making.

Considerations noted in the SRLUP with relevance to the SIA include:

- supporting growth, protecting the environment and responding to competing land uses, whilst preserving key regional values over the next 20 years;

²⁰ NSW Department of Premier and Cabinet. 2012.

²¹ NSW Department of Planning and Infrastructure. September 2012.

- infrastructure issues relating to the growth of the mining industry, including road and rail capacity, and increased demand for health and social services;
- uneven distribution of economic growth and impacts on other industries from mining in terms of access to labour supply, land and infrastructure;
- land supply and housing issues, particularly associated with growth of the mining industry, and demand for short-term accommodation and temporary housing;
- development of a cumulative impact assessment methodology and the preparation of a development assessment guideline on the health risks associated with dust; and
- the richness of both Aboriginal and historic cultural heritage in the broader Hunter Region.

3.3.3 Local Environment Plans

LEPs specify the planning and land use management aims for public and private land through zoning, in accordance with section 33A of the EP&A Act. The Mid-Western Regional LEP 2012 took effect on 10 August 2012.²² The overall objectives of the LEP are to reduce potential adjoining land use conflicts and ensure adequate land to meet the diverse needs of the Mid-Western Regional LGA. Specific aims include:

- promoting growth and providing for a range of living opportunities across the Mid-Western Regional LGA;
- encouraging proper management, development and conservation of resources within the Mid-Western Regional LGA;
- securing the future for agriculture by protecting agricultural land capability and by maximising opportunities for sustainable rural and primary production pursuits;
- fostering a sustainable and vibrant economy that supports and celebrates the Mid-Western Regional LGA's rural, natural and heritage attributes;
- protecting the settings of Mudgee, Gulgong, Kandos and Rylstone;
- making residential development opportunities with the availability of, and equity of access to, urban and community services and infrastructure; and
- promoting development that minimises the impact of salinity on infrastructure, buildings and the landscape.

3.3.4 Mid-Western Region Community Plan

Towards 2030 is the MWRC's community-led plan for the region.²³ *Towards 2030* aligns with priorities identified in the CWRAP, which links back to the strategic directions of NSW 2021. Key infrastructure priorities noted in the plan include:

- maintaining and improving the road networks;

²² NSW Government Legislation. 2012.

²³ Mid-Western Regional Council. 2013.

- the need to improve health services and facilities;
- emphasis on youth services; and
- the development of additional pre-school and education facilities.

A summary of the themes and priorities identified in *Towards 2030* is presented in Table 3-7.

Table 3-7: Towards 2030, Themes and Priorities

Looking after our community	Protecting our natural environment	Building a strong local economy	Connecting our region	Good government
<ul style="list-style-type: none"> • Safe and healthy • Quality accessible services • Vibrant towns and villages • Historic and heritage values • Diverse, affordable, sustainable housing • Efficient infrastructure • Diverse community needs • Sense of belonging 	<ul style="list-style-type: none"> • Protect / enhance biodiversity and natural heritage • Minimise mining / development impacts to built and natural environment • Promote and build awareness for sustainable living 	<ul style="list-style-type: none"> • Prosperous and diversified • Attraction and retention • Support job creation • Multi-skilled and diverse workforce • Strong links to education, training and employment pathways • Planning and resourcing to drive growth • Promote the region 	<ul style="list-style-type: none"> • A safe, efficient and quality road network • Safer local roads and minimise congestion • A regional transport network that grows with the needs of business and industry 	<ul style="list-style-type: none"> • Strong and strategic civic leadership • Accountable and transparent decisions • Strong representation for community • Good communication, engagement and community participation in planning • Prudent risk management

Source: Mid-Western Regional Council. 2013.

3.4 METHODOLOGY

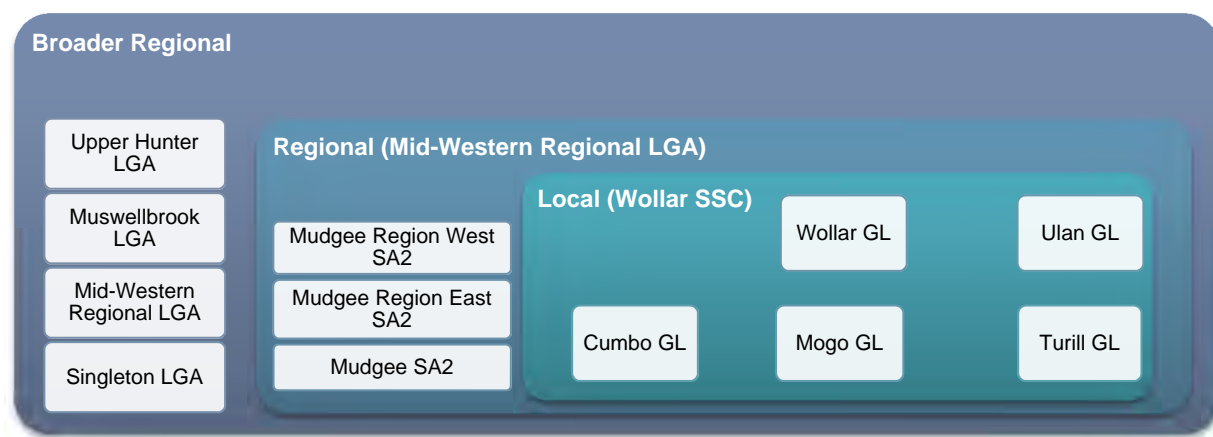
This section describes the methodology used to undertake the SIA.

3.4.1 Study area

The SIA drew on the results of the stakeholder engagement activities, as well as ongoing consultation conducted by WCPL to determine an appropriate study area. The study area for the SIA extends beyond the immediate footprint and immediate surrounds of the Project, to the communities and LGAs that may experience changes to social conditions.

Reflecting the potential local, regional and broader regional impacts and opportunities arising from the Project, the Project study area has been defined at three levels as shown in Figure 3-3.

Figure 3-3: Social Impact Assessment Study Areas



Notes: LGA refers to Local Government Area; SA2 refers to Statistical Area Level 2; SSC refers to State Suburb Code; GL refers to Gazetted Locality.

3.4.1.1 Local study area

The Project is an extension to an established mine. As such, this study anticipates that the most significant impacts and opportunities would occur within the Wollar community, and within the Mid-Western Regional LGA. The localities of Ulan, Gulgong and Mudgee, within the Mid--Western Regional LGA, are also part of the social environment that may be affected.

The Wollar and the Ulan areas are defined as gazetted localities (GLs) by the Australian Bureau of Statistics (ABS), for which census data is not released individually. Data for the two GLs are represented in the results for the State Suburb (SSC) of Wollar (which also encompasses the Turill GL, Cumbo GL and Mogo GLs). The statistical boundaries for the Wollar GL and the Ulan GL (selected subsections) and the Wollar SSC (total area) are presented in Figure 3-4.

3.4.1.2 Regional study area

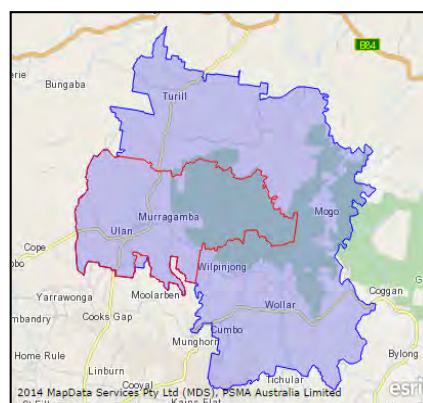
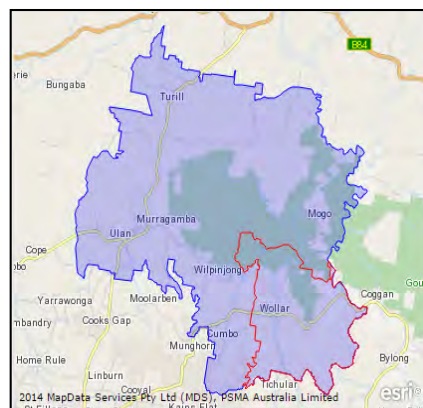
Impacts and opportunities are also possible at the regional level within the Mid-Western Regional LGA, which includes the centres of Mudgee and Gulgong. The SIA methodology has therefore assessed social impacts and opportunities at the local level (generally within the Wollar SSC as shown in Figure 3-4), and at the regional level (the Mid-Western Regional LGA).

3.4.1.3 Adjacent Local Government Areas

Adjacent LGAs from which the Project's workforce may be drawn include Muswellbrook, Singleton and Upper Hunter.

The broader regional study area (comprising the LGAs of Muswellbrook, Singleton and Upper Hunter) has been profiled with respect to workforce, housing and cumulative impacts to identify any vulnerabilities (such as skills or housing shortages) at the broader regional level. These specific LGAs bordering the Mid-Western Regional LGA have been examined because they are within the Hunter coalfield, and have similar projects either in the approvals process or currently operating.

Figure 3-4: Wollar / Ulan GL Statistical Boundaries



3.4.1.4 Statistical areas

Census data for the study area are based on the statistical geographies outlined in Table 3-8. The ABS replaced its Australian Standard Geographical Classification (ASGC) with the new Australian Statistical Geography Standard (ASGS) in July 2011. The statistical geographies used to define the local and regional study areas (Wollar SSC and the Mid-Western Regional LGA) refer to the former ASGC boundaries, so that comparisons could be made with 2006 data, and because the ASGC boundaries are better located for this study relative to the location of the Project than the new ASGS Statistical Area 1-4 boundaries.²⁴ The Statistical Area 2 (SA2) boundaries which most closely mirror the limits of the Mid-Western Regional LGA are the Mudgee, Mudgee Region West and Mudgee Region East SA2s.

Table 3-8: Statistical Areas Used in Baseline

Place	Statistical Area	Size
Wollar SSC	2011 SSC – including GLs; Ulan, Wollar, Turill, Cumbo and Mogo (SSC12530). 2006 SSC (SSC19447). (The Wollar SSC boundary was updated in 2011).	962.6 km ² 794.5 km ²
Mudgee SA2	Statistical Area Level 2 (SA2) (103031072) covering the town centre, north to Caerleon and Bombira, Glen Ayr to the west, Milroy and Mount Frome to the east and Mullamuddy to the south.	65.9 km ²
Mudgee Region West SA2	SA2 (103031074) covering an area that surrounds but does not include Mudgee SA2, extending north to Gulgong and Dunedoo, east to Wollar and south to Hill End.	8,043.8 km ²
Mudgee Region East SA2	SA2 (103031073) bordering Mudgee Region West SA2, extending north east into Goulburn River National Park, encompassing Rylstone and Kandos and parts of Wollemi National Park, and extending south to Sofala.	2,851.8 km ²
Mid-Western Regional LGA	Local Government Area (LGA15270).	8,752.8 km ²
Muswellbrook LGA	Local Government Area (LGA15650).	3,405 km ²
Singleton LGA	Local Government Area (LGA17000).	4,892.8 km ²
Upper Hunter LGA	Local Government Area (LGA17620).	8,096 km ²
NSW	State and Territory 3.	800,808.73 km ²

Notes: km² = square kilometres

Source: ABS Census. 2011.

3.4.2 Social baseline

The impact assessment was undertaken with reference to the social baseline, and informed by outcomes of the stakeholder engagement processes. Data from a variety of sources underpins the findings.²⁵

²⁴ Between 2006 and 2011, the statistical geography for Wollar SSC changed (increasing from an area of 794.5 km² defined by SSC19447 in 2006 to 962.6 km² as defined by SSC12530 in 2011, a difference of 168.1 km²).

²⁵ Data sources used to derive the social baseline includes: ABS; stakeholder consultation conducted as part of the SIA; the Commonwealth Department of Employment; Muswellbrook Shire Council; MWRC; NSW Department of Education and Communities; NSW Department of Family and Community Services; NSW Department of Trade and Investment, Regional Infrastructure and Services; NSW DP&E; NSW Housing; NSW Minerals Council; NSW Ministry of Health; Singleton Shire Council; Upper Hunter Shire Council; and websites and other documentation representing key stakeholder interests and industry sectors.

The social baseline details existing social characteristics, conditions and indicators that may be affected, negatively or positively, by the Project. The scope of the social baseline is determined by:

- defining Project elements (such as the physical footprint, activities within or adjacent to the footprint, and changes in workforce numbers) that may affect social values;
- defining the study area for assessment, noting the potential for local and regional impacts;
- reviewing existing planning documents and technical reports, reflecting community and stakeholder inputs; and
- consultation with the Project team.

The investigations undertaken as part of determining the baseline are shown in Table 3-9, structured according to social conditions or values, and the study area assessed. The social baseline is described in detail in Section 4.

Table 3-9: Social Baseline Investigations

Social Conditions/Values	Investigations	Study Area
Planning context	<ul style="list-style-type: none"> • Review of regional planning strategies and local government plans. • Identification of desired planning outcomes and settlement patterns. 	<ul style="list-style-type: none"> • Regional • Broader regional • Central West and Upper Hunter Regions as relevant
Demographic characteristics and population projections	<ul style="list-style-type: none"> • Analysis of ABS census and other data. • Analysis of population projections from the DP&E. • Assessment of social indicators. 	<ul style="list-style-type: none"> • Local • Regional
Wollar community values	<ul style="list-style-type: none"> • Interviews with Wollar residents and ex-residents. • Description of existing residential amenity. • Community survey. 	<ul style="list-style-type: none"> • Local (Wollar Community only)
Mid-Western Regional LGA community values #	<ul style="list-style-type: none"> • Analysis of community plans. • Interview with MWRC representatives. • Community survey. 	<ul style="list-style-type: none"> • Regional
Community health and safety	<ul style="list-style-type: none"> • Review socio-economic indices. • Identification of vulnerable groups and locations. • Review access to health services. • Community safety statistical analysis. 	<ul style="list-style-type: none"> • Local • Regional
Workforce participation, employment and diversity profile	<ul style="list-style-type: none"> • Analysis of workforce participation. • Occupation and skills profiles. • Analysis of relevant skills shortage data and business registrations. 	<ul style="list-style-type: none"> • Local • Regional • Broader regional
Social infrastructure and services, including education and training	<ul style="list-style-type: none"> • Analysis of existing service distribution (education, health, community, employment, emergency services and training). • Consultation with MWRC and NSW Government representatives on need and capacity issues. 	<ul style="list-style-type: none"> • Local • Regional
Housing and accommodation	<ul style="list-style-type: none"> • Analysis of demographic and market data. • Description of cost and availability of housing. • Tenure profile. 	<ul style="list-style-type: none"> • Local • Regional • Broader regional

Notes: # Engagement with Native Title claimants has been conducted separately for the Project with respect to Native Title and Cultural Heritage values.

3.4.3 Impact assessment

Investigations undertaken to assess the impacts and opportunities arising from the Project include:

- Analysis of:
 - stakeholder inputs at local and regional levels;
 - existing employees' social patterns;
 - available data and Project planning regarding workforce origin;
 - availability, cost and any access issues relating to housing; and
 - existing social infrastructure provision and needs.
- Modelling of:
 - population changes, in relation to workforce origin and composition;
 - housing demand at local and regional levels; and
 - social infrastructure impacts in relation to any change in demand as a result of the Project.
- A description of:
 - the Project's potential to change existing local and regional values;
 - potential for Project labour demands to affect other businesses or industries;
 - potential for change in health or safety determinants;
 - employment and business benefits available as a result of the Project, and the broader regional workforce's capacity to meet demand;
 - Project-induced changes with respect to regional planning objectives; and
 - the potential social impacts of mine closure, including lost employment or business trade, population numbers and demand for social infrastructure, and housing demand.

The SIA also considers the impacts of other projects in the region which may coincide with those of the Project. This assessment has considered projects on the DP&E Major Projects Register that are in or near the Mid-Western Regional LGA. The cumulative impact assessment focussed on potential population impacts, housing impacts, community values and employment opportunities. Given the modest number of additional jobs potentially required, there is a very low likelihood of any potential cumulative impacts in other regions.

The impact assessment, including cumulative impacts, is presented in Section 5.

Mitigation strategies have been developed in consultation with the Project team. These consider:

- existing strategies and commitments by WCPL;
- the extent of change which may occur in relation to the Project;

- potential enhancement strategies; and
- recommended strategies for engagement with stakeholders.

Mitigation and enhancement strategies would be underpinned by a monitoring framework, including performance indicators, as described in Section 6.

3.5 SUMMARY

Consultation conducted for the SIA identified a number of central themes about the social impacts of the Project which have been assessed. These key themes include:

- concern about the amenity of Wollar village, with respect to existing and increased dust and noise, further loss of households (as a result of property purchases) and changes to social character (as a result of further loss of social networks and social values);
- the cumulative effects of mining on local conditions such as housing access; and
- ensuring that access to housing, social infrastructure and the Mid-Western Regional LGA's physical assets are not diminished by the Project, or by cumulative mining development.

Potential opportunities of the Project that were identified by stakeholders and are considered in the SIA include:

- employment opportunities, and conversely, concerns that, if the Project is not approved, employment for up to 550 people would begin to reduce from approximately 2019 and cease by 2026;
- an expressed need to ensure continuation of the WCM's existing employment and economic benefits; and
- the potential for a positive Project presence in the community, including community investment demonstrating good corporate citizenship.

Table 3-10 provides a summary with SIA section references to identify where the SIA has addressed the SEARs and other local, regional and broader regional planning objectives of relevance to the assessment.

Table 3-10: Social Impact Assessment Alignment with Approvals and Planning Objectives

Scope of Assessment		SIA Alignment with Objectives	SIA Section
NSW Government Approval Requirements			
Secretary's Environmental Assessment Requirements (SEARs)	An assessment of the likely social impacts of the development. An assessment of the likely economic impacts of the development, paying particular attention to: 'the demand for the provision of local infrastructure and services, having regard to Mid-Western Regional Council's requirements (see Attachment 2).'	The SIA addresses the likely social impacts of development through: <ul style="list-style-type: none"> • consideration of relevant NSW local and regional planning instruments; • potential impact and opportunity assessment; • design of best practice mitigation measures; and • a monitoring and reporting framework. Economic impacts are assessed separately in the EIS.	Section 3.3 Section 5 Section 6.1 Section 6.2
Regional and Local Planning Context			
MWRC submission to SEARs	MWRC's submission to SEARs "requests that the cumulative impact on all the remaining sensitive receptors is adequately addressed to protect the amenity of residents in the locality."	The SIA assesses cumulative social impacts, including population, social infrastructure and housing.	Section 5.9
Central West Regional Action Plan (CWRAP)	Priorities relevant to the SIA include local education and employment opportunities, economic growth, supporting Aboriginal people and communities to develop, and improving community health, wellbeing and safety through integrated service provision.	The SIA addresses Project-related impacts and opportunities including increased training and employment opportunities, business and industry opportunities.	Section 5.2 Section 5.6
NSW Strategic Regional Land Use Plan (SRLUP) – Upper Hunter	Challenges relevant to the SIA include preserving key regional values and supporting growth, while protecting the environment and responding to land use competition.	The SIA addresses regulatory and local, regional and broader regional planning objectives, labour draw, potential employment and training opportunities, social infrastructure demand and housing affordability and availability.	Sections 5.1 – 5.4
Local Environmental Plan (LEP)	Aims of the MWRC LEP include effective resource management, maximising opportunities for sustainable primary production, regional growth based on a sustainable and vibrant economy and protecting Mudgee, Gulgong, Kandos and Rylstone as areas of growth.	The SIA addresses potential impacts and opportunities relating to social implications of changed land use in the study area.	Section 5.6 Section 5.7
MWRC Community Plan	MWRC's planning priorities include: <ul style="list-style-type: none"> • safe, healthy, vibrant and diverse communities; • a prosperous and diverse economy; and • strong representation of community needs, good communication and community participation in planning. 	The SIA addresses: <ul style="list-style-type: none"> • local amenity, quality of life and wellbeing; • housing affordability and availability; • social infrastructure demand; and • community and stakeholder inputs to the SIA and key mitigation strategies. 	Section 5.7 Section 5.3 Section 5.4 Sections 3.2, 6

4 SOCIAL BASELINE

Wollar's social history is described in Section 2.2.1. This section describes the social characteristics and indicators of the local and regional study areas, focusing on:

- social and cultural values (Section 4.1);
- demographic characteristics, including population trends and mobility (Section 4.2);
- socio-economic characteristics (Section 4.3);
- community health and wellbeing, including socio-economic disadvantage, health and crime indicators (Section 4.4);
- employment and industry characteristics, including labour force participation, unemployment, the skills base, and local and regional industries (Section 4.5);
- social infrastructure and services, including childhood, education, medical and hospital, and community services (Section 4.6);
- police and emergency services (Section 4.7); and
- the local and regional housing profile, including rental and housing availability and affordability (Section 4.8).

4.1 SOCIAL AND CULTURAL VALUES

This section describes the social and cultural values held by people within the study area.

4.1.1 Local community values

Wollar today has a quiet rural ambience, with paddocks, bushland and proximity to the National Park contributing to the enjoyment of open space. Residents enjoy a relatively quiet (albeit the existing approved WCM is clearly audible), if isolated, existence, and have a strong culture of mutual self-help.

Wollar's character values include wide road reserves and bushland surroundings, a range of housing styles (some from the early part of the last century) and two historic churches. Neither church has operated since 2006 (with the Anglican Church closed due to health and safety concerns), but both remain valued as symbols of the village's history and for their contribution to the village's character.

Facilities that support amenity and lifestyle include the Harry Harvey Memorial Park (Figure 4-1), a general store (owned by PEA), and a public primary school with eight students. The school is valued as a centre for primary school education and also for occasional community activities.

Amenity is otherwise limited due to the decline in population and community infrastructure. Amenity also includes visual amenity which is addressed in detail in Appendix O of the EIS.

Figure 4-1: Harry Harvey Memorial Park



As discussed in Section 3.2, interviews were undertaken with current and ex-residents of the area during February and March 2015. The majority of residents interviewed described the Wollar community as 'vibrant', 'active', 'strong', 'diverse', 'inclusive' and 'supportive' when they grew up in or moved to Wollar (which was generally between 1940 and 1990). They also described Wollar village as a centre for regular and wide ranging community and sporting events that drew large crowds from its surrounding community network including Ulan and Bylong.

The community survey identified the following values held by the 13 respondents in the Wollar area:

- eight respondents agreed or strongly agreed that the Wollar community was family-oriented, and a community that looked after its members;
- seven respondents agreed the Wollar community was harmonious;
- four respondents felt it was a community that looked forward, while six disagreed or strongly disagreed with the statement; and
- nine felt that Wollar did not have a stable local economy.

SIA interviewees described the historic Wollar community as diverse, but cohesive and drawn together by common values, however both interviewees and survey respondents described community division and a decline in harmony in recent years which they attribute to changes in land ownership and community networks. One respondent commented that *'the Wollar community before the Wilpinjong mine would have ticked all the "Agree" and "Strongly Agree" boxes. It was a very safe, family-oriented harmonious community. A community that looks forward - how can we?'* This is an example of the concerns of a number of the Wollar community members about the village's future.

4.1.1.1 Social infrastructure

In Wollar village (as in many rural towns), neighbourhood and community networks are the primary social infrastructure, ensuring residents are supported and involved in community life. Residents in the Wollar community still 'keep a lookout' for each other (with the general store a hub for checking on neighbours) however, the population is too small to support community, cultural and sporting activities.

Social infrastructure in the Wollar area has reduced as the population has declined. The Rural Fire Brigade lost capacity and amalgamated with the Cook's Gap RFS, Wollar Public School enrolments decreased from 20 in 2006 to eight students in 2015,²⁶ and community events and recreational groups have foundered for lack of participants. Visiting services to the local area and investment are becoming more difficult to justify for the number of residents remaining.

Very strong value is placed on the Wollar general store as a hub for essential grocery and postal services, as well as for sharing information (e.g. regarding road conditions) and checking on the wellbeing of other community members. It should be noted that the store is not currently economically viable and is currently being subsidised by PEA to remain open.

²⁶ Department of Education and Communities. 2011.

4.1.1.2 Demographic characteristics

An assessment of the demographic characteristics of the Wollar SSC indicates that residents experience significant socio-economic disadvantage and vulnerabilities. Relevant indicators in this regard include:

- a considerably older population (a median age of 47 compared with 38 for NSW), with more than one fifth of Wollar SSC's resident population in 2011 over the age of 65 years (21.6% or 6.6% above the NSW average);
- a larger proportion of Indigenous residents (5.8% compared with 2.5% for NSW);
- lower individual incomes at \$355 per person per week (\$206 less than NSW average income);
- a low rate of labour force participation (44.1% compared to 59.7% for NSW);
- high unemployment at 10.1% (5.1% higher than for NSW); and
- lower levels of Year 12 educational attainment (20.1% compared with 49.2% for NSW).

4.1.2 Wilpinjong Coal Mine interactions with Wollar

The WCM was approved and constructed during 2006, and has operated in accordance with the Project approval, including approved modifications, since that time. Due to the proximity of the Project to the village of Wollar, and the potential for the Project's impacts to interact with impacts from the approved operation, residents' experiences with the approved WCM operations have been documented as part of the social baseline (for example, residents report that existing approved WCM operational noise is intrusive).

4.1.2.1 Opportunities provided by WCM

Interviews indicated that some former residents have benefitted from PEA's property acquisitions. In some cases families were struggling with living costs and the viability of small farms, and PEA's acquisition of their properties allowed them to move on to better circumstances.

A number of former landholders in the area are leasing their former properties from PEA, which has allowed them to benefit economically and socially, and contributed to ongoing agricultural production around Wollar.

WCM has also been a source of employment for former and current residents in Wollar, with several former residents now working at WCM. There are also several WCM employees living in homes rented from PEA in Wollar, who provide a contribution to the general store's trade and the total population of the village.

4.1.2.2 Population change

As described in Section 2.2, Wollar village's population declined from the 1960's, however the village and the surrounding area supported an active and self-sufficient community throughout the 1970s and 1980s. Further population decline was experienced during the early 1990's.

From 2006, the former owners of WCM commenced property acquisition in and around Wollar village, Araluen Estate, the Cumbo Valley and the Barigan Valley. Property acquisitions by the Ulan Mine Complex and Moolarben Coal Complex contributed to the decline of the population in the Ulan area, which also affected businesses and community events in Wollar village.

With approximately 23 households in the Wollar community (Section 2.2.1), the 2015 population is likely to be between 40 and 50 people, plus approximately 20 WCM employees. As such, the Wollar area's population has decreased from 304 residents in 2011 to approximately 70 residents (including WCM employees) in the ten years from 2006 – 2015. This represents a decrease of more than 75%, and is likely to be a higher rate of decrease than would otherwise have occurred.

4.1.2.3 Community cohesion

Residents identified population losses due to PEA property purchases as causing the biggest changes to local community values during the past five to ten years. The decrease in household numbers has affected community values in relation to:

- service access, due to the loss of community groups and services that are no longer supported by the population size (e.g. local fire brigade);
- community cohesion, due to the depletion of social networks and community resources that supported self-sufficiency;
- sense of place, by changing the character of the village, from active and well cared-for to very quiet and with insufficient local resources for the village's upkeep; and
- residential amenity (enjoyment of private and public places), due to the loss of services, low activity levels and the deteriorating appearance of the housing (further discussed below).

Residents also noted that breaches in local relationships due to conflict about differential reactions to and benefits from the WCM had affected community values, and that the community is no longer as cohesive as in the past.

4.1.2.4 Amenity

The current operation manages noise within approved limits through real-time operational controls (including equipment shutdowns), monthly independent monitoring and reporting of noise levels and providing a complaint response mechanism. However, operational noise associated with the WCM is a particular concern and source of anger for many residents in Wollar village and the surrounding area.

Some residents experience noise from the WCM which, whilst within approval requirements (as confirmed by independent monitoring), is experienced as intrusive. In particular, short, loud noises disturb some residents' sleep, and some hear a low level humming noise which they describe as low frequency noise.

Further detailed information about potential noise impacts, mitigation and monitoring is provided in Appendix A of the EIS.

The blasting schedule at WCM is publicly available via an up-to-date free call Blasting Hotline, which is advertised in local newspapers at least quarterly, and is also available on the WCPL website. Any residents that have requested to be informed of the blasting schedule are notified via either email or telephone (or as otherwise agreed). Every effort is made to provide at least three days warning of impending road closures, however short term blasting demands may limit the notification period.

Residents indicate concern that blasting may have caused damage to the fabric of buildings in Wollar village, and some property owners report disturbance to stock following blasts. Wollar is not currently within the mandated area within which dilapidation surveys are required (i.e. due to significant distance from blasting), however surveys would be provided as part of Project planning to any residents with dwellings within 2 km of the proposed Project pit limits. This survey would provide baseline information about dwellings and community buildings, and allow monitoring of any changes to buildings.

4.1.2.5 Quality of life and wellbeing

Residents in Wollar village identified PEA property acquisitions as the most significant factor which had affected their quality of life, using words such as 'destabilising' and 'divisive' to describe the property acquisition process. A number of current residents indicated that they and others experience distress relating to the loss of community cohesion, services and activity in the village, and anxiety about the future of Wollar village.

Some residents are concerned that exposure to noise from the WCM is affecting their health, describing issues such as sleep disturbance and resulting fatigue, stress-related headaches and high blood pressure, anxiety about social and environmental impacts, and concern that low frequency noise is affecting their health.

A number of Wollar village residents said that their quality of life had been poorer since WCM commenced operations. This was attributed by these respondents to inadequate impact mitigation, property acquisition processes, and variation in environmental management processes throughout the transition of ownership after PEA purchased the WCM in 2006. Residents also indicated that poor relationships between WCM management and the local community had affected quality of life in Wollar. Others who had left Wollar said that their relationships with PEA had been cordial and productive, and that they maintained ongoing working relationships with the WCM.

4.1.3 Regional community values

4.1.3.1 Mid-Western Regional LGA

Towards 2030, MWRC's community-led plan for the region, identifies its communities as placing strong value on:²⁷

- the "country town feel";
- connections to history and heritage;
- maintaining and improving the road networks;
- improved health services and facilities;
- emphasis on youth services;
- additional pre-school and education facilities; and
- achieving balance between natural environment and economic drivers.

Results from the SIA community survey also indicate that respondents in the LGA largely view the Mid-Western Regional LGA community as:

- safe (76% agreed or strongly agreed);
- family-oriented (76% agreed or strongly agreed);
- a community that looked after its members (72% agreed or strongly agreed); and
- harmonious (65% agreed or strongly agreed).

²⁷ Mid-Western Regional Council. 2013.

Fewer survey participants felt their community was one that looked forward, however the proportion of those that did (55%) represented more than half of the survey sample. Less than half of all survey participants (40%) agreed that their community had a stable local economy, indicating this is an area of concern.

4.1.3.2 Regional centres

Similar values can be discerned in regional centres. Mudgee demonstrates its strong value of local artistry, craftsmanship and performance, while preserving rural centre traditions, including rural farming values, cellar doors, and a small town feel. Mudgee is an attractive community for families, offering a diversity of attractions, events and recreational opportunities.

The Gulgong community is sustained by the surrounding farming, pastoral, wine making and coal mining activity, and rural values are strong. The community also offers a diverse range of historic and present day tourism interests, complementing the broader region's tourism trails through Mudgee, Rylstone and Kandos. As is the case for Wollar and Ulan, Gulgong is a community that places strong value on existing levels of community safety and cohesion, their rural lifestyle and historic aesthetic, preservation and enhancement of tourism values, and maintenance of social infrastructure and property values.²⁸

4.1.4 Wilpinjong Coal Mine interactions with the regional community

WCM's primary interactions with the regional community relate to:

- employment for up to 550 people, and support for flow-on employment, with consequent security and wellbeing for employees, their families and the employees and families of those with flow-on employment;
- employees' expenditure in local business and participation in community, cultural and sporting activities;
- the operation's demand for local goods and services, which supports business vitality in the Mudgee and Gulgong areas;
- rate payments to MWRC;
- social investment, including sponsorships and donations for local community and environmental organisations; and
- support for maintenance of the regional population and housing market.

Stakeholders including representatives of Ambulance, Fire and Police Services and the MWRC, said that they had not experienced negative impacts in relation to the WCM, with the exception of:

- cumulative traffic safety issues in the early years of the WCM's operation (since addressed through co-operative initiatives between the three local mine operators and the local police); and
- a deterioration of Ulan-Wollar Road, which has been addressed through WCPL's Voluntary Planning Agreement with MWRC.

²⁸ Gulgong Chamber of Commerce. 2015.

Most stakeholders involved in the SIA consultation identified cumulative housing impacts (such as shortage of rental housing) due to mining growth, with the subsequent decrease in housing demands due to the mining industry contraction seen as part of the cyclical nature of mining. Mining growth has been a clear stimulus for population growth and housing development, however some services (such as childcare) have lagged behind demand.

4.1.5 Aboriginal history and values

As noted in Section 2.5, the Project is within the area identified as the traditional country of the Wiradjuri Nation and holds many Aboriginal sites.

Local Aboriginal people have strong pride in their culture, and many local families maintain connections to places of cultural significance, as described by the Mudgee History website and evidenced in local business operations,²⁹ as well as education programs.³⁰

Specific values held by Indigenous people include respect for the landscape as part of their cultural heritage, and responsibility to care for the country to which they belong. Family values (including extended family network) are a central value for Indigenous people. For local Traditional Owner families, demonstrating and observing their connection to their traditional land is central.

Increased participation in education and employment, as a means of closing social and economic gaps between Indigenous and non-Indigenous people, is also a key value motivating Indigenous people in Central and Western NSW. This is evidenced by the development of the Wiradjuri Study Centre in 2011, and the numerous Indigenous community organisations within the Wiradjuri region which focus on educational and employment initiatives.

4.2 DEMOGRAPHIC CHARACTERISTICS

This section summarises the key demographic baseline characteristics for the communities within the study area, including:

- the local study area (Wollar SSC);
- the regional study area (Mid-Western Regional LGA);
- the broader regional study area (including the Mid-Western Regional LGA, Muswellbrook LGA, Singleton LGA and Upper Hunter LGA); and
- NSW, for comparison.

Detailed data and tables are presented in Appendix B.

²⁹ Mudgee Chamber of Commerce. 2015; IndigiEarth. 2014.

³⁰ Mudgee Public School. 2013.

4.2.1 Current and future population trends

In 2006, the Wollar SSC (SSC19447) included the Mogo Road area, east almost to Coggan, south to encompass Barigan Valley and Cumbo, but excluded Ulan, and had a resident population of 304 people, with 119 occupied dwellings.³¹ This had declined to 260 people and 92 occupied dwellings, (in an expanded Wollar SSC) by 2011, which was a rate of decrease of at least 15% and potentially up to 25% given the expanded statistical area.

Looking at broader regional trends, between 2006 and 2011:

- the resident population of Mudgee Region West SA2 and Mudgee Region East SA2 declined marginally by -0.2% and -3%, respectively, while the population in Mudgee SA2 grew by 10.2% (above the Mid-Western Regional LGA and NSW average of 5% and 6%, respectively);
- the population of the Mid-Western Regional LGA grew by approximately 5%; and
- the LGAs of Muswellbrook and Singleton experienced slower growth of 4%, while the Upper Hunter LGA experienced the greatest growth rate of 7%, consistent with growth across NSW (6%).

Projected population growth between 2011 and 2031 suggests relatively lower expected annual growth rates for the broader regional study area LGAs than for NSW overall (Table 4-1). The overall change in population between 2011 and 2031 for NSW as a whole is projected at 27.8%, and that for Muswellbrook and Singleton LGAs at 18.4% and 16.3% respectively. In contrast, the population of Mid-Western Regional LGA is projected to experience the slowest overall growth at 8.8%

It is noted that the projections in Table 4-1 are based on assumptions about future rates of fertility, mortality and migration, and are therefore indicative and may change over time. It is also possible that recent industry contractions would slow the rate of growth in LGAs with large mining workforces.

Table 4-1: Population Projections for Broader Regional Study Area

Region	2011	2016	2021	2026	2031	Total Change	Total % Change	Annual % Change
Mid-Western Regional LGA	23,000	23,650	24,250	24,700	25,050	2,050	8.8	0.4
Muswellbrook LGA	16,350	17,100	17,850	18,600	19,350	3,000	18.4	0.9
Singleton LGA	23,500	24,550	25,600	26,500	27,350	3,850	16.3	0.8
Upper Hunter LGA	14,200	14,700	15,100	15,450	15,750	1,550	10.8	0.5
NSW	7.2m	7.7m	8.2m	8.7m	9.2m	2m	27.8	1.4

Source: NSW Department of Planning and Environment. 2014.

³¹ Australian Bureau of Statistics. 2006; Census of Population and Housing Quick Stats. Wollar SSC19447.

4.2.2 Population mobility

The length of time people live in an area provides an indication of the stability of a community's population. The 2011 Census results indicate:

- More than three quarters of residents in the local and regional study areas had the same address 12 months prior to the 2011 Census (up to 84% in Mudgee Region East SA2), and at least half had the same address five years prior (up to 65% in Wollar SSC and Mudgee Region East SA2). The proportion of residents with the same address for the previous 12 months in Wollar SSC, Mudgee SA2 and the Mid-Western Regional LGA was lower than the NSW average of 81% (76%, 75% and 79% respectively).
- Mudgee SA2 had a below average proportion of residents maintaining the same address for the five years prior, indicating high levels of mobility in the town centre. In the remainder of the local and regional study areas, Wollar SSC, Mudgee Region East SA2 and Mudgee Region West SA2 demonstrated higher rates of stability in place of usual residence over the previous five years, compared to the NSW average (representing 65%, 65% and 62%, respectively, of residents compared with 57% for NSW).

4.3 SOCIO-ECONOMIC CHARACTERISTICS

The socio-economic characteristics of the local and regional study areas were compared with state and national averages to determine the key characteristics of local and regional communities, and any potential vulnerabilities. Detailed data and tables are presented in Appendix B.

The following findings can be highlighted from the analysis of the 2011 Census results:

- The median age of the population living in Wollar SSC and Mudgee Region East SA2 (47 years) was significantly higher (+nine years) than the Mudgee SA2 and NSW medians of 38 years.
- People who identified as Aboriginal, Torres Strait Islander or both represented a higher proportion of the local and regional study area populations than the state and national averages of 2.5%. Indigenous people represented 3.9% of the population living in the Mid-Western Regional LGA and in Mudgee Region West SA2, with larger populations living in the Wollar SSC (5.8%) and Mudgee SA2 (4.2%).
- Rates of people with a moderate to severe disability above the NSW average of 4.8% were recorded in Mudgee Region East SA2 with the highest prevalence (7.3%), followed by the Mid-Western Regional LGA (5.6%), Mudgee SA2 (5.5%) and Mudgee Region West SA2 (5.1%). Results for the Wollar SSC (4.6%) were below the NSW average.
- The average weekly income for individuals living in the local and regional study areas was consistently below the NSW average, ranging from \$515 per week (\$46 below the average) in Mudgee SA2 to \$355 per week (\$206 below the average) in the Wollar SSC.
- Rates of labour force participation were consistently lower than the NSW average in Mid-Western Regional LGA localities. In Wollar SSC, less than half of the resident population over the age of 15 were participating in the labour force (44.2%, 15.6% below the state average of 59.7%). This is largely attributable to the older age profile of this locality. The Mid-Western Regional LGA had an overall labour force participation rate of 55.8% (3.9% below the state average).

- The percentage of residents living in the local and regional study areas who had completed Year 12 across the greater region was lower than the NSW average of 49.2%. The share of local residents aged over 15 years that had completed Year 12 was lowest in Wollar SSC at 20.1%. Educational attainment was also low in Mudgee Region East SA2 (26.2%) and Mudgee Region West SA2 (30.6%).
- There were higher proportions of lone person households across the study area compared with the state average of 24.2%, particularly in Mudgee Region East SA2 (33.2%) and Wollar (31.9%). Family households represented a higher proportion (73.5%) in Mudgee Region West SA2 compared to the NSW average of 71.9%. However, the remainder of the local and regional study areas had a lower proportion of family households, with the greatest variance between Mudgee Region East SA2 and the NSW average (-7.5%) followed by Wollar SSC (-7.1%), reflecting the higher proportion of lone person households, also reflecting the older age profile.

4.4 COMMUNITY HEALTH AND WELLBEING

This section considers baseline indicators for community health and wellbeing across the local, regional and broader regional study areas relative to findings for NSW as a whole. It applies the World Health Organisation definition of health as '*a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity*'.³² This definition therefore considers available indicators of health status as well as key social determinants.

Other factors that influence, or are associated with, a community's level of health and wellbeing are discussed in relevant sections, including:

- community resources and values (Section 4.1);
- economic activity, employment and income (Sections 4.5); and
- access to community facilities and health services (Section 4.6).

Detailed data in relation to community health and wellbeing are presented in Appendix B.

4.4.1 Socio-economic disadvantage

The ABS's Socio-Economic Indices for Areas (SEIFA) are composite indices of factors affecting socio-economic advantage and disadvantage, measured against an Australian benchmark index of 1,000. Factors within the Index of Relative Social Disadvantage such as unemployment, low income, educational attainment, overcrowded living arrangements, rate of disability among people under the age of 70 and poor proficiency in English affect access to information and health care.

An assessment of these SEIFA scores indicates that:

- the local, regional and broader regional study area average SEIFA scores were all below the Australian benchmark, with the exception of Singleton LGA, which recorded an average score of 1013;

³² World Health Organisation. 1948. Constitution of the World Health Organization

- the broader regional study area had a higher average index score than the Mid-Western Regional LGA (962), ranging from 968 in Muswellbrook LGA to 1013 in Singleton LGA; and
- in the regional study area, Mudgee Region East SA2 ranked poorest with an index score of 902, well below the averages for the Mid-Western Regional LGA and broader regional study area. The index scores for Mudgee Region West SA2 (970) and Mudgee SA2 (962) were comparable.

These results suggest that while the local areas within the Mid-Western Regional LGA comprise a broad range of socio-economic conditions, on average there is a greater level of socio-economic disadvantage in the Mudgee Region East SA2, and scores within the Mid-Western Regional LGA are generally lower than in the broader regional study area.

4.4.2 Health status and health conditions

The Social Health Atlas of Australia, published by the Public Health Information Development Unit (PHIDU), compiles a range of demographic, socio-economic and public health data for numerous statistical geographies, including LGAs, to monitor community health and wellbeing.³³ Modelled estimates for 2011 to 2013 of self-assessed health status and health risk factors indicate that for the Mid-Western Regional LGA:

- 15.4% of adults rated their own health as fair or poor (1.1% above the NSW average); and
- relative to the NSW average, a larger proportion of adults had other health risk factors, including daily smoking, alcohol consumption and obesity.

These results are consistent with findings elsewhere of a correlation between rural living and poorer health outcomes associated with poorer health literacy and restricted access to and affordability of appropriate health care.³⁴

An analysis of the prevalence of a range of chronic conditions in the Mid-Western Regional LGA also indicated a slightly higher prevalence of some chronic diseases than the average for NSW. Prevalence is higher for musculoskeletal system disease, including arthritis, respiratory system diseases, asthma and mental and behavioural problems.

4.4.3 Crime

Crime rates published by the NSW Police Service were reviewed to identify any existing areas of concern in the Mid-Western Regional LGA. An analysis of crime rates for the twelve months to June 2014 highlighted:

- offence rates (per 100,000) noticeably above the NSW average for malicious damage to property (1,349 compared with 978), domestic assault (456 compared with 397), assault (1,141 compared with 880), and sexual offences (277 compared with 155); and
- offence rates below the state average for theft (2,733 compared with 3,360).

³³ PHIDU, 2014.

³⁴ Asia-Pacific Journal of Public Health, 2009.

Consultation with the Mudgee Local Area Command Centre in October 2014 indicated that offence rates for the region are stable, with areas of focus primarily on managing theft from cars and domestic violence offences.³⁵ This advice is consistent with a three-year trend analysis (July 2011 to June 2014) published by the NSW Bureau of Crime Statistics and Research, which indicates generally stable offence rates in the Mid-Western Regional LGA, with rates of malicious damage declining 18.3% per year over the reporting period. A ten year trend analysis of crime rates (capturing the start of WCM operations) for the Mid-Western Regional LGA compared with NSW also shows generally stable rates, with declining rates of theft (down 2.6% per year).³⁶

4.5 EMPLOYMENT AND INDUSTRY

A detailed analysis was undertaken of labour force participation, unemployment, industry of employment, skills and businesses within the study area. Detailed data and tables are presented in Appendix B.

4.5.1 Labour force participation and unemployment trends

According to the 2011 Census, labour force participation was lower in the local and regional study areas than across NSW, with only Mudgee SA2 nearing the state average (59.2% compared with 59.7%). The lowest participation rates were identified in the Wollar SSC (44.1%) and Mudgee Region East SA2 (48%). Low labour force participation rates in these study area can largely be attributed to the ageing population.

The Mid-Western Regional LGA also recorded the lowest labour force participation and highest unemployment rates when compared to the other LGAs in the broader regional study area (55.8% and 5.7% respectively). Labour force participation was higher across the Muswellbrook, Singleton and Upper Hunter LGAs (63.8%, 66.7% and 62.4% respectively) with lower levels of unemployment (4.8%, 3.3%, and 3.6% respectively).

Key labour force characteristics of the local and regional study areas in 2011 include:

- the Wollar SSC had a total labour force of 99 people and an unemployment rate of 11% (representing 10 people);
- Mudgee Region West SA2 had a total labour force of 4,351 people and an unemployment rate of 5.5%. Of the total number employed, almost one third worked part time (31%) and a further 4% were away from work, suggesting some underemployment;
- Mudgee Region East SA2 had a total labour force of 1,307 people and a high unemployment rate of 8.8% (representing 115 people), and similar indications of under-employment as Mudgee Region West SA2; and
- Mudgee SA2 had a total labour force of 4,865 and a lower unemployment rate of 5.3%. The proportion of the labour force working part time was closest to representing one third (33%) and a further 4% were away from work.

Underemployment may be attributed to the substantial tourism industry in the Mid-Western Regional LGA, seasonal conditions and the peaks and troughs in visitor numbers.

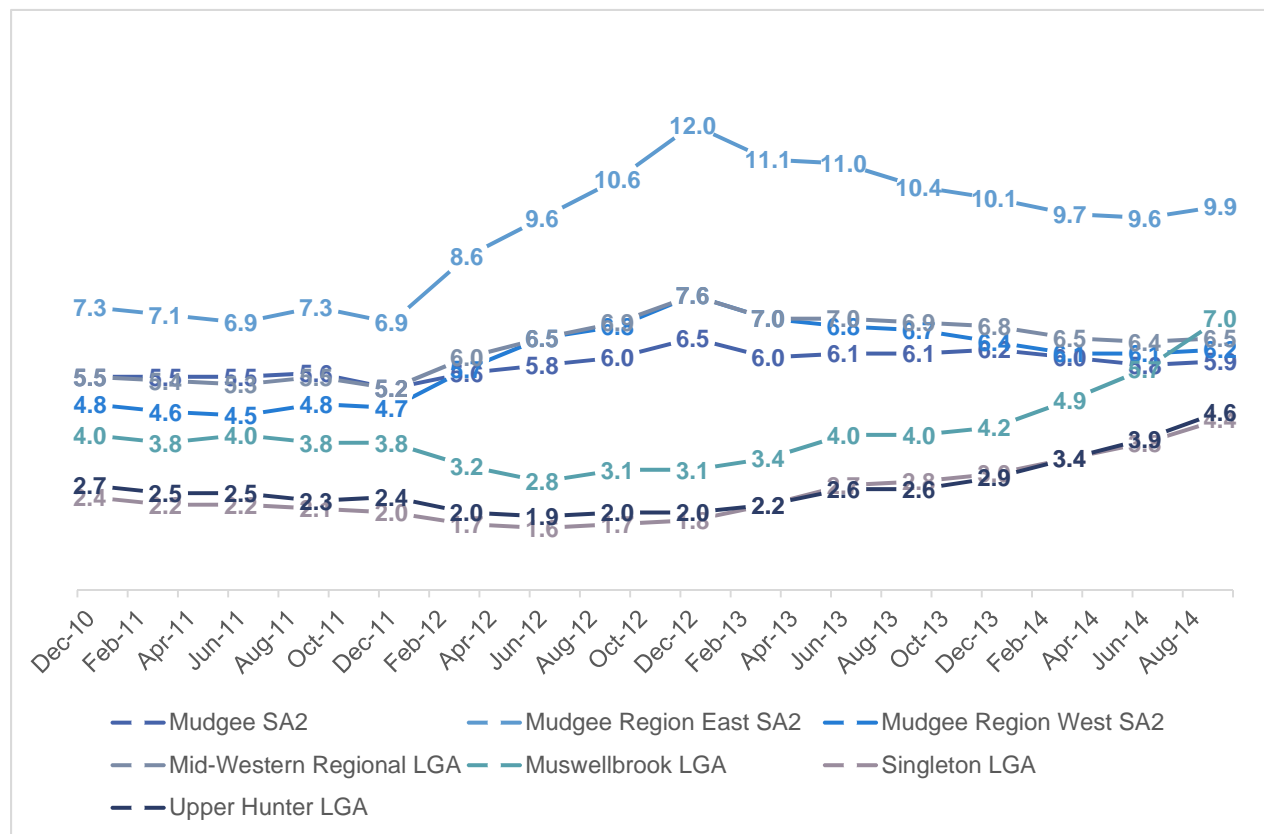
³⁵ Mudgee Local Area Command. 2014.

³⁶ NSW Bureau of Crime Statistics and Research. 2014.

Longer-term unemployment trends from the December Quarter 2010 to September Quarter 2014 show growing unemployment rates across the Mid-Western Regional LGA (Figure 4-2), including:

- growing unemployment rates across the Mid-Western Regional LGA finishing at 6.5% unemployment in September Quarter 2014 (above the NSW average of 5.7%);
- higher and growing unemployment in Mudgee Region East SA2 (encompassing Rylstone and Kandos), finishing at 9.9% in September Quarter 2014;
- unemployment rates above the NSW average in Mudgee SA2 and Mudgee Region West SA2 in September Quarter 2014 (at 5.9% and 6.2% respectively); and
- growing unemployment in the Muswellbrook, Singleton, and Upper Hunter LGAs, with a particularly strong increase in unemployment rates in Muswellbrook LGA (7% at September Quarter 2014) which are also above the NSW average.

Figure 4-2: Smoothed Unemployment Rate (%), Dec 2010 – Sept 2014



Source: REMPLAN. 2014.

Rising unemployment rates in the region would seem to be consistent with research undertaken by the NSW Minerals Council.³⁷ The NSW Minerals Council estimated that there were 4,009 direct full-time equivalent employees (FTEs), including contractors, employed in the mining sector in the Central West Region during 2013-14, of which approximately 1,434 FTEs were based in the Mid-Western Regional LGA. The NSW Minerals Council's report found that in 2013-14, the 22 mining companies surveyed employed 1,967 fewer people across the State than the previous year, and attributed the change to difficult market conditions over the past 18 months.

4.5.2 Industry of employment

A comparison of industry of employment data for the Mid-Western Regional LGA with patterns across NSW shows that:

- the mining industry provides significant employment for the Mid-Western Regional LGA (representing 15.5% of employment compared with 1% across NSW);
- retail is the second most dominant industry for both the Mid-Western Regional LGA and NSW, reflecting the strong tourism and consumer values of the region; and
- the agriculture, forestry and fishing sector provided approximately 10% of employment in the Mid-Western Regional LGA, compared with 2.3% in NSW, attributable to the productive lands across the Central West Region.

There have been notable shifts between employment industries between 2006 and 2011 for the local, regional and broader regional study area:

- For the Mid-Western Regional LGA, the major shift in employment was toward the mining sector (+15.4%), with reduced employment in retail trade (-5.8%), health care and social assistance (-6.1%).
- For the Wollar SSC only 2011 data are available which indicate that mining represented one third of employment, and construction represented a further 10.5%. These results would reflect the proportion of residents working at the Moolarben Coal Complex, the Ulan Mine Complex and WCM, including a number of WCM employees living in PEA-owned houses in Wollar.
- Mudgee Region East SA2 showed a relatively stable employment industry profile with slow growth in the agriculture, forestry and fishing sector (0.7%) and mining sector (0.6%). Mudgee Region West SA2 experienced a 5% decline in employment in the agriculture, forestry and fishing sector, and growth of 5.4% in mining. The greatest change within Mudgee SA2 between 2006 and 2011 was mining, which rose by 8.1%, while retail trade declined by 3.8%, and the agriculture sector declined by 2%.

4.5.3 Occupations

An analysis of employment in the study area by type of occupation shows that the largest proportion of the workforce in the Mid-Western Regional LGA were employed as managers (16.8%), followed by technician and trade workers (16.3%), professionals (13.8%), machinery operators and drivers (13.2%) and labourers (11.25%). In contrast, the largest proportion of the workforce across NSW were employed as professionals (23.1%) followed by clerical and administrative workers (15.2%).

³⁷ NSW Minerals Council, October 2014.

The occupational structure in the Mid-Western Regional LGA is consistent with the types of roles required for mining industry employment and the agricultural sector.

There have been some shifts in occupational structures between 2006 and 2011:

- the share of labourers fell across all Mid-Western Regional LGA localities (by 1.9%);
- the share of professionals increased across all Mid-Western Regional LGA localities (by 0.8%); and
- the share of machinery operators and drivers increased across the Mid-Western Regional LGA overall (by 3%), although it declined slightly in Mudgee Region East SA2.

4.5.4 Skills

As of 2011, almost one third (30.9%) of Wollar's population held a Certificate level qualification. Higher percentages of select Certificate-level qualifications were present in the regional study area (41.8% in Mudgee Region West SA2, 44.7% Mudgee Region East SA2 and 39.7% in Mudgee SA2) compared with only 21.2% for NSW. This reflects a skills base tailored to the mining and agriculture sectors.

Approximately 5% of the Wollar SSC's residents held post-graduate degree level qualifications. These results were nearest to the NSW average and higher than the average for the remainder of the study area. A Bachelor degree was held by 9.8% of the Wollar SSC's residents, while Mudgee SA2 held the highest proportion (15.7%) second to the NSW average (18.8%).

4.5.5 Businesses

An analysis of the business profile for the Mid-Western Regional LGA, where potential impacts and benefits are most likely, and the broader regional study area which may also benefit from Project expenditure shows that:

- the majority of agricultural businesses registered in the Mid-Western Regional LGA (67%) were 'non-employing' (owner-operated) and a further 23% were businesses with less than five employees;
- construction businesses were the second largest business category (with 342 registered in the Mid-Western Regional LGA), followed by retail trade (168 businesses);
- the Mid-Western Regional LGA had 27 mining-related businesses, three quarters of which had less than five personnel (including 22% 'non-employing' owner-operator businesses), and three mining businesses registered with staff between 20 and 199;³⁸
- across the broader regional study area, there were a total of 37 mining businesses (24 of which were registered in Singleton LGA, while no mining businesses were registered in the Upper Hunter LGA); and

³⁸ Mining operations may be registered in other jurisdictions and would therefore be under-represented in the data.

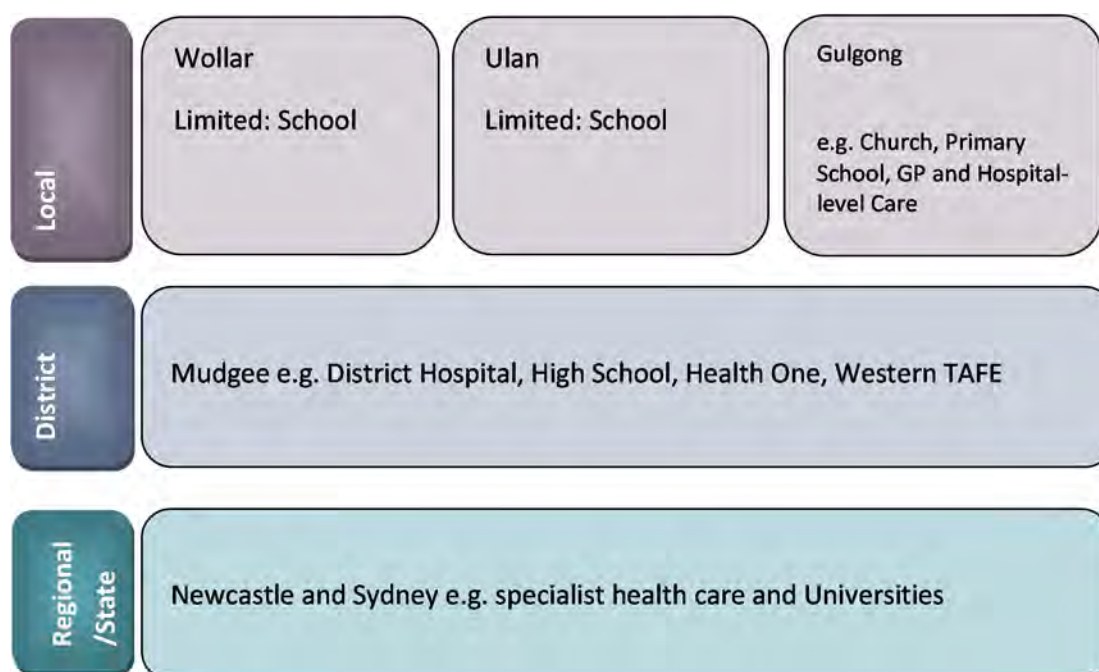
- across the broader regional study area, there were a total of 37 mining businesses (24 of which were registered in Singleton LGA, while no mining businesses were registered in the Upper Hunter LGA). Mining businesses in Singleton LGA ranged across the full scale, including four businesses in the 20-199 staff size category and five in the 200+ category. Business sizes in Muswellbrook LGA ranged from 'non-employing' owner-operated services to businesses of 5-19 staff, indicating that large-scale businesses operating in the Muswellbrook LGA may have registered a metropolitan head office base (e.g. Newcastle or Sydney).

4.6 SOCIAL INFRASTRUCTURE AND SERVICES

This section describes social infrastructure provision and services relevant to the Mid-Western Regional LGA communities. Additional information in relation to social infrastructure and services is presented in Appendix B.

The villages and towns in the Mid-Western Regional LGA provide a network of local and district centres that service different sized catchments. For example, the primary school in Wollar is a local service as it meets the needs of the local population (within approximately 20 km), whilst district services (such as the Mudgee Hospital) provide for the LGA's population. Higher order services are provided at regional or State level in major population centres such as Newcastle and Sydney. The hierarchy for social infrastructure and service provision is shown in Figure 4-3.

Figure 4-3: Social Infrastructure Hierarchy



Data presented in this section have been drawn from a review of listed services and consultation with service providers, and supplemented by a baseline service provision assessment for the Mid-Western Regional LGA completed by Manidis Roberts for the NSW Department of Planning and Infrastructure (DPI) in August 2012. The report forecasts potential impacts on the region's infrastructure to 2020 to guide impact assessments for major projects and development in the region.

Findings from the DPI's 2012 baseline indicate the expansion of mining activity over the previous five years to 2012 had impacted (directly and indirectly) the provision of infrastructure and services in the Mid-Western Regional LGA.

4.6.1 Early childhood services

There are ten early child care services providing childcare and early years education for children from 6 weeks to 6 years in the Mid-Western Regional LGA. The Mid-Western Regional Family Day Care Scheme provides home-based childcare across the LGA. The childcare and pre-school centre in Gulgong primarily services the local catchment of Gulgong, whilst Mudgee childcare centres service both local and district catchments, as many working parents travel to Mudgee for work and access childcare there. There are no local childcare services in Wollar or Ulan, and families in these areas access services in Mudgee or Gulgong.

Participants in SIA consultation stated that some families experienced difficulty accessing long day care during 2011-2013, but demand had eased slightly during 2014. In February 2015 the MWRC approved a Development Application for an additional childcare centre in Mudgee, and this is expected to be completed in late 2015.

There are also four community-based pre-schools in the LGA, providing pre-school education for children between three and five years. The baseline assessment conducted in 2012 found pre-schools were under stress with waiting lists at each centre;³⁹ however, it is likely that the mining industry contraction has effected some easing of demand over the past two years.

4.6.2 Primary and secondary education

The Mid-Western Regional LGA has twelve primary and secondary schools. The township of Gulgong offers three primary schools and one secondary school with students drawn primarily from Gulgong, whilst the Kandos Primary and High Schools service Kandos and Rylstone. In Mudgee, there are three public schools (two primary and one secondary), and one Catholic school offering both primary and secondary education.

The local communities of Wollar and Ulan are each serviced by a single primary school:

- Wollar Public School (Figure 4-4) had eight students in 2015, drawn from a catchment of approximately 20 km. The school has one teaching principal, an administrative assistant and a part time teacher aide. The School's future is under review by the NSW Department of Education as part of ongoing service planning for the region.
- Ulan Public School has an enrolment of 17 students (down from 45 students in 2005), drawn from a catchment of up to 35 km. There are three school buses transporting children to the school. The school has one teaching principal, and a part time clerical assistant. The Ulan Public School's principal advised in SIA consultation that the school's facilities have capacity to enrol more students. The Principal also noted that funding from WCPL allows the school to pay for resources, which then allows operating funds to be used for supplementary staffing.

³⁹ Manidis Roberts. 2012.

Figure 4-4: Wollar School

4.6.3 Further and tertiary education services

The Mudgee College of TAFE Western is the primary provider of technical and further education in the Mid-Western Regional LGA. This includes targeted courses for the mining industry, as well as general electrical and mechanical trades training to support mining apprenticeships at the Wilpinjong Coal Mine, Ulan Mine Complex and Moolarben Coal Complex.

The Hunter TAFE has large campuses at Muswellbrook and Newcastle, each servicing a district catchment. There are no universities in the Mid-Western Regional LGA, with the Dubbo Campus of Charles Sturt University being the closest. In 2012, TAFE was unable to meet the expressed training demand and, as a result, a large amount of training was happening on-line or on the job.⁴⁰ It is likely this demand has eased during 2013-2014, but an up-turn in mining activity could see the system under further pressure. There are no universities in the Mid-Western Regional LGA, with the Dubbo Campus of Charles Sturt University being the closest.

4.6.4 General Practitioners

General Practitioners (GPs) in the Mid-Western Regional LGA include one large medical centre (Mudgee Health Clinic) and an additional doctors' surgery in South Mudgee, and one doctors' surgery each in Gulgong, Kandos and Rylstone. At the end of 2014, there were 14 GPs in Mudgee, one GP in Gulgong, two GPs in Kandos and one GP in Rylstone.

All GPs in Mudgee and Gulgong had waiting periods at the end of 2014, and the Mudgee Medical Centre had instituted an acute appointments roster to deal with urgent issues. This reflects difficulties in attracting and retaining GPs into the region, as is the case for other rural areas. An initiative between Ulan Mine Complex and the Health Clinic to increase the number of GPs in Mudgee has had significant positive results, but high demands on local doctors remain.

⁴⁰ Manidis Roberts. 2012.

WCPL and Yancoal (on behalf of the Moolarben Mine Complex) have developed a partnership with local GPs, MWRC, Club Mudgee and the University of Wollongong to construct a residence for medical students who train in Mudgee. This enables student doctors to be part of the community and understand the benefits of practicing in rural towns, which in other areas has led to increased success in recruiting GPs to the area.

4.6.5 Hospitals and health services

There are three public health services in the Mid-Western Regional LGA: the Gulgong and Rylstone HealthOne services, which are multipurpose Services with a local catchment, and the Mudgee Health Service which includes Mudgee Hospital, which has a district level catchment. Mudgee Hospital provides emergency services, acute medical and surgical services, and a range of specialist and community health services. Higher level services are accessed through Newcastle or Sydney hospitals.

The Mudgee Health Clinic advised in late 2014 that the Mudgee Hospital is well serviced in terms of specialists and operating rights, but the Accident and Emergency Department at Mudgee Hospital experiences overflow from under-resourced general practices, and is therefore under pressure.

4.6.6 Community services

The availability of community services across the study area varies.

There is a good range of community services in Mudgee, including general community support, respite services and community transport. However, capacity in Mudgee may still be insufficient to meet the demand of broader regional and rural catchments. Gulgong Community Services provides health and social support initiatives for residents in that area. The 2012 assessment found pressures on the provision of community services across the region, including waiting lists for accommodation, case management and therapy services.⁴¹

Community services at the local level consists of the Wollar Progress Association, which represents a community voice, action and involvement for Wollar in various committees and community events.

4.7 POLICE AND EMERGENCY SERVICES

The following sub-sections describe the level of provision and service capacity, including the key issues or considerations identified in consultation with service representatives.

4.7.1 Police services

There are four police stations in the Mid-Western Regional LGA, located in Gulgong, Mudgee, Rylstone and Kandos, with Mudgee a Local Area Command Centre servicing the Mid-Western Regional LGA and Warrumbungle Shire LGA.

In relation to existing police service capacity, the Mudgee Local Area Command advised that the Police Service currently has adequate capacity to absorb small increases in population, however large population increases due to the cumulative impacts of mining expansions had stressed police resources in the past.

⁴¹ Manidis Roberts. 2012

Police noted that most calls for service with respect to the mining industry concern the manner of driving and speed, but noted that a culture of self-reporting (regarding driving offences) is developing amongst mining employees due to the strong safety culture. They also noted that mining companies' zero tolerance for alcohol and drugs have reduced demand for police services in respect to these issues. There has been little call for policing with respect to protests or rallies, however temporary accommodation camps for construction crews (not planned for the Project) do increase demands on Police.

4.7.2 Ambulance services

The Project area falls within the NSW Ambulance Service's Regional Division in the Central West Zone (Zone 1 of 2 for Central West).⁴² There are three major response stations for the Project area, with Gulgong Station operating as the primary response station, followed by Mudgee Station and Rylstone Station. All stations include a Station Manager and are proactively monitoring service demand to inform a coordinated resourcing strategy for the zone. Kandos station provides locally-based services.

Consultation with Central West Zone representatives indicated that service demand has fluctuated in line with economic and population growth patterns over the past ten years. All stations near to the Project are confirmed as operating efficiently and with sufficient capacity to respond to increased demand, both in relation to the Project and as a result of general population growth.

Ambulance representatives identified that mining operations in the local and regional area have generated a noticeable increase in service demand, particularly from Gulgong Station. Other service call-out patterns were described as generally stable, although representatives noted a significant decline in the number of call outs from both Wollar and Ulan communities. Wollar was described as a reasonably busy village previously, however the level of demand for services had reduced 'virtually to zero' in recent years. Current service demand from Ulan was described as similar to Wollar, attributed to the lack of private residences left in the town.

The ambulance service emphasised that productive working relationships and local agreements had been established with all mine operations in the surrounding area, and that the service made every effort to maintain contact and involvement with the projects on relevant matters.

Key areas of consideration that were identified in relation to the Project and service planning for the Central West included:

- workforce planning, to avoid the need for accommodation villages and fly in/fly out workers, which can influence a negative culture and divide in the local community;
- providing adequate notice to the ambulance service to enable them to participate in site or other project-related exercises;
- managing the volume of call outs for minor incidents on site, to meet health, safety and environment (HSE) protocols, as this leads to unnecessary resource demand;
- continued management of alcohol culture across local communities. While this issue was not attributed in any way to the mining workforce specifically, the personnel represent another part of the community where alcohol culture can sometimes be an issue; and

⁴² Central West Zone 1 borders the Metropolitan Division of NSW, encompassing Lithgow and Oberon in the zone's south east, extending up to Coolah and Dunedoo in the zone's north and extending as far west as Condobolin and Lake Cargelligo.

- fatigue management of ambulance staff during population and demand peaks.

4.7.3 Rural fire service

The Cudgegong Fire District is located in the Mid-Western Regional LGA, servicing approximately 23,000 people in Mudgee, Gulgong, Kandos, Rylstone and smaller villages. The Cudgegong Rural Fire District has five full time staff that coordinate the fire brigade's activities and delivers training to volunteers. The number of RFS volunteers (including firefighting and non-firefighting roles) currently registered in the Cudgegong Rural Fire District is 1,245.⁴³

Locally, the former Wollar brigade merged with the Cook's Gap brigade due to the decreasing population (and number of volunteers) in the Wollar area.⁴⁴ The Fire Service Superintendent noted that Wollar suffered a loss of identity when the Brigade closed, as it was part of the village's structure. He also advised that in the past two years, the three mines have supported employees to become involved in voluntary firefighting in the Wollar and Ulan areas, which has strengthened local firefighting capacity. The Superintendent noted that mining rosters can allow for better availability of volunteers, as they are more fully available when off shift. Some brigade members from the Wollar and Ulan areas have also joined other nearby brigades.

4.8 HOUSING PROFILE

The following housing profile describes the availability, tenure, cost and type of housing available in the regional and broader regional study areas of Mid-Western Regional, Muswellbrook, Singleton and Upper Hunter LGAs. Additional detail is provided in Appendix C.

4.8.1 Housing stock

At the 2011 Census, the LGAs in the regional and broader regional study areas had a total private housing stock of 31,328 dwellings, of which 14.1% were unoccupied on census (versus an Australian average of 10.2%). The Mid-Western Regional LGA had 10,275 dwellings, of which 19% were unoccupied on census night.⁴⁵

Wollar SSC had a total stock of 175 houses, with 47% of these unoccupied on census night. A typical house in Wollar SSC is shown in Figure 4-5. The high proportion of unoccupied dwellings is a reflection of factors noted above for rural areas, and acquisitions made in Ulan and Wollar to facilitate development of respective mining operations.

Figure 4-5: Example of Wollar Housing



⁴³ NSW Rural Fire Service database. 2014.

⁴⁴ The RFS has kept two fire trucks in Wollar village, which are deployed by the residents and mine employees, and it is understood the intention is to leave them there whilst needed.

⁴⁵ Houses are classified as unoccupied in the census if no census form is returned for the address, so the reasons for a dwelling being unoccupied include dwellings which are empty, those awaiting tenants, holiday homes, abandoned dwellings, or the residents not being home on census night.

At the 2011 Census, dwelling characteristics across the local and regional study areas varied:

- Wollar SSC's housing stock was comprised entirely of separate houses, with similar high percentages 97.4% and 96.8% of stock in Mudgee Region West SA2 and Mudgee Region East SA2 respectively; and
- Mudgee SA2 was predominantly characterised by separate houses (representing 83.6% of stock), with a mix of semi-detached or terrace housing (7.7%) and flats, units or apartments (6.3%).

Dwelling characteristics across the broader regional study area were similar. Separate houses represented 90% of the collective broader regional study area's occupied dwellings, with highest rates of 92% in the Upper Hunter LGA and 91% in the Mid-Western Regional LGA reflecting their rural character and low-density urban form.

The Singleton and Muswellbrook LGAs had the highest proportion of flats, units, apartments and town houses, which can be attributed to the needs of a transient working population, and also provision of affordable housing options for low income households. However all LGAs had higher proportions of separate houses than the NSW average proportion of 70%, which reflects the higher housing densities in NSW cities.

4.8.2 Housing tenure

An assessment of housing tenure and landlord arrangements in the local, regional and broader regional study areas found:

- a high rate of home ownership in the Wollar SSC (52%), above the NSW average (33%);
- a higher percentage of rented houses in Mudgee SA2 (34%), above the NSW average (30%), reflecting the existence of more transient workers such as mining contractors during 2011; and
- a higher proportion of houses owned outright (41%) than the state average in Mid-Western Regional LGA, with a further 29% owned with a mortgage and a smaller proportion (27%) rented.

4.8.3 Rental vacancies

Rental vacancy data for the local, regional and broader regional study areas have been sourced from an independent property research and forecasting company, SQM Research, using postcode data for Wollar and Mudgee (2850), Gulgong (2852) and Muswellbrook (2333) and Singleton (2330) for comparison. An analysis of the data for the local, regional and broader regional study areas indicates that:

- as of December 2012, rental vacancies in the Wollar and Mudgee postcode were very low at 2.2% (a 3% vacancy rate is generally used as a planning industry benchmark for an 'adequate' rate of vacancies, below which rental price hikes are likely);
- there has been steady growth in residential vacancies since 2012 in postcodes within the Mid-Western Regional LGA, with the strongest growth in the six months between December 2012 and June 2013, and a small downward fluctuation in June 2013 before increasing to a vacancy rate of 5.9% in Wollar/Mudgee and 5.7% in Gulgong in September 2014; and

- the strongest growth in residential vacancies has been in the Muswellbrook postcode, with a dramatic increase between September 2013 (10%) and December 2013 (14%), returning to a vacancy rate of 9.2% in September 2014. These fluctuations likely reflect Muswellbrook's greater vulnerability to mining industry peaks and troughs.

4.8.4 Median rents

Average weekly rent payments in the local, regional and broader regional study areas at the 2011 Census indicated high levels of affordability in the Wollar SSC with an average rent of \$100/week (\$200/week less than the NSW average), a good level of affordability in Mudgee Region East and Mudgee Region West SA2s (\$150/week) and higher costs in Mudgee SA2 (\$240/week).

Median rents by postcode area for the week ending 27 October 2014 as listed by SQM Research indicate:

- the lowest median rents for houses and units in the Gulgong postcode area (\$299.1 and \$225.6 respectively);
- high median rents in the Wollar/Mudgee postcode area (\$377.6 per week for houses and \$297.9 per week for units), compared to the Muswellbrook and Singleton postcodes, which is likely to be influenced by Mudgee's levels of amenity, housing choice and a longstanding trend for housing in Mudgee to be higher prices than in adjoining LGAs;
- increasing rents for units in the Mid-Western Regional LGA, with increases for Mudgee up 10.3% over the past 12 months and Gulgong up by 14% over the past three years;
- a slowing rental market for housing in Gulgong, with rental prices declining 6.9% in the previous 12 months and down by 33.4% over the past three years, which probably reflects the easing market in Mudgee reducing market pressures in Gulgong; and
- falling median rents for all housing in the Singleton and Muswellbrook postcode both over the previous three years and in the last 12 months, with the most significant decline noticed in Muswellbrook postcode area (-29.4% change over three years and -12.3% over the last 12 months).

4.8.5 Rental availability

An analysis of rental stock availability through RealEstate.com listings at 3 November 2014 found:

- no rental properties listed in the Wollar or Ulan postcode areas;
- approximately 25 houses and five units available for rent in Gulgong (with rents between \$185 and \$380);
- high rental availability in Mudgee with approximately 102 houses and 53 units available ranging from \$155 per week to \$1,000 per week; and
- high rental availability in Muswellbrook, with 185 houses and 45 units, and good availability also in Singleton, with 80 houses and 45 units available.

Some rental listings in Mudgee targeted a highly mobile population group, offering rentals with a minimum two night stay.

4.8.6 Purchase availability

Analysis of purchase stock availability through RealEstate.com listings at 3 November 2014 found some 265 houses and 14 units available for purchase, which was higher than in Muswellbrook and Singleton, but reflects Mudgee's larger stock of housing. The analysis also found:

- no sale listings in Wollar and only one sales listing on the outskirts of Ulan;
- there were 48 houses listed for sale in Gulgong of varied condition and age ranging from \$160,000-\$950,000, and no units listed; and
- of the 265 houses listed for sale in Mudgee, prices ranged widely from \$70,000 to \$1.7 million, with a limited pool of units for sale.

4.8.7 Housing stress

Housing stress refers to the significant financial strain experienced by some households that spend a large proportion of their household income on housing costs, which affects their capacity to sustain secure housing tenure and restricts their disposable income. Households in the lowest two income quintiles (the bottom 40% of income levels) that spend more than 30% of their pre-tax income are most likely to experience housing stress.⁴⁶

Data from PHIDU's 'Social Health Atlas of Australia' shows that:⁴⁷

- a slightly higher proportion of households in the Mid-Western Regional LGA (18.3%) were receiving rental assistance from Centrelink in 2012, compared with 17.3% of households across NSW and lower proportions in Singleton (8.3%) and Upper Hunter LGAs (14.4%);
- close to one third (27.4%) of low income households in the Mid-Western Regional LGA were experiencing rental stress in 2011, slightly above the state average of 26.3%; and
- levels of mortgage stress in the Mid-Western Regional LGA were the same as the NSW average in 2011.

Housing stress may be more likely in the Mudgee postcode area due to higher median rent and sales prices, and greater variance in these prices.

4.8.8 Public housing

Public housing represented 3.3% of dwellings in the Mid-Western Regional LGA (275 houses), which was below both the state average and the averages for the adjacent LGAs of Muswellbrook and Singleton. The NSW Housing website published indicative public housing wait times as at December 2013 for local areas. In Mudgee, and representing community housing wait times, the data indicate there was a two to five year wait for two, three and four bedroom houses, and a five to ten year wait for one bedroom houses.⁴⁸

⁴⁶ Australian Housing and Urban Research Institute. 2012.

⁴⁷ PHIDU. 2014.

⁴⁸ NSW Department of Families and Community Services. 2014.

4.8.9 Building approvals

Data in relation to residential and non-residential building approvals for the Mid-Western Regional LGA from 2001-12 to 2013-14 suggests that the value of building approvals has been variable:

- the value of non-residential building approvals peaked at \$30.3 million in 2009-10, but subsequently fell to \$7.7 million and declined further from there; and
- the value of residential building approvals has followed an upward projectory since 2008-09 and reached \$34.5 million in 2013-14. This recent peak probably reflects the development of a number of estates in Mudgee.

4.9 SUMMARY OF BASELINE FINDINGS

A summary of baseline findings that have been used to inform the scoping of potential impacts and opportunities relating to the Project is shown in Table 4-2.

Table 4-2: Social Baseline Summary

Baseline Factor	Findings
Planning considerations	<ul style="list-style-type: none"> • Regional planning challenges include housing, uneven distribution of economic growth and infrastructure (including social) and land use associated with mining industry growth. • Local Government planning aims include management of agricultural land and land use conflicts, conserving environmental and cultural heritage, expanding the economic base, and housing choice. • The Central West Region is characterised by diversified production combining cropping with sheep meat, wool or cattle production, and a broad range of agricultural industries.
Social and cultural values	<ul style="list-style-type: none"> • Proximity of mine operations has changed local rates of occupancy and cohesion. • Property acquisitions by PEA have contributed to a decline in the population of the Wollar area and impacts on community networks and service levels. • Wollar residents have experienced a decline in amenity related to noise impacts, dust and the loss of community activity levels, and a number have reported feeling stressed and anxious about changes to Wollar village. • Existing village amenity and heritage remain valued, although the integrity of some physical structures is declining. • Social infrastructure has declined in Wollar and Ulan with strong attribution to nearby mining activity and land acquisitions. • Connections to history and heritage and achieving balance between natural environment and economic drivers are key regional values.
Amenity	<ul style="list-style-type: none"> • Local: with the exception of open spaces and access to bush land, poor amenity was identified in Wollar and Ulan villages (dilapidated structures, isolation and limited social infrastructure). • Regional: good level of amenity across the region, particularly in Mudgee.
Wollar SSC population characteristics	<ul style="list-style-type: none"> • Older population (median age of 47 compared with 38 for NSW). • More than one fifth of residents are over 65 years. • Ratio of males to females is 54:46, compared to state average of 49:51. • 5.8% Indigenous (2.5% for NSW). • More lone person households, low income households, low labour force participation and higher unemployment than regional and State averages.
Community health and wellbeing	<ul style="list-style-type: none"> • Index scores of relative disadvantage across the study area were below the NSW average. • Generally poorer self-assessed health status and health outcomes in the study area compared with NSW, although a marginally lower modelled prevalence of diabetes mellitus in the Mid-Western Regional LGA than in NSW.

Baseline Factor	Findings
	<ul style="list-style-type: none"> Population, health and socio-economic characteristics indicate a higher proportion of vulnerable groups within the Wollar SSC.
Crime and community safety	<ul style="list-style-type: none"> NSW Police describe offence rates as stable for the three year period (June 2011-2014), with the exception of malicious damage which was down 18.3% annually. For the three year period to June 2013, offence rates (per 100,000) were above the NSW average across most offence types.
Industry and employment	<ul style="list-style-type: none"> In 2011, the Wollar SSC had a total labour force of 99 people and an unemployment rate of 10.1%. Higher unemployment rates (to September quarter 2014) across the Mid-Western Regional LGA compared with NSW average, and particularly high in Mudgee Region East SA2 (9.9% compared with 5.7%). Growing unemployment in the Muswellbrook, Singleton, and Upper Hunter LGAs, with a particularly strong increase in unemployment rates in the Muswellbrook LGA, which is also above the NSW average (7% at September Quarter 2014).
Social infrastructure and services	<ul style="list-style-type: none"> Shortage of childcare and pre-school at the local level of service provision (Wollar, Ulan and Gulgong). Primary schools were available in Wollar, Ulan, and Gulgong. Viability of Wollar Public School is currently under review by the NSW Department of Education. High schools in Gulgong and Mudgee, with capacity issues identified for Mudgee Public High School in 2012. In 2012, TAFE Western Mudgee College was identified as unable to meet training demands as part of mining apprenticeships, but this is likely to have changed. Closest university is Dubbo campus of Charles Sturt University. Waiting lists for access to GPs. Three public hospital and health services: Gulgong, Mudgee and Rylstone all listed with less than 50 bed capacity, but including emergency services.
Police and emergency services	<ul style="list-style-type: none"> Four police stations in the Mid-Western Regional LGA. Police representatives indicate there is capacity to service small increases in demand but cumulative mining impacts have stressed police resources in the past. Three primary response Ambulance Service stations with capacity to meet increased population demand, with the exception of minor incident response services. The region is part of the Cudgegong Rural Fire District NSW RFS, which noted that mine employees contribute to fire-fighting capacity in the LGA. Local access and capacity issues were identified by Wollar stakeholders.
Housing Profile	<ul style="list-style-type: none"> Almost half of Wollar SSC's housing stock in 2011 (175 dwellings) was unoccupied, part of a stock of 1,913 unoccupied dwellings across the Mid-Western Regional LGA. The local, regional and broader regional study areas are predominantly characterised by separate houses. A higher percentage of Wollar houses were fully owned in 2011 than across the Mid-Western Regional LGA. Rental vacancies in the Wollar/Mudgee postcode at 5.9% and 5.7% in Gulgong postcode areas at September 2014. Affordable median rents for all housing and units in the Gulgong postcode area compared with the rest of the regional and broader regional study areas. Slow increases in housing rental costs in the Mudgee postcode. No rentals available in Wollar or Ulan at 3 November 2014, with 30 dwellings available in Gulgong and 155 in Mudgee. No sales listings at 3 November 2014 in Wollar and just one listed on the outskirts of Ulan, while Gulgong offered a small pool of 48 houses and Mudgee offered in the order of 265 houses and 14 units for sale.

5 IMPACT ASSESSMENT

This section describes the potential impacts and opportunities on local and regional communities in the study area:

- Section 5.1 describes the anticipated population impacts of the Project;
- Sections 5.2 through 5.6 in turn set out the likely impacts of the Project on:
 - employment;
 - housing availability and affordability;
 - social infrastructure, including childcare, education and training, and community services;
 - community safety; and
 - regional businesses and industries;
- Section 5.7 describes the potential impacts of the Project on the values of the Wollar community, including in terms of social sustainability, amenity quality of life, wellbeing and sense of place;
- Section 5.8 describes the potential impacts and opportunities of the Project on regional community values, including in terms of employment and employment security; and
- Section 5.9 sets out the likely cumulative impacts of the Project.

5.1 POPULATION

This section describes the potential for changes to the Mid-Western Regional LGA population arising from the Project workforce requirement during construction and operation.

5.1.1 Construction workforce

As set out in Section 2.1, the Project would require a peak of up to approximately 100 construction workers in 2017. Given the Mid-Western Regional LGA's workforce profile and the availability of skilled labour (Section 4.5), it is anticipated that a majority of Project construction workers would be drawn from the Mid-Western Regional LGA and broader regional study area.

For the purposes of conservatively assessing potential impacts, this assessment has assumed that up to 50% of construction workers could be drawn from areas outside a safe daily driving distance and would live temporarily in the Mid-Western Regional LGA as single status workers. This would see a peak of up to 50 non-local construction workers living in the Mid-Western Regional LGA during 2017, and approximately 20 non-local workers in 2018 and 2024. Construction workers' families are unlikely to move to the area due to the relatively short duration of most construction work packages.

Compared to the Mid-Western Regional LGA's projected population of 23,650 in 2016, the construction phase may see a negligible increase to the population of 50 people (less those off shift) or approximately 0.2%. This is not expected to cause a noticeable increase in demand for services or any other significant impacts on the Mid-Western Regional LGA's population.

5.1.2 Operational workforce

Operational employment would ramp up from 2017, commencing with a workforce of approximately 52 workers. Most of these would be existing employees from WCM operations whose jobs would be retained. The Project would create new employment with an average of 40 additional operational jobs between 2018 and 2023, and a peak of 73 additional operational jobs available in 2024 (Section 2.1).

As such there will be little overlap between the temporary population due to construction and the incremental permanent increase due to Project operations.

Given current labour availability and the skills profile in the Mid-Western Regional LGA, it is likely that at least 75% of new Project jobs would be filled by people either living in the LGA or driving to work daily from adjacent LGAs. This would see a maximum of approximately 18 non-local workers moving to the Mid-Western Regional LGA, and the introduction of a maximum of 18 households (assuming both married and single employees would require one dwelling each).

5.1.3 Overall population impacts

The employee survey results (Section 3.2) indicate good levels of workforce diversity in the current operation. WCM's workforce is family focussed, with 78% of workers in a domestic relationship, 58% of workers with children at home and 67% owning or purchasing their homes. This is consistent with the Mid-Western Regional LGA's profile.

Estimating that up to 80% of 'new local' workers may be partnered, and up to 60% would have children living at home, the population modelling (Table 5-1) has assumed an average of three family members for every coupled worker. This would see a maximum average increase of up to 34 people in the Mid-Western Regional LGA as a result of the Project during the 2018-2023 period (the equivalent of a 0.1% increase), and up to 63 people (or a 0.3% increase) at peak in 2024.

Table 5-1: Estimated Population Increases Due to the Project

Population Components	Population Change	
	Average (2018-2023)	Peak (2024)
Estimated Mid-Western Regional LGA Population	24,200*	24,475~
Average additional employees	40	73
Estimated 'new local' employees	10	18
Estimated 'new local' coupled employees	8	15
Estimated 'new local' single employees	2	3
Estimated family members (3 per coupled worker)	24	45
Estimated total maximum population increase	34	63
Estimated Mid-Western Regional LGA Population with Project	24,234	24,538
Percentage increase in Mid-Western Regional LGA due to the Project	0.1	0.3

Notes: * average of population projections for 2016 - 2026 (see Section 4.2 for details)

~ average of population projections for 2021 - 2026 (see Section 4.2 for details)

Estimated population growth associated with the Project is therefore minimal. Consultation with MWRC indicates the Mid-Western Regional LGA is well placed in terms of critical mass, housing and social infrastructure to absorb the potential modest increase in residential population for the Project's operations phase.

With a marginal population increase, the Project would have no discernible effects on other demographic characteristics such as age or gender distribution at the regional level. Based on the characteristics of the existing workforce, the new employees may include approximately 11% (or eight personnel at peak) who would be female, and 7% (or five personnel at peak) of Aboriginal descent. This would have no effect on the Mid-Western Regional LGA's population characteristics.

5.2 EMPLOYMENT

As noted above, the Project would create an average of 40 additional operational jobs between 2018 and 2023, most of which would likely be filled by people either living within the Mid-Western Regional LGA or driving to work daily from adjacent LGAs. In addition, existing WCM workers would be retained. Therefore, as described in Section 2.1:

- if the Project proceeds, WCM's total operational workforce would increase from a pre-project baseline of approximately 550 operational jobs in 2016 to a peak of 623 operational jobs in 2024, before declining over the ensuing nine years and ceasing in 2033/34; while
- in the absence of the Project being approved, the number of jobs at WCM would decline to approximately 497 jobs by 2017, and then to 150 jobs by 2026, with production and employment ceasing in 2026.

The SIA identified some community concern that local businesses' access to labour has previously been constrained by competition with mining companies. As discussed in the following, this is unlikely to be a material issue for the Project, given an increase in the availability of skilled mining labour during the past few years as the mining sector has entered a downturn, and the Project's limited demand for additional labour. It is therefore seen as unlikely that the Project would adversely affect the ability of local businesses to recruit workers during the construction and operation of the Project.

5.2.1 Construction workforce

The Department of Employment's recent report on construction employment indicates that construction industry recruitment activity in regional areas is currently variable, with recruitment in many regional areas soft.⁴⁹ Employment in all construction sectors is expected to grow over the five years to 2018, except in the Heavy and Civil Engineering construction sector, which is expected to record a decline over the period due to the mining industry transitioning from a construction phase to a production and export phase.

With respect to the construction phase, the 2014 Australian Industry Outlook identified that the following occupations were difficult to recruit for construction contractors in the twelve months to May 2014:

- Structural Steel and Welding Trades Workers;
- Painting Trades Workers;
- Earthmoving Plant Operators;
- Concreters; and
- other Construction and Mining Labourers.

⁴⁹ Australian Department of Employment. 2014.

These occupations may indicate priority areas for local training development to maximise local employment, if there are insufficient numbers of local workers trained in these areas. It is likely, however, that the recent mining contraction would see adequate numbers of workers being drawn from within and adjacent to the Mid-Western Regional LGA.

Overall, and in the context of the current employment market in the NSW mining industry (see Section 4.5), employment opportunities associated with the Project's construction phase would be of strong interest to suitably experienced residents of the Mid-Western Regional LGA. A large proportion of the construction workforce is likely to be drawn from within driving distance of the Project site, however specialist contractors from further afield may also be required.

5.2.2 Operation workforce

Likewise, opportunities for sustained employment would be of strong interest to WCM's existing workforce, and to other suitably experienced workers from the local, regional and broader regional study areas.

The availability of skilled labour within the Mid-Western Regional LGA and broader regional study area is currently high due to the recent contraction in the mining industry. Recent data indicates growing unemployment rates in the broader regional study area (Section 4.5). In addition, the Mid-Western Regional LGA's workforce is well suited to employment opportunities in both construction and operation of mining projects, with strong representation of occupational groups including technicians and trade workers (16.25%), professionals (13.8%), machinery operators and drivers (13.2%) and labourers (11.3%).

The Department of Employment's Industry Outlook on Mining found that whilst employment in mining increased by an annual rate of 10.3% over the 10 years to May 2014, in the year to May 2014 it grew by only 1.5% (mostly in Queensland).⁵⁰ This is evidence of the cyclical nature of mining employment. Other sources confirm these trends:

- In NSW, in the two years prior to May 2014, mining employment fell by 7,300. Further reductions are expected in mining employment nationally over the five years to November 2018, with a predicted fall in mining employment of around 12,300, of which coal mining would account for 5,100 jobs nationally.⁵¹
- The NSW Minerals Council also estimated at October 2014, that the state had experienced industry job losses in the order of 4,000 over the previous two years, with 2,500 mining-related jobs lost in the Hunter region alone.⁵²

5.3 HOUSING

This section describes the Project's accommodation arrangements with consideration of the potential impacts or benefits associated with housing availability or affordability.

⁵⁰ Australian Department of Employment. 2014.

⁵¹ Ibid.

⁵² Hannam, P. Sydney Morning Herald. 21 October 2014.

Workforce accommodation throughout the construction and operation of the Project would be sourced from temporary accommodation and local housing stock in the Mid-Western Regional LGA. As detailed in Section 4.8, the availability and affordability of both rental housing and housing for sale has increased during the past two years, due to a decrease in demand following contractions in the mining sector.

As at January 2015, the rental vacancy rate was 7.4%, having increased from less than 3% in January 2010.⁵³ There were approximately 142 dwellings available for rent in January 2015.⁵⁴ There were also approximately 570 dwellings available for sale in the Mudgee postcode in January 2015, more than six times the stock available for sale in January 2012.

As such, the current availability of housing in comparison to the Project workforce's housing needs is more than adequate. As discussed below, however, it is possible that this may no longer be the case if all currently proposed mining projects in the region were to proceed concurrently (Section 5.9.3).

5.3.1 Construction workforce

As detailed in Section 4.5, there were 342 construction-related businesses registered in the Mid-Western Regional LGA (many of which may already be contracted by WCM). As such, a large number of construction workers would be drawn from the Mid-Western Regional LGA. Nonetheless, this assessment has conservatively assumed that up to 50% of construction workers may require accommodation while on roster, to provide an assessment of potential demand. This would see:

- up to 50 personnel drawn from outside the LGA in 2017; and
- up to 20 personnel drawn from outside the LGA in 2018 and 2024.

The most likely location for workers to seek accommodation is Mudgee, given that it has more temporary housing and rental housing than Gulgong, and a higher level of access to retail, hospitality and recreational services. Accommodating a significant number of construction contractors in or around Wollar is not currently being considered for the Project.

Assuming that 50% of the construction workers from outside the Mid-Western Regional LGA choose to use temporary accommodation (in hotels, motels or cabins), this would see demand for 25 temporary accommodation beds in 2017. MWRC identified that there are over 3,200 permanent beds available across the Mudgee region that primarily cater to local tourism, conference and event opportunities.⁵⁵ As such, the Project's demand is unlikely to have any adverse effects on the temporary accommodation capacity available in the Mid-Western Regional LGA, and the increase in business is likely to be welcomed by accommodation providers.

If the 25 non-local construction workers chose to take up rental accommodation for the term of their contracts, up to 10 rental dwellings would be required (assuming workers would share dwellings at two or three people per dwelling). Rental housing available in Mudgee currently indicates an adequate range of rental accommodation (units and houses) starting at \$155 per week, with some listings targeted to mobile workers, offering rentals with a minimum two night stay.

⁵³ SQM Research. 2015.

⁵⁴ Ibid.

⁵⁵ Mid-Western Regional Council. 2014.

Compared to the rental dwelling supply available in Mudgee at January 2015 (Section 4.8), the requirement for 10 rental dwellings would be equivalent to approximately 7% of rental housing in the Mudgee postcode, which is not expected to negatively affect rental housing availability or affordability.

As the Project's demands on temporary and rental accommodation are anticipated to be within the LGA's housing capacity, and based on current housing stocks, the potential for the Project's construction housing demand to displace low income households or increase the need for social housing in the region is assessed as very low.

5.3.2 Operation workforce

As discussed in Section 5.1, approximately ten households (eight families and two single workers) may move to the Mid-Western Regional LGA as a result of the Project by 2024, with potential for a total of approximately 18 (family and single) households to have moved to the Mid-Western Regional LGA in 2024 (Table 5-1).

Assuming all households needed rental accommodation during 2018 and 2019, this would see a demand for a maximum of 10 rental dwellings by 2024. As noted in Section 4.8, there were more than 140 rental dwellings available in Mudgee in January 2015. If this number of dwellings is available in 2018, the requirement for ten rental dwellings would again be equivalent to approximately 7% of the currently available rental stock.

The overlap in the construction and operational phases during 2018 may represent a collective maximum demand for up to 15 rental properties, which would require 11% of the currently available rental stock. This is unlikely to contribute significantly to inflation in the rental housing market and would be welcomed by rental accommodation providers as a small market stimulus. However, the market may be affected by cumulative project demands from 2018 and would need to be monitored in this context.

Demand for rental accommodation is likely to decrease as households transition from rental accommodation to home ownership. In Mudgee SA2 in 2011, 34% of dwellings were rented and if this were replicated by Project employees, up to four rental dwellings and 6 purchased dwellings would be required for employees during 2018-2023. During 2024 when the operational workforce is expected to peak briefly, additional demands on housing may see a requirement for eight to ten additional rental dwellings. In the context of the large number of dwellings currently available for purchase in the Mudgee postcode and approved residential developments yet to be constructed, housing is likely to be available to non-local Project employees without any negative effect on local access to housing.

The Project would monitor workforce demand for housing and housing availability in Mudgee and the Mid-Western Regional LGA, so Project impacts can be anticipated and managed.

Key stakeholders have described the Mid-Western Regional LGA's housing market as volatile and vulnerable to cyclical demands associated with the mining industry. Also, while housing development applications and approvals are steady, the region has experienced difficulty attracting and retaining essential trade workers like builders, tilers, electricians and plumbers, and the cost and timeframe for domestic construction is substantially higher than in coastal centres.⁵⁶

⁵⁶ Mid-Western Regional Council. 2015.

The inflationary effects of cyclical demands and housing shortages would be partly mitigated by the MWRC's Mudgee and Gulgong Urban Release Strategy. However, increased housing development may not be realised by 2017 given current low confidence in the development market and the difficulty in attracting trade workers to the area.

5.4 SOCIAL INFRASTRUCTURE

This section assesses potential impacts and opportunities in relation to social infrastructure provision and demand.

5.4.1 Childcare

Baseline data (Section 4.6) indicated that a shortage of childcare and pre-school places was experienced across the Mid-Western Regional LGA during 2011-2014, with demand attributed to regional population growth, intensified by growth of the region's mining industry workforce. SIA consultation results indicate that demand has eased over the past year or so, and where there were waiting lists in 2014, there are now vacancies in some childcare centres in Mudgee.

The construction phase of the Project is unlikely to have any material effect on access to childcare services as it is not expected to draw additional families to the Mid-Western Regional LGA. During the Project's operational phase, there is the potential for a small increase in the number of families seeking childcare. Assuming that eight Project-related families move to the Mid-Western Regional LGA from 2018 (see Section 5.1), up to approximately four children may require childcare. This small increase in direct demand would be readily absorbed by the increased service capacity likely to be available in the near future.

MWRC has recently approved the development of an additional childcare centre, and at least three other development applications were pending during 2015. This is expected to address pre-existing capacity issues and be adequate to accommodate increased demand relating to both the Project and the potential cumulative impacts of other mine expansions in the Mid-Western Regional LGA (Section 5.9).

5.4.2 Primary and secondary schools

The construction phase of the Project is not expected to generate any material increased demand for primary or secondary education services in the region.

During operations, with an estimated additional eight families, a demand for direct school enrolments of fewer than 20 children would be expected, of whom approximately 60% may be primary school students and 40% may be high school enrolments. The Mid-Western Regional LGA has a network of twelve schools (eight primary schools, three secondary schools and one primary and secondary school), and the small incremental increase in enrolments due to the Project is expected to be within the existing and planned capacity of the public school network.

The sustainability of small primary schools in the region and elsewhere in NSW has been identified as an issue under consideration by the NSW Department of Education, particularly with respect to declining enrolment numbers, limited resource capacity, access and transport needs. The Bylong Public School has recently been placed into recess by the Department of Education and Communities and the Wollar Public School is under review by the Department of Education due to very low enrolment numbers. Irrespective of the Project, it is anticipated that further rationalisation of small schools may occur in the region. The Project is not expected to result in any material additional demand at these small local schools.

Baseline consultation indicates some previous capacity issues at the Mudgee High School, however enrolments had decreased from 1,082 in 2010 to 988 in 2014.⁵⁷ In this context, the small increase in potential demand for high school places associated with the Project's operational phase is not expected to adversely affect current capacity.

5.4.3 Training

Whilst the TAFE College's capacity was challenged by high demands from the mining industry in 2012 (Section 4.6), pressures have eased given the mining employment downturn and the consequent decline in training demand from mining companies.

An increase in mining activity across the Central West Region could see the further education system under pressure. However, the limited incremental increase in employment during the operational phase of the Project indicates there would be low levels of demand from the Project for apprentices and trainees and for ongoing professional development programs.

5.4.4 Health services

It is anticipated that a large proportion of Project construction workers could be existing residents of the Mid-Western Regional LGA and the broader regional study area, with established arrangements for personal medical care. This would largely mitigate additional demand for health services in the Mid-Western Regional LGA.

There is potential for non-local construction workers to require medical assistance while on shift. This can be reduced by ensuring on-boarding and induction programs for construction and operations workers, and by communicating to workers that they should attend to existing medical issues before they come on shift, and that they need to bring prescription drugs, prescriptions and where relevant, records of chronic health issues to site.

Demands associated with the increased operational workforce are unlikely to require any material increase in the capacity of existing medical services in the Mid-Western Regional LGA. As an extension of existing WCM operations, the Project would have well-established health and safety procedures to mitigate the risk of workforce injury, and would have staff on site trained to administer first aid. There is potential for workers involved in Project site incidents to require hospital care during the life of the Project, however the small increase in workforce numbers is unlikely to induce a substantial increase in demand on hospital capacity.

'New local' operational workers and their families would however induce a small incremental increase in demand for GPs and hospital services, which would need to be monitored by health service planners. As described in Section 4.6, all GPs in Mudgee and Gulgong have waiting periods due to difficulties in attracting and retaining GPs in the region. The Mudgee Hospital's Emergency Unit is responding to overflow from doctor surgeries, so material increases in demand may affect the capacity of health care provision.

It is recommended that WCPL consults the Central West Hospital and Health Service (HHS) prior to the start of Project construction and during the first two years of operation to advise the Central West HHS of workforce numbers, and identify any actions which could be undertaken to manage any Project related additional demands on health services. WCPL's efforts to maximise recruitment from the local workforce would assist in minimising any additional demand.

⁵⁷ Department of Education and Communities 2014.

5.4.5 Community services

The Project is not expected to increase levels of demand on community services, as a large proportion of both the construction and operational workforce would be drawn from the existing regional community, and the number of additional households which could be attracted to the LGA is small.

Consultation with WCPL's community investment recipients may identify further opportunities for investment and capacity building that would benefit the Mid-Western Regional LGA more broadly and contribute to good social outcomes.

5.5 COMMUNITY SAFETY

This section assesses potential Project demands on police, ambulance and fire services.

5.5.1 Police services

Consultation with the Mudgee Local Area Command for NSW Police indicated adequate service capacity to absorb small increases in the population.

Local police advised that service demand relating to road and driver safety has been reduced over the past few years by the cooperative efforts of local mine operators, including WCM, sharing and investigating self-reports of poor or unsafe driver behaviour. This is a collaborative strategy that is working well for WCPL and would continue to be implemented for the Project.

The Project would uphold WCM's zero tolerance policy for alcohol and drug use to mitigate demand for police services in respect to these issues.

Police representatives identified the potential for any protest activity associated with mining projects to generate concentrated demand on police services. The potential for any protest action can be mitigated by the Project through a strong stakeholder engagement and communications strategy (Section 6.1.2) that focuses on transparent, comprehensive and consistent information provision regarding:

- the Project and its timing;
- impact identification and mitigation strategies; and
- opportunities for stakeholder engagement.

To remain responsive and reduce the potential demand for police services, the Project's engagement strategy should include review of working arrangements with Mudgee Local Area Command with respect to notification and incident response procedures and co-operative opportunities. These arrangements could potentially be addressed with police services through the existing regular six monthly Local Emergency Management Committee meetings that WCM currently participates in.

5.5.2 Ambulance services

Consultation with Central West Zone Ambulance Service representatives indicated that the service is adequately resourced to respond to increased demand associated with population growth and the Project.

Project site incidents may require ambulance responses over the life of the Project. However, the Project's HSE protocols and the small incremental demand caused by the Project is unlikely to strain ambulance service capacity. The Project could further mitigate the potential for increased service demand during the Project's construction and operational phase by revising the existing working arrangements between WCM and the Central West Zone Ambulance Service to formalise:

- emergency response procedures, incident categories, and agreed advanced notice periods for attendance and notification requirements; and
- opportunities for co-operation in site-based emergency response exercises and joint training exercises.

Existing working arrangements with the Central West Zone Ambulance Service should be reviewed with the ambulance service through the existing regular six monthly Local Emergency Management Committee meetings that WCPL currently participates in.

5.5.3 Rural Fire Service

Consultation for the SIA identified that the land surrounding the Project has historically been subject to bush fire incidents and they are an ongoing threat. Local stakeholders raised concerns in relation to bush fire management due to the location of Cooks Gap RFS (a 30-40 minute drive from Wollar village) and potential access delays associated with coal freight rail crossings. Wollar residents also noted that RFS membership for Wollar village residents is compromised by ongoing training and certification needs for which they would need to travel to Cooks Gap.

WCPL has established a working protocol with the Cooks Gap RFS (which includes former members of the Wollar RFS) to respond to fire incidents on site and in the local area. The protocol has established support for WCM employees to obtain membership in the RFS, and these arrangements would remain in place as part of the continuation of WCM operations and as part of the Project.

The Project represents an opportunity to encourage increased RFS membership and volunteer fire-fighting resources in the area near WCM, which could be addressed through continued support for the existing working protocol with Cooks Gap RFS and continued support for employee participation in fire-fighting. WCM employee membership in the local RFS could be reviewed annually for the first two years of the Project.

5.6 BUSINESSES AND INDUSTRIES

This section describes the potential impacts and opportunities of the Project on local and regional businesses and industries.

5.6.1 Local supply and retail

The retail sector was the second largest employer (providing 11.9% of the working population's jobs) in the Mid-Western Regional LGA in 2011, second only to the mining industry (15.5%) and slightly ahead of the agriculture, forestry and fishing sector (10%). Consultation with MWRC indicates that currently local business confidence is generally low (partly attributable to mining industry contractions), and that retail trade is less profitable than three years earlier.

In this context, the Project represents opportunities for continued or new supply arrangements with businesses in the Mid-Western Regional LGA, and in adjacent LGAs. Businesses that would benefit from Project construction or the extension of the WCM's operations include maintenance businesses, equipment suppliers, professional services, hospitality, consumables providers, and labour hire businesses.

The Project's construction workforce is likely to be engaged through existing or new supply contracts with operators from the region and specialist contractors from other LGAs. Construction contract opportunities are likely to be welcomed by WCM's existing contractors and other businesses, and would support their sustained employee base and continuity in business revenue. The Project's contract arrangements would therefore contribute positively to regional businesses and suppliers, through increased revenue, employment and staff retention.

Project personnel living within the Mid-Western Regional LGA would also contribute positively to the region through individual expenditure with retail, services, hospitality and other businesses. The security of ongoing WCM employment is also likely to support both employees' confidence to spend and invest locally, and support an increase in business confidence more broadly that may flow through to local and regional activity.

5.6.2 Agriculture

Agriculture is a key industry strength in the Mid-Western Regional LGA, with cattle and sheep grazing predominating.

The Project is not expected to result in a material labour draw from local agricultural enterprises, given current conditions in the labour market and the modest employment numbers proposed for construction and operations. No other impacts are expected on agricultural enterprises, with the potential exception of enterprises that involve land on the Project site.

The Peabody Pastoral Holdings Pty Limited property purchasing program has allowed the aggregation of previously subdivided lots into larger parcels of land in order for agricultural enterprises to be re-established. This has restored agricultural use of many small lots that were previously sub-economic in size (e.g. 25 ha).

These agricultural enterprises are typically run on PEA properties by former owners of land in the area, through lease arrangements established with PEA. The properties are primarily used to run sheep and cattle, thereby maintaining their agricultural use. On these properties there is potential for access to grazing land to be restricted in some areas during the Project's development. Agreements between PEA and lessees consider the potential impacts on property use.

5.6.3 Tourism

The Mid-Western Regional LGA's tourism industry is strongly based on its viticulture industry, artisan food and craft production, regional and local festivals, and natural environmental features.

The closest winery to the Project is Furlong Creek, at Stoney Creek Road, Cooyal. This is approximately 20 km from the Project, and as such, no impacts on the winery are expected. Similarly, there are no equine enterprises near the Project. The closest horse studs are at Bylong (at a distance of approximately 25 km), and Mudgee and Rylstone (approximately 40 to 50 km from the Project). The Project is also not expected to hamper other tourism activities. Any social investments by WCPL may contribute to the success of festivals and community events.

At the local level, the Wollar general store has been identified by the local community and store owner as an important visitor information service for travellers to the Goulburn River National Park, providing advice on local weather and road conditions and providing some supplies for travellers. The Wollar General Store is owned by PEA and operated by a business owner with subsidies from PEA. The store's commercial viability is currently under review by the business owner as a result of Wollar's declining local population and subsequent client base.

5.7 WOLLAR COMMUNITY VALUES

This section describes potential social impacts for landholders and residents in the Wollar area arising from the Project. The baseline assessment (Section 4) indicated that population numbers in the local area have declined, and that the area experiences significant socio-economic disadvantages and vulnerabilities.

5.7.1 Social sustainability

Social sustainability exists when there are sufficient social resources to support quality of life over time. It is affected by population size and composition, and by the adequacy of key resources such as locally relevant skills, community networks and housing.

As discussed in Section 4.1, the approved WCM operation and PEA land acquisition has likely contributed to the existing observed decline of the Wollar community's population, which is estimated at 40 to 50 people and approximately 20 WCPL employees.

Noise modelling for the Project has indicated that noise levels would not require the acquisition of properties in the Wollar area. However, PEA has offered a number of remaining Wollar village residents the opportunity to sell their properties. This may result in the loss of further households from the area during 2015 and ensuing years, and further reduce the population.

Wollar village's sustainability is currently marginal, because there are insufficient community resources (such as social networks and community events) to sustain social structures (such as the Community Hall) and provide practical support to community members. Social capital – the shared values, behavioural norms and networks which support community wellbeing – has deteriorated with the loss of population over the past several years. The dependency rate (ratio of non-working age to working age people) is high, and in combination with the small local population, this limits capacity to maintain community amenities or a sense of community.

Community values relating to self-sufficiency and neighbourly support are likely to be negatively affected if further households leave the Wollar community as a result of PEA's property purchases coinciding with Project planning or execution, or as a result of further changes to the village's amenity or sense of place. Tensions in relationships (which are highly valued locally for both practical and social support) are possible as people make different decisions about their futures.

Residents have reported that they understood, from discussions with WCPL representatives during the WCM EIS process, that WCM would attract families to the Wollar area, however this has not occurred. Whilst some employees live in PEA-owned housing in Wollar, they are typically single, and PEA's reported experience is that most employees' families prefer to live in regional centres with better facilities for families. PEA has determined that, of the houses it owns which are not already rented, most are unfit for habitation and that it would not be economic to undertake the necessary repairs to make them safely habitable. It therefore appears unlikely that restoration of houses in Wollar would occur, and that there is no material potential to increase the population of the Wollar community in the short or medium term.

Residents have described the Wollar community as being in a state of crisis, with further population losses likely to tip the balance towards unviability. Remaining residents have expressed a strong desire for the community to be informed and consulted as a group during the Project assessment process.

5.7.2 Amenity

As part of the Project, a section of Ulan-Wollar Road to the west of Wollar would be re-aligned and upgraded to provide a sealed road. This would cause temporary traffic disruptions during construction, however sealing the road would be a benefit to local road users in terms of road safety and ease of use.

As noted in Section 3.2, noise and dust from the existing WCM operation are issues of significant concern for remaining Wollar village residents. Preliminary modelling of the Project's noise impacts in Wollar village indicate that there would be an increase of between one and three decibels compared to currently approved maximum intrusive noise levels, and that noise from the WCM would be heard more frequently in Wollar as a result of the Project. It is also possible that mining in Pit 8 would result in increased dust and particulate matter emissions in Wollar village.

Many residents criticised the NSW Industrial Noise Policy which governs noise levels as inappropriate for application to a rural village. For residents who find current noise and dust from WCM intrusive, any increase in noise or dust would be experienced as a further reduction in the amenity of their homes. Consultation findings indicate dissatisfaction among some members of the Wollar community in relation to the Project's community notification and complaints mechanisms. Some residents have expressed frustration with WCM's current complaints management process, including response times for after-hours complaints, and interpretation and monitoring of complaints. This will be discussed in ongoing engagement through the CCC. Community complaints, blasting information and a community hotline are detailed on the PEA website.

5.7.3 Quality of life

Wollar's character values and amenities have been reduced by PEA's property purchases, and remaining residents noted that the village offers a less attractive appearance and less amenity than it did ten years ago. Also, people seeking a quiet rural lifestyle are less likely to move to an area with existing cumulative impacts from mining operations and other prospective projects in the locality (e.g. Bylong Coal Project). The local property market is depressed to the point that private buyers are unlikely, and is primarily limited to PEA's interest in local properties.

Noise modelling has indicated that the Project's noise levels would not trigger 'acquisition on request' levels in Wollar village (refer to Appendix A of the EIS). PEA has however expressed its willingness to purchase a number of properties in Wollar village. PEA's valuations of properties in Wollar are based on consideration of:

- the NSW's Government land valuations in Wollar;
- general accordance with valuation requirements for lands with acquisition rights;
- comparisons with sale prices in nearby rural villages and towns (such as Gulgong); and
- the addition of a premium.

Some residents have reported limited options to maintain their chosen lifestyles within the Mid-Western Regional LGA, within the terms of recent PEA property purchase offers. There are sometimes differences between owners' appreciation of properties' intrinsic values and the financial value as determined by valuers.

All remaining residents and land holders are very strongly attached to Wollar and its social, environmental and heritage values, and said they would prefer to continue living there if amenity had not declined. Some may choose to sell their properties, in view of their growing isolation, or concern about the Project's potential incremental impacts on amenity. Many of the residents are vulnerable due to losing the social support of friends and family as people have left the area, and some are approaching an age where more support would be needed.

As described in Section 4.1, Wollar's services supporting quality of life include a general store, a public school, a visiting health service, the Harry Harvey Memorial Park and the Community Hall. Residents fear that existing social infrastructure would be lost if the area's population decreases. This seems borne out by indications that the health service may be discontinued if the population decreases, a government review of the local primary school's future operation, and the very low trade experienced by the general store. A further decrease in the population through PEA property purchases coinciding with Project planning or execution is also likely to reduce the remaining residents' access to community support.

5.7.4 Wellbeing

The Wollar community includes residents with identified vulnerabilities associated with age, health conditions and stress. Wollar area residents have reported experiencing anxiety and stress as a result of rapid changes in Wollar over the past ten years and the loss of the area's social fabric (including social networks and services).

Irrespective of the underlying population decline that was observed prior to mining commencing at the WCM (and is also observed in many other small rural villages), residents also fear that the Project would 'tip' Wollar into complete unviability, and are experiencing stress about the future given the Project would bring WCM closer to the village. Community decline and isolation are likely to be accelerated by the Project's increasing proximity to Wollar and if some remaining residents move away from the area. These effects would be detrimental to the wellbeing of remaining community members, and particularly for vulnerable members of the community.

Some residents currently report experience of sleep disturbance as a result of WCM noise, and other health issues they attribute to low frequency noise, which they anticipate would be exacerbated by the Project. Residents have also expressed concern that exposure to coal dust in the air and through their water supplies (which rely on rainwater tanks) would damage their health. Health-based standards are applied to the NSW regulatory criteria within which the Project would operate. The Project's noise and dust impacts are further discussed in Appendices A and B of the EIS.

5.7.5 Sense of place

Residents who participated in interviews and the survey identified the potential for impacts on their sense of place in relation to Wollar as a result of the Project, including:

- expansion of the mine footprint leading to impacts on the visual character of the Slate Gully area, and closer proximity of WCM to the village;
- the likelihood that property purchases would decrease the population in the village (i.e. decreased demand leading to loss of facilities such as the store and the school);
- the potential for increased noise and dust (within approved limits) to affect how people experience the village environment;

- the likelihood that both dilapidated housing and removal of unsafe housing would continue to affect the visual character of Wollar, decreasing the density of dwellings and increasing the sense of a 'ghost town' (recognising that WCPL is maintaining or improving viable housing); and
- increasing predominance of mining in the local rural landscape.

Residents identified their distress about changes in Wollar due to the existing WCM operation and anticipated that further changes associated with the Project would cause further distress.

Residents also expressed a feeling of growing isolation from a functioning community as a potential impact of property purchases coinciding with Project planning or execution, and described feelings of a loss of control of their lives and uncertainty about the future. This is causing some people to feel significant stress and anxiety, with several residents identifying mental and physical health issues as a result. A number of residents have invested heavily in environmental management in the local area, and are also concerned that its value would be lost.

Mitigation strategies, including community engagement and community investment strategies, described in Section 6 include consideration of Wollar's social character and sense of place.

5.7.6 Local agricultural businesses

Interviewees spoke of challenges to the operation of their agricultural businesses due to a loss of services at the Wollar general store, including loss of ready access to veterinary services and mechanical services due to population decline, citing high call out expenses to access these services. Two interviewees indicated that WCM's blasting program had spooked their cattle and that stock were unsettled after reverberations in the Barigan Valley (some 20 km from the current mine). For local agricultural business operators who attribute adverse impacts to their operations as a result of the WCM, the Project is likely to be experienced as a continued or exacerbated disruption to their activities.

Three other interviewees discussed the benefits of the Project in enabling the continuation of their livestock business operations through leaseback arrangements and commercial agreements, and identified no negative impacts on stock associated with blasting at their properties, some of which are adjacent to mining areas. These interviewees had arrangements with PEA which were considered fair and workable and were based on good communication between PEA and these landholders. PEA has also established Peabody Pastoral Holdings Pty Limited which manages land PEA has purchased for agricultural uses.

5.8 MID-WESTERN REGIONAL LGA COMMUNITY VALUES

This section describes potential impacts on community values in Mid-Western Regional LGA communities.

The baseline assessment (Section 4.1) indicated that key social values in the Mid-Western Regional LGA include safe, family-oriented and supportive communities, the quiet charm of its townships, and a recognition of local heritage. Survey results from people in Mudgee and Gulgong indicate a community culture of support and mutual self-help, as evidenced by high participation in community activities.

5.8.1 Regional values

As an extension to an existing operation in an area where coal mining is well established, the Project is not expected to result in discernible changes to community values at the regional level. The Mid-Western Regional LGA already accommodates three major mining complexes, and the regional community has adapted to the mix of mining, agriculture, viticulture and tourism which sustains the local economy and local employment.

The Project would not cause any specific impacts on valued places such as wineries and vineyards, or impact on the function or appearance of other towns in the Mid-Western Regional LGA.

The Project includes extensions to the WCM's existing open cut pits which would expand the existing use of areas proximate to the Munghorn Gap Nature Reserve. The extensions are not expected to displace existing access to, or use of the Munghorn Gap Nature Reserve. The Project also includes land between Ulan-Wollar Road and the Goulburn River National Park to accommodate ancillary development, however material impacts on the Goulburn River National Park are not anticipated.

It is noted, however, that survey respondents referred to adverse changes to local community values such as way of life, in relation to Ulan and Wollar village, primarily attributed to rates of property acquisition and environmental impacts.

As discussed in Section 2.5, the Mudgee region holds many Aboriginal sites including the Hands on Rock site and The Drip. Some community members of the Mudgee region have expressed concern for the protection of these sites from mining activity in the region. Of particular concern has been the potential impact of surrounding mining operations on The Drip, up-river from the Goulburn River National Park. However the Project would not be proximal to this site and The Drip has recently been added to the Goulburn River National Park.

5.8.2 Opportunities

The Project would make a positive contribution to employment growth, with both direct and indirect jobs created by the Project during construction and operations. Recent mining industry contractions have seen decreased spending which has decreased demand for goods, services and housing in the Mid-Western Regional LGA, and had an impact on business confidence. Businesses are generally likely to welcome the Project as a contribution to the longevity of mining-related income and expenditure in the Mid-Western Regional LGA.

The Project would also make a contribution to economic security for those employees and contractors whose employment would be extended, and for new employees, particularly those who are currently unemployed or would be new to the industry. The employee survey indicated that Mudgee is the main recipient of the WCM workforce's weekly spending with 47% of the WCM workforce spending \$500 or more in the area on a weekly basis, representing significant trade for Mudgee businesses. Workers also contribute to social resources, with 90% of respondents donating to a charity or community organisation on an annual basis, and approximately half (48%) participating in a voluntary organisation.

The majority of WCPL employees and contractors surveyed identified the potential for positive socio-economic impacts to accrue as a result of the Project, mostly for local business and economic development (identified by 46% of respondents) and employment (identified by 21%). The security of employment and therefore family wellbeing was a significant theme.

The mining industry's positive contribution to employment and business growth in the Mid-Western Regional LGA was generally acknowledged by Mudgee-based stakeholders consulted for the SIA. 51% of community survey respondents also acknowledged the beneficial contribution that the mining industry makes to local employment and economic activity.⁵⁸ Survey respondents also noted that the downturn in the industry has had an adverse effect on the regional economy, with some viewing the Project as positive for business confidence and market stimulus.

Achieving an equitable balance between regional community values founded on a rural way of life, natural environment values, and local economic strengths is of paramount importance to the communities of the Mid-Western Regional LGA. In line with this goal, MWRC recently contributed financially to the reopening of the Mudgee Airport, with the assistance of the UMC, MCC and WCM.

Through continued and additional employment opportunities, direct and indirect regional business investment, continued community investment and support, the Project has the potential to make a positive contribution to regional community values and business vitality.

5.8.3 Employment security

As outlined in previous sections, WCM currently provides direct employment for up to approximately 550 personnel. Approximately 85% of the WCM's current employees live in the Mid-Western Regional LGA, and their employment security contributes to the Mid-Western Regional LGA's economic stability. WCM's employees and their families make a substantial contribution to the Mid-Western Regional LGA's population, housing demand, and community resources, as discussed in Section 5.8.4 below.

If the Project proceeds, it would provide a continuation of employment and long-term job security for Mid-Western Regional LGA residents employed at the WCM. It would also create an average of 40 additional operational jobs between 2018 and 2023, and a peak of 73 additional operational jobs in 2024.

Both construction and operation would also result in continued job security through contractual arrangements with existing and new suppliers. New or continued contracts with local businesses, and additional long-term employment associated with the Project would be welcomed by the region and many of its residents. In the context of the current mining industry economic downturn, the Project represents an opportunity for employment and job security for local workers.

The *Cost Benefit Analysis and Economic Impact Analysis of the Wilpinjong Extension Project* (Economic Assessment) has been undertaken by Deloitte Access Economics (2015). This report includes modelling of the total employment effects of the Project that takes into account indirect employment impacts associated with related upstream or downstream industries and any 'crowding out' of activity in other sectors of the economy. This modelling predicts that incremental total (i.e. direct and indirect) employment would peak at 214 in the broader region (defined for the Economic Assessment to include Bathurst Regional, Lithgow, Mid-Western Regional, Singleton and Upper Hunter LGAs) and 278 in the rest of NSW.

Although the net incremental employment effects are not disaggregated in the Economics Assessment by LGA, Deloitte Access Economics (2015) indicates there would be limited additional indirect employment effects from the Project in the Mid-Western Regional LGA.

⁵⁸ However 14% of respondents commented that the benefits of mining may not outweigh local adverse social and environmental impacts.

Securing or facilitating employment opportunities for younger people has been identified as a priority in local and regional plans, and in SIA engagement. The Project represents an opportunity for a renewed focus on industry training, potential employment for the region's younger residents and maintaining or improving the WCM workforce diversity.

5.8.4 Potential effects of Wilpinjong Coal Mine closure

If the Project does not proceed, employment numbers would ramp down from 2016, and cease by 2026.

As of 2011, the Mid-Western Regional LGA had a labour force of 9,930, of which 5,764 people were employed full-time. WCM's current operational workforce of around 550 people therefore accounts for a significant share of employment within the LGA. If the indirect jobs supported by WCM are considered, the percentage of jobs the WCM supports in the Mid-Western Regional LGA's economy is likely to be higher.

The loss of up to approximately 550 WCM jobs progressively over the years to 2026 would represent a substantial change to employment availability in the Mid-Western Regional LGA. A large proportion of the existing WCM workforce are long-term employees who may experience difficulty securing alternative local employment if they remain in the Mid-Western Regional LGA.

Results of the WCM employee survey indicate that the majority of the existing WCM workforce are involved in a domestic relationship and more than half of the workforce have children still living at home. In some cases, families may need to move elsewhere to secure new employment. Cessation of the WCM in 2026 may therefore see an outflow of population, due to employees and their families leaving for other work, and the loss of indirect jobs. The potential impacts at a regional level include:

- a slowing of population growth, depending on other employment opportunities in the region;
- decreased housing demand, with potential for a decline in property values;
- effects on business and investor confidence, and reduced willingness to invest locally; and
- changes to social infrastructure demand, such as reduced school enrolments and increased dependency on family support services.

The cessation of WCM's operations could also contribute to a significant decline in supply and contracting opportunities and to a loss of direct and indirect revenue to businesses servicing the WCM or benefitting from employee expenditure. Businesses with large supply contracts with WCM may contract with the reduction or cessation of WCM operations, potentially leading to further indirect job losses.

The extended timeframe enabled by the Project presents an opportunity for relevant agencies and for local and regional communities in collaboration with WCPL to consider and develop a transition strategy that encourages an increase in industry diversity and investment, and builds business confidence in the lead-up to the WCM's closure.

Conversely, closure of the WCM and hence the potential sale of the PEA owned properties in the area would be welcomed by most Wollar village residents as an opportunity for the potential regeneration of the village, notwithstanding that such an outcome would not be consistent with a general trend of declining small rural villages. Established arrangements of mutual benefit between WCM and local landholders, such as lease back or property management agreements, would also experience a material change to those arrangements should the WCM close and PEA divest these holdings.

5.9 CUMULATIVE PROJECT IMPACTS

As discussed in previous sections, given the modest workforce numbers associated with the Project in isolation, the Project's contributions to population and housing demands at the broader regional level would be negligible. This section addresses the potential for cumulative social impacts and opportunities to occur through the potential and approved development of other major projects in the Mid-Western Regional LGA.

5.9.1 Potential mining projects

This assessment has considered projects on the DP&E Major Projects Register that are in or near the Mid-Western Regional LGA. Mining projects which are relevant to assessing the potential cumulative effects of the Project are presented in Table 5-2. They include two approved projects - Moolarben Coal Complex Stage 2 and Cobbora Coal Project.

Construction of the Moolarben Coal Complex Stage 2 project is likely to be largely complete before Project construction commences, so cumulative impacts would be confined to the operational period.

Cobbora Coal Project is located mainly within the Warrumbungle LGA, with smaller areas of the proposed project area within the Mid-Western Regional and Wellington LGAs. In December 2014, the NSW Government was seeking a purchaser for the project, and had advised that a decision regarding development of the mine would be undertaken after further analysis of future coal prices and market conditions.⁵⁹ The Cobbora Coal Project's EIS estimated that the most likely scenario would see a maximum of 30 workers relocating to the Mid-Western Regional LGA. If it proceeds, the Cobbora Coal Project would likely make a minimal contribution to cumulative impacts in the Mid-Western Regional LGA, and the project has not been further considered in this cumulative impact assessment.

The Bylong Coal Project's EIS anticipates that non-local construction workers will be accommodated in a Workers' Accommodation Facility or in short term accommodation, and that the operational period would see up to 400 non-local workers move to the Mid-Western Regional LGA by Year 9. Assuming the Bylong Coal Project commenced construction in the same year as the Project, there is a potential for cumulative impacts associated with population growth and housing demand.

Table 5-2 below provide indicative information that is relevant for estimating the potential cumulative impacts that are discussed in the following subsections.

⁵⁹ Cobbora Holding Company Pty Limited. 2014.

Table 5-2: Mines and Proposed Mines near the Wilpinjong Coal Mine

Project (Status)	Approximate Location	Estimated Production (Mtpa)	Workforce Estimates
Moolarben Coal Complex and Moolarben Stage 2 (Approved 2015)	Adjacent to WCM	18 Mtpa	Estimated 250 construction workers. Additional 122 staff, for a total of 439 staff at peak production for Stage 1 and 2.
Cobbora Coal Project (Approved 2014)	50 km west of WCM	12 Mtpa	Estimated peak of 550 construction workers. Approximately 590 employees at peak operations.
Ulan Mine Complex and Ulan West Modification (Environmental Assessment under assessment)	11 km north-west of WCM	20 Mtpa	No additional construction workforce required. Approximately 931 employees including contractors for operations.
Bylong Coal Project (EIS under assessment)	15 km east-south-east of the WCM	6 Mtpa	Estimated 800 construction workers. Approximately 470 employees at peak operations.
Bowdens Silver Project (EIS current)	30 km south of the WCM	4 Mtpa	Estimated 300 construction workers. Approximately 200 employees during operations.

Sources: NSW Department of Planning and Environment. 2015; Moolarben Coal Mines Pty Ltd. 2015; Cobbora Coal Holding Company. 2014; Glencore. 2015; Hansen Bailey. 2015; Kingsgate Bowdens Pty Limited. 2012.

5.9.2 Labour availability

All projects identified in Table 5-2 are likely to draw at least some employees from the Mid-Western Regional LGA and the broader regional study area.

Moolarben Coal Complex Stage 2 commenced construction during 2015 and as such, its construction period would not coincide with that of the Project.

Projects for which an Environmental Assessment or EIS is currently under development – the Ulan West Modification, Bylong Coal Project and Bowdens Silver Project – have less certain timeframes. The Ulan West Modification anticipates that no extra construction workers will be required. The Bowdens Silver Project may require an estimated 300 construction workers. The Bylong Coal Project involves the largest workforce estimates, with 800 personnel predicted for the construction phase and a peak of 470 personnel for operations.

In the event that the construction of these projects coincided with construction of the Project during 2017, and if it were assumed that all three projects' construction workforce peaks would coincide, up to 1,200 construction workers could be required by mining projects in the Mid-Western Regional LGA during 2017. The more likely situation, given that the construction peaks are unlikely to coincide, is a cumulative peak of some hundreds less.

Table 5-3 shows the number of people employed in the mining and construction industries in the broader regional study area in 2011. Between the four LGAs, construction employed more than 2,600 people, and mining employed more than 6,400 people. With mining industry redundancies during the past two years, some workers would have left the region seeking other employment, but labour availability remains high, as shown by the rising unemployment rates in each LGA Figure 4-2.

Table 5-3: Regional Labour Force – Construction and Mining

Region	Construction Industry	Mining Industry
Mid-Western Regional LGA	762	1,311
Singleton LGA	780	2,793
Muswellbrook LGA	612	1,605
Upper Hunter LGA	475	703
Total	2,629	6,412

Source: ABS. 2011. Census of Population and Housing.

It is therefore likely that some hundreds of construction and operational workers could be sourced from the broader regional study area to service new mining projects in the Mid-Western Regional LGA, and that cumulative demands for construction labour would cause minimal impacts on labour supplies for other industries in the region. The Project's labour demands (for both construction and operations) are relatively modest in the cumulative context.

For operations, the proposed projects represent long term employment opportunities which are highly relevant to the regional workforce's skillset. Many projects are seeking to increase the number of previously unskilled people being employed, so employment options are likely to be available for both skilled and unskilled workers.

A number of projects, including new mines and extensions, are also proposed for the adjoining Muswellbrook LGA. It is difficult to predict which projects will proceed and in what timeframe, but it is likely that an increase in coal prices, improvement of the exchange rate and other cyclical factors will see an upswing in coal mine development in the next five to ten years. This would see an increase in cumulative demand for construction labour and mining employees, and should be monitored by the relevant planning authorities to ensure local regions can manage the change to labour conditions.

5.9.3 Population and housing

Construction periods for each project are likely to see temporary increases in the number of transient workers in the region, which may see a cumulative increase in the population if construction periods coincide. If current labour market conditions persist and other nearby projects adopt a similar residential workforce strategy, each project which proceeds would also contribute to a small or moderate increase in the permanent resident population across the region, with a likelihood that most of the increase would be concentrated in Mudgee. An increase in the residential population is in keeping with the MWRC's plans for steady growth in the Mid-Western Regional LGA.

The Bylong Coal Project EIS anticipates that the project could generate a peak population increase of up to 1,000 people in the Mid-Western Regional LGA by Year 9. However, as described in Section 5.1, any permanent population increase in the Mid-Western Regional LGA due to the Project is likely to be modest.

The combined rental housing stock of the Mudgee and Gulgong postcodes at April 2015 was in the order of 185 dwellings, so a cumulative influx of construction workers requiring accommodation in the Mudgee and Gulgong area would see the same highly competitive conditions which drove rental housing prices up in 2010-2013.

The Bylong Coal Project proponent (KEPCO Bylong Australia Pty Ltd) is intending to accommodate up to 650 non-local personnel in an accommodation facility near the project site during the initial construction period of two years, and up to 300 personnel for the second construction period in Year 6. Along with the use of short term accommodation in the surrounding region, the Bylong Coal Project EIS anticipates that this will largely mitigate any impacts on the local housing market during the construction period.⁶⁰ The Project anticipates a very small contribution to housing demand (up to 10 dwellings) during its construction period.

For the operational period, the Bylong Coal Project EIS forecasts direct housing demands generated by the project at up to 174 dwellings in Year 3 and 380 dwellings in Year 9, but anticipates that housing demand generated by the project could be met without placing additional pressure on the housing market, given the availability of residential land in the Mid-Western Regional LGA. As described in Section 5.3, housing demands generated by the Project are estimated at a total of up to 15 dwellings (whilst the operational period coincides with the construction period), so the Project's contribution to cumulative housing impacts would be very small.

The significance of cumulative population growth should be monitored by MWRC and relevant State agencies. This would require provision of workforce data from each project to the relevant Council and Government departments, to ensure they are able to monitor projected growth and housing demand in advance of potential cumulative impacts occurring.

Demand for housing to meet permanent population increases due to cumulative impacts would require that existing development approvals for residential developments are rapidly activated, in order to ensure an adequate housing supply to meet potential growth. Increased demand for social infrastructure (including education, childcare and family support) would also require monitoring by relevant local and State agencies.

5.9.4 Local values

Having experienced a period of high mining development activity during 2012-2013, Mid-Western Regional LGA communities have some experience of managing increases in the temporary population and the resulting need for access to local services (such as hotels and temporary accommodation).

The most evident opportunity of this increase is demand for businesses' goods and services, which would be welcomed by local business experiencing a very quiet period since mining construction tapered off during 2012-2013.

Cumulatively, large numbers of construction workers can 'crowd-out' locals, with higher numbers of workers in the hotels and other recreational facilities, and may also change the character of an area with the presence of increased 'high-vis' clothing and mining vehicles. Large numbers of non-local males can also cause concerns about the safety of young women or locals with whom they may come into conflict. Typically, anxiety about safety is out of proportion to the risk of non-local workers offending, however potential exists for some workers to misbehave or offend.

The Project's construction contractors should be aware of the potential impacts of workers' behaviour on other community members, and should enforce strict codes of conduct to encourage workers to respect local values such as the family-friendly nature of local neighbourhoods and public places.

⁶⁰ Bylong Coal Project EIS. 2015.

5.10 SUMMARY AND SIGNIFICANCE

This section summarises the social impacts and benefits which may occur if the Project proceeds, and their significance to local and regional communities.

5.10.1 Summary of impacts

Social impacts which are likely as a result of the Project proceeding include the exacerbation of existing impacts on:

- Wollar village's residential amenity and rural lifestyle, through increased frequency of audible operational noise and increased proximity of dust and blasting sources;
- the recent decline in Wollar village's community resources as some residents may negotiate property sales with PEA in anticipation of the Project;
- some local residents feeling a loss of the local sense of place, with the Project moving the WCM closer to the village, the likely loss of people, dwellings and services, and associated changes to the village's character; and
- former residents of Wollar village and members of communities such as Mudgee and Gulgong feeling adverse effects on sense of place.

In addition, the Project may potentially result in:

- a very small increase in demand for health care and emergency services in the Mid-Western Regional LGA due to non-local employees moving to the area, in the context of limited existing capacity of these services; and
- a small contribution to cumulative population growth, housing demand and social infrastructure demand in the Mid-Western Regional LGA.

Mitigation strategies which would avoid, reduce or offset these impacts are discussed in Section 6.1.

5.10.2 Summary of benefits and opportunities

Potential benefits if the Project proceeds are likely to include:

- additional employment during the Project's construction phases;
- a continuation of employment and longer-term job security for community members employed by WCM, and support for flow-on employment;
- the creation of up to approximately 75 new jobs during the Project's operational phase, and ongoing employment and training opportunities for the local community;
- support for local and regional businesses through potential construction and supply contracts;
- a contribution to the stability or growth of the Mid-Western Regional LGA's population; and
- direct and indirect benefits for the regional economy and regional business confidence for the life of the Project.

Potential opportunities, associated with the Project proceeding, are likely to include:

- support for the capacity of the Cooks Gap RFS through additional employee volunteers;
- engagement with service providers regarding service provision to Wollar area residents commensurate with the population; and
- continued community investment to contribute positively to community development in the Mid-Western Regional LGA (see Section 6.1).

If the Project does not proceed, existing social and environmental conditions in and around Wollar are likely to persist in their current form, however, the reduction in services offered to the community may continue to decline. In the absence of the Project, and after the closure of the WCM, Wollar village could potentially recover its earlier function in the event that PEA was to divest its landholdings in the future, however, given wider societal and land use changes, it appears more likely that it would continue to decline as a residential locality.

5.10.3 Significance

The previous sections have discussed the Project's social impacts and opportunities at local and regional levels.

Generally, communities closest to a mining project are most exposed to significant adverse impacts (such as changes to amenity or sense of place), but may also benefit (e.g. through population growth and increased business vitality). Conversely, communities in the broader region stand to benefit most through employment, business trade and community investment, often with negligible or marginal negative impacts.

In describing the significance of the Project's impacts, this dichotomy is addressed through considering the communities closest to the Project and the broader region separately. Social impacts are significant where they would affect social conditions, such as amenity and quality of life, or social indicators such as employment levels and housing access.

Table 5-4 summarises the findings of the impact assessment, and describes the likely significance of social impacts and benefits for local and regional stakeholders. Mitigation strategies which could reduce the severity of social impacts and support or increase opportunities relating to the Project are detailed in Section 6.1.

Table 5-4: Potential Impacts and Opportunities - Summary and Significance

Social Condition	Phase	Impacts and Opportunities	Local Significance	Regional Significance
Population	Operational	Population change, locally and regionally.	<p>There are few habitable vacant dwellings in Wollar village so there is little opportunity to significantly increase Wollar's population.</p> <p>If PEA property purchases coincide with Project planning or execution, the population of the village and surrounding areas would further decline.</p> <p>Due to the proximity of mining operations and other mining proposals in the area near Wollar, the private property market in the Wollar area is depressed to the point that private buyers are unlikely.</p>	Population growth associated with the Project would be minor and incremental, and would have no discernible effects on demographic characteristics such as age or cultural diversity at a regional level.
Housing	Construction	Non-local construction workers may require temporary accommodation in the Mudgee region during their shifts. Up to 50 beds (in temporary accommodation or shared rental housing) may be required in peak periods.	N/A.	<p>There is a good range of hotels and motels in the Mid-Western Regional LGA, and currently a good supply of rental accommodation. Project construction is not expected to materially affect rental housing availability or affordability during construction.</p> <p>The Project is unlikely to have a significant adverse effect on temporary accommodation capacity. The increase in business is likely to be welcomed by accommodation providers.</p>
	Operational	'New local' employees would require housing, in the approximate range of ten dwellings by 2018 and a total of 18 dwellings by 2024.	<p>Operational employees' demands are likely to be experienced in Mudgee and/or Gulgong, as urban centres with good access to services.</p> <p>The Project's housing requirements are not expected to negatively affect housing access in Wollar.</p> <p>There is likely to be further loss of housing stock in Wollar in order to remove unsafe vacant dwellings.</p>	In the context of the number of dwellings currently available for rent or purchase in the Mid-Western Regional LGA and approved residential developments yet to be constructed, housing stock would have capacity to meet incremental Project housing requirements without negative effects on access to housing for existing residents.
Employment	Operational	The Project would increase the availability of jobs at the WCM by approximately 75 (73) between 2018 and 2024, and maintain a larger workforce on-site for longer.	Impacts on employment levels in the Wollar community are not expected as a result of the Project.	<p>The increased availability and longevity of employment at the WCM would be welcomed by employees and regional residents.</p> <p>Employment longevity would be extended by up to seven years and additional long-term jobs would help maintain a stable economic base in the Mid-Western Regional LGA.</p>

Social Condition	Phase	Impacts and Opportunities	Local Significance	Regional Significance
Wollar Area Businesses	Life of Project	Further population decline leading to loss of supporting services in Wollar.	Population decline through any PEA property purchases is likely to accelerate the closure of the Wollar general store.	Both construction and operation would contribute to indirect employment opportunities, and to continued job security within businesses in the wider region, through contractual arrangements with suppliers.
Social Infrastructure	Construction	Potential demand for health care.	The Project's construction phase is unlikely to generate any demand for Wollar's social infrastructure and services.	Additional demand for social infrastructure and emergency services would generally be low. The Project's construction phase may cause a small incremental demand increase for Mudgee GP services and Mudgee Hospital services, where existing capacity issues exist. However, this demand for services is likely to be indiscernible in the regional context.
	Operations	A potential small increase in demand for childcare, hospital services, education, training and emergency services.	The Project's operations phase is unlikely to generate demand for Wollar Public School or the visiting health service. The Project represents a potential opportunity to maintain or increase local RFS capacity with additional employee membership.	Additional demand for social infrastructure and emergency services would generally be low and indiscernible in the regional context. Ambulance, police and fire service representatives indicate adequate service capacity to absorb increased service demand, with the exception of minor incident response ambulance services and local RFS capacity. The Project represents a positive stimulus to the education and training sector, although capacity may need review in a cumulative context if all potential and approved projects in the region were to proceed over a short timeframe.
Social Sustainability	Life of Project	Community decline as a result of further PEA property purchases in Wollar village coinciding with Project planning or execution.	The general store and potentially the school are already operating below viable thresholds. Further PEA property purchases would accelerate the decline of Wollar's already small population. This would further reduce the community's ability to sustain social resources such as neighbourly support, the local park and Community Hall and further challenge the viability of the Wollar community.	The Project would support economic stability and community confidence in the Mid-Western Regional LGA for a further period of seven years. PEA's agricultural properties are contributing to the maintenance of rural uses and agricultural productivity in the Mid-Western Regional LGA.

Social Condition	Phase	Impacts and Opportunities	Local Significance	Regional Significance
Amenity	Life of Project	Impacts on Wollar village's residential amenity as a result of any increased traffic, more frequent audibility of operational noise, and blasting and dust sources being closer to the village.	Most village residents state that they find current noise and dust from the WCM intrusive. Any increases would be experienced as a further decline in residential amenity.	Amenity impacts are not likely at a regional level.
		Property purchases preceding or coinciding with the Project.	Further property purchases would lead to decreased activity levels in the village, and further reduction in the community's ability to maintain the village's existing amenities (e.g. park and Community Hall).	
Quality of Life and Wellbeing	Life of Project	Potential impacts on Wollar leading to potential impacts on residents' wellbeing from stress and anxiety.	<p>Wollar residents report that they are experiencing anxiety and stress regarding the Project's potential impacts on the village and Wollar community. Some residents report sleep disturbance and attribute health symptoms to WCM operations. They anticipate existing anxiety and sleep disturbance would be exacerbated by the Project.</p> <p>Community decline and isolation is likely to be accelerated by the Project's increasing proximity to Wollar village and if some remaining residents move away from the area. These effects could be detrimental to the wellbeing of remaining community members, particularly for vulnerable members of the community. The Wollar community includes residents with identified vulnerabilities associated with age and health conditions.</p> <p>Residents are also concerned that the Project's noise and dust impacts may affect their health. Health-based standards are applied to the regulatory criteria within which the Project would operate. The Project's noise and dust impacts are further discussed in Appendices A and B of the EIS.</p>	<p>Continuation of employment would contribute to individual and household well-being for employees and their families, and contribute to local economic development.</p> <p>Maintaining or increasing employment opportunities for younger people would complement priorities identified in local and regional plans.</p> <p>On a regional scale, the Project represents a potential positive change to quality of life and community wellbeing.</p>

Social Condition	Phase	Impacts and Opportunities	Local Significance	Regional Significance
Sense of Place		Some members of the community feeling a loss of sense of place as a result of Project changes to the landscape and social environment.	<p>Wollar residents and ex-residents have a relationship with the town's history, built features, and community. Deterioration of the village and declining community resources to contribute to its upkeep are affecting social character.</p> <p>Further PEA property purchases, along with the likely need to demolish some unsafe vacant houses, would also affect the appearance and social character of the village.</p>	Impacts are not likely at a regional level, except in relation to residents in the region who feel connected to Wollar and would experience further changes to Wollar as a loss to their sense of place. Residents who experience the mine as a detraction to the landscape see the Project as an exacerbation of existing impacts on sense of place.

6 IMPACT MANAGEMENT AND MONITORING

This section describes a range of recommended mitigation and enhancement strategies to limit the potential social impacts of the Project, and appropriate monitoring protocols.

6.1 MITIGATION AND ENHANCEMENT STRATEGIES

Section 93F (1) of the EP&A Act sets out that Voluntary Planning Agreements may be entered into between a planning authority and a proponent, under which the proponent is required to dedicate land free of cost, pay a monetary contribution, or provide any other material public benefit (or any combination of them) to be used for or applied towards a public purpose, as defined in section 93F (2). A Voluntary Planning Agreement may be negotiated prior to the determination of the Project, or may be required by the Project Development Consent. Any such planning agreement would be negotiated between WCPL, MWRC and the DP&E.

Strategies to mitigate the Project's potential social impacts and maximise potential benefits are described in the following subsections.

6.1.1 Property valuation

In valuing properties in the Wollar area for purchase, it is recommended that WCPL should continue to commission valuations based on comparison with properties which offer similar lifestyle values for property owners, such as:

- comparable lot sizes;
- similar proximity to property owners' existing employment or business activities and regional centres; and
- a rural or village way of life.

This approach would maximise the opportunities of Wollar landholders to afford similar properties in alternative locations and is generally consistent with the approach determined under the existing WCM Project Approval for land located within the acquisition upon request zone.

It is also recommended that WCPL should offer to pay for a second valuation from a Registered Valuer chosen by the property owner, to provide property owners with an alternative source of information about their property's value if there is a dispute over the market value.

WCPL would also undertake dilapidation surveys for houses, farm buildings and community facilities within 2 km of the approved pit limits to support monitoring of potential blasting impacts, and provide property owners with copies of the survey results.

6.1.2 Community and stakeholder engagement

Stakeholder engagement and relationship building provides the critical foundation for the Project's mitigation of social impacts and enhancement of Project benefits for local and regional communities.

In particular, the relationship between the Project and the Wollar community, as neighbours, is important to quality of life for those remaining in Wollar, as decisions made by WCPL about Project delivery have potential to affect residents in the village.

PEA acquired the WCM in 2006 and whilst relationships have improved over the past few years, some residents remain distrustful and are dissatisfied with the existing operation's management of operational noise, air quality and road traffic. Maintaining and, if possible, strengthening existing communication with residents would facilitate opportunities for residents to be informed and involved in the future, and would support continued responsive management of Project impacts. PEA's ongoing engagement program would include the following strategies.

6.1.2.1 Wollar stakeholder engagement

Relationships between stakeholders in the Wollar area and WCPL are variable, and relationships can always be improved. WCPL should continue to tailor its engagement activities with the Wollar community to address potential social impacts, enhance opportunities for community benefit, and address the information needs of stakeholders.

Ongoing consultation and information provision with the Wollar Progress Association, CCC members and the wider local community should continue to include:

- blasting notifications;
- individual neighbour notification processes where required;
- Project updates;
- the Project community hotline;
- consultation regarding WCM complaints management with the CCC;
- information on PEA's plans for house removal in Wollar village; and
- periodic advice regarding the opportunities available through the existing WCM social community investment program.

In addition, it is recommended that WCPL also provide the CCC with advance notification of the Wollar general store's closure (should this occur), and any alternative service retention plans (e.g. postal services).

6.1.2.2 Regional and key stakeholder engagement

It is recommended that WCPL provide regular briefings and communication with local and regional service providers regarding the Project's schedule, progress, potential impacts and mitigations. Engagement should include:

- continued regular consultation with MWRC and relevant state agencies to confirm changes in social conditions, including population estimates and housing availability, and to identify any other issues that would inform mitigation strategies;
- engagement with emergency service providers (described below); and
- engagement with employment agencies and existing education and training partners, as discussed below.

6.1.2.3 Engagement with emergency services

Section 5.5 identified the potential for the Project to generate low level increased demand for police and ambulance services, and an opportunity to support the capacity of the local RFS to increase availability of resources for local off-site incidents.

Consultation with emergency service providers identified that some local agreements have been established with each mine operator in the Mid-Western Regional LGA. WCPL should continue to review existing working arrangements or agreements that have been previously established for WCPL to check that they adequately meet stakeholder expectations.

WCPL should also review engagement with NSW Police Mudgee Local Area Command, NSW Central West Zone Ambulance Service, and Cooks Gap RFS regarding any need for further co-operation to minimise impacts on services through the existing Local Emergency Management Committee meetings that WCPL participates in. WCPL should also continue to engage with the RFS regarding the Project's employee volunteer program and opportunities for joint training exercises in the local area.

6.1.3 Engagement with other service providers

Essential services in Wollar are no longer supported by critical population mass, and the loss of the Wollar general store (currently owned and subsidised by PEA) and the visiting health service is potentially imminent. Any acceleration of local population loss would potentially increase the isolation and vulnerability of remaining local residents. Should the current licensee discontinue operation of the Wollar general store, WCPL should engage with:

- Australia Post, to investigate potential alternatives to the current mail service system; and
- Central West HHS, regarding plans for the monthly visiting health service in Wollar, numbers of mine workforce-related residents in the Wollar area and associated changes to the net population and any service delivery.

Table 6-1 summarises the recommended engagement activities prior to construction, during construction, and during operations to support the mitigation measures proposed in this section.

Table 6-1: Recommended Engagement Activities

Project Phase	Engagement
Prior to Construction (3 -6 months)	<ul style="list-style-type: none"> • Consult with MWRC and relevant State agencies to confirm any changes in social indicators and identify other issues that would inform mitigation strategies. • Continue existing engagement with the Wollar community. • Continue regular engagement with leaseholders of land purchased by PEA. • Consult with service providers, including Australia Post and Central West HHS, regarding services to Wollar residents.
During Construction	<ul style="list-style-type: none"> • Continue Wollar engagement program. • Continue regional and key stakeholder engagement. • Continue engagement with education and training partners. • Continue engagement with neighbouring mine operations regarding workforce self-reporting program. • Regular engagement with emergency services and MWRC as per agreed working arrangements. • Consult with MWRC and relevant State agencies to confirm any changes in social indicators and identify other issues that would inform the Project's mitigation strategies prior to operations commencing.
Operational	<ul style="list-style-type: none"> • Continue Wollar engagement program. • Continue engagement with workforce and neighbouring mine operations. • Regular engagement with emergency services and MWRC as per agreed working arrangements (at least the first two years of the Project's operation).

6.1.4 Project employment and supply

In order to continue to offer benefits for local businesses throughout the Project's life, existing initiatives and partnerships established with local suppliers for the WCM should be maintained and should include:

- local employment opportunities to be advertised locally; and
- opportunities for local suppliers and contractors to tender/quote for supply chain spend.

6.1.5 Workforce management

To maintain the current good relationships between the WCM workforce and MWRC communities, it is recommended that Project workforce management continues to:

- operate on-boarding and induction programs for all workers to communicate the expectation that they attend to existing medical issues before shifts, and that they need to bring prescription drugs, prescriptions and where relevant, records of chronic health issues to site;
- implement Workplace HS&E procedures;
- implement WCM's shared self-reporting program with Moolarben Coal Complex and Ulan Mine Complex operators to identify and manage incidents of poor driver or workforce behaviour; and
- encourage employees to volunteer with the local RFS and contribute to increased local capacity and community resources.

6.1.6 Community investments

WCM's recent community investments include sponsorships, grants, donations and partnerships as summarised in Table 6-2. They demonstrate WCPL's ongoing commitment to supporting local communities and priorities identified by MWRC (e.g. youth, community and health services). Future priorities for community investment should be identified through engagement with MWRC and may include:

- continued support for aspects of the current social fabric infrastructure (e.g. so the Community Hall remains accessible and maintained for the period that residents remain in the Wollar village);
- in-kind support for the maintenance of community resources (e.g. equipment for volunteers to maintain the character of public spaces) in the Mid-Western Regional LGA; and
- encouragement of Project workforce participation in Mid-Western Regional LGA community activities and events.

Opportunities for potential WCPL support of community and cultural events, both in the local area and in support of regional community values, should also be developed in consultation with local stakeholders and the MWRC.

Table 6-2: Wilpinjong Coal Pty Limited Community Investments, 2014

Focus Area	Support Provided (2014)
Community and Cultural Events	<ul style="list-style-type: none"> • Annual Mudgee Agricultural Show. • Gulgong's Prince of Wales Eisteddfod, Folk Festival and Henry Lawson Heritage Festival. • Mudgee Readers Festival and 2014 Rylstone Street Festival. • Biannual Clock Awards (recognising the achievements of local businesses).
Community and Youth Development	<ul style="list-style-type: none"> • Funding for youth leadership and community coach development program. • Funding to Police Citizens Youth Club for the provision of youth & community services. • Lifeskills Plus (providing services to people with disabilities in the Mid-Western Regional LGA). • Cudgegong Learning Community.
Environmental Projects	<ul style="list-style-type: none"> • Central Tablelands Local Land Services Wild Dog Management. • Watershed Landcare.
Community Facilities	<ul style="list-style-type: none"> • Equipment purchases for local RFS. • Contribution to Wollar Progress Association towards the costs of keeping the Community Hall open. • Purchase of the 'soft fall' for the playground equipment to be installed at the Cooyal Local Hall. • Sponsorship of sports clubs and scout group.
Education	<ul style="list-style-type: none"> • Support for local schools including financial and in-kind support.
Health	<ul style="list-style-type: none"> • Sponsorship for Cancer Council charity event, Can Assist and Little Wings. • Partnership agreement supporting establishment of a "Mudgee House" for medical students.

Table 6-3 summarises the recommended mitigation strategies, the impacts or opportunities and stakeholders to whom they are relevant, timing for mitigation strategies and measures of performance and effectiveness.

Table 6-3: Summary of Mitigation Strategies

Strategy	Impacts and Opportunities Addressed	Stakeholders	Timing	Performance Measure	Effectiveness Measure
Property Acquisition	Impacts to amenity Opportunity for Wollar village residents to relocate	Wollar village residents	Pre-approval Life of Project	Property valuations consider the value of properties with comparable lifestyle values.	Property valuations continue to be completed in accordance with valuation requirements for land acquisition.
Community and Stakeholder Engagement	Impacts to local social values Impacts to amenity and quality of life in Wollar Opportunity to strengthen neighbour relations	Wollar community (includes Mogo and Barigan Valley residents) Wollar Progress Association WCM CCC	Pre-approval Life of Project	Continued face to face consultation with interested residents regarding the Project and demonstration of how stakeholder inputs were considered.	Timelines of WCPL responses to complaints. Continued efforts by WCPL to maintain and improve relationships between local residents and the WCM.
	Co-operation with emergency services to manage service demand Opportunity to support capacity of the local RFS	NSW Police, Mudgee Local Area Command NSW Ambulance, Central West Zone Manager Cooks Gap RFS	Pre-construction Reviewed annually during first two years of operation	Individual working arrangements reviewed and updated with police, ambulance and rural fire services.	Stakeholder satisfaction with incident response procedures. Continue to support the WCM workforce participation in local RFS membership.
	Loss of remaining services due to further population decline	Australia Post MWRC NSW Department of Education Central West HHS	On cessation of store lease	Consultation undertaken to identify alternative models for postal service delivery and any relevant changes to Council or Government services.	Wollar service provision is commensurate with population demand.
Project Employment and Supply	Local employment and local supply opportunities	Small, medium and large scale contractors Employment agencies or providers Project employees	Pre-construction Construction Life of Project	Employment and supply opportunities are well advertised locally as the preference is to employ local people. Opportunities for local suppliers and contractors to tender/quote for supply spend.	Ongoing local workforce and business access to Project opportunities.
Workforce Management	Potential increased demand on health care services Local traffic and driver behaviour impacts Impacts on local character	Project employees Contract workforce Moolarben Coal Complex Ulan Mine Complex	Pre-construction Reviewed annually	Review potential impacts on services in the context of cumulative workforce demand, continue to monitor and manage workforce and driver behaviour, and encourage employees' community participation.	Any additional service demand attributed to the Project by health stakeholders is considered in the development of community investment priorities. Continued monitoring and addressing of any relevant complaints of poor worker behaviour.

Strategy	Impacts and Opportunities Addressed	Stakeholders	Timing	Performance Measure	Effectiveness Measure
Community Investment	Impacts to amenity, local character and sense of place Impacts to social sustainability Impacts to quality of life and community wellbeing Opportunity to strengthen neighbour relations	Wollar community (includes Mogo and Barigan Valley residents) Wollar Progress Association MWRC	Pre-approval Life of Project	WCM community investment funds consider potential projects in the Wollar community as well as projects in the wider Mid--Western Regional LGA.	Community investment supports programmes or initiatives relevant to potential impacts of the Project as well as general community projects.

6.2 MONITORING

The Project would track and report its progress on the engagement, mitigation and benefit enhancement strategies outlined in Sections 5 and 6, and report on the performance and effectiveness measures provided in Table 6-3.

In order to monitor the overall effectiveness of social mitigation and enhancement strategies, social indicators to be monitored are shown in Table 6-4. The results of this monitoring would be reported via publication on WCM's website as part of the Annual Environmental Management Report at annual intervals.

Provisional management and monitoring strategies outlined here should be reviewed at the end of the construction period, to identify any changes required in light of changes to local social conditions.

Table 6-4: Social Indicators

Social Value	Indicators	Frequency	Data Source
Landholders' Values and Residential Amenity	Relative frequency of complaints about Project impacts	Quarterly	Complaints register and CCC meeting notes
Local Community Values, Character and Amenity	Community feedback regarding amenity issues	Quarterly	CCC meeting
Employment, Training and Economic Development	Number and percentage of Mid-Western Regional LGA residents employed by Project	Annually for the first two years of the Project	Employment records
Police and Emergency Services	Development / review of joint working arrangements	Annually for the first two years of the Project	Project records
	Review membership of the WCM workforce in local RFS	Annually for the first two years of the Project	Project records RFS membership records
Managing cumulative impacts	Engagement with relevant agencies and proponents regarding cumulative impacts as required	As required based on feedback from MWRC	Face to face meetings

7 CONCLUSION

The Project's potential impacts and opportunities, considered as a whole, demonstrate an often-seen dichotomy between the regional benefits and local impacts of mining projects.

At the regional level (and beyond, in terms of State revenue), WCM represents an important element of the Mid-Western Regional LGA's employment base. The Project would sustain the current WCM employment beyond 2026, and provide additional employment during this period. Approximately 88% of WCM employees (or around 484 people) live in the Mid-Western Regional LGA, and the extended period of employment represents a significant benefit both to existing employees, their families and the general community.

Sustained employment would also support economic activity and stability, through an extension to expenditure by both the Project and its employees. This would support community confidence in the regional economy and contribute to community wellbeing.

With the proposed management measures, there would be no significant negative social impacts at the regional level.

At the local level, there would be no significant Project social benefits for Wollar residents who are not already employed by the WCM. Economic benefits (which may extend to some residents in the Wollar area) are described in a separate Economic Assessment for the Project. The Project would bring WCM closer to Wollar village, and any PEA property purchases during the Project planning stage would contribute to a decline in Wollar's already marginal population. Amenity in and around the village is likely to be affected by more frequent audible operational noise, above levels that some already find intrusive. The proximity of Pit 8 to the village may see increased dust levels, and blasting events would be closer to sensitive receptors in the village.

With Wollar's population so small and local services' viability already marginal, the village may experience a loss of remaining services due to a declining population regardless of whether the Project proceeds. WCPL has approval for WCM's operations until 2026, and the combination of the existing low amenity, the potential loss of the school and store, isolation, and community ageing is likely to see Wollar cease to function as a village at some point. Community members in the Mogo Road and Barigan Road areas may remain, given their self-sufficient lifestyles, but increasing isolation due to the loss of the village and local networks may also see some of them relocate.

Given fewer residents, decreased amenity, uncertainty about the future and the potential loss of village services, it is likely that the decline of Wollar village would be accelerated if the Project proceeds, and that the wider Wollar community (including former residents and businesses) would feel a sense of loss if this occurs.

This assessment has identified a number of mitigation and engagement strategies which would mitigate the Project's social impacts, and proposes a monitoring and reporting strategy to demonstrate accountability and transparency in the management of the Project's social impacts and benefits.

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WILPINJONG EXTENSION PROJECT

SOCIAL IMPACT ASSESSMENT APPENDICES
NOVEMBER 2015



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SOCIAL PLANNING SOLUTIONS

VERSION CONTROL

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1 April 2015	1	Draft Social Impact Assessment for Resource Strategies Review	Elliott Whiteing
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APPENDIX A COMMUNITY SURVEY

A.1 SURVEY PARTICIPANTS

A community survey was conducted to enable a broad range of community members to participate in consultation, obtain information for the social baseline, and seek community members' views about the Wilpinjong Extension Project's (the Project's) potential impacts and opportunities.

Copies of the survey were provided to all interviewees and households in Wollar, and to people and organisations on Wilpinjong Coal Pty Limited's (WCPL's) stakeholder register. The survey was also available on-line via "Survey Monkey", and was advertised in the Mudgee Guardian and accompanied by an editorial article.

51 surveys were returned, of which seven were in hard copy and 44 were completed online. The survey asked participants to describe the type of work they were involved in. Eleven participants chose not to respond, and the remainder (40 respondents) described a diverse range of occupations, including:

- eight respondents working in farming and six working in technical / trade occupations;
- four working in community services and four who were retired;
- two each who were working in retail, education, mining, providing at home care and currently seeking work; and
- six respondents identifying other occupations or circumstances including service industries, disability, school attendance, and volunteer work.

To establish a control on the analysis of survey results, participants were asked to identify if they were currently employed or contracted by WCPL. Four respondents identified as a current employee or contractor, representing 11 percent (%) of the respondents.

The surveys returned do not provide a statistically significant sample of community views, but provided another avenue for input to the social baseline and impact assessment.

A.2 COMMUNITY VALUES

The community survey identified the following values held by the 13 respondents in the Wollar area:

- eight respondents agreed or strongly agreed that Wollar community was family-oriented, and a community that looked after its members;
- seven respondents agreed the Wollar community was harmonious;
- four respondents felt it was a community that looked forward, while six disagreed or strongly disagreed with the statement; and
- nine felt that Wollar did not have a stable local economy.

Results from the Social Impact Assessment (SIA) community survey indicate that respondents in the LGA largely view the Mid-Western Regional Local Government Area (LGA) community as:

- safe (76% agreed or strongly agreed);
- family-oriented (76% agreed or strongly agreed);
- a community that looked after its members (72% agreed or strongly agreed); and

- harmonious (65% agreed or strongly agreed).

Fewer survey participants felt their community was one that looked forward, however the proportion of those that did (55%) represented more than half of the survey sample. Less than half of all survey participants (40%) agreed that their community had a stable local economy, indicating this is an area of concern.

A.3 COMMUNITY CHANGES

Survey participants were asked to describe the changes they had seen in their community over the past five years. Responses from residents of Wollar and others on rural properties in the Mid-Western Regional LGA included:

- noise and dust levels that didn't exist before mining;
- Peabody Energy Australia Pty Limited (PEA) purchased all but a few properties, reducing the population;
- division, stress and uncertainty due to Wilpinjong Coal Mine's (WCM's) impacts;
- more traffic and road kill of native animals, more litter, and contractors and employees speeding through the village;
- decreased services due to population decline; and
- people feel stress on family and strained relationships as a result of WCM impacts.

Responses from other parts of the Mid-Western Regional LGA (including Mudgee) described changes including:

- an increase in population which supported greater building activity and increased local employment;
- economic growth, for local businesses and tourism;
- more people (due to mining industry growth) and inflation of housing costs; and
- access to local medical specialists hasn't kept up with population growth.

Survey participants were also asked to describe the changes they expected to see in their community over the next five years. Responses from Wollar residents all related to the potential effects of the Project, and included:

- noise, dust and odour from the WCM would not be able to comply with conditions;
- further division and disagreement over the 'value of coal mining versus destruction of the environment';
- increase in vehicle traffic and train frequency;
- more temporary workers would occupy dwellings owned by PEA; and
- 'life as we know it in Wollar will be unbearable'.

Responses from the Mid-Western Regional LGA residents outside Wollar included:

- steady capital growth in the property market and a continual steady increase in population;
- with Moolarben and Wilpinjong expansion approvals, hopefully businesses in the area will strengthen;

- 'it all depends on the mines - a lot of farms rely on direct and indirect mine money to keep going';
- school enrolments (in Gulgong) will suffer unless mining cash flow improves; and
- some local businesses are on very shaky ground due to the fall-off in mine contractors.

A.4 LOCAL IMPACTS AND OPPORTUNITIES FROM THE PROJECT

Survey participants were asked to identify what effects, either positive or negative, they expected to see in the Wollar community if the Project proceeded. Some inputs related to the existing approved operation. Input included:

- nothing positive for the Wollar community at all in the mine expansion;
- we will lose our shop, and alternate postal deliveries would need to be arranged;
- more friends will leave the area, and no local social activities;
- more transient workers and loss of safety and security;
- poorer air quality;
- Wollar school will close;
- the heritage listed churches will continue to fall apart from the blasting and coal dust building up on the structures;
- loss of Wollar community; and
- without knowing the noise and dust impact on the village, it is hard to know how the village will be affected.¹

A.5 REGIONAL IMPACTS AND OPPORTUNITIES FROM THE PROJECT

Survey participants were also asked to identify what effects, either positive or negative, they expected to see across the Mid-Western Regional LGA, including Mudgee, if the Project proceeded. Representative input included:

- Negative comments, such as:
 - short term effect of employment 'but outweighed by long term negative effect of dirty energy';
 - more people would come to the area on a casual basis, earning a wage and taking it home to a different community, at the same time putting strain on local services;
 - some people would enjoy the financial benefits but people who are not receiving financial gain would find the cost of living in Mudgee would increase;
 - the social disruption of large coal mining has been well documented by research; and
 - a few more jobs would be created in towns like Mudgee and Gulgong, again adding to the inflation of prices in housing and the encouragement of a false economy.

¹ It is noted that Appendices A and B of the Environmental Impact Statement provide detailed assessment of the potential operational noise, blasting and air quality impacts of the Project however this was not available during consultation for the SIA.

- Positive comments, such as:
 - short term improvements to job stability;
 - more buoyant property market and an improved local economy from extra people;
 - more rates for Council infrastructure; and
 - mines bring a lot of donations and sponsorships for local groups and sporting clubs that they would not get otherwise.

APPENDIX B SOCIAL BASELINE DATA

B.1 DEMOGRAPHIC CHARACTERISTICS

This section summarises the key demographic and socio-economic baseline characteristics for the communities within the study area. Unless otherwise noted, demographic data were derived from the Australian Bureau of Statistics (ABS) Census of Population and Housing 2011.

B.1.1 Population

The population of the local, regional and broader regional study areas at the time of the 2011 Census is presented in Table B-1.

Between 2006 and 2011, the statistical geography for Wollar State Suburb Code (SSC) changed, increasing from an area of 794.5 square kilometres (km²) defined by SSC19447 in 2006 to 962.6 km² as defined by SSC12530 in 2011, a difference of 168.1 km².

Table B-1: Population Size, Density and Growth 2011

Study Area	Local	Regional				Broader Regional			NSW
	Wollar SSC	Mudgee Region East SA2	Mudgee Region West SA2	Mudgee SA2	Mid-Western Regional LGA	Muswellbrook LGA	Singleton LGA	Upper Hunter LGA	
Population 2011	260	3,346	9,951	10,483	22,318	15,791	22,694	13,754	6,917,658
Density 2011 (persons/km ²)	0.27	1.2	1.2	159	2.5	4.6	4.6	1.7	8.6
% Population change (2006-2011)	N/A*	-3	-0.2	10.2	5	4	4	7	6

Notes: * population change estimate not available due to change in Wollar SSC statistical geography 2006-2011.

SA2 = Statistical Level 2

NSW = New South Wales

B.1.2 Population mobility

Table B-2 provides indicators of population mobility based on the 2011 Census.

Table B-2: Population Mobility (%)

Study Area		Local	Regional			Broader Regional				NSW
		Wollar SSC	Mudgee Region East SA2	Mudgee Region West SA2	Mudgee SA2	Mid-Western Regional LGA	Muswellbrook LGA	Singleton LGA	Upper Hunter LGA	
Mobility – Place of Usual Residence 1 year	Same	76	84	80	75	79	75	81	81	81
	Different	11	13	13	19	16	18	15	15	14
	Not stated	13	3	6	6	5	8	4	4	6
	Total	100	100	100	100	100	100	100	100	100
Mobility – Place of Usual Residence 5 Years	Same	65	65	62	50	57	51	57	58	57
	Different	20	31	31	43	37	40	38	37	37
	Not stated	15	4	7	7	6	9	5	5	6
	Total	100	100	100	100	100	100	100	100	100

Source: NSW Department of Planning and Environment. 2014.

B.2 SOCIO-ECONOMIC CHARACTERISTICS

The socio-economic characteristics of the local and regional study areas have been compared with state and national averages to determine the key characteristics of local and regional communities, and any potential vulnerabilities. The data are presented as a suite of key indicators in Table B-3, including the calculated variance from the NSW average.

Table B-3: Summary of Socio-Economic Statistics in the Study Area

Indicator	Wollar SSC		Mudgee Region East SA2		Mudgee Region West SA2		Mudgee SA2		Mid-Western Regional LGA		Muswellbrook LGA		Singleton LGA		Upper Hunter LGA		NSW	AUST
	No.	+/-	No.	+/-	No.	+/-	No.	+/-	No.	+/-	No.	+/-	No.	+/-	No.	+/-		
Median Age (years)	47	9	47	9	44	6	38	0	41	3	34	-4	35	-3	39	1	38	37
<15 years of age (%)	13.5	-5.5	18.5	-0.5	19.4	0.4	21.6	2.6	20.3	1.3	22.8	3.8	22.2	3.2	21.2	2.2	19	19
> 65 years of age (%)	21.6	6.6	23.6	8.6	18.3	3.3	17.2	2.2	18.2	3.2	10.6	-4.4	10.4	-4.6	16.4	1.4	15	14
Male (%)	54.2	4.9	50.4	1.1	51.9	2.6	49.2	-0.1	50.6	1.3	51.7	2.4	51.3	2	49.9	0.6	49.3	49.4
Female (%)	45.8	-4.9	49.6	-1.1	48.1	-2.6	50.8	0.1	49.4	-1.3	48.3	-2.4	48.7	-2	50.1	-0.6	50.7	50.6
Indigenous (%)	5.8	3.3	3.6	1.1	3.9	1.4	4.2	1.7	3.9	1.4	5.4	2.9	3.7	1.2	3.9	1.4	2.5	2.5
Median weekly personal income (\$)	355	-206	371	-190	405	-156	515	-46	449	-112	619	58	640	79	552	-9	561	577
Labour force participation (%)	44.2	-15.6	48	-11.7	54.2	-5.5	59.2	-0.5	55.8	-3.9	63.8	4.1	66.7	7	62.4	2.7	59.7	61.3
Unemployed (%)	10.1	5.1	8.7	2.8	5.5	-0.4	5.2	-0.7	5.7	-0.2	4.8	-1.1	3.3	-2.6	3.6	-2.3	5.9	5.6
Year 12 or equivalent (%)	20.1	-29.1	26.2	-23	30.6	-18.6	34.3	-14.9	31.8	-17.4	28.1	-21.1	33.1	-16.1	31.5	-17.7	49.2	49.2
Median household size	2.1	-0.5	2.2	-0.4	2.5	-0.1	2.5	-0.1	2.4	-0.2	2.6	0	2.7	0.1	2.4	-0.2	2.6	2.6
Family households (%)	64.8	-7.1	64.4	-7.5	73.5	1.6	69.1	-2.8	70.2	-1.7	71.1	-0.8	76.7	4.8	69.8	-2.1	71.9	71.5
Lone households (%)	31.9	7.7	33.2	9	24.2	0	27.7	3.5	27.2	3	25.6	1.4	20.7	-3.5	27.2	3	24.2	24.3
Rented (%)	24.4	-5.7	24.8	-5.3	19	-11.1	34	3.9	26.5	-3.6	35.7	5.6	27.3	-2.8	29.6	-0.5	30.1	29.6
Mortgage monthly repayments (\$)	1712	-281	1083	-910	1304	-689	1733	-260	1551	-442	1733	-260	2000	7	1600	-393	1993	1800
Rent weekly repayments (\$)	100	-200	150	-150	150	-150	240	-60	200	-100	230	-70	260	-40	170	-130	300	285
Need for assistance (%)	4.6	-0.2	7.3	2.5	5.1	0.3	5.5	0.7	5.6	0.8	3.5	-1.3	3.7	-1.1	4.4	-0.4	4.8	4.6

Indicator	Wollar SSC		Mudgee Region East SA2		Mudgee Region West SA2		Mudgee SA2		Mid-Western Regional LGA		Muswellbrook LGA		Singleton LGA		Upper Hunter LGA		NSW	AUST
	No.	+/-	No.	+/-	No.	+/-	No.	+/-	No.	+/-	No.	+/-	No.	+/-	No.	+/-		
Volunteering (%)	14.9	-2	24.7	7.8	22.8	5.9	19.4	2.5	21.1	4.2	17	0.1	19	2.1	22.9	6	16.9	17.8
Self-assessed fair / poor health	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	18.9	2.3	18	1.4	16.4	-0.2	16.7	0.1	16.6	16.6
Difficulty accessing services	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	35.4	5.7	9.8	-19.9	7.2	-22.5	35.7	6	29.7	28.4

B.3 COMMUNITY HEALTH AND WELLBEING

B.3.1 Socio-economic disadvantage

The ABS's Socio-Economic Indices for Areas (SEIFA) are composite indices of factors affecting socio-economic advantage and disadvantage, measured against an Australian benchmark index of 1,000. Factors within the Index of Relative Social Disadvantage such as unemployment, low income, educational attainment, overcrowded living arrangements, rate of disability among people under the age of 70 and poor proficiency in English affect access to information and health care.

SEIFA scores presented in Table B-4 are released by the Public Health Information Development Unit (PHIDU) for the LGAs of Mid-Western Regional, Singleton, Muswellbrook and Upper Hunter, and for the SA2s of Mudgee, Mudgee Region East and Mudgee Region West.

Table B-4: Index of Relative Social Disadvantage Scores

	Index score (based on Australian score = 1000)	Minimum Score for SA1s in Area	Maximum Score for SA1s in Area
Mudgee SA2	970	747	1117
Mudgee Region East SA2	902	756	1026
Mudgee Region West SA2	970	867	1081
Mid-Western Regional LGA	962	747	1117
Upper Hunter LGA	981	863	1094
Muswellbrook LGA	968	615	1094
Singleton LGA	1013	717	1105

Source: PHIDU. 2014.

B.3.2 Health status

The Social Health Atlas of Australia, published by PHIDU compiles a range of demographic, socio-economic and public health data for numerous statistical geographies, including LGAs, to monitor community health and wellbeing.

Table B-5 presents modelled estimates for 2011 to 2013 relating to the self-assessed health status and likely prevalence of health risk factors within the LGAs of the broader regional study area, compared with NSW. Data are presented as an age-standardised-ratio per 100 head of population for comparison.

Table B-5: Self-assessed Health and Risk Factors (Health Status), Modelled Estimates

	Percentage of Population with Self-Assessed Health Risks (2011 to 2013)				
	Self-assessed health status of fair/poor – 15+ years	Population 18+ daily smokers	Population 18+ High risk alcohol consumption	Population 18+ who were overweight (but not obese)	Population 18+ who were obese
Mid-Western Regional LGA	15.4	21.2	5.4	35.1	31.7
Muswellbrook LGA	15.2	21.6	5.6	35.0	32.0
Singleton LGA	14.3	19.3	5.4	35.7	31.6
Upper Hunter LGA	14.2	19.8	5.7	37.3	33.5
NSW	14.3	16.2	4.8	34.6	26.4
Australia	14.6	18.0	4.7	35.3	27.5

Source: PHIDU. 2014.

B.3.3 Health conditions

Modelled estimates (for 2011 to 2013) of the prevalence of a range of chronic conditions are presented in Table B-6. Data are again presented as an age-standardised-rate per 100 people for the purposes of comparison.

Table B-6: Chronic Disease, Modelled Estimates 2011 to 2013

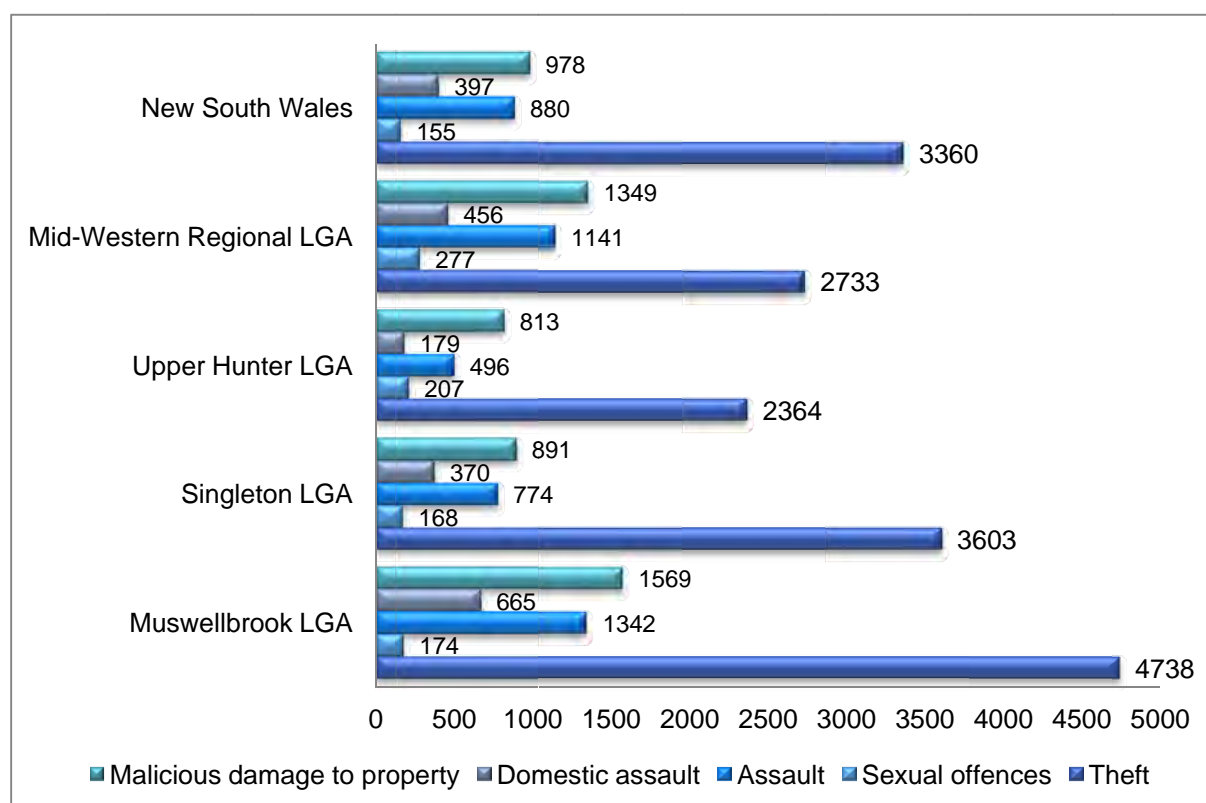
	Diabetes Mellitus	High Cholesterol	Mental/Behavioural Problems	Circulatory System Diseases (2+ years)	Hypertensive Disease	Respiratory System Diseases	Asthma	COPD	Musculoskeletal System Diseases	Arthritis
Mid-Western Regional LGA	4.8	33.2	13.8	18.4	10.5	27.9	11.8	3.0	30.2	17.3
Muswellbrook LGA	4.6	35.2	13.2	17.8	11.1	27.7	12.0	3.1	30.0	15.9
Singleton LGA	4.6	31.7	12.3	18.1	10.9	31.9	11.9	3.0	29.7	15.5
Upper Hunter Shire LGA	5.0	31.9	12.8	17.9	10.4	27.5	11.1	2.8	30.3	16.2
NSW	5.8	32.4	13.1	17.8	10.5	27.4	9.6	2.6	28.1	15.3
Australia	5.4	32.8	13.6	17.3	10.2	28.7	10.2	2.4	27.7	14.8

Source: PHIDU. 2014.

B.3.4 Crime

Figure B-1 presents the rate of offence (per 100,000) by offence type for the twelve months to June 2014.

Figure B-1: Offence Rates (per 100,000), by Offence Type, Year to June 2014



Source: NSW Police Service. 2014.

Table B-7 shows a three year trend analysis (for July 2011-June 2014) published by the NSW Bureau of Crime Statistics and Research for offence rates.

Table B-7: Crime Trends, July 2011 to June 2014

	Assault	Domestic Assault	Sexual Offences	Theft	Malicious Damage
Mid-Western Regional LGA	Stable	Stable	Stable	Stable	Down 18.3% per year
Muswellbrook LGA	Up 10.9% per year	Up 18.5% per year	n.c.*	Stable	Down 12% per year
Singleton LGA	Stable	Stable	Stable	Stable	Down 12.9% per year
Upper Hunter LGA	Stable	Stable	n.c.*	Stable	Down 15.1% per year
NSW	Stable	Stable	Stable	Stable	Down 8.6% per year

Notes: *n.c. = not calculated

Source: NSW Bureau of Crime Statistics and Research. 2014.

B.4 INDUSTRY AND EMPLOYMENT

B.4.1 Labour force characteristics

Table B-8 shows labour force characteristics in the Study Area.

Table B-8: Labour Force Characteristics in the Study Area

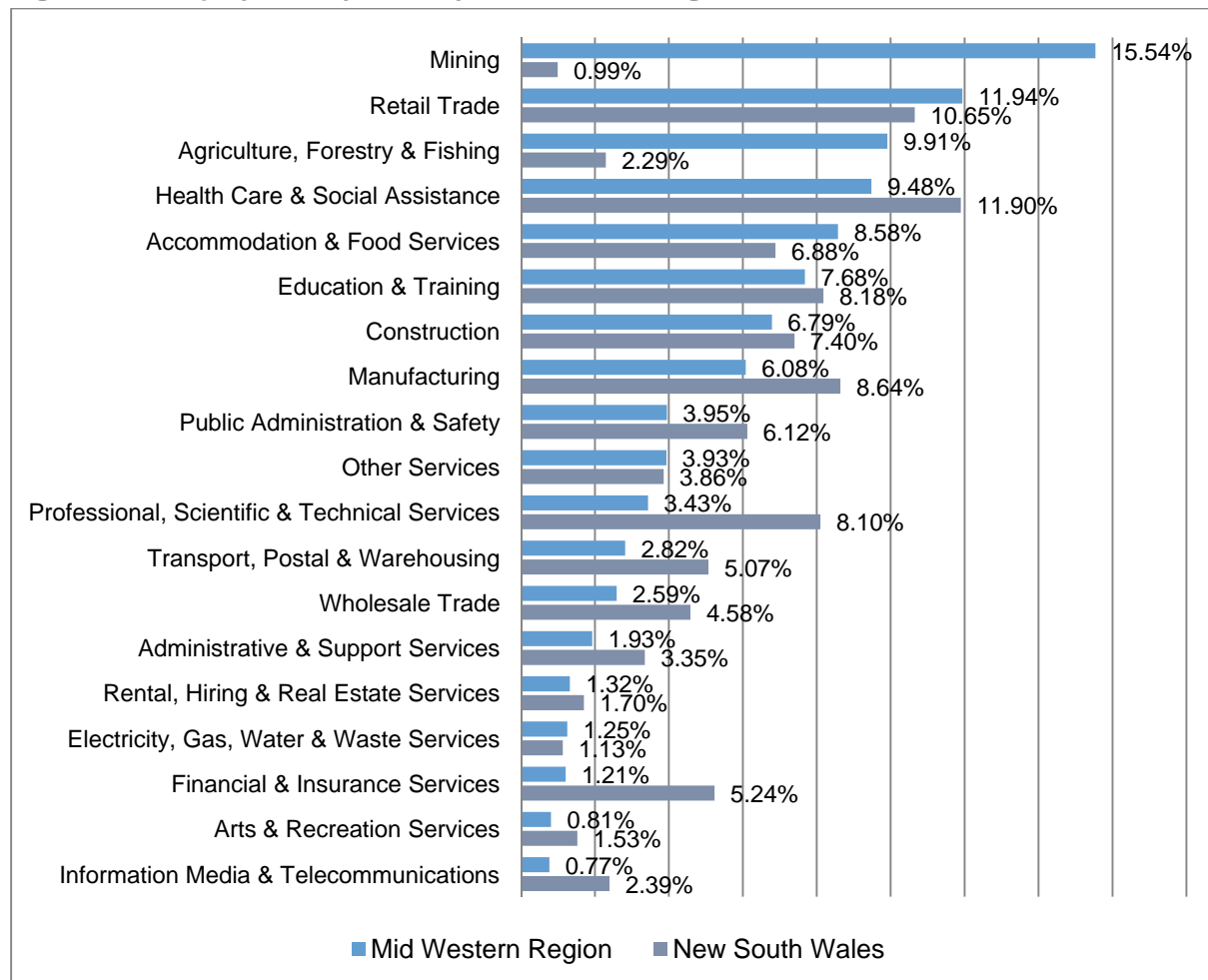
Study Area	Local	Regional			Broader Regional				NSW	AUST
	Wollar SSC	Mudgee Region West SA2	Mudgee Region East SA2	Mudgee SA2	Mid-Western Regional LGA	Muswellbrook LGA	Singleton LGA	Upper Hunter LGA		
Employed	89	4,112	1,192	4,609	9,366	7,401	11,397	6,527	3,138,331	10,058,326
Full Time	62	2,548	728	2,846	5,764	4,954	7,666	4,307	2,007,925	6,367,553
Part Time	23	1,294	380	1,501	3,020	1,945	2,992	1,793	939,464	3,062,976
Employed, away from work	0	145	47	179	353	290	445	257	120,121	409,315
Hours worked not stated	4	125	37	83	229	212	294	170	70,821	218,482
Unemployed	10	239	115	256	564	376	394	244	196,526	600,133
Total labour force	99	4,351	1,307	4,865	9,930	7,777	11,791	6,771	3,334,857	10,658,459
Not in the labour force	90	3,116	1,310	2,817	6,768	3,642	5,065	3,533	1,933,275	5,729,309
Labour force status not stated	35	555	107	537	1,096	771	809	543	317,017	975,928
Total	224	8,022	2,724	8,219	17,794	12,190	17,665	10,847	5,585,149	17,363,696
% Summary										
% Employed	89.9	94.5	91.2	94.7	94.3	95.2	96.7	96.4	94.1	94.4
% Unemployed	10.1	5.5	8.8	5.3	5.7	4.8	3.3	3.6	5.9	5.6
% Workforce participation	44.2	54.2	48	59.2	55.8	63.8	66.7	62.4	59.7	61.4

B.4.2 Industry of employment

Industry of employment data for the Mid-Western Regional LGA, compared with patterns across NSW, has been drawn from the economic modelling tool REMPLAN at 30 October 2014 (Figure B-2).

Modelled data are based on ABS June 2013 Gross State Product, 2009/2010 National Input Output Tables and 2011 Census Place of Work Employment Data.

Figure B-2: Employment by Industry, Mid-Western Regional LGA and NSW



Source: ABS 2011 Census Place of Work Data. 2011.

Table B-9 presents the measured change in employment industries between census collections for 2006 and 2011 for the local, regional and broader regional study area.

Table B-9: Differences in Industry of Employment (%) between the 2006 and 2011 Census

Study Area	Local	Regional						Broader Regional								NSW	
	Wollar SSC	Mudgee Region West SA2		Mudgee Region East SA2		Mudgee SA2		Mid-Western Regional LGA		Muswellbrook LGA		Singleton LGA		Upper Hunter LGA			
Industry	2011	2011	+/-	2011	+/-	2011	+/-	2011	+/-	2011	+/-	2011	+/-	2011	+/-	2011	+/-
Agriculture, forestry and fishing	2.1	19.4	-5.0	14.9	0.7	2.6	-2.0	12	-1.1	7.1	-2	3.9	-1.2	19	-1.2	2.2	0.5
Mining	33	11.4	5.4	12.9	0.6	15.	8.1	22	15.4	21.3	5	24.6	4.7	10.9	3.7	1	-0.3
Manufacturing	6.7	5.4	-0.8	7.3	0.3	5.9	-1.8	7.7	-0.8	5.5	-1.5	7	-0.3	6.2	-2.2	8.4	1.1
Electricity, gas, water and waste	7.1	1.5	-0.1	0.8	0.0	1.1	0.2	1.8	0.7	4.5	-0.7	2.3	-0.6	2.1	-0.2	1.1	-0.1
Construction	10.5	7.4	0.9	5.8	0.3	8.8	0.1	12.2	5	6.7	0.1	6.2	0.2	6.4	-0.2	7.3	0
Wholesale trade	4.8	2.3	-0.4	1.1	0.1	3.3	-0.1	3.1	0.3	3.3	0.3	3	0.3	2.8	0.1	4.4	0.3
Retail trade	5.3	9.6	-0.8	8.8	0.4	12.6	-3.8	7.6	-5.8	9.2	-0.9	8.2	-1.7	8.4	-1.3	10.3	0.8
Accommodation and food	3.8	5.7	-0.6	6.9	0.3	9.9	0.0	4.8	-3.5	6.9	-0.1	6.6	0.2	6.5	0.8	6.7	-0.2
Transport, postal and warehousing	3.8	3.8	0.6	3.8	0.2	2.7	-0.8	4.3	1	3	-0.2	3.1	-0.2	3.5	0.1	4.9	0.1
Information media, telecommunication	0.4	0.5	-0.2	0.6	0.0	1.0	-0.2	0.8	0	0.4	-0.1	0.5	-0.1	0.3	-0.2	2.3	0.1
Financial and insurance services	0.5	0.8	-0.2	1.0	0.0	1.3	-0.1	0.6	-0.6	1.1	-0.3	1.2	-0.2	1.2	-0.1	5	-0.1
Rental, hiring and real estate	1.2	0.6	-0.2	1.0	0.0	1.6	0.0	1	-0.2	1.4	-0.3	1.6	-0.2	0.9	0	1.6	0.1
Professional, scientific and technical services	2.2	3.1	-0.3	3.2	0.2	4.4	-0.3	2.8	-1.1	2.9	-1.2	3.6	-0.4	3.9	0.2	7.9	-0.6

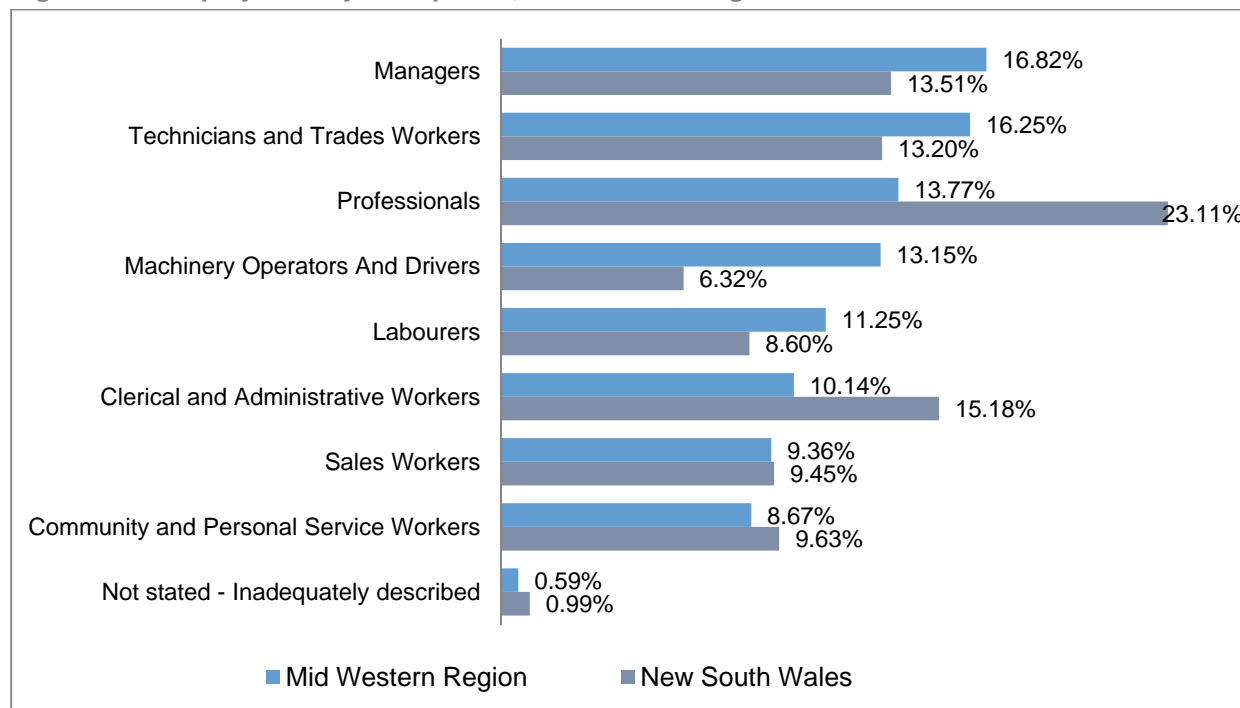
Study Area	Local	Regional						Broader Regional								NSW	
	Wollar SSC	Mudgee Region West SA2		Mudgee Region East SA2		Mudgee SA2		Mid-Western Regional LGA		Muswellbrook LGA		Singleton LGA		Upper Hunter LGA			
Administrative and support services	2.7	2.6	0.8	2.2	0.1	2.1	0.3	1.7	-0.1	3.1	0.8	3.5	0.6	1.8	0.2	3.3	-0.2
Public administration and safety	3.8	3.3	-0.4	3.9	0.2	4.4	-0.4	4.4	0.1	4	0.2	5.3	-0.7	4.2	-0.4	6.1	-0.1
Education / training	1.9	7.4	0.3	9.3	0.4	6.6	-0.3	3.2	-4	4.9	-0.8	5.1	-0.1	6.6	0.3	7.9	-0.4
Health care and social assistance	1.3	8.8	0.7	9.3	0.4	9.5	0.6	2.3	-6.1	6.9	0.7	6.4	0.3	7.7	0	11.6	-1.1
Arts and recreation services	0.6	0.7	-0.2	1.0	0.0	0.7	-0.2	0.7	-0.1	0.9	0	0.5	0.1	1.5	-0.2	1.5	-0.1
Other services	5.3	3.2	0.8	2.7	0.1	5	1.1	4.2	1	4.5	0.8	5.2	-0.4	3.4	0.8	3.7	0

Notes: Differential between the study area and NSW as a whole identified by grey and blue figures denoting greater or less respectively.

B.4.3 Occupations

Figure B-3 presents the occupational share of employment characteristics across all industries in the Mid-Western Regional LGA compared with NSW. Data has been drawn from the economic modelling tool REMPLAN and represents total employee numbers based on place of work data without any conversions to full-time equivalence.

Figure B-3: Employment by Occupation, Mid-Western Regional LGA and NSW



Source: REMPLAN. 2014.

Table B-10 profiles occupational change in the local, regional and broader regional study areas between 2006 and 2011.

Table B-10: Differences in Occupations (%) between the 2006 and 2011 Census

Study Area	Local	Regional								Broader Regional						NSW	
Occupation	Wollar SSC	Mudgee Region West SA2		Mudgee Region East SA2		Mudgee SA2		Mid-Western Regional LGA		Muswellbrook LGA		Singleton LGA		Upper Hunter LGA			
	2011	2011	+/-	2011	+/-	2011	+/-	2011	+/-	2011	+/-	2011	+/-	2011	+/-	2011	+/-
Managers	27.2	22.1	-3.4	19.1	-2.9	11.3	-1.5	15.8	-2.6	10.1	-1.6	10.9	-1	16.6	-1.4	13.3	0.3
Professionals	14.1	12.0	0.5	12.8	1.9	15.0	0.3	13.5	0.8	10.8	0	12.4	0.7	11.5	0.9	22.7	-1.6
Technicians	12	15.4	0.9	16.1	-3.1	18.0	1.3	16.6	0.4	20.2	-0.5	18.8	-1	17	-1.2	13.2	0.4
Community and personal service workers	0	6.9	-0.4	8.9	1.4	9.4	1.0	8.7	0.7	7.9	0.3	8.5	0.4	7.5	0.4	9.5	-0.9
Clerical and administrative workers	9.8	9.6	0.6	8.5	1.4	10.1	-0.3	9.9	0.3	10.8	0.1	11.9	0.1	9.6	0.6	15.1	0.3
Sale workers	7.6	7.4	-0.4	5.7	1.6	10.8	-1.6	9.1	-0.8	7.9	-0.5	7	-1.1	6.9	0.2	9.3	0.4
Machinery operators and drivers	19.6	12.0	3.4	12.9	-0.1	12.4	3.0	12.7	3	17.6	3.2	19	2.6	13.3	2.6	6.4	0.1
Labourers	9.8	12.6	-1.8	13.6	-1.1	11.6	-2.2	12.2	-1.9	13	-1.3	9.6	-1	15.9	-2.5	8.7	0.8
Inadequately described	0	1.90	0.5	2.5	0.9	1.3	-0.2	1.6	0.2	1.6	0.3	1.9	0.3	1.6	0.3	1.8	0.1

Notes: Differential between the study area and NSW as a whole identified by grey and blue figures denoting greater or less respectively.

B.4.4 Relevant qualifications

Table B-11 shows the number of people in the local, regional and broader regional study areas aged over 15 years and holding post-school qualifications.

Table B-11: Number of People with Post-school Qualifications

Study Area	Local	Regional			Broader Regional				NSW
	Wollar SSC	Mudgee Region West SA2	Mudgee Region East SA2	Mudgee SA2	Mid-Western Regional LGA	Muswellbrook LGA	Singleton LGA	Upper Hunter LGA	
Postgraduate Degree	6	80	30	80	186	97	196	109	238,851
Grad. Dip and Grad. Cert	6	76	22	106	197	98	147	85	82,617
Bachelor Degree	12	566	160	687	1,356	729	1,347	790	787,336
Advanced Diploma / Diploma	9	495	128	535	1,096	656	1,140	626	462,059
Certificate	38	1863	604	1,875	4,110	2,994	4,719	2,551	986,704
Inadequately described	0	101	36	144	271	121	199	155	100,290
Not stated	52	943	272	953	1,989	1,529	1,457	1,170	539,067
Total	123	4,124	1,252	4,380	9,205	6,224	9,205	5,486	4,183,628

Source: ABS (2011) Census of Population and Housing .

Table B-12 shows the percentage of people in the local, regional and broader regional study areas, at the time of the 2011 Census, who were older than 15 years and held selected post-school qualifications.

Table B-12: Percentage of People with Selected Post-school Qualifications (%)

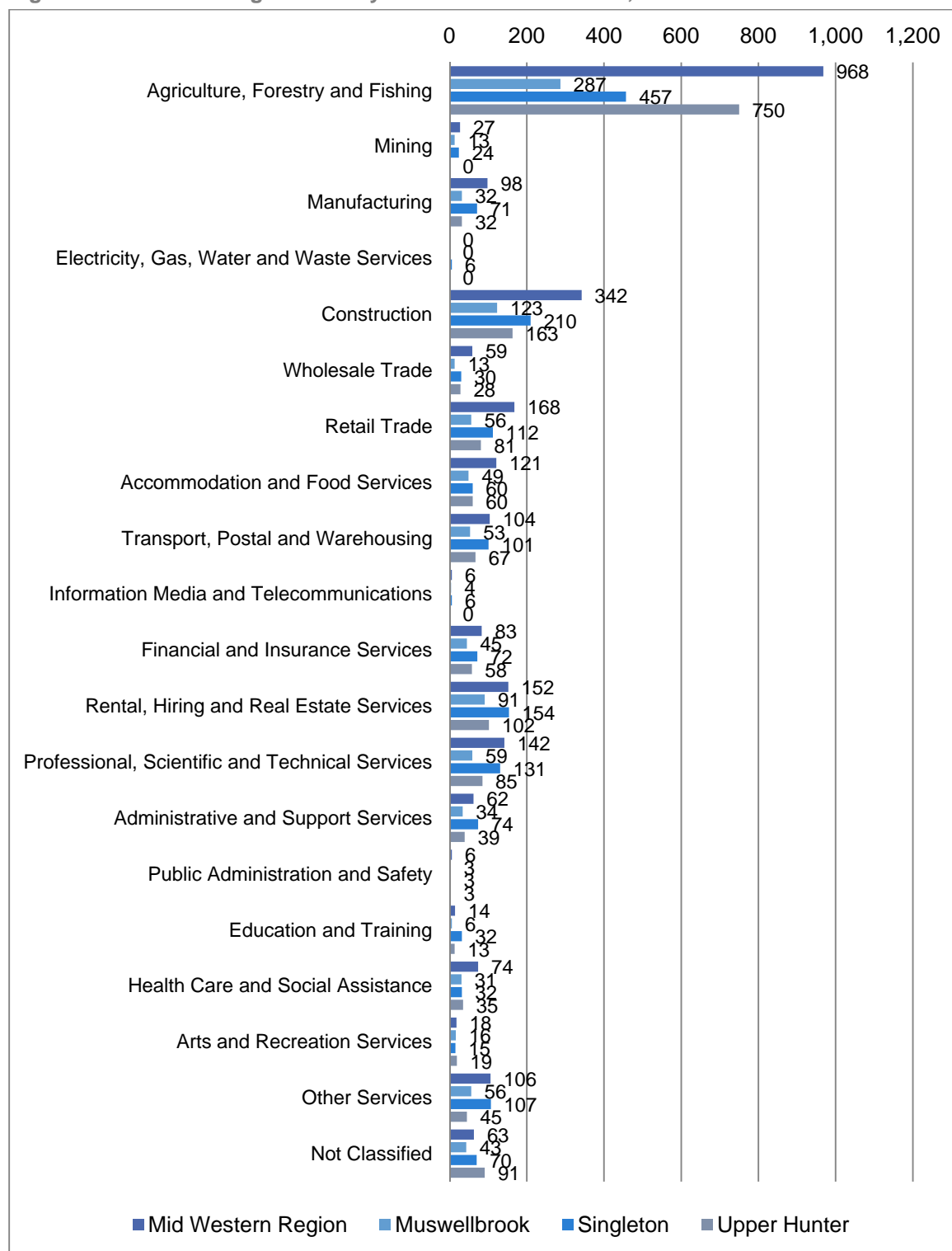
Study Area	Local	Regional			Broader Regional				NSW
	Wollar SSC	Mudgee Region West SA2	Mudgee Region East SA2	Mudgee SA2	Mid-Western Regional LGA	Muswellbrook LGA	Singleton LGA	Upper Hunter LGA	
Postgraduate Degree	4.9	1.9	2.4	1.8	2.0	1.6	2.1	2.0	5.7
Bachelor Degree	9.8	13.7	12.8	15.7	14.7	11.7	14.6	14.4	18.8
Advanced Diploma / Diploma	7.3	12.0	10.2	12.2	11.9	10.5	12.4	11.4	11.0
Certificate III & IV	28.5	38.7	41.9	36.8	38.4	42.1	44.2	39.7	19.6
Certificate I & II	2.4	3.1	2.8	2.9	2.9	2.8	3.6	3.4	1.6
% of Total	52.8	69.4	70.1	69.4	70.0	68.7	77.0	70.9	56.8

Source: ABS (2011) Census of Population and Housing

B.4.5 Businesses

Figure B-4 presents the business count profile (as stated above) of the four LGAs in the broader regional study area at June 2013. The data in Figure B-4 has been drawn from the online economic modelling tool REMPLAN, based on counts of actively trading businesses at June 2009, 2010, 2011, 2012 and 2013 from the Australian Bureau of Statistics Business Register.

Figure B-4: Broader Regional Study Area Business Profiles, at June 2013



Source: REMPLAN. 2014.

B.5 SOCIAL INFRASTRUCTURE AND SERVICES

B.5.1 Early childhood services

There are ten early child care services providing childcare and early years education for children from 6 weeks to 6 years in the Mid-Western Regional LGA (Table B-13).

Table B-13: Early Childhood Services

Service	Location	Catchment
Happy Days Childcare and Pre-School	Gulgong	Local
Puggles Childcare Centre & Preschool	Mudgee	Local/District
Squeakers on Douro Long Day Care Centre	Mudgee	Local/District
Squeakers Long Day Care Centre	Mudgee	Local/District
Imaginations Early Learning Centre	Mudgee	Local/District
Mudgee Pre-School	Mudgee	Local
Gulgong Pre-School	Gulgong	Local
South Mudgee Pre-school	Mudgee	Local
Rylstone Kandos Pre-School	Kandos	Local
Mid Western Regional Family Day Care	Mudgee	District

B.5.2 Primary and secondary education

Schools in the LGA and their catchments are shown in Table B-14.

Table B-14: Primary and Secondary Education Services

Service	Location	Catchment	School Type
Wollar Public School	Wollar	Local	Primary – Public
Ulan Public School	Ulan	Local	Primary – Public
Kandos Primary School	Kandos	Local	Primary – Public
Kandos High School	Kandos	Local	Secondary – Public
Gulgong Public School	Gulgong	Local	Primary – Public
St Joseph's Convent	Gulgong	Local	Primary – Catholic
Gulgong High School	Gulgong	Local	Secondary – Public
Mudgee Public School	Mudgee	Local	Primary – Public
Cudgegong Valley Public School	Mudgee	Local	Primary – Public
All Hallows Catholic School	Gulgong	District	Primary – Catholic
St Matthews Catholic School	Mudgee	District	Primary and Secondary – Catholic
Mudgee High School	Mudgee	District	Secondary – Public

B.5.3 Further and tertiary education services

Further education facilities in the Mid-Western Regional LGA are listed in Table B-15.

Table B-15: Further and Tertiary Education Services

Service	Location	Catchment
Western TAFE – Mudgee College	Mudgee	District
Hunter TAFE – Muswellbrook / Newcastle	Newcastle	District
Charles Sturt University	Dubbo	District/Region
Newcastle University	Newcastle	Region/State

B.5.4 General Practitioners

GPs in the Mid-Western Regional LGA are listed in Table B-16.

Table B-16: General Practice Services

Service	Location	Catchment
Mudgee Medical Centre	Mudgee	District
South Mudgee Surgery	Mudgee	District
Gulgong Medical Centre	Gulgong	Local
Kandos Family Medical Practice	Kandos	Local
Rylstone Surgery	Rylstone	Local

B.5.5 Hospitals and health services

Table B-17 lists the public health services in the Mid-Western Regional LGA.

Table B-17: Public Hospital and Health Services

Service	Location	Catchment
Gulgong Health One/Multipurpose Service	Gulgong	Local
Rylstone Hospital and Health Service	Rylstone	Local
Mudgee Hospital and Health Service	Mudgee	District

B.5.6 Community services

Community service listings at the district level, including general community support, respite services and community transport are shown in Table B-18.

Table B-18: Key Community Services

Service	Location	Catchment
Wollar Progress Association and Hall	Wollar	District
Gulgong Community Services	Gulgong	District
Host Family Respite Care	Mudgee	District
St Vincent de Paul Society	Mudgee	District

Community Transport	Mudgee	District
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B.6 POLICE AND EMERGENCY SERVICES

Table B-19 presents a summary of police and emergency services operating in the Mid-Western Regional LGA.

Table B-19: Police and Emergency Services

Service	Location	Catchment
Police Stations	Gulgong	Local
	Kandos	Local
	Rylstone	Local
	Mudgee	District
Ambulance	Gulgong	Local
	Kandos	Local
	Rylstone	Local
	Mudgee	District
Rural Fire Service	Cooks Gap RFS	District
	Cudgegong / Mudgee RFS	District

B.6.1 Police services

There are four police stations in the Mid-Western Regional LGA, located in Gulgong, Mudgee, Rylstone and Kandos, however the police service catchment for this region stretches from Lithgow to Broken Hill (South Australian border), down to Dareton (Victorian border) and up to Tenterfield (Queensland border).

Mudgee is a Local Area Command Centre, which services the Mid-Western Regional LGA and Warrumbungle Shire LGA. Mudgee Local Area Command Centre had approximately 30 staff in 2014, specifically to service the Mudgee area. Additional criminal investigation and specialist staff are based at Mudgee Police Station. There are two police officers at Gulgong, and also at Rylstone and Kandos.

B.6.2 Ambulance services

The Project area falls within the NSW Ambulance Service's Regional Division in the Central West Zone (Zone 1 of 2 for Central West). Central West Zone 1 borders the Metropolitan Division of NSW, encompassing Lithgow and Oberon in the zone's south east, extending up to Coolah and Dunedoo in the zone's north and extending as far west as Condobolin and Lake Cargelligo.

There are three major response stations for the Project area. Gulgong Station operates as the primary response station, followed by Mudgee Station and Rylstone Station. All stations include a Station Manager and are proactively monitoring service demand to inform a coordinated resourcing strategy for the zone. Kandos station provides locally-based services.

B.6.3 Rural Fire Service

The Cudgegong Fire District is located in the Mid-Western Regional LGA, servicing approximately 23,000 people in Mudgee, Gulgong, Kandos, Rylstone and smaller villages. The Cudgegong Rural Fire District has five full time staff that coordinate the fire brigade's activities and delivers training to volunteers. The number of RFS volunteers (including firefighting and non-fire fighting roles) currently registered in the Cudgegong Rural Fire District is 1,245.²

² NSW Rural Fire Service database. 2014.

APPENDIX C HOUSING PROFILE

C.1 HOUSING STOCK

Table C-1 shows the total private housing stock at the 2011 Census in the regional and broader regional study areas.

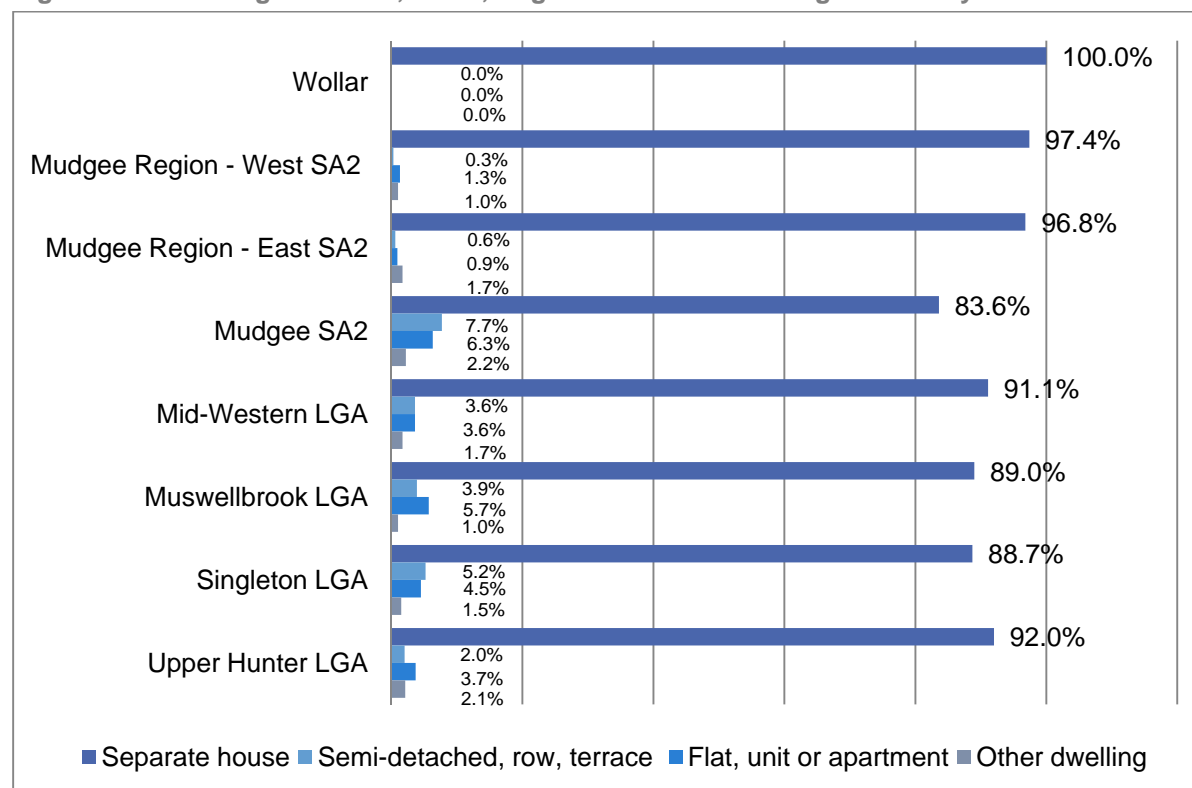
Table C-1: Housing Stock, Local, Regional and Broader Regional Study Areas, 2011

Study Area	Local		Regional						Broader Regional									
	Wollar SSC		Mudgee Region West SA2		Mudgee Region East SA2		Mudgee SA2		Mid-Western Regional LGA		Muswellbrook LGA		Singleton LGA		Upper Hunter LGA		Broader Regional Study Area Total	
Dwellings	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total private dwellings	175	-	4,770	-	1,874	-	4,308	-	10,275	-	6,224	-	8,638	-	6,191	-	31,328	-
Occupied private dwellings	92	52.6	3,653	76.6	1,387	74.0	3,862	89.6	8,362	81.4	5,531	88.9	7,759	89.8	5,245	84.7	26,897	85.9
Unoccupied private dwellings	83	47.4	1,117	23.4	487	26.0	446	10.4	1,913	18.6	693	11.1	879	10.2	946	15.3	4,431	14.1

Source: ABS Census. 2011.

Figure C-1 shows dwelling characteristics across the local and regional study area.

Figure C-1: Dwelling Structure, Local, Regional and Broader Regional Study Areas



Source: ABS Census. 2011.

Figure C-2 and Figure C-3 show comparisons of the number occupied and unoccupied dwellings in the broader regional study area and the local and regional study area, respectively.

Figure C-2: Housing Stock, Broader Regional Study Area

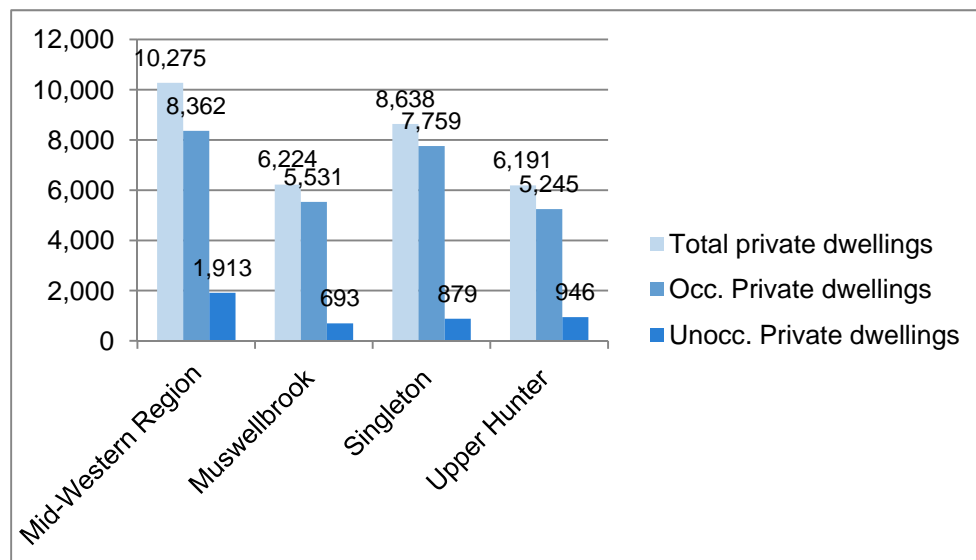
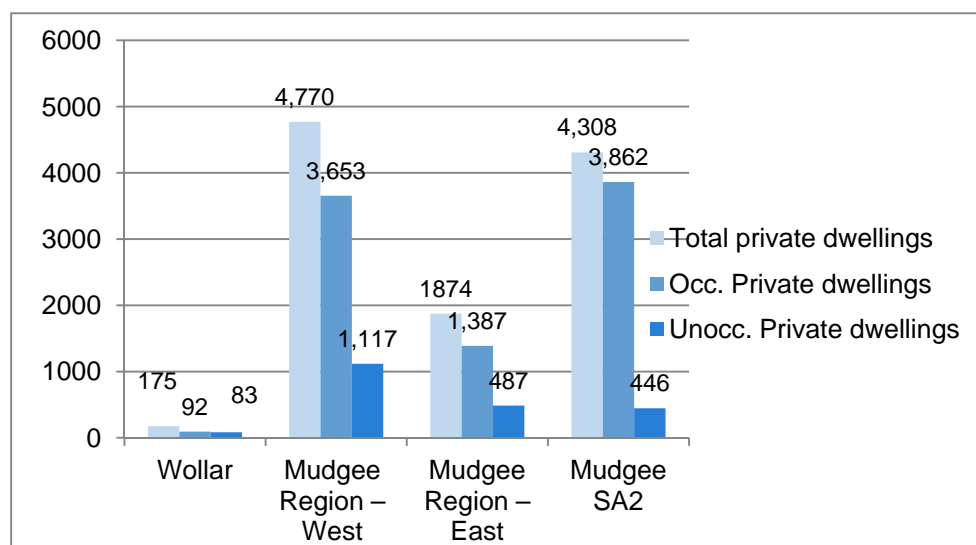


Figure C-3: Housing Stock, Local and Regional Study Areas



C.2 HOUSING TENURE

Table C-2 presents housing tenure and landlord arrangements in the local, regional and broader regional study areas, compared with the NSW average.

Table C-2: Tenure and Landlord Type, Local, Regional and Broader Regional Study Areas, 2011

Study Area	Local		Regional						Broader Regional										NSW
	Wollar SSC		Mudgee Region West SA2		Mudgee Region East SA2		Mudgee SA2		Mid-Western Regional LGA		Muswellbrook LGA		Singleton LGA		Upper Hunter LGA		LGA Total		
Tenure type	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	%
Owned outright	47	52.2	1,753	48	669	48.2	1,240	32.1	3,388	40.5	1,512	27.3	2,383	30.7	1,849	35.3	9,132	34	33.2
Owned with a mortgage	14	15.6	1,086	29.7	314	22.6	1,157	30	2,452	29.3	1,855	33.5	3,082	39.7	1,618	30.8	9,007	33.5	33.4
Rented	23	25.6	692	18.9	344	24.8	1,313	34	2,220	26.5	1,975	35.7	2,117	27.3	1,554	29.6	7,866	29.2	30.1
- Real estate agent	5	5.6	251	6.9	156	11.2	777	20.1	1,151	13.8	1,100	19.9	1,183	15.3	527	10	3,961	14.7	17.4
- State or territory housing authority	0	0	32	0.9	35	2.5	215	5.6	278	3.3	304	5.5	370	4.8	144	2.7	1,096	4.1	4.4
- Person not in same household	7	7.8	254	7	87	6.3	212	5.5	499	6	286	5.2	312	4	443	8.4	1,540	5.7	5.8
- Co-op/ community	0	0	9	0.2	5	0.4	21	0.5	34	0.4	67	1.2	11	0.1	49	0.9	161	0.6	0.7
- Other landlord type	7	7.8	86	2.4	34	2.5	67	1.7	158	1.9	152	2.7	182	2.3	264	5	756	2.8	1.1
- Landlord type not stated	4	4.4	60	1.6	27	1.9	21	0.5	100	1.2	66	1.2	59	0.8	127	2.4	352	1.3	0.6
Other tenure type	6	6.7	36	1	16	1.2	19	0.5	54	0.6	36	0.7	42	0.5	62	1.2	194	0.7	0.8
Total	90	100	3,654	100	1,387	100	3,863	100	8,363	100	5,533	100	7,757	100	5,245	100	26,898	100	100
Not stated	0	0	87	2.4	44	3.2	134	3.5	249	3	155	2.8	133	1.7	162	12.8	699	4.5	2.6

Source: ABS Census. 2011.

C.3 RENTAL VACANCIES

Rental vacancy data for the local, regional and broader regional study areas has been sourced from an independent property research and forecasting company, SQM Research, using postcode data for Wollar/Mudgee (2850), Gulgong (2852) and Muswellbrook (2333) and Singleton (2330) for comparison (Table C-3).

Table C-3: Rental Vacancy Rate by Postcode, Dec 2012-Sep 2014

Postcode Area	Dec-12	Jun-13	Sep-13	Dec-13	Jun-14	Sep-14
Wollar/Mudgee (2850)	2.2	5	5.9	5.7	4	5.9
Gulgong (2852)	2.9	5.1	5.8	5.6	4.9	5.7
Muswellbrook (2333)	7.2	9.2	10	14	9.5	9.2
Singleton (2330)	4.7	6.3	7.5	6.3	6.2	6.3

Source: SQM Research Weekly Rents Index. 2014.

C.4 MEDIAN RENTS

Median rents by postcode area for the week ending 27 October 2014 as listed by SQM Research are shown in Table C-4 and Figure C-4.

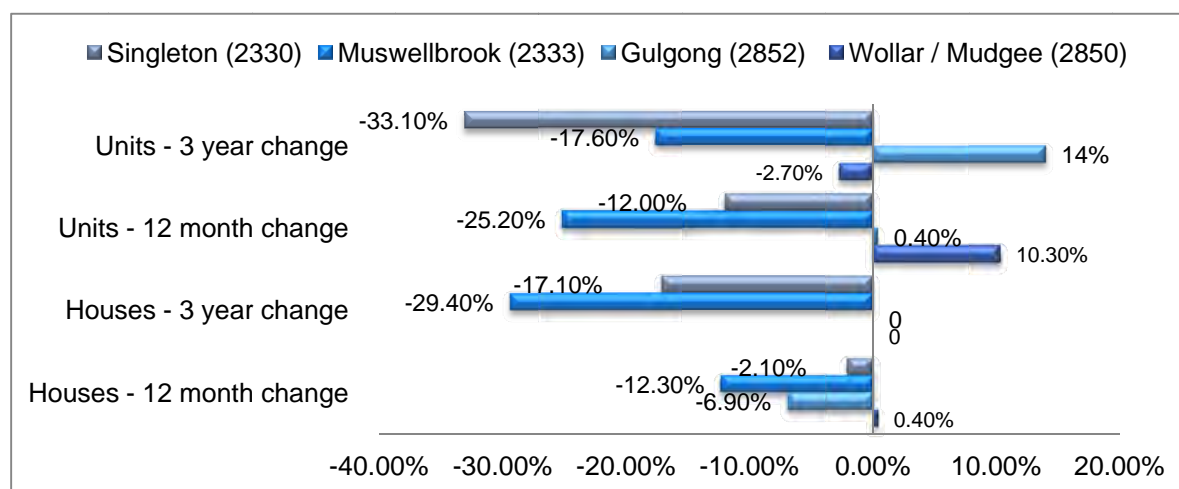
Table C-4: Median House and Unit Rents, by Postcode, Week Ending 27 October 2014

Postcode Area	Houses			Units		
	Median rent	12 month change	3 year change	Median rent	12 month change	3 year change
Wollar/Mudgee (2850)	\$377.6	0.4%	5%	\$297.9	10.3%	-2.7%
Gulgong (2852)	\$299.1	-6.9%	-33.4%	\$225.6	0.4%	14%
Muswellbrook (2333)	\$300.00	-12.30%	-29.40%	\$191.30	-25.20%	-17.60%
Singleton (2330)	\$356.30	-2.10%	-17.10%	\$250.60	-12.00%	-33.10%

Source: SQM Research Weekly Rents Index. 2014.

Figure C-4 shows changes in median rents by postcode as of October 2014.

Figure C-4: Changes in Median Rents, by Postcode at October 2014



Source: SQM Research Weekly Rents Index. 2014.

C.5 RENTAL AVAILABILITY

Rental stock availability through RealEstate.com listings at 3 November 2014 is shown in Table C-5.

Table C-5: Rental Availability at 3 November 2014

Postcode Area	Houses		Units/Apartments		Total Rental Dwellings	
	Available	Range rent/week	Available	Range rent/week	Available	Range rent/week
Wollar (2850)	0	NA	0	NA	0	NA
Ulan (2850)	0	NA	0	NA	0	NA
Gulgong (2852)	25	\$210-\$380	5	\$185-\$230	30	\$185-\$380
Mudgee (2850)	102	\$180-\$1,000	53	\$155-\$800	155	\$155-\$1,000
Muswellbrook (2333)	185	\$100-\$550	45	\$110-\$470	230	\$100-\$550
Singleton (2330)	80	\$195-\$490	45	\$150-\$280	125	\$150-\$490

Source: realestate.com.au. Rental availability at 3 November 2014

C.6 PURCHASE AVAILABILITY

Purchase stock availability through RealEstate.com listings at 3 November 2014 is shown in Table C-6.

Table C-6: Purchase Availability at 3 November 2014

Postcode Area	Houses		Units/Apartments		Total Purchase Dwellings	
	Available	Range purchase price	Available	Range rent/week	Available	Range purchase price
Wollar (2850)	0	NA	0	NA	0	NA
Ulan (2850)	1	\$375k	0	NA	1	\$375k
Gulgong (2852)	48	\$160k-\$950	0	NA	48	\$160k-\$950k
Mudgee (2850)	265	\$70k- \$1.7M	14	\$245k-\$409k	279	\$70k-\$1.7M
Muswellbrook (2333)	197	\$100k-\$1.25M	14	\$75k-\$440k	211	\$75k- \$1.25M
Singleton (2330)	227	\$165k-\$899k	23	\$155k-\$399k	250	\$155k-\$899M

Source: realestate.com.au. Rental availability at 3 November 2014

C.7 HOUSING STRESS

Table C-7 summarises indicators of housing stress in the broader regional study area derived from PHIDU's Social Health Atlas of Australia.

Table C-7: Housing Stress Indicators, 2011

	% Households Receiving Rent Assistance, 2012	% Low Income Households with Mortgage Stress	% Low Income Households with Rental Stress
Mid-Western Regional LGA	18.3	11.1	27.4
Muswellbrook LGA	19.1	6.2	20.9
Singleton LGA	8.3	5.4	15.8
Upper Hunter LGA	14.4	8.5	17.1
NSW	17.3	11.1	26.3

Source: PHIDU. 2014.

C.8 PUBLIC HOUSING

Table C-8 provides an overview of the number of state authority houses being rented in the broader regional study area at the 2011 Census.

Table C-8: Social Housing Indicators, Regional Study Area, 2011

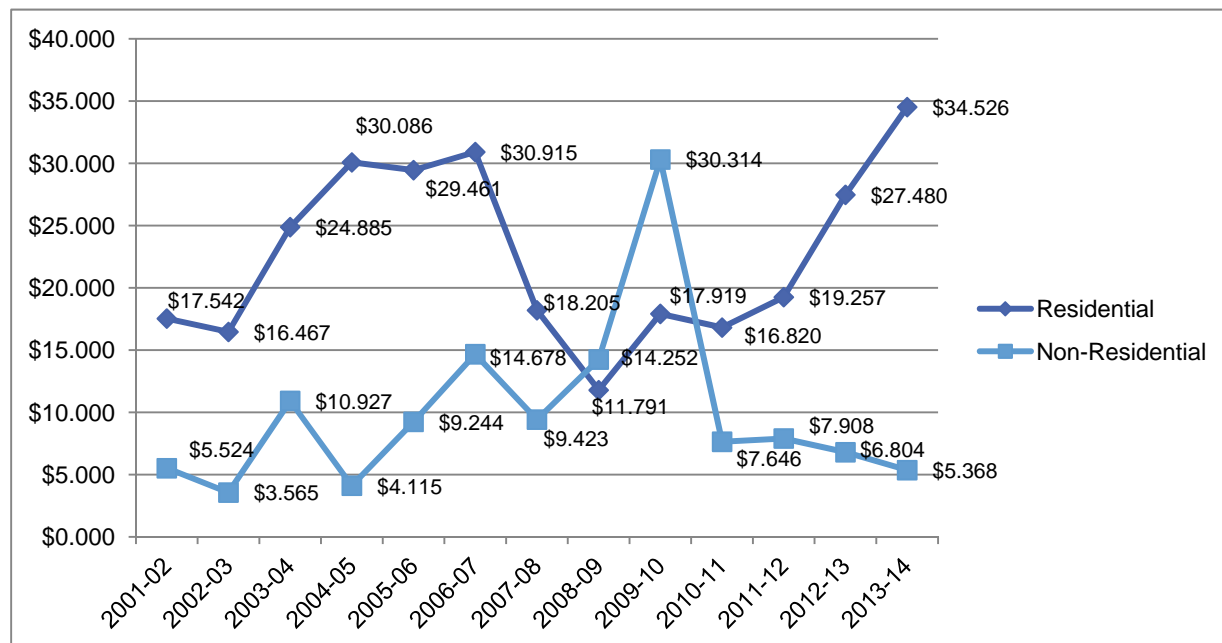
	Dwellings Rented from the Government Housing Authority	% Dwellings Rented from the Government Housing Authority
Mid-Western Regional LGA	275	3.3
Muswellbrook LGA	304	5.5
Singleton LGA	370	4.8
Upper Hunter LGA	144	2.7
NSW	2,471,296	4.4

Source: PHIDU. 2014.

C.9 BUILDING APPROVALS

Figure C-5 presents a 13 year period of residential and non-residential building approval values.

Figure C-5: Mid-Western Regional LGA Building Approvals, \$M value, 2001-2014



Source: REMPLAN. 2014.