EIS Volume 1 Chapter 17

Socio-Economic Environment

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17. Socio-Economic Environment

This chapter describes the expected social and economic environment impacts of construction and operation of the Project on the landholders and communities in proximity to the transmission line corridor, both positively and negatively. Management strategies which will be utilised to prevent or reduce negative impacts are also detailed.

17.1. Key Findings

- The Project is expected to have major positive impacts for electricity consumers in South Australia. The multiplier effect of a reduction in electricity prices and increased security of supply on regional and SA economies is expected to have major, positive impacts.
- The Project will enable greater market access for renewable energy generation in the region, leading to economic stimulus and further benefit to the population in the study area.
- The Project is located well away from the tourism region of the River Murray and the presence of Project infrastructure is not expected to affect visitation or viability of local tourism operations.
- Construction, installation and production phases of the Project will require securing a range of locally sourced goods and services, benefitting the local economy.
- Negative impacts to the viability of local and regional industries are not expected as a result of employment of local labour by ElectraNet.
- Negative impacts to affordability or availability of housing, amenities, services or general cost of living due to the Project activities are expected to be negligible.
- There will be no compromise to community cohesion, safety or wellbeing as a result of the Project.

17.2. Setting the Context

This section provides information required to explain the context within which the impact assessment was undertaken. It describes:

- the relevant EIS Guidelines
- relevant requirements in legislation and other standards
- views of stakeholders and the environmental and social outcomes they would like the Project to meet
- the assessment methodology used to identify baseline environmental values and to undertake the impact assessment.

17.2.1. EIS guidelines

The EIS Guidelines require an assessment of the likely impact of the economic and social effects of the Project on the communities, land uses, industries and businesses in the region of the Project, as set out in Table 17-1.

Table 17-1: EIS Guidelines relating the socio-economic environment

EIS Guidelines and Assessment Requirements	Assessment level
Land Use and Economic Effects *Assessment Requirement 2*: The proposal will have an impact on the State's economy during construction and operation and may result in immediate and long-term effects on landowners and surrounding uses.	
• 2.8: Provide a full economic analysis of the proposal including details on the economic effects of the proposal in terms of provision of an additional 'interconnection' and the local and	Critical

EIS Guidelines and Assessment Requirements	Assessment level
broader employment generation from construction activities of the proposed development, including the 'multiplier effect'.	
• 2.9: Describe the potential positive and negative economic effects on household, business and industrial energy consumers in the State.	Critical
• 2.10: Describe potential employment opportunities and the expected impacts on communities.	Critical
• 2.11: Identify any potential economic effects on tourism and recreation.	Critical
• 2.12: Identify any secondary economic effects, including the potential to attract new industries (such as renewable energy generation) and commercial ventures in areas benefiting from increased power supply. Describe any positive and negative effects of this, including current generation assets.	Critical
Effect on Communities *Assessment Requirement 9*: The proposed development has the potential to affect the local community during construction and through the establishment of a large linear structure.	
• 9.1: Describe the proximity of the proposed transmission line to townships and dwellings, and describe any potential impacts of the proposal on quality of lifestyle.	Medium
• 9.4: Describe the impact of the increase in workforce during and post construction on the nearby towns and the region as a whole. In particular the impact on local business and also effects on accommodation supply and demand.	Medium
Construction, Operation and Maintenance Effects *Assessment Requirement 15:* The construction and operation of the proposal would require a range of impacts to be minimised, mitigated and monitored through an environmental management plan framework.	
• 15.9: Outline the approximate size of the construction workforce including any need for any construction workers camps or accommodation. Describe the location and management of accommodation camps including sources of water and power, and the management of waste, wastewater and noise impacts	Standard

It should be noted that the economic implications for the State if the Project does not proceed (Assessment requirement 2.13) are addressed in Section 2.8 of Chapter 2 Justification.

Aspects of assessment requirements identified in Table 17-1 which are not addressed in this chapter are listed in Table 17-2 together with the applicable chapter.

Table 17-2: Aspects of assessment requirements addressed in other chapters

Assessment requirement	Chapter
15.9 Construction workforce size and location and management of accommodation camps	Chapter 7 Project Description Chapter 9 Land Use and Tenure Chapter 10 Physical Environment Chapter 15 Noise and Vibration

17.2.2. Requirements in legislation and other standards

Standards

The methodology for this socio-economic impact assessment was guided by both international impact assessment principles and methods as set out by Vanclay et. al. (2015)[1] and endorsed by the International Association for Impact Assessment (IAIA), as well as other industry standards such as the Planning Institute of Australia Social Impact Assessment Position Statement (2010) and New South Wales Social Impact Assessment Guidelines (2017).

[1] *Social Impact Assessment: Guidance for assessing and managing the social impacts of projects* (Vanclay et al. 2015)

There are no social impact assessment guidelines issued by the South Australian Government.

A general explanation of legislation governing the Project can be found in Chapter 5 Legislative Framework and Planning.

17.2.3. Views of stakeholders

Stakeholder engagement was undertaken by ElectraNet as part of baseline data gathering, route selection and refinement and included local councils, the general public, affected landholders and known social receptors within and adjacent to the transmission line corridor (refer Chapter 6 Stakeholder Engagement).

Stakeholders largely recognised and supported the economic benefits of the Project including supply of reliable power, aiding the transition from fossil fuels, the potential for future renewables investment in the region, in-region employment and flow-on economic benefits, including the use of local businesses and suppliers. Engagement did not identify any significant level of concern regarding social impacts.

Some concerns were raised in relation to potential negative economic impacts and included impacts to ecotourism from a change in amenity and resulting in damage to the local economy, and impacts to property values of agricultural land and investment value in environmental reserves, resulting from the presence of electrical infrastructure.

17.2.4. Assessment method

The method for undertaking the socio-economic impact assessment was consistent with the approach used throughout this EIS, and is described in Chapter 8 Impact Assessment Methodology.

Identifying the socio-economic study area

An independent socio-economic impact assessment was undertaken for the Project (BDO EconSearch 2020, provided at Appendix N-2). While the area of influence of the Project in terms of socio-economic values potentially occurs at different scales (i.e. local, regional, State and national), the assessment in this chapter focuses on the local context in proximity to the proposed alignment, with reference to the broader region and the State where relevant (refer Figure 17-1).

The study area is generally based on geographical boundaries used by the Australian Bureau of Statistics (ABS) and includes local government areas (LGAs), urban centres and localities (UCL)[2] and State Suburbs (SSC)[3]. Where relevant the assessment also draws comparisons with regional South Australia and South Australia as a whole.

The study area is defined as the following LGAs:

- Regional Council of Goyder
- Mid Murray Council
- District Council of Loxton Waikerie
- Berri Barmera Council
- Renmark Paringa Council.

Within the study area, the assessment examined the local Project context using a 5 km buffer either side of the proposed alignment, and considering the four communities closest to the alignment –

[2] Urban Centre and Localities (UCL) represent areas of concentrated urban development and has been used for larger townships in the study area.
[3] State Suburbs (SSC) are an ABS approximation of localities and have been used where required for smaller communities in the study area.

Robertstown, Morgan, Cadell and Cooltong. The townships of Waikerie, Barmera, Berri and Renmark were also considered, however this was done in a regional context due to their distance from the proposed alignment.

It should be noted that the Project also intersects the Unincorporated Area of South Australia. As the Unincorporated Area does not have any major population centres within 100 km proximity of the Project it has not been included in this assessment.

Baseline information for the broader region and South Australia was also included where relevant for comparative purposes.

Desktop review

A desktop review was undertaken to characterise the existing socio-economic environment of the study area and support the identification and assessment of impacts. The data used for this review was primarily sourced from:

- ABS 2016 Census and additional data releases
- Department of Education, Skills and Employment (DESE)
- Tourism Research Australia (TRA)
- Other publicly available information such as community reports, agency plans and planning documents.

The desktop assessment was further supported by information received during consultation with local landowners, the community, service providers and local and State government representatives (refer Chapter 6 Stakeholder Engagement)

Economic effects assessment and modelling

The broader economic effects of the Project were modelled by ACIL Allen (ACIL Allen 2019) using Computable general equilibrium (CGE) modelling and analysis. The assessment methodology for the modelling is set out in the report which is provided at Appendix N-1. It is noted that this modelling was undertaken using data and information from 2018–19, however it is considered that the findings remain generally valid for the Project.

The independent socio-economic assessment undertaken by BDO EconSearch used the impact assessment methodology developed for the Project and described in Chapter 8 Impact Assessment Methodology. The socio-economic assessment and details of modelling used in the assessment is provided at Appendix N-2.

The key findings of the Regulatory Investment Test for Transmission (RIT-T) completed for the Project has also informed the discussion of broader economic benefits of the Project (refer Chapter 2 Justification).

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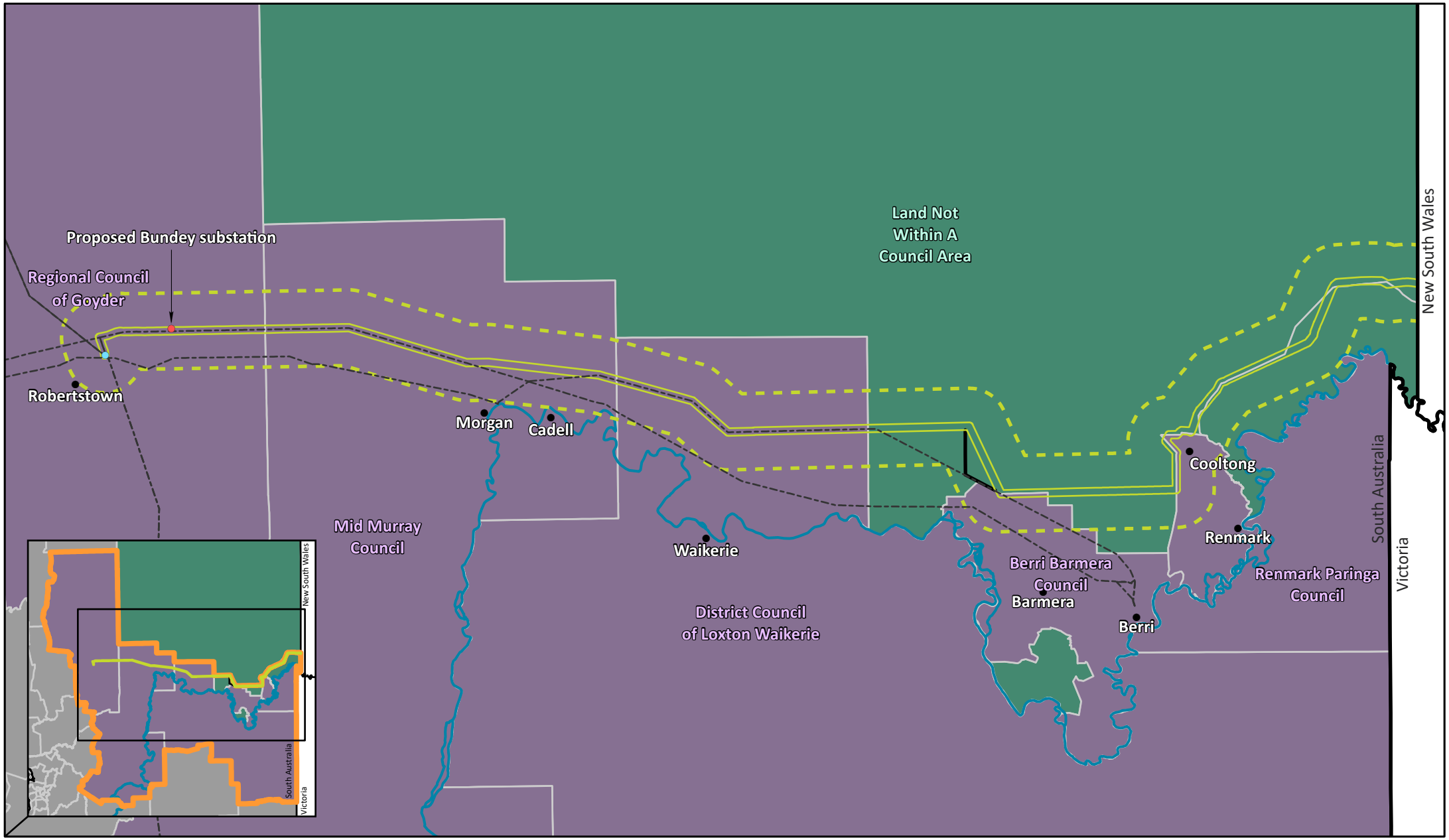


Figure 17-1
Socio-economic study area and local Project context

17.3. Description of Existing Environment

This section describes the existing socio-economic environment across the study area, with a focus on local communities, to inform the impact assessment in Section 17.4.

17.3.1. Overview of the study area

Local government areas and relevant townships

Goyder LGA

The Goyder LGA was historically economically supported by the mining industry, however agriculture (grazing and to some extent cropping) has become the primary industry, with viticulture interests also increasing in the region. The area is also increasingly becoming the focus of wind and solar renewable energy projects.

Robertstown is located on the Worlds End Highway between Eudunda and Burra and was originally a service centre for surrounding mining and agricultural activities. The Robertstown substation at the beginning of the proposed alignment is located approximately 5 km northeast of the township (refer Figure 17-2).

Burra is the largest town in the region and the council seat. It is the primary service provider for the surrounding agricultural communities and is also a significant tourist destination, featuring many historic buildings, mining history and the flooded remains of the open cut mine. Burra is located 33 km from the western end of the proposed alignment.

Mid Murray LGA

The Mid Murray Council encompasses 220 km of the River Murray and stretches between the major townships of Morgan and Mannum.

Morgan was one of the busiest river ports in the area following the opening of a railway line from Adelaide, until the expansion of road transport during the 20th century. Tourism in Morgan is based around its history as a river port, houseboat moorings and the waterfront marina. Morgan is located approximately 7 km south of the proposed alignment (refer Figure 17-3).

Cadell is a small citrus and winegrowing township located 8.5 km east of Morgan which provides most of the major services. A low security prison for men is also located there. Cadell is approximately 6 km south of the proposed alignment (refer Figure 17-3).

Mannum is located more than 100 km from the Project and was established to service paddle steamer and riverboat shipbuilding operations in 1840. Mannum has continued to support a tourism industry focussed around houseboat and temporary accommodation hire.

Loxton Waikerie LGA

Waikerie supports extensive agricultural, horticultural and viticultural developments as well as fruit processing plants. The area also has a strong ecotourism industry centred around the birdlife of the nearby lagoons and wetlands associated with the River Murray. Waikerie is located approximately 14 km south of the proposed alignment (refer Figure 17-3).

Loxton is the largest settlement in the LGA and serves as the council seat. Loxton is known for its citrus fruit industry, and also features large dryland cropping operations. Tourism in the area is largely centred around the River Murray. Loxton is located approximately 35 km south of the proposed alignment.

Berri Barmera LGA

Berri is the council seat and serves as the regional service centre for surrounding River Murray irrigated horticulture districts. The town is surrounded by substantial acreage of irrigated vineyards and

orchards and significant wine production facilities. Berri is located approximately 16 km south of the proposed alignment (refer Figure 17-4).

Barmera is located on the shore of Lake Bonney, a large freshwater lake fed via the River Murray. The town supports irrigated agriculture and viticulture industries and recreational and water-based tourism on Lake Bonney and the River Murray. Barmera is located approximately 12 km south of the proposed alignment (refer Figure 17-4).

Renmark Paringa LGA

Renmark is the largest town in the LGA, and the study area. Similar to other towns in the Riverland the primary industries are wine grape production with substantial nut, citrus and stone fruit plantations. Culinary tourism is an important part of the local economy, with Renmark's location on the River Murray making it a popular destination for fishing and water sports. Renmark is located approximately 10 km south-east of the proposed alignment.

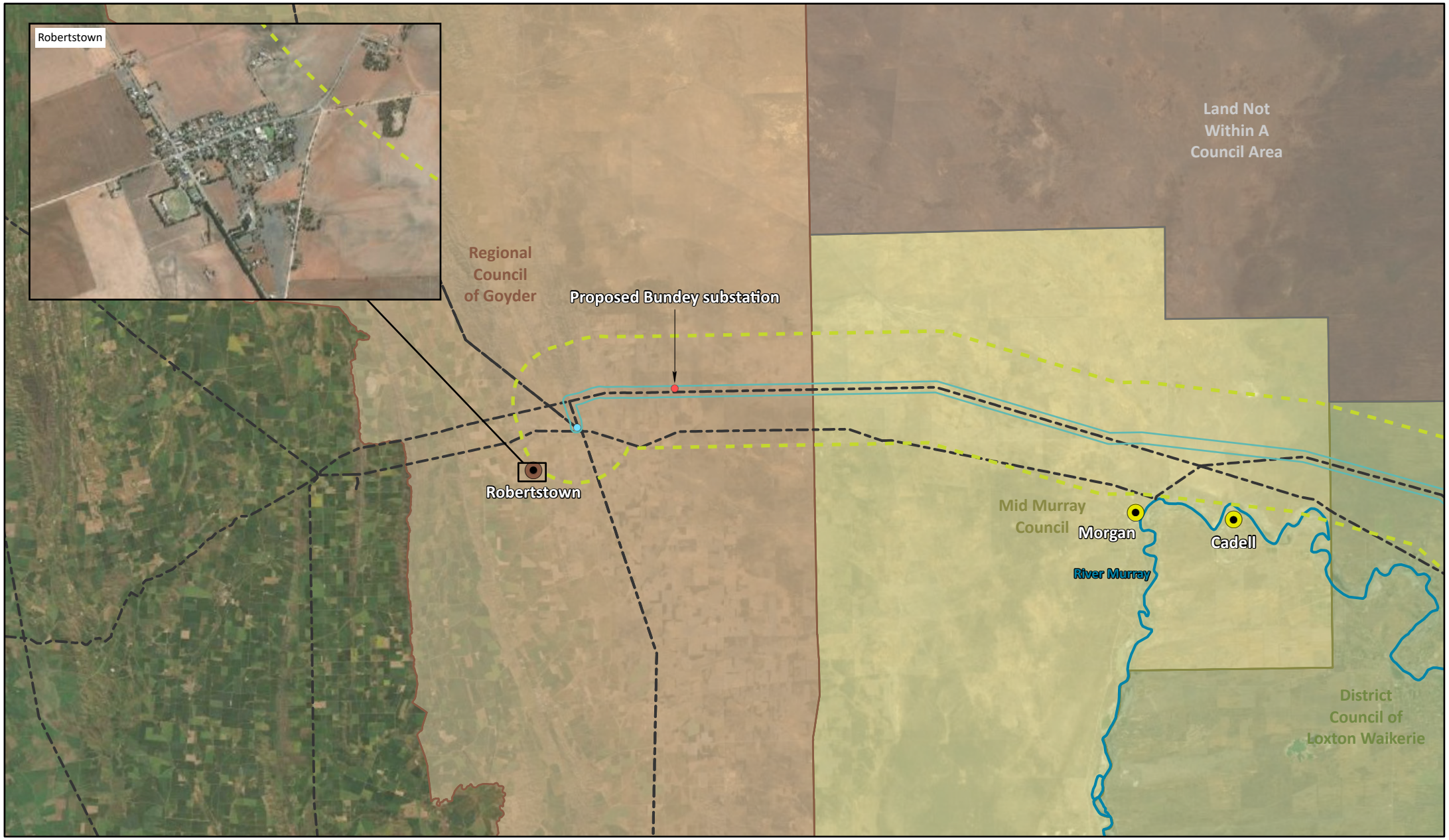
The community of Cooltong is located approximately 10 km north-west of Renmark and is predominantly comprised of irrigated grape, citrus and other fruit blocks. The community is bordered to the south-west by the Cooltong Conservation Park and by Calperum Station to the west and north. Cooltong is located within 2 km of the proposed alignment.

Paringa is a township in its own right, largely acting as a satellite town for the much larger Renmark.

Transmission line corridor

Twenty-one individual landholders hold fifty-nine individual land parcels within the transmission line corridor with cropping, grazing and irrigated horticulture the primary land uses on these properties. Seven pastoral leases are located along the eastern end of the transmission line corridor which includes Calperum, Taylorville and Hawks Nest Stations. These properties are largely utilised for conservation and nature-based tourism purposes. Further information on land tenure and land uses on the transmission line corridor is provided in Chapter 9 Land Use and Tenure.

Figure 17-2 to Figure 17-5 show the locations of the closest townships in relation to the transmission line corridor. The Figures are arranged in terms of the four corridor sections described in Section 9.3.2 and in Chapter 4 Route Selection.



Local government area
- Land Not Within A Council Area
- Mid Murray Council
- District Council of Loxton Waikerie
- Regional Council of Goyder

- Local Project context (5 km buffer)
- Transmission line corridor
- Existing ElectraNet transmission line
- River Murray

- Proposed Bundey substation
- Existing Robertstown substation

Towns in local government area
- Mid Murray Council
- Regional Council of Goyder

Figure 17-2
Location of townships in proximity to the transmission line corridor - Robertstown

0 20
Kilometres

N

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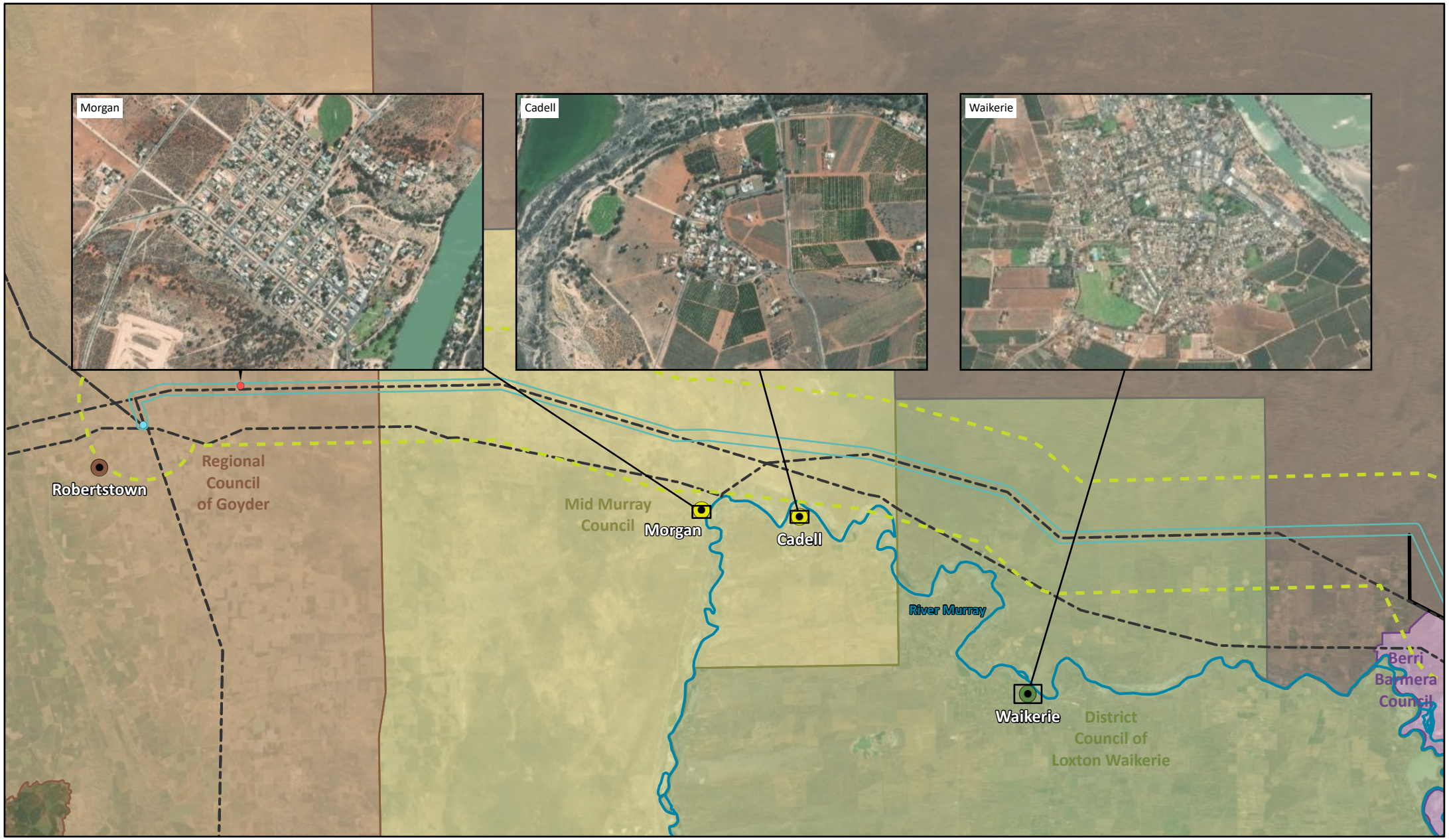


Local government area
- Land Not Within A Council Area
- Mid Murray Council
- Berri Barmera Council
- District Council of Loxton Waikerie
- Regional Council of Goyder

- Local Project context (5 km buffer)
- Transmission line corridor
- Cultural heritage avoidance alignment
- Existing ElectraNet transmission line
- River Murray

- Proposed Bundey substation
- Existing Robertstown substation

Towns in local government area
- Mid Murray Council
- District Council of Loxton Waikerie
- Regional Council of Goyder

Figure 17-3
Location of townships in proximity to the transmission line corridor – Morgan, Cadell and Waikerie

0 20
Kilometres
N

ElectraNet
energy connect
JBS&G

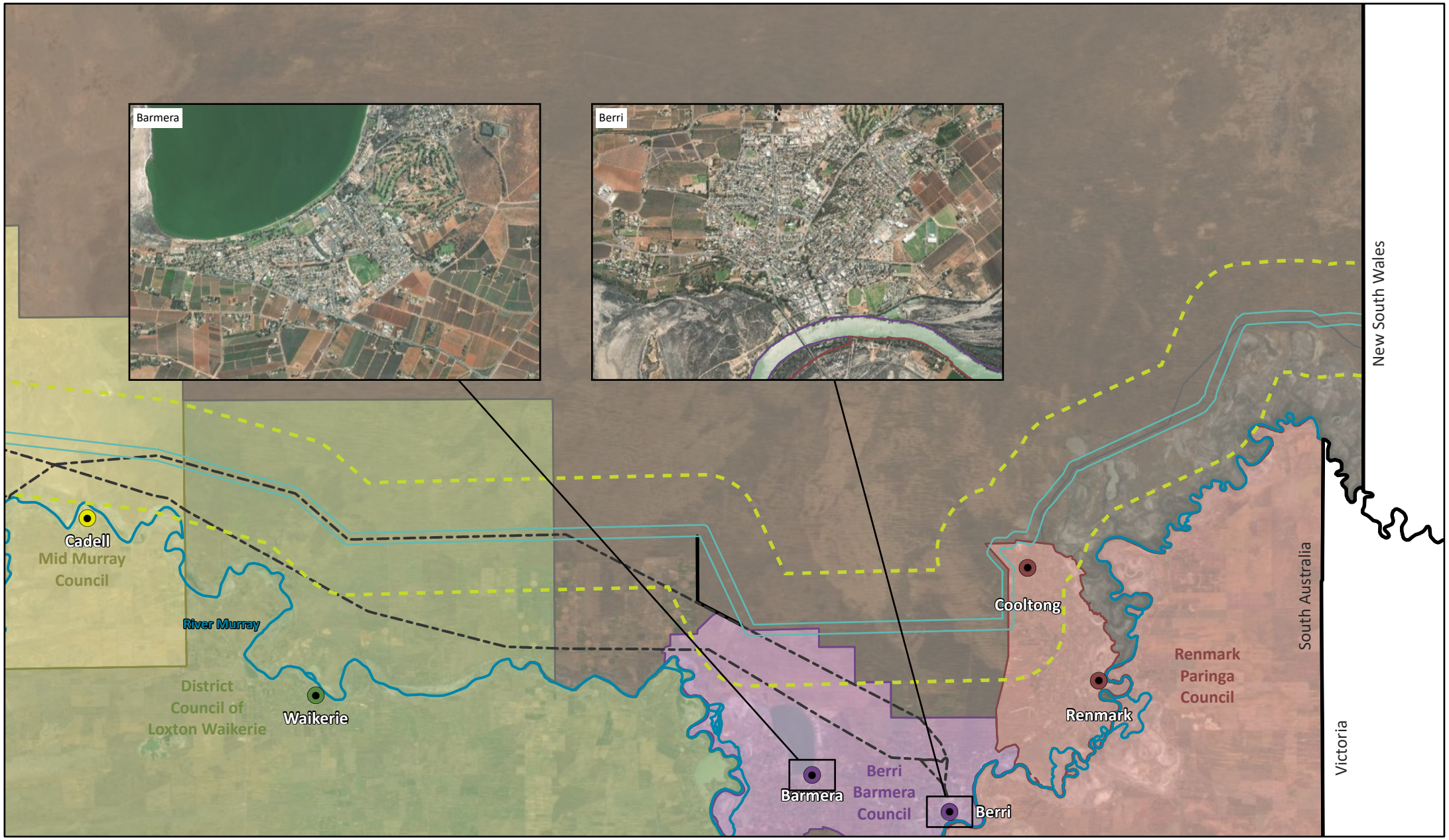
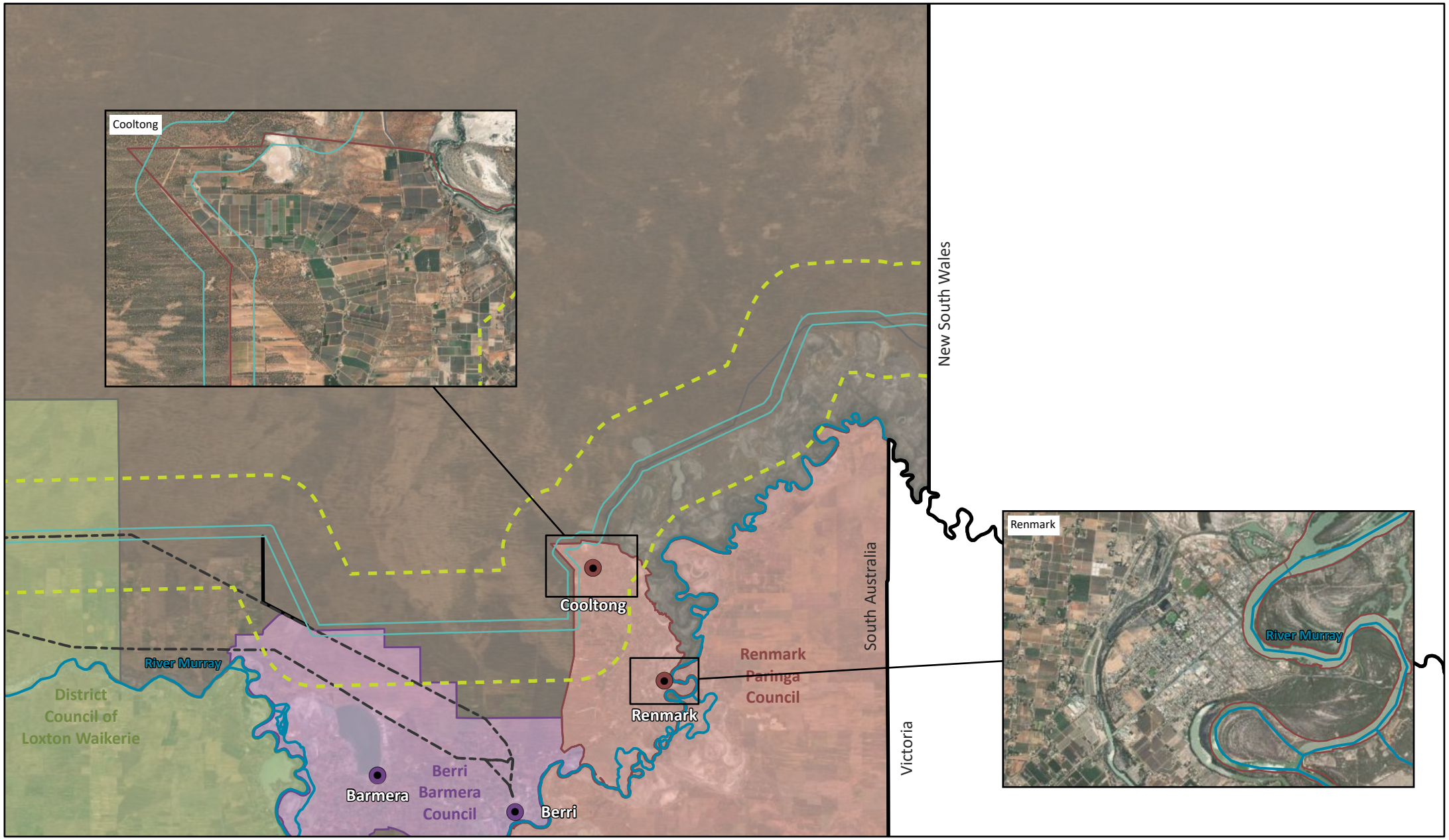


Figure 17-4
Location of townships in proximity to the transmission line corridor – Barmera and Berri



Local government area
- Land Not Within A Council Area
- Renmark Paringa Council
- Berri Barmera Council
- District Council of Loxton Waikerie

- Local Project context (5 km buffer)
- Transmission line corridor
- Cultural heritage avoidance alignment
- Existing ElectraNet transmission line
- River Murray

Towns in local government area
- Renmark Paringa Council
- Berri Barmera Council

Figure 17-5
Location of townships in proximity to the transmission line corridor – Cooltong and Renmark

0 20
Kilometres
N

ElectraNet
energy connect
JBS&G

17.3.2. Baseline socio-economic environment

The baseline environment is described for the following key social and economic indicators:

- population and demography
- households and families
- housing and accommodation
- employment, income and industry
- economic profile
- social services and facilities
- social character, health and wellbeing.

The different aspects of the baseline environment in the study area are discussed in detail below and summarised in Table 17-3. A snapshot of key characteristics is provided in Figure 17-6.

Table 17-3: Summary of study area baseline environment

Key social and economic aspect	Summary description of the study area
Population and demography	The population in the study area is characterised by low population density, generally slow population increase, with population decrease in some LGAs and local townships. The population is generally older, on an ageing trend, with a lower proportion of younger people compared to the State, and a generally balanced gender ratio. Educational attainment for the region is lower than the State average. A higher proportion of households speak only English at home when compared to the State. These characteristics are also expected to be reflected in the local Project context due to the rural nature of the social environment.
Households and families	The study area has a higher proportion of single person households and couples without children, a lower proportion of couples with children and a lower than State average number of people per household.
Housing and accommodation	Median house prices have increased in all LGAs apart from small decreases in Goyder and Mid Murray. Median weekly rent increases are generally consistent with or lower than State average. Vacancy rates in the study area are very low (0.5%), indicating a potential undersupply of housing. Tourism accommodation room occupancy during peak seasons is generally 50% across the Riverland tourism region.
Employment, income and industry	The labour force participation rate is lower in comparison to the rest of the State, and the unemployment rate has also generally been lower relative to the State. Weekly individual and household incomes are generally lower than the State average. Agriculture is the largest employer of people with 21% of employees in the sector (3,527 employed persons from a total of 16,531 employed persons in the study area). This is followed by health and social assistance, manufacturing and construction.
Economic profile	The Riverland LGAs are characterised by a primary production economy which includes fruits, nuts, vegetables, grains and wine grapes particularly in areas along the River Murray. River-based tourism also contributes to the Riverland economy. Renewable energy generation is an emerging industry particularly at the western end of the proposed alignment in the Goyder LGA, with other projects proposed for the Riverland LGAs in the study area. As the land closer to the alignment is unsuitable for cropping, the local economy is based on dryland grazing (e.g. sheep and cattle), along with some nature-based tourism. Agriculture dominates the contribution to gross regional product (GRP) in the study area, contributing 31% ($753 million) of a regional total of $2.4 billion. Overall

Key social and economic aspect	Summary description of the study area
	tourism contribution to the GRP of the study area is only a small portion ($5.3 million) compared to the value of agriculture.
Social services and facilities	A range of health, education, and emergency services are available across the study area, particularly in the larger townships. The majority of the LGAs had a high level of residents able to get support outside their household in times of crisis.
Social character and wellbeing	Health indicators show that the rate of avoidable deaths is higher in the study area than the State, and the age of death is lower. The incidence of disabled residents is higher in all of the LGAs than the State incidence. Indices used to measure relative advantage and disadvantage indicate that no LGA in the study area came within the top 50% of LGAs on any of the four indices, in either South Australia or Australia (refer Section 17.3.10).

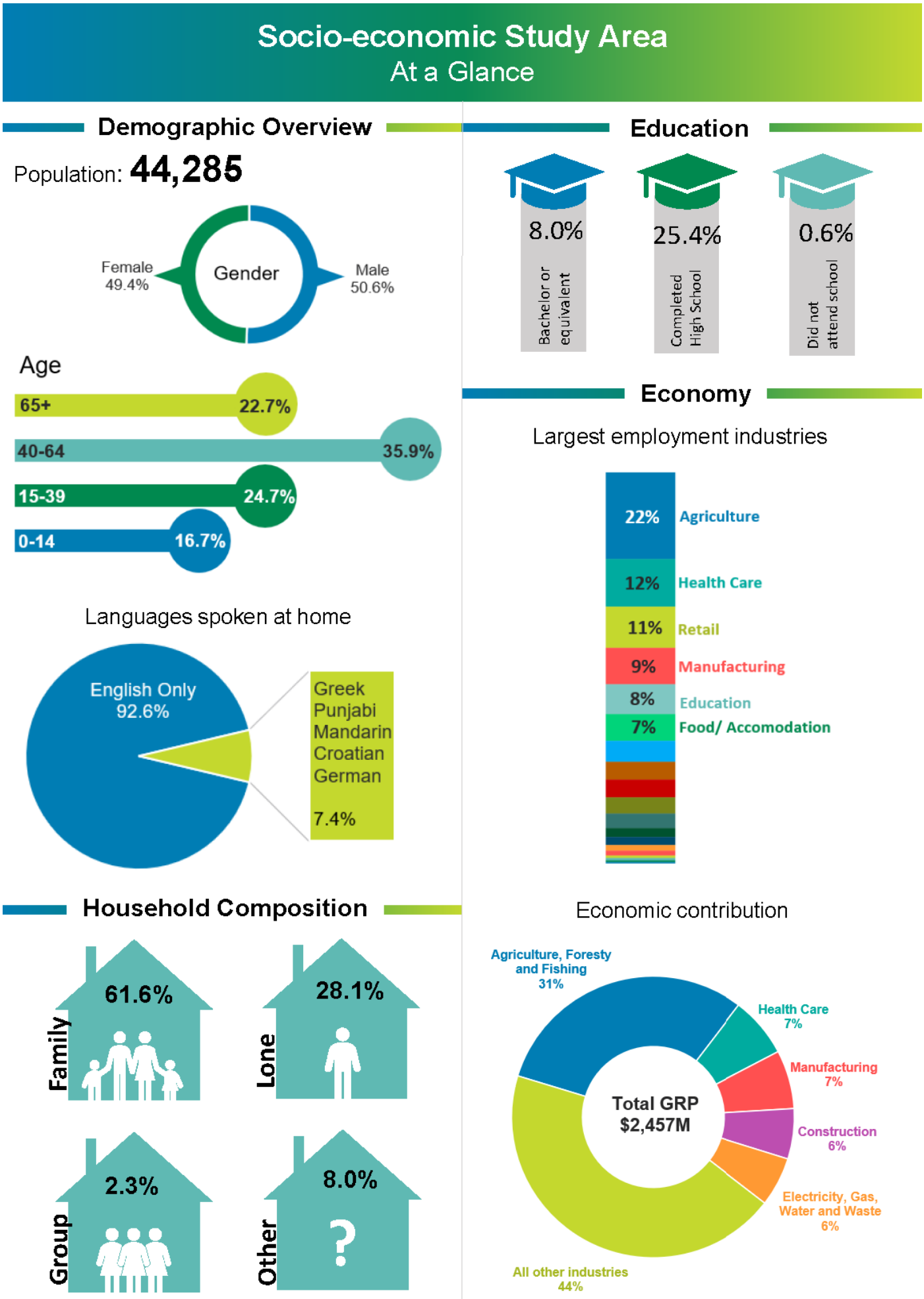


Figure 17-6: Socio-economic study area at a glance

17.3.3. Population and demography

Five key indicators inform the population and demography character of the study area – population, age, gender, language spoken at home, and education. The specific data for each LGA in the study area is provided in Appendix N and is summarised here[4].

Population trends

The total population across the study area is approximately 44,300 and there has been no significant change between 2006 and 2016, increasing only 0.2% over that period, compared to the state-wide increase of 11%. Populations by LGA have decreased in Goyder, Loxton Waikerie and Berri Barmera, remained stable in Renmark Paringa, and grown in Mid Murray. Loxton Waikerie, Berri Barmera and Renmark Paringa all experienced population decreases between 2006 and 2011 but had recovered slightly by 2016 (refer Figure 17-7).

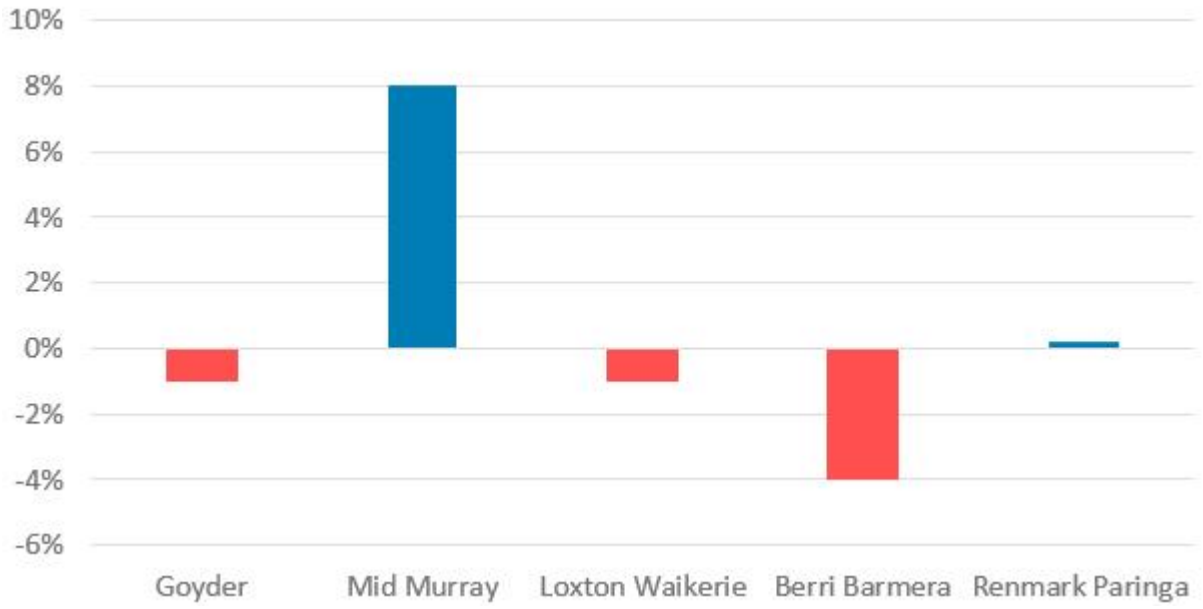


Figure 17-7: LGA population change 2006 – 2016
Source: ABS 2017a

Similarly mixed trends are apparent at the local level between 2011 and 2016, as shown in Table 17-4, with small population increases in the townships of Renmark, Morgan and Barmera, a small decrease in Berri and no change in Waikerie. Robertstown experienced a population decline in the period, while Cooltong and Cadell had population increases.

While there is limited information available to explain these population trends at the local scale, slow growth and population decline in the Riverland has been attributed to the outward migration of residents due to limited opportunities and a decline in irrigation (SA CES, 2012).

Table 17-4: Population change in townships 2011 to 2016

Township / community	LGA	Census year population		Population change
		2011	2016	
Robertstown[1]	Goyder	336	248	-26%
Morgan[2]	Mid Murray	323	339	+5%
Cadell[1]	Mid Murray	441	548	+24%[3]

[4] The data presented is representative of the broader regional area. The local Project context is expected to be more representative of a rural population and demographic.

Township / community	LGA	Census year population		Population change
		2011	2016	
Waikerie[2]	Loxton Waikerie	1,633	1,632	0%
Barmera[2]	Berri Barmera	1,914	1,939	+1.3%
Berri[2]	Berri Barmera	4,103	4,088	-2.3%
Renmark[2]	Renmark Paringa	4,387	4,634	+5.6%
Cooltong[1]	Renmark Paringa	317	333	+5%

[1] SSC
[2] UCL
[3] The increase shown is likely to be exaggerated due to an increase in the SSC area between 2011 and 2016

Age and gender trends

All LGAs in the study area have older populations with a lower proportion of people in the 25 to 39 year age bracket compared to South Australia as a whole. Mid Murray has the oldest population with the lowest number of young people and children (0 – 24 years) (refer Figure 17-8). The population change in the study area among age groups between 2011 and 2016 also reflects an ageing population demographic with four of the five LGAs experiencing an increase in the 65 years and over age group greater than the State as a whole (refer Figure 17-9).

The likely explanation for the age distribution in the study area is a reflection of wider trends across regional Australia, as young people seek educational and employment opportunities in larger regional and metropolitan centres, and older urban populations migrate into rural landscapes and small regional towns (Luck *et al*. 2010, URS and URPS 2013).

The gender ratio across the study area was generally equal, with a slightly higher proportion of males in the populations in Goyder and Mid Murray, even distribution in Loxton Waikerie and Berri Barmera, and a slightly greater proportion of females in Renmark Paringa.

The gender ratio varies between communities in the local context with Robertstown, Waikerie, Barmera, Berri and Renmark having higher proportions of females, and Morgan, Cadell and Cooltong having higher proportions of males. The proportion of males in the community of Cadell is significantly higher than females (73 % to 27 %) which reflects small population size and the data influence of the Cadell Training Centre which accommodates male low security prisoners.

Population density

Assessing the population density of townships and LGAs for the region is complicated by the various geographical boundaries for Census statistical areas. Figure 17-10 shows the available data (ABS 2017a) to provide the broad context of population density in the Riverland region.

Higher density population centres are in the LGAs of Renmark Paringa and Berri Barmera. As noted previously, the alignment does not traverse any population centres, and is distant from most local communities and townships, except for the irrigated horticulture area of Cooltong. Figure 17-2 to Figure 17-5 provide aerial representations of the density of housing and road infrastructure within townships closest to the transmission line corridor.

Due to the rural and conservation land uses along the proposed alignment, population density in the local area proximate to the alignment is very low.

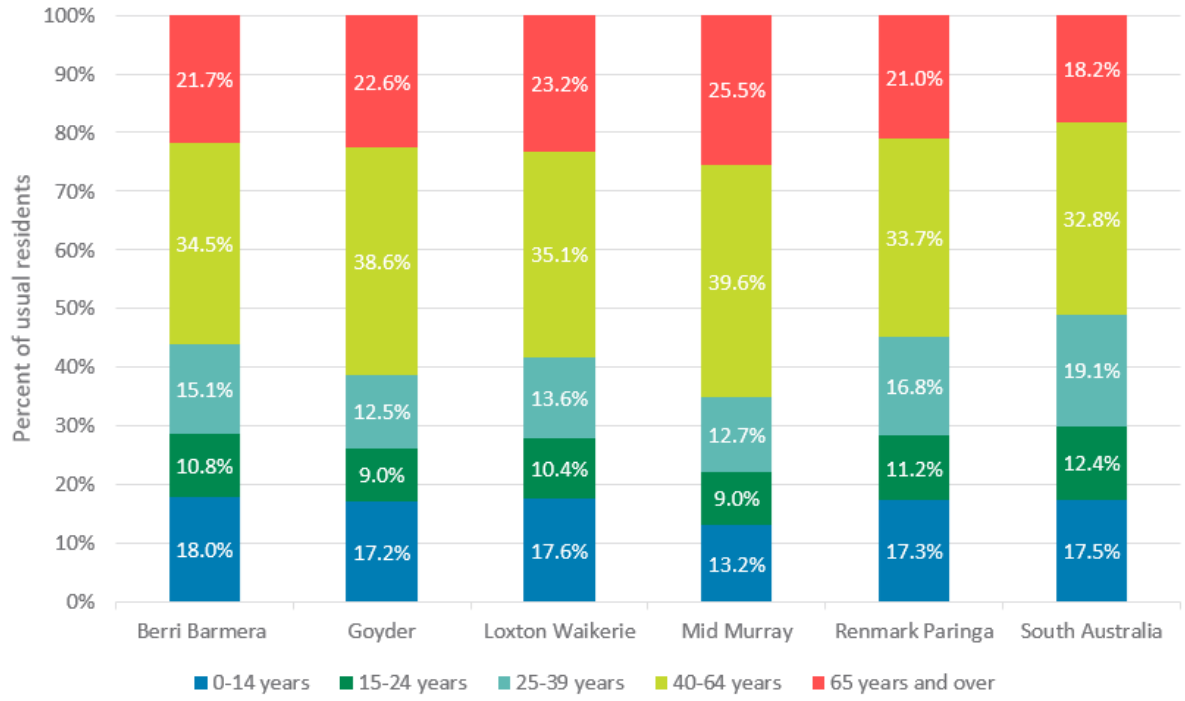


Figure 17-8: Age group profiles in study area and South Australia

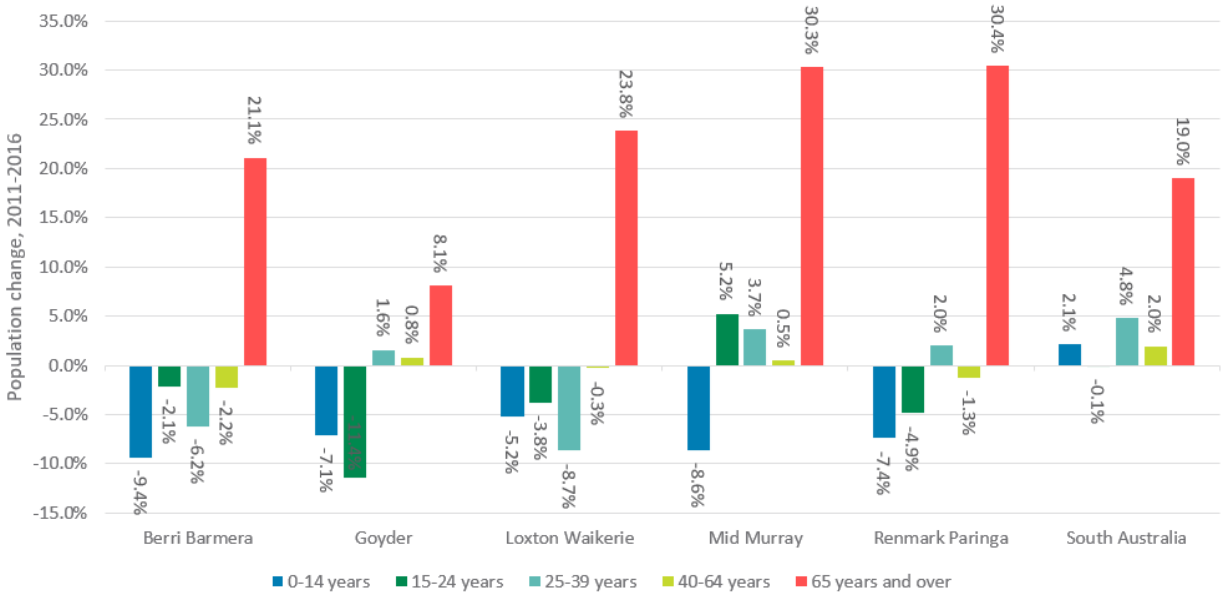


Figure 17-9: Population change among age groups in the study area and South Australia (2011–2016)

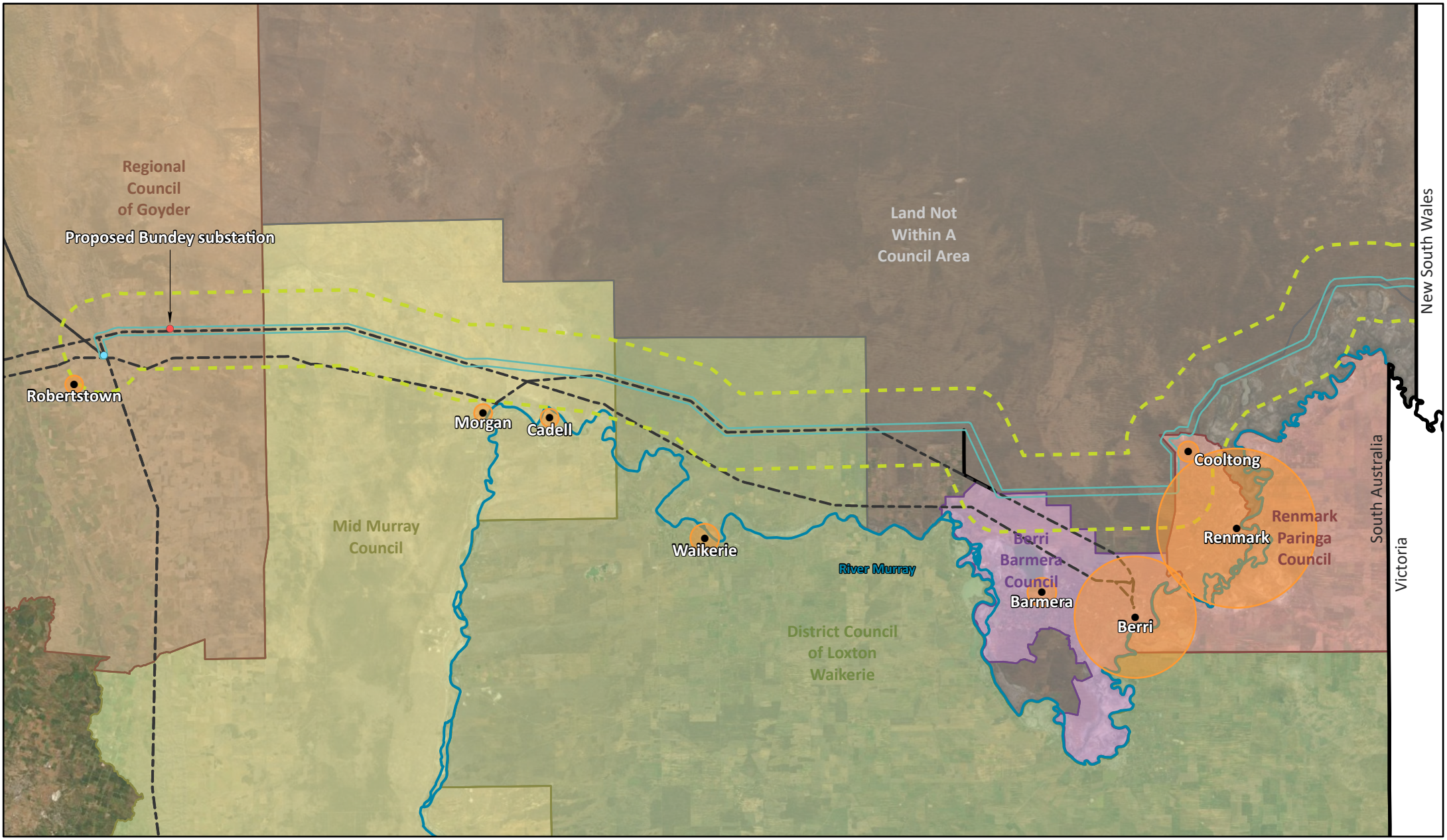


Figure 17-10
Relative population densities of townships in proximity to the transmission line corridor

Language and education trends

Across the study area, the proportion of the population speaking English as a main language is approximately 93%, which remained relatively stable between 2006 and 2016. At the local scale, the change in the percentage of people who speak English at home over that period varies between no change in Barmera to a 4% decrease in Berri and Waikerie indicating that the broader region is diversifying albeit at a slower rate than the rest of South Australia.

The proportion of the study area population with at least year 12 or equivalent level education has increased between 2006 and 2016 from 20 % to 26 %, with an increase in every LGA and local township. This increasing trend is comparable to the increase across South Australia, but remains a lower level of attainment than the State level of 40 % in 2016.

This level of educational attainment is generally consistent with rural populations across the State when compared to metropolitan centres and may reflect that many of the important industries in the study area (e.g. agriculture, horticulture, viticulture and animal husbandry are often multi-generational family businesses and do not necessarily require formal qualifications (James 2000). There is also a broad trend in the State of rural out-migration, with individuals seeking education and further formal qualifications in larger centres.

17.3.4. Households and families

Household and family data provide context for characterising the role and function of a population centre within the broader region, insight into population and settlement patterns, and act as an indicator of current and future demand for services. Figure 17-11 shows the types of households present throughout the LGAs in the study area, and those in all of South Australia.

While LGAs in the study area are broadly similar in household composition to the broader South Australian community, there are higher-than-average proportions of single person households and couples without children, and lower proportions of couples with children. This trend is likely due to the higher than average percentage of older couples in the area who have relocated for retirement or whose adult children have moved out of the family home.

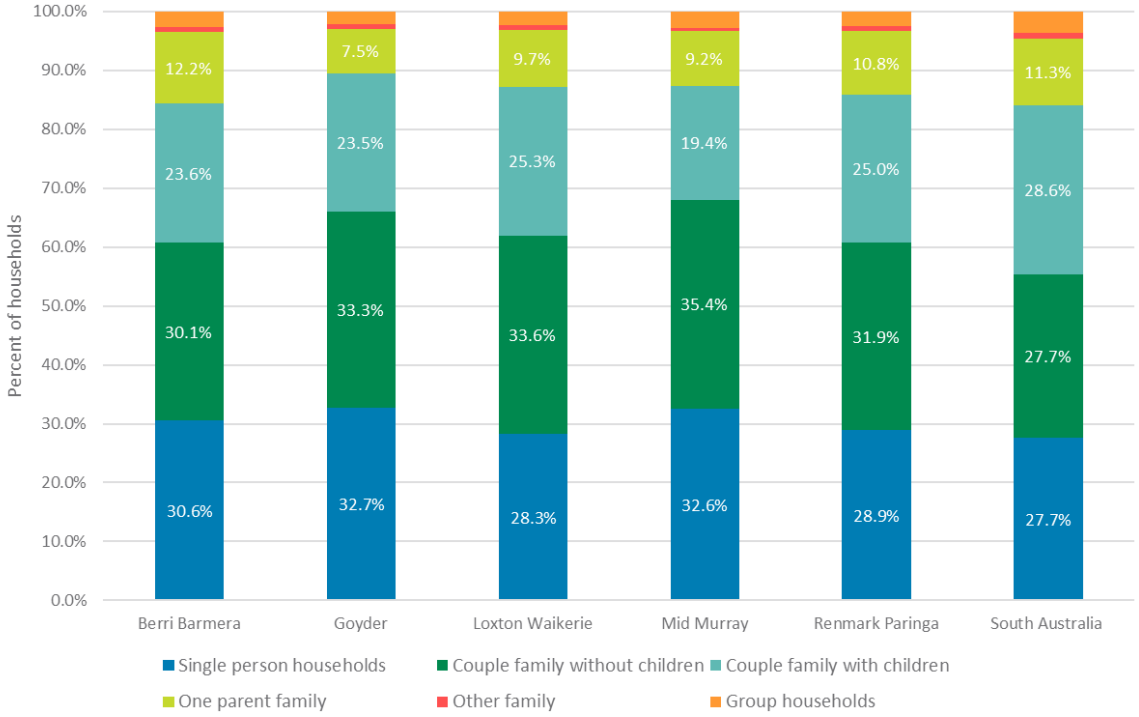


Figure 17-11: Household types in LGAs and South Australia 2016
Source: ABS 2017a

17.3.5. Housing and accommodation

The higher proportion of single-person households described in Section 17.3.4 corresponds to a lower than the State average number of people per household, particularly in the township of Morgan, which has an average of 1.9 people per household, compared to the State average of 2.4. Although population density is low in Cooltong, the proportion of people per household is higher than the State average, with an average of 2.6 people per household, and is the highest in the study area.

Across the study area residential property has become more expensive to rent and buy, mirroring trends across rural South Australia. There are regional differences in the number of residential vacancies across the study area but median weekly rent increases are comparable to the average increases across South Australia.

Table 17-5 provides a summary of housing types, occupancy rates, tenure and affordability in the LGAs in the study area.

Table 17-5: Housing types, occupancy rates and tenure in study area LGAs, 2016

	Berri Barmera	Goyder	Loxton Waikerie	Mid Murray	Renmark Paringa	South Australia
All private dwellings						
Total (number)	5106	2203	5604	**6754**[1]	4506	765,786
Occupied (%)	**88.5**	80.3	84.8	**54.6**	87.2	87.4
Unoccupied (%)[2]	**10.7**	18.5	14.4	**43**	12	12
Dwelling structure (%)						
Separate house	**86.4**	94.5	89.4	**95.2**	88.2	77.8
Semi-detached, townhouse	**7.1**	2.6	6.0	**1.1**	3.9	14.8
Unit or apartment	5.0	**0.0**	2.9	0.2	**5.4**	6.6
Other dwelling	**0.8**	1.6	1.1	**2.6**	1.6	0.5
Tenure (as %)						
Owned outright	**33.6**	46.0	40.0	**45.0**	34.1	31.0
Owned with a mortgage	30.7	**28.8**	30.1	**32.1**	31.8	34.5
Rented	**30.6**	21.0	24.9	**19.2**	29.4	30.9
Other / Not stated	**5.2**	4.2	4.9	**3.8**	4.7	3.7
Affordability						
Median weekly rent ($)	**180**	**150**	175	175	175	260
Households where rent payments are less than 30% of household income (%)	**91.2**	**95.3**	94.0	94.3	92.8	89.8
Median monthly mortgage repayment ($)	**1083**	**867**	1040	1000	**1083**	1491
Households where mortgage repayments are less than 30% of household income (%)	95.3	**95.7**	94.9	**93.0**	94.5	93.4

Source: ABS 2017a

[1] Bolded values indicate data extremes (e.g. highest and lowest values across the study area)

[2] Unoccupied dwellings includes holiday rental homes

Housing occupancy

Each LGA has a higher proportion of standalone houses than the State average, which is indicative of rural, less densely populated areas. Four of the five LGAs have similar occupancy rates to the State average; the exception being Mid Murray, which had the lowest occupancy rate. The Mid Murray LGA

includes a 220 km stretch of the River Murray, and as such contains a significant number of holiday rental homes which do not experience full-time tenancy.

Housing availability

The vacancy rate provides an indication of the availability of rental housing and the capacity of the housing rental market to absorb increased demand, with a vacancy rate of three percent generally accepted as the market being in balance (OnProperty 2020). Across the broader region, vacancy rates at the time of the assessment are very low at 0.5 %, after a recent peak of 1.5 % in April 2020 (SQM Research 2021). A low vacancy rate indicates there is a potential undersupply of housing.

The number of residential vacancies within the study area has generally declined between 2014 and 2019 with a mixed picture at the LGA level[5]. Loxton Waikerie and Renmark Paringa have experienced an increase (albeit off a low base in 2014) while Goyder, Mid Murray and Berri Barmera all experienced declines. Goyder has the lowest number of vacancies. Further detail is provided in Appendix N.

Housing affordability

Similar to wider rural South Australia, median house prices in Loxton Waikerie, Berri Barmera and Renmark Paringa increased between 2014 and 2019. In particular the increases in Berri Barmera and Renmark Paringa were around six times the State average, suggesting a spike in demand that is not being met by supply. As discussed, the demographic trends show an increasing proportion of older residents in these LGAs between 2011 and 2016, suggesting more older people are seeing these regional areas as favourable to live in. Median house prices decreased marginally between 2014 and 2018 in Goyder and Mid Murray.

Despite the increases in Berri Barmera and Loxton Waikerie, the proportion of households where mortgage repayments are over 30% of household income (a general measure of financial difficulty; ABS 2017a) is still generally lower than the South Australian average.

Across the study area, the median weekly rent paid by households increased from $115 per week to $184 per week (+60%) between 2006 and 2016. By comparison, in South Australia as a whole the median weekly rent has increased from $150 per week to $260 per week (+73%) over the same period. The lowest median weekly rents are paid in Goyder and the highest median weekly rents are paid in Berri Barmera.

Visitor accommodation

A range of visitor and short-term accommodation options are available across the study area, and specifically in the Riverland townships along the River Murray to the south of the transmission line corridor.

The Riverland region receives 1.35 million visitor nights per annum, with 85% comprising domestic visitors (i.e. intrastate / interstate) (SATC 2020a). The holiday sector generates nearly 60% of visitor nights, with other significant generators being visiting friends and relatives and visitors for business. Accommodation types most utilised by domestic visitors are caravan parks and camping grounds (40%), friends or relatives (27%) and hotels / motels and other commercial accommodation (19%).

The peak for accommodation occupancy (hotels, motels and serviced apartments) is in May and October with occupancy rates of 49%, and is lowest December (under 40%). As occupancy at riverfront caravan parks and houseboats is generally considered to peak during the summer school holiday period, overall the winter months would be expected to experience the lowest seasonal visitor accommodation occupancy (SATC 2015).

[5] This data is reliant on publicly listed residential vacancies, and may exclude privately available vacant properties, or those targeted more narrowly (listed on social media, or offline on community notice boards, etc).

17.3.6. Employment, income and industry

Labour force participation

Labour force participation data within the study area presented in Table 17-6 shows a lower participation rate compared to South Australia. The lowest participation was experienced in the Mid Murray LGA, which correlates to the older demographic (see Section 17.3.2) with the lowest number of young people and children as compared to the other LGAs.

Labour force trends across the study area show lower rates of unemployment than the State average, lower overall labour force participation and a higher proportion of the labour force away for work.

Table 17-6: Labour force participation in the study area and South Australia, 2016

Labour force participation (%)	Berri Barmera	Goyder	Loxton Waikerie	Mid Murray	Renmark Paringa	South Australia
Worked full-time	55.6	52.8	55.8	52.7	54.9	**53.9**
Worked part-time	32.5	34.2	33.5	35.1	32.4	**33.5**
Away from work	5.1	6.8	5.9	5.7	5.7	**5**
Unemployed	6.8	6.3	4.7	6.5	6.9	**7.5**
Total labour force participation (number)	4,630	1,818	5,244	3,514	4,369	**806,589**
Total labour force participation (% of total population)	43.91	43.96	45.65	40.66	46.11	**48.11**

Source: ABS 2017a

Unemployment trends

The unemployment rate has increased in the study area between 2006 and 2018 from 4.9% to 5.6%. In comparison, the unemployment rates in South Australia as a whole were 5.2% and 5.7% respectively. The unemployment rate has generally been lower in the study area relative to the State, with the exception of 2011 when the agriculture-dominated economy in the study area was recovering from the millennium drought and subsequent drought-breaking weather events (DEW 2021b). Between 2006 and 2018, the unemployment rate increased in all study area LGAs with the exception of Mid Murray, where the unemployment rate decreased from 5.8% in 2006 to 5.4% in 2018. This lower unemployment rate, along with the lower overall labour force participation, is likely indicative of the older population discussed in Section 17.3.2.

Income trends

Table 17-7 summarises personal, family and household incomes for each LGA in the study area and South Australia in 2016. Each income measure is lower in all of the LGAs compared to the South Australian average, suggesting a general employment outlook offering lower incomes within the study area. The general trend in income growth is also lower throughout the study area, with the exception of Goyder and Mid Murray, which may be explained by increases in higher-paying industries such as mining and construction.

Table 17-7: Median weekly incomes in the study area and South Australia, 2016

	Berri Barmera	Goyder	Loxton Waikerie	Mid Murray	Renmark Paringa	South Australia
Personal ($)	533	481	552	473	550	600
Family ($)	1,252	1,184	1,286	1,096	1,256	1,510
Household ($)	976	891	1,005	839	1,016	1,206

Source: ABS 2017a

Across the LGAs in the study area, the proportion of the population earning over $104,000 per year has increased from around 1% to 2.4% between 2006 and 2016, which is a much lower rate of increase

than South Australia (1.8% to 4.6%). At the local level, the largest increase (2.7%) occurred in Morgan, where in 2011 none of the population were regarded as high income earners. Small increases were also seen in Renmark, Barmera, Berri and Waikerie.

The trends towards lower weekly incomes and lower proportion of high income earners may also be the result of a larger demographic relying on residual or fixed incomes, such as retirees.

Industry of employment

Agriculture is the largest employer of people within the study area, with 21% of employees occupied in the agriculture, forestry and fishing sector. This is followed by health care and social assistance, retail trade, manufacturing, education and training and accommodation and food services[6]. These six sectors account for 66% of the employed persons in the study area and overall, employee numbers have increased by 3% between 2006 and 2016.

Growth trends in employee numbers in the study area between 2006 and 2016 have been in health care and social assistance, education and training and accommodation and food services. While agriculture has traditionally been the most prominent industry, it is in decline as far as total jobs available (BDO EconSearch 2020). This is likely due to technological advancements in agricultural practices potentially superseding roles, and employment of an increasingly casualised seasonal workforce (e.g. vintage / fruit picking) in the region. The rise in health care and social assistance work is likely a market response to the aging population amongst the LGAs. Manufacturing and retail have also declined over the studied period.

Although data is not available for the local Project context, the desktop assessment indicates that the key industry of employment for people within and in proximity to the majority of the transmission line corridor is also likely to be agriculture, given the identified land uses and the greater distance to townships which might preclude involvement in other industries of employment.

17.3.7. Economic profile

Gross Regional Product

Gross regional product (GRP) is a measure of the net contribution of an activity to the regional economy and is measured as value of output less the cost of goods and services (including imports) used in producing the output.

GRP is valued in the study area is valued at $2.4 billion of which agriculture makes up 31% ($753 million). This is followed by health and social assistance ($171 million, 7% of GRP), manufacturing ($165 million, 7%) of GRP), construction ($142 million, 6% of GRP) and electricity, gas, water and waste ($139 million, 6% of GRP). In aggregate, these sectors contribute $1,370 million to GRP in the study area (56%). GRP estimates by industry sector in the study area in 2017–18[7] are presented in Figure 17-12.

[6] It should be noted that Tourism is not a single industry sector, but is an activity that draws upon a number of industries such as Accommodation and Food Services, Retail Trade, Transport. Accordingly it is not discussed as a separate industry of employment.

[7] The estimates are derived from the economic model developed for the Study Area and are not available for smaller geographies, e.g. LGAs, townships or communities in the Study Area.

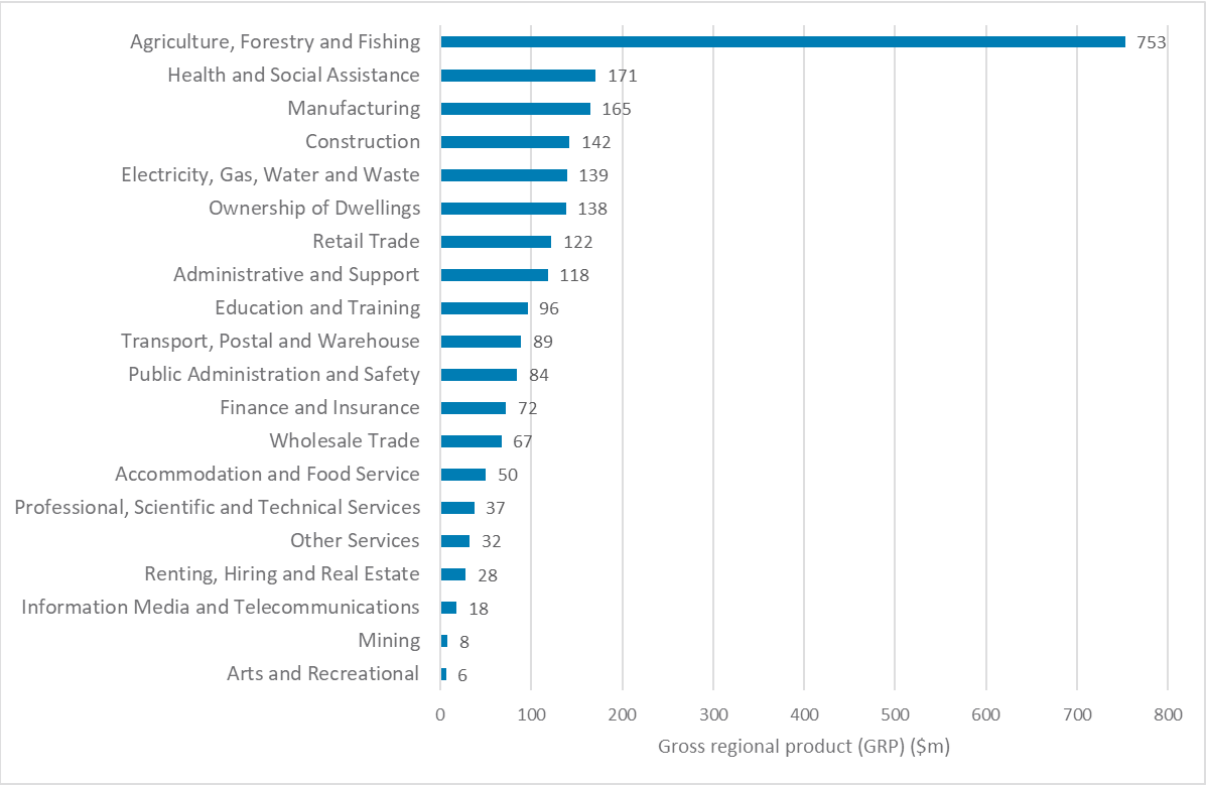


Figure 17-12: Gross Regional Product by industry in the study area ($m), 2017–2018
Source: BDO EconSearch analysis (Appendix N)

Agriculture

Data from the 2015 – 2016 Agricultural Census (ABS 2017b) indicated that the total value of agricultural output in the Riverland region[8]was $93 million. The largest contributors to agricultural output were grapes (29%) and citrus fruit (23.2%).

The Riverland region also produces 97.3% of the citrus fruit and 95.1% of the nuts produced in South Australia as a whole by produce value (ABS 2017b). Figure 17-13 shows the value of agricultural production by commodity type in the Riverland region.

Agricultural produce was also the largest industry in terms of total exports by industry sector for the region, accounting for 48.1% of the total region exports, at a value of approximately $752 million (ABS 2017b).

Agriculture (primarily grazing of marginal agricultural land at the western end of the alignment) is the primary land use within the transmission line corridor (refer Chapter 9 Land Use and Tenure). Although economic data is not available at this local scale, it is expected to be the largest industry in the local context in terms of GRP and employment.

[8] Note: to present a more accurate profile of the economy of the region and communities proximate to the Project with regard to agriculture, the data presented here focuses on the four LGAs which make up the Riverland region and excludes data from the Goyder LGA.

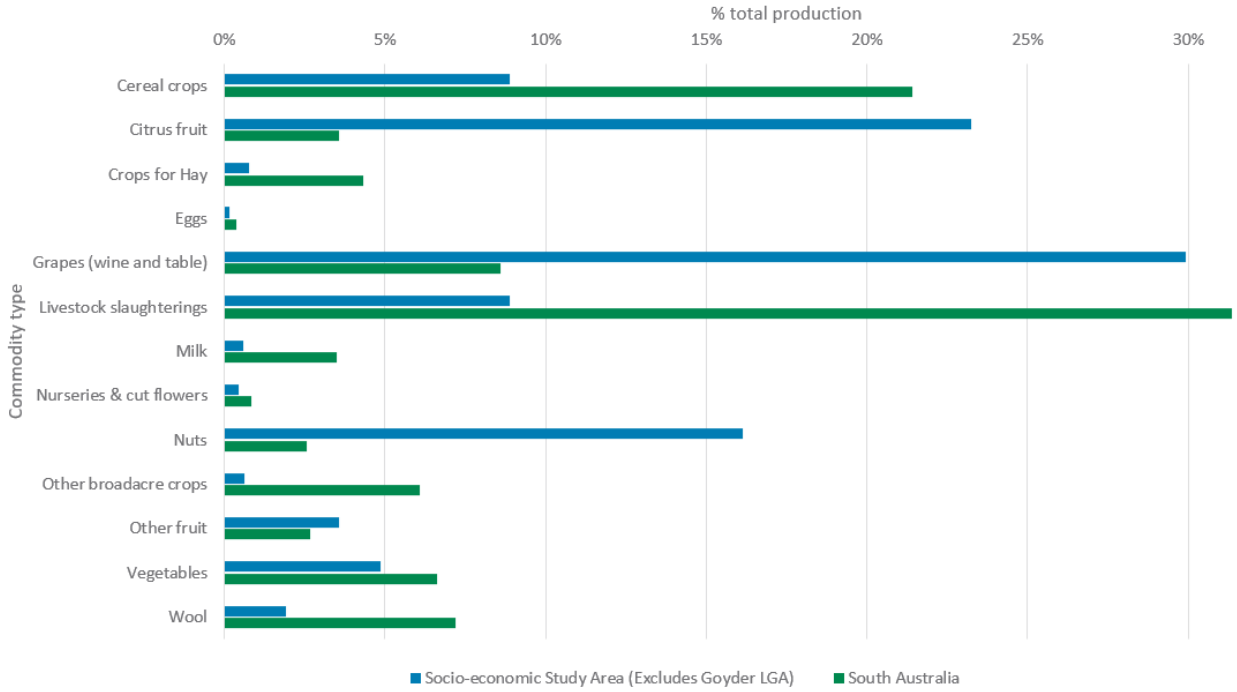


Figure 17-13: Value of agricultural production in the Riverland region 2015–2016
Source: ABS 2017b

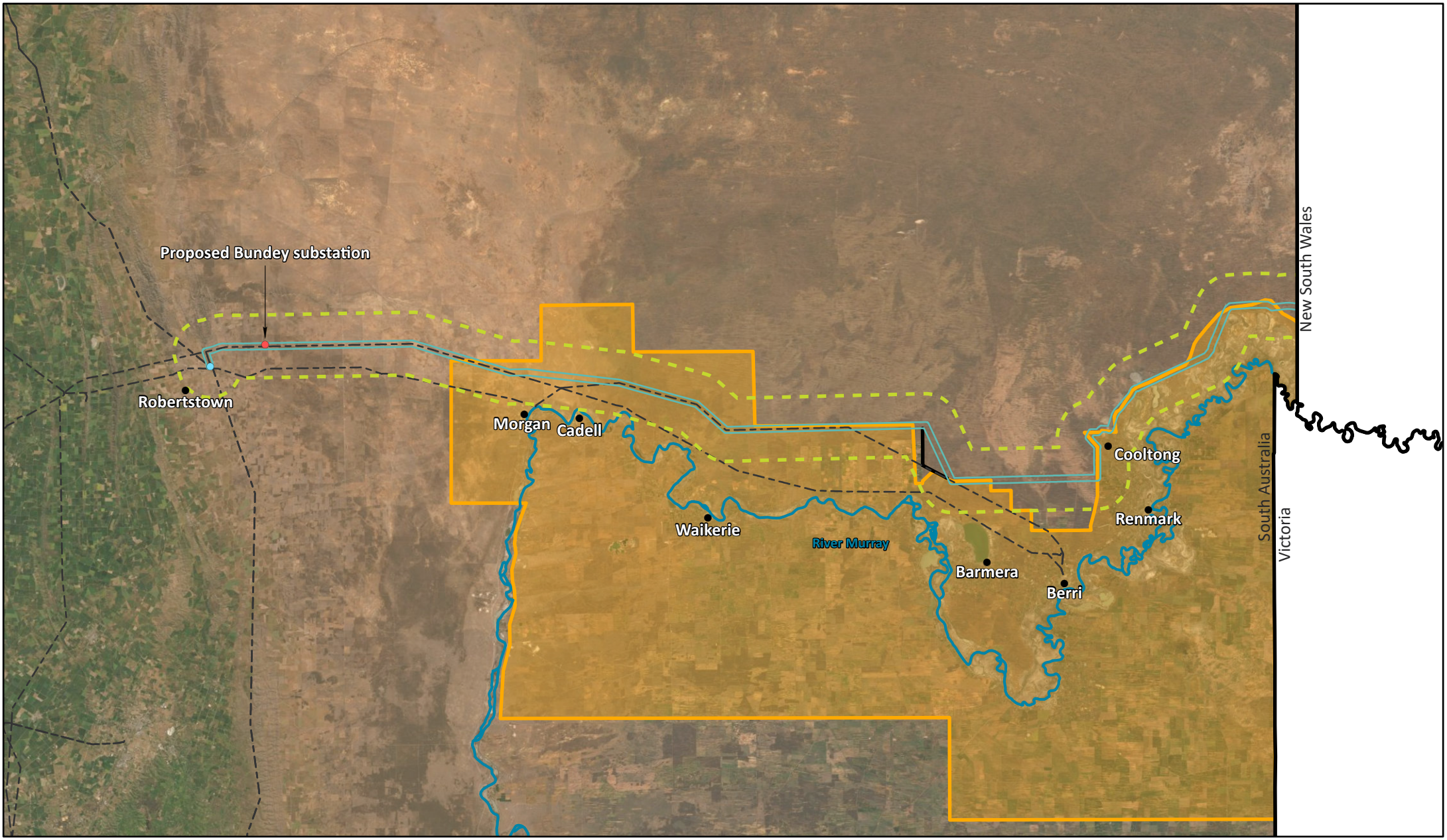
Tourism

Regional

A large part of the study area encompasses the Riverland region (refer Figure 17-14) with many of the tourism activities in the region centred on the River Murray. Recreational activities include houseboating, water skiing, kayaking / canoeing and fishing. Ecotourism is also popular in the region with stargazing, birdwatching, camping, hiking and sunrise / sunset experiences promoted as key ecotourism activities. River Murray history, Riverland produce, beverages and local community events also bring visitors to the region. A range of activities are available in many of the local townships, particularly those in proximity to the river, and are described in Appendix N.

As the tourism activities which focus on local townships along the River Murray are not in proximity to the transmission line corridor they are not described further here.

The economic contribution of tourism in the study area is driven by expenditure and can be quantified in terms of GRP and employment generated by tourism activity and associated flow-on effects. Although important locally, tourism does not play a large role in terms of economic contribution to GRP across the study area. Visitors to the study area spend around $8.1 million each year which generates around 55 fulltime equivalent jobs (including 16 from flow-on effects) and $5.3 million in GRP (including $1.9 million from flow-on effects) compared with Agriculture, which contributes approximately $753 million to GRP in the study area (see Appendix N).



Transmission line corridor
Local Project context (5 km buffer)
Indicative Riverland region
Cultural heritage avoidance alignment
Existing ElectraNet transmission line
River Murray
Proposed Bundey substation
Existing Robertstown substation

Figure 17-14
Indicative Riverland region

0 20
Kilometres

N

ElectraNet
energy connect
JBS&G

Local Project context

Calperum Station and Taylorville Station are pastoral leases situated along the central and eastern section of the transmission line corridor (Plate 17-1). The properties are important locally, nationally and internationally because of their intact mallee vegetation which provides habitat for populations of threatened bird species, and wetlands and related species. Both stations provide opportunities for scientific research, educational (including schools) and training programs, and recreational activities including camping, picnicking, bush walking, canoeing and bird watching (DAWE 2020b).

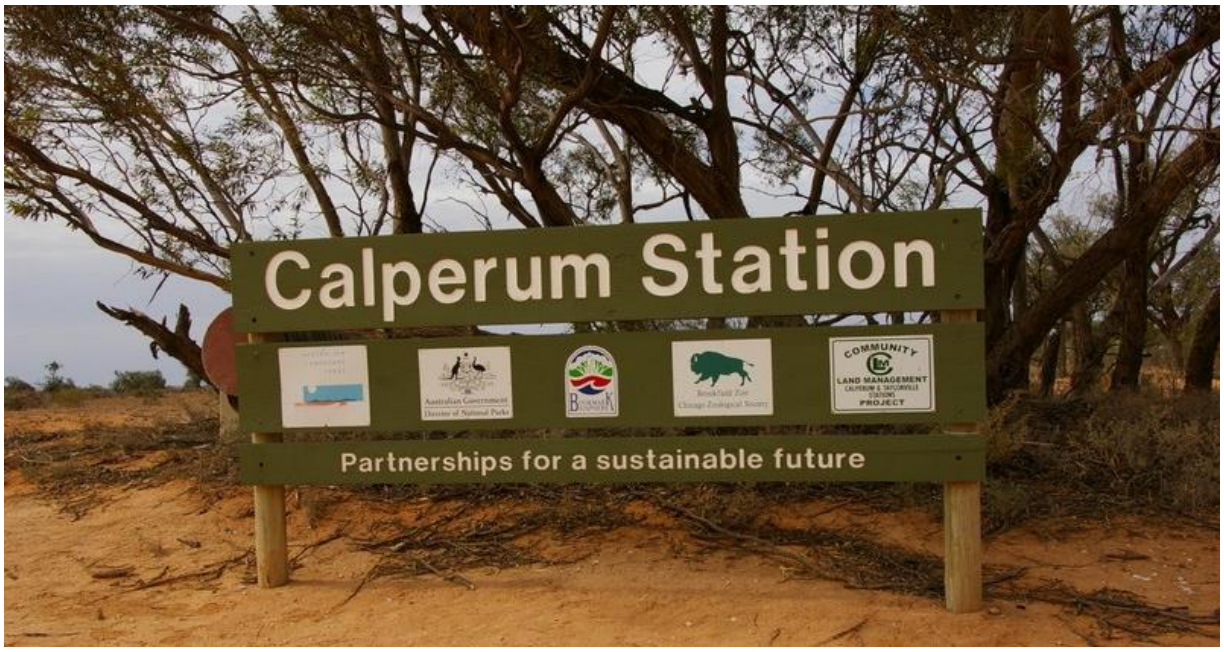


Plate 17-1: Entrance to Calperum Station

Chowilla Game Reserve and Regional Reserve which is situated 50 km north of Renmark comprises mallee, floodplain and wetland regions along the River Murray, and forms part of the Riverland Biosphere Reserve (Plate 17-2). Activities offered include camping, bush walking trails, canoeing and fishing (SATC 2020b).

Plate 17-2: Creekside campsite – Chowilla Game Reserve
Source: National Parks and Wildlife Service, South Australia

Renewable energy projects

There are a number of renewable energy projects in construction or due to start soon in proximity to the study area which are largely being driven by the establishment of the Mid North and Riverland Renewable Energy Zones and the proposed construction of the interconnector (refer Figure 2-5 and Chapter 2 Justification).

The Solar River Project Phase 1 and 2 is located 30 km from Robertstown, Stage 1 is expected to commence in late 2021 while Stage 2 will commence beyond 2022. The Robertstown Solar project, located 5 km north-east of Robertstown, is expected to commence beyond 2022.

The start date of a number of other significant renewable energy projects remains unclear, including the Riverland Solar Farm and Storage project located east of Morgan and the proposed Goyder renewable energy hub, comprising 1,200 MW of wind energy, 600 MW of solar PV, and 900 MW of battery storage.

Incorporation of these REZs was central to the transmission line corridor studies, assessment of alternatives to the Project and the route evaluation process. These projects would be reliant on the approval and construction of the interconnector.

Further discussion of renewable energy and the REZs is provided in Chapter 2 Project Justification and Chapter 9 Land Use and Tenure.

17.3.8. Social services and facilities

Health facilities

The Riverland General Hospital and Loxton Hospital Complex are the two most significant primary care health facilities in the region, as well as those most directly servicing the study area. All of the major townships in the study area have dental surgery facilities and general practitioners, and at least one optometrist services each LGA. The Study Area is covered by the mental health services of Country Health SA, and the Rural and Remote Distance Consultation and Emergency Triage and Liaison Service.

Education and childcare

Childcare, preschool, primary school, and secondary school facilities are widely available with 34 primary schools and eight secondary schools within the study area.

The overall student-to-teacher ratio in the study area is 11.2 students per teacher, which is moderately better than the 2018 South Australian average of 13.7 students per teacher. The vast majority of students in the region are enrolled in government schools (86.1%) when compared to the South Australian average (65%). Gender ratios in students are approximately equal (49.8% female) as the South Australian average (49.0% female).

General services and facilities

A range of general services and facilities are available in the townships and communities within the study area.

The bigger townships of Waikerie, Barmera, Berri and Renmark provide a wide range of services and facilities due to their larger populations and function as River Murray tourism centres. Renmark in particular provides for the wider range of medical services associated with the local hospital, as well as major supermarket chains, emergency services and police, post office, recreation and sporting facilities and education facilities.

Of the centres closer to the transmission line corridor, Morgan provides a range of shopping supplies, recreational areas and facilities and includes a medical centre, chemist, hardware, post office, police station, Country Fire Service station, and ambulance station. The smaller townships and of

Robertstown, Cadell and Cooltong have limited facilities due to the low density of housing in these communities, lower levels of tourism visitation and proximity to larger centres in the region.

17.3.9. Social character, health and wellbeing

Crime and safety

Raw crime statistics are compiled and reported on a financial year basis by the South Australia Police (SAPOL). These have been translated into a ratio of offences per 1,000 residents to allow comparisons between the study area and South Australia. In addition, the Public Health Information Development Unit (PHIDU) tracks 'feelings of safety' indicators (e.g. feeling safe walking alone after dark), which are also presented.

The lowest overall crime rate per 1,000 residents was in Goyder (16.68). The highest was in Renmark Paringa (57.20), which was also the only study area that fell above State average (53.31). Goyder and Mid Murray fell well below State average, likely due to being more remote and sparsely populated, and less convenient as targets for criminal activity (BCSR 2001). Conversely, Renmark Paringa and Berri Barmera reported relatively high crime statistics, but also contain the largest concentrated population centres in the region.

Health

General health indicators sourced from the PHIDU (PHIDU 2019) have been used to summarise the general health characteristics of the study area. These include fertility rate, chronic disease and chronic disease risk factors, age of death and avoidable deaths, and incidence of disability.

- All of the LGAs were above the South Australia birth rate of 1.9%.
- Renmark Paringa had the highest prevalence of diabetes (7.7 per 100), while Goyder had the highest prevalence of high cholesterol, and Berri Barmera had the highest prevalence of mental and behavioural disorders. Each of the areas were reasonably similar for other chronic diseases.
- All of the LGAs generally had higher levels of risk factors for chronic disease such as smoking, high risk alcohol use or obesity than the State as a whole.
- The mean age at death was similar across the LGAs but up to 3 years lower than the State-wide average (82). The LGAs also had higher rates of avoidable deaths than the State (120.7 per 100 000 deaths).
- Incidence of disabled residents across all of the LGAs is higher than the state incidence (6.3%).

The aging population may account for the increased rates of disability, whilst the relative remoteness of the study area is likely to be an influence in median age at death and avoidable death. For example, speed of emergency response may be compromised by distance, particularly in rural areas with sparsely distributed populations. The proportion of the population living or working alone can also affect emergency response. There is also a documented discrepancy between the rate of harmful lifestyle choices such as smoking and high-risk alcohol use in urban as compared to rural areas. The National Rural Health Alliance (NRHA) has discussed a range of factors contributing to this, including a lack of recreation venues, stoic attitudes regarding help-seeking, as well as economic and employment disadvantages (NRHA 2014 and 2016).

Community support

To understand levels of community support, the LGAs were compared on voluntary work and the ease of obtaining support from outside their household, as well as an overview of the community support structures such as community groups. Goyder had the highest levels of residents undertaking voluntary work (34.3%), while Renmark Paringa had the lowest (21.3%), which was in line with the

State-wide average (21.4%). The highest rates of volunteer work were among the smaller population areas.

The majority of the LGAs had high level of residents able to get support outside their household in times of crisis, ranging from 93.0% to 94.5% which was in line with the State figure of 93.9%. This reinforces that although the region may be sparsely populated and relatively remote, this has not affected the availability of interpersonal support structures to residents.

17.3.10. Advantage and disadvantage indicators

The ABS Socio-Economic Indexes for Areas (SEIFA) comprises indexes that summarise different aspects of socio-economic conditions and relative advantage and disadvantage of people living in an area in terms of their access to material and social resources, and their ability to participate in society (ABS 2018). This assessment is discussed below and shown in Figure 17-15.

- Index of Relative Socio-Economic Advantage and Disadvantage (IRSAD) is derived from census variables related to both advantage and disadvantage. An area with a high score on this index has a relatively high incidence of advantage, and a relatively low incidence of disadvantage.
- Index of Relative Socio-Economic Disadvantage (ISRD) focuses primarily on disadvantage and is derived from census variables such as low income, low educational attainment, unemployment and dwellings without motor vehicles. A low score on this index indicates a high proportion of relatively disadvantaged people in an area.
- Index of Economic Resources (IER) focuses on financial aspects of advantage and disadvantage, and is derived from census variables relating to residents' incomes, housing expenditure and assets. Areas with higher scores have relatively greater access to economic resources than areas with lower scores.
- Index of Education and Occupation (IEO) includes census variables relating to educational attainment, employment and vocational skills. A low score indicates that an area has a high proportion of people without qualifications, without jobs, and / or with low skilled jobs. A high score indicates many people with high qualifications and / or highly skilled jobs.

Advantage and disadvantage assessment:

- Among the study area LGAs Goyder and Loxton Waikerie had the highest relative scores ranking them at 24 and 22 respectively out of the 70 State LGAs. The lowest relative score within the study area was for Berri Barmera with a rank of 10 out of 70 (indicating there are only 9 other LGAs within SA that have a lower score).
- Loxton Waikerie had the highest relative score for ISRD and a rank of 23 out of 70, while Berri Barmera had the lowest with a rank of 10 out of 70.
- As with the overall score, Goyder and Loxton Waikerie LGAs had the highest relative ranking for IER (31 and 29 respectively out of 70) and the study area LGA with the lowest relative score was for Berri Barmera with a rank of 14 out of 70.
- Goyder also had the highest relative score and a rank of 35 out of 70, while Renmark Paringa had the lowest relative score and a rank of 7 out of 70.

Summary

- All LGAs in the study area were in the bottom 50% of LGAs in South Australia on the four indices assessed.
- The most common index decile showed the study area in the bottom 20% of LGAs in South Australia.

These rankings indicate that the Project region is generally lagging behind the rest of South Australia in terms of advantage opportunities, economic resources, and educational and occupational skills.

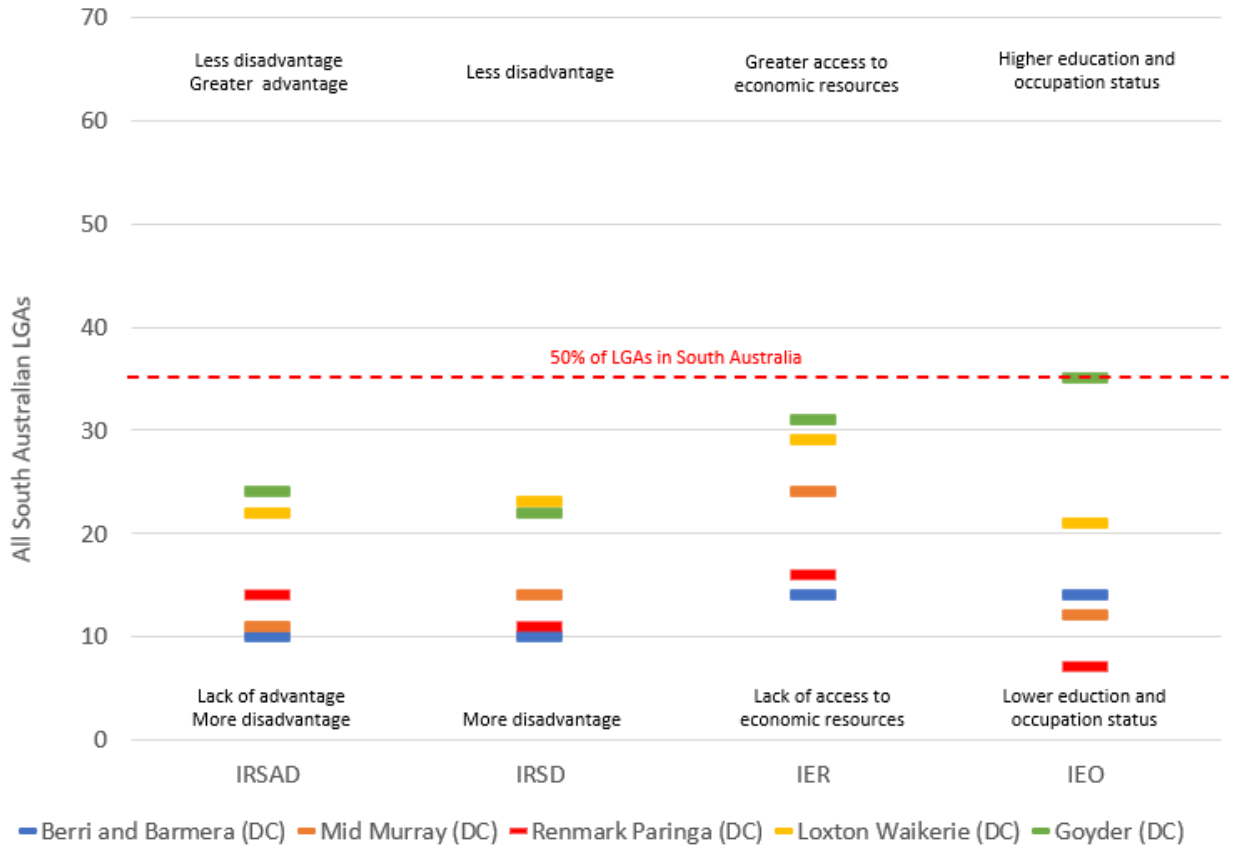


Figure 17-15: Advantage and disadvantage indicators: study area LGAs against all South Australian LGAs

17.4. Impact Assessment

The following aspects of the Project have been identified as sources of positive and negative impacts to the socio-economic environment:

Construction

- requirement for workers and contractors
- accommodation of construction workers
- in-migration of workers during the construction period
- presence of construction crews, vehicles and equipment.

Operation

- introduction of the interconnector to the region and the State
- permanent presence of transmission line and easement.

The potential impact events resulting from these aspects of the Project are discussed below.

17.4.1. Construction

Employment of local and other workers during construction

Project construction activities are not expected to negatively impact the availability of labour for existing local businesses, increase wage costs or cause specific skill shortages.

In addition to the direct jobs generated on construction sites, the construction and installation, and operation phases will require a range of locally sourced goods and services. Production of these inputs is expected to lead to an increase in the demand for labour across the South Australian economy. Project employment opportunities in the study area during Project construction have the potential to reduce the availability of labour for existing businesses, which could lead to a short-term increase in wage costs, or shortage of specific skills

The Project workforce engaged at any particular time is expected to vary throughout the course of the construction period, and may be as low as 20 during the early pre-construction phase, increasing to approximately 160 during the later stages of pre-construction and up to 250 during peak construction. Preference will be given to local labour where appropriate but this is largely dependent on the availability of the significant number of highly skilled workers that will be required to fill many of the positions.

A range of inputs were considered in assessing the impacts of the Project on local labour markets including availability of labour, the unemployment rate, low and high worker migration cases, the source of workers and a worst-case peak labour requirement of up to 250 workers. For the purposes of this assessment, it was assumed that around 90% of the construction labour requirement will be in highly specialised skill areas and would therefore likely to be sourced from outside of the study area (refer Appendix N).

As the number of employees which may be sourced from within the study area for Project construction is likely to be small, this is expected to have a temporary and **negligible** effect on the labour market, and associated labour market competition. Positions for workers from within the study area are also expected to be created which will have a **positive** impact on local employment during construction of the Project.

The operations of the interconnector are highly capital intensive rather than labour intensive when compared to other industries and therefore impacts to the local labour market are not expected during operation.

Accommodation of construction workers in local communities

Temporary construction camps are likely to be used to accommodate the majority of construction workers.

Accommodation of the significant number of Project construction workers who will be sourced from outside the region has the potential to put pressure on local rental accommodation markets (making housing less available and affordable to existing residents) and the visitor accommodation market (e.g. motels and caravan parks) during peak season.

To address these issues, the establishment of up to four temporary worker camps is proposed in locations already disturbed by development or in areas with limited native vegetation. These camps would be likely to accommodate the majority of the construction workforce. Impacts from the construction of the temporary construction camps and liaison with affected landholders are discussed further in Section 9.4.1.

As the distribution and progressive movement of the construction workforce along the proposed alignment, use of private rental accommodation in local communities on a short-term basis is not proposed or regarded as feasible. Travel times from local townships to locations on the proposed

alignment will also place limits on the distance of accommodation from the alignment and may introduce road and other safety risks to Project workers and the local community.

Short-term use of visitor accommodation is also being considered in some circumstances during the construction period. Most local townships would have sufficient visitor accommodation vacancies to provide some of the construction worker accommodation requirements of the Project, however they are unlikely to have the capacity to accommodate the peak workforce of 200 – 250 personnel. If accommodation is required in local townships, this would most likely be in visitor accommodation in Morgan and Renmark. As noted previously, temporary and short-term visitor accommodation occupancy in the region is around 50% providing capacity to accommodate some of the construction workforce. In this case, engagement with local councils and potential accommodation providers will be undertaken by the construction contractors.

Due to the existing visitor vacancies in each LGA, the predicted impacts to visitor accommodation (if utilised) are expected to be in the **negligible** category. **No impact** on local housing and rental accommodation availability or affordability is expected during construction or operation as no use of local housing by workers from outside the study area is expected. Uncertainty in the predicted impact (based on uncertainty in the use of visitor accommodation) has been evaluated in Appendix O and the level of risk is **Low**.

Presence of construction workforce in the community

The accommodation of the construction workforce in the study area will be short term and temporary and impacts to social cohesion of local communities are not expected.

The presence of the construction workforce in the region (up to 250 people in the peak construction period) has the potential to disrupt social cohesion in the communities where workers may be present, particularly as the majority of the construction workforce is likely to have been sourced from outside the region. The construction workforce would typically be largely male which is consistent with the gender composition of the existing population in the study area, and also have a younger age profile.

Any interactions with the local community are likely to be sporadic as the construction work roster would typically be undertaken in 12-hour shifts, seven days per week from 7am to 7pm. If required some workers may be accommodated in visitor accommodation in the Morgan and Renmark communities and may have occasional contact with the community while travelling to and from transmission line construction sites. The number of workers accommodated in this manner is likely to be small as a proportion of the overall construction workforce and would only be present in the community between shifts and for the limited duration of the construction works on the nearby sections of the alignment.

While on work rosters workers will have limited free time and would be likely to spend time between shifts in the temporary construction camp. During rostered time-off it is expected that workers would return to their usual place of residence. There may be opportunities for workers to visit or travel through communities on an ad hoc basis outside of work shifts but such visits are likely to be short-term, transient and infrequent. The frequency of interactions in a particular area will diminish and eventually cease over time, as the focus of construction activity moves along the length of the alignment.

Police resources are available in several centres (including Morgan Waikerie, Barmera, Berri and Renmark) along the length of the Project in the event that the presence of the construction workforce requires police attendance.

All ElectraNet employees, contractors and visitors who interact with members of the local community are expected to adhere to ElectraNet policies requiring respect for the cultural environments of the communities in which ElectraNet operates[9] (ElectraNet 2019b).

Accommodation of construction workers in temporary construction camps and / or visitor accommodation in the study area is expected to have a **negligible** effect on social cohesion in local communities. **No impacts** are expected during operation.

Positive attitudes of the community to the Project (as evidenced through feedback from community consultation and support of local Councils) will also mitigate any potential impacts to social cohesion. This impact is expected to be **negligible** during construction, and **no impact** is expected during operation. Uncertainty in the predicted impact (based on uncertainty in the use of visitor accommodation) has been evaluated in Appendix O and the level of risk is **Low**.

Project construction activities will bring opportunities for business expansion and will not negatively impact provision of local social services.

The presence of the construction workforce has the potential to place pressure on local services (e.g. social and medical services) and businesses, reducing availability to existing residents or shortages of business services to these communities (e.g. retail and recreation).

Any demand on local services by the construction workforce is expected to be occasional and ad hoc e.g. requirements for emergency services. Basic services for construction workers would be expected to be provided at their workforce accommodation e.g. dining, laundry and first aid / medical services. Other regular services would be accessed at their usual place of residence i.e. outside the region. No additional demands on education, childcare and family services are expected during the construction phase.

Similarly, local demand for business services by construction workers is expected to be minimal and it is expected that these services would be consumed primarily at their place of usual residence outside the region. Negative impacts on local services and business is expected to be **negligible** during construction. **No impact** is expected during operation.

The relatively highly paid construction workforce will generally reside within the temporary construction camps and their presence in the region will be short term and transient in locations along the alignment. The resulting change in the proportion of high income earners in the region is expected to be marginal These workers are assumed to primarily consume at their usual place of residence outside the region and **negligible** impact on local price inflation is expected in the study area under the worst-case assumptions (e.g. highest range of jobs to be filled locally).

The presence of the construction workforce (including a relatively highly paid workforce) and new consumption expenditure in the region associated with construction activities and locally employed Project workers may bring opportunities for expansion of local business / services. Local business opportunities would change over the various stages of the Project but businesses with the potential for benefit would be likely to include fuel supplies, transport and logistics (e.g. workforce transport if required) engineering and construction services (e.g. light earthworks, road and track maintenance) and supply of services, goods or consumables to camp accommodation.

Due to declining populations in the study area, it is anticipated that businesses and services would experience a benefit from a minor increase in demand. This impact is expected to be **minor** and **positive**. **No impact** is expected during operation.

[9] The ElectraNet Project Community Commitment Guideline outlines the key design and planning principles to be observed when developing potential strategies to mitigate minimise and redress impacts the impacts of a project on affected community-based stakeholders where possible, practical and reasonable.

17.4.2. Operations

Introduction of the interconnector to the State and regional economies

Introduction of the interconnector will result in direct and indirect positive impacts to regional and South Australian economies through lower electricity prices and increased reliability of supply.

Greater interconnection between electricity suppliers as a result of the Project will increase reliability of electricity supply and supply competition leading to greater reliability and downward pressure on electricity wholesale prices (refer Chapter 2 Project Justification for further discussion of broad Project benefits).

Projections of the broader economic effects on the region which hosts the transmission line and South Australia (with and without the Project), were modelled to provide a forecast of the total economic impacts of the Project (ACIL Allen 2019; Appendix N-1). The modelling found that the Project would result in a major positive economic impact, including benefits from increases in real economic output, real income and employment for the State and region.

Real economic output

Real economic output is the sum of the value added by all producers in the region / State plus any product taxes (minus subsidies) not included in output. At the State level this is referred to as gross state product (GSP). The Project is predicted to result in the following benefits for real economic output:

- Increase in real economic output equating to $2.1 billion (net present value) in the State over the period 2021 – 2040
- $120 million of this will occur in the SA host region[10] over the period
- $45 million of this will occur during the construction phase
- An average annual benefit of $4 million to the region is projected during the operations phase due to significantly lower SA electricity process.

Real income

The real income indicator is a measure of the ability to purchase of goods and services, adjusted for inflation. A change in real income from a development is a measure of the change in welfare of an economy. The Project is predicted to result in the following benefits for real income:

- Increase in real income equating to $2.4 billion (net present value) in the State over the period 2021 – 2040
- $163 million of this will occur in the SA host region over the period
- $82 million of this will occur during the construction phase
- Average annual benefit of $4 million to the region is projected during the operations phase.

Employment

The Project will generate jobs during the construction phase of the project as well as creating some ongoing employment in the South Australian economy. The Project is projected to lead to an increase in employment of approximately 250 full-time equivalent (FTE) ongoing jobs over the period 2021 – 2040. These jobs will mostly be mostly created during the construction phase in the region (approximately 200 job) and in the rest of the State during the operations phase.

The additional construction activity associated with the Project will have a noticeable effect on the regional economy in the construction years due to a movement of economic activity into the area.

[10] For the purposes of the modelling these are the areas of the Sate which will 'host' the interconnector

The region will also experience ongoing benefits once the interconnector is in operation due to the impact of projected savings in electricity prices on these local economies.

It should be noted that the analysis undertaken by ACIL Allen focussed on the direct economic impacts of the interconnector and did not consider benefits that might be expected to flow to the region through construction and operation of any new renewable generation projects in the region resulting from the presence of the interconnector.

It is expected that the Project will have **major, positive** impacts for electricity consumers within South Australia; and the multiplier effects of electricity prices on regional and SA economies are expected to have **major, positive** impacts.

New regional investment

The Project will enable greater market access to renewable energy generation in the region, resulting in further economic benefits to the communities in the study area.

The RIT-T for the Project identified a potential benefit of the interconnector to be greater market access to renewable energy generation along the route. Support for solar and wind power regional investments was also identified as a strategic priority of Regional Development Australia Murraylands and Riverland. The Riverland REZ in particular was identified by AEMO in the 2018 and 2020 ISPs as one of the potential opportunities for development of renewable energy projects in conjunction with the transmission investment options (e.g. interconnection).

The economic effect on communities resulting from regional investment which will be enabled by the Project will be driven by the type, scale and location of likely investments as well as their likely operating employment and expenditure requirements. Investment in renewable projects in the target Renewable Energy Zones as a result of the presence of the interconnector may have a positive effect on the current low level of population growth by stimulating economic activity in the area, by influencing people to remain in the region or attract more to the region. Depending on the scale and location of such projects, the resulting generation of jobs and income would also be expected to provide a minor increase in the local standard of living.

Renewable energy generation projects currently proposed in the study area are in the Mid North and Riverland REZs in the vicinity of Robertstown, Morgan, Berri, Monash and Loxton. These investments can be expected to provide employment opportunities to local workers and contractors during construction and operation, increasing economic activity and retaining population in the study area.

Planned investments in the study area can be expected to have a **positive** impact on population size and standard of living in the study area. The size of the impact cannot be verified as the scale and detail of these projects is not yet fully known.

Tourist amenity and economic impacts to regional and local tourism

The presence of Project infrastructure is not expected to affect visitation for regional and local tourism activities.

The transmission line will be evident as an artificial structure in the landscape as discussed in Chapter 13 Visual Amenity.

Engagement with local communities during the route selection process strongly indicated that prominent tourism areas should be avoided by the alignment, that the transmission line should not be located south of the River Murray or traverse the river in any way and that environmentally sensitive areas, and places of cultural heritage significance should not be impacted. Mitigating the potential impacts to visually sensitive areas such as towns, scenic locations or other sites of value to the tourism economy was a key part of the route and alignment selection process.

The proposed alignment ensures that views of the Project will not be possible from the River Murray, or its immediate surrounds due to topographic barriers and vegetation shielding which prevents views to the north. **No impact** to tourism activities or tourism service providers based in local townships and along the River Murray, associated with visual impacts of the Project is expected.

For the majority of the proposed alignment, the Project will be constructed alongside an existing transmission line, minimising the effect on wilderness and visual amenity values that draw some visitors to the area. Potential impacts to visitation activities from reduction in visual amenity were raised during landholder consultation, particularly on Taylorville Station and Calperum Stations, and Chowilla Game Reserve (refer Section 17.3.7). Potential impacts have been assessed as follows:

- School groups are not expected to be impacted by the Project as, while it will be visible from the road on approach, it will not be visible from the dorm accommodation or the river.
- Researchers visiting the SuperSite on Calperum Station are not expected to be impacted by the Project as, while it may be visible from the SuperSite, it is not expected to affect the environmental values that attract researchers to the site (i.e. the values are not affected by visual amenity).
- Researchers visiting the Australian National University bird Study Area may be affected by the Project as the 500 m corridor crosses the Study Area. However, the Project will run along the existing track in the area to prevent any impact on the researchers. The number of researchers visiting the site is very small and negligible in comparison to the estimated 10,000 visitors to the townships within the Study Area each year.

Visitation to Chowilla Game Reserve focuses primarily on camping next to the river and duck hunting. The transmission line is proposed to follow roads that run inside the boundary of the reserve, away from the camping sites and river so is not expected to affect the visual amenity value that attracts visitors to the reserve. The limited number of tourists to Calperum and Taylorville Stations are likely to be sensitive to changes to the landscape, however the low frequency of views to the transmission line reduces the magnitude of impact.

There is no impact expected on visitor activity in the Study Area resulting from construction and operation of the Project and the economic impact is expected to be **negligible**.

17.4.3. Summary of key mitigation measures

Table 17-8: Key mitigation measures – socio-economic environment

Mitigation measure	Construction	Operation
ElectraNet employees, contractors and visitors at ElectraNet workplaces and any other locations where activities are undertaken by ElectraNet representatives or on behalf of ElectraNet are subject to the ElectraNet Health, Safety, Environment & Sustainability Policy. An aim of this internal policy is to 'protect and respect the natural and cultural environment in the communities in which [ElectraNet operates]' (ElectraNet 2019b).	✓	✓
A portion of the workforce will be required to temporarily relocate to construction camps as construction progresses along the transmission line.	✓	

17.5. Conclusion

ElectraNet's key finding is that overall the Project will deliver positive economic outcomes at both the regional and State level. Project construction and operational activities are not expected to have any permanent negative impacts to the social amenity or economic environment of local communities. The potential for short term negative impacts will be managed through consultation with affected landholders, appropriate location of infrastructure and application of standard management measures.