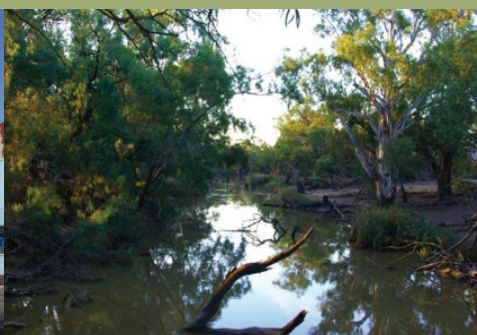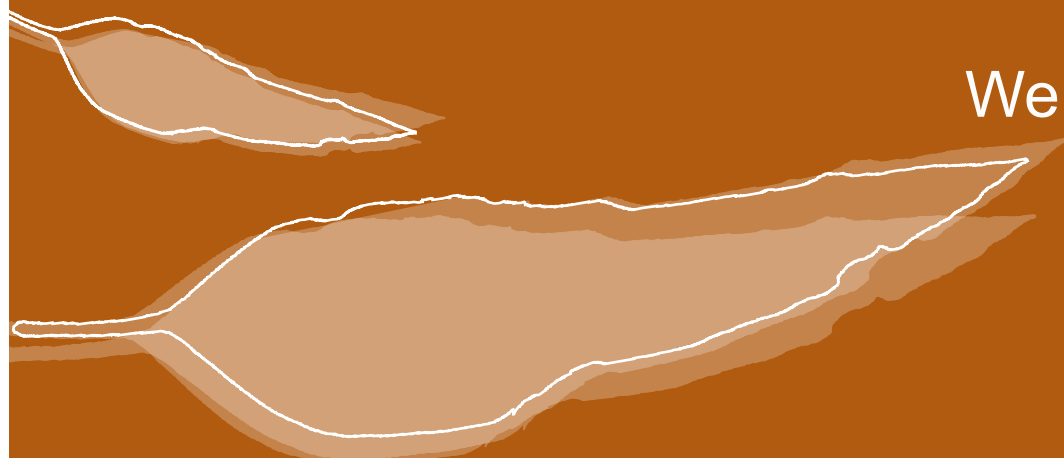*research for a sustainable future*

Billabong Yanco socioeconomic profile: a report prepared for Murray Local Land Services

Report No. 95

Wendy Minato

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Research commissioned by Murray Local Land Services

Wendy Minato

Contact details

Dr Wendy Minato

Institute for Land, Water and Society, Charles Sturt University

PO Box 789 Albury, NSW 2640

Email: wminato@csu.edu.au

Tel: 0437 420 911

Elisa Tack

Murray Local Land Services

931 Garland Avenue I PO Box 797

Albury NSW 2640

Email: elisa.tack@lls.nsw.gov.au

Tel: 02 6051 2233

ABS	Australian Bureau of Statistics
AFF	Agriculture, Fisheries and Forestry (sector)
CAP	Catchment Action Plan
CMA	Catchment Management Authority
ERA	Estimated Resident Population
IER	Index of Economic Resources
IEO	Index of Education and Occupation
IRSD	Index of Relative Socio-Economic Disadvantage
LGA	Local Government Area
LLS	Local Land Services
LOTE	Language other than English
MCMA	Murray Catchment Management Authority
MDBP	Murray Darling Basin Plan
MLHD	Murrumbidgee Local Health District
SBC	Strengthening Basin Communities
SLA	Statistical Local Area
SEIFA	Socio Economic Indexes for Areas

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Executive Summary

This socio-economic profile provides a snapshot of the social and economic characteristics of the Billabong Yanco region and has entailed compiling data from a wide range of sources. The purpose of compiling these data is to support the social-ecological system analysis for the Billabong Yanco Creek landscape. That analysis has been undertaken by Murray Local Land Services (LLS) as part of the Billabong Yanco Creek System Strategic Planning project in collaboration with local stakeholders.

The Billabong Yanco landscape extends north and south of the Billabong and Yanco Creek systems which run through three shires; Conargo, Jerilderie and Urana. In terms of catchment boundaries the project area extends from the central region of the Murray catchment and up into the southern part of the Riverina. Much of the data in this report comes from Australian Bureau of Statistics (ABS) census data for the local government areas (LGAs) of Conargo, Jerilderie and Urana. In May 2016, Urana, Jerilderie and Conargo Shire Councils were amalgamated into Federation, Murrumbidgee and Edward River Shires respectively; however as the majority of the collated data is based on the previous LGA boundaries, for the purposes of this report the previous LGA names and areas will be referred to.

The sections and subsections in this report needed to relate back to components within the strategic planning models for this project. Data was needed to underpin components of the system, particularly the priority pathways within the models. Baseline data would provide a benchmark for measuring change over time and would be useful for testing assumptions behind the decisions to undertake particular activities. The aim was to collect and synthesize readily available information and identify knowledge gaps. The report was informed by other socio-economic profiles (Curtis *et al*. 2003 and Gadsby *et al*. 2013) but adapted to suit the purposes of this project. The data presented is primarily drawn from the ABS 2011 Census of Population and Housing; the most recent available at the time of writing.

Each of the Shires within the Billabong Yanco area had a Community Strategic Plan and these plans identified similar key challenges for the present and future. These challenges are not unique to this area; similar issues face whole regions and many rural areas in Australia:

- Declining population
- Business retention and attraction
- Retaining young people
- Providing services for an ageing population
- Maintaining community infrastructure
- Sustainability of clubs, community groups and committees
- Maintaining health and medical services
- Having a vibrant and thriving main street
- Protecting local history and heritage
- Attracting funding for community priorities
- Water security and a future with less water
- Environmental impacts and uncertainty
- Reducing reliance on agriculture and water related industries
- Getting a return on tourism investment

In terms of Human Diversity the Billabong Yanco area is in some respects *not* very diverse. The population is small, especially in relation to the size of the shires, and the percentage of overseas born and Indigenous residents is low. The proportion of residents who speak English only is significantly higher than across regional NSW and Australia. The proportion of the population speaking a non-English language (either exclusively, or in addition to English) is lower than the Australian average. Conargo in particular has a very low percentage of residents speaking a language other than English and few Indigenous residents. For all three of the shires in the Billabong Yanco area the dominant language spoken at home, other than English, is Italian. The largest single religion in all three shires is Roman Catholic.

Population change in the project area is not markedly different to that of other regional areas in that it is relatively stable or in decline with the median age increasing over time *i.e.* an aging population. The trend (as in many rural areas) is young adults leaving to pursue education and employment opportunities. Conargo Shire is a little different in that the population is forecast to increase over time, with natural increase (births) outweighing natural decrease and net migration. Analysis of the age structure of shires in the Billabong Yanco area shows that Conargo again differs from other regional areas in that the dominant group is 10-14 years of age and the 25-29 year old group is likely to be the dominant age group by 2026.

In terms of Employment the Agriculture Forestry and Fisheries sector (AFF) is by far the greatest employer in the area. In 2011 the percentage of individuals employed in AFF, was 45.6 for Jerilderie, 41.5 for Urana and 61.6 for Conargo. Within this sector agriculture in the form of sheep, beef cattle and grain farming are the specific industries that account for most of the jobs in the Urana, Conargo and Jerilderie local government areas (LGAs). The employment figures tie in with other characteristics of each shire: Conargo is predominantly rural and so a greater percentage of residents are employed in agricultural enterprises; Jerilderie has the largest township and so there are more retail jobs

Conargo Shire is different in other ways to the other two shires in the Billabong Yanco area. It has a higher labour force participation rate and a lower unemployment rate. Unemployment in 2011 was a very low 1.2%. 52% of employed people in Conargo stated they were 'managers' (potentially farm managers) compared to 13% for NSW. A further 10% were 'professionals' so that over 60 per cent of the workforce is in the highest 'skilled' categories in terms of the Socio Economic Index for Areas (SEIFA). The age structure in Conargo is different in that there is a higher percentage of younger people (0-14) and less elderly (75+). The level of socio-economic advantage is high in Conargo.

Authors note:

One note of caution is that when compiling the data it was noted that different sources using the same 2011 Census data came up with different numbers for many of the variables in this report. Any information that seems particularly pertinent to planned activities for this project should be analysed and interpreted with reference to other corroborating data and notes on how the information was derived. The data is patchy in some sections; if it was available for one Shire and not for others it was included nonetheless as a guide to what sort of information could be chased up if necessary.

Table 1 below is a summary of some of the data for the shires within the Billabong Yanco project region. The figures are derived from 2011 QuickStats reports for each LGA and more recent ABS Regional Summary data for 2013.

Table 1   Summary of demographic characteristics for the project region (2011 and 2013 ABS figures)

Variable	Jerilderie	Urana	Conargo	NSW
Human Diversity				
Population (2013)	1,504	1,157	1,543	
Median Age (2013)	45.8	47.4	39.6	37.3
Male (2013) %	54.5	53.3	51.5	49.3
Female (2013) %	45.5	46.7	48.5	50.7
Both Parents Overseas born %	8.8	4.5	3.4	36.7
LOTE %	2.3	1.8	1.2	24.5
Aboriginal %	3.1	3.5	2.1	2.5
Households				
Average wage (2013)	$33,258	$38,884	$38,653	
Median weekly rent	$80	$80	$0	
Median monthly mortgage repayments	$1000	$500	$1,018	$1,993
Employment				
Median Weekly household income	$856	$721	$951	$1,237
Main Employing Industry AFF (2011)	45.6%	41.5%	61.6%	

Variable	Jerilderie	Urana	Conargo	Australia
Economy				
Total no. of businesses (2013)	219	126	195	
No. of businesses with 5 or more employees (2013)	24	15	17	
Building Approvals – no. of private sector houses (2013)	1	1	1	
Building Approvals – Average value of private sector houses ($'000) (2013)	395	387	282	324
Total no. of registered motor vehicles (2013)	1,456	1,116	1,298	

INTRODUCTION

Background and purpose

Murray Local Land Services (LLS) commenced the Billabong Yanco Creek System project in 2014. The goal was to collaborate with the local community in the Billabong Yanco region to identify and address issues relevant to local communities and environments. A social-ecological systems approach was used to underpin strategic planning for the project (Folke 2006; Schluter *et al*. 2012) Murray Local Land Service's vision of resilient communities in productive, healthy landscapes was to be realised through a systems approach to strategic planning (Murray LLS 2016).

The Billabong Yanco project is being funded over four years by the NSW Government Catchment Action and the Australian Government's National Landcare Programme, and is directed by a steering committee made up of various community stakeholder representatives. It focuses on the waterways in the project area and the environments, communities and production values these waterways support.

The strategic planning approach as applied to the Billabong Yanco project included identifying the value and aspirations for the community and key stakeholders. These values and aspirations were used to identify the key aspects of the system that the project should focus on. It was decided that four of the eight components of the social and economic sub-systems would be the focus for the project (Figure 1).

Descriptive models of influence were then developed to describe these components and the key drivers were identified. These models enabled the project team and steering committee to focus on key pathways and possible points of intervention. With this framework in place an objective and a strategy was formulated for each component of the sub-systems; these then informed the subsequent choice of sub-projects and specific activities to be implemented by the project. Activities that addressed multiple components and pathways were prioritised to ensure that social, ecological and economic aspects were considered and addressed in an integrated way.
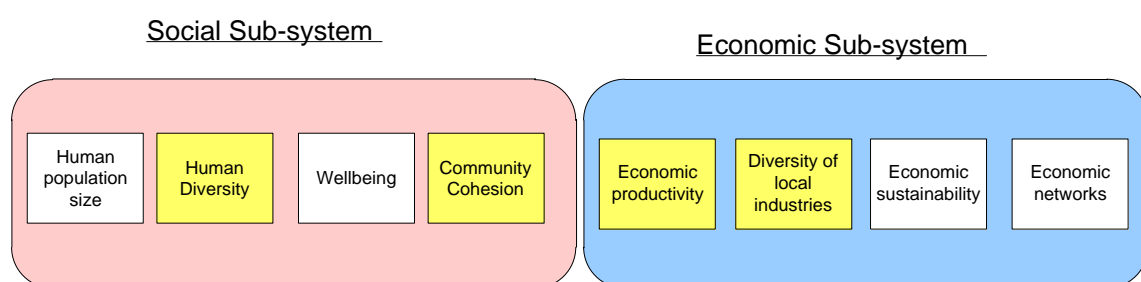
Figure 1 Priority aspects of the social and economic subsystems that the project will focus on

To summarise, the aims of this project, by means of a well-considered systems investigation into the economic, social, and ecological aspects of the region are:

1. Improve the region's economic productivity and diversity,
2. Increase community cohesion and diversity, and
3. Improve the condition, diversity and connectivity of the ecological aspects of the system.

Table 2 The objectives and strategies developed for each component of the project

Component	Objective	Strategy
Human diversity	To increase the population of the Billabong Region through improving retention of people and increasing settlement of new people in the region.	Generate employment opportunities and foster a connection to the Billabong region.
Community Cohesion	To foster a shared sense of identity and belonging.	Assist and develop community leaders and create opportunities for community members to interact, including through improved infrastructure, communication services and technology and financial resources.
Economic Productivity	To support innovation in agriculture to improve profitability	Influence and improve skills and knowledge of individuals and groups engaged in agricultural industries, through education, opportunities and support.
Diversity of Industries	To support development of industry, such as tourism, to diversify the economic base of the region.	Assist with access to markets, including supporting development of infrastructure and services and influencing and responding to consumer preferences.

Objectives of this report

This report will bring together secondary data to underpin strategic planning for the social and economic aspects of the Billabong Yanco system. The information will be evaluated with reference to the social and economic models developed by the project team and steering committee. Analysis of the data will articulate and validate some of the assumptions underpinning the plan of action to achieve the project aims as outlined above. The efficacy of the overall strategic plan will depend upon the suitability of the activities chosen to achieve the project aims. This report therefore prioritises information needed to support elements identified in the system models as key influences on system dynamics. However, broader socio-economic information is also provided. The data will also serve as baseline data for measuring change over time. 2016 census data, when it becomes available, can be used to update this profile.

A note on developing socio-economic profiles

It is difficult to put together a comprehensive socio-economic profile of any area due to limited availability of data for some important topics such as the health of communities and levels of social and institutional capital (Curtis *et al*. 2003). Much of the data in this report was only available at the Regional or Local Government Area (LGA) scale and the 2011 census data is the most recent for many of the topics. Profiles using national or other quantitative data sets can only provide a partial picture of communities. Where a substantial investment or intervention is planned, Curtis *et al*. (2003) suggest that community-based studies must be undertaken. Amongst other things, community-based studies can explain trends identified by numerical data and drivers of change at the local level. Social profiling is one of the first steps when it comes to assessing the social and economic impacts of proposed interventions, including changes in land-use/enterprise, or access to resources.

Spatial boundaries and characteristics of the study region

The spatial extent of the Billabong Yanco project area is a specifically focused variation of the Billabong local landscape area originally defined during strategic planning undertaken by Murray Catchment Management Authority (MCMA) (Murray CAP 2013, p32). The project area extends from the north central region of the Murray catchment and up into the southern part of the Riverina LLS area (Figure 2). Most of the area is fairly flat and much of the southern area has been cleared and developed for irrigation, particularly the area immediately north of Deniliquin which is part of the Murray Irrigation Ltd district. In contrast, the area surrounding Billabong Creek is used primarily for dryland grazing of merino sheep for wool production. Farm sizes along the Billabong Creek are relatively large, which is typical of grazing enterprises in low rainfall areas.

The traditional owners of the Billabong area are thought to have been the Wiradjuri, Yorta Yorta, Barrapa Barrapa and Wamba Wamba nations.

The Billabong landscape is a flat riverine plain, and features the Billabong, Yanco and Forest Creeks in the north and Edward River–Kolety in the south. The area has extensive tracts of native shrub-land and grassland, as well as endangered riverine plain woodland areas. The landscape also features corridors of river red-gum forests, black box woodlands, and isolated sand-hills, lakes and wetlands. The Billabong landscape is dotted with small rural towns and villages, which are typically separated by large properties and minor roads in the north and west. The Murray Irrigation areas have smaller irrigation-dependent landholdings (Murray CAP 2013, p32)

The Billabong area supports a mixture of farming systems, including irrigation and dryland cropping, and grazing. The local economy and communities are largely dependent on irrigation. The Billabong landscape has a lower rainfall compared to the other landscapes in the central and eastern part of the catchment, and the certainty of water supply and access to a range of land management options underpin the viability of local agriculture and therefore the community (Murray CAP 2013, p38).

Conargo Shire was the largest Local Government Area within the Billabong-Yanco region, covering the western part of the project area, including the confluence of the Yanco Creek with Billabong Creek. The other major LGAs within the area are Jerilderie and Urana. The project area also includes the southernmost portion of Narrandera Shire up to where the Yanco Creek comes off the Murrumbidgee River, and a section of Greater Hume Shire where the Billabong Creek runs west of

Walbundrie. Information for the Billabong Yanco project area is based on a combination of available data for the three main LGAs of Urana, Conargo and Jerilderie. Narrandera and Greater Hume LGAs are skewed towards the larger townships in those Shires that are not included within the project's focus area.
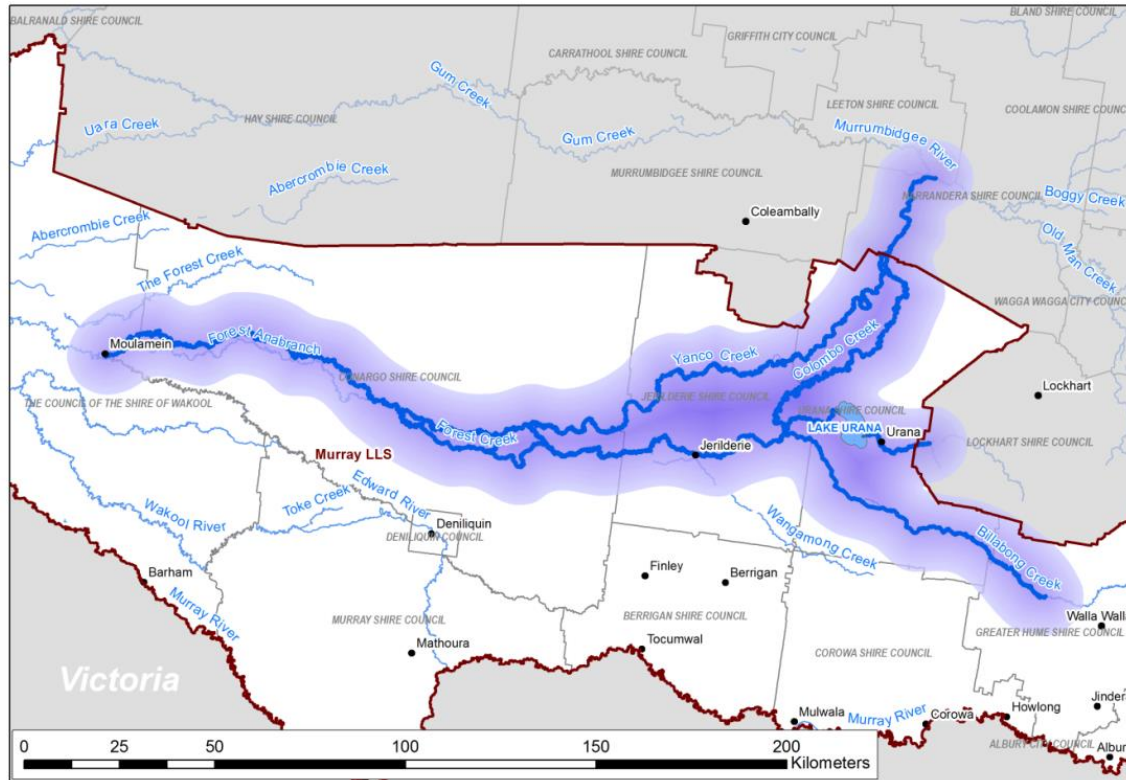
Figure 2 Billabong Yanco project area as represented by blue shading

The Billabong Creek is the most significant water source in the Billabong area. Water enters the Creek from both regulated and unregulated sources. The Billabong Creek upstream of the area has a relatively small catchment in comparison to the Murray and Murrumbidgee Rivers and is unregulated providing an unreliable water source. To improve water security within the Creek, the Yanco cutting was commissioned in 1856 to allow water from the Murrumbidgee River to enter the creek. Subsequently, the primary source of water within the area is derived from the heavily regulated Murrumbidgee River system, via Yanco Creek. The Yanco Creek splits into the Colombo Creek which enters the Billabong Creek at Cocketgedong upstream of Jerilderie, while the Yanco enters between Jerilderie and Conargo. The regulated supply from these creeks is primarily used for stock and domestic consumption but there are also moderate levels of irrigated agriculture along its length. The Forest Creek is a significant anabranch of the Billabong Creek that is also heavily regulated to supply stock and domestic water. It is also the major source of water to Wanganella Swamp a 470 ha Ramsar wetland and important bird breeding habitat (MCMA Murray Profile 2013). The Yanco and Billabong Creeks are recognised as Murray catchment priority aquatic systems (MCAP 2013-2023).

Key Government Areas within project boundaries

As mentioned in the opening report summary the Billabong Yanco Creek project area extends north and south of the Billabong and Yanco Creek systems which run through three shires; Conargo, Jerilderie and Urana. Information gathering for this project required collating data for these local government areas (LGAs). However in May 2016, after a lengthy local government reform process, process, Jerilderie, Urana and Conargo Shire Councils were amalgamated to form 19 new councils. Jerilderie and Murrumbidgee Shire Councils were merged to create Murrumbidgee Council. Urana and Corowa Shire Councils merged to form Federation Council. Conargo Shire amalgamated with Deniliquin Council to form the new Edward River Council. This will affect the collection of 2016 census data which may not be comparable with previous data sets. The following information relates to the Billabong Yanco LGAs as they were prior to May 2016.

Jerilderie Shire

Prior to the April 2016 amalgamations, Jerilderie Shire Council (as it was then known) had a 2011 population of over 1,640 people. The Shire covers an area of 3,397 square km (337,305 Ha) including the township of Jerilderie and was the second smallest Council in NSW. The shire is still part of the State Electorate of Murray-Darling and the Federal Electorate of Farrer. Jerilderie is the administrative centre of the LGA and the district hospital and the council are major employers (Wilkinson & Montoya 2015).

Photo: Wendy Minato

Figure 3 Jerilderie main thoroughfare

Key industries of employment within Jerilderie Shire are agriculture, forestry and fishing; retail trade; health care and social assistance; education and training; and manufacturing. In 2005-06, 63% of the Shire's land was used for grazing. A further 28% of land was used for crops, and of those crops 5% were rice and 21% were other cereals (JSC 2012)

Within the Jerilderie LGA, there are 2 nature reserves that occupy an area of 673Ha or 0.2% of the total land area (ABS Regional Summary data 2011).

Urana Shire

Urana Shire (as it was known prior to the recent amalgamation with Corowa) is located in the Riverina Region of southern New South Wales, about 580 km south-west of Sydney and 380 km north of Melbourne. The Shire had a population of 1500 people and an area of around 3,361 square km (335,600 Ha). The Shire is centrally positioned roughly 110 km from the large regional centres of Albury and Wagga Wagga and includes the townships of Urana, Morundah, Oaklands, Rand and Boree Creek. Urana is the administrative centre of the LGA.

Photo: Paul Wood

Figure 4   Boree Creek

All councils are required to have a Community Strategic Plan. The majority of councils also have Delivery and/or Operational Plans. Within the Billabong Yanco project area Urana Shire Council was the only council with a Cultural Plan. The council also commissioned an Economic Portrait of the Shire (USC 2013b).

Within the Urana LGA, there are 2 nature reserves and 1 other protected area. The nature reserves cover an area of 523 Ha and the protected area is 122 Ha. The total of 644 Ha of protected land make up 0.2% of the total land area (ABS Regional Summary data 2011).

Conargo Shire

Conargo Shire (now part of Edward River Council) was predominantly a rural shire encompassing the communities of Conargo, Blighty, Mayrung, Pretty Pine, Wanganella and Booroorban. Distance wise it sits roughly 680 km south-west of Sydney and 300 km north of Melbourne. The Shire has an area of 8,750 square km (873,794 Ha), with a population of 1,673 (ABS 2006 Census). The population density is 0.19 persons per square kilometre. According to local council employee R.Corboy, Conargo Shire was unique in that it did not have any major towns, water, sewerage or garbage collections (Personal Communication, 4.3.2016). The local council is a significant employer (Wilkinson & Montoya 2015).

According to the then Conargo Shire General Manager (Personal Communication 9.11.2015) there was little happening in the shire in terms of economic development apart from the recently approved feedlot which would accommodate approximately 5000 cattle and 15,000 sheep and

provide perhaps 8 jobs. The council is a member of Riverina Regional Tourism and part of the Long Paddock and associated promotional material. There is also the Conargo Pub which burnt down last year.

Figure 5 What remains of the Conargo Hotel (July 2016)

Quality soils, combined with supplies of water from the Billabong, Colombo, Yanco and Forrest Creeks have enabled Conargo's landholders to diversify their agricultural pursuits and produce high yielding and high priced commodities (wheat, rice, canola, cereals), making Conargo a wealthy shire in rural terms. The shire is the centre of a major sheep stud breeding area, particularly the Peppin Merino Bloodline developed by the Peppin Family in the 1860's (Information accessed 17.4.16 from the now non-existent website www.conargo.nsw.gov.au)

Within the Conargo LGA, there is one National Park and 1 nature reserve. The National Park is 191 Ha and the nature reserve is 2868 Ha. The total of 3059 Ha is the largest area of protected land within the Billabong Yanco region but Conargo is also the largest shire; the protected area is still only 0.4% of the total land area (ABS Regional Summary data 2011).

REPORT STRUCTURE

It was originally intended that the report be structured around the four key components of the project as described in Table 2 (p11). However, many of the sections in the report relate to multiple model components. For instance infrastructure is of relevance Community Cohesion, Human Diversity and Diversity of Local Industries. Employment figures have implications for human diversity, diversity of industry and community cohesion.

Rather than use report headings that relate to components of the model a brief explanation of the four main components follows below with hyperlinks to those sections of the report that are most relevant. Most sections will begin with a brief explanation, in simple terms, of what the information means for the project and its strategic planning. The information is selective rather than

comprehensive but the Appendices provide more information about other data in regional and community profiles for future reference. Where there are information gaps some consideration will be given as to whether or not this is critical and alternative sources suggested.

HUMAN DIVERSITY

Human diversity has been identified as a priority aspect of the social system for this project. Smaller rural populations are likely to be less diverse and this will limit the potential for change and adaptation, innovation, tolerance for others with different perspectives and backgrounds, and economic growth. Smaller populations generally have less access to services such as aged care and health, employment, education and infrastructure. The information in the section on demographics will give some idea of the make-up of the communities that lie within the Billabong Yanco project area in terms of size and cultural diversity. The sections on education, employment and infrastructure are also components of the social model for this project.

COMMUNITY COHESION

Community cohesion is a concept that cannot easily be measured but grows out of community members feeling that their community matters, and that they belong and share common values. The concept also involves a sense of place and identity. Community organisations and events bring people together and can assist in helping people to form and shape their feelings about community and place (Vanclay, 2008; Gibson & Stewart 2009). This is particularly important for new residents to an area who do not have family connections that might serve as an introduction to the community. Community groups are also important. The more welcoming and inclusive local groups are, the more likely it is that new residents will develop ties to the local community and feel a sense of belonging and community pride. Community groups and events provide opportunities to involve community members in decision making and develop local leadership. Social networks connect individuals in a community and are also the means by which local social norms are conveyed. The latter are informal rules or shared understandings of how to behave in social situations. In small communities social influence can play an important role and people will conform to local social norms because they want to fit in (Minato *et al*. 2012). The concept of social values and norms relates to all components of the models for this project. The section on community health is directly relevant here, as is the information on unpaid and voluntary work, recreational facilities and community groups.

ECONOMIC PRODUCTIVITY

The Economic Productivity priority pathway for this project is based on the assumption that improvements in agriculture will have the greatest impact on the overall productivity of the region. Supporting innovation in agriculture is one of the objectives to achieve this goal. Important elements of the economic model are skills and knowledge, education opportunities and support, financial capital, and less tangible factors such as open-mindedness and a willing to take risks. The less tangible factors are hard to measure but can be cultivated in a community via social interaction and by influential community members. The section on community health is therefore relevant to economic productivity and the strategies that may be needed to influence attitudes and behaviour.

The level of skills and knowledge in the community can be inferred to some extent from the information on employment and education, although more information may be necessary to support specific project objectives.

<u>DIVERSITY of INDUSTRIES</u>

The process of developing a priority pathway for Diversity of Industries involved a review of the Jerilderie, Conargo and Urana Community Strategic Plans (JSC 2015a, CSC 2012 and USC 2013a). A common theme relating to industry in these plans was tourism. The rationale behind the objective to support tourism related industry is that tourism related businesses will increase the contribution of industries such as accommodation, food services, retail trade, arts and recreation. One of the strategies to achieve this objective is to increase the number and diversity of industries through improving access to markets and supporting development of infrastructure. The sections in this report that provide particularly relevant information for this component of the project are those that deal with existing industries, infrastructure and tourism.

DEMOGRAPHIC PROFILE

The demographic data in the following sections is based on Australian Bureau of Statistics (ABS) census data. Much of the information is sourced from 'Quickstats' for each Local Government Area (LGA) which has summary data for demographics and education, cultural and language diversity and employment. 2011 census figures for the LGAs are compared with those for NSW and/or Australia where possible. The information on Ancestry, Language Other Than English (LOTE) and Religious Affiliation comes from the Multicultural NSW Community Profiles that are available for each LGA. These have 2006, 2011 and Regional NSW or Australia wide comparison figures. Not all figures and data in these reports have been included here because not every variable was considered relevant to this project. Appendix 4 has a complete list of variables contained in the 'Quickstat' and 'Multicultural NSW' community profiles. Other information was sourced from documents covering regions that included the Billabong Yanco area, such as the Murray Region and the Murrumbidgee Local Health District.

Population

The population in the Billabong Yanco area is small, especially in relation to the size of the shires. A socio-economic profile of the Murrumbidgee Valley (Curtis *et al*. 2003) identified Jerilderie, Urana and Conargo as areas with the lowest populations in the Murrumbidgee Valley an area defined by the aforementioned study comprising 33 Statistical Local Areas and a number of major population centres including Cooma, Griffith and Wagga. The population figures in that report (based on 2001 census data) were 1782 for Jerilderie, 1,335 for Urana and 1399 for Conargo. More current figures (2013) are 1,504 for Jerilderie, 1,157 for Urana and 1,543 for Conargo (Table 1).

Population change in the project area is not markedly different to that of other regional areas in that it is relatively stable or in decline. Larger regional centres have grown with a corresponding decline in rural areas due to consolidation of agricultural holdings and young adults leaving to pursue education and employment opportunities (Forecast.id, 2015). It is notable that Conargo Shire, with

no major towns, is expected to increase in population size over the next 20 years; see below for further explanation as to why this is so.

Population forecasts (Table 3) predict that the Jerilderie and Urana Shire Councils will decline by 44 people (1.6%) between 2011 and 2036. Over the same time period Conargo Shire Council is expected to increase by 63 people (4%). A comparison of the figures in Tables 4 and 5 indicate that the increase in population for Conargo Shire is primarily due to the number of births outweighing natural decreases (death) due to age. Population numbers for the 2011 base year are derived from Estimated Resident Population (ERP) from the Australian Bureau of Statistics (ABS). Appendix 2 has more information on data and sources.

The projected population growth of shires and towns in rural areas is directly related to future economic conditions. The population forecast below (Table 3) is based on certain assumptions as outlined below:

> Over the last two decades, while the area was in severe drought and the population of some townships declined the economy of the Riverina Murray region (which includes the shires of interest to this project) remained strong. From 2002 to 2013 the unemployment rate dropped from 5.8% to 5.0%, while the workforce participation remained stable at 70% between 2006 and 2011. Due to the breaking of the drought in late 2010, population forecasts assume a stable economic outlook into the future. Agricultural output is expected to rebound due to higher levels of water and the continued aging of the population will create need for more service industry jobs across the region resulting in increased levels of migration (Forecast.id 2015, p6).

Table 3 Population forecast figures based on 2011 census

| Riverina Cities | Forecast Year | | | | | | Change 2011 to 2036 | |
Area	2011	2016	2021	2026	2031	2036	Total	Avg Annual %
Jerilderie and Urana Council Areas	2,725	2,672	2,647	2,659	2,664	2,681	-44	-0.06
Conargo Council Area	1,585	1,581	1,580	1,607	1,629	1,648	+63	+0.16

Population and household forecasts, 2011 to 2036, (Forecast.id, May 2015)

Table 4 Jerilderie and Urana Council Areas: population change due to births, deaths and migration

Component	2012-2016	2017-2021	2022-2026	2027-31	2032-36

Births	138	132	135	135	135
Deaths	162	170	174	178	180
Natural increase/decrease	-24	-39	-38	-43	-45
Net migration	-34	14	35	48	57
Change in persons in non-private dwellings	4	0	15	0	5
Total Population Change	-53	-24	12	5	17

Population and household forecasts, 2011 to 2036 (Forecast .id, May 2015)

There are two ways in which populations in a particular area can change; through net migration and/or through natural increase (births minus deaths). Migration is largely driven by housing development, whereas natural increase is a function of the age of the population. Tables 4 and 5 suggest why populations in the Billabong Yanco shires might be expected to increase or decrease over time.

Table 5 Conargo Council Area: population change due to births, deaths and migration

Component	2012-2016	2017-2021	2022-2026	2027-31	2032-36
Births	75	82	87	90	93
Deaths	39	37	38	37	36
Natural increase/decrease	37	45	49	53	57
Net migration	-40	-47	-23	-31	-38
Change in persons in non-private dwellings	0	0	0	0	0
Total Population Change	-4	-1	27	22	19

Population and household forecasts, 2011 to 2036 (Forecast.id, May 2015)

Age Structure

The age profile of a community is a prime determinant of its economic character. Knowledge of how the age structure of the population is changing is essential for planning age-based facilities and services, such as child care, recreation and aged care. Population forecasts 2011–2036 (Forecast.id 2015) predict significant ageing in rural areas over the forecast period. Each of the Shire Councils in the Billabong Yanco area acknowledges this trend and the need to retain services for this sector is a key challenge now and into the future.

The age profile of residents in the Billabong Yanco area is not only important from an economic perspective.   Aspects of identity (confidence, self-belief, open-mindedness and approach to risk) for instance will be influenced by age and stage of life as are values and beliefs. Skills and knowledge will also vary according to age in conjunction with other variables such as education and background.

These factors have been identified by the models for this project as key components of the priority pathways for economic productivity and community cohesion. The main objective for 'Community Cohesion' (Refer back to Figure 1) is to foster a shared sense of identity and belonging. Specific planned activities for this project still at the 'to be developed' stage include developing community leaders, bringing communities together and influencing social norms and attitudes. Age and stage of life will be important considerations when formulating these activities.

The number of Aboriginal and Torres Strait Islander people within the Billabong Yanco area is low (Refer to the section on Cultural Diversity) and no figures for the percentage of individuals in each age category is included here. However these figures are available for the Murrumbidgee Local Health District which includes the Billabong Yanco study area. A report on the population characteristics of this District states that the Aboriginal population is ageing along with the general population as indicated by an increase in proportions of Aboriginal people aged 45-65+ years from 2006 to 2011 (MLHD 2012).

The information that follows on dominant age groups in the Billabong Yanco council areas of Jerilderie, Urana and Conargo has been sourced from the Multicultural NSW Local Government Area Community Profiles (2012). Multicultural NSW is the key government agency responsible for monitoring and reporting on the multicultural and policy programs delivered by NSW government agencies. The Community Profiles present information on the ancestry, birthplace, language and religion of NSW communities with populations greater than 1000. The information is derived from the 2006 and 2011 Australian Census figures.

Five year age groups present a classic age profile of a population. Each age group covers exactly five years, which enables direct comparison between each group. Figure 5 illustrates the relative percentages for each age category for the LGAs in the Billabong Yanco area.   The text on dominant age groups draws attention to particular age categories and compares percentages with Australia wide data.

Dominant groups

In 2011, the dominant age structure for persons in Jerilderie and Urana Council areas was ages 50 to 54, which accounted for 9.6% of the total persons. For the Conargo Council area the dominant age structure was ages 10-14, which accounted for 9.3% of the total population.

According to population experts (Forecast.id 2015) the largest increase for the Jerilderie and Urana Council areas between 2011 and 2026 is forecast to be in ages 65 to 69, which is expected to increase by 98 and account for 9.7% of the total persons. The largest age group in 2026 is forecast to be 65 to 69 years, with a total of 257 persons. The largest increase in persons between 2011 and 2026 in the Conargo area is forecast to be in ages 25 to 29, which is expected to increase by 30 and account for 6.1% of the total persons. The largest age group in 2026 is expected to be 10 to 14 years, with a total of 132 persons.
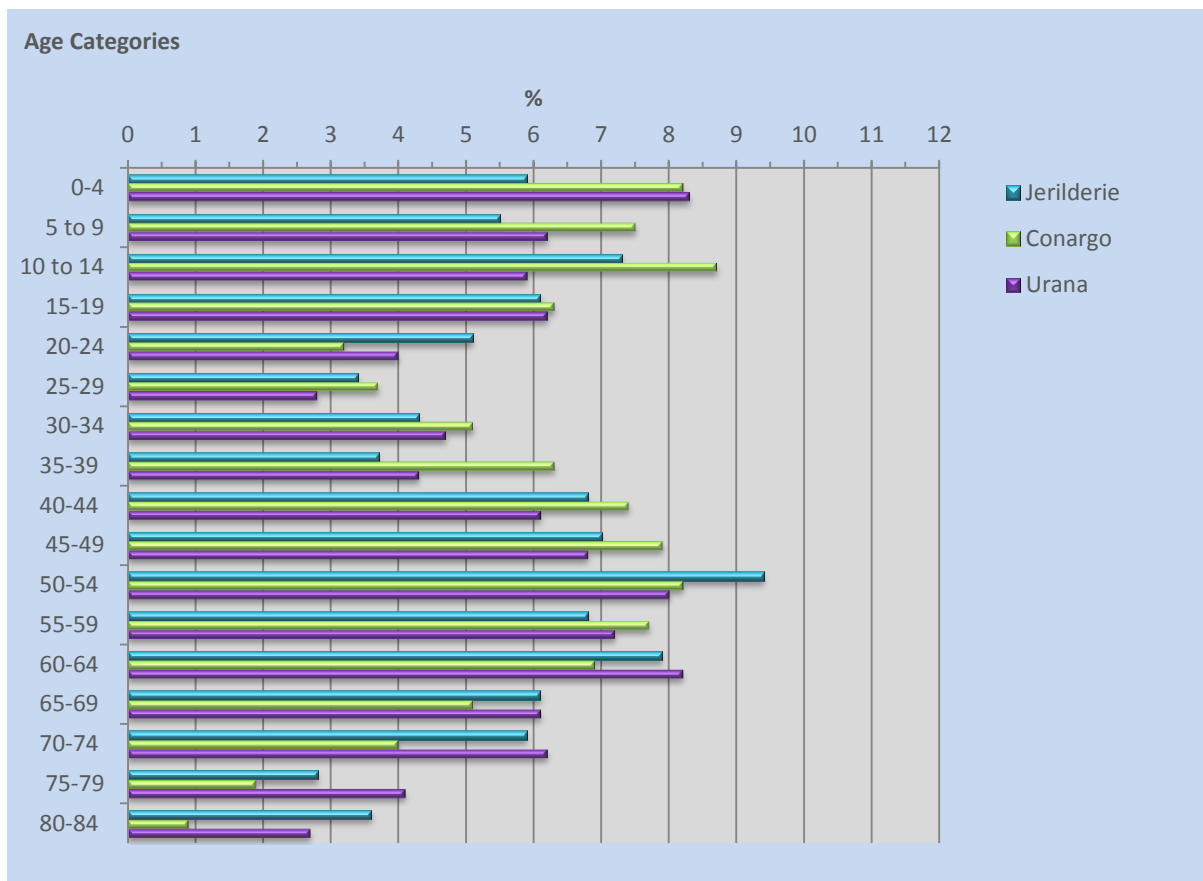
Figure 6 Population composition (%) by age categories (2011 Census)

Analysis of the five year age groups of the population in **Jerilderie Shire** compared to the Australian population shows that in 2011 there was a higher proportion of people in the older age groups (65+) and a lower proportion of people between the ages of 15 and 39.

20.7% of Jerilderie residents were aged 65 years and over compared with 14.2% for the Australian population. 22.6% of the Jerilderie population aged 15-39 compared with 34.1% for Australia.

The major differences between the age structure of the **Jerilderie Shire** population and the Australian total population were**:**

A *larger* percentage of persons aged 70 to 74 (5.9% compared to 3.3%)

A *larger* percentage of persons aged 50 to 54 (9.4% compared to 6.7%)

A *smaller* percentage of persons aged 25 to 29 (3.4% compared to 7.0%)

A *smaller* percentage of persons aged 35 to 39 (3.7% compared to 7.1%)

Analysis of the five year age groups of the population in **Urana Shire** compared to the Australian shows that in 2011 there was a higher proportion of people in the 50+ age categories; 44.7% for Jerilderie compared with 32.5 for Australia.

The major differences between the age structure of the Urana Shire population and the Australian population were:

A *larger* percentage of persons aged 0 to 4 (8.3% compared to 6.6%)

A *larger* percentage of persons aged 70 to 74 (6.2% compared to 3.3%)

A *smaller* percentage of persons aged 25 to 29 (2.8% compared to 7.0%)

A *smaller* percentage of persons aged 35 to 39 (4.3% compared to 7.1%)

Analysis of the five year age groups of the population in **Conargo Shire** compared to the Australian population shows that in 2011 there was a higher proportion of people in the younger age groups (under 15) and a lower proportion of people in the older age groups (65+).

Overall, 24.4% of the population was aged between 0 and 15, and 12.9% were aged 65 years and over, compared with 19.3% and 14.2% respectively for the Australian population.

The major differences between the age structure of the Conargo Shire population and the Australian total population were:

A *larger* percentage of persons aged 0 to 4 (8.2% compared to 6.6%)

A *larger* percentage of persons aged 10 to 14 (8.7% compared to 6.4%)

A *smaller* percentage of persons aged 20 to 24 (3.2% compared to 6.7%)

A *smaller* percentage of persons aged 25 to 29 (3.7% compared to 7.0%)

Workforce stages

In the chart below, the age profile for 2011 (Figure 6) is simplified into six broad workforce stages, four in the workforce: young adult (15–24), parenting (25–39), prime-age (40–54), and retiring (55–69), bracketed by two non-working stages; children (0-14) and seniors (70+).

It is interesting to speculate why it might be that Conargo has a greater proportion of young families and a lower number of seniors. This could be due to rising birth rates and a greater number of deaths but it is also possible that Conargo is home to families who commute to and from Deniliquin for work and education. Seniors may be retiring to Deniliquin, the nearest large regional town.
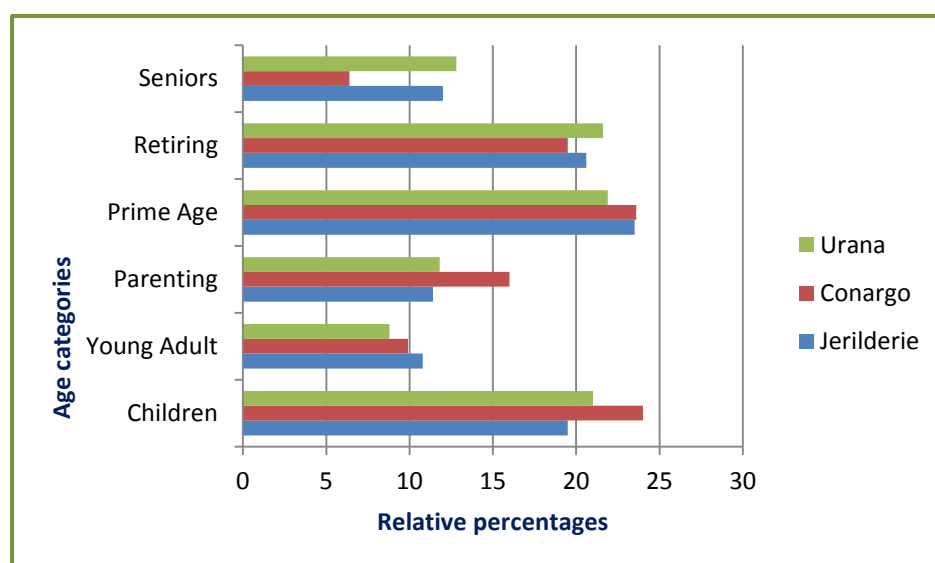
Figure 7 Population composition by workforce stages (2011 Census)

Youth Population

The youth population is considered to be that category of individuals aged between 15 and 24 years. In a social profile of the Murrumbidgee Valley* conducted in 2003 it was found that 13.6 per cent of the Murrumbidgee Valley's population in 2001 was 15 to 24 years of age, similar to the State proportion of 13.4 per cent, but slightly higher than the non-metropolitan NSW proportion of 12.5 per cent (Curtis *et al*. 2003). An increase in the youth population between 1991 and 2001 occurred in some areas of the Murrumbidgee Valley (including Junee and Griffith) but the report noted decreases in all other areas, particularly Jerilderie (33.9%) and Urana (33.7%). In 2001 the lowest concentrations of youth in the Murrumbidgee Valley included Urana (8.2%) and Jerilderie (8.3%).

According to the 2011 Census Quickstats, the State proportion of youth was 12.9% and the Australia wide percentage was 13.3%; in other words the percentages have not altered significantly over the 10 year period from 2001 to 2011. In Jerilderie Shire the 2011 youth population was 10.8%, whilst in Conargo Shire it was 9.9% and in Urana Shire 8.8% . The proportions of youth are lower in these shires reflecting the trend in rural areas of young people moving away to seek employment and education. The relative percentage of youth in the 20-24 year age category is lower for Conargo and Urana (Figure 7) suggesting that it is the older cohort that have moved out of the area.

Youth unemployment is relevant to the social and economic models for this project. Vibrant sustainable communities need the next generation to remain in the area, bringing up their families, supporting the local school and volunteering their time. The local economy and diversity of employment and industry are important drivers of change. They can provide employment opportunities or support young people in pursuit of their own business goals. The population of local youth is also a source of potential community leaders.
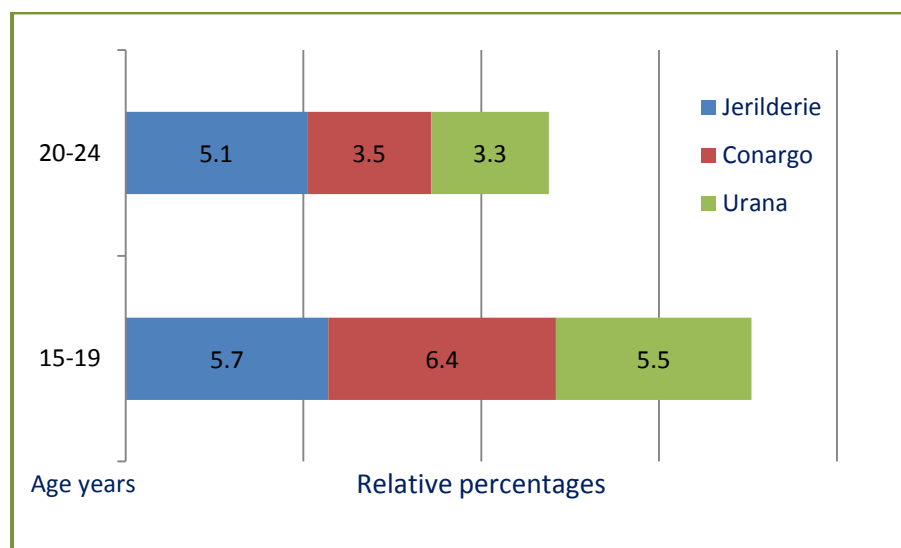
Figure 8 Youth Population in the Billabong Yanco area separated into two age categories (2011 Census)

*The geographic scope of the abovementioned social profile extends from Cooma in the East to Balranald in the west, north to Temora and south of Culcairn. The Murrumbidgee Valley includes a number of major population centres including Cooma, Griffith, Queanbeyan and Wagga Wagga. Only information that was relevant to this report has been referred to.

Families and households

The following information has been sourced from Riverina Cities Population and Household Forecasts (2011-2036). These forecasts are available for individual LGAs and were downloaded from the 'Forecast.id' website.

In 2011 the dominant household type in Jerilderie and Urana Council areas was couples without dependents, which accounted for 33.9% of all households. The largest increase between 2011 and 2026 is forecast to be in couples without dependents, which will increase by 43 households and account for 37.2% of all households. In contrast couple families with dependents are forecast to decrease by 49 households, to comprise 23.7% of all households in 2026, compared to 28.6% in 2011.

In 2011, the dominant household type in **Conargo** Council area was couple families with dependents, which accounted for 37.7% of all households. The largest increase between 2011 and 2026 is forecast to be in couples without dependents, which will increase by 23 households and account for 34.2% of all households. In contrast couple families with dependents are forecast to decrease by 12 households, to comprise 33.7% of all households in 2026, compared to 37.7% in 2011.

The Jerilderie Shire Community Strategic Plan (2015a) has the following information on families and households:

> 384 families living in the shire including 175 couples without children, 168 couples with children, 36 one parent families with children, and 5 other families. There are 803 private dwellings. Housing is affordable with the median housing loan repayment being $1000 per month, and the median rent being $80 per week. In 2011 46.3 % of dwellings were fully owned, 25.4% were being purchased and 23.5% were rented.

Ancestry

The information in this section and the next (Cultural Diversity) is based on ABS Census of Population and Housing 2011 figures as compiled by Multicultural NSW. As described in the previous section on Age Structure Multicultural NSW is the key government agency responsible for monitoring and reporting on the multicultural and policy programs delivered by NSW government agencies. The Community Profiles present information on the ancestry, birthplace, language and religion of NSW communities with populations greater than 1000.

The major differences between the ancestries of residents in the Billabong Yanco by Area compared to the rest of the Australian total population were a larger percentage of people with Australian, English, Irish and Scottish ancestry (Table 6). The differences between ancestry in this area and the rest of Regional NSW are not so marked, although Urana has more people with German ancestry and Jerilderie more people of Italian descent.

Table 6 The most common (top five) ancestries (%) in each LGA compared to Regional NSW and Australia

Ancestry	Jerilderie	Urana	Conargo	Regional NSW	Australia
Australian	45.6	43.9	47.4	43.1	32.8
English	40.0	37.8	44.4	37.8	33.0
Irish	12.4	15.0	11.3	15.0	9.7
Scottish	10.9	10.9	15.3	10.0	8.2
Italian	3.7	2.0	3.1	2.5	4.1
German	2.4	6.7	3.1	4.2	3.9

Source: ABS Census of Population and Housing 2011

Table 7 The most common countries of birth (%) for the LGAs compared to the Australian population

Country of Birth	Jerilderie	Urana	Conargo	Australia
England	2.0	1.6	1.6	4.8
India	0.9			1.4
Philippines	0.5	0.3		0.9
Netherlands	0.5	0.4	0.5	0.3
Czech Republic	-		0.3	
New Zealand	0.5	0.9	0.5	2.1
Germany	0.3			0.5
Italy	0.7	0.5		0.8
Australia	**87.1**	**88.1**	**92.5**	**69.8**
Total overseas born	6.0	4.5	3.4	24.8
• Non-English speaking	3.2	2.1	1.2	16.4
• Main English speaking countries	2.8	2.4	2.3	8.4

Source: ABS Census of Population and Housing 2011

Cultural Diversity

LOTE

People in the Billabong Yanco Region predominantly speak English and the proportion is significantly higher compared to Regional NSW and Australia wide figures. The proportion of the population speaking a non-English language (either exclusively, or in addition to English) is lower than the Australian average. Conargo in particular has a very low percentage, 1.2%, (Table 8) of residents that speak a language other than English. For all three shires the dominant language spoken at home, other than English, is Italian.

Table 8   Languages spoken at home (%) in each LGA compared to other areas Australia

Language	Jerilderie	Urana	Conargo	Regional NSW	Australia
English	92.3	92.6	96.3	90.4	75.7
Non-English	2.3	1.8	1.2	5.1	19.2
Italian	0.9	0.5	0.6		1.3

Source: ABS, Census of Population and Housing 2011

INDIGENOUS POPULATION

Aboriginal and non-Aboriginal population age distributions tend to be different due to lower life expectancies and higher birth rates in the Aboriginal population (Gilchrist 2012). In the Murrumbidgee Local Health District, which includes the Billabong Yanco area the median age of the Aboriginal population in 2006 was 15-19 years. This increased to 20-24 years in 2011 but is 10-15 years younger than the non-Aboriginal population. The Aboriginal population has around double the proportion of people aged less than 19 years by comparison with the non-Aboriginal population and less than half the proportion of people aged over 45 years, a discrepancy that increases with increasing age.

RELIGION

Statistics on religion are an indicator of cultural identity and ethnicity when looked at in conjunction with other key variables such as country of birth and language spoken at home. Specific cultural and ethnic groups will be associated with particular religions. The age profile of an area is also a factor as belief is generally stronger, the older the population, although this is a trend that will alter over time. Changes in values and belief systems might also be reflected in statistics on religion, such as the proportion of people with no religious affiliation.

Table 9   Population composition of Aboriginal and Torres Strait Islander people (2011 Census)

LGA	No.	%	Male %	Female %	Median Age
Jerilderie	48	3.1	53.5	46.5	20
Conargo	32	2.1	54.8	45.2	15
Urana	40	3.5	59.0	41.0	41
NSW		2.5	49.3	50.7	21
Australia		2.5	49.3	50.7	21

Source: ABS, LGA Quickstats 2011 Census

The most notable trend in religious affiliation for all of the shires between 2006 and 2011 (Tables 10-12) was a decrease in the number of people stating their religion as Christian and an increase in the number of individuals claiming no religion. This trend is also reflected in the wider Australian population. These shires differed from the rest of Australia in that a higher proportion of people professed to be religious and a lower proportion stated no religion. The largest single religion in all three shires is Roman Catholic.

Table 10 Religious affiliation Jerilderie LGA

Jerilderie Shire	2011		2006		Change between 2011 and 2006
	%	Australia %	%	Australia %	
Christian	79.4	62.0	83.6	64.9	-4.2 %
Non-Christian	0.9	7.7	0.2	6.0	+0.7
Non-classifiable religious belief	0.3	0.8	0.3	0.6	0
No religion	12.0	21.2	10.3	17.6	+1.7
Total	100	100	100	100	

Source: ABS Census of Population and Housing 2006 and 2011.

The major differences between the religious affiliations of the **Jerilderie** Shire population compared to Regional NSW and Australia in 2011 were:

A larger percentage of Roman Catholics (33.2% compared to 26.2 and 25.6% respectively)

A larger percentage who nominated Uniting Church (12.1% compared to 5.8 and 4.7%)

A larger percentage who nominated Presbyterian and Reformed (9.0% compared to 4.2 and 2.9% respectively)

Table 11 Religious affiliation Urana LGA

Urana Shire	2011		2006		Change between 2011 and 2006
	%	Australia %	%	Australia %	
Christian	75.0	62.0	81.6	64.9	-6.6 %
Non-Christian	0.3	7.7	1.0	6.0	-0.7
Non-classifiable religious belief	0.6	0.8	0.0	0.6	+0.6
No religion	14.6	21.2	9.5	17.6	+5.1
Total	100	100	100	100	

Source: ABS Census of Population and Housing 2006 and 2011.

The major differences between the religious affiliations of the **Urana** Shire population compared to Regional NSW and the Australia in 2011 were:

A larger percentage of Roman Catholic (33.1% compared to 26.2 and 25.6% respectively)

A larger percentage who nominated Uniting Church (12.1% compared to 5.8 and 4.7%)

A larger percentage of Presbyterian and Reformed (6.6% compared to 4.2 and 2.9%)

Table 12 Religious affiliation Conargo LGA

Conargo Shire	2011		2006		Change between 2011 and 2006
	%	Australia %	%	Australia %	
Christian	74.3	62.0	74.2	64.9	-2.9 %
Non-Christian	0.4	7.7	1.0	6.0	+0.4
Non-classifiable religious belief	0.2	0.8	0.4	0.6	-0.2
No religion	19.6	21.2	14.6	17.6	+5.0
Total	100	100	100	100	

Source: ABS Census of Population and Housing 2006 and 2011

The major differences between the religious affiliations of the **Conargo** Shire population compared to Regional NSW and Australia in 2011 were:

A larger percentage who nominated Uniting Church (16.0% compared to 5.8 and 4.7%)

A larger percentage who nominated Presbyterian and Reformed (8.1% compared to 4.2 and 2.9% respectively)

A larger percentage who nominated Anglican (21.1% compared to 17.8%)

A smaller percentage of Roman Catholics (22.2% compared to 26.2 and 25.6%)

EDUCATION

Education and learning activities occur throughout a lifetime, and are attributable to the development of skills, knowledge, attitudes and values; it increases the ability of people to fully participate in their communities and in broader society. Levels of educational qualification and fields in which they are attained have a large bearing on employment opportunities and future income levels. Post-school education has increasing significance for high income and workplace status. The proportion of adults with post-school qualifications is an indicator of community resources.

The Economic Productivity Model for the Billabong Yanco Strategic Plan (Figure 1, p10) identifies 'education, opportunities and support' as a critical factor along the pathway to 'Innovation, R & D, technology and creativity'. There are many individuals who are talented and creative, able to think laterally, and not afraid to experiment or fail, educated or not. However, an education exposes

individuals to new ideas and concepts, along with opportunities and experiences that can lead to personal growth, greater confidence and more financial security. The assumption would be that a more educated resident population will have the skills, knowledge and open-mindedness to adapt to change and try new ideas. This then is more fertile ground for a greater number of industry types, innovation, and uptake of the latest research and technology. Unfortunately for many rural communities a portion of the resident population will leave the area to further their education if there are no opportunities to do this locally. If those individuals that move away do not return then the benefits of education are lost to the community.

In Jerilderie in (LGA) 28.7% of people were attending an educational institution in 2011. Of the 369 residents who have a post-school qualification, 61.9% have a Certificate, 13.8% have an Advanced Diploma and 22.5% have completed a Bachelor degree.

In Urana (LGA) 27.5% of people were attending an educational institution in 2011. Of these, 30.1% were in primary school, 21.0% in secondary school and 6.3% in a tertiary or technical institution.

In Conargo (LGA) 28.9% of people were attending an educational institution in 2011. Of these, 35.4% were in primary school, 28.0% in secondary school and 10.8% in a tertiary or technical institution.

Table 13 Attendance at Educational Institutions (2011 census)

Institution	Jerilderie %	Urana %	Conargo %
Pre-school	6.7	8.2	8.9
Primary-government	14	22.3	28.1
Primary-Catholic	15.3	7.9	6.2
Primary-other	0	0	1.6
Secondary-Government	20.5	18.6	24.5
Secondary-Catholic	0.7	0	1.8
Secondary-other	1.4	2.2	1.8
TAFE	5.6	4.4	8.5
University	7.4	2.2	2.2
Other	0.7	1.9	1.3
Not stated	27.7	32.4	15.1

Source: ABS, LGA Quickstats 2011 Census

EMPLOYMENT

Occupation is an important indicator of establishing the socio-economic status of a community. The occupations held by a community are linked to other factors such as employment opportunities in and around the area, educational qualifications, the social aspirations of the community, as well as industry and infrastructure within the wider region.

More detail on employment in Urana can be found in the Economic Profile commissioned by Urana Shire Council (USC 2013b). The report has information on specific occupations in local jobs, occupational trends, working hours across occupations and labour force trends. The same information is not readily available for the other two shires in the Billabong Yanco area and some of it would not be relevant to the shire of Conargo which has few businesses (other than farms).

The local government shires in the Billabong Yanco project area have very high percentages of people employed in the agriculture, fisheries and forestry sectors (Table 18). According to the 2011 census this figure was 45.6% for Jerilderie, 41.5% for Urana and 61.6% for Conargo. Unemployment figures are lower than the NSW (and Australian) average of between 5 and 6%. In 2001 Conargo had a very high labour force participation rate of 78.8% and a very low unemployment rate of 2% (Curtis *et al*. 2003) and ten years on not much has changed (Table 14).

Table 14 Labour force participation rate (2011 census) for people aged 15 years +

	Jerilderie	Urana	Conargo	NSW
Worked full-time %	62.8	66.2	68.4	60.2
Worked part-time %	26.6	25.1	22.9	28.2
Away from work %	8.3	5.9	7.5	5.7
Unemployed %	2.3	2.8	1.2	5.9
Total in labour force	726	509	841	

Source: ABS, LGA Quickstats 2011 Census

Working Hours

The Yanco Billabong area is predominantly rural with Jerilderie being the only town of any size. The figures in Table 16 indicate that 15-20% of the population does not have full-time employment, similar to the figure for NSW for people working up to 25 hours per week.

Farming as a vocation tends to be characterized by a high degree of self-employment and long working hours. In 2011, half (50%) of farmers worked 49 hours or more a week (Figure 8). Only 17% of other workers put in such long hours. More than half (56%) of Australian farmers were self-employed owner managers (compared with 15% of other workers), with a further 17% working as employees managing farms owned by someone else. Although people who are self-employed generally work longer hours than others, this only goes part of the way to explaining the working

hours of farmers. Even when comparing just among the self-employed, farmers were still much more likely to work long hours, compared with other occupations (ABS, Australian Social Trends, 2012).
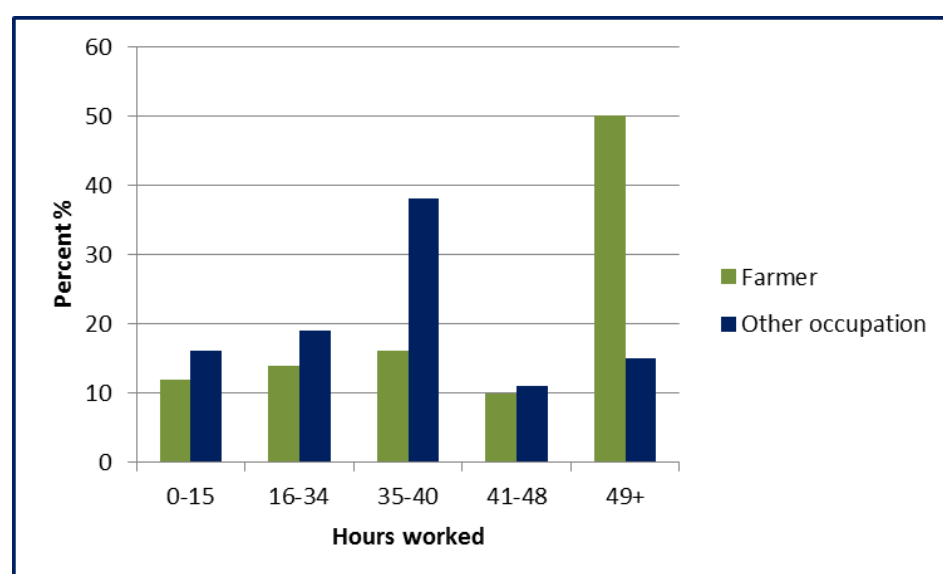
Figure 9 Weekly hours worked by Australian farmers compared with other occupations

Employed people in the Billabong Yanco area work longer hours than the NSW average of 45.8 (Table 15). Again Conargo is a little different to the other two shires in that over 60% of the residents work 40+ hours per week. These figures agree with the assumption that Conargo Shire is predominantly farms run by farm managers who work non-standard hours because they are self-employed and not confined to working business hours. According to Robyn Corboy of Conargo Shire Council (personal communication March 2016) youth unemployment in the shire is unknown as young people would generally seek employment in Deniliquin or work on farms.

Table 15 Hours worked (employed people aged 15 years and over)

Age bracket	Jerilderie	Urana	Conargo	NSW
1-15 hours per week	8.3	11.5	10.2	10.4
16-24 hours per week	8.7	7.7	5.5	9.7
25-34 hours per week	9.9	7.9	8.0	9.8
35-39 hours per week	10.2	12.3	6.8	18.2
40 hours or more per week	54.4	55.4	62.1	45.8

Source: ABS, LGA Quickstats 2011 Census

General Occupation

The most significant occupational group in the shires within the Billabong Yanco project area is that of Managers (Table 16) the majority of who are likely to be farm managers. Conargo Shire is predominantly rural with no major towns and few businesses other than farms so the figure of 51% is not unexpected; higher than that for Jerilderie and Urana and much lower than the NSW average of 13.3%.

Table 16 Employment by Industry type (%). Bold indicates any industry providing >5% shire employment

	Jerilderie	Urana	Conargo	Murray	NSW
Agriculture, forestry and fishing	**45.6**	**41.5**	**61.6**	12.3	2.3
Mining	0.4	-	0.4	0.5	1.0
Manufacturing	3.2	3.6	2.2	11.6	8.7
Electricity, gas, water and waste services	2.1	0.6	1.3	1.1	1.1
Construction	3.5	1.6	3.1	7.7	7.5
Wholesale trade	2.1	1.2	1.8	3.0	4.6
Retail trade	**6.8**	3.8	4.0	11.8	10.6
Accommodation and food services	2.8	2.6	2.4	7.3	6.9
Transport, postal and warehousing	3.2	**14.3**	1.8	4.4	5.1
Financial and insurance services	1.7	-	0.5	1.7	5.2
Rental, hiring and real estate services	0.6	0.8	0.5	0.9	1.7
Professional, scientific and technical	2.5	1.6	1.8	3.3	8.1
Administrative and support services	1.1	2.4	1.0	2.4	3.4
Public administration and safety	**6.2**	**8.9**	2.4	6.6	6.1
Education and training	**5.1**	**5.8**	**5.4**	7.7	8.1
Health care and social assistance	**7.8**	5	7.7	12.3	11.9
Arts and recreation services	0.7	1.8	-	1.0	1.5
Other services	2.7	1.8	0.6	3.7	3.8

Source: ABS 2011 Census, Regional Summaries and Murray Now Regional Profile 2014-15

Employment by Industry

The Agriculture Forestry and Fishing sector is by far the greatest industry in the Billabong Yanco Area (Table 16). Within that sector sheep, beef cattle and grain farming are the specific industries that account for most of the jobs in the Urana, Conargo and Jerilderie Shires (Table 17). Conargo is predominantly rural and so a greater percentage of individuals are employed in agricultural enterprises. Jerilderie has the biggest township and so there are more retail jobs. Comparison of employment figures for the various industries with the Murray region and NSW (Table 16) is useful in terms of identifying potential markets, and available infrastructure and services. Generating employment opportunities in the Billabong Yanco region may mean building on existing industries or targeting an area where few employment opportunities already exist.

Table 17   Major Industries of Employment (employed people 15 years +)

	Jerilderie	Urana	Conargo	NSW
Sheep, Beef cattle and Grain farming %	38.4	38.3	44.2	1.3
School Education %	3.9	5.8	4.7	4.4
Residential Care Services %			1.8	2.0
Road Freight Transport %		10.3		1.6
Local Government Administration %	5.4	5.8		1.3
Fuel retailing %	2.7			0.3
Pubs, Taverns and Bars %		2.2		0.6
Building installation Services %	2.1			
Dairy Cattle Farming %			12.1	0.1
Other Social Assistance Services %			1.8	1.3

Source: ABS 2011 Census Quickstats

The Labour Balance

Urana Shire Council commissioned an economic profile (USC 2013b) which has more in depth information about industry and employment than is available for the other two shires in the Billabong Yanco area. It has been included here as a guide to ways in which Small Area Labour Market data for instance can flesh out an economic profile for an area.

The balance between local labour supply (working residents) and demand (local jobs) is a useful indicator of where jobs are needed or where job opportunities might lie. In Urana in 2011, there

were 493 employed residents and 422 local workers (jobs). The difference means that Urana has a net labour surplus of 71 workers, equivalent to 14% of the residents working elsewhere.

Since 2006, the labour surplus had increased by 106 from a deficit of 35. The biggest change was that there were 41 additional residents aged 45-54 years relative to jobs, compared with 2006.

The labour balance can be calculated for part time and full time jobs by subtracting the number of full and part-time jobs from number of employed residents. In Urana, in 2001, the net surplus of 71 working residents over jobs included a surplus of 33 full-time workers and a surplus of 20 part-time workers.

In Urana in 2011, the largest local labour surpluses over local job numbers were:

- labourers in rural production (21 more working residents than local jobs)
- administrative workers in public service (6 more residents than local jobs)
- drivers and operators in administration / support and technicians and trades workers in other services (5 more residents than local jobs).
- The greatest excess of jobs over local labour supply were:
- administrative workers in health and social care and administrative workers in transport, post and storage (6 more local jobs than residents),
- technicians and trades workers in construction and professionals in education and training (5 more local jobs than residents)
- managers in accommodation and food (4 more local jobs than residents)

Table 18 The most common categories of employment for people aged 15+

Occupation %	Jerilderie	Urana	Conargo	NSW
Managers	42.7	38.8	51.6	13.3
Labourers	10.0	15.7	11.9	8.7
Technicians and Trades Workers	11.0	5.4	5.9	22.7
Professionals	6.9	6.6	10.2	15.1
Clerical and Administrative	11.0	10.1	6.5	13.2
Community and Personal Service	6.9	5.0	5.2	9.5
Machinery Operators and Drivers	5.6	13.9	4.2	6.4
Sales Workers	4.7	3.0	3.1	9.3

Source: ABS, LGA Quickstats 2011 Census

The ongoing issue in regional areas is the shortage of skilled workers. These shortages are mostly applicable to the following sectors: health, education, agriculture and manufacturing. Employers in the Murray region find it difficult to fill these shortages. The ageing population and the relocation of youth to metropolitan areas have contributed to these skilled shortages. In addition to this, many of these vacancies are filled temporarily with workers relocating back to capital cities, due to a lack of settlement services.

Examples of skill shortages in the Billabong Yanco local government areas were identified as:

Conargo Skilled agricultural workers

Jerilderie Town Planners, Health Professionals, Engineers, Builders

Urana Medical Professionals, Trade Workers

Note that some of the skills shortages are not current shortages, but areas where a succession plan is in place for potential future shortages.

One of the key driving forces in filling these skilled vacancies is regional settlement services for migrants. RDA Murray engages with skilled migrants and has identified their need for professional employment training and language skills assistance. Prevention of social isolation is a key factor in retaining skilled workers in regional and remote locations. Over time, regional employers have experienced first-hand, migrants relocating to metropolitan areas in search of more social connections. Provision of a Settlement Service facility to offer face to face basic information to skilled migrants will enable retention of skilled professionals in the Murray (RDA, 2013).

Settlement service providers will act as a link between new arrivals and existing migrants thereby establishing new ties in the region and creating peer groups.

Couple Families Employment

The employment status of couple families can be considered a surrogate indicator of household income, family situation, domestic responsibilities and employability. Both partners employed full-time might indicate no children, or children in full time care. Both partners not working is likely to be correlated with low levels of education, welfare dependence and low household income.   All three shires in the Billabong Yanco area have a high percentage of couples with both partners working, compared with the NSW average (Table 19). Conargo LGA has a very low percentage of couples in the 'both not working' category.

Youth Work/Study

The table below (Table 20) gives no indication what type of study is being undertaken and there was no detail accompanying these figures which were reported as part of ABS Regional Summaries. Given the age range one could assume that the majority of 15-19 year olds are still full-time students completing their HSC years.

Table 19 Employment status of couple families

	Jerilderie	Urana	Conargo	NSW
Both employed, worked full-time	26.0	25.0	29.8	21.8
Both employed, worked part-time	4.4	2.9	3.6	3.6
One employed full-time, one part-time	21.6	21.3	25.7	20.4
One employed full-time, other not working	13.5	14.7	18.5	15.9
One employed part-time, other not working	3.8	2.9	1.3	5.5
Both not working	17.0	21.0	8.5	20.5
Other	7.3	5.1	8.0	6.0
Labour force status not stated	6.4	7.0	4.6	6.1

Source: ABS 2011 Census Quickstats

Table 20 Youth (15-19 years) Engagement in Work/Study (2011 Census)

% of 15-19 year olds	Jerilderie	Urana	Conargo
Working full-time, studying part-time	3.5	4.7	3.2
Working part-time and studying part-time	3.5	0	0
Working part-time and studying full-time	16.5	12.5	19
Working full-time (not studying)	7.1	6.3	11.6
Studying full-time (not working)	49.4	54.7	57.9
Working full-time and studying full-time	3.5	0	0
Fully engaged	83.5	78.1	91.6
Total	85	64	95

Unpaid and Voluntary Work

Networks developed through volunteering can expand people's social connections, facilitate the sharing of knowledge and ideas and in some instances can lead to paid employment. Volunteerism may be seen as an expression of reciprocity that results from strong social capital, and demonstrates a balance between an individual's egoistic and altruistic values.

The level of volunteerism in the Billabong Yanco area is much higher than the NSW average of 16.9% (Table 21). The figures may reflect an ageing population (the majority of volunteers tend to be older people) and/or a strong sense of community with residents that support one another and local organisations for the greater good. They may be a measure of community cohesiveness demonstrating that community members are not completely self-oriented and have a shared set of commitment to their community (Etzioni 1996). Older people are known to have the desire and capacity to make positive contributions to their local environment and community (Warburton and Gooch 2007).

Table 21 Unpaid work and voluntary work (people aged 15+)

	Jerilderie	Urana	Conargo	NSW
Did unpaid domestic work (last week)	67.4	69.1	73.8	68.7
Cared for child/children (last two weeks)	26.1	25.4	33.6	27.5
Provided unpaid assistance to a person with a disability (last two weeks)	13.2	12.1	11.6	11.4
Did voluntary work through an organisation or group (last 12 months)	35.7	34.3	36.1	16.9

Source: ABS 2011 Census Quickstats

Many of the families in the Billabong Yanco area could be categorised as farming families as they live and work on the land. According to research on Australian Social Trends (ABS, 2012) farming families are more than twice as likely as those in other families to do carry out voluntary work for an organisation or group (39% compared with 19% in 2011). The rate of volunteerism is also higher in smaller communities (population <1000) but people in farming families were nonetheless more likely to volunteer than others irrespective of population size.   The age profile of farming families is also skewed towards the age range in which people are most likely to volunteer (35-74 years) (ABS 2012).

Income

Median weekly incomes for individuals and households in the Billabong Yanco area are less than those in NSW and across Australia.

Table 22 Median Weekly Incomes for people aged 15 years +

	Jerilderie	Urana	Conargo	NSW	Australia
Personal	449	390	472	561	577
Family	1068	854	1015	1477	1481
Household	856	721	951	1237	1234

Source: ABS Census 2011 Quickstats

Table 23 Estimates of Personal Income for Jerilderie LGA _Year ended June 30

JERILDERIE	2009	2010	2011
Average wage and salary income ($)	30 377	32 359	33 258
Total wage and salary Income ($M)	20	20	22
Average own unincorporated business income ($)	242	-2785	18 730
Average investment income ($)	11 682	9145	13 593
Total investment income($M)	8	6	9
Average superannuation and annuity income ($)	17 590	17 773	18 023
No. of superannuation and annuity income earners	17	30	17
Average Total Income ($)	29 888	27 969	40 528
Total Income (excl. govt. pensions and allowances)($M)	28	25	38
Total No. income earners	946	903	930

Source: ABS Regional Summaries 2009-2013

Table 24 Estimates of Personal Income for Urana LGA _Year ended June 30

URANA	2009	2010	2011
Average wage and salary income ($)	35 008	36 810	38 884
Total wage and salary Income ($M)	16	17	19
Average own unincorporated business income ($)	1219	6963	40249
Average investment income ($)	6442	5853	6860
Total investment income($M)	3	3	3
Average superannuation and annuity income ($)	17261	17908	18584
Average Total Income ($)	28 958	32 623	47 007
Total Income (excl. govt. pensions and allowances)($M)	20	22	32
Total No. income earners	678	661	685

Source: ABS Regional Summaries 2009-2013

Table 25 Estimates of Personal Income for Conargo LGA _Year ended June 30

CONARGO	2009	2010	2011
Average wage and salary income ($)	35 248	36 797	38 653
Total wage and salary Income ($M)	22	22	24
Average own unincorporated business income ($)	-3542	-1414	16110
Average investment income ($)	7515	6845	8405
Total investment income($M)	4	4	5
Average superannuation and annuity income ($)	16 793	15 959	17 876
Average Total Income ($)	29 363	30 491	38 366
Total Income (excl. govt. pensions and allowances)($M)	26	27	34
Total No. income earners	871	871	884

Income Support

Table 26 lists the percentage of individuals receiving government benefit payments in 2009 (PHIDU 2012). The percentages given are a proportion of some larger category of people (or families) that might be eligible for support. So the percentage of age pensioners is a proportion of all persons aged 65 and over. Disability support Pensioners is the percentage of people aged 16-64 years receiving disability support. Female sole parents receiving support is a percentage of the total number of females aged 15-54 years. People receiving unemployment benefits are a proportion of the total number of people aged 16-64 years. Welfare dependent families are a proportion of all families and children in welfare dependent and low income families are a percentage of the total number of children under 16 years. Health Care Card Holders are a percentage of all persons aged 0- 64 years and Pensioner Concession Card Holders are (oddly) a percentage of all persons aged 15+.

Table 26 Percentage of eligible members of the population receiving benefit payments (2009 figures)

	Jerilderie	Urana	Conargo	Non-metropolitan NSW
Age Pensioners	59.8	76.9	96.9	74.4
Disability Support Pensioners	6.2	7.4	7.2	8.0
Female Sole Parent Payment Beneficiaries	-	-	6.9	7.5
People receiving unemployment benefit	2.1	-	3.0	5.6
People receiving an unemployment benefit long term	2.1	-	3.0	4.0
Welfare dependent and other low income families with children	7.3	9.1	9.8	11.2
Children in welfare dependent and other low income families	16.0	20.2	20.9	24.9
Health Care Card Holders	12.6	12.6	11.6	9.4
Pensioner Concession Card Holders	23.3	28.8	25.3	25.7

Source: MLHD Social Health Atlas 2012

INDUSTRY & ECONOMY

Diversity of Local Industries has been identified as a priority aspect of the Economic sub-system for this project. The number and diversity of industry types is dependent upon such factors as markets

(including access), consumer demand and infrastructure and services. One of the goals of the Billabong Yanco project is to support the development of industries such as tourism to diversify the economic base of the region. It is therefore helpful to know something of the existing industries and their size and productivity. The agricultural sector is by far the largest industry in the Billabong Yanco area (and across the whole of the Murray Region); it follows that agricultural tourism and local businesses that support this sector have significant potential for growth.

Shire specific information relating to the Diversity of Local Industries was not as readily available as demographic information for the Local Government Areas. Working patterns across industries, the average working week in industries and data relating to local businesses could be compiled if it were considered important; the section on 'Knowledge Gaps' has more on this.

The most comprehensive data on Industry related topics is that for the Murray Region which includes the shires within the Billabong Yanco area. However this region includes large regional centres such as Albury and Mildura and so much of the information is not much use in terms of planning activities for this project. However information on the Murray Region provides context and may be important when considering critical factors such as Markets (including access) and consumer preferences. Where figures in reports such as the "Murray Now Regional Profile" (2014-15) were not aggregated for the whole region and were available for the Jerilderie, Urana and Conargo Local Government areas they have been included below e.g. Table 27 on GRP. This information, where available, is at least more recent than the 2011 demographic data.

Size of industry sectors

Regional Summary

Manufacturing is the second largest sector of the Murray Region, representing 10.8% of the regional economy (by value) or an estimated $1.9 billion in 2012-13. In 2012, the region had 1,247 manufacturing based businesses, providing 12.3% of all regional jobs.

With agriculture being the leading sector of the region it is no surprise that the food manufacturing sector employs over 50% of all manufacturing employees in the Murray Region (ABS, 2012a).

Average wages in the Murray Region ($903) are significantly lower than the NSW and Victorian average weekly wage levels. This disparity is evident across all industries, with differences most prominent in the information media and financial services sectors. Relatively lower wages in the Murray Region equate to more affordable labour for businesses, offering a lower cost base for local businesses compared to NSW and Victoria generally (Murray Now Regional Profile, p64)

There are opportunities in the service areas of health, education, aged care and local government. Advances in information technology, broadband and satellite communication systems are creating opportunities for consultancy and other specialist businesses operating from the home office.

Table 27 Proportion of Gross Regional Product (GRP) contributed by selected industries in each LGA represented in $M. Figures in red are those industries that contribute more than 5% GRP for the LGA.

Industry	Jerilderie	Urana	Conargo	NSW
Agriculture, forestry and fishing	23.4	**65.1**	**90.2**	1.7%
Health Care and Social Assistance	12.9	**5.4**	0.0	6.7
Manufacturing	9.3	2.4	0.4	7.9
Construction	8.2	1.3	1.0	5.5
Retail Trade	8.1	0.6	0.9	4.6
Transport, postal and warehousing	1.8	**7.7**	0.9	5.1
Public Administration and Safety	**6.3**	**5.7**	1.0	5.3
Education and Training	4.9	4.3	2.5	5.0
Electricity, gas, water and waste services	3.4	0.0	0.0	2.9
Accommodation and food services	2.2	1.0	1.0	2.9
Wholesale Trade	4.3	2.3	1.3	4.6
Arts and Recreational Services	1.2	1.0	0.0	1.1
GROSS REGIONAL PRODUCT $M	288.5	121.9	83.3	476,433

Source: Murray Now Regional Profile 2014-2015

Agribusiness

The Murray Region, which includes the Jerilderie, Urana and Conargo Shires, makes a significant contribution to Australia's agriculture produce in both domestic and export markets. Citrus fruit, grapes, nuts, vegetables, wheat, grains, beef and dairy are some of the region's key exports reflecting the diversity of a sector that benefits from rich soils, irrigation opportunities, and other natural assets associated with the Murray River.

The local agriculture sector accounts for 12% of local employment and more than 14% of total industry value add for the Murray Region. Local produce is leveraged through down-stream supply chains and processing clusters, resulting in strong and interconnected local food manufacturing and transport industries. As a result, manufacturing is a strong industry for the Murray Region accounting for over a tenth of the region's employment and total industry value add.

Agriculture is the Murray Region's leading sector by value, representing 14.1% of the regional economy. It generated an estimated $2.5 billion in 2012-13, equivalent to almost 16% of the combined agriculture industry value add for the Victoria and NSW economies in 2012-13. The sector employs over 12% of all employees in the region and over a third of the region's businesses are agriculture based.

In 2011-12, the agriculture census estimated that the Murray Region produced;

- Almost a quarter of the wheat crop for Victoria and NSW.

- A fifth of oil seeds production (for Victoria and NSW).

- Over three quarters of NSW and Victoria mandarin, nectarine and peach production.

- Over 40% of orange production.

- Over a third of tomato production.

- A wide variety of other fruit and vegetables of various volumes and contributions to the

Victoria and NSW agriculture production balance.

The region also produces over 20% of dairy cattle, 34% of pigs and 23% of grapes production for the combined Victoria and NSW production volumes. A large proportion of dairy, pork and grape manufacturing also occur in the region (Murray Now Regional Profile 2014-15).

Around 63% of Jerilderie Shire's land is used for grazing. A further 28% of land is used for crops, and of those crops 5% were rice and 21% were other cereals (JSC 2015a).

Local Business

The range and diversity of local businesses is a surrogate indicator of the health of the local economy and local demand for products and services. Local business listings may reveal gaps in local services and suppliers or existing potential for expansion. Diversifying the economic base of the region is one of the objectives of the Billabong Yanco Creek System's project (Refer back to Table 1). Generating employment opportunities in the area is a strategy for achieving another objective; that of increasing the local population. Knowing what businesses already exist in the region is a necessary precursor to planning specific activities to achieve project objectives.

Jerilderie

Table 28 provides a summary of the businesses in Jerilderie in 2015. Appendix 6 has the complete list of businesses. The table groups like businesses together into categories such as accommodation, tourism, retail and so on. The information was downloaded from the Jerilderie Shire Council website which no longer exists.

Urana

The largest industries in 2011 were rural production (180 jobs), transport, post and storage (73), education and training (39), and public service and safety (34).

Over 2006–2011, the industries which grew most in employment were transport, post and storage (7 more jobs), manufacturing (4 more), and utilities (3 more).

Industry sectors with the highest proportions working 40+ hours a week were rural production, accommodation and food, transport, post and storage and education and training.

Sectors with the most part-time workers (<25 hours a week) were health and social care, education and training, accommodation and food, and transport, post and storage.

Source: USC 2015

Table 28 Jerilderie Industries and businesses 2015

Business Function	Number & Type of Businesses
Accommodation	9 (Hotels, motels, Inn, B& B, Caravan park)
Banking / Finance	1
Building & Associated Trades	9 (Builder 2 Carpenter 1 Painter 3 Electrician 1 Plumbing 1 Plasterer 1)
Farming & Contracting (shearing, harvesting, fencing)	4
Food	5 (Supermarket 1 Bakery 1 Butcher 1 Café 1 Restaurant 1)
Industrial	2 (Welding, steel fabrication, sheds/machinery concreting)
Land-forming (excavation, laser levelling, bulldozing)	4
Medical	1 (Medical Centre)
Mechanical Service / Repairs /Tyres	5 (Mechanic 2 Smash Repairs 2 Tyre Service 1)
Miscellaneous general	9 Canvas & upholstery 1 Self storage 1 Pest Control 1 Landscape gardening 1 Appliance repairs 1 Home heating/cooling 1 Photographer 1 Celebrant 1 Vinnies 1
Miscellaneous agricultural	3 (Grain storage 1 Irrigation Pumps 1 Horse Trainer 1 Fertiliser 1 Stock & Station 2)
Precision Farming, Aerial application	4
Retail	6 (Old wares 1 Lolly Shop 1 Computing 1 Newsagency 1 Pharmacy 1 Post office 1)
Service Stations	2
Sheep Studs, Cattle Stud, Wool Breeding, AI	9
Sports Club	1 (Golf course, bowling greens, tennis court)
Tourism	4 (Ned Kelly Blacksmith's shop 1 Information centre 1 Jerilderie Historic Residence 1 Winery 1)
Transport/ Trucking	4 (Carriers 2 Trucking 2)
Vet Clinic	1

Source: http://www.jerilderie.nsw.gov.au/community/jerilderie-businesses.aspx

Table 29 Urana businesses 2015

Business Name	
Kst Korycki & Sons Technology, Urana	Oaklands Store and Newsagency
Oaklands Store & Newsagency	Pauline Hall Hair
Ciccia's Supermarket	Rand Hotel & General Store
Urana Fuel Depot	Urana Newsagent and Takeaway
Urana Post Office	Urana on farm butchery service

http://www.urana.nsw.gov.au/Quicklinks/CommunityDirectory/Businesses.aspx

Conargo

According to the now defunct Conargo Shire Council website (www.conargo.nsw.gov.au) Conargo has a large range of agricultural enterprises which include:

Cereal crops with wheat and rice the main varieties, stud sheep and cattle, aquaculture and hydroponics, wool and fat lambs, dairying and piggeries, exotic animal farming (alpacas, emus and lappins), agroforestry, market gardening, viticulture and olive groves.

Table 30 Number of businesses 2009-2013

Jerilderie	2009	2010	2011	2012	2013
No. of non-employing businesses	138	143	142	140	135
No. of businesses employing 1-4 employees	-	-	-	-	60
No. of businesses employing 5+ employees	-	-	-	-	24
Total No. of businesses	221	223	223	223	219
Total No. of business exits	21	18	22	21	21
Urana	2009	2010	2011	2012	2013
No. of non-employing businesses	76	77	76	74	74
No. of businesses employing 1-4 employees	-	-	-	-	37
No. of businesses employing 5+ employees	-	-	-	-	15
Total No. of businesses	127	128	126	126	126
Total No. of business exits	13	10	12	14	13
Conargo	2009	2010	2011	2012	2013
No. of non-employing businesses	126	131	126	123	123
No. of businesses employing 1-4 employees	-	-	-	-	55
No. of businesses employing 5+ employees	-	-	-	-	17
Total No. of businesses	191	194	192	193	195
Total No. of business exits	-	-	-	-	-

Source: ABS Regional Summaries 2009-2013

Other local businesses in Conargo shire are the Wanganella General Store, the Conargo General Store and perhaps a couple of Farm Stay places which should be listed on the website (personal communication Robyn Corboy, Conargo Shire Council, 4.3.2016). A google search of Conargo Businesses (11.7.2016) came up with the following listings: Australia Post – Conargo CPA, McBurnie Michael - Irrigation Equipment Supplier, Clayton, B – Dairy Products Supplier.

<u>Number of Businesses</u>

Tables 30 and 31 are from ABS Regional Summaries. There is not much accompanying information with these figures but they give some idea of trends over time, the number of business exits and the size and type of industry. As with much of the statistical information in this report there are seeming discrepancies between data sets. For instance the number of businesses by industry for Jerilderie in Table 31 is greater than the list of businesses in Table 28 and Appendix 9. If this information will directly inform specific activities for this project then further investigation will be necessary to resolve apparent anomalies; a reminder that all data must be carefully interpreted.

Local Economy

For the long term sustainability and survival of the Billabong Yanco region, and indeed all rural areas, the local economy needs to be at minimum stable and ideally thriving and able to grow. Towns need to focus on attracting new businesses and industry as well as ensuring that existing businesses prosper. Without employment opportunities there are significant impacts on community, businesses, schools and population.

Baseline data for the Economic Productivity pathway for this project; unfortunately data on production efficiency and profitability was not readily available for the area. Figures were only available for regions that include the Billabong Yanco area such as the Murray-Murrumbidgee. This information has not been included because there is no way of knowing if there are any real differences between the project area and the regions.

According to the Strengthening Basin Communities (SBC) Upper Murray Report (2013, p47) the key drivers of economic development in Corowa, Greater Hume and Urana Shires are manufacturing, agriculture, and tourism along the Murray River.

The most significant drivers of change in the Central Murray (which includes the shires of Jerilderie and Conargo) for the period 2000-2010 include water availability decline caused by drought and government water policy. Other significant drivers of change include low commodity prices and high cost of inputs / low agricultural returns, changes in makeup of population including working practices, demographics and distribution and declining population (SBC Central Murray Report 2012).

Table 31 Number of businesses by Industry: years 2012-2013

Number of Businesses by industry	Jerilderie		Urana		Conargo	
	2012-13		2012-13		2012-13	
Agriculture, forestry and fishing	108	109	57	55	116	117
Mining	-	-	-	-	-	-
Manufacturing	6	6	3	3	5	5
Electricity, gas, water and waste services	-	-	-	-	-	-
Construction	19	17	15	15	15	15
Wholesale trade	5	4	3	3	4	4
Retail trade	10	10	6	6	6	6
Accommodation and food services	10	9	6	5	11	10
Transport, postal and warehousing	12	12	9	9	6	7
Information, media and telecommunications	-	-	-	-	-	-
Financial and insurance services	7	7	5	5	5	5
Rental, hiring and real estate services	16	16	10	10	11	11
Professional, scientific and technical services	7	6	3	3	4	3
Administrative and support services	4	3	3	3	-	-
Education and training	-	3	-	-	-	-
Health care and social assistance	-	-	3	3	-	-
Arts and recreation services	3	0	-	-	-	-
Other services	6	6	4	3	3	3
Not classified	5	5	-	4	-	4
Total	222	219	128	126	194	195

Source: ABS Regional Summaries 2009-2013

The Economic Development Strategy for regional NSW (NSW NOW, 2015) has the Jerilderie, Conargo and Urana LGAs forming part of the Riverina- Murray Region. According to the Economic Profile for this area in 2013, the region contributed $13.6 billion to Gross Regional Product (GRP), representing around 10% of Regional NSW's total GRP ($137.7 billion). Agriculture is *the* major economic driver in the region, generating 34% of the gross value of all the crops in NSW.

Urana

In the year to 30 June 2012, construction valued at $1.3 million was approved in Urana:

- • $0.8 million in new residential construction

- • $0.1 million in residential alterations

- • $0.5 milion in non-residential construction.

In the year to 30 June 2012, 3 dwellings were approved for construction in Urana, with a total value of $0.8 million.

At 31 March 2011, Urana had 887 registered vehicles, of which 580 or 65% were passenger vehicles.

In the 2011 Census, 133 owner-managers worked in Urana, with 32 running an incorporated business and 101 an unincorporated business (*eg.* a sole trader or partnership)(USC 2013b).

Opportunities

The agriculture/forestry/fishing sector is the biggest employer and producer in the Billabong Yanco area and across all of the regions that include Jerilderie, Urana and Conargo LGAs. Notwithstanding climatic events such as drought and flood the reliance on primary production is likely to continue into the future. Finding new markets is important for further development and Wilkinson and Montoya (2015) give a number of examples where this has occurred within the region. The same authors (p19) conclude that one of the major challenges for the region is that concerning the Murray Darling Basin Plan (MDBP) and the balance that needs to be found between environmental concerns and social and economic impacts. Continued uncertainty is likely to be a barrier to economic development. Wilkinson & Montoya (2015, p18) suggest that the impact of the MDBP will be most significant in smaller towns such as Jerilderie.

The SBC Central Murray Final Report (2012, pii) identified a range of adaptation scenarios that would mitigate the effects of reduced water availability in the central Murray area which includes Jerilderie and Conargo shires:

- * agricultural productivity
- * improving water use efficiency
- * expanding food processing
- * increasing tourism
- * improving transport infrastructure and services
- * establishing the region as a retirement destination
- * facilitating population growth.

In general, the projected economic impacts of the adaptation scenarios are greater for those that address supply side issues in the economy, such as population increase (increasing labour supply), agricultural productivity or the productivity of transport) rather than demand side (such as tourism or retirement destination). This is due to supply side measures adding directly to the productive capacity of the economy, whereas demand side measures tend to compete with factors that support production (particularly labour).

A total of 58 adaptation actions were identified to facilitate the Central Murray adjustment process to a future with less water. A diverse range of actions were identified, including water use efficiency, advocacy, feasibility studies, strategic plans, infrastructure and marketing across the key adaptation areas identified above. Successful implementation of these actions will assist the Central Murray Group of Councils to mitigate some of the anticipated impacts associated with the proposed Basin Plan.

The Urana Shire Council Community Strategic Plan 2013-2033 identifies a number of strategies for improving the viability and long term survival of the community:

* For the long term sustainability and survival of our towns, our shire and our community we need to grow our economy. We need to focus on attracting new businesses and industry as well as ensuring that the businesses we do have left are strong and supported.
* We acknowledge that without employment opportunities there are significant impacts on our community, our businesses, our schools and our population.
* There is a need for diversity in the accommodation options offered within our towns, in particular we have a need for short term, temporary and casual accommodation to support the casual employees required to undertake seasonal work on our land.
* There is a need to increase the availability of industrial land to support the attraction of business and industry
* We have a significant asset in our rail line – it is important for our community and our economy that the line is increased in utilisation
* To support a commercial retail sector we need attractive and vibrant town centres where people enjoy spending time

Knowledge Gaps

During the search for readily available data for this report it became clear that the most obvious gaps related to local industry and economic productivity. Much of this information was only available as aggregated data in regional reports for geographical areas such as 'Murrumbidgee Local Health District' 'Upper Murray' 'Murrumbidgee Valley' 'Riverina Region' and the 'Murray Region'.

There are other reports available that may or may not have information of use or relevance to this project. A list of supplementary reports to the Final Milestone 7 report (SBC, 2012a) includes reference to the following:

Rice, Tourism and Dairy Industry Case Studies (Hyder Consulting) (Oct 2010)	Each case study provides an overview of the industry in Central Murray and the factors that have influenced production, production methods and profitability. Major challenges faced by these industries in the Central Murray are also explored, as well as the adaptations they have

Socio-economic profile of the Central Murray (Deloitte-Access) (Dec 2010)	Socioeconomic snapshot of Central Murray, including its current status and trends over time. The data are drawn from a more detailed regional profiling database that has been developed to inform the socioeconomic modelling and scenario planning around a future with less water that will be undertaken in Stage 2.
Central Murray Councils socio-economic profile reports (Deloitte-Access)(Dec 2010)	Individual socio-economic profile reports prepared for each Central Murray Council, including Murray Shire, Berrigan Shire, Wakool Shire, Jerilderie Shire, Deniliquin Shire and Conargo Shire.

Economic and employment data specific to the three Shires within the Billabong Yanco project area is available and can be used to look at trends over time. However this data would need to be purchased from the National Institute of Economic and Industry Research (NIEIR). This institute supplies the information used by .id for their in-depth profiles of local government areas (Figure 14).

Correspondence with NIEIR (April 2016) states that for the sum of $1500 + GST the following information could be provided:

∝ Employment data by industry (19 ANZSIC) by year from 2001 to 2015 for each of the 3 LGAs
∝ Value added data by industry (19 ANZSIC) by year from 2001 to 2015 for each of the 3 LGAs
∝ GRP data by year from 2001 to 2015 for each of the 3 LGAs
∝ Tourism employment and GRP data by year from 2001 to 2015 for each of the 3 LGAs

Data will be provided in Excel tabular form with each year as a separate column and each series in a separate worksheet

The footnote list for the Wilkinson & Montoya (2015) Economic Profile (footnotes) is a useful reference source of economic data for the region.

INFRASTRUCTURE

Every NSW Council is required to develop a minimum ten-year Community Strategic Plan, informed through broad community engagement. The community plan is each council's principal planning document, informing asset management and service provision planning in the form of a delivery program and an operational plan. These plans are guided by the NSW Government 10 year plan (NSW 2021) which has 'renovate infrastructure' as one of its key goals.

Infrastructure is critical to the health and viability of rural shires, especially given their distance from the facilities available to cities and major regional centres. Infrastructure enables people to connect, interact and participate together. Community infrastructure needs to be well planned and maintained to meet the needs of existing and future rural communities.

Road, rail and air links are vital for rural residents both within shires for ready access to employment, education, services and shopping; and without, for access to specialised health care and larger towns and cities. The agriculture industry, vital to the economy of the Yanco Billabong area is also heavily reliant on road and rail transport. Safe and accessible road networks are essential.

Communication with the outside world is particularly important in regional areas. The number of households using the internet is an indication of how well residents are connected to social media, email and online retail and information service providers.

Recreational facilities are important in order that residents can enjoy the local area by means of foot and bike paths, playgrounds, sporting ovals, aquatic centres and so on.

Jerilderie

The Community Strategic Plan for Jerilderie (JSC 2015a) lists the following objectives for improved infrastructure:

* Consistent town signage including all entrance points to the town
* Historic landmarks protected for the future
* The development and implementation of a footpath strategy including planning for the provision of walking/bike tracks throughout the community
* Attraction of funding to support the upgrade of the Jerilderie swimming pool
* Development of the Jerilderie Recreation Master plan
* Roads consistently maintained to a high standard
* Implementation of responsible land use practices and development

Urana

The Urana Shire Council Community Strategic Plan (USC 2013a, p.6) documents the outcome of a community consultation process that occurred in the years 2011 and 2013. 150 written responses and meetings in each town identified and prioritised local priorities. Table 33 summarises the results. Many of the priorities relate to improvements in local infrastructure.

Conargo

The Community Strategic Plan for Conargo (CSC 2012) lists the following objectives for improved infrastructure:

* More walking tracks throughout the shire, in particular around recreational facilities and to points of historic and cultural significance.
* Long term waste management is a concern for the community and the future should be planned for, including an increase in the ability to recycle.
* Internet and mobile access is limited in some parts of the shire. An increase and upgrade of infrastructure is desirable to facilitate improved service.
* The ability to access sustainable, clean water is a priority for many residents throughout the shire.

Table 32 The top five priorities for shire council planning for communities in Urana Shire

	Rand	Urana	Boree Creek	Morundah	Oaklands
1	Public Toilets	Aquatic Centre / Caravan Park	Community Hall – repair and maintain	New community centre	Accommodation / caravan park
2	Community Hall – upgrade and maintain	Town levees and drainage	BBQ and undercover area at park	Racecourse redevelopment (including speedway/motocross)	Recreation ground / building
3	Health Services	Health Services	Increase focus on rural road maintenance	Community and recreation events	Community services and grants
4	Town recycling	Attracting and supporting business and industry	Improve local access to technology and communication services	Street lights	Industrial land
5	Maintaining and financing the recreation ground	Community Services and facilities including library	Town beautification / tourism	Tourism	Town beautification/new business

Transport

Jerilderie

Jerilderie has an airport located approximately 1km south of the township. The airstrip is an authorised landing area with a bitumen surface and an elevation 110 metres above sea level. Agricultural planes use the airstrip during spray season.

Conargo

There is no public transport in Conargo Shire except school buses to the various communities within the shire, although if residents needed to get into town, the service would be available from Intereach in Deniliquin (Robyn Corboy, Conargo Shire Council, 16.3.2016)

Urana

Urana Shire is centrally located approximately 110kms from the major NSW regional centres of Wagga Wagga and Albury. The shire area is serviced by an extensive road network (over 1000km of roads) and has ready access to both the Hume and Newell Highways. Boree Creek and Oaklands have railway sidings for grain transport only.

Urana has limited public transport. There is a bus that links Urana with NSW trains. There is also a bus service direct to Albury and Yarrawonga once a month. A weekly service from Urana to Wagga is available on request. Wagga can also be reached by bus from Lockhart and The Rock.

The Urana Shire Council delivery and operational plan (USC, 2015) states that areas of major expenditure and focus for 2015/16 are the shire road networks; money will be spent on road maintenance and the upgrading of roads and other related assets such as bridges, major culverts, and signage.

Schools / Tertiary Institutions

Jerilderie:

Jerilderie has Jerilderie Public School (K-6) and St Joseph's Primary School (K-6). These two schools, one government, one non-government have a total enrolment of about 125 children. The schools are supported by 7.4 EFT teachers (JSC, 2012). Jerilderie Public School has a P and C Association whilst St Josephs has a school council. There is also a pre-school.

Urana:

Urana Shire has several state and primary schools. State primary schools are located at Boree Creek, Oaklands and Rand while Urana has both a State school and also St. Francis Xavier Primary School.

Conargo:

Conargo Shire has 3 primary schools located in Conargo, Blighty and Mayrung. The only Secondary School is in Deniliquin, where there is also a Riverina Institute of TAFE campus.

Internet Services

Access to the internet is increasingly seen as a core requirement for many households and is integral to accessing information, education services and conducting business. Households with no access, or dial-up access, are increasingly left behind as banking, government and business services move online.

Internet use is affected by income, age, education and occupational class (Willis and Tranter, 2006).

The figures in the table below are percentages based on the total number of private dwellings within the Local Government Area. These figures are likely to be more out of date than for some of the other information in this report in that technology in this area is moving so quickly. The National Broadband Network is currently being rolled out in some areas.

Table 33 Internet access (2011 census data)

	Jerilderie	Urana	Conargo	Non-metropolitan NSW
No internet connection	28.0	33.1	18.8	25.7
Total Internet connections	67.8	62.2	78.4	70.6
Broadband internet connection	58.6	54.1	68.2	63.0
Dial-up internet connections	6.4	4.7	6.0	3.5
Other internet connections	2.7	3.4	4.2	3.6

Housing

The following figures are sourced from the 2011 Quickstats reports for each LGA

Jerilderie Shire has 803 private dwellings. The average household size within these dwellings is 2.5 and there is an average of 1.1 persons per bedroom. Housing is comparatively affordable, with the median housing loan repayment being $1,000 a month, and median rent being $80 a week. In 2011, 46.3% of homes were fully owned, 25.4% were being purchased and 23.5% were rented.

Urana Shire has 642 private dwelling. The average household size is 2.4 people per household. Housing is cheaper in this shire with the median monthly mortgage repayment $500 in 2011. Median rent is the same as that for Jerilderie - $80 per week. There is an average of 2 motor vehicles per household. In 2011 50% of homes were owned outright, 25.9% were owned with a mortgage and 18.7% were rented.

Conargo Shire has 763 private dwellings. The average household size is 2.7 persons. Median monthly mortgage repayments are $1,018. Median weekly rent is reported to be $0 which implies there are no rental properties in this shire. There is an average of 2.4 motor vehicles per household. 42.3% of homes are owned outright, 30.8% are owned with a mortgage and 23% were rented, a figure which contradicts the previous weekly rent of $0!

Recreational Facilities

Jerilderie has a modern indoor sports complex and swimming pool. The Jerilderie Sports club has an 18-hole golf course, tennis courts and a bowling green. Monash Park is the main sporting oval and there is also a turf track race course, a lake for water sports and a showground.

The Jerilderie Shire Council Strategic plan (2015-2030) states that the community sees recreation infrastructure – from footpaths to sporting facilities – as a priority. The development and implementation of a footpath strategy and the provision of walking / bike tracks throughout the

community is a council objective. The council will also seek funding to upgrade the Jerilderie swimming pool and a Jerilderie Recreation Master plan is also planned.

Urana Shire has a number of sporting and recreational facilities as well as safe areas for those with an interest in walking both for pleasure and physical fitness.

Some of the regions facilities include:

- Recreation Reserves at Morundah, Oaklands, Rand and Urana.

- Swimming Pools at Urana and Oaklands.

- Golf courses at Oaklands, Rand and Urana.

- Facilities for football, netball, tennis, lawn bowls

- The J.M. Smith Flora and Fauna Reserve, at Urana.

- The Yanco, Colombo and Billabong Creeks for fishing and water sports

Urana also has an aquatic centre which is a man-made lake that can be used for water based and family activities including water skiing, fishing and boating. Developed on the original site of the town's water supply reservoir, the Aquatic Centre provides the community with parklands, walking tracks, BBQ and picnic facilities.

Each of the six communities in the Conargo Shire has a community hall / recreation reserve available for meetings and functions. The halls all have public amenities and some sort of playground. Blighty Recreation Reserve also has a sporting oval, football oval, tennis/netball courts and cricket pitch. Pretty Pine has tennis courts and a sporting oval.
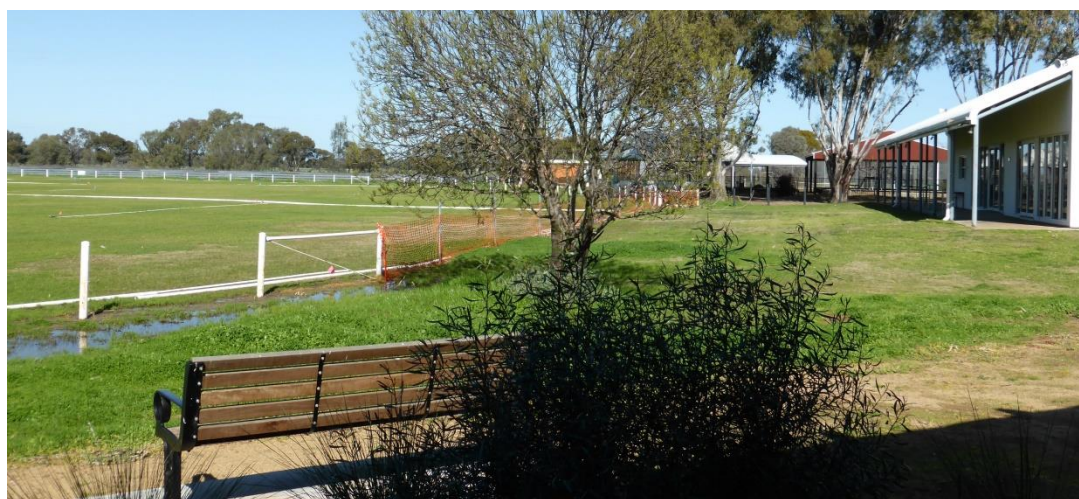

Photo: Wendy Minato

Figure 10   Conargo community hall and sportsground (July 2016)

Water Infrastructure

The extension of stock and domestic water in the rural areas of Urana Shire is an important step that will enable some of the remaining rural areas to have ready access to quality water. The expense that some of the farming community incurred during the drought years of 2000-2010 in carting water created high levels of emotional and financial stress. There is potential to extend stock and domestic water to the north west of Boree Creek and north east of Urana at a reasonable cost, dependent on the number of shareholders in the local scheme (SBC Upper Murray Report 2012, pV).

Urana Shire owns and operates sewerage services for the townships of Urana and Oaklands and has implemented sewerage charges that cover the operational cost. The fees do not cover the costs of maintenance, capital development or depreciation. The Shire has not developed policies, approval processes or a scale of charges for liquid trade waste, however it has established a schedule of fees to cover the costs for residential, commercial, retail and industrial development (SBC Upper Murray Report 2012, p9).

The Central Murray region includes Jerilderie and Conargo Shires. This region is highly dependent on irrigated agricultural industries, such as rice and dairy. Total agricultural production is worth approximately $600 million per annum. Despite recent rain and an improvement in the immediate future water security outlook for the Central Murray, over the coming decades the Central Murray economy is expected to be impacted by the duel effects of climate change and a reduction in irrigation entitlements held in the region, resulting from implementation of the proposed Murray-Darling Basin Plan. The SBC Central Murray Final Report (2012) assessed the current status of the region in light of changes to water availability and water policy since 2002.

The key findings from this report are as follows:

Central Murray depends heavily on irrigation. It uses approximately 12% of Australian surface water (17%b of the Murray Darling total) for irrigated agricultural production.

The recent drought has accelerated the process of structural adjustment. People are leaving agriculture and farms are getting bigger. This has also impacted the region's towns due to flow on effects associated with fewer people.

There are high levels of uncertainty regarding water management due to the proposed Basin Plan

Rice and dairy farmers are optimistic about the long-term viability of their industries particularly given the improved outlook regarding water availability. However, many respondents noted that long-term reliability of water supply is critical

Increased tourism was frequently mentioned as an economic activity that could assist the region in adapting to the impacts of less water. However, given the challenging conditions faced by the tourism it may offset some, but not all, of the anticipated impacts associated with water losses from the region

COMMUNITY HEALTH

Healthy communities are cohesive communities with access to the infrastructure and support services they need to remain viable. People need places and opportunities to interact, and services to support individual and community needs; health care, child care, aged care, mental health and disability care and schools and social clubs and activities.

The following is an example of how one Council has attempted to ensure community cohesion in their region.

The Urana Community Strategic Plan (USC 2013) identified ways to a healthy community:

- Grow the population and welcome new families into the community
- Have clean, well maintained and visually attractive towns with vibrant community spaces
- Support community groups and clubs to ensure their long term viability; they are invaluable in terms of strengthening the social fabric of a community
- Have diverse recreation and sporting opportunities offered locally
- There should be high quality health and community services to support all people in the community, including children, young people and the elderly
- The community should be well connected and well informed; this will promote community spirit, strong social connections and a sense of safety and freedom

Urana Shire Council is the only council in the Billabong Yanco project area to have a Cultural Plan (2009-2014)

Support Services

Local Library

Jerilderie Shire has a library located in a central location in the town of Jerilderie .The Library was previously located at the Old Court House. The current Library was opened on 15 April 2009. The building is a replica of the original "Banksia" which once stood at the site. The Library has a separate meeting room available for hire, the Monash Media Room.

Urana does not have a library. The Riverina Regional Library service visits the towns of Boree Creek, Oaklands, Rand and Urana on a fortnightly basis. A wide range of books and reference material are available from the service and is well supported by locals. Additionally, at Council's Offices there is a small supply of fiction and non-fiction books for viewing to supplement the Mobile Library visits. Council also provides computer internet access to the Riverina Regional Library network of services which includes access to the State Library of NSW resources.

Conargo does not have a library. The Central Murray Regional Library in Deniliquin provides public library services for the residents of Conargo Shire and Conargo Shire Council makes an annual contribution in the order of $80-$90,000.

Child Care Services

Jerilderie has a Pre-School Kindergarten.

Urana Council provides a mobile Pre-School Service each week to towns and villages within the Shire. The service is available at Boree Creek Mondays, Oaklands on Tuesdays, Rand on Wednesdays and Urana on Thursdays.

Family day care services are provided in both Jerilderie and Urana.

Conargo Shire residents have access to a family day care service located in Deniliquin and Mobile Children's Services operating out of Deniliquin and Hay.

Figure 11   Jerilderie Library (July 2016)

Youth Services

Urana Shire has support for the Shires' youth in the form of a youth worker as a joint initiative with the Greater Hume and Lockhart Shires, providing access to additional structured activities and events on a more regular basis. Urana Council encourages youth participation in Youth Week activities and has outlined a number of priorities and strategies involving the regions youth in its Community Plan and Delivery Program.

Adult Education

In Urana Shire continuing adult education opportunities are available at the Central Schools at Oaklands and Urana.

Age and Disability Services

Urana Shire has low cost residential accommodation is available at either Billabidgee Place in Urana, or Oak Lodge in Oaklands to seniors, retirees and others who are eligible.

Jerilderie's aged care services include a multi care facility at the hospital and Balmeringa Units operated by a Section 355 Committee of Council.

Aboriginal Services

Urana Shire has no Aboriginal Services as there is not a large indigenous population and so the demand is not there.

Emergency Services

Jerilderie has a local fire brigade and SES unit, Rural Fire Service (RFS) in the township and seven rural based RFS sheds.

has seven local brigades strategically located within the Shire each managed by local volunteers who work in conjunction with headquarters personnel.

As a member of the Riverina Zone of the Rural Fire Service, the Zone Headquarters for Urana Shire is located in Wagga Wagga. The Riverina Zone comprises the Shires of Coolamon, Junee, Lockhart, Urana as well as the City of Wagga Wagga.

There are two accredited State Emergency Service Units within the Urana Shire located in the towns of Oaklands and Urana. These units are also staffed and managed by local volunteers working in co-operation with regional headquarters personnel from Albury.

Health and health Services

Even in the most affluent countries, people who are less "well-off" have substantially shorter life expectancies and more illness than the rich. Not only are these differences in health an important social injustice, they have led in particular to a growing understanding of the sensitivity of health to the social environment and to what has become known as the social determinants of health (Wilkinson and Marmot 2003).

According to the World Health Organisation, the social determinants of health are conditions in which people are born, grow, live, work and age, including the health system. The circumstances are shaped by the distribution of money, power and resources at global, national and local levels. The social determinants are mostly responsible for health inequities – the unfair and avoidable differences in health status seen within and between countries.

The health sector has a role to play by providing health services that are fair and equitable based on need. Health, often working in partnership with other agencies, plays a role in advocating for conditions which promote and support good health. It is important for health care providers to know their local communities in terms of their socio-economic status.

Rural health services are more dependent on primary health care services such as those provided by General Practitioners. Health Care facilities are generally smaller, provide a broad range of services (including community and aged care) and have less infrastructure and locally available specialist services. The services that are available are provided to a more dispersed population.

Jerilderie and Urana have multi-purpose centres that have an emergency department, outpatient and aged care services. Deniliquin has a hospital and this would be the nearest major medical centre for the residents of the Conargo Shire. The hospital has an emergency department, outpatient services and obstetric and cancer treatment facilities.

Each of the Shires has a Community Health Centre and a medical centre.

Socio-economic disadvantage

The census collects data on income, housing, education, employment, family structure, disability, transport, age, gender and ethnicity of people all over Australia. The ABS combines indicators of disadvantage such as low income, high unemployment and low levels of education into one metric to give an indication of the level of socio-economic disadvantage in defined geographical areas.

Socio Economic Indexes for Areas (SEIFA) are a set of four indexes that rank geographic areas across Australia in terms of their relative socio-economic advantage or disadvantage. Each index summarises a slightly different aspect of the socio-economic conditions for an area.

- Index of Relative Socio-Economic Disadvantage (IRSD)

- Index of Relative Socio-Economic Advantage and Disadvantage (IRSAD)

- Index of Economic Resources (IER)

- Index of Education and Occupation (IEO)

(Source: *2033.0.55.001 - Census of Population and Housing: Socio-Economic Indexes for Areas (SEIFA), Australia, 2011*)

One reason for including these measures of advantage and disadvantage in a report such as this is that the social determinants of health as measured by these indexes are also related to the health of the community as a whole. Not just health as in wellness and sickness but health in terms of social capital and related concepts such as social participation, social inclusion/exclusion and social cohesion (ABS 2004).

For each index, every geographic area in Australia is given a SEIFA score which measures how relatively 'advantaged' or 'disadvantaged' that area is compared with other areas in Australia. This measure was found to vary widely across the LGAs within the Central Murray area which includes the Shires of Jerilderie and Conargo. Deniliquin Shire which is just outside of the Billabong Yanco project area was found to have the highest level of socio-economic disadvantage in the Central Murray area according to SEIFA 2006 figures. Conargo on the other hand was the only LGA in this area with a level of socio-economic disadvantage less than the Australian average (SBC Central Murray Final Report 2012, p33).

Why does Conargo stand out?

Conargo had a population of 1535 counted as usual residents in the August 2011 Census, with a median age of 41 years, very few people born overseas and very few people over 15 years unemployed (1.2%). Fifty-two per cent of employed people in Conargo stated they were "managers" (potentially farm managers) compared to 13 per cent in NSW and Australia, and a further 10 per cent were "professionals" so that over 60 per cent of the workforce are in the highest "skilled" categories in terms of the SEIFA indexes. Coupled with low unemployment; few one parent families; a majority of houses with 4 or more bedrooms; home ownership 10 per cent higher than NSW and Australian averages; and you have a Shire that shows very low levels of disadvantage. Conargo however still has lower median income levels than NSW and Australia at $100 less per week for personal income and more than $450 less per week for a family (Gilchrist 2013, p17).

Figure 11 below comes from a Local Health District Report on socio-economic disadvantage within the Murrumbidgee Area which includes the three Billabong Yanco LGAs). There is more detail in this report on how the scores are calculated but suffice to say that the blue dot is the average score for Statistical Areas within the LGAs and the vertical blue line shows the range of scores or variation within that area. A high score indicates high levels of advantages households and low scores indicate high levels of disadvantage. Conargo is in the top 20% of advantaged Australian LGAs. Urana and

Jerilderie fall just below the NSW average whilst Conargo stands out as being well above the NSW average.
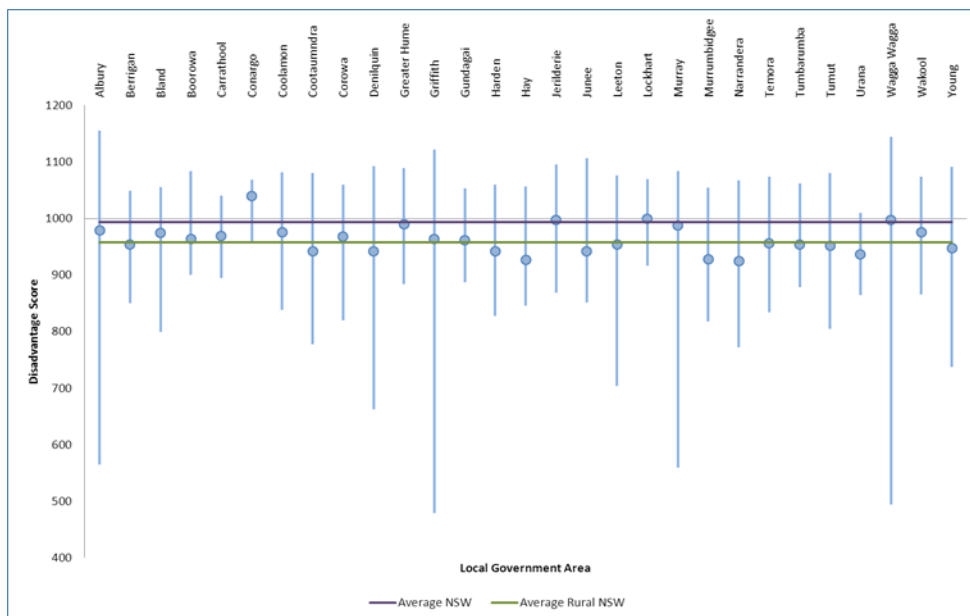
Figure 12 SEIFA disadvantage index score for Local Government Areas in the MLHD, 2011

Another index of relative advantage and disadvantage is the Index of Economic Resources (IER). This index is based on income and wealth and doesn't include education and occupation. A low score suggests a lack of economic resources in general and a higher score suggests greater access to economic resources (e.g. higher incomes, fewer low income households, low unemployment). According to this index Conargo Shire is the only shire in the Billabong Yanco project area in the top 10% of MLHD LGAs to show advantage (Figure 12).

Murrumbidgee LHD
Socio-economic Indicators
ECONOMIC RESOURCES
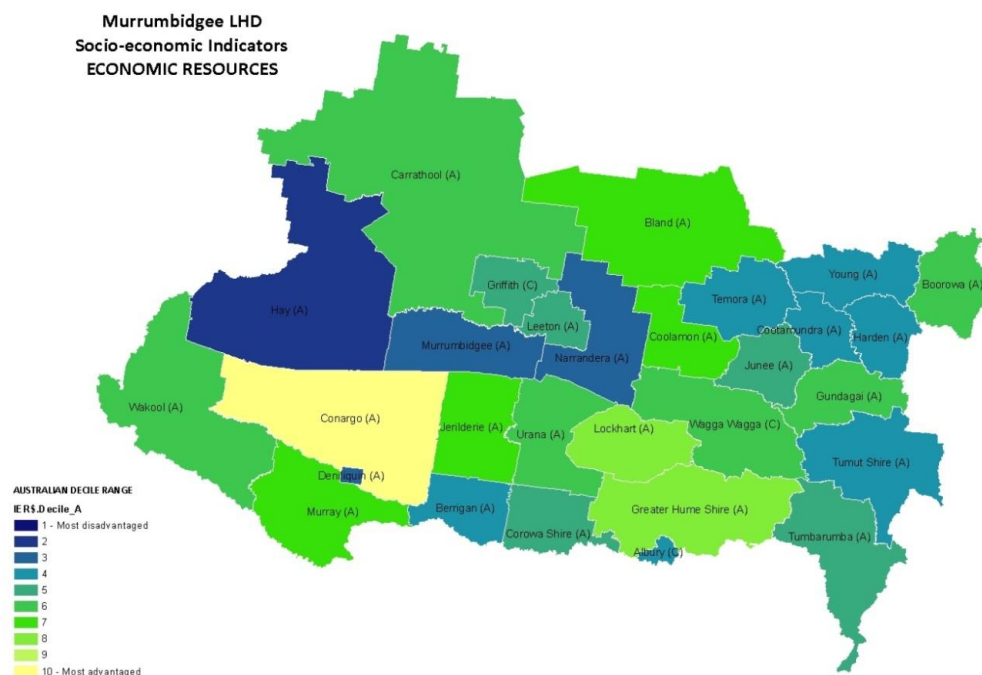
Figure 13 SEIFA disadvantage index score for Local Government Areas in the MLHD, 2011

There is another index of Education and Occupation (IEO) which takes into account variable such as the number of skilled occupations, low skilled jobs, unemployment and the level of tertiary education. Conargo Shire ranked with the top 20% of LGAs within the MLHD indicating proportionally more skilled employment and/or management positions as well as higher levels of educational attainment (Gilchrist 2013, p12).

Community and Service Clubs

The number and type of community groups within the Billabong Yanco area is likely to be useful background information for this project in terms of helping with project delivery. Jerilderie has a comprehensive and up to date list of community organisations. Conargo and Urana council websites had nothing similar but this information would not be hard to obtain.

The now defunct Jerilderie local government website (www.jerilderie.nsw.gov.au) had a community organisation list that could be downloaded from the website as a pdf file.

Australian Red Cross	Jerilderie Anglican Centenary Guild
Balmeringa Senior Citizens Units Committee	Jerilderie Apex Club
Catholic Women's League	Jerilderie Aquatic Club
Central Coree Tennis Club	Jerilderie Australia Day Committee
Coree Hall Committee	Jerilderie Bridge Club
Jerilderie Branch CWA	Jerilderie Cricket Club

Jerilderie District Race Club

Jerilderie Football Club

Jerilderie Golf Club Ladies Committee

Jerilderie Legacy

Jerilderie Life Ball Group

Jerilderie Lions Club

Jerilderie Life Ball Group

Riverina-Thompson Masonic Lodge

Jerilderie MPS Hospital Auxiliary

Jerilderie Netball Club

Jerilderie RSL Sub-Branch

Jerilderie Sports Club

Jerilderie Steam Rail and Heritage Club Inc.

Jerilderie Swimming Club

Jerilderie Tennis Club Inc.

Jerilderie Tidy Towns Committee

MAKATAL

S.E.S.

St Vincent De Paul Society

Willawa Bus Committee

Wunnamurra Bus Committee

Conargo has six community groups that oversee the local Recreation Reserves. These consist of:

1. Conargo Recreation Reserve Advancement Committee
2. Blighty Recreation Reserve Advancement Committee
3. Pretty Pine Recreation Reserve Advancement Committee
4. Mayrung Recreation Reserve Committee
5. Wanganella Recreation Reserve Advancement Committee
6. Booroorban Recreation Reserve Advancement Committee

Culture and Arts

Research has shown that culture and the arts play an important role in strengthening communities and contributing to the quality of life. In 2004 in recognition of the role and importance of culture in communities, local governments and cities from around the world developed Agenda 21 for Culture, a guide for public cultural policies and cultural development across the globe (USC 2009).

Urana Shire is the only council in the Billabong Yanco project area to have a cultural plan. According to the plan cultural planning has been occurring informally at Urana Shire Council for many years through planning for library services, heritage areas, cultural events and citizenship ceremonies. However the council made a decision to develop a formal Cultural Plan to address community expectations in relation to programs and services. Cultural planning involves not only the strategic management of physical assets and facilities such as libraries, museums and community spaces, but also strategic processes, activities and programs which engage the residents of the Shire.

Conargo Shire has a newsletter that can be viewed or downloaded from the Shire website.

Community Values and Aspirations

In 2013 the Murray Catchment Management Authority (MCMA), now known as Murray Local Land Services (LLS) conducted workshops in 'Local Landscapes' across the catchment. These workshops were part of the process of updating the Catchment Action Plan (CAP). One of the 'Local Landscapes' was the Billabong Area which although larger and extending further to the west than the Billabong Yanco area does include Conargo and Jerilderie Shires. Two workshops and one public meeting were held within the Billabong area in relation to the CAP upgrade, with an overall attendance of 37 people.

The findings from the CAP upgrade workshops were documented in an unpublished MCMA Catchment Social Profile (2013b) and the data from the Billabong Local Landscape workshops are included here as they help to build a social portrait of the farming communities of interest to this project:

Key values identified for Billabong area:

1. Reliable supply of water: Water for stock, domestic and irrigation purposes is critical element that gives farmers the adaptability to choose from a range of production options

suited to prevailing climatic/economic conditions. Without adequate water for production, participants believe their communities will decline, and with it environmental decline will also occur. A reliable supply of water was identified by 92% of participants across all sessions.

2. Landscapes and ecosystems: Landscapes and ecosystems (including vegetation and wildlife) was the single most important value identified in the Jerilderie workshop (100%), and was also ranked highly by Conargo participants (80%). Overall 72% of participants ranked landscapes and ecosystems highly. Ecosystems were viewed as fragile and in need of careful management to address degradation from weeds, and also to maintain sustainable, productive agriculture. Participants valued the beauty of landscapes and ecosystems in their area.

Values ranked moderately high across all sessions included:

1. Community cohesion: Community cohesion was also valued highly by participants at the Conargo (70%) and Jerilderie (86%) sessions, but was not mentioned specifically at the Pretty Pine workshop. Overall community cohesion was ranked moderately highly (56%). Participants value living in a community where they feel safe and they 'don't have to worry about locking cars or houses', and where they have a sense of belonging and involvement in local matters.

2. *Economic benefit from agricultural production:* This value was ranked highly at the Conargo meeting (90%) and moderately highly (57%) at the Pretty Pine workshop. Overall the economic benefit from agricultural production was ranked moderately high (52%). At the Conargo meeting the economic benefit was associated with food production.

3. *Openness to new ideas, adaptation and innovation:* This was the most highly ranked value at the Pretty Pine workshop (86%), but was less important at the other sessions. Overall, openness to new ideas, innovation and adaptation was ranked moderately high (40%).

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Key aspirations for the Billabong area

1. Growing, vibrant communities with a balanced age structure, and young people feeling positive about taking up farming and perpetuating family-based farming systems.

2. A landscape where pest plants and animals are effectively controlled.

3. Improved relationships between government and community where red tape is reduced, and local knowledge and experience is recognised and respected more highly.

4. Agriculture is sustainable and profitable.

5. The urban population has a positive perception of agriculture and farmers.

6. Diverse industries and job opportunities exist within the Billabong area.

Key changes, causes and suggested solutions

The most important changes in the SES highlighted by participants were: the relationship between government and rural people, increasing pest plants and animals, decreasing population size, and the political influence of urban green movement.

1. Participants at the Conargo meeting felt most strongly (100%) that the relationship between government and rural people had declined. At Pretty Pine participants echoed this concern, (86%) but at Jerilderie there was less emphasis on it (13%). Overall 83% of participants identified the importance of this change. Participants felt there was a disconnect between government and rural people, citing the recent consultation for the Murray-Darling Basin Plan as an example. They felt that consultation was tokenistic, resulting in a great deal of argument that distracted people from their regular management. Changes to regulations and reduction in a long-term investment focus on pest plant and animal control were cited as other examples where the disconnect was evident. Uncertainty about regulations is driving down investment in the area. Suggested solutions involved establishing avenues for regular government engagement with rural people, empowering the next generation to be involved in decision-making, promoting leaders in the local communities, lobbying and education of politicians and urban communities.

2. Decreasing population was raised as an important change at the Pretty Pine (86%) and Jerilderie (75%) workshops, and 60% at the Conargo meeting. Overall it was ranked as important by 78% of participants. The declining population was attributed to the better employment opportunities elsewhere (e.g. in cities, in mining), as well as better services and infrastructure. Suggested solutions included marketing to promote the advantages of a rural lifestyle and to promote positive perceptions of agriculture among the urban population. A key suggestion was to improve infrastructure and services (e.g. NBN/internet/phone services). Tax incentives and government investment to promote new rural industries and help to retain existing ones, were also suggested.

3. Participants at all sessions commented that weeds (e.g. boxthorn, horehound, khaki weed, Bathurst burr) and pest animals (e.g. rabbits, foxes, cats and carp) were out of control. Overall 52% of participants identified this change as important. Lack of coordination, investment of resources, and follow up effort was identified as the main cause of the change. Suggested solutions included better coordination and sharing of information between government and community, more targeted and time-effective approaches, increased investment of resources from government, and targeted education and information packages.

4. Increasing political influence of the urban green movement was ranked as an important change by 90% of participants at the Conargo meeting, but not at other sessions. In part this could be related to the perceived disconnect between government and rural community, but it is more specifically focused on urban green groups rather than government. Participants felt that the urban green movement had a poor understanding of environmental needs in the Billabong area. Suggested solutions focused on having a public relations campaign to inform urban communities appropriately.

TOURISM

A common theme relating to industry in the Billabong Yanco area was tourism, an important driver of economic development. Each of the Community Strategic Plans developed by councils within the Billabong Yanco Area identify tourism as having the most potential to attract visitors to the area and boost the local economy. Each shire has strategies for developing a thriving tourism base that include developing partnerships and programs that will ensure long-term tourism potential. Actively supporting and encouraging the establishment of businesses that support the tourist economy is one way of achieving this. Tourism related businesses include accommodation, food services, retail trade, arts and recreation. All councils feel there needs to be a structured approach to maximising economic opportunities from tourism growth.

The most useful source of information on tourism for the shires of Urana, Jerilderie and Conargo can be found in the Riverina Regional Tourism Destination Management Plan (DMP) for the Riverina (2013). The plan outlines strategies and development opportunities for tourism based on extensive research including surveys, workshops, visitor market assessments and product and experience audits.

The Riverina DMP identifies the following as challenges for tourism in the Riverina region:

* The low level of resources allocated to Riverina Regional Tourism, particularly in comparison to other RTOs and when the size of the region to be serviced is considered;

* The low level of engagement of the tourism industry with regional tourism issues and Riverina Regional Tourism;

* The lack of diversity in the accommodation offer, which is predominantly in 3 to 3 ½ star motels; and,

* The sustainability of volunteer based events and tourism products, particularly in the context of declining and or ageing populations in the towns within the Riverina.

Tourist Information

None of the towns within the Billabong Yanco Project area have visitor information centres. The closest ones are in Narrandera and Deniliquin, the latter also housing the Peppin Heritage Centre which is particularly relevant to Conargo Shire. However the TRA Regional Profile for the Riverina indicates that the most frequently used sources of visitor information are the Internet (25%), previous visits (12%) and friends or relatives (8%) (Riverina DMP 2013).

Jerilderie Shire Council website has a tourism tab which has some information and links to other websites including the Destination NSW website (http://www.visitnsw.com/destinations/country-nsw/wagga-wagga-and-riverina/jerilderie). Jerilderie also has an official Visitors Guide which Council lists as one of their achievements in the Shire Strategic Plan along with a Ned Kelly Walking Trail brochure. Jerilderie is also involved in the Ned Kelly Touring Route through NSW and Victoria (https://nedkellytouringroute.com.au).

The Conargo Shire Council website (www.conargo.nsw.gov.au) has a tourism tab which has no information but does have a link to Conargo tourism website (http://www.visitconargo.com.au) which is reasonably comprehensive.

Urana Shire Council website has information on 'Visiting Urana Shire'; this food, accommodation and attractions.

The township of Oaklands has a Vintage Machinery Museum which is open 7 days a week. Morundah is adjacent to the Newell Highway between Jerilderie and Narrandera and apparently has a very good restaurant at the Morundah Hotel (recently praised in the 'Epicure' section of the Melbourne Age newspaper.

Note: The above information was correct when this research was being carried out but by now these Council websites have disappeared as a result of the May 2016 council mergers.

Council objectives

The Jerilderie Shire Council's delivery and operational plan (2015-2019) has as one of its outcomes "A Strong Visitor Economy Sector." The objectives are to better understand the visitor economy sector in Jerilderie and to develop and implement a long term visitor economy strategy. Actions to achieve these objectives include actively seeking funding to open a permanent visitor information sector and developing a 'brand' that would allow for the professional and consistent promotion of the shire as a tourist destination.

The Shire Council would like to have consistent town signage including all entrance points to the town. The council also desires that historic landmarks to be protected.

Conargo Shire Council's Strategic Plan (2012-22, p11) states that tourism is an area that offers great potential for the shire and that the community would like to see a focus on attracting visitors to the area. According to the Conargo Shire General Manager (personal communication) there is however not a lot of emphasis on tourism. The council is a member of Riverina Regional Tourism and part of the Long Paddock and associated promotional material. There is also the Conargo Pub which burnt down last year.

Agricultural Tourism

Agricultural tourism has been identified as a unique selling point for the Riverina Region and includes not only farm experiences and farm stay accommodation but also education and industrial tourism. Priorities for agricultural tourism in the Riverina include the organising of new agricultural tourism events, re-establishing agricultural industry tours, developing educational products and providing a range of farm and produce experience for visitors to the region (Riverina DMP 2013).

Development Opportunities

Product development opportunities for locations within the Riverina of relevance to the Billabong Yanco project are as follows:

The Edward River is an important attraction in the Southern Riverina, particularly for camping and water based activities in Deniliquin and across the Conargo Shire area. Closely associated with the river are the River Red Gum parks in the region, providing more nature based experiences for visitors.

Agriculture in the Southern Riverina includes significant rice production and an important place in the history of wool production in Australia. The development of Peppin merino sheep on substantial homesteads within the Conargo Shire provides an interesting heritage experience for visitors, with information and interpretation provided by the Peppin Heritage Centre in Deniliquin.

Jerilderie is most widely known for its place in the Ned Kelly story, with a range of buildings and interpretation relating to the story within the town. Jerilderie Lake provides a place for travellers on the Newell Highway to take a break, generating business for the town's shops.

Table 34 Priority Product Development Opportunities for Jerilderie, Urana and Conargo Shires

Priority	Location
Agricultural Tourism	
• Peppin Merino History	Conargo Shire
• Significant Homesteads and Farming Properties	Conargo / Jerilderie
• Food and Fibre Festival	Conargo / Deniliquin
Events	
Development of new events in the region	Conargo / Jerilderie
Edward River	
Development of the river as an attraction, including Deniliquin tourism precinct, Island Sanctuary tours, canoe/kayak hire, bird watching and the Lawson Syphon.	Conargo / Deniliquin
Jerilderie Tourism Precinct	
Develop a masterplan for the Lake, Powell St and Newell Highway precinct to promote tourism opportunities	Jerilderie
Conargo	
Agritourism and the opportunities for camping and fishing on the Edward River and the Billabong at Conargo.	Conargo
Urana	
Urana Aquatic Centre	Urana
Nature Based Tourism Opportunities	
Lake Urana	Urana

Source: Riverina Regional Tourism DMP 2013

Food and Wine Tourism

A summary of some of the key findings from Key findings from "Food and Wine Tourism in NSW" report (Tourism Research Australia 2015)

* People are becoming increasingly knowledgeable about, and engaged in food and wine. They are seeking 'authentic' experiences and products.

* Aside from wine tasting and sales, visitors enjoyed having a meal, and sampling local produce. There was also a high level of interest in educational activities (such as learning about the process of wine making) and unique offerings at wineries.

* Being able to eat fresh, locally grown food for breakfast, lunch and dinner was the number one desired attribute of a food and wine region.

* Being able to buy local produce and take short drives to places of interest nearby to the main destination being visited were also important for a 'good' food and wine experience.

* Tolerance to travel varied among different types of food and wine visitors. Obviously, 'dedicated' food and wine visitors were the most willing to travel further away from home for a food and wine experience.

* Apart from distance from home, the top three factors influencing destination choice were the quality of customer service, the range of accommodation options and the ease of organising the food and wine trip.

Touring Routes

The Long Paddock Touring Route has a range of material to support it as a tourism product, including websites, brochures and themed itineraries. The route follows the journey that drovers lead stock down to Victoria to feed miners on the Victorian Goldfields in the 1800s. Conargo is one of the towns along the Long Paddock touring route. A recent Conargo Shire Council Newsletter (April 2015) discussed a new tourism experience associated with the Long Paddock touring route; a cattle drive. There is also a Conargo Road Historical Milestones route that was completed late last year (2014) according to the Conargo Shire Newsletter April 2015. There are 10 milestones along the road from Deniliquin to Conargo township.

The Newell Highway, which links Victoria to Queensland, has information guides and has a committee to further its development as a touring route in addition to being a major highway. Jerilderie is located on the Newell Highway.

The Kidman Way also has been developed as a tourism product under a management committee. A dedicated website provides maps and information about towns and attractions along the route. The Kidman Way heads north from Jerilderie through Coleambally, Darlington Point, Griffith, Goolgowi and Hillston to the Queensland border linking farms with a history connected to Sir Sidney Kidman. The Newell Highway also has a dedicated website and promotional brochure, and an eBook being developed.

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Appendix 1: Glossary

Collector District	The smallest unit of geographic classification by ABS; building block for SLAs, LGAs and larger statistical areas.
Estimated Resident Population	ERPs are estimated for the mid-year population each year from census figures taking into account such factors as migration, birth and death rates.
Local Government Area	
LOTE	People who in the census reported that they spoke a language other than English at home
Statistical Local Area	Consisting of one or more census collection district, statistical local areas cover the whole of Australia without gaps or overlaps. They consist of a single local government area, or part thereof, or any unincorporated area. Often one or two SLAs make up an LGA.

Appendix 2: Population Data Sources and Uses

Introduction

Estimated Resident Populations, Population Projections and ABS Census counts, what are they, where do they come from, why are they all different and which ones do you use when?

ABS CENSUS COUNTS - PLACE OF USUAL RESIDENCE

The Census count for Place of Usual Residence is a count of every person in Australia, on Census Night, based on the area in which they usually live. Every individual is required to state his/her address of usual residence on the census form. Where sufficient information is provided, this enables the area in which people live to be identified and coded. Census counts compiled on this basis minimise seasonal factors such as school holidays and provide information about the usual residents of an area.

Census data can be used to build a picture of communities in small areas. Community profiles include information on age, sex, levels of education, family characteristics, employment and the working population, housing, income, ethnicity, transport, internet usage, voluntary and home-based work. Some characteristics in turn are can be for Socio-economic indexes to show areas of disadvantage.

Uses:

The Census is the major source of population characteristics beyond age and sex aggregations. It can be used to define target populations, highlight areas of socio-economic disadvantage, and generally give a picture of the population in any given geographic area.

ABS Estimated Resident Population

Population numbers for the 2011 base year in the section on Population Change are derived from Estimated Resident Population (ERP) figures from the Australian Bureau of Statistics (ABS). These differ from (and are usually higher than) Census counts as they factor in population missed by the Census and population overseas on Census night. They are generally considered a more accurate measure of population size than Census counts. Population projections provide a possible scenario of the future population in an area based on current trends and historical data. They also take into consideration a changing age profile.

QUICKSTATS

The information contained in the QuickStat profiles is produced by the Australian Bureau of Statistics. They contain data from the 2011 Census of Population and Housing held on 9 August, 2011. Release date of the QuickStat profiles was 21 June, 2012. Some values may have been adjusted to avoid release of confidential data. These adjustments may have a significant impact on

the calculated percentages in QuickStats. For further enquiries contact the ABS National Information and Referral Service www.abs.gov.au/census

Socio Economic Indexes for Areas (SEIFA)

What is SEIFA?

The 2011 Census of Population and Housing provides information on a broad range of social and economic aspects of the Australian population. Census data is often used for comparisons across local government areas or regions; the data can be used to profile different areas relative to others. The Socio Economic Indexes for Areas (SEIFA) is one such summary measure.

SEIFA is a set of four indexes that have been created from social and economic Census information. Each index ranks geographic areas across Australia in terms of their relative socio-economic advantage and disadvantage. The four indexes each summarise a slightly different aspect of the socio-economic conditions in an area.

The indexes can be used for a number of different purposes, including targeting areas for business and services, strategic planning and social and economic research. For each index, every geographic area in Australia is given a SEIFA score which measures how relatively 'advantaged' or 'disadvantaged' that area is compared with other areas in Australia.

The four indexes in SEIFA 2011 are:

- Index of Relative Socio-Economic Disadvantage (IRSD)
- Index of Relative Socio-Economic Advantage and Disadvantage (IRSAD)
- Index of Economic Resources (IER)
- Index of Education and Occupation (IEO)

(Source: *2033.0.55.001 - Census of Population and Housing: Socio-Economic Indexes for Areas (SEIFA), Australia, 2011*)

Indicator of Disadvantage

The Index of Relative Socio-economic Disadvantage (IRSD) is a general socio-economic index that summarises a range of information about the economic and social conditions of people and households within an area. Unlike the other indexes, this index includes only measures of relative disadvantage. Aboriginality is no longer included in this index as a measure of disadvantage.

A **low score** indicates relatively greater disadvantage in general. For example, an area could have a low score if there are (among other things): - many households with low income, many people with no qualifications, or many people in low skill occupations.

A **high score** indicates a relative lack of disadvantage in general. For example, an area may have a high score if there are (among other things):- few households with low incomes, few people with no qualifications, and few people in low skilled occupations.

More information on SEIFA (variables used, scores, *etc*) can be found in the SEIFA documents listed in REFERENCES.

Appendix 3: Comparison Data Tables   (Curtis *et al.* 2003 p.47)

POPULATION

SLA	No. Persons 2001	Annual Pop Growth Rate 91-01	Pop Sex Ratio 2001	Indigenous People	Median Age 2001	Change in Young Persons 96-01
	No.	%	%	%	Years	%
Jerilderie	1,782	-0.8	111.6	1.8	37	-33.9
Urana	1,335	-1.9	115.3	2.2	38	-33.7
Conargo	1,399	-0.8	126.7	0.5	37	-14.8
Murrumbidgee Valley		**0.5**	**103.3**	**2.6**	**35**	**-7.6**

EDUCATION and CULTURAL DIVERSITY

SLA	Persons with a post-school qualification 2001	Change in % of persons with a post-school qualification 91-01	Farmers with post-school qualifications 2001	Persons who speak LOTE at home 2001
	%	%	%	%
Jerilderie	26.0	5.5	28.3	2.8
Urana	24.1	3.6	28.2	0.9
Conargo	31.1	5.8	35.5	2.0
Murrumbidgee Valley	**32.2**	**6.8**	**32.0**	**5.7**

LIVING ARRANGEMENTS and INCOME

SLA	One parent families 2001	Farming families with dependent children 2001	Low income households	Annual mean taxable income	Home ownership	Lone person households
	%	%	%	$	%	%
Jerilderie	26.0	5.5	14.5	30,419	68.9	8.8
Urana	24.1	3.6	18.6	32,453	70.3	10.8
Conargo	31.1	5.8	9.8	30,768	70.2	6.4
Murrumbidgee Valley	**32.2**	**6.8**	**15.0**	**33,983**	**69.4**	**8.9**

WORKFORCE

SLA	Labour force participation rate 2001	Unemployment rate 2001	Youth unemployment rate 2001
	%	%	%
Jerilderie	70.7	3.5	6.9
Urana	63.6	4.3	12.7
Conargo	78.8	2.0	10.4
Murrumbidgee Valley	**66.4**	**5.6**	**11.7**

Appendix 4: Available Data: Community Profile Contents

Quickstats for LGA Areas

Population	Country of Birth
Age Categories	Birthplace of Parents
Registered Marital Status	Religious Affiliation
Family Composition	Language
Social Marital Status	Education
Family Weekly Income	Employment
Family Employment Status	Hours Worked
Dwellings	Occupation
Household composition	Industry of Employment
Household income	Median Weekly Incomes
Mortgage payments	Travel to work
Rental Payments	Unpaid work
Ancestry	

Multicultural NSW Community Profiles

Population

Age Structure

Ancestry

Year of Arrival

Language spoken at home

Proficiency in English

Religion

Appendix 5: MLHD socio-economic disadvantage data

Table 1 - Index of Relative Disadvantage by LGA in MLHD, ABS 2011

2011 Local Government Area Name (LGA)	Usual Resident Population	Score	Ranking within Australia			Ranking within State or Territory				Minimum score for SA1s in area	Maximum score for SA1s in area	% Usual Resident Population without a SA1 level score
			Rank	Decile	Percentile	State	Rank	Decile	Percentile			
Conargo	1535	1040	489	9	87	NSW	129	9	84	1006	1068	0%
Jerilderie	1492	998	378	7	67	NSW	112	8	73	869	1095	0%
Urana	1149	937	130	3	23	NSW	34	3	23	864	1010	0%

Source: Australian Bureau of Statistics, 2033.0.55.001 - Socio-economic Indexes for Areas (SEIFA), Australia, 2011

Table 2 – SEIFA Index of Relative Disadvantage – population distribution by decile bands for LGAs in MLHD, 2011.

	Most disadvantaged Lowest SEIFA scores Decile 1 score below 875		875 to <1100 Deciles 2 to 9		*Least disadvantaged* 1100 to >1300 Decile 10		Total population in included SA1s	Total population in excluded SA1s
	Population	Per cent	Population	Per cent	Population	Per cent		
Conargo	0	0.0%	1,535	100.0%	0	0.0%	1,535	0
Jerilderie	400	26.8%	1,092	73.2%	0	0.0%	1,492	0
Urana	299	26.0%	850	74.0%	0	0.0%	1,149	0
NSW	804,803	11.7%	5,110,011	74.0%	960,815	13.9%	6,875,629	29,018
Australia	2,079,320	9.7%	16,673,918	77.5%	2,599,368	12.1%	21,352,606	155,109

Table 3 - All SEIFA scores by LGA, score and decile ranking in Australia

2011 Local Government Area Name (LGA)	Index of Relative Socio-economic Advantage and Disadvantage		Index of Relative Socio-economic Disadvantage		Index of Economic Resources		Index of Educa Oc
	Score	Decile	Score	Decile	Score	Decile	Score
Conargo (A)	1039	9	1040	9	1053	10	1076
Jerilderie (A)	983	7	998	7	1005	7	996
Urana (A)	925	3	937	3	985	6	943

Source: Australian Bureau of Statistics, 2033.0.55.001 - Socio-economic Indexes for Areas (SEIFA), Australia, 2011

Appendix 6: Jerilderie Industries & Businesses

Business Name	Business Function
Ag Work/ MAS Agwork	Aerial application
Agritek Australia	Precision Farming
Anthony Transport and Fertiliser	Trucking
ANZ Bank	Banking /Finance
Apex Concrete Cutting	
Barlow Agriculture	Farming and Contracting
Barry Hamilton Building	Builder - Residential
Billabong Produce	Tomato processing, onions, cereals, olive trees
Blacksmiths Shop	Tourism, Ned Kelly Blacksmith's shop
BP 24 Hour Roadhouse	Service Station
Brian Conn Plumbing	Plumbing, roofing, sprinkler systems
Butcher's Landforming	Excavation, laser levelling
Caltex Service Station	Fuel, Indian cuisine
Chris Ryan Carpentry	Carpentry
Colony Inn Hotel Motel	Accommodation
Crimmins Painting	Painter
Crittendon Heating and Cooling	Home heating and cooling, gas installation
Do Book Inn	Accommodation
East End Welding	Steel fabrication, Sheds/machinery
Elders Ltd	Stock and station
Fairways BandB	Accommodation
Field Air	Precision aerial applications
Genstock P/L	AI, Sheep
Goolgumbla Merino Stud	Stud, Breeding/wool
Greenview Motel	Accommodation
Gurciullo Onion Packing	Onion growing and packing
Ian Sneddon Canvas and Upholstery	
IGA Supermarket	Food items and Consumbles
Information Centre	Maps, souvenirs
Jacqueline Robertson	Marriage celebrant – baptisms, weddings, funerals
Jamie Pitt Painting	Painter
Jerilderie Bakery	
Jerilderie Budget Motel and Plant Nursery	Accommodation

Jerilderie Budget Self Storage	
Jerilderie Earthmoving	Excavators, Scrapers, graders/laser
Jerilderie Electrics	Electrician
Jerilderie Fertilisers/Hamilton Contracting	Fertiliser, Bulk and bag
Jerilderie Grain Storage and Handling	Grain storage
Jerilderie Heath Service	Health
Jerilderie Historic Residence	
Jerilderie Hotel	Accommodation
Jerilderie Medical Centre	GP
Jerilderie Mobile Diesel Mechanic	Mechanic
Jerilderie Motel and Caravan Park	Accommodation, Caravans/cabins
Jerilderie Motor Inn	Accommodation
Jerilderie Motorcycles and Smash Repairs	Panel beating / mechanics/ motor mowers
Jerilderie Newsagency	Lotto/dry cleaning agents
Jerilderie Pharmacy	Chemist
Jerilderie plasterers	Building
Jerilderie Post Office	Postal
Jerilderie Pre-school	Education
Jerilderie Public School	Education
Jerilderie Shire Council	Hire out/engineering contracts
Jerilderie Sports Club and Chinese Restaurant	Golf course, bowling greens, tennis court, Chinese Restaurant
Jerilderie Transport Pty Ltd	Trucking
Jerilderie Tyre Service	Service, repairs, NRMA
Jerilderie Vet Clinic	Animal Health
Jumptree Studios	Photography, art work
Kabello Hair and Beauty	Hairdressing, beauty
Kel's Computers	Home/business computer service calls
Kent Taylor Shearing Contractor	Shearers
Kerry McWhinney Bulldozing	Excavation, bulldozer
Leeds Shorthorns	Cattle Stud
Livestock Breeding Services	AI, sheep
Magic Scissors	Hairdresser
McCaughey Institute, Rice Research Australia	Rice Research
McFarlanes Laser Gradiing	Excavation
MIA Rural Services	Agricultural
Mitchells Pest Management	

MS Ryan and Sons (Garage)	Service station/Mechanic
Murray Local Land Services	Government Institution
Old Wares	Retail
One Oak Merino Stud	Sheep/wool
Organic One Winery	Organic winery
Paul Ryan Building Contractor	Builder
Peter Lawrence	Contract Harvesting, Lamb Marking
Phillip Sweeney - Horse Trainer	Horse Training
Pine Rise Pumps	Irrigation pumps
Pooginook Merino Stud	Agriculture
R and D Taylor Appliance Repairs	
Riverluck Transport	Carriers, Stock/grain/general
Roe's Transport	Carrier
Rochford Painting	Painter - Residential
Royal Mail Hotel	
S.D. Landscape Gardening	
Somerset Merino Stud	Wool
Southern Riverina Meats	Butchers
SST Development Group and Nozzle Spray	Trimble GPS for Agriculture and Spray gear
Sticky Fingers Candy Shop	Lolly shop, Party Supplies, Souvenirs, Gifts
St Joseph's Catholic School	Education
St Vincent De Paul Society	
Shaw's Jerilderie Café	Cafe
The Yanko Merino Stud	Agriculture
Warwich Doolan Fencing	Fencing
Willandra Merino Stud	Wool Breeding, cereals, rice

Source: http://www.jerilderie.nsw.gov.au/community/jerilderie-businesses.aspx