

AARC | 2022

# SOCIAL IMPACT ASSESSMENT - CONSTELLATION MINING PROJECT

SIA SCOPING REPORT



TAP CONSULTING

PO BOX 1714  
CAPALABA Q 4157  
**Email** [thao@thaoplanning.com.au](mailto:thao@thaoplanning.com.au)  
**Web** [www.thaoplanning.com.au](http://www.thaoplanning.com.au)

# SIA Scoping Report

## TAP Consulting

<b>Date of Report:</b>	14.03.2022
<b>Document Owner:</b>	Thao Ashford, Principal, TAP Consulting
<b>Contact Details:</b>	PO BOX 1714, Capalaba, Q 4157   0419840390   thao@thaoplanning.com.au

Prepared for:



## Document History

VERSION	DATE OF ISSUE	PERSON	ACTION
0.1	09.12.2021	Thao Ashford	Draft for comments
0.2	14.03.2022	Thao Ashford	Final

# Table of Contents

List of Tables .....	4
<b>1.0 Introduction.....</b>	<b>1</b>
1.1 Background.....	1
1.2 Purpose of Report .....	1
1.3 Constellation Project.....	1
<b>2.0 SIA Social Locality.....</b>	<b>4</b>
2.1 Overview.....	4
2.2 Primary Area of Social Influence .....	5
2.3 Secondary Area of Social Influence.....	5
<b>3.0 Social Baseline .....</b>	<b>7</b>
3.1 Overview.....	7
3.2 Surroundings and Property.....	7
3.3 Communities .....	11
3.4 Housing and Accommodation .....	18
3.5 Community Values .....	21
3.6 Employment and Industry .....	22
3.7 Social Infrastructure.....	24
<b>4.0 Initial Stakeholder Consultation for Scoping.....</b>	<b>30</b>
<b>5.0 Initial Assessment of Social Impacts .....</b>	<b>32</b>
5.1 The Framework .....	32
5.2 Scoping of Social Impacts.....	33
<b>6.0 References.....</b>	<b>37</b>
<b>7.0 Appendix A .....</b>	<b>38</b>

## List of Figures

Figure 1.	Social Locality.....	6
Figure 2.	Nearby Communities.....	8
Figure 3.	Unemployment Rate, June 2018 – 2021.....	24
Figure 4.	Social Infrastructure in Nyngan.....	27
Figure 5.	Social Infrastructure in Girilambone.....	28
Figure 6.	Social Infrastructure in Hermidale.....	29
Figure 7.	SIA Guideline Scoping Framework.....	32

## List of Tables

Table 1.	Area of Social Influence .....	4
Table 2.	Impacted Properties.....	8
Table 3.	Other projects in the area .....	10
Table 4.	Population Change 2011 to 2016.....	11
Table 5.	Population projections 2016 to 2041.....	11
Table 6.	Indigenous population percentage 2016.....	12
Table 7.	Indigenous population change 2011 to 2016.....	12
Table 8.	Family and household composition percentages 2011 and 2016.....	12
Table 9.	Household type projections Bogan LGA .....	13
Table 10.	Gender percentages 2016 .....	13
Table 11.	Change in median age 2011 to 2016 .....	14
Table 12.	Selected age groups percentage 2016.....	14
Table 13.	Core disability (need for assistance) 2016 .....	14
Table 14.	Highest year of school completed percentage 2016 .....	15
Table 15.	Non-school qualifications 2016.....	15
Table 16.	Median income, mortgage repayments and rent 2016.....	16
Table 17.	Socio-economic advantage and disadvantage (IRSAD) .....	16
Table 18.	Selected methods of travel to work for employed persons 2016 .....	17
Table 19.	Registered motor vehicles per occupied private dwelling 2016 (percentage of dwellings) .....	17
Table 20.	Dwelling structure of occupied private dwellings 2016 (percentage of dwellings) .....	18
Table 21.	Occupancy rates of private dwellings 2016 (percentage) .....	18
Table 22.	Tenure of occupied private dwellings 2011 and 2016 (percentage).....	19
Table 23.	Social Housing, 2016 .....	19
Table 24.	Estimated Homelessness 2011 and 2016 .....	20
Table 25.	Median Sales Price, Median Rent and Building Approvals (houses) .....	20
Table 26.	Short-term accommodation establishments.....	20
Table 27.	Cultural Diversity, 2016.....	22
Table 28.	Industry of employment 2011 and 2016 .....	23
Table 29.	Existing Social Infrastructure .....	24
Table 30.	SIA Scoping Worksheet for Constellation Project .....	36

---

# 1.0 Introduction

## 1.1 Background

The Social Impact Assessment (SIA) Guideline defines the purpose of the scoping process as to *'identify likely social impacts before considering suitable refinements or other early responses'* (DPIE, 2021). Importantly, scoping was undertaken to inform the nature and scale of the SIA in the second phase.

In carrying out the SIA scoping, the following has been undertaken:

- Consideration of key matters and social impacts identified in the SIA Guideline
- Determination of the social locality for the project
- Initial analysis of social baseline
- Initial evaluation of social impacts
- Consideration for Project refinement

## 1.2 Purpose of Report

The purpose of the SIA Scoping Report is to understand the size and scale of likely social impacts of the project and, in turn, the scope of the SIA. This report provides information on the following:

- Social locality or area of influence for the Project
- The characteristics of the communities within the Project's social locality (social baseline)
- Initial consultation findings in relation to potential social impacts
- Initial evaluation of the likely social impacts and the level to which these impacts need to be assessed

It is noted that the findings and outcomes of this report will be used to support the request for the Planning Secretary's Environmental Assessment Requirements (SEARs) and incorporated into the EIS.

This report should be read in conjunction with the Constellation Project: Scoping Report 2022.

## 1.3 Constellation Project

### 1.3.1 Project Description

The Constellation Project is a relatively small copper mine comprising an open cut pit, a later underground mine, and supporting surface infrastructure. The following provides a brief summary of known information pertaining to the Project (refer to Section 3 of the Constellation Project: Scoping Report, 2022 for further details):

- The site is located in the Bogan Shire Council Local Government Area (location of the project is (Lat 31.08440 S, 146.98925 E). Towns in close proximity to the site include Nyngan, Miandetta, Hermidale and Coolabah.
- The Project is a copper mine comprising an open cut pit and supporting surface infrastructure, waste rock emplacements, water management structures and other supporting infrastructure.
- The project is to essentially maintain the current capacity of the existing operations (mill throughput, mine employees etc) at another, nearby location.
- Open cut oxide ore will be delivered to the existing Murrawombie heap leach pads (a nearby operation) where it will be conditioned, stacked and heap leached.
- Open cut and later underground mine ROM or crushed transition and primary ore will be delivered via 50km haul road to the Tritton processing facilities (south west of the proposed development).
- Existing copper and gold mineralisation in ore recovered in the existing processing plant, possibly modified to recover as much gold as well as copper from the feed.
- Tailings storage facility upgrade.
- All associated infrastructure at new mine site including water and power from existing sources.
- The alignment of the haul road is yet to be determined and will be finalised in consultation with landholders and other stakeholders (e.g. Bogan Shire Council and Transport NSW). The haul road alignment will leave the site and head west along the existing road. The haul road will likely follow Okeh road south for a distance until it turns west and heads to the Mitchell Highway at some point yet to be determined.

### 1.3.2 Site Context

The Project is located approximately 56km from the township of Nyngan in the Orana region of NSW, within the Bogan LGA. The closest regional city is Dubbo which is located approximately 230 km east of the Project. The Project is located:

- Within the main service centre of Nyngan which sits at the junction of the Mitchell and Barrier highways on the Bogan River, and supports smaller towns and villages such as Girilambone and Coolabah<sup>1</sup>.
- Within the regional road and rail transport network with access to Dubbo via Narromine, which is linked directly to Parkes and the intermodal hub and the proposed inland rail route<sup>2</sup>.
- Within proximity to the 250-hectare Nyngan Solar Plant. The largest solar farm in the Southern Hemisphere. It produces 102 megawatts of electricity from approximately 1.36 million solar photovoltaic modules<sup>3</sup>.
- Within the Murray-Darling Basin specifically the Macquarie-Bogan catchment which is regulated by Burrendong and Windamere Dam<sup>4</sup>.

<sup>1</sup> Central West and Orana Regional Plan 2036

<sup>2</sup> ibid

<sup>3</sup> ibid

<sup>4</sup> <https://www.industry.nsw.gov.au/water/basins-catchments/snapshots/macquarie-bogan>

- Within existing and established regional mining operations which include coalfields, gold and copper mines.

### 1.3.3 Project Timeframes

The final Project design is still being determined however indicative project timeframes are as follows:

- Depleting production at the existing mines of Tritton and Murrawombie will be replaced (in part) by ore feed from the Constellation orebody. The goal is to feed ore from Constellation to the existing processing facilities at Tritton within two years.
- The open cut operation at the Project is anticipated to have a time frame of 3 years from the commencement of mining operations. It is anticipated that an additional period of 6 months, preceding the commencement of mining will be required for construction activities.
- The underground operation will have a life expectancy of an additional 10+ years (approximately). Underground mining is expected to towards the end of open cut mining operations.
- The heap leaching operation has an expected life of 6-7 years following the commencement of leaching which would start approximately 1 year following the commencement of mining operations.

### 1.3.4 Project Workforce

Tritton operations currently employs approximately 383 full time equivalent (FTE) staff directly and engages contractors who employ 63 FTE. Of the 383 direct employees, 51% are local to Bogan and Cobar Local Government Areas.

It is expected that the workforce for the Project will be comprised primarily of personnel already employed or contracted as part of the existing operations. There is likely to be a requirement for additional contractors to provide services for various components of the Project, and where required, selection of contractors will consider local procurement plan.

There is expected to be a need for specialist contractors to be engaged for various aspects of the Project under shorter term arrangements. It is likely that specialist contractors will need to be sourced from outside western NSW.

## 2.0 SIA Social Locality

### 2.1 Overview

The Project's area of social influence was defined by considering:

- The Project's location and activities in relation to nearby communities and localities
- The nature of nearby communities e.g. social characteristics at local and regional levels
- The impacts or benefits which may be experienced by residents or other stakeholders
- Location of other relevant projects which may contribute to cumulative social impacts
- SIA scoping interviews with Bogan Shire Council

The geographic reach of impacts can vary depending on the impact being assessed. For example, residents who live close to the Project could experience impacts related to land acquisition, land severance or noise, whilst those who live in nearby communities could experience different impacts e.g. traffic disruptions or changes to service access. Impacts such as demand for accommodation and benefits related to employment may be experienced across a region.

To facilitate effective identification and assessment of socio-economic impacts, SIA study areas include (refer to Table 1):

- Primary area of social influence
- Secondary area of social influence

**Table 1.** Area of Social Influence

Area of Social Influence	Locality	ABS Statistical Code	Description
<b>Primary</b>	Girilambone	SSC11632	Girilambone is the nearest populated town to the Project.
<b>Secondary</b>	Bogan LGA	LGA10950	The Project is located in the Bogan LGA and will most likely be home/or base to many of the workers.

The following describes the SIA study areas and relevant potentially affected communities. The areas of social influence are shown in Figure 1.

---

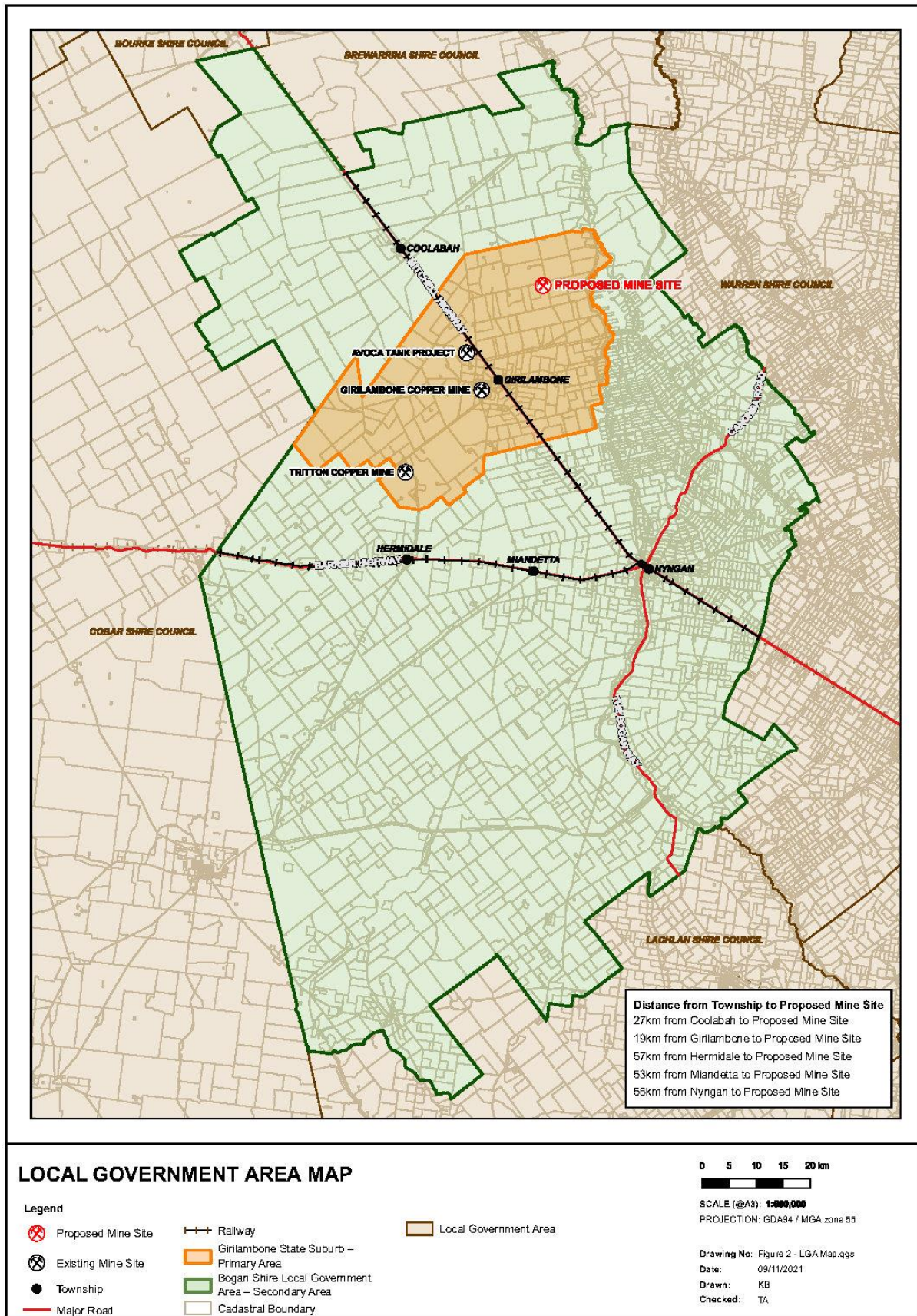
## 2.2 Primary Area of Social Influence

For the purpose of the SIA, the primary area of social influence is defined as the community in closest proximity to the Project site and thereby likely to be most impacted. Girilambone is the closest populated town to the Project, located approximately 19 km from the Project, or around a 20-minute drive and is considered to be the primary area of social influence. The town of Girilambone was established in 1884 to service the construction of the Main Western Railway that connects the rural townships of Nyngan and Bourke. The town has steadily declined since the late 1800's to a population of 107 in 2016 (according to the 2016 ABS Census data).

## 2.3 Secondary Area of Social Influence

The secondary area of social influence for the purpose of the SIA is the Bogan Shire LGA. The Project is located within the Bogan Shire LGA which has an area of 14,610 square kilometres (km<sup>2</sup>) and adjoins Cobar to the west, Bourke to the north west, Brewarrina to the north, Warren to the east and Lachlan Shire to the south. Nyngan is the main service centre of the Bogan Shire and is located at the junction of the Mitchell and Barrier Highways. Nyngan supports the smaller settlements of Girilambone, Coolabah and Hermidale. The majority of the population in the Bogan Shire LGA reside in Nyngan.

Figure 1. Social Locality



Source: TAP Consulting, 2021

---

## 3.0 Social Baseline

### 3.1 Overview

The social baseline provides a detailed description of social conditions in the areas of social influence (primary and secondary). Investigations undertaken to develop the social baseline included:

- Analysis of key social indicators
- Analysis of population size, composition and growth
- Description of the history, land use and settlement patterns
- Assessment of housing and accommodation availability
- Description of community values based on stakeholder inputs and community planning priorities
- Researching the provision of social infrastructure (community facilities, services and networks)
- Description of employment, labour force and skills profile

### 3.2 Surroundings and Property

#### 3.2.1 Aboriginal Land

The Project falls within the boundaries of the Nyngan Local Aboriginal Land Council in Wongaibon Nation. Many of the Aboriginal inhabitants within the region surrounding the Project are the Ngiyampaa Wangaaypuwan (Wongaibon) people who generally resided in country roughly bounded in the north by the Darling-Barwon and Bogan Rivers, and in the south by the Lachlan River (Beckett et al, 2003).

#### 3.2.2 Land Use and Impacted Properties

Lands surrounding the Project are predominantly used for agricultural purposes. The Project is situated on two agricultural properties (Okeh and Windella) and the visual character is predominantly rural, with agricultural activities dominating the landscape (refer to Section 2.2 in the Project Constellation: Scoping Report 2022). Table 2 provides details for impacted properties. The land parcels intersected by the final project design may change slightly due to project optimisation and will be detailed in the EIS, with appropriate consultation with affected landholders undertaken. It is noted that additional parcels will be traversed by the haul road (yet to be finalised).

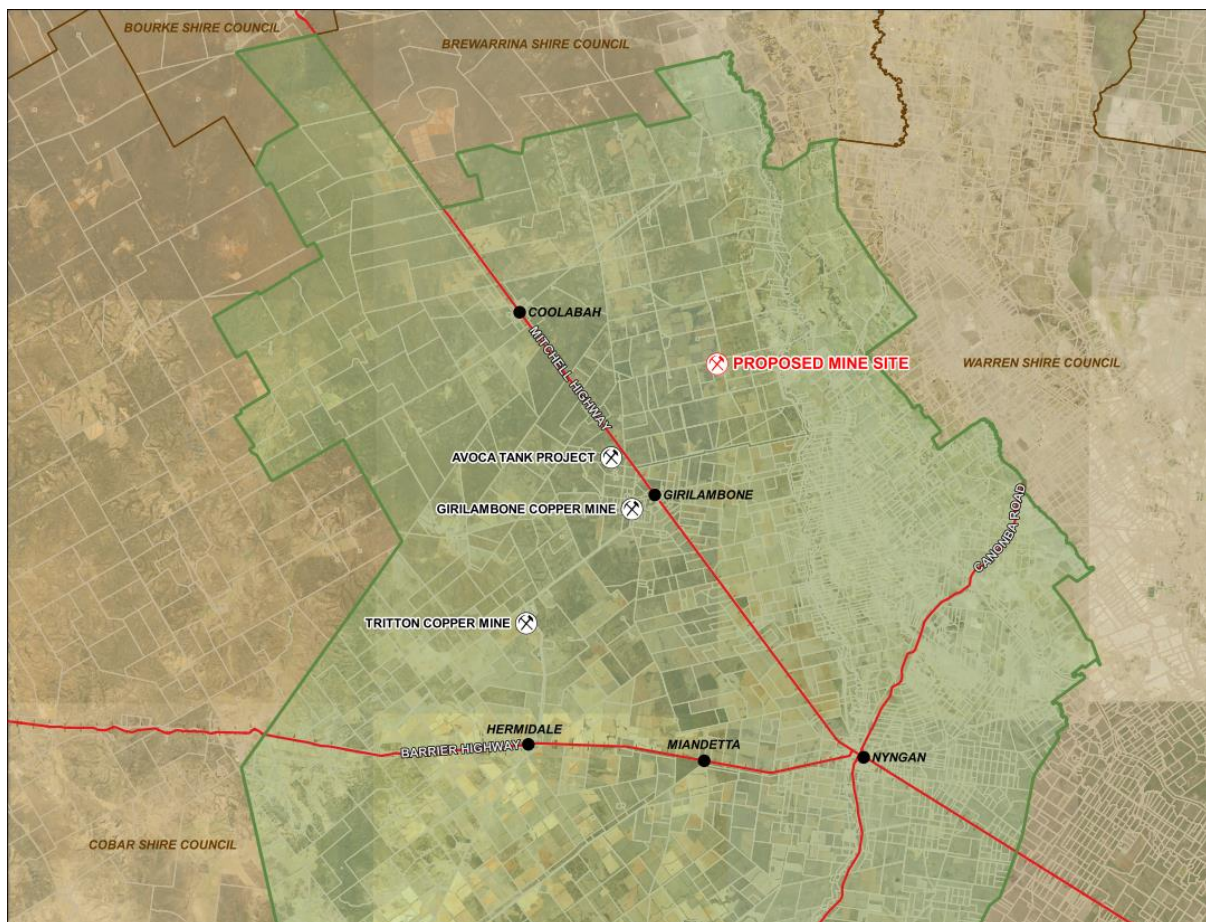
**Table 2.** Impacted Properties

Lot/Plan	Project Component	Property Description
4 / DP751341	Constellation Project site	Okeh
9 / DP751321	Constellation Project site	Okeh
4 / DP 751304	Constellation Project site	Okeh
10 / DP751321	Constellation Project site	Windella

Source: AARC, Constellation Project Scoping Report, 2022

### 3.2.3 Nearby Communities

Figure 2 shows the Project in the context of nearby communities which include the townships of Coolabah (27km from Project), Girilambone (19km from Project) and Nyngan (56 km from Project).

**Figure 2.** Nearby Communities

Source: TAP Consulting, 2021

### Coolabah

Coolabah is a small town on the Mitchell Highway 76km north west of Nyngan. The town took its name from a nearby property called 'Coolabah' which had been named after the coolibah trees which grew in abundance in the area<sup>5</sup>. The site was set aside as a town in 1886, and developed as a railway station, hotel and services for the local community<sup>6</sup>. The town slowly grew and, at its peak, it had a population of 300 people. The town's one claim to fame is that, due to a lack of reliable water, it once boasted the largest well in Australia which operated as the town's major water supply. The residential population of Coolabah SSC in 2016 was 69 people and 19% identified as Aboriginal and/or Torres Strait Islander. A few scattered buildings remain on the grid of unmade streets, with only one substantial brick building adjacent to the former railway line which closed in 1992.

Coolabah township is part of the Cobb and Co Heritage Trail which operates coach tours to the town<sup>7</sup>.

### Girilambone

Located on the Mitchell Highway 45km north west of Nyngan is the township of Girilambone. Once the development of the copper lode at Girilambone commenced, settlement emerged, with a private town being surveyed in 1880. The arrival of the railway in 1897 and other government and private services consolidated the town around the station. The closure of government services and the railway in 1992 saw the town diminish and the removal or demolition of buildings to a handful. The town has steadily declined since the late 1800's to a population of 107 people in 2016. The village hosts a service station, public school and a general store.

In 2019, the N.S.W. government announced funding to repair the derelict railway station building and to repurpose it as a visitor centre with a museum and Indigenous art gallery and artist workshops<sup>8</sup>.

### Nyngan<sup>9</sup>

Nyngan is a regional township of approximately 2,159 people at the 2016 census and served as an important regional centre but has declined in population over the 20th and 21st centuries due to outward migration. The site of Nyngan was surveyed in 1881, with the anticipation of the railway which arrived in 1883. Its growth was determined largely by its importance as a transport hub. It was initially the terminus of the railway line, and later with the extensions to Cobar and Bourke. Commerce and government services arrived to service the area and were established in rough timber structures but were later replaced by more substantial brick buildings. A devastating fire destroyed many of the original buildings in the centre. Throughout the town there are a number of important buildings complemented by a collection of dwellings of various construction types and architectural styles constructed at the end of the nineteenth century – beginning of the twentieth century. In the centre of Nyngan there are a number of plantings of mature Ficus hilli trees.

---

5 <https://www.smh.com.au/lifestyle/coolabah-20040208-gdkq00.html>

6 Bogan Shire Council Heritage Study, 2012

7 <https://www.cobbandco.net.au/trails/area-trails/104-bogan-shire-area-trail>

8 <https://www.nsw.gov.au/drought-stimulus-package/girilambone-railway-revitalisation>

9 Bogan Shire Council Heritage Study, 2012

## 3.2.4 Regional Communities

### Bogan Local Government Area

Bogan LGA is located within the Orana Region of New South Wales and is surrounded by the Warren LGA to the east, Lachlan LGA to the south, Cobar LGA to the west and the Bourke and Brewarrina LGA's to the north. Nyngan is the largest populated town within the Bogan LGA, with the population of the LGA recorded in 2016 as 2,692. The LGA is generally supported by agricultural production, grazing of sheep and cattle and cropping, primarily wheat, as well as mining activities.

## 3.2.5 Road Network

The Mitchell Highway is the major state road that services the region and will be a main access road for the Project. The Mitchell Highway provides connections to Dubbo and Parkes including the intermodal hub as well as the proposed inland rail route. Other roads that will be impacted by the Project will be predominantly local and private roads and include:

- Murrawombie Road
- Yarrandale Road
- Okeh Road

## 3.2.6 Other Projects

Existing projects located in the vicinity of the Project are presented in Table 3, providing insight to existing development and land use activities in the study area. This is important context for the scoping of potential social impacts.

**Table 3.** Other projects in the area

Project and Proponent	Location	Description	Status
AVOCA Tank Tritton Resources Pty LTD	Approx 7km northwest of Girilambone	Underground mine to extract copper-gold-silver ore over 4 years. The overall life of the project is anticipated to be 7 years including construction, mining and rehabilitation.	Existing
Tritton Underground Mine	Approx 26km southwest of Girilambone	The Tritton deposit is a large (over 20 million tonne) copper dominant sulphide system, discovered in the mid 1990s with mining activity commencing in 2004	Existing
Murrawombie Open Cut and Underground Mine	Approx 2.5km west of Girilambone	Murrawombie is the secondary production source for the Tritton Copper Operations. The development of Murrawombie commenced in 2016 and the mine reached full production rates during 2018. Strategically, Murrawombie was developed to replace the now exhausted North East and Larsen underground mines.	Existing

## 3.3 Communities

This section provides analysis of the population and community characteristics for the social locality of interests. Data is provided for the Girilambone State Suburb (primary social locality), Bogan LGA (secondary social locality) and NSW State as comparative region.

### 3.3.1 Local and Regional Populations

#### Current Population

The Bogan LGA had a population of 2,692 people in 2016 which was a decrease of 208 people since 2011 (refer Table 4). Girilambone had a population of 107 people within the State Suburb in 2016, which was a significant decrease of 113 since 2011. Between 2011 and 2016, Girilambone experienced a significant decline in population as there was a 51 percent decrease within the State Suburb, proportionally the decline in population was more extreme when compared to the entire Bogan LGA (7 percent decline).

**Table 4.** Population Change 2011 to 2016

Area	2011	2016	Change (no.)	Change (%)
Bogan (LGA)	2900	2692	-208	-7%
Girilambone (SSC)	220	107	-113	-51%

Source: ABS Census of Population and Housing 2011 and 2016

#### Population Growth

Table 5 displays the population projections from 2016 to 2041 for Bogan LGA. The projection shows that although there is predicted to be a population decrease between 2016 and 2021, over the subsequent 20 years, the Bogan population is going to slowly rise by approximately 0.27% annually over the complete 25-year period (refer Table 2).

**Table 5.** Population projections 2016 to 2041

Area	2016	2021	2026	2031	2036	2041	(no.)	Annual Average
Bogan	2,764	2,687	2,740	2,830	2,951	2,952	188	0.27%

Source: NSW Government, 2019 Population Projections

#### Indigenous Population

The Bogan LGA had a total population of 2,692 people in 2016, the Indigenous population in Bogan comprised of 443 people which accounted for 16.5 percent of the Bogan population (refer Table 6). The Bogan area has a substantially higher percentage of Indigenous Australians compared to the New South Wales (NSW) average (13.6 percent higher).

The community of Girilambone had 8 Indigenous Australians in 2016 which comprised approximately 7.5 percent of the entire Girilambone population (refer Table 3). The Indigenous population in Girilambone is 4.6 percent higher than the NSW average.

**Table 6.** Indigenous population percentage 2016

Area	Number	% Indigenous
Bogan	443	16.5
Girilambone	8	7.5
NSW	216,176	2.9

Source: ABS Census 2016 Community Profiles

The Indigenous population in Bogan showed an increase between 2011 and 2016 (refer Table 7). The Indigenous population increased by 24 people and increased the total Indigenous population in Bogan by 6 percent. However, Girilambone State Suburb had a significant decrease in the Indigenous population from 2011 and 2016 with a decrease in 15 people which equalled a 65 percent decline.

**Table 7.** Indigenous population change 2011 to 2016

Area	2011 Population	2016 Population	Change (no.)	Change (%)
Bogan	419	443	24	6%
Girilambone	23	8	-15	-65%

Source: ABS Census of Population and Housing 2011 and 2016

### 3.3.2 Families and Households

#### Family Type

Table 8 displays the family and household compositions from the 2011 and 2016 Census. In 2016, Bogan had a high proportion of couples without children (42.6 percent) and couples with children (40.6 percent), proportionally this was similar to the 2011 Census household compositions. The proportion of one parent families remained similar in 2016 when compared to 2011.

Girilambone had a significant decrease of one parent families from 2011 to 2016 (refer Table 8), indicating that couples with children (50 percent) and couples without children (50 percent) comprised the whole family and household composition for Girilambone in 2016.

**Table 8.** Family and household composition percentages 2011 and 2016

Area	Family and Households							
	Couple with children		Couple without children		One parent family		Group and other households	
	2011	2016	2011	2016	2011	2016	2011	2016
Bogan	43.4%	40.6%	37.6%	42.6%	17.5%	16.2%	1.5%	1.5%
Girilambone	39.7%	50%	37.9%	50%	22.4%	0%	0%	0%

Source: ABS Census of Population and Housing 2011 and 2016

Table 9 displays the projections for household types in Bogan from 2016 to 2041. Lone person and couple only households are projected to steadily increase. However, couple with children, other family and group households are predicted to keep similar figures.

**Table 9.** Household type projections Bogan LGA

Household type	2016	2021	2026	2031	2036	2041
Couple only	292	302	322	344	365	370
Couple with children	309	296	295	302	316	310
Single parent	122	118	119	121	127	128
Multiple and Other family households	22	22	22	23	23	23
<b>Total family households</b>	<b>745</b>	<b>738</b>	<b>758</b>	<b>790</b>	<b>831</b>	<b>832</b>
Lone person	385	398	414	429	454	470
Group	24	26	26	26	25	26
<b>Total non-family households</b>	<b>409</b>	<b>424</b>	<b>440</b>	<b>455</b>	<b>480</b>	<b>496</b>
<b>Total households</b>	<b>1,154</b>	<b>1,162</b>	<b>1,198</b>	<b>1,245</b>	<b>1,311</b>	<b>1,327</b>

Source: DPIE Population Projections, 2019

### 3.3.3 Demographic Characteristics

#### Gender

The Bogan LGA recorded a similar gender ratio to the NSW average in the 2016 Census with males at 50.4 percent and females at 49.6 percent (refer Table 10). Girilambone has slightly more males at 52.5 percent and 47.5 percent for females in the State Suburb.

**Table 10.** Gender percentages 2016

Area	Male	Female
Bogan	50.4%	49.6%
Girilambone	52.5%	47.5%
NSW	49.3%	50.7%

Source: ABS Census 2016 Community Profiles

#### Age

The Census findings from 2011 and 2016 suggest that the populations in Bogan and Girilambone are aging as the median ages increased in both populations (refer Table 11). Bogan's median population changed by 1 and increased the median age of residents to be 2 years above the NSW median. In 2011 the Girilambone median age was 1 year below the NSW median but by 2016 the median age had risen to 42 which was a change of 5 years.

**Table 11.** Change in median age 2011 to 2016

Area	2011	2016	Change (no.)
Bogan	39	40	1
Girilambone	37	42	5
NSW	38	38	0

Source: ABS Census of Population and Housing 2011 and 2016

Table 12 displays selected age groups which are potentially vulnerable to changes in the social environment. Bogan had a lower proportion of people aged 20 – 34 years compared to the NSW average, and a higher proportion of people aged 65 and above. Girilambone had similar proportions of children and young people to the NSW average however, people aged 65 and above only formed 8.4 percent of the population.

**Table 12.** Selected age groups percentage 2016

Area	0 – 19 years	20 – 34 years	65 and older
Bogan	26.7%	17.5%	19.9%
Girilambone	25.2%	20.6%	8.4%
NSW	24.5%	20.7%	16.2%

Source: ABS Census 2016 Community Profiles

### Disability

Table 13 reveals the number and percentage of people that need assistance with daily tasks as a result of a disability in 2016. Bogan has 105 people that need assistance which amounts to 3.9 percent of the population (refer Table 13). The percentage of people who need assistance in the Bogan LGA is slightly lower than the NSW average. Girilambone had no members of the community who needed assistance in 2016.

**Table 13.** Core disability (need for assistance) 2016

Area	Has need for Assistance	
	Number	% of Population
Bogan	105	3.9%
Girilambone	0	0%
NSW	402,048	5.4%

Source: ABS Census 2016 Community Profiles

### Educational Attainment

Table 14 displays the educational attainment levels in 2016. The percentage of Bogan residents who completed Year 12 (or equivalent) was 30.3 percent in 2016 which is significantly lower than the NSW average (53.9 percent). Approximately 32 percent of Bogan residents achieved an education until Year 10 (or equivalent) which was 10.7 percent higher than the NSW average.

Girilambone had a smaller proportion of people who completed Year 12 with 23.8 percent, which was 29.1 percent below the state average. Similarly to Bogan, the Girilambone population had a high proportion of people who completed Year 10 at the highest (33.3 percent).

Notably, there were a significant amount of people who did not state their highest level of educational attainment (refer Table 14).

**Table 14.** Highest year of school completed percentage 2016

Area	Year 12 or equiv.	Year 11 or equiv.	Year 10 or equiv.	Year 9 or equiv.	Year 8 or below	Did not go to school	Not stated
<b>Bogan</b>	30.3%	6.8%	32%	9.5%	6.6%	0.1%	14.7%
<b>Girilambone</b>	23.8%	7.1%	33.3%	3.6%	13.1%	0%	19%
<b>NSW</b>	53.9%	4.9%	21.3%	5.5%	4.5%	1.1%	8.8%

Source: ABS Census 2016 Community Profiles

Table 15 displays the non-school qualifications in 2016. Bogan had 41.4 percent of the population with a certificate level qualification which is 11.7 percent higher than the NSW average. Bogan recorded a low proportion of the population with postgraduate degree level qualifications (1.9 percent) compared to the NSW average (9.3 percent).

The Girilambone State Suburb had no postgraduate and graduate diploma/certificate level qualifications in the population (refer Table 15). Similarly to Bogan, the Girilambone population had a high proportion of certificate level qualifications (43.2 percent).

**Table 15.** Non-school qualifications 2016

Area	Postgraduate degree level		Graduate Diploma and Graduate Certificate Level		Bachelor degree Level		Advanced Diploma and Diploma Level		Certificate Level		Level of education inadequately described		Level of education not stated	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Bogan</b>	20	1.9	19	1.8	116	11.2	116	11.2	428	41.4	10	1	325	31.4
<b>Girilambone</b>	0	0	0	0	3	8.1	4	10.8	16	43.2	0	0	14	37.8
<b>NSW</b>	34,486	9.3	103,344	2.8	976,885	26.3	543,138	14.6	1,100,957	29.7	58,379	1.6	582,900	15.7

Source: ABS Census 2016 Community Profiles

### 3.3.4 Income and Disadvantage

#### Income

The selected materials provided in Table 16 display medians for income, mortgages and rent in 2016. The median personal income of Bogan residents is \$634/week which is \$30 below the state median, however Bogan median household income (\$1,152) is considerably lower than the state median (\$1,486). Notably, the median mortgage repayment is significantly lower in Bogan compared to the NSW median, with \$1,083 and \$1,986 a month respectively.

The Girilambone median personal income is \$10 higher than the NSW median (\$674) and the median weekly household income is just below the state median (\$1,437) (refer Table 16). Notably, the median mortgage repayment is significantly low at \$867/month which is \$1,120 lower than the state median. There were no people renting in Girilambone in 2016.

**Table 16.** Median income, mortgage repayments and rent 2016

Area	Median personal income (\$)	Median weekly household income	Median mortgage repayment (\$/month)	Median rent (\$/week)
Bogan	634	1,152	1,083	160
Girilambone	674	1,437	867	0
NSW	664	1,486	1,986	380

Source: ABS Census 2016 Community Profiles

#### Relative socio-economic advantage and disadvantage

Table 17 shows the relative socio-economic advantage and disadvantage scores for Bogan LGA and the various state suburbs. As can be seen, Bogan LGA ranks within the bottom 50 percentile of Australia which indicates a higher potential of socio-economic disadvantage compared to other LGAs in Australia. At the suburb level, Girilambone, Nyngan and Coolabah scores also indicate a high potential for disadvantage with Nyngan indicating a very high potential. Both Hermidale and Miandetta scores indicate low potential for disadvantage.

**Table 17.** Socio-economic advantage and disadvantage (IRSAD)

Area	Score	Rank (decile)	Rank (percentile)	Data should be used with caution (area not well represented)
Bogan LGA	938	4	35	
Girilambone SSC	987	5	47	
Nyngan SSC	920	2	16	
Coolabah SSC	987	5	47	Y
Hermidale SSC	1014	7	64	
Miandetta SSC	1061	9	86	Y

Source: ABS Census 2016

### 3.3.5 Travel Behaviour

#### Travel to Work

Table 18 displays the travel methods to work for populations in 2016. In Bogan LGA, the majority of travel was by driving or being a passenger in a car (62.6 percent), this proportion was similar to the state average. The proportion of travel by public transport was significantly lower than the state average at 4.7 percent and 16 percent respectively. However, the proportion of travel by walking was over double the state average in Bogan (8.5 percent).

Girilambone had a high proportion of car travel at 53.8 percent (refer Table 18). No one travelled by public transport or bicycle in 2016, however there was a high number of people who walked to work (13.5 percent).

**Table 18.** Selected methods of travel to work for employed persons 2016

Area	Travel to work by car (%)	Travel to work on public transport (%)	Cycled to work (%)	Walked to work (%)
Bogan	62.6%	4.7%	0.9%	8.5%
Girilambone	53.8%	0%	0%	13.5%
NSW	64.6%	16%	0.7%	3.9%

Source: ABS Census 2016 Community Profiles

#### Vehicle Ownership

Table 19 displays vehicle ownership per occupied dwelling in 2016. Bogan had 55.1 percent of dwellings with 2 or more vehicles which was slightly higher than the NSW average (refer Table 19). Girilambone had an even higher ratio of ownership of 2 or more vehicles at 62.5 percent. There were no households in Girilambone that had no motor vehicles.

**Table 19.** Registered motor vehicles per occupied private dwelling 2016 (percentage of dwellings)

Area	None	2 or more motor vehicles
Bogan	8.1%	55.1%
Girilambone	0%	62.5%
NSW	9.2%	50.8%

Source: ABS Census 2016 Community Profiles

#### Key Transport Networks<sup>10</sup>

Bogan Shire is strategically located at the junction two major touring routes. The Mitchell Highway north to Bourke and Queensland and the Barrier Highway to Broken Hill and South Australia. Passenger rail services ceased in Nyngan following the floods of 1990. Bus services have replaced passenger rail

<sup>10</sup> Source: Bogan Shire Council Local Strategic Planning Statement, 2019

since then and the Nyngan Railway Station has since become a museum for history and tourism. Freight is still transported via the existing rail infrastructure, which passes through the centre of Nyngan.

### Key Activity Centres

Nyngan is the Shire's main administration and activity centre within the region. Other smaller townships within the vicinity that provide a limited range of services to local residents include Girilambone, Coolabah and Hermidale.

## 3.4 Housing and Accommodation

The following sections provides a snapshot of the housing type, cost and availability in the social locality.

### 3.4.1 Housing Access

#### Housing Type

The majority of occupied private dwelling type in Bogan LGA in 2016 were separate houses (75.7 percent). Semi-detached/townhouse type formed 2.8 and 2.4 percent respectively which were significantly lower than the state average in 2016 (refer Table 20). Girilambone only had separate houses being occupied in 2016 (55.6 percent).

**Table 20.** Dwelling structure of occupied private dwellings 2016 (percentage of dwellings)

Area	Separate house	Semi-detached, townhouse, etc.	Flat, unit, apartment	Other dwelling	Not stated
Bogan	75.7%	2.8%	2.4%	1.2%	0.8%
Girilambone	55.6%	0%	0%	0%	0%
NSW	66.4%	12.2%	19.9%	0.9%	0.5%

Source: ABS Census 2016 Community Profiles

Table 21 showed occupancy of housing in 2016. Occupancy of private dwellings had similar rates in Bogan and Girilambone at 71 and 70 percent occupancy. This was significantly lower than the state average of 90.1 percent.

**Table 21.** Occupancy rates of private dwellings 2016 (percentage)

Area	Occupied private dwellings	Unoccupied private dwellings
Bogan	71%	29%
Girilambone	70%	30%
NSW	90.1%	9.9%

Source: ABS Census 2016 Community Profiles

## Housing Tenure

Table 22 displays housing tenure and landlord type in 2011 and 2016. Bogan had a similar proportion property ownership and rented in 2016 to the NSW average. However, there were a significant number of tenures not stated (14.4 percent).

There was a significant change in tenure in Girilambone from 2011 to 2016, with rental properties dropping from 25.3 percent to 0 percent. Outright ownership in Girilambone was at 46.9 percent in 2016 which was 14.6 percent higher than the state average.

**Table 22.** Tenure of occupied private dwellings 2011 and 2016 (percentage)

Area	Owned outright (%)		Owned with a mortgage (%)		Rented (%)		Other tenure type (%)		Not stated (%)	
	2011	2016	2011	2016	2011	2016	2011	2016	2011	2016
<b>Bogan LGA</b>	38.7	36.2	18.9	19.8	27.2	28.5	0.5	0.5	13.7	14.4
<b>Girilambone SSC</b>	44	46.9	22.7	37.5	25.3	0	4	0	4	0
<b>NSW</b>	33.2	32.3	33.4	32.3	30.1	31.8	0.8	0.9	2.6	2.8

Source: ABS Census of Population and Housing 2011 and 2016

## Social Housing and Homelessness

Table 23 shows the number and percentage of social housing (public and community housing) in the Bogan LGA. As can be seen, at 2016 there were a total 51 social housing in the LGA or 3.9 percent, which is a lower proportion when compared to NSW.

**Table 23.** Social Housing, 2016

Area	Total Private Dwellings	Total Social Housing		
	No.	Public Housing 2017 (No.)*	Community Housing 2015 (No.)^	% of Total Dwellings
<b>Bogan LGA</b>	1,305	47	4	3.9%
<b>NSW</b>	3,059,599	112,547	31,768	4.7%

\* Source: NSW Communities & Justice, Community Housing Providers by LGA, 2015

^ Source: Housing NSW, 2016

The estimated rate of homelessness in Bogan LGA appears to have decreased between the 2011 and 2016 census period.

**Table 24.** Estimated Homelessness 2011 and 2016

Area	Persons		Change (2011-2016)	Proportion of total population 2016
	2011	2016		
Bogan LGA	4	0	0	0%
NSW	27,483	37,692	10,209	0.5%

Source: ABS Census of Population and Housing, Estimating Homelessness 2011 and 2016

### 3.4.2 Housing Trends

Housing data was obtained through CoreLogic and is only available for Nyngan (postcode 2825). According to CoreLogic data, there have been 57 houses sold in Nyngan in the past 12 months with a median sale price of \$172K, with a median price change (increase) of 14.67 percent. The median rent per week in Nyngan is \$300.

**Table 25.** Median Sales Price, Median Rent and Building Approvals (houses)

Area	Median Sales Price (\$)	Median Price Change (%)	Median Rent (\$/week)	Building approvals (no. of new houses in last 12 mths)
Nyngan	\$172K	14.67%	\$300	1
Girilambone	No data	No data	No data	No data
Coolabah	No data	No data	No data	No data
Hermidale	No data	No data	No data	No data

Source: Property Value, CoreLogic, 2021

### 3.4.3 Short-term accommodation

Online searches indicated that there are 9 short-term accommodation establishments in the Bogan Shire (refer to Table 26). Most of the establishments are located in Nyngan (6) with 1 located in Girilambone and 2 in Hermidale. The accommodation type is a mixture of motels and hotels with one caravan park and a works village accommodation.

**Table 26.** Short-term accommodation establishments

No.	Name	Location	Type
1	Alamo Motor Inn	Nyngan	Motel
2	Country Manor Motor Inn	Nyngan	Motel
3	Outback Motor Inn Nyngan	Nyngan	Motel
4	Nyngan Riverside Tourist Park	Nyngan	Caravan Park

No.	Name	Location	Type
5	Canobar Hotel	Nyngan	Hotel
6	Tritton Resources Camp	Nyngan	Workers village accommodation
7	Hog and Billy Hotel	Girilambone	Hotel
8	Hermidale Hotel	Hermidale	Hotel
9	Hermidale Outback Lodge	Hermidale	Hotel

## 3.5 Community Values

The Bogan Shire Council adopted the Community Strategic Plan in April 2017. The purpose of the Plan is to identify the community's main priorities and aspirations for the future. The community's vision for the future is *"To provide a comfortable country lifestyle by progressively improving the level of appropriate facilities and services and encouraging growth and economic development that is responsive to the needs of the community"*.

The Plan was prepared with significant community input and reflects shared community values. It also provides a valuable basis to understand specific values in the social locality.

### 3.5.1 Amenity and Lifestyle

'Amenity' refers to a wide range of attributes and values that make a positive contribution to peoples' quality of life<sup>11</sup>. The amenity of urban or residential areas can include physical landscape or streetscape; areas of vegetation and public and private open space for recreation, such as parks, reserves and gardens; urban design, including the scale and dominance of buildings; historic and cultural heritage; public views and outlooks; privacy; physical safety; and the accessibility of places. Another component of amenity is the ability of people to lead their lives free of nuisances including those arising from noise, odour, vibration, dust, wastewater or waste.

Residential amenity in the social locality is characterised by the following<sup>12</sup>:

- Low population density and low-density urban form which enables privacy and a greater share of amenities and open space per resident
- Rural land uses which include productive agricultural land for sheep and cattle production and large-scale cropping
- Access to a range of local services and facilities which supports rural living and lifestyle

11 Source: New South Wales State of Environment 2003 [https://www.epa.nsw.gov.au/soe/soe2003/chapter2/chp\\_2.7.htm](https://www.epa.nsw.gov.au/soe/soe2003/chapter2/chp_2.7.htm)

12 Source: Bogan Shire Community Strategic Plan 2017

### 3.5.2 Indigenous Cultural Values

As noted in section 3.2.1, the Project falls within the boundaries of the Nyngan Local Aboriginal Land Council in Wongaibon Nation. The Aboriginal inhabitants within the region surrounding the Project are the Ngiyampaa Wangaaypuwan (Wongaibon) and other Aboriginal people who have moved to the area.

### 3.5.3 Cultural Diversity

Cultural diversity in the social locality is represented by the proportion of households where a primary Language Other than English (LOTE) was spoken and residents who were born overseas (refer to Table 27). When compared to the NSW average, both Bogan LGA and Girilambone have a much lower percentage of people born overseas and who speak a language other than English at home.

**Table 27.** Cultural Diversity, 2016

Area	% Born Overseas	% Speak LOTE at home
Bogan LGA	4.8%	2.5%
Girilambone SSC	0%	0%
NSW	27.7%	25.2%

Source: ABS Census of Population and Housing 2016

## 3.6 Employment and Industry

This section provides information on the labour force and unemployment rate for the social locality as well as NSW.

### 3.6.1 Labour Force Profile

#### Industry of Employment

The primary industry for employment in Bogan was agriculture, forestry and fishing in 2016, accounting for 22.9 percent. Although agriculture, forestry and fishing were the primary industry the proportion did drop slightly from 2011. Mining was the second highest employer at 14 percent which was a small increase from 2011 (refer Table 28). The next highest employment industries in Bogan were health care and social assistance (8.8 percent), retail trade (8.4 percent), education and training (8.3 percent) and public administration and safety (7.9 percent).

Agriculture, forestry and fishing was the primary industry for Girilambone residents in 2016, accounting for 40.4 percent of employment. However, the proportion of employment dropped 13.4 percent from 2011. Mining employment increased from 0 to 23.1 percent from 2011 and 2016 to become the secondary employment industry in Girilambone (refer Table 28). Only health care and social assistance (7.7 percent) and transport, postal and warehousing (5.8 percent) are industries of employment for the

Girilambone population. A number of industries which provided employment in 2011 such as wholesale trade and education and trading dropped to 0 percent in 2016.

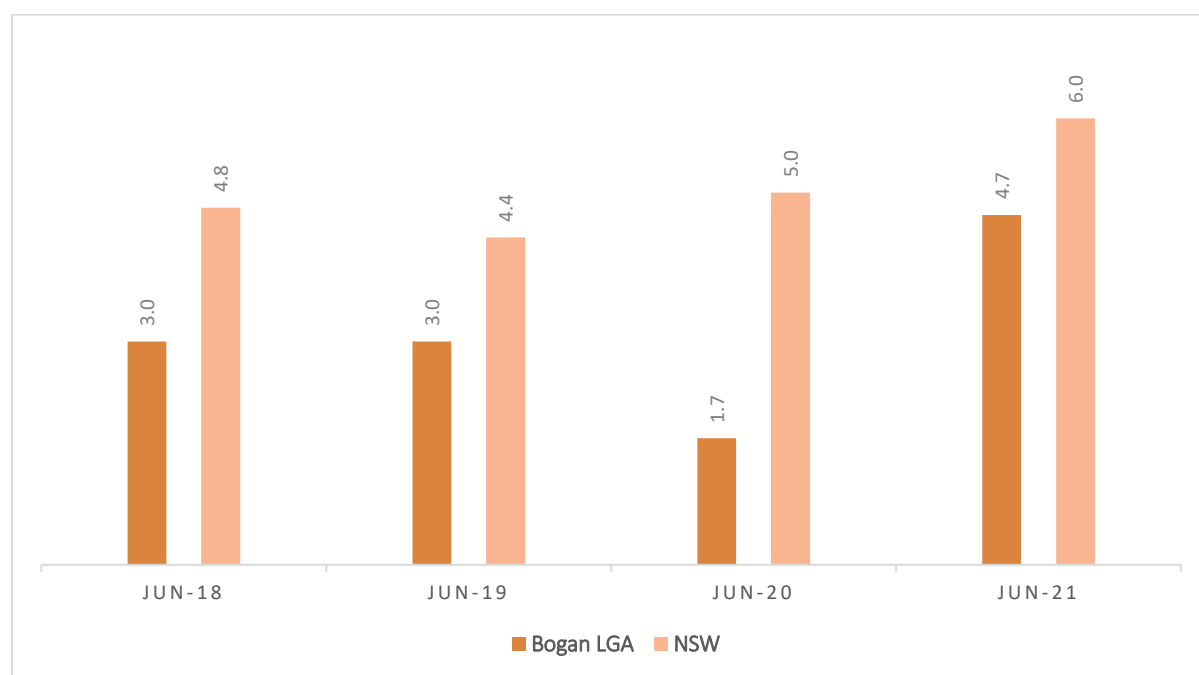
**Table 28.** Industry of employment 2011 and 2016

Industry	Bogan (%)		Girilambone (%)		NSW (%)	
	2011	2016	2011	2016	2011	2016
Agriculture, Forestry and Fishing	26.3	22.9	53.8	40.4	2.2	1.6
Mining	10.9	14.0	0.0	23.1	1.0	1.0
Manufacturing	2.6	1.8	0.0	0.0	8.4	5.3
Electricity, Gas, Water and Waste Services	0.8	1.1	0.0	0.0	1.1	1.0
Construction	4.1	4.5	2.9	0.0	7.3	8.3
Wholesale Trade	1.0	0.9	5.8	0.0	4.4	2.9
Retail Trade	9.1	8.4	2.9	0.0	10.3	6.7
Accommodation and Food Services	5.8	5.2	0.0	0.0	6.7	4.7
Transport, Postal and Warehousing	4.3	3.8	7.7	5.8	4.9	3.8
Information Media and Telecommunications	0.6	0.6	0.0	0.0	2.3	2.4
Financial and Insurance Services	0.6	0.8	3.8	0.0	5.0	5.6
Rental, Hiring and Real Estate Services	0.6	0.6	3.8	0.0	1.6	1.9
Professional, Scientific and Technical Services	1.9	2.6	2.9	0.0	7.9	10.0
Administrative and Support Services	3.0	1.6	0.0	0.0	3.3	3.0
Public Administration and Safety	6.3	7.9	0.0	0.0	6.1	6.9
Education and Training	7.1	8.3	3.8	0.0	7.9	10.5
Health Care and Social Assistance	8.9	8.8	7.7	7.7	11.6	15.0
Arts and Recreation Services	0.8	0.5	0.0	0.0	1.5	1.4
Other Services	1.9	2.8	4.8	0.0	3.7	4.0
Inadequately described/Not stated	2.9	3.6	0.0	7.7	2.5	4.0

Source: ABS Census of Population and Housing 2011 and 2016

### 3.6.2 Unemployment

Figure 3 shows the smoothed unemployment rate for the Bogan LGA and NSW for June 2018 to June 2021. In Bogan LGA the unemployment rate decreased from 3.0 per cent to 1.7 per cent (1.3 percentage points) between the 2019 and 2020 periods. In June 2020 the unemployment rate in Bogan LGA was 3.3 per cent below the NSW average. By June 2021, the unemployment rate in Bogan LGA had increased to 4.7 per cent from 1.7 per cent in 2020 (increase of 3.3 percentage points), however still below the NSW average.

**Figure 3.** Unemployment Rate, June 2018 - 2021

Source: Australian Government, Labour Market Information Portal, Small Area Labour Markets (SALM) June Quarter 2021, LGA Tables

## 3.7 Social Infrastructure

Table 29 shows the existing social infrastructure in the social locality. Facilities and services that are located in the primary social locality of Girilambone is highlighted in orange. The majority of facilities and services are located in the main rural township of Nyngan.

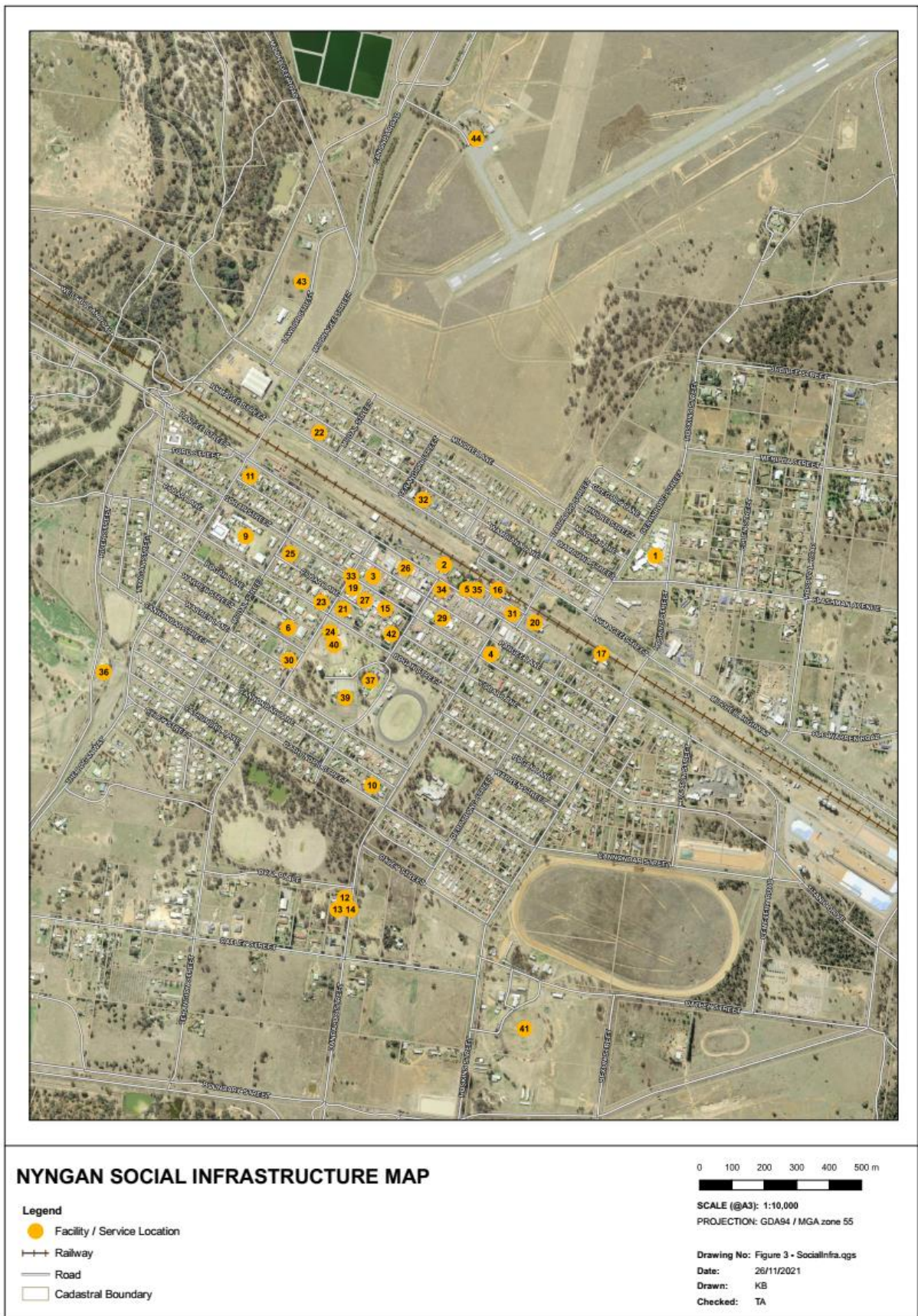
**Table 29.** Existing Social Infrastructure

Map No.	Facility/Service	Address	Comments
<b>Health</b>			
1	Nyngan Health Service (Nyngan Hospital)	Hoskins Street, Nyngan	This facility includes community health services, visiting and local health professionals, emergency and acute care services as well as incorporating residential aged care. NSW Ambulance Service is located within the Health Service Building. Child and Family Health provide immunisations, baby health checks and support to mothers. Other services available by contacting Nyngan Health Service are Mental Health, Palliative Care, Wound Care, Ambulatory Clinics and pathology services. Visiting services such as a Dietician, Diabetes Educator, Women's Health Nurse and GP, Psychiatry, Radiology, Speech Therapy, Paediatric Occupational Therapy are available.
2	Bogan Shire Medical Centre	76c Pangee Street, Nyngan	This purpose-built facility includes a General Practitioner, Nurses, and Allied Health Services to deliver a comprehensive medical service.

Map No.	Facility/Service	Address	Comments
			The services provided by the centre are bulk billed, and include routine GP consultations, acute appointments, prescription appointments, wound dressings, vaccinations and immunisations, chronic disease management plans, preventative health checks, family planning, pap smears, skin checks, WorkCover appointments, and medicals.
3	Nyngan Private Practice	54 Cobar Street, Nyngan	
4	Dr Y. P. Chan	18 Dandaloo Street, Nyngan	
5	Dentist - Nyngan Dental	82 Pangee Street, Nyngan	
<b>Education and Early Learning</b>			
6	St. Joseph's School – Catholic School	23 Terangion St, Nyngan	Primary school (kindergarten to year 6)
7	Girilambone Public School	Vega St, Girilambone	
8	Hermidale Public School	Mouramba St, Hermidale	
9	Nyngan High School	Cobar Street, Nyngan	
10	Nyngan Public School	60 Cathundril St, Nyngan	
11	Nyngan Preschool	11 Pangee Street, Nyngan	For children aged 3-5 years
12	Bogan Shire Early Learning Centre	32 Dandaloo St, Nyngan,	
13	Bogan Bush Mobile	32 Dandaloo Street, Nyngan	
14	Bogan Shire Early Learning Centre	32 Dandaloo St, Nyngan	
<b>Cultural and Civic</b>			
15	Library - Bogan Shire Library	73 Cobar Street, Nyngan	The Bogan Shire Library combines with three other adjacent libraries (Warren, Coonamble, Gilgandra) to form the North Western Library
16	Nyngan Museum	Railway Station, Nyngan	
17	Nyngan Visitor Information Centre	Railway Square, Nyngan	
18	Australia Post Girilambone	Sydney Street Girilambone	
19	Australia Post - Nyngan	69-71 Cobar Street, Nyngan	
20	Nyngan RSL and Civic Club	106 Pangee Street, Nyngan	
<b>Religious</b>			
21	Anglican Church - St. Mark's Anglican Church	19 Cathundril Street, Nyngan	
22	Baptist Church	14 Nymagee Street, Nyngan	
23	Catholic Church - St. Patrick's Church	52 Bogan Street, Nyngan	
24	Christian Community Centre	16 Terangion St, Nyngan	
25	Uniting Church	41 Cobar Street, Nyngan	
<b>Aged Care and Retirement</b>			
26	Australian Unity Home Care	69 Pangee St, Nyngan	
27	Facs (Family and Community Services) Access Centre	67 Cobar St, Nyngan	
28	Senior Citizens		
29	Nyngan Community Homes Association Incorporated	2 Flashman Ave, Nyngan	
<b>Community Support</b>			
30	Barnardo's	27 Terangion St, Nyngan	Early intervention service work together with children, young people and families to break the cycle of disadvantage, creating safe, nurturing, stable homes connected to family and community.
31	Nyngan Local Aboriginal Land Council	102 Pangee St, Nyngan	Nyngan LALC offers housing to Aboriginal people; cultural and heritage site surveys and field assessments; protection and

Map No.	Facility/Service	Address	Comments
			research of Aboriginal sites and artefacts; and assistance to Aboriginal people within the Nyngan LALC boundary
32	Bogan Aboriginal Corporation	46 Nymagee St, Nyngan	
33	Mission Australia Nyngan	Cobar Street, Nyngan	
34	Nyngan Community Hub	91 Pangee St, Nyngan	
35	St Vincent De Paul Society	84 Pangee Street, Nyngan	
<b>Sport and Recreation</b>			
36	Nyngan Golf Club	Tottenham Road, Nyngan	
37	Nyngan Memorial Swimming Pool	Bogan St, Nyngan	Open October through to March. Includes a 50 metre pool and a smaller toddler pool
38	Hermidale Tennis & Fitness Centre	Hermidale Plains	
39	Tennis Club - Nyngan	53 Canonbar Street, Nyngan	
40	Nyngan Bowling Club	Terangion Street, Nyngan	
41	Nyngan showgrounds	Hoskins Street, Nyngan	
<b>Emergency and Safety</b>			
42	Police Station – Nyngan	Tabratong Street, Nyngan	
43	Fire and Rescue NSW Nyngan Fire Station	100 Lawlor Street, Nyngan	
<b>Other</b>			
44	Nyngan Aerodrome	Nyngan Street, Nyngan	

Figure 4. Social Infrastructure in Nyngan



Source: TAP Consulting, 2021

Figure 5. Social Infrastructure in Girilambone



Source: TAP Consulting, 2021

Figure 6. Social Infrastructure in Hermidale



Source: TAP Consulting, 2021

## 4.0 Initial Stakeholder Consultation for Scoping

As part of the scoping phase, consultation was undertaken with key stakeholders by the broader EIS consultant team as well as the proponent. A list of stakeholders is listed in Section 5 of the Project Constellation: Scoping Report 2022. A summary of the relevant aspects for the social assessment is provided below.

Theme	Social Impact	Comments
<b>Landowners</b>	<ul style="list-style-type: none"> <li>Access to certain portions of the land which are key for ongoing agricultural operations would need to be retained, e.g. farm dams</li> <li>Assurances about the scale and intensity of the development and about the impacts which the development would create</li> </ul>	<ul style="list-style-type: none"> <li>Further engagement with landowners to be undertaken depending on the refinement of the haul road alignment.</li> </ul>
<b>Truck movement and haulage</b>	<ul style="list-style-type: none"> <li>Haulage through Girilambone could disrupt emerging vision of tourist stop over through safety/amenity issues.</li> <li>Experience in Hermidale is that change to traffic/movement of trucks is a big issue and concern for that community. Can perhaps expect the same for Girilambone.</li> <li>Dust impacts would need to be appropriately mitigated and managed. Design options should be explored for minimising dust impacts.</li> <li>The alignment of the haul road should minimise impacts to property access, allow for separation of traffic and provided a visual buffer where possible.</li> <li>The haul road would need to consider potential impacts (noise and dust) to the Girilambone Village.</li> <li>Strong opposition if Haulage were to pass through Nyngan.</li> </ul>	<ul style="list-style-type: none"> <li>Haulage route could impact sensitive receptors and that assessment will be done when the alignment and route is determined.</li> <li>Haulage through Nyngan no longer being considered.</li> <li>Further engagement with landowners to be undertaken depending on the refinement of the haul road alignment.</li> </ul>
<b>Community identity and values for Girilambone</b>	<ul style="list-style-type: none"> <li>Girilambone has a small population of less than 60 people. Identity is emerging through active community leadership as a tourist stop-over (short). Currently a number of caravans stop at the park in Girilambone. Desire from community is to have as many people stop in the town as</li> </ul>	<ul style="list-style-type: none"> <li>Further engagement with Girilambone community to be undertaken to determine impacts.</li> </ul>

Theme	Social Impact	Comments
	<p>possible. Plans/initiatives/commitments underway:</p> <ul style="list-style-type: none"> <li>○ Council land across from the park will be used for free camping area, new toilet</li> <li>○ Grant for redevelopment of old railway station (museum, gallery) on the Highway</li> <li>○ New service station operator has opened a café as well as selling local crafts</li> </ul>	
<b>Access to water</b>	<ul style="list-style-type: none"> <li>● Mine sometimes diverts water from its pipeline (mine has water rights to the river) to Girilambone which has unreliable and poor quality (tanks only) water supply. Good will gesture from Tritton that council appreciates.</li> </ul>	<ul style="list-style-type: none"> <li>● Potential for this arrangement to continue.</li> </ul>
<b>Local employment opportunities</b>	<ul style="list-style-type: none"> <li>● Important to keep young people in the community through local job opportunities.</li> </ul>	<ul style="list-style-type: none"> <li>● Tritton currently employs local, including apprentices, envisages that this will continue.</li> </ul>
<b>Housing and accommodation</b>	<ul style="list-style-type: none"> <li>● Housing availability in Nyngan is very low and has been for years (rental and purchase).</li> <li>● Requirement for housing/accommodation to encourage business growth.</li> <li>● Bogan Shire Council is looking at undertaking subdivision in Nyngan with opportunity for inclusion of 10 dedicated houses for mine workers. Early discussion suggests that Tritton likely to partner with a builder to build 10 homes on Council land in Nyngan for mine workers.</li> <li>● Future of the workforce accommodation at Hermidale (accommodates drive in drive out workers for the Tritton mine). Will that accommodation move closer to the new Constellation mine site or stay in Hermidale where it provides a source of income and activity for that small town?</li> </ul>	<ul style="list-style-type: none"> <li>● There is no plan to change the accommodation arrangements as part of the development consent for Constellation Project. The Constellation Project will maintain the existing workforce and will not change the accommodation numbers required for operational activities. As there is a general shortage of rental accommodation in Nyngan, Tritton Operations works with the Nyngan Council to facilitate accommodation arrangements for employees. This will continue through the life of the Tritton Operations.</li> </ul>
<b>Mine closure</b>	<ul style="list-style-type: none"> <li>● 'If mine closes, Nyngan closes'. Council work with Tritton to support mine.</li> </ul>	<ul style="list-style-type: none"> <li>● Bogan Shire Council expressed general support for the Project during the engagement meeting.</li> </ul>

## 5.0 Initial Assessment of Social Impacts

This section provides a preliminary assessment of potential social impacts using the approach described in the DPIE SIA Guidelines. The preliminary assessment aims to:

- *Capture and characterise the likely social impacts to inform project planning before social impacts start occurring.*
- *Enable a consistent but scalable approach to SIA where the level of assessment is proportionate to the scale and nature of the likely social impacts.*
- *Consider the information to be assessed during the SIA scoping and initial assessment and the approach to community engagement.*
- *Identify potential project refinements and possible mitigation and enhancement measures.*
- *Identify the impacts that may require further assessment in the EIS and the possible level of assessment for each impact.*

### 5.1 The Framework

The framework used for the scoping of social impacts is consistent with the SIA Guidelines and scoping worksheet. A summary of the framework is shown below in Figure 7 and further detail is provided in section 4.2 below.

**Figure 7.** SIA Guideline Scoping Framework

PROJECT ACTIVITIES	CATEGORIES OF SOCIAL IMPACT	LIKELY IMPACTS ON PEOPLE	PREVIOUS INVESTIGATIONS	CUMULATIVE & COMBINED IMPACTS
<ul style="list-style-type: none"> <li>• Identify specific project activities that could have social impacts</li> </ul>	<ul style="list-style-type: none"> <li>• Identify whether the project activities might cause some form of impact (positive or negative, tangible or intangible etc.) within that following categories: access, community, culture, way of life, health and wellbeing, livelihood surroundings, decision making</li> </ul>	<ul style="list-style-type: none"> <li>• Identify how each stakeholder group may experience impacts, whether positively and/or negatively, how impacts may be distributed</li> </ul>	<ul style="list-style-type: none"> <li>• Use existing data if similar projects have considered similar impacts or the projects are comparable</li> </ul>	<ul style="list-style-type: none"> <li>• Consider both combined and cumulative impacts and whether these change the nature or intensity of any identified social impacts</li> </ul>

DIMENSIONS	ASSESSMENT LEVEL	SIA METHOD	PROJECT REFINEMENT	MITIGATION/ENHANCEMENT
<ul style="list-style-type: none"> <li>Consider whether social impacts (without mitigation/enhancement) are likely to be material having regard to the extent of people affected, duration of impacts, intensity/scale of impacts, sensitivity of the people affected, and their level of concern or interest</li> </ul> <p>•Refine for the SIA report</p>	<ul style="list-style-type: none"> <li>Determines the extent of effort and data required for the SIA report</li> </ul>	<ul style="list-style-type: none"> <li>Consider and plan any research methods</li> </ul>	<ul style="list-style-type: none"> <li>Identify opportunities for project refinement in response to stakeholder feedback or preliminary impact evaluation.</li> <li>Revisit project refinement throughout development of the SIA report</li> </ul>	<ul style="list-style-type: none"> <li>Identify preliminary mitigation/enhancement measures during SIA scoping and initial assessment.</li> <li>Revisit mitigation and enhancement measures throughout the development of the SIA report.</li> </ul>

Source: DPIE SIA Guidelines, 2021

## 5.2 Scoping of Social Impacts

The scoping of social impacts is derived from what is known about the Project at this stage, the social impacts of the existing operation, preliminary conversations with project staff on the ground and the quantitative data presented in the preceding sections.

The following provides a summary of the initial scoping of social impacts for the Constellation Project (refer to Table 30).

### Project Activities

For the purposes of this assessment, project activities have been categorised into three key areas including:

- Construction activity – these are activities that may have a short-term social impact during the construction stage of the project.
- Construction and operation activity – these are activities that may impact across the full life of the project and can be short and long term in nature.
- Operation activity – these are activities that may impact once project moves into operation phase.

It is noted that closure of the mine has also been identified as a potential project impact.

The nature of this project is that most impacts will likely occur during construction, given the intent of the project to maintain current workforce numbers and arrangements (e.g. retention of workers from existing Tritton Copper Mine).

### Categories of Social Impact/ Likely Impact on People

The guidelines list 8 categories of social impacts as noted above in the framework. The initial social impact assessment identifies the categories of 'livelihood' and 'surroundings' as being the two areas of significance. For clarity, the SIA Guidelines provide the following explanation:

- *Surroundings - Impacts on anything provided by the environment and that is useful for people, e.g. food and clean water supply, flood or fire defences. Impacts on safety of pedestrians, children, drivers, and cyclists. Impacts on levels of crime and violence, perceptions of crime, safety, and security, especially for women. Loss or enhancement of public spaces. Impacts on the perceived quality and uses of a natural or built area. Impacts on the valued features, the soundscape, and aesthetics of a place and how people use or appreciate it.*
- *Livelihood - Impacts on people's livelihoods, e.g. from new employment and business opportunities (positive), or from disruption during construction (negative).*

Social impacts in the 'surroundings' category are all negative in nature and include amenity impacts such as noise, dust (particularly from truck/haulage movement etc, loss of agricultural land and risk to water quality and quantity. Social impacts in the 'livelihood' category are predominantly positive.

### Previous Investigations

In 2014, Tritton Resources submitted an Environmental Impact Statement for the Avoca Tank Project. The Avoca Tank Project is an underground copper mine with a 7 year project life. The mine is located approximately 2kms north of the existing Girilambone Copper Mine and about 7km northwest of the Girilambone township.

Given that the Avoca Tank Project is the most recent mining project in close proximity to the proposed Constellation Project, previous investigations carried out as part of that approval process has been considered in the initial scoping. The following have been identified as relevant for the SIA scoping for the current project:

- Continued employment for approximately 318 persons, of which more than half would continue to reside within the Bogan Local Government Area with a large proportion of the remainder residing in surrounding areas.
- Continued contribution to the local, Regional, State and National economies, including contributions of approximately \$15.8M and \$10M annually within the Bogan LGA through wages and salaries and purchase of goods and services respectively, with additional indirect contributions.
- Continued support for local community organisations and services.
- Modern mining operations have been ongoing at the Girilambone Copper Mine since 1992. During that time, it has been identified that mining operations do not trigger noise criteria at residences in the Girilambone locality, nor have there been any noise-related complaints.
- Monitoring of clean water storages in the vicinity of the Applicant's existing operations has returned results below the relevant Australian and New Zealand Environment and Conservation Council's Guidelines for Fresh and Marine Water Quality (ANZECC 2000) trigger values.
- Groundwater sampling indicates that groundwater quality in the vicinity of the Applicant's operations naturally exceeds both the ANZECC (2000) stock watering and irrigation trigger values. These results are widely distributed, indicating that poor quality groundwater is a feature of the area surrounding the Applicant's operations.

The risk assessment for impacts associated with the Avoca Tank Project is provided at Appendix A.

---

### Cumulative & Combined Impacts

To be determined as part of the EIS

### Dimensions

An initial evaluation of the extent, duration, intensity, sensitivity and level of interest of preliminary social impacts has been carried out. Further refinement is required and will be undertaken as part of the EIS phase.

### Assessment Level

The SIA Guidelines provides 4 levels of assessment for identified social impacts which include:

- **Detailed** – *The project may result in significant social impacts, including cumulative impacts*
- **Standard** – *The project is unlikely to result in significant social impacts, including cumulative impacts*
- **Minor** – *The project may result in minor social impacts*
- **Not relevant** – *The project will have no social impact, or the social impacts of the project will be so small that they do not warrant consideration*

Initial scoping identified one social impact that will require detailed assessment. This relates to the project activity, transport of materials from site and truck movements to and from the site, resulting in potential impacts associated with noise, dust and safety concerns for children attending the Girilambone Public Primary School.

### SIA Method

To be determined as part of the EIS

### Project Refinement

To be determined as part of the EIS

### Mitigation/Enhancement

To be determined as part of the EIS

**Table 30.** SIA Scoping Worksheet for Constellation Project

---

## 6.0 References

Australian Bureau of Statistics (ABS) 2011, Girilambone Basic Community Profile. Australian Government.

Australian Bureau of Statistics (ABS) 2016, Girilambone Basic Community Profile. Australian Government.

Australian Bureau of Statistics (ABS) 2011, Bogan Basic Community Profile. Australian Government.

Australian Bureau of Statistics (ABS) 2016, Bogane Basic Community Profile. Australian Government.

Australian Government, Labour Market Information Portal, Small Area Labour Markets (SALM) June Quarter 2021, LGA Tables

Bogan Shire Council 2019, Bogan Shire Council Local Strategic Planning Statement. NSW

Bogan Shire Council 2019, Community Participation Plan. NSW

Bogan Shire Council 2017, Community Strategic Plan 2027. NSW

DPIE, 2021, Draft Central West and Orana Regional Plan 2041. NSW Government Department of Planning, Industry and Environment, Sydney, NSW.

DPIE 2021, Social Impact Assessment Guideline for State Significant Projects. NSW Government Department of Planning, Industry and Environment, Sydney, NSW.

DPIE 2021, Technical Supplement Social Impact Assessment Guideline for State Significant Projects. NSW Government Department of Planning, Industry and Environment, Sydney, NSW.

DPIE 2021, Undertaking Engagement Guideline for State Significant Projects. NSW Government Department of Planning, Industry and Environment, Sydney, NSW.

DPIE 2019, NSW Population Projections – Bogan LGA. NSW Government Department of Planning, Industry and Environment, Sydney, NSW.

Family and Community Services 2015, NSW Communities & Justice, Community Housing Providers by LGA. NSW Communities & Justice, NSW

NSW Government, 2021. Drought Stimulus Package - Girilambone Railway Revitalisation, viewed online 26 November 2021 at <https://www.nsw.gov.au/drought-stimulus-package/girilambone-railway-revitalisation>

NSW Government, 2021. Water in New South Wales, Macquarie-Bogan, viewed online 25 November 2021 at <https://www.industry.nsw.gov.au/water/basins-catchments/snapshots/macquarie-bogan>

R.W. Corkery & Co 2014, Environmental Impact Statement for the Avoca Tank Project. Tritton Resources

G. Stanley 2012, Community Based Heritage Study for Bogan Shire. Bogan Shire Council, NSW.

## 7.0 Appendix A

**Table 5.4**  
**Analysis of Standard and Residual Environmental Risk**

Page 1 of 5

Risk Source	Consequence / Hazard	Risk with Standard Control Measures	Proposed Control Measures Section Ref.	Residual Risk with Proposed Control Measures
<b>ENVIRONMENTAL ISSUE – ABORIGINAL HERITAGE</b>				
Unauthorised destruction of known sites.	Loss of heritage values.	M(20)	4.2.9	M(20) ALARP
Unauthorised destruction of unknown sites within approval areas.	Loss of heritage values.	M(20)	4.2.9	M(20) ALARP
<b>ENVIRONMENTAL ISSUE – ECOLOGY</b>				
Planned clearing of vegetation communities.	Loss of terrestrial ecology habitat, local vegetation and biodiversity.	L(22)	4.3.7	L(22)
Planned clearing of vegetation.	Injuries to native wildlife and fauna during clearing / earthworks (pre-strip).	L(23)	4.3.7	L(23)
Changes to groundwater and surface water systems.	Adverse impacts on groundwater dependent ecosystems.	L(23)	4.3.7	L(23)
Mining operations.	Indirect impacts to fauna communities due to light / noise / blasting etc.	L(25)	4.3.7	L(25)
<b>ENVIRONMENTAL ISSUE – GROUNDWATER</b>				
Interception of groundwater from alluvial aquifers in mine workings	Reduction in groundwater discharge to surrounding creeks/rivers, adverse impacts on groundwater dependent ecosystems or surrounding groundwater users.	L(25)	4.4.6	L(25)
Interception of groundwater from fractured rock aquifers in mine workings	Reduction in groundwater discharge to surrounding creeks/rivers, adverse impacts on groundwater dependent ecosystems or surrounding groundwater users.	L(22)	4.4.6	L(22)
Modified groundwater quality / quantity	Discharge of poor quality groundwater to surrounding aquifers.	L(21)	4.4.6	L(21)
<b>ENVIRONMENTAL ISSUE – NOISE</b>				
Noise emissions from mining operations (including site establishment and construction).	Amenity impacts on residential and other sensitive receptors (including infrasound).	L(21)	4.5.5	L(21)
	Health impacts on residential and other sensitive receptors (including infrasound).	L(23)	4.5.5	L(23)
Off-site traffic noise.	Amenity impacts on residential and other sensitive receptors.	L(22)	4.5.5	L(22)

Table 5.4 (Cont'd)  
Analysis of Standard and Residual Environmental Risk

Page 2 of 5

Risk Source	Consequence / Hazard	Risk with Standard Control Measures	Proposed Control Measures Section Ref.	Residual Risk with Proposed Control Measures
<b>ENVIRONMENTAL ISSUE – BLASTING</b>				
Ground Vibration and airblast from blasting activities.	Amenity impacts on residential and other sensitive receptors.	L(25)	4.6.4	L(25)
Flyrock from blasting (property)	Flyrock ejected outside blast envelope resulting in damage to nearby residences / surrounding property / infrastructure / stock.	L(25)	4.6.4	L(25)
Flyrock from blasting (injury)	Flyrock ejected outside blast envelope resulting in injury or death.	L(25)	4.6.4	L(25)
Flyrock and airblast from blasting.	Flyrock and airblast impacting upon airborne aircraft and aerial operations.	L(25)	4.6.4	L(25)
<b>ENVIRONMENTAL ISSUE – NON-INDIGENOUS HERITAGE</b>				
Site establishment and construction operations.	Impact to known European heritage sites within the Project Site.	L(25)	4.7.6	L(25)
<b>ENVIRONMENTAL ISSUE – AIR QUALITY</b>				
Generation of blasting fume.	Amenity impacts on residents and other sensitive receptors.	L(25)	4.6.4	L(25)
Emissions of PM <sub>10</sub> /PM <sub>2.5</sub> /TSP/Deposited dust from construction activities.	Health and / or amenity impacts on residential and other sensitive receptors.	L(25)	4.8.5	L(25)
Emissions of PM <sub>10</sub> /PM <sub>2.5</sub> /TSP/Dust from mining operations.	Health and / or amenity impacts on residential and other sensitive receptors.	L(24)	4.8.5	L(24)
Emissions of PM <sub>10</sub> /PM <sub>2.5</sub> /TSP/ Deposited dust transportation operations	Health and / or amenity impacts on residential and other sensitive receptors.	L(25)	4.8.5	L(25)
Deposited dust impacting agricultural productivity.	Increased dust load on crops on surrounding agricultural land.	L(25)		L(25)
<b>ENVIRONMENTAL ISSUE – SURFACE WATER</b>				
Runoff from rainfall event causes water release.	Discharge of sediment-laden water impacting upon riverine ecology and downstream users.	L(24)	4.9.3	L(24)
Discharge/seepage of stored saline water into surface water/shallow groundwater system.	Pollution of surface water and shallow groundwater.	L(23)	4.9.3	L(23)
Retention of excess poor quality water.	Inability to discharge to surface water and groundwater systems without chemical or additional treatment.	NA		NA

**ENVIRONMENTAL IMPACT STATEMENT**

Section 5 – Evaluation and Justification of the Project

**TRITTON RESOURCES PTY LTD**

Avoca Tank Project

Report No. 859/02

**Table 5.4 (Cont'd)**  
**Analysis of Standard and Residual Environmental Risk**

Page 3 of 5

<b>Risk Source</b>	<b>Consequence / Hazard</b>	<b>Risk with Standard Control Measures</b>	<b>Proposed Control Measures Section Ref.</b>	<b>Residual Risk with Proposed Control Measures</b>
<b>ENVIRONMENTAL ISSUE – SURFACE WATER (Cont'd)</b>				
Chemical contamination of surface water from mining activities.	Impact on surface or groundwater biota within surface water and shallow groundwater environments.	L(21)	4.9.3	L(23)
Erosion/failure of sediment and erosion controls.	Diversion and retention banks erosion / instability leading to increased sediment loads.	L(24)	2.6.2	L(24)
<b>ENVIRONMENTAL ISSUE – TRAFFIC</b>				
Increased traffic on surrounding roads (workforce)	Elevated risk of accident / incident on local roads.	H(12)	4.10.3	H(12) ALARP
	Increased traffic congestion.	L(25)	4.10.3	L(25)
	Road pavement deterioration.	L(25)	4.10.3	L(25)
Increased heavy vehicle traffic on surrounding roads (operational)	Increased traffic congestion.	L(25)	4.10.3	L(25)
	Elevated risk of accident / incident on local roads.	H(12)	4.10.3	H(12) ALARP
	Road pavement deterioration.		4.10.3	
Existing road design unsuited to planned use / traffic levels.	Conflicts with other users leading to damage to existing infrastructure resulting in community complaints and impact on the local road network.	NA	NA	NA
<b>ENVIRONMENTAL ISSUE – VISIBILITY</b>				
Establishment of surface infrastructure	Amenity impact through change in content and composition of views from residences and public vantage points.	L(24)	4.11.3	L(24)
Lighting or lighting glow	Visual intrusion or reduction in scenic quality at residential and other sensitive receptors.	M(18)	4.11.3	L(23)
Transportation operations	Local amenity impact of visibility of industrial traffic on residential and other sensitive receptors.	L(25)	4.11.3	L(25)

## TRITTON RESOURCES PTY LTD

Avoca Tank Project

Report No. 859/02

## ENVIRONMENTAL IMPACT STATEMENT

Section 5 – Evaluation and Justification of the Project

**Table 5.4 (Cont'd)**  
**Analysis of Standard and Residual Environmental Risk**

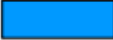

Page 4 of 5

Risk Source	Consequence / Hazard	Risk with Standard Control Measures	Proposed Control Measures Section Ref.	Residual Risk with Proposed Control Measures
<b>ENVIRONMENTAL ISSUE – BUSH FIRE</b>				
Fire initiated offsite.	Fire initiated off site threatening Site operations, impacting on-site stock and infrastructure.	M(17)	4.12.3	M(17)
Fire initiated onsite.	Fire initiated on site threatening Site operations or spreading off site and impacting on stock and infrastructure.	M(20)	4.12.3	M(20)
<b>ENVIRONMENTAL ISSUE – SOILS</b>				
Inappropriate soil management.	Inadequate soil available for rehabilitation purposes leading to less successful rehabilitation and increased rehabilitation costs and maintenance.	L(25)	4.13.4	L(25)
Inappropriate soil management.	Degradation of soil in stockpiles leading to less successful rehabilitation and increased rehabilitation costs and maintenance to the Mine Area.	M(18)	4.13.4	L(21)
Inappropriate soil management.	Erosion of soil stockpiles leading to increased sediment loads in creeks.	L(24)	4.13.4	L(25)
<b>ENVIRONMENTAL ISSUE – SOCIO-ECONOMIC/AGRICULTURAL</b>				
Mining operations.	Impacts on land values and housing market within the LGA.	Positive impact	4.15.5	Positive impact
Proposal operations	Impacts of land values and housing markets within the LGA.	Positive impact	4.15.5	Positive impact
Mining operations.	Perception of negative health impacts on the community at surrounding residences.	L(25)	4.15.5	L(25)
Mining operations.	Equity imbalance in wages / access to resources between miners and other sectors within the surrounding community.	Positive impact	4.15.5	Positive impact
Mining operations.	Community division between support and opposition for the Proposal within the community.	NA	NA	NA
Mining operations.	Inability of local business to compete with mining wages leading to antagonism towards the Proposal from local businesses.	L(25)	4.15.5	L(25)

**Table 5.4 (Cont'd)**  
**Analysis of Standard and Residual Environmental Risk**

Page 5 of 5

Risk Source	Consequence / Hazard	Risk with Standard Control Measures	Proposed Control Measures Section Ref.	Residual Risk with Proposed Control Measures
<b>ENVIRONMENTAL ISSUE – SOCIO-ECONOMIC/AGRICULTURAL (Cont'd)</b>				
Population increase associated with employment growth.	Stress on the local services leading to community disharmony and poor relationships with the Applicant.	Positive impact	4.15.5	Positive impact
Mining operations.	Mining operations lead to negative impacts on agriculture within the LGA.	Positive impact	4.15.5	Positive impact
Mining Operations	Loss of High Quality Agricultural Land.	NA	4.14.3	NA
Proposal Operations	Increased pressure on local infrastructure.	L(25)	4.15.5	L(25)

 Low	 Moderate	 High	 Extreme
ALARP = As Low as Reasonably Practicable			