



EnergyConnect (NSW – Western Section)

Technical paper 5

Socio-economic impact assessment

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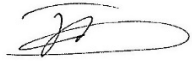



EnergyConnect (NSW – Western Section) Technical paper 5 – Socio-economic impact assessment

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GLOSSARY

ABN	Australian Business Number
ACT	Australian Capital Territory
AER	Australian Energy Regulator
AHO	NSW Aboriginal Housing Office
ARPANSA	Australian Radiation Protection and Nuclear Safety Agency
ATSI	Aboriginal and Torres Strait Islanders
BMEC	Barkindji Maroura Elders Council
BMEET	Barkindji Maraura Elders Environment Team
CBD	Central business district
CEMP	Construction Environmental Management Plan
CHAC	Coomealla Health Aboriginal Corporation
CSEP	Community and Stakeholder Engagement Plan
DIDO	Drive-in-drive-out
DPIE	New South Wales Department of Planning, Industry and Environment (formerly Department of Planning and Environment)
EIS	Environmental impact statement
EMFs	Electromagnetic fields
EPC	Engineering, Procurement and Construction Contractor
ESR	Environmental Scoping Report
FIFO	Fly-in-fly-out
FTE	Full time equivalent
FWLHD	The Far West Local Health District
GDP	Gross Domestic Product
GP	General Practitioner
GRP	Gross Regional Output
GSP	Gross State Product
ILUA	Indigenous Land Use Agreement
JO	Joint Organisation
km	Kilometre
kV	Kilovolt

LALC	Local Aboriginal Land Council
LGA	Local Government Area
NEM	National Electricity Market
NSW	New South Wales
RAP	Reconciliation Action Plan
RAPs	Registered Aboriginal Parties
RIT-T	Regulatory Investment Test for Transmission
RTO	Registered Training Organisation
SA	South Australia
SEARs	Secretary's Environmental Assessment Requirements
SEIA	Socio-Economic Impact Assessment
SEIFA	Socio-Economic Indexes for Areas
SES	State Emergency Service
SMECC	Sunraysia Mallee Ethnic Communities Council
SuniTAFE	Sunraysia Institute of TAFE
WHO	World Health Organisation

EXECUTIVE SUMMARY

ENERGYCONNECT (NSW – WESTERN SECTION)

TransGrid (electricity transmission operator in New South Wales (NSW)) and ElectraNet (electricity transmission operator in South Australia (SA)) are seeking regulatory and environmental planning approval for the construction and operation of a new High Voltage (HV) interconnector between NSW and SA, with an added connection to north-west Victoria (VIC). Collectively, the proposed interconnector is known as EnergyConnect.

The proposal, focusing on the western section of EnergyConnect in NSW (and the subject of this technical paper), would involve the construction and operation of new 330kV transmission lines between the SA/NSW border and Buronga, an upgrade and expansion of the existing Buronga substation from an operating voltage of 220kV to 330kV and an upgrade of the existing 220kV transmission line between Buronga substation and the border of NSW and Victoria.

OVERVIEW

This Socio-Economic Impact Assessment (SEIA) report documents the social and economic impacts of the proposal as part of a package of technical documents that inform its Environmental Impact Statement (EIS). This SEIA meets the Secretary's Environmental Assessment Requirements (SEARs) as part of the NSW Department of Planning, Industry and Environment (DPIE) planning approvals process. The methodology for this SEIA adopts the approach and principles supported by both international and NSW best practice guidance documents.

OVERVIEW OF EXISTING ENVIRONMENT

The existing environment or socio-economic baseline for the SEIA has determined the area of socio-economic influence for the proposal to include both the local government areas (LGAs) of Wentworth and Mildura. The existing environment provides an overview of the residential population, key place-based communities, their composition and demographic profile and social and economic characteristics as well as a desktop audit of the available social infrastructure and services.

While communities across Wentworth and Mildura LGAs have relative economic diversification and skills adaptability, as well as experience welcoming temporary workforces across a number of sectors, there are also vulnerabilities within the community related to social disadvantage, an ageing population and high rates of unemployment. The Aboriginal population of the area of socio-economic influence is proportionately much higher in size than the NSW average, with a considerably high number of young people who are unemployed.

The proximity between Wentworth LGA and Mildura LGA (in Victoria) means that most people's day-to-day lives are directly linked to the services, industries, infrastructure and public life in Mildura city. For this reason the Mildura LGA has also been considered in this SEIA as a key component of the area and communities of influence.

The key findings and implications are identified below, for consideration in the SEIA.

OVERVIEW OF FINDINGS

The SEIA found the proposal may have several socio-economic effects on communities who live, work and visit the area of socio-economic influence. All identified impacts were assessed for significance which considers both consequence and likelihood levels. All identified impacts are also likely to be experienced differently across the place-based communities within the area of influence. The main impact categories relate to the influx of construction workers in a sparsely populated area, and the potential effect that the transient population could have on access to and use of existing facilities and services related to housing, healthcare and employment. Additionally, the local and regional economic opportunities that the proposal presents are significant, if fully realised by the proponent.

SUMMARY OF IMPACTS

The majority of identified impacts are temporal in nature. The changes or affects felt or experienced by communities is likely to correspond strongly with the presence of the ‘peak’ construction workforce, expected to last for a period of two to four years. After the year 2024, the felt experience of most impacts would likely taper off and are not expected to be experienced in the longer term as part of the operational phase.

The townships closest to the proposed workforce accommodation camps of Buronga and Wentworth, as well as other residential populations along key road transport routes within the area of influence, are predicted to experience the socio-economic impacts to the greatest extent, both positive and negative. Local employment and contracting services for the proposal’s construction works would have the ability to benefit the wider Wentworth LGA population. If targeted processes are put in place in the planning and development phases, benefits and opportunities would be significant to the communities within the area of influence and could have a considerably greater positive impact for the identified vulnerable communities within the population.

Overall, the proposal would provide significantly greater capacity for the local and regional economy to activate new and emerging sectors, which in the long-term would bring widespread regional benefit. All potential impacts assessed in Chapter 4 would be reasonably mitigated throughout planning and development to reduce their significance of all to moderate or low. All potential positive impacts identified can be reasonably enhanced through a collaborative approach to development for local stakeholders and communities to realise the extent of opportunities that the proposal offers.

Of note, given the current sensitive economic climate caused by COVID-19, employment opportunities and other local or regional socio-economic benefits that the proposal offers would likely generate a more significant advantage for beneficiaries and their dependents, when compared to a scenario of economic conditions without any proposed development in the area of socio-economic influence.

OVERVIEW OF MITIGATION AND ENHANCEMENT MEASURES

Overall, this SEIA anticipates the proposal would create many opportunities and benefits for people in the area of socio-economic influence. It may also create some short-term undesirable socio-economic changes. In the planning and development phase, TransGrid is in an opportune position to anticipate and respond to potential issues before construction ramps up to its peak workforce. Key recommended mitigation and enhancement measures, which centre around a proactive management approach to deliver local socio-economic benefit, include:

- a Community and Stakeholder Engagement Plan, to guide public participation and to ensure strategic engagement for the proposal’s planning and development encompasses the diverse range of stakeholders’ interests, concerns and priorities
- a Local Business and Employment Strategy, to guide local participation opportunities during construction, and where possible, to align proposal development with existing plans and strategies of local government
- a Community Benefit Plan, to guide opportunities to deliver benefits to local communities during and following construction
- a Workforce Management Plan to provide construction workforce support services to promote health and wellbeing and to manage positive social integration with existing communities.

1 INTRODUCTION

1.1 OVERVIEW OF ENERGYCONNECT

TransGrid (electricity transmission operator in New South Wales (NSW)) and ElectraNet (electricity transmission operator in South Australia (SA)) are seeking regulatory and environmental planning approval for the construction and operation of a new High Voltage (HV) interconnector between NSW and SA, with an added connection to north-west Victoria. Collectively, the proposed interconnector is known as EnergyConnect.

EnergyConnect comprises of several components or ‘sections’ (shown on Figure 1.1). The Western Section (referred to as ‘the proposal’) is the subject of this technical paper.

EnergyConnect aims to secure increased electricity transmission between NSW and SA in the near term, while facilitating the longer-term transition of the energy sector across the National Electricity Market (NEM) to low emission energy sources.

EnergyConnect has been identified as a priority transmission project in the NSW Transmission Infrastructure Strategy (Department of Planning and Environment, 2018), linking the SA and NSW energy markets and would assist in transporting energy from the South-West Renewable Energy Zone to major demand centres.

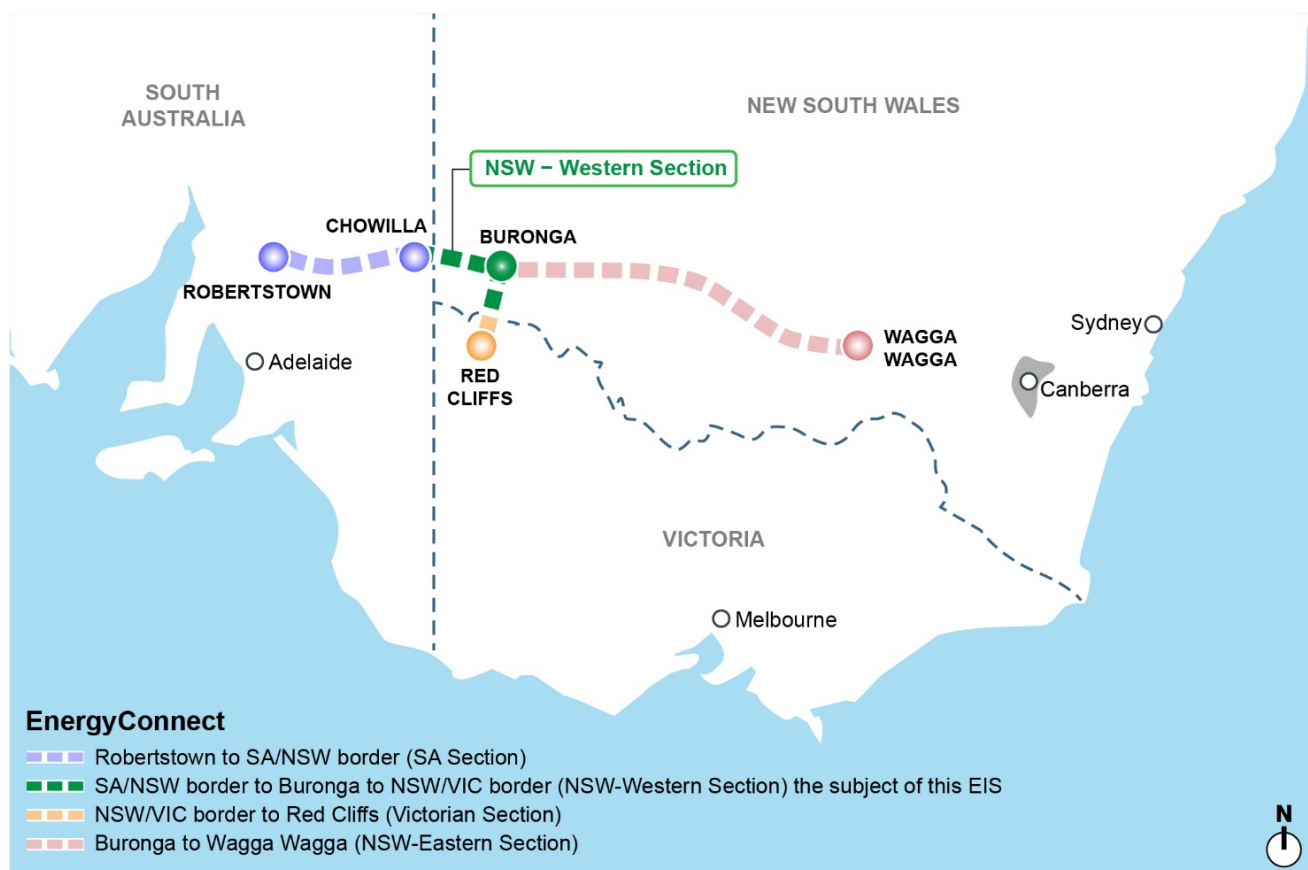


Figure 1.1 Overview of EnergyConnect

1.2 THE PROPOSAL

TransGrid is seeking approval under Division 5.2, Part 5 of the *Environmental Planning and Assessment Act 1979* (the EP&A Act) to construct and operate the proposal. The proposal has been declared as Critical State significant infrastructure under Section 5.13 of the EP&A Act.

The proposal was also declared a controlled action on 26 June 2020 and requires a separate approval under the (Commonwealth) *Environment Protection and Biodiversity Conservation Act 1999*. The proposal is subject to the bilateral assessment process that has been established between the Australian and NSW governments.

The proposal is located in western NSW within the Wentworth Local Government Area (LGA), approximately 800 kilometres west of Sydney at its nearest extent. The proposal spans between the SA/NSW border near Chowilla and Buronga and the NSW/Victoria border at Monak, near Red Cliffs. It traverses around 160 kilometres in total.

1.2.1 KEY PROPOSAL FEATURES

The key components of the proposal include:

- a new 330 kilovolt (kV) double circuit transmission line and associated infrastructure, extending around 135 kilometres between the SA/NSW border near Chowilla and the existing Buronga substation
- an upgrade of the existing 24 kilometre long 220kV single circuit transmission line between the Buronga substation and the NSW/Victoria border at Monak (near Red Cliffs, Victoria) to a 220kV double circuit transmission line, and the decommissioning of the 220kV single circuit transmission line (known as Line 0X1)
- a significant expansion and upgrade of the existing Buronga substation from an operating capacity of 220kV to a combined operating voltage 220kV/330kV
- new and/or upgrade of access tracks as required
- a minor realignment of the existing 0X2 220kV transmission line, in proximity to the Darling River
- ancillary works required to facilitate the construction of the proposal (e.g. laydown and staging areas, concrete batching plants, brake/winch sites, site offices and accommodation camps).

An overview of the proposal is provided in Figure 1.2. The final alignment and easement of the transmission line would be confirmed during detailed design and would be located within the proposal study area as shown in Figure 1.2.

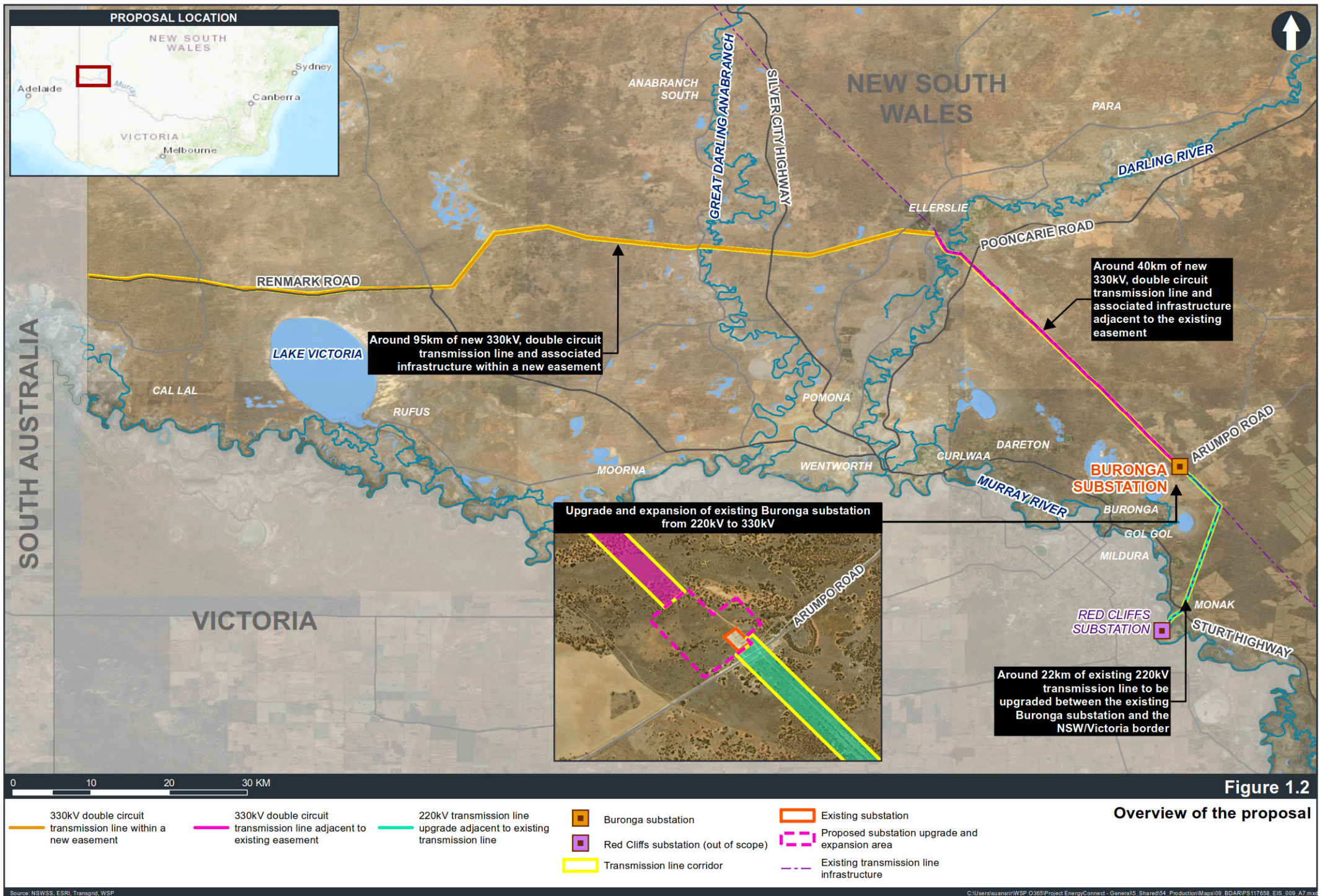
Subject to approval, construction of the proposal would commence in mid-2021. The construction of the transmission lines would take approximately 18 months. The Buronga substation upgrade and expansion would be delivered in two components and would be initially operational by the end of 2022, with site decommissioning and rehabilitation to be completed by mid-2024. The final construction program would be confirmed during detailed design.

The proposal is further described in Chapter 5 and Chapter 6 of the Environmental Impact Statement (EIS).

1.2.2 PROPOSAL NEED

The proposal is required to complete the missing transmission link between the SA and NSW transmission networks. The upgrade to the existing transmission line between Buronga and Red Cliffs would also enhance the capacity of the network to provide electricity between NSW and Victoria.

This connection would relieve system constraints and allow for NSW, SA and Victorian consumers to benefit from significant amounts of low-cost, large-scale solar generation in south-west NSW. The proposal is an essential component of EnergyConnect.



1.3 PURPOSE OF THIS TECHNICAL REPORT

This SEIA is one of a number of technical papers that form part of the EIS for the proposal. The NSW Department of Planning, Industry and Environment (DPIE) has provided the Secretary's Environmental Assessment Requirements (SEARs) for the EIS.

The purpose of this SEIA is to provide an assessment of the potential socio-economic impacts of the proposal in response to the SEARs. The SEIA has been supported by stakeholder and community engagement activities and an economic assessment (refer to Appendix K).

1.3.1 SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

The SEARs specific to this assessment and where these aspects are addressed in this technical report are outlined in Table 1.1.

Table 1.1 Summary of key components of the proposal

REFERENCE	SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS	WHERE ADDRESSED
Key issue – Social and Economic	An assessment of the social and economic impacts and benefits of the project (including the workers' accommodation facility) for the region and the State as a whole, including consideration of any increase in demand for community infrastructure and services.	Impacts to community infrastructure and services and impacts of the workers' accommodation facility are discussed in Chapter 4.

1.4 REPORT TERMINOLOGY

The following terms are discussed throughout this report and are defined as:

- **Proposal study area** – the proposal, including transmission line corridor, Buronga substation upgrade and expansion, access tracks, and the main construction compounds and accommodation camps at Buronga and Anabran South would be contained within the proposal study area. The proposal study area comprises of a one kilometre wide corridor between the SA/NSW border near Chowilla and Buronga and a 200 metre wide corridor between Buronga and the NSW/Victoria border at Monak, near Red Cliffs, and is used in the environmental assessment to provide a broader understanding of the constraints and conditions of the locality
- **Transmission line corridor** – the corridor in which the final easement and transmission line is expected to be contained within. It would consist of a 200 metre corridor along the transmission line component of the proposal. Transmission line construction activities would be contained within this area, but some access tracks may extend beyond this corridor.

2 METHODOLOGY

This section outlines the approach and tasks involved in the preparation of the SEIA. An overview of the key stages of the SEIA is provided in Figure 2.1.

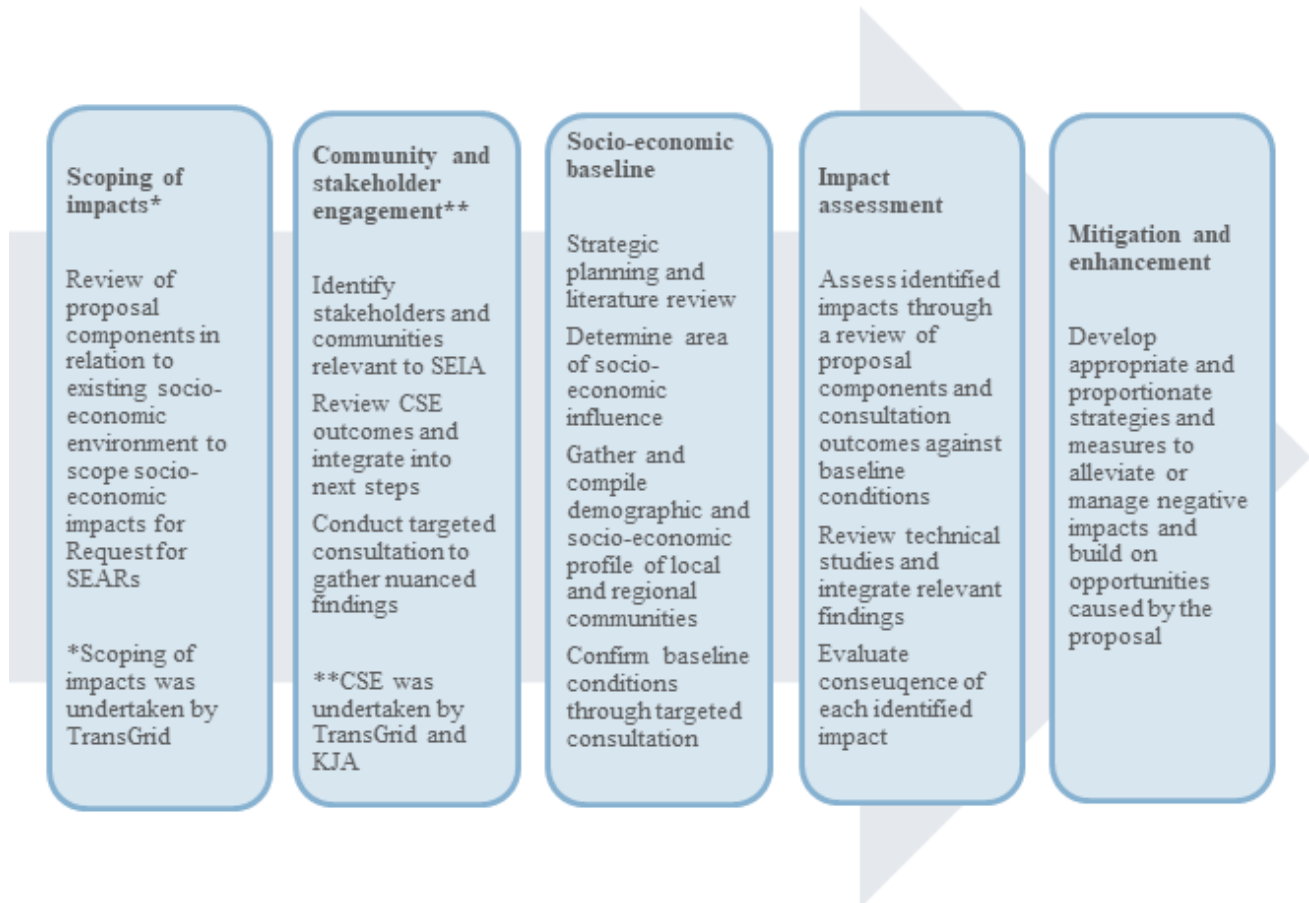


Figure 2.1 Overview of assessment methodology

2.1 LEGISLATIVE AND POLICY CONTEXT

The *Environmental Planning and Assessment Act 1979* (EP&A Act) establishes the framework for assessing all types of development in New South Wales. In particular, the objects of the EP&A Act include the need to promote the social and economic welfare of the community and to include social considerations in decision-making about environmental planning and assessment.

The *Social impact assessment guideline for state significant mining, petroleum production and extractive industry development* (Department of Planning and Environment, September 2017) (the SIA Guideline) has been prepared by the Department of Planning, Industry and Environment (DPIE) to provide a consistent framework and approach to the assessment of social impacts associated with state significant resource projects. This guideline has been applied to this proposal as it currently provides best practice guidance, framework and process for social impact assessment in NSW.

2.2 GUIDANCE FRAMEWORK

The methodological approach used for this SEIA was guided by both international and state-level social impact assessment principles and methods as described in *Social Impact Assessment: Guidance for assessing and managing the social impacts of projects* (IAIA 2015) and as described above, the *Social Impact Assessment Guideline for State significant mining, petroleum production and extractive industry development* (DPIE, 2017a).

Social Impact Assessment: Guidance for assessing and managing the social impacts of projects (IAIA, 2015)

The International Association for Impact Assessment (IAIA) defines social impact assessment as the process of analysing, monitoring and managing the intended and unintended social consequences, both positive and negative of planned interventions (policies, programs, plans, projects) and any social change processes invoked by those interventions. It understands the primary purpose of social impact assessment is to bring about a more sustainable and equitable biophysical and human environment. This guideline is considered current global leading practice.

Social Impact Assessment Guideline for State significant mining, petroleum production and extractive industry development (DPIE, 2017a)

The DPIE SIA Guideline is consistent with the IAIA SIA Guideline while reflecting NSW's regulatory requirements and planning processes. It acknowledges that SIA is the process of identifying, predicting, evaluating and developing responses to the social impacts of a proposed State significant project, as one part of the overall EIS. It continues to recognise that SIA is not a one-size-fits-all process and needs to be proportionate to suit the proposal's context, nature and scale of impact. The DPIE SIA Guideline is considered current best practice for assessing the social impacts of major projects in NSW.

2.3 DEFINING IMPACTS

A social impact is defined by a consequence experienced by people due to changes associated with a project or proposal (DPIE, 2017a). People, in this context, can include individuals, households, groups, communities, organisations as well as the NSW population generally (DPIE, 2017). Therefore, underlying this definition is the understanding that social impacts are matters that affect people and their wellbeing, either individually or collectively as well as across a whole society. Socio-economic impacts have been grouped according to the categories shown in Table 2.1.

Table 2.1 Impact categories (DPIE, 2017)

CATEGORY	DESCRIPTION
Way of life	<ul style="list-style-type: none">— how people live on a daily basis— how people work on a daily basis— how people play (recreate) and interact on a daily basis
Community	<ul style="list-style-type: none">— composition and character— cohesion— functionality— sense of place
Access to and use of infrastructure, services and facilities	<ul style="list-style-type: none">— public— private— not-for-profit organisations
Culture	<ul style="list-style-type: none">— shared beliefs, customs, values, stories— connections to land, places and buildings— Aboriginal culture, language and connection to Country
Health and wellbeing	<ul style="list-style-type: none">— physical health— mental health— social wellbeing

CATEGORY	DESCRIPTION
Surroundings	<ul style="list-style-type: none"> — access to and use of ecosystem services — public safety and security — access to and use of nature and built environment — aesthetic value and/or amenity
Personal and property rights	<ul style="list-style-type: none"> — economic livelihoods — personal disadvantage — civil liberties
Decision-making systems	<ul style="list-style-type: none"> — having a say — access to complaint, remedy and grievance mechanisms
Fears and aspirations	<ul style="list-style-type: none"> — future of the community

2.4 SCOPING OF IMPACTS

Scoping of socio-economic impacts for this SEIA was based on those identified within the Environmental Scoping Report (May 2020). Social and economic matters identified during this step included access to public infrastructure and services, housing availability and workforce accommodation, local employment and economic stimulation, public safety and wellbeing, energy security and land use. These matters have been expanded upon in this SEIA.

2.5 DETERMINING THE AREA OF INFLUENCE

Socio-economic impacts relate to people, their livelihoods and their wellbeing. For this SEIA, this means that defining an area of socio-economic influence (or ‘area of influence’) required going beyond the proposal’s direct infrastructure footprint. The area of social influence takes into account the way people organise themselves, connect with each other and move around the broader geographic area, and hence has been organised into two distinct components:

- the local area covering the Wentworth LGA
- the regional area covering the Mildura LGA and the Far West region of NSW, to encompass the main transportation corridors and infrastructure and services’ hubs to and from the proposal.

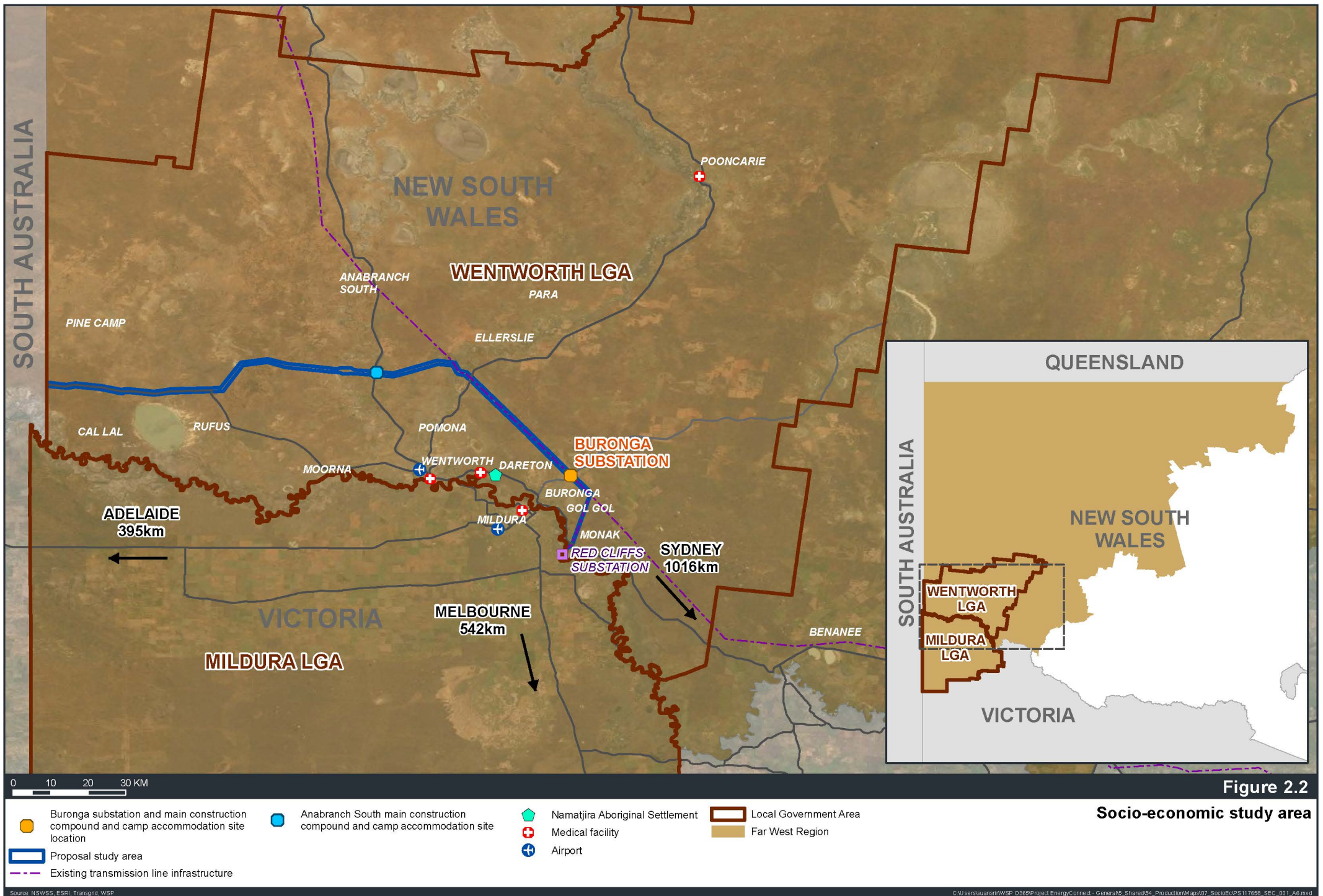
While the proposal is wholly contained in NSW, the town of Buronga operates as a satellite suburb of the major regional city of Mildura. For this reason, the socio-economic characteristics of the Mildura LGA in Victoria have been incorporated as the regional area within the existing environment of this SEIA.

The area of influence was determined by identification of the main place-based or populated communities where people live, work and visit, as well as the existing networks of travel between them. Key considerations have been made to the following proposal features in understanding how people will be affected or impacted:

- worksite locations
- workforce accommodation camp locations
- villages and townships nearest to the proposal infrastructure corridor
- livelihood locations (arable land)
- major connecting roads
- major towns providing core services to townships nearby the proposal.

This approach to defining the area of socio-economic influence means that each key inhabited area is considered its own potentially affected community.

A visual representation of the area of socio-economic influence is shown in Figure 2.2.



2.5.1 UNDERSTANDING THE EXISTING ENVIRONMENT

Table 2.2 outlines the steps taken to establish the socio-economic existing environment for the area of influence, which sets the foundation for assessing impacts.

Table 2.2 Baseline methodology

ACTIVITY	TASK
Data gathering and compilation	<ul style="list-style-type: none"> — review of the proposal's Environmental Scoping Report — demographic and socio-economic datasets from the Australian Bureau of Statistics (ABS) Census, 2016, 2011 and 2006 — review of Wentworth Shire Council's population forecasts — desktop audit of social infrastructure and GIS mapping — review of relevant community services provider's websites including local Councils, Tourism NSW and Victoria and Regional Development Boards — identification of key projects or developments relevant to the proposal and the SEIA.
Literature and strategic planning review	<ul style="list-style-type: none"> — review of publicly available and recent research on comparable large-scale infrastructure projects and their socio-economic impacts — review of relevant public policy, plans and strategies including: <ul style="list-style-type: none"> — <i>NSW Government Far West Regional Plan 2036</i> — <i>Western Murray Regional Economic Development Strategy 2018-2022</i> — <i>Wentworth Shire Council's 2017-2027 Community Strategic Plan</i> — <i>Wentworth Shire Council's Local Strategic Planning Statement (2020)</i> — <i>Wentworth Shire Council's Draft Sustainable Dareton Strategy: Initial Background Analysis (2020)</i> — <i>Draft Buronga Gol Structure Plan (2020)</i> — <i>Mildura Regional Council's Community & Council Plan 2017-2021 (2019 update)</i> — <i>Mildura Regional Council's State of Mildura Rural City Report 2018.</i>
Review stakeholder and community engagement and conduct SEIA-targeted engagement	<ul style="list-style-type: none"> — review previous engagement outcomes undertaken by KJA Consultants and TransGrid — undertake interviews with Wentworth Shire Council and Mildura Rural City Council to further understand socio-economic existing environment and potential socio-economic impacts.

The data points listed in Table 2.3 were used for the development of the existing environment. The indicators have been used to gather data and information to establish an understanding of the existing socio-economic characteristics and demographic profile of people likely to be affected by the proposal.

Table 2.3 Socio-economic indicators

CRITERIA	INDICATOR
Demographic characteristics	<ul style="list-style-type: none"> — population — age — number of visitors or tourists.
Community characteristics	<ul style="list-style-type: none"> — culture and language — advantage and disadvantage — community participation — community values.
Economic characteristics	<ul style="list-style-type: none"> — business and industry diversity — sectors of employment and occupation — rate of employment and household income.
Infrastructure and services	<ul style="list-style-type: none"> — housing and accommodation, affordability and availability — access and availability to social infrastructure — transport.
Cumulative	<ul style="list-style-type: none"> — housing and accommodation — land use — current and future projects or developments.

2.6 COMMUNITY ENGAGEMENT

KJA Consultants led the community and stakeholder engagement process for the proposal on behalf of TransGrid. To ensure alignment with best practice, in addition to the *Draft Environmental Impact Assessment Guidance Series* (DPIE, 2017a) a range of TransGrid and industry standards and guidelines for community and stakeholder engagement were considered including:

- TransGrid Stakeholder Engagement Charter (2015)
- TransGrid Landholder Easement and Compensation Guide (2019)
- International Association for Public Participation (IAP2) Quality Assurance Standard (IAP2, 2015)
- Clean Energy Council Community Engagement Guidelines (CEC, 2018).

Based on these foundations, TransGrid has made use of the following engagement and consultation methods:

- stakeholder briefings
- one-on-one meetings with landholders
- community drop-in sessions
- online survey and feedback forms and an online interactive map using Social Pinpoint
- information distribution and public feedback mechanism through an E-newsletter, community hotline, website and email service
- advertising material in local media (print newspaper and radio), at a local shopping centre, on social media and through fact sheets accessible through the TransGrid website.

Engagement specifically with local stakeholders for the western section of EnergyConnect undertaken by TransGrid has included the following targeted activities:

- Wentworth community drop-in session on 7 May 2019
- Buronga community drop-in session on 8 May 2019
- attendance at Wentworth Agricultural Show
- meetings or briefings with Wentworth Shire Council during 2018 and 2019
- meetings or briefings with Dareton Local Aboriginal Land Council, Barkandji Maraura Elders Environment Team (BMEET), Barkandji Maraura Elders Council (BMEC) and Mildura Rural City Council Aboriginal Employment Officer during 2018 and 2019
- meetings with affected landholders and property owners commenced in February 2019.

It is understood that due to COVID-19 physical distancing restrictions in early 2020, certain community and stakeholder engagement activities planned for this proposal were indefinitely postponed, including 10 community drop-in sessions in Buronga and Balranald.

SEIA-specific stakeholder engagement, applying a socio-economic impact-specific lens to the questions to best inform this study, included the following activities during the months of June and July 2020:

- meeting with EnergyConnect Community Engagement Lead, TransGrid, and Project Director, KJA Consultants EnergyConnect, 16 June 2020
- meeting with Wentworth Shire Council on 30 June 2020
- meeting with TransGrid Indigenous Engagement Lead and WSP Senior Aboriginal Affairs and Participation Consultant, 1 July 2020
- meeting with Mildura Rural City Council on 6 July 2020.

2.7 IMPACT ASSESSMENT

Assessment of impacts has been considered making use of the study findings, namely:

- understanding the key components and activities of the proposal
- contextualising the proposal in its strategic and regulatory setting
- consideration of the demographic and socio-economic profile of host communities
- outcomes of stakeholder and community engagement.

This SEIA examined both the direct and indirect social impacts of the proposal, defined as follows:

- direct impacts are those caused directly by the proposal and are usually quantifiable through measurement of a set of social indicators. Direct impacts cause changes to the community in the areas of population, health and employment
- indirect impacts are those that result from changes caused by the proposal relating to more qualitative indicators such as community cohesion and sense of place.

2.7.1 EVALUATION OF SIGNIFICANCE

Each identified negative socio-economic impact has been evaluated for significance based on factors including:

- the four impact characteristics that demonstrate the material effect of the impact (extent, duration, severity, sensitivity)
- who specifically may be affected, directly or indirectly, cumulatively and the level of concern they feel about the matter (high, medium, low), recognising that impacts may affect population groups or individuals differently
- when the potential impact is expected to occur (construction, operation)
- the level of social risk of the potential impact, evaluated through consequence and likelihood.

Table 2.4, Table 2.5 and Table 2.6 define the key impact characteristics and criteria used to assess each negative impact identified from the perspective of affected stakeholders. Defining likelihood has been established by the authors of this study through an understanding of the proposal context, as per the SIA Guideline. The social risk matrix in Table 2.7 is then used to evaluate significance, both before and after mitigation.

Table 2.4 Impact characteristics (DPIE, 2017)

CHARACTERISTIC	DEFINITION
Extent	The geographical area affected by the impact (or the number or proportion of people or population groups who are affected).
Duration	The timeframe over which the impact occurs.
Severity	Scale or degree of change from the existing condition as a result of an impact.
Sensitivity	Susceptibility or vulnerability of people, receivers or receiving environments to adverse changes caused by the impact, or the importance placed on the matter being affected. Attributes of sensitivity include: conservation status; intactness; uniqueness or rarity; resilience to change and capacity to adapt; replacement potential; impacts on vulnerable people; and/or of value or importance to the community.

Table 2.5 Criteria for level of consequence (DPIE, 2017a)

CONSEQUENCE LEVEL	DEFINITION
Minimal	— no discernible positive or negative changes caused by the impact.
Minor	— small change caused by the impact, generally temporary or short term in duration — impacts confined to a small number of receivers within the proposed development locality — able to be mitigated such that impacts are deemed to be low.
Moderate	— moderate change caused by the impact, generally temporary or short to medium term in duration — spatial extent of impacts may vary across the affected LGAs — able to be mitigated or managed such that impacts are deemed to be low.
Major	— large change caused by the impact, generally medium to long term in duration — spatial extent of impacts may vary across the affected LGAs, or the broader region or State — negative impacts would require extensive mitigation or consultation with affected stakeholders.
Catastrophic	— very large change caused by the impact, likely to be long-term in duration — spatial extent of impacts may vary across the affected LGAs, or the broader region or State — negative impacts would require extensive mitigation and consultation with affected stakeholders.

Table 2.6 Likelihood definitions

LIKELIHOOD LEVEL	DEFINITION
Almost certain	Is expected to occur under most circumstances
Likely	Will probably occur in most circumstances
Possible	Could occur and has occurred in comparable circumstances
Unlikely	Could occur but is not expected
Rare	Could occur under only exceptional circumstances

Table 2.7 Social risk assessment framework

LIKELIHOOD LEVEL		CONSEQUENCE LEVEL				
		1	2	3	4	5
		Minimal	Minor	Moderate	Major	Catastrophic
A	Almost certain	A1	A2	A3	A4	A5
B	Likely	B1	B2	B3	B4	B5
C	Possible	C1	C2	C3	C4	C5
D	Unlikely	D1	D2	D3	D4	D5
E	Rare	E1	E2	E3	E4	E5
Social Risk Rating						
Low		Moderate		High	Extreme	

DPIE SIA Guideline 2017, adapted from IALA 2015

2.7.2 POSITIVE IMPACTS

Evaluation of positive impacts is based on the scale of benefit or improvement, level of importance, its likelihood and the equity of its distribution. Positive impacts consider how the proposal will contribute to the social and economic development of local communities, the region and the people of NSW. The approach outlined for negative impacts has been used to evaluate the significance of positive impacts by replacing (DPIE, 2017a):

- ‘level of concern’ with level of interest
- ‘severity’ with scale of improvement or benefit
- ‘sensitivity’ with importance placed on the improvement or benefit and the equity of its distribution
- ‘social risk’ with an assessment of likelihood and the scale of improvement or benefit.

2.7.3 CUMULATIVE ASSESSMENT

Broadly, cumulative impacts are understood by knowing what else is happening across the region. Cumulative impacts refer to the interactions between the proposal and other approved or yet-to-start projects, or with reasonably foreseeable future development in the area that is likely to be affected by the proposal. Cumulative impacts can indicate that the combination of effects, either positive or negative, created by multiple projects or developments may be greater than that of the impact of one project or proposed development. The analysis considers the recent history of project development in the area of socio-economic influence and in particular other large-scale infrastructure projects. The cumulative socio-economic assessment considers the communities’ experiences of past projects and other historical events, ensuring that consideration of local values, priorities and issues are critical in understanding likely community reactions to new developments, and in planning mitigation and enhancement measures.

2.7.4 DEVELOPMENT OF MITIGATION AND ENHANCEMENT MEASURES

Recommended mitigation and enhancement outcomes have been developed through a consolidation of input from stakeholders, industry-specific analysis, review of leading practice and through a practical understanding of the proposal's local socio-economic area of influence.

2.8 LIMITATIONS

The following limitations underlying the preparation of this SEIA are outlined below:

- The SEIA process was based on desktop methods only; the authors of this report did not undertake field work or physical observations in the study area.
- A separate socio-economic impact scoping study to inform this SEIA was not undertaken during the Request for SEARs phase, however socio-economic impacts identified in the Environmental Scoping Report (May 2020) have been used to inform this SEIA.
- The baseline demographic data, the community profile and population forecast relies on data obtained via desktop research relying predominantly on the ABS Census (2016, 2011, 2006).
- The existing environment's social infrastructure audit predominantly considered government-provided social infrastructure, facilities and services. In some instances, it is possible that local communities access services such as child care and schools through private providers and that may not have been identified.
- Community input into this study as summarised in this report relies on the outcomes from engagement activities undertaken by KJA consultants between 2018-2020 as well as information provided in the Consultation Outcomes Report which forms part of the Environmental Scoping Report (2020). No wider participatory research was undertaken with the public.
- COVID-19 restrictions on public movement and gathering resulted in several planned community engagement activities that would have informed this SEIA being postponed or cancelled.
- The SEIA relies on a number of assumptions regarding employment and procurement that will be refined by the construction contractor once engaged.

3 EXISTING ENVIRONMENT

The socio-economic existing environment has been prepared to understand the socio-economic context and the communities within the area of influence, their demographic composition, social and economic characteristics, socio-economic trends, as well as available social infrastructure and services. The LGAs of Wentworth (NSW) and Mildura (VIC) have been used to understand the proposal's local and regional settings, as per Section 2.5.

Strategic planning setting

Strategic plans highlight the strategic priorities of local, regional and State government bodies, as well as the mutual priorities of Wentworth Shire Council and Mildura Rural City Council. Both councils stress the importance of industry diversification, economic growth to attract new population groups, and service provision planning for existing communities in order to realise the benefits of the anticipated changes over the coming decades. Additionally, current strategic plans and public policy emphasise the role of development projects in delivering a range of regional and local socio-economic opportunities for existing communities. Specifically, the importance of improved energy infrastructure has been raised by Wentworth Shire Council, Mildura Rural City Council, the Far West Joint Organisation and the NSW Government, in activating economic development and investment across the region.

Far West Region of NSW

The Far West Region of NSW includes the semi-arid lands of western NSW, incorporating the Barrier Ranges and the Darling River which flows through western NSW to join the Murray River at Wentworth at the southern edge of the region (Regional Development Australia, 2020). The region is vast and encompasses communities near the Queensland boarder in Lightning Ridge and Walgett, Cobar and Broken Hill, communities near the South Australian boarder and the Murray River townships of Balranald and Wentworth (NSW Government, 2020). The region covers 40 per cent of the state of NSW although it is relatively small in population. The region has the highest percentage of Aboriginal people in comparison to other regions in NSW (NSW Government, 2020).

The Far West Region's economy is centred primarily around the agricultural sector with secondary contributions from mining in Broken Hill, Cobar, Wentworth and Balranald regions (NSW Government, 2020). The economy is said to grow continually due to the high value agriculture industry including food and beverage manufacturing, broadacre cropping and grazing, and intensive agriculture and horticulture (NSW Government, 2020). The regional economy is also supported by tourism, arts and cultural industries, due to the Far West being home to numerous cultural, historic and environmentally significant sites.

The NSW Government estimates by 2036, the region's population of those people aged above 65 years will increase by more than a third to approximately 11,950 people (NSW Government, 2020). It is believed that more people, especially those from the Aboriginal community, will be living with chronic illness and access to health care services will be of high priority for the NSW Government (NSW Government, 2020). In response, the NSW Government has identified that investment in hospital infrastructure and innovative service delivery models tailored for dispersed communities will meet these future population needs (NSW Government, 2020).

The Far West Regional Plan 2036 also recognises the already high levels of Drive-in-drive-out (DIDO) workers due to the prevalence of the mining industry across the Far West Region and the anticipated population profile changes over the coming two decades. This finding resonates with the significant past experiences of transient workforces in both Wentworth and Mildura LGAs mostly due to the seasonal horticultural workers (fruit pickers) and FIFO workforces in recent years for solar energy projects.

3.1 LOCAL SETTING

The Wentworth LGA is governed by the Wentworth Shire Council and covers approximately 26,000 square kilometres. The LGA has strong links to the capital cities of Melbourne and Adelaide via the national road network and is located approximately 1,075 kilometres west of Sydney, 420 kilometres north east of Adelaide and 585 kilometres from Melbourne. The LGA is also near Mildura city (in Victoria), connected by the George Chaffey Bridge in Buronga across the Murray River, where most goods and services are acquired.

History

The Wentworth LGA is considered as the gateway to outback NSW and is situated on the junction of the Murray and Darling Rivers in southwestern NSW, often referred to as the ‘Murray Outback’ (Wentworth Shire Council, 2020). The township of Wentworth was founded in the 1860s following the establishment of sheep runs by European settlers in the 1840s (Wentworth Shire Council, 2017). The town then became one of the Australia’s busiest and largest inland ports due to the Murray River providing a critical role in transportation goods to and from the region (Wentworth Shire Council, 2017).

Strategic priorities

Wentworth Shire Council has described the following key and current priorities:

- NSW Government and Wentworth Shire Council are both prioritising investment and economic growth across the Far West Region
- Wentworth Shire Council has current plans and programs to invest in new or upgraded infrastructure to reduce reliance on Mildura (particularly in health)
- the Western Murray Regional Economic Development Strategy 2018–2022 has identified that the cost and limited supply of suitable and affordable accommodation to house construction workers for large-scale mining and energy projects in the region currently is ‘currently a constraint on new investment’ (Wentworth Shire Council, 2020)
- the Wentworth Aerodrome is currently being upgraded to attract new users as well as to increase existing users’ frequency
- Wentworth Shire Council believes that the Shire’s natural and biophysical setting provides it with differing needs and priorities; in particular, the Coomealla irrigation area, the major riverways and the strong connection to Mildura city make Wentworth LGA’s localised characteristics unique in comparison to other councils in the Far West Joint Organisation.

In addition, Wentworth Shire Council has advised TransGrid of the following in relation to the existing socio-economic environment and planning of the proposal:

- Wentworth Shire Council is broadly looking for local employment opportunities especially considering most of the population is of working age (particularly in Buronga – Gol Gol)
- route alignment considerations of the proposal should address the unique sensitivities of each property (for example, farming operations), and impacts to be minimised as best as practical (Wentworth Shire Council has noted a level of concern in the community on other route alignment projects in the region)
- key local issues related to EnergyConnect include water scarcity, employment and procurement opportunities, and impacts on roads and Wentworth Shire Council assets, particularly from construction loads
- the desire to clearly identify the EnergyConnect construction workforce, to differentiate from personnel of other projects in the region.

Native Title

The *Native Title Act 1993* (Native Title Act) provides a legislative framework for the recognition and protection of native title rights. Native title is the recognition that, in certain circumstances, Aboriginal people continue to hold rights to their land and waters, which come from their traditional laws and customs. Native Title determinants have the right to consult or negotiate with anyone who wants to undertake a development project or activity on the area claimed.

Parts of Wentworth LGA are covered by Native Title determinations from the Barkandji Traditional Owners claim (National Native Title Tribunal, 2015). Part A of the claim that was determined in 2015 covers more than approximately 128,000 square kilometres within the Far West Region of NSW, incorporating land within several LGAs including Balranald, Bourke, Broken Hill, Central Darling, Cobar, and Wentworth, and the Unincorporated land of the Far West Region. Part B of the claim was determined in 2017 adding further land parcels to the original determination.

The determination area of Native Title registered to the Barkandji Traditional Owners (The National Native Title Tribunal NCD2015/001 and NCD2017/001) covers the proposal area and parts of the area of socio-economic influence. However, the land that directly overlaps with the proposal area are within an Extinguished Area of that determination area.

Regardless, the Barkandji Native Title Area is of value to consider from a socio-economic and cultural impacts perspective based on the following factors:

- Aboriginal communities in the area of socio-economic influence and in particular the Barkandji Traditional Owners have been actively organised to regain and repossess their traditional lands for at least the last twenty years when the Native Title Claim was first lodged in 1997 (National Native Title Tribunal, 2020)
- the Traditional Owners, since the claim has been determined, now have the right to hunt, fish and teach law and customs on the land (ABC, 2017)
- the Barkandji Native Title determination is the largest in NSW (ABC, 2017)
- the NSW Government's Far West Regional Plan 2036 identifies the Barkandji Traditional Owners determination as enabling opportunities for Aboriginal people to use the land for commercial purposes.

Detailed information of the significance of these areas can be viewed in Technical paper 2.

Land use

Land use adjacent to and within the proposal study area is predominantly for agricultural purposes including grazing, broad acre cereal cropping and limited areas of horticultural enterprises and irrigation along the Darling River, however the vast majority is used for grazing livestock. Sheep (for wool and meat), goats and cattle account for almost all grazing livestock (Technical paper 3). There are some relatively small areas with a recent history of dryland cropping and improved pastures at the south-eastern end of the proposal study area around Buronga and some irrigated grape vines on land adjacent to the proposal area near the Darling and Murray Rivers (Technical Paper 3).

The entire proposal study area is zoned RU1 Primary Production under the Wentworth Local Environmental Plan 2011, apart from two small areas (approximately 40 hectares) that are zoned as E2 Environmental Conservation near the Darling and Murray Rivers.

Property ownership

There are 25–30 properties directly affected by the proposal. Most are large pastoral or livestock operations with scattered homesteads and sparse populations; the proposal area does not pass through any densely populated or urban areas. The transmission line route alignment has considered and sought to avoid where possible existing public and private infrastructure along the corridor, including housing, agricultural storage sheds and public roads.

3.1.1 PLACE-BASED COMMUNITIES

The following townships are described to provide the social context within the Wentworth LGA focussing on the key place-based communities or populated areas.

3.1.1.1 WENTWORTH

The town of Wentworth is the largest and main township in the LGA and is a historic yet small border town. It is a popular place for outback NSW tourism as an access point for tourists seeking to visit Lake Mungo and Mungo National Park, both located approximately 100 kilometres north east (Destination NSW, 2020).

It is the historic and administrative centre of the Wentworth Shire Council with its community and social infrastructure and services including its chambers, main office, works depot, library, town hall and visitor information centre (Wentworth Shire Council, 2017). In 2016 (ABS, 2016) the permanent population was 1,221 people with 10.7 per cent reporting as identifying as Aboriginal.

Located in Wentworth is the Wentworth District Hospital, ambulance service regional base, community-operated residential aged care facility, visitor accommodation, the court house, post office, schools and shopping precincts (Wentworth Shire Council, 2017). The shopping precinct includes a large supermarket, two service stations, some medical facilities, chemist and smaller boutique or market style stores. There are also several hotels and eateries in the township.

3.1.1.2 BURONGA – GOL GOL

Buronga is the third largest town in the Wentworth LGA and is situated on the Sturt Highway, approximately 11 kilometres north east to Mildura connected by the George Chaffey Bridge. The town is described as a modern close-knit community based on light industry, horticulture and viticulture (Wentworth Shire Council, 2020). Buronga is also said to largely operate as a satellite suburb of the regional city of Mildura.

The total population of Buronga was 1,212 in 2016 with 7.9 per cent of the population identifying as Aboriginal (ABS, 2016).

Buronga is considered as a growth area for the Wentworth Shire Council, with plans to subdivide residential areas to provide approximately 500 new large residential housing allotments (Wentworth Shire Council, 2020). The town is serviced by two churches, a child care centre and one primary school. The nearest secondary educational facilities are in Coomealla (NSW) and Mildura.

Gol Gol is situated adjacent to Buronga and is now considered part of the Buronga Gol Gol township due to residential and urban expansion. The population of Gol Gol in 2016 was 1,523 people, being the second largest township in the LGA, with 2.1 per cent identifying as Aboriginal (ABS, 2016). The population of the township has grown by 860 people from its recorded population of 663 in 2006 (ABS, 2006).

The township is an important port for the surrounding grazing and horticultural area of Wentworth LGA and has a rapidly expanding residential area aimed to attract young families (Wentworth Shire Council, 2020). Gol Gol is serviced with retail and community facilities including the Gol Gol Hotel, general store, post office, service station and a highly regarded primary school. Buronga – Gol Gol also acts as a service area for the surrounding irrigated area (Wentworth Shire Council, 2020).

3.1.1.3 DARETON, COOMEALLA AND NAMATJIRA

Dareton is located 22 kilometres from Wentworth on the Murray River and is the centre of the Coomealla Irrigation District. The township is situated in between other key towns in the LGA, notably about halfway between Wentworth and Buronga.

Dareton (including the Namatjira Aboriginal Settlement) has a population of 618; made up of 190 households. In 2016, 38.3 per cent of the residents of Dareton identified as Aboriginal. This was significantly higher than the Australian and NSW average of 2.9 per cent and 2.8 per cent respectively. The median age of the residents was 26 years and the average number of people per household was 3.7. This is a much younger residential population than the broader Dareton community, as well as having larger household sizes (average household size is 2.5 in Dareton).

Dareton functions as the operational base for many council-wide community services and facilities. These include Far West Health Centre, Coomealla Health Aboriginal Corporation, regional headquarters of NSW Rural Fire Service and NSW Police, Department of Communities and Justice, Coomealla High School, Riverina TAFE Campus, and many private specialist Indigenous and family services including Mallee Family Care and Australian Unity. Dareton also has several local community services and facilities including primary school, preschool, library, post office, community hall and youth centre.

Despite the infrastructure and services outlined above, Dareton is severely lacking in social infrastructure, particularly in healthcare and housing provision. In the last decade, the NSW AHO has provided \$2.5 million in funding for housing improvements, which has included numerous local trainees and made use of traditional building structures using earth and adobe materials for construction.

It is perceived that since the closure of several community facilities in Dareton in the last decade, the crime rates have spiked, along with the worsening of a number of social issues: substance abuse, teen pregnancy and low school attendance (ABC, 2011). Wentworth Shire Council's Crime Prevention Plan 2013–2017, although now outdated, aimed to strengthen partnerships between local service providers and community organisations in crime prevention and promotion of public safety across the LGA to address this.

The Namatjira Aboriginal Settlement of 117 people is situated within two kilometres of the Dareton township on land that is owned by the Dareton Local Aboriginal Land Council (Wentworth Shire Council, 2017). The NSW Aboriginal Housing Office (AHO) considers Namatjira Avenue and New Merinee Road in Coomealla as a discrete community, meaning that they are inhabited predominantly by Aboriginal peoples, with housing or infrastructure (power, water, sewerage) managed on a community basis (ABS, 2016). The community is made up of 29 households (Draft Sustainable Dareton Strategy 2020).

The neighbourhood reportedly only gained access to electricity and running water in the 1990s. It is understood that the policy history up until the 1970s of Aboriginal resettlement across NSW has left a legacy of intracommunity conflict and factions happening across the state which are evident in Dareton and Coomealla today, with residents belonging to different clan and family groups and not necessarily a Barkandji traditional custodian.

There are a number of localised socio-economic issues specific to Dareton that have been identified through stakeholder engagement and research undertaken for this SEIA, including high unemployment (often above 80 per cent), low community cohesion, poor health status, high rates of social housing, household overcrowding and substance abuse. Consultation outcomes indicate that there is a perceived lack of community leaders for the Dareton youth and that crime rates are some of the highest across the State. The recent history of alcohol prohibition and proportionately high numbers of full-time police also give indication that the Dareton locality is considered one of the most socio-economically disadvantaged communities in NSW.

3.1.1.4 ELLERSLIE

Ellerslie is a small village of 82 people, located approximately 40 kilometres north of the town of Wentworth on the Darling River. The Ellerslie community consists of 21 families who are predominantly involved in citrus fruit production (ABS, 2016). The town hosts the Palinyewah Public School consisting of one multi-stage primary level class which serves the surrounding farming community (NSW Government, 2018).

3.1.1.5 POMONA

The population of Pomona was 161 people in 2016 with no people identifying as Aboriginal (ABS, 2016). The small community is situated on the banks of the Darling River and is serviced by some facilities including a primary school, a community hall, a public boat ramp and tourist infrastructure including holiday accommodation.

3.1.1.6 CURLWAA

Curlwaa is a small irrigated village seven kilometres east of the town of Wentworth. The village had a reported population of 393 people with one per cent identifying as Aboriginal in 2016 (ABS, 2016). Curlwaa has minimal services and has one caravan park and rest stop for tourists and travellers.

3.1.2 DEMOGRAPHIC AND POPULATION CHARACTERISTICS

The southern part of the Wentworth LGA along the Murray River has the greatest population density, with residential communities concentrated mostly in the townships of Wentworth, Dareton and Buronga Gol Gol with the smaller remote town of Pooncarie in the north of the LGA (Wentworth Shire Council, 2017). Due to the arid climate in much of the north of the LGA, Wentworth Shire is one of the most sparsely populated council areas in NSW (Wentworth Shire Council, 2017).

As reported in 2016, the LGA had a total population of 6,794 people, with 650 people as identifying as Aboriginal or Torres Strait Islander, which is relatively higher (9.6 per cent) than the NSW average of 2.9 per cent (ABS, 2016). Most residents live a rural lifestyle, within 10 to 30 minutes of the community services, infrastructure and amenities available in nearby towns (Wentworth Shire Council, 2017).

An overview of the Wentworth LGA demographic characteristics is provided in Table 3.1 with NSW averages presented for comparison.

Further detailed demographic data for Wentworth LGA can be found in Appendix B.

Table 3.1 Wentworth LGA demographic characteristics

INDICATOR	WENTWORTH LGA	NSW	KEY FINDINGS
Age and population			
Population	6, 794 people	7,480,231 people	The Wentworth LGA has a relatively large proportion of those identifying as Aboriginal in comparison to the NSW average.
Proportion of Aboriginal People	9.6%	2.9%	
Stability of population (proportion moved in the last 5 years)	2.79%	39.0%	The population growth has been somewhat minimal over the last 5 years.
Median age	44 years	38 years	The median age in the LGA is 6 years older in comparison to the state median.

INDICATOR	WENTWORTH LGA	NSW	KEY FINDINGS
Proportion of children population (between 0 and 14 years)	18.8%	18.5%	The increasing ageing profile in the Wentworth LGA in 2016 shows an ageing population, with the proportion of the working age group being less than that of the state average. There is a somewhat stable population growth in the younger age groups.
Proportion of working age population (15-64 years)	60.8%	65.1%	
Proportion of seniors (65 years and over)	20.2%	16.2%	
Housing, accommodation and households			
Private houses occupied	83.3%	90.1%	There is a somewhat low occupancy rate of the available properties within the Wentworth LGA, with a high proportion of properties being houses. There is a significantly lower proportion of smaller housing options such semi-detached housing and apartment style.
Private houses unoccupied	16.7%	9.9%	
Dwelling type-separated houses	89.4%	66.4%	
Dwelling type – semi-detached or terrace houses	1.6%	12.2%	
Dwelling type – flats or apartments	4.8%	19.9%	
Dwelling type – other	3.3%	0.9%	
Average number of rooms	3.1 rooms	2.6 rooms	The number of rooms available corresponded with the larger housing options and is relatively higher than the NSW average number of rooms per household.
Average people per household	2.4 people	3.1 people	
Family households	70.5%	72%	
Single or lone person households	27.4%	23.8%	
Group households	2.1%	4.2%	
Median weekly rent repayments	\$160	\$380	The median weekly rental payments were significantly lower than the NSW average in 2016.
Proportion of households where rent payments are less than 30% of household income	92.6%	87.1%	The Wentworth LGA has a high proportion of households where rental payments make up more than or equal to 30% of the total household income which is less than the NSW average.

INDICATOR	WENTWORTH LGA	NSW	KEY FINDINGS
Proportion of households with rent payments greater than or equal to 30% of household income	7.4%	12.9%	
Culture and language			
Born in Australia	83.2%	65.5%	The proportion of population who was born in Australia is high compared to the average across NSW. Wentworth LGA has a significantly smaller proportion of households who speak a language other than English in comparison to the rest of NSW.
English only spoken at home	86.3%	68.5%	
Households where non-English language is spoken	5%	26.5%	
Employment and income			
Labour force participation	86.7%	48.2%	Unemployment rates in the Wentworth LGA are lower than the state average, with the LGA reporting a significantly high proportion as those currently working full time or part time in comparison to the NSW average.
Unemployment	6.1%	6.3%	
Volunteer participation	23.3%	18.1%	The higher average of volunteer participation within the LGA suggests residents in Wentworth more likely to actively participate and be engaged in their local community. The median weekly income is \$434 less than the NSW average.
Median weekly household income	\$1,052	\$1, 486	

3.1.3 SOCIAL CHARACTERISTICS

3.1.3.1 SOCIO-ECONOMIC ADVANTAGE OR DISADVANTAGE

The Social-Economic Indexes for Areas (SEIFA) is an aggregated score of factors reflecting relative socio-economic advantage and disadvantage within an area. An area with a lower SEIFA score indicates higher levels of disadvantage, less access to material and social resources, and less opportunity to participate in society. Across Australia's local government areas SEIFA scores range from 188 (most disadvantaged) to 1186 (least disadvantaged).

The four indexes, which are used to rank areas broadly by their level of advantage or disadvantage, consist of the following measures:

- Index of Relative Socio-Economic Advantage-Disadvantage
- Index of Relative Socio-Economic Disadvantage
- Index of Education and Occupation
- Index of Economic Resources.

A low SEIFA score indicates relatively greater disadvantage. For example, an area could have a low score if there are (among other things), many households with low income, many people with no qualifications, or many people in low skill occupations. Whereas, a SEIFA high score indicates a relative lack of disadvantage in general. For example, an area may have a high score if there are (among other things), few households with low incomes, few people with no qualifications, and few people in low skilled occupations.

In 2016, Wentworth LGA rated 957 on the Index of Disadvantage, close to NSW's average of 1,001 and higher than regional NSW (971), indicating that across the LGA, Wentworth is neither advantaged nor disadvantaged. As outlined in Table 3.2, Wentworth LGA sits in the 38th percentile in Australia and 39th percentile in NSW. It was estimated that 18 people were identified as homeless in the Wentworth LGA in 2016 (ABS, 2016).

Table 3.2 Relative socioeconomic disadvantage, ABS 2016

	DISADVANTAGE				
	Score	Rank within Australia	Percentile rank within Australia	Rank within NSW	Percentile rank within NSW
Wentworth LGA	957	206	38	50	39

Nationally, Wentworth LGA ranks 204 out of 544 local government areas with SEIFA scores in Australia. There are 340 local government areas which are less disadvantaged, and 203 local government areas that are more disadvantaged than Wentworth LGA (ABS 2016).

Within Wentworth LGA, the Dareton locality has the lowest SEIFA ranking (762) and Gol Gol the highest (1,043), indicating that there is a considerable range within the LGA of certain population groups experiencing more relative disadvantage or advantage than others. To take these two examples, Dareton ranks in the most disadvantaged 10 percent of suburbs in the state, whereas Gol Gol ranks in the most advantaged third of suburbs in the state. Figure 3.1 outlines this diversity across the LGA with pink shades indicating higher relative disadvantage and pale green shades indicating lower relative disadvantage. Grey shades indicate an absence in the dataset.

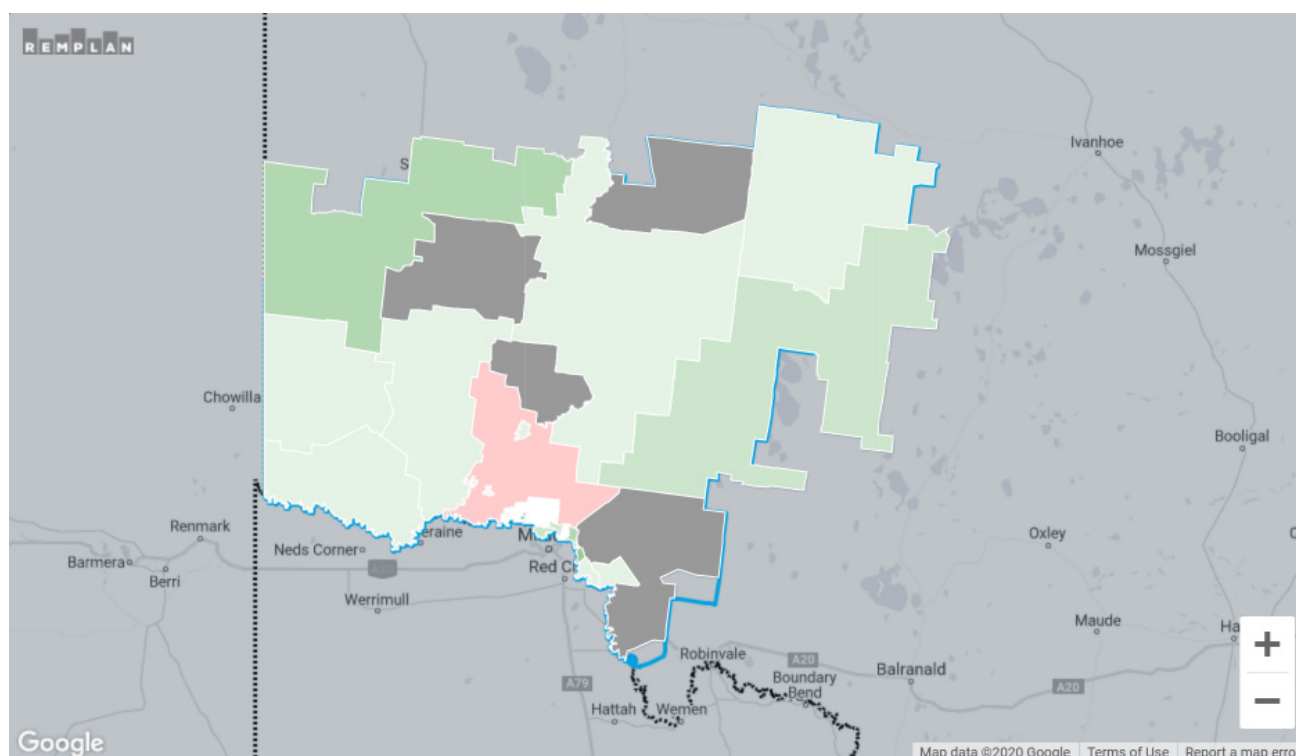


Figure 3.1 Wentworth LGA relative socio-economic advantage and disadvantage

The SEIFA rankings for Wentworth LGA overall indicate relatively average rates of advantage or disadvantage, however certain place-based communities do experience significantly more disadvantage to others in the LGA, indicating that these suburbs and the populations within them are likely to be much more vulnerable to socio-economic change than others in the LGA. Already disadvantaged communities may be more prone to experiencing further disadvantage or marginalisation caused by rapid shifts in their surroundings.

3.1.3.2 COMMUNITY PARTICIPATION

In 2016, 23.3 per cent of Wentworth LGA reported as participating in volunteer work. This is higher than the NSW average of 18.1 per cent and the Australian average of 19 per cent. This suggests that residents of Wentworth LGA are more likely to actively participate and be engaged in their local community.

Wentworth Shire Council recently completed a survey to gather insights on community capital, sense of belonging and social cohesion and wellbeing focussed on the community of Dareton, with results that indicated only 24 per cent of residents believe they are part of a cohesive community (Wentworth Shire Council, 2020). The low levels of community cohesion and social capital in Dareton have been discussed in Section 3.1.1.

3.1.3.3 COMMUNITY VALUES

As identified in the 2017–2027 Community Strategic Plan (2020) there are several areas that the community values and regard as highly important; outlined in Table 3.3. Community values identified are summarised in the Community Strategic Plan in 2016 and are also explained in further detail in Appendix E.

Table 3.3 Key community values (Wentworth Shire Council, 2017)

CATEGORY	COMMUNITY VALUE
Lifestyle and space	<ul style="list-style-type: none">— space— country feel— climate— proximity to large regional centre and tristate location— religious and cultural diversity— semi-rural aspect.
Natural environment	<ul style="list-style-type: none">— the meeting place of the Murray and Darling Rivers— the gateway to the outback— proximity to Mungo National Park located within the Willandra Lakes Regional World Heritage Area.
Amenity and aesthetics	<ul style="list-style-type: none">— sporting facilities— public spaces— gardens— freedom and space— aged care facilities— access to educational facilities.
Sense of history	<ul style="list-style-type: none">— river and paddle-steamer history— the stories of our people (Indigenous and non-Indigenous history)— historic buildings and towns.
Tourism	<ul style="list-style-type: none">— places of historic significance— Indigenous history— the river and the outback.
Community spirit and pride	<ul style="list-style-type: none">— tidy towns— community events— community connectedness— friends and family

3.1.4 ECONOMIC CHARACTERISTICS

The Gross Regional Output (GRP) for the Wentworth Shire is \$854.675 million (Wentworth Shire Council, 2017), with the top three industry sectors of agriculture, mining and manufacturing contributing to a combined \$441 million (or 51.7 per cent) of the GRP for the area. The key driver industries of the region's economy are outlined in Table 3.5. The Sunraysia area is situated along the borders of SA, NSW and Victoria on the Murray River and is known for its intensive horticulture including grapes, oranges and grains (Mildura Regional Development, 2016).

People living in both Buronga and Mildura routinely travel across the state borders as part of their everyday activities to access employment, goods and services. Around 40 per cent (1,105 people) of workers who reside in the Wentworth LGA travel to work in Mildura each day (Western Murray Regional Economic Development Strategy 2018-2022).

3.1.4.1 LABOUR FORCE, INCOME AND EMPLOYMENT

In 2016, the average rate of labour force participation in Wentworth LGA was 86.7 per cent, with 56.9 per cent reporting as working full-time and 28.8 per cent as working part-time (ABS, 2016). This is lower than the average for NSW (88.9 per cent) and for Australia (88.1 per cent).

In 2016, the unemployment rate in the area was estimated to be 6.1 per cent which is slightly lower than the wider regional NSW unemployment rate of 6.6 per cent and the state unemployment rate of 6.3 per cent (ABS, 2016). In comparison to the national unemployment rate of 6.9 per cent, Wentworth LGA's unemployment rate was 0.8 per cent lower in 2016 (ABS, 2016).

The national minimum wage in 2016 was set at A\$656.90 per week by the Fair Work Commission. In 2016, 26.9 per cent of households in Wentworth LGA earned less than \$650 per week (ABS, 2016). This proportion of population below the minimum wage is higher than the NSW average of 19.7 per cent of households. The median household income was \$1,052 which is \$434 less than the NSW average of \$1,486 (ABS, 2016).

3.1.4.2 OCCUPATION

The occupations of people living in Wentworth LGA are outlined in Table 3.4. The number of employed people in Wentworth LGA decreased by 147 people between 2011 and 2016. It is presumed that this is due to a combination of those who entered retirement as well as younger people moving out of the LGA.

Table 3.4 Occupations of people living in Wentworth LGA

OCCUPATION	PERCENTAGE OF POPULATION IN WENTWORTH	PERCENTAGE OF POPULATION IN NSW
Managers	22.5	13.5
Labourers	13.6	8.8
Professionals	13.2	23.6
Technicians and trades workers	12.8	12.7
Clerical and administrative workers	10.4	13.8
Community and personal service workers	9.7	10.4
Sales workers	8.3	9.2
Machinery operators and drivers	7.6	6.1

3.1.4.3 BUSINESS AND INDUSTRY

The top industry of employment in Wentworth LGA in 2016 was grape growing, generating 142 local jobs and accounting for 5.3 per cent of the labour force. Following grape growing, the top industries for employment in the Wentworth LGA included:

- citrus fruit growing (3.8 per cent)
- sheep farming (specialised) (3.2 per cent)
- primary education (three per cent)
- supermarket and grocery stores (2.5 per cent).

Table 3.5 Wentworth LGA's industry sectors

INDUSTRY SECTION	TOTAL AMOUNT (\$ MILLION)	PERCENTAGE
Agriculture, forestry and fishing	\$166.35	19.5
Mining	\$152.24	17.8
Manufacturing	\$107.72	12.6
Electricity, gas, water and waste services	\$2.22	8.4
Ownership and dwellings	\$55.93	6.5
Tourism	\$54.46	6.4
Construction	\$45.96	5.4
Public administration and safety	\$36.9	4.3
Transport, postal and warehousing	\$35.78	4.2
Wholesale trade	\$23.19	2.7
Health care and social assistance	\$20.41	2.4
Education and training	\$18.99	2.2
Retail trade	\$13.3	1.6
Administration and support services	\$11.67	1.4
Professional, scientific and technical services	\$9.52	1.1
Rental, hiring and real estate services	\$7.33	0.9
Financial and insurance services	\$6.76	0.9
Other services	\$5.72	0.7
Accommodation and food services	\$5.14	0.6
Arts and recreation services	\$5.11	0.6
Information media and telecommunications	\$0	0
Total	\$854.575	

TOURISM

The sixth largest industry sector within the Wentworth LGA was tourism, accounting for \$54.46 million of the LGA's GRP (or six per cent) in 2016. Wentworth Shire Council estimates that the region attracts approximately 300,000 visitors per year, who visit the LGA to attend annual regional sporting events such as the Wentworth Tractor Rally, to visit nearby national parks including Mungo National Park, and visitors attracted by fishing opportunities of the Murray and Darling Rivers (Wentworth Shire Council, 2017).

The Wentworth LGA offers diversity on the riverfronts in the towns of Wentworth and Buronga and provides visitors the experience of an introduction to regional and remote Australia. The LGA is steeped in history as a tourist area of great diversity, including the locks and weirs, paddle steamers and houseboats, water sports, historic and heritage buildings, The region also offers attractions including the; Old Wentworth Gaol, Pioneer Museum, Aboriginal cultural galleries, wineries, Perry Sandhills, Australian Inland Botanical Gardens, Mungo National Park and the Willandra Lakes World Heritage Area (Wentworth Shire Council, 2020).

3.1.4.4 ENGAGEMENT WITH INDUSTRY GROUPS

TransGrid has engaged with local industry groups with a direct interest in the proposal. Feedback provided includes:

- the desire to focus on economic benefits to the region
- the desire for TransGrid to implement a position that advocates employment and procurement opportunities for local businesses, suppliers and labour hire
- the desire for TransGrid to engage with communities early, and often
- to consider land use objectives for landholders, and protect farming land with biosecurity procedures
- to consider the nature of the farms where the alignment is proposed; and not simply opt for an alignment that passes through farms with low levels of development
- local industry stakeholders have indicated a positive approach to timely and early information, particularly in consultation with landholders.

3.1.5 ABORIGINAL SOCIO-ECONOMIC CHARACTERISTICS

The existing environment includes this disaggregated consideration of Aboriginal communities residing in the socio-economic area of influence to identify the nuanced characteristics and to understand levels of vulnerability or resilience of community groups within the wider Wentworth LGA population.

Engagement with Aboriginal community organisations or representative groups in the Wentworth and Mildura LGAs for the proposal began in early 2019. The community's first impressions of the proposal were that it is simply another infrastructure project that will promise high and leave behind little. For instance, in recent years, Traditional Owners have actively opposed the WaterNSW pipeline which was installed from the Murray River to Broken Hill, based on concerns for the conservation of the natural river flow and the loss of spiritual connection to the river (ABC 2017). Sentiment across local Aboriginal stakeholders since consultation began for the proposal is understood to have improved substantially through cooperation, trust-building and forming positive working relationships, mostly through the cultural heritage survey processes.

3.1.5.1 POPULATION AND AGE

As reported in 2016, Wentworth LGA had a total population of 650 people as identifying as Aboriginal (ABS, 2016). The area has a relatively higher Aboriginal population (9.6 per cent) than the NSW average of 2.9 per cent (ABS, 2016). Of the population, 313 (48.6 per cent) were male and 331 (51.4 per cent) were female, which defers slightly from the NSW average of 49.7 per cent and 50.3 per cent respectively. The median age was that of 26 years which is four years older than the NSW median of 22 years, although significantly younger in comparison to the median age of 44 years reported of the non-Aboriginal community in the Wentworth LGA. There was a higher proportion of the population being under 18 years old (35 per cent) compared with 22 per cent of the non-Aboriginal population. There was a lower proportion of those aged 65 or more (seven per cent) compared with 22 per cent (Education Aboriginal Affairs, 2017).

3.1.5.2 HISTORICAL CONTEXT AND ABORIGINAL HERITAGE

The Traditional Owners of the area are the Barkindji river and Maraura people, however the Aboriginal population in the Wentworth LGA consists of many different communities across Australia (Murdi Parrki Regional Assembly, 2019). The intersecting of the Murray and Darling Rivers accounts for one of the most densely populated areas of Australia pre-European settlement (Wentworth Shire Council, 2020). The land within today's Wentworth Shire has been a historical meeting place for traditional ceremony and corroborees for Aboriginal people.

The Wentworth LGA contains some of the most significant known sites of Aboriginal occupation in Australia approximately 40,000 years with some of the earliest records are found at Lake Mungo, part of Mungo National Park (Murdi Parrki Regional Assembly, 2019).

The LGA has approximately 284 registered sites currently listed with the DPIE, although the area has not been extensively investigated (NSW National Parks and Wildlife Service). As part of Wentworth Shire Council's Local Strategic Planning Statement (2020), the council is committed to the preservation and promotion of Aboriginal cultural heritage which is in line with the strategic directions as found in the Far West Regional Plan 2036 (2017, NSW Government).

Consultation with Aboriginal organisations has identified that Fletcher's Lake and Lake Victoria are both important places of Aboriginal cultural value; similarly, areas near Lake Victoria and the Darling River are the locations of Women's Sites of cultural and local significance. Fletcher's Lake is culturally significant as it was a meeting and trading place for Latchie Latchie and Barkindji people, as well as containing a burial site. BMEET has been undertaking cultural heritage surveys, gathering and storing data since 2013 (ABC, 2013).

A Cultural Heritage Assessment Report (Technical paper 2) has been conducted as part of the EIS and further information relating to Aboriginal sites of significance or cultural value can be found in this paper.

3.1.5.3 REPRESENTATION

There are five Aboriginal clan groups within the Wentworth LGA and include the Maraura (Mara wara) of the Lower Darling and along the Murray to Lake Victoria, the Paakantji (Barkindji) of the Darling River, the Barindji to the east and including the Willandra Lakes, the Kureinji to the east of the Maraura and south of the Barindji, and the Danggali in the north-west part of the LGA (Wentworth Shire Council, 2020).

More broadly, the proposal has identified as the Traditional Owners of the lands in which the proposal is situated:

- Barkandji # 8 Registered Native Title Body Corporate
- Barkandji Maraura Elders Council (BMEC)
- Barkandji Maraura Elders Environment Team (BMEET)
- Dameions Contracting
- Dareton Local Aboriginal Land Council
- Gary Pappin
- Kureinji Aboriginal Corporation
- Mary Martin
- Pappin Family Aboriginal Corporation
- TaRu Elders
- Lake Victoria Advisory Committee.

The following key outcomes on Aboriginal cultural heritage from Traditional Owners to date include:

- local Aboriginal representatives are willing to participate and speak for Country across aspects of project development (site walkthrough) and construction activities (such as excavation)
- there is a desire to promote Aboriginal cultural heritage finds through the EnergyConnect EIS works and to facilitate visits to cultural places on private land to explore shared values and enhance cultural heritage across the region
- sites of cultural or spiritual significance to Aboriginal groups in the area include: Lake Victoria, Fletcher's Lake north of Dareton, areas near Lake Victoria and the Darling River contain Women's Sites.

It has been observed that although consultation has focussed on the Dareton LAHC to date, having the rights to talk on Country, the organisation is unlikely to represent all Aboriginal community members in the area of socio-economic influence and this localised dynamic should be recognised moving forward.

3.1.5.4 HOUSING, EMPLOYMENT AND INCOME

The household income level and home ownership rate in the Dareton community are both below the average for the Wentworth Shire and NSW (Draft Sustainable Dareton Strategy 2020), indicating that there is a higher level of socio-economic stress at both the household and community levels.

The average number of people per Aboriginal-identifying household was recorded as three people in comparison to 2.5 residing in non-Aboriginal households. Approximately 50 Aboriginal people (7.7 per cent of the Aboriginal population) reported that they had a severe or profound disability in 2016 (Education Aboriginal Affairs, 2017).

The median weekly combined household income of approximately \$744. This is significantly lower than the NSW average of \$1,214 and the national average of \$1,203. Concerning household expenditure, the median weekly rent was \$175, which is \$15 more expensive to that of non-Aboriginal households (\$160). However, the average monthly mortgage payments were \$901, which is \$300 less expensive to that of the average monthly mortgage repayments of non-Aboriginal households (\$1,200).

Concerning employment, 26 per cent of Aboriginal adults were in the labour force and approximately 24 per cent of the Aboriginal workforce were unemployed in 2016 (Education Aboriginal Affairs, 2017). In 2016, the median income of Aboriginal adults in Wentworth LGA was 56 per cent (\$327) compared to that of non-Aboriginal (\$587) (Education Aboriginal Affairs, 2017).

3.1.5.5 IDENTIFIED NEEDS

This disaggregated data outlines a significant socio-economic disadvantage experienced by Aboriginal people in the Wentworth LGA. Wentworth Shire Council is currently considering options to improve employment opportunities with the aim of revitalising local economic activity and land development in and around Dareton where the majority of the Aboriginal community resides. There is also implementation plans for the Wentworth Shire Council's Closing the Gap Indigenous Employment Program focused on the Namatjira community.

Through physical observation and community consultation conducted to date, it has been understood that the Aboriginal community around Dareton is fragmented, disadvantaged and experiences high levels of demotivation. The Dareton Aboriginal community is also reported to suffer from severe substance abuse issues. There is little cohesion across the community with competing members or groups with their own agendas, priorities and needs. Intracommunity conflict was evident from physical observations during field investigations and it was highlighted that this needs to be understood in planning community partnerships, local employment schemes and other engagements related to the proposal. Despite this, specific members of the community have been identified as natural leaders, as well as being interested in the proposal, engaged in the broader community and therefore have substantial potential to help in organising people to come together.

It was summarised that large-scale infrastructure or development projects such as EnergyConnect have the capacity to reunite communities and to bring together fragmented groups; through seemingly minor activities such as doing a walkover or a cultural heritage survey, has the potential to heal rifts within a community.

Lastly, the current COVID-19 pandemic places additional levels of concern on the health and wellbeing of Aboriginal communities; in that incoming people for proposal-related activities, including any upcoming community engagement, would pose significant risks to local communities and must therefore be handled with absolute caution and careful planning.

3.1.6 INFRASTRUCTURE AND SERVICES

A desktop audit of social infrastructure was undertaken to understand existing facilities, services and their capacity within the Wentworth LGA. The findings below summarises those most relevant to the impact assessment under the categories of housing and accommodation, health facilities, emergency services and transport.

Appendix F details the social infrastructure audit conducted for Wentworth LGA.

3.1.6.1 HOUSING AND ACCOMMODATION

BURONGA – GOL GOL URBAN DEVELOPMENT

The Buronga – Gol Gol area is currently experiencing rapid housing development. The growth of Buronga – Gol Gol is anticipated due to recent improvements in infrastructure and services, ongoing development of commercial premises, the attractive rural residential lifestyle and amenity of the local area and the relatively low price of land and housing compared to Mildura. As well as these factors, it has been understood that Buronga – Gol Gol has presented opportunities to the residential housing demand overflows from Mildura due to its urban expansion constraints.

The Draft Buronga – Gol Gol Structure Plan (2020) provides a strategic land use framework to facilitate quality and sustainable urban development due to the rapid demand for housing, to guide strategic land use planning, to manage and monitor future growth and development in the area. The Plan provides a guide for approximately 429 hectares of residential land, 65 hectares of industrial land and 31 hectares of commercial land and is a 20-year planning framework that explores short, medium- and long-term goals and needs of the community.

In recent years, land zoned as primary production in Buronga West and on Mitchell Lane in Gol Gol's north-east has progressively transitioned into rural residential development due to demand for large lot, rural and environmental lifestyle living. The housing boom in Buronga Gol Gol is expected to continue and will be supported by current proposed residential subdivision and commercial development.

TEMPORARY ACCOMMODATION PROVIDERS

There are approximately 12 short stay and visitor accommodation options including caravan parks, cottages, motels and inns. Almost all are located in the town of Wentworth, with one located in Pomona.

In 2016, there were ten establishments with more than 15 rooms, with a total number of rooms across all establishments in the LGA equating to 250 rooms (Destination NSW, 2017). The occupancy rate was reported as being 28.9 per cent in 2016, which is down 0.9 per cent from the previous year (29.8 per cent in 2015) (Destination NSW, 2017). Wentworth LGA generated approximately 2.1 million dollars in revenue from tourist accommodation in 2016, which was a 5.3 per cent change down from the previous year (2.2 million dollars in 2015) (Destination NSW, 2017).

Wentworth Shire Council note that there are existing caravan parks in Buronga, Gol Gol and Pooncarie that all often have capacity. Wentworth Shire Council have indicated that there is a considerable level of exposure that local communities have with itinerant workforces already, due to the horticulture sector and its reliance on seasonal labour within the LGA. These workers regularly reside up to 1.5 hours away from the farms in which they work based on where available accommodation is situated. It is understood that the town of Wentworth has many hotels, motels and caravan parks where itinerant workers often reside for the season.

3.1.6.2 HEALTH FACILITIES

Wentworth Shire Council indicate that residents in Buronga currently rely heavily on health care services available in Mildura LGA. The Wentworth Shire Council's parliamentary submission to the NSW Government citing the need for an inquiry into support for Drought Affected Communities in New South Wales (2019) highlighted the challenges of the community's access to medical services and lack of full-time general practitioner (GP) availability in the LGA.

Additionally, Wentworth Shire Council highlighted in their 2019 submission that the LGA has a requirement for GP clinics and community-based health services that are currently not being met, including mental health, Aboriginal medical services, hospital services, ambulance and emergency services, aged care facility, allied health services, specialist services and pathology services (Wentworth Shire Council, 2019). The following health services are currently provided in the Wentworth LGA:

- Wentworth GP clinic
- Coomealla Health Aboriginal Corporation (CHAC)
- Wentworth District Hospital
- Royal Flying Doctors' Service
- Pooncarie volunteer ambulance service.

3.1.6.3 EMERGENCY SERVICES

The NSW Ambulance Service for the Shire is based in Buronga and Gol Gol, while a number of other emergency services in Wentworth LGA are located in Dareton and Wentworth. Wentworth Shire Council maintains a memorandum of understanding with the Victorian emergency services to provide coordinated support when needed, indicating an existing pressure on emergency services based in Wentworth LGA.

Across Wentworth LGA, there are three police stations, two fire and rescue stations, one State Emergency Services (SES) station and three Rural fire service NSW stations. Further detail on the available emergency services in the Wentworth LGA is in Appendix F.

3.1.6.4 AIR TRANSPORT

The Far West Region's airports and aerodromes, including Wentworth Aerodrome, currently provide medical services, postal services, and are also essential services to the agricultural sectors (DPC, 2018).

Wentworth Shire Council is currently upgrading the Wentworth Aerodrome, expected to support improved daily services which included those by the Royal Flying Doctors Service and NSW Ambulance Service, the Sunraysia Sports Aircraft Club, air freight networks, incoming mustering workers as well as catering for private charter aircraft used by the tourism, mining and government sectors (Wentworth Shire Council, 2020).

While no commercial airline currently services the aerodrome, Wentworth Shire Council anticipates that the aerodrome upgrade will trigger further or additional users of the facility to benefit the whole LGA into the future, for example as an overflow airport to Mildura (Wentworth Shire Council, 2020). Additionally, the international pilot school currently operating out of Mildura Airport may be looking for new facilities in less densely populated locations in the future due to the frequency of flights in and around residential areas of Mildura causing noise issues.

3.1.6.5 ROAD TRANSPORT

The Far West Regional Plan 2036 and the Western Murray Regional Economic Development Strategy 2018–2022 both outline the need for improved road transport infrastructure and freight networks as priorities to unlock regional economic growth (p. 31). Currently, Wentworth Shire Council manages one of the largest road networks in NSW, over 2,139 kilometres of roads, and has recently received a \$7 million NSW Government investment as part of the COVID-19 response to improve regional road networks.

3.2 REGIONAL SETTING

As outlined in Section 2.5, the regional area as defined by this SEIA encompasses the Mildura LGA and considers the Far West region of NSW.

3.2.1 MILDURA LGA OVERVIEW

Mildura LGA is located approximately 30 kilometres south east of Wentworth and is governed by Mildura Rural City Council. It is also located approximately 11 kilometres north east of the town of Buronga in Wentworth LGA. Like the Wentworth LGA, it is part of Sunraysia region and is the largest section of the Victorian side of the Sunraysia region. The Mildura LGA is situated on the Murray River in north west Victoria and is located on the border of NSW and South Australia, making it a strategically important regional service centre for communities across regional Victoria, south-west NSW as well as SA.

The city of Mildura is the largest city in north west Victoria and is located approximately 550 kilometres north west of Melbourne and 400 kilometres north east of Adelaide. Regional services from Mildura city include transport and warehousing services for surrounding agricultural areas and the mining sector, as well as providing professional services, health services and tertiary education facilities for the broader population (Regional Development Victoria, 2020). Mildura Rural City Council's service portfolio considers a population of up to 100,000 people who regularly utilise infrastructure and services in Mildura city.

3.2.2 DEMOGRAPHIC AND POPULATION CHARACTERISTICS

The ABS (2016) recorded the total population of Mildura LGA as 53,887 people in 2016. The population of Mildura city was 32,738 people in 2016 (ABS, 2016), representing over 60 per cent of the population living in the LGA. Of the population, 4.6 per cent identify as Aboriginal, which is comparatively higher to that of the Victorian average of 0.8 per cent (ABS, 2016).

The Mildura LGA's working age population (15–64 years) was reported as 62.2 per cent, with children (0–14 years) being 18.8 per cent and those aged above 65 years and over making up 19 per cent. In comparison to the national average, the age profile for Mildura shows an aging population as those ages 65 years and over represent 19 per cent which is 3.3 per cent higher than the national average of 15.7 per cent for the same age group.

An overview of the Mildura demographics is provided in Table 3.6 with Victorian averages presented for comparison. For a detailed review of Mildura LGA's demographic profile with comparisons to Wentworth LGA's demographic profile, see Appendix B.

Table 3.6 Mildura LGA demographic characteristics

INDICATOR	MILDURA	VICTORIA	KEY FINDINGS
Age and population			
Population	53, 887	5, 926, 626	Mildura LGA has a large proportion of those identifying as Aboriginal in comparison to the Victorian average. The population growth is stable, although almost 5% less than the Victorian average. The median age in the LGA is slightly older in comparison to the state median.
Proportion of Aboriginal People	4.6%	.8%	
Stability of population (proportion moved in the last 5 years)	5.68%	10.69%	
Median age	40 years	37 years	

INDICATOR	MILDURA	VICTORIA	KEY FINDINGS
Proportion of children population (between 0 and 14 years)	18.8%	18.3%	The working age group was reported as slightly less than the Victorian average. Mildura LGA reports an aging population for the area, which can be seen in the decline of the working population profile and the higher proportion of those aged 65 years and over residing in the LGA. There is a somewhat stable population growth in the younger age groups.
Proportion of working age population (15-64 years)	62.2%	66.2%	
Proportion of seniors (65 years and over)	19%	15.6%	
Housing, accommodation and households			
Private houses occupied	89.3%	88.3%	There is a slightly higher occupancy rate of the available properties within the Mildura LGA, with a high proportion of properties being houses. There is a significantly lower proportion of smaller housing options such semi-detached housing and apartment style.
Private houses unoccupied	10.7%	11.7%	
Dwelling type – separated houses	83.9%	73.2%	
Dwelling type – semi-detached or terrace houses	8.6%	14.2%	
Dwelling type – flats or apartments	5.8%	11.6%	
Dwelling type – other	1.1%	0.5%	
Average number of rooms	3 rooms	3 rooms	Mildura LGA reports a higher proportion of the population as residing in a single or lone household in comparison to the Victorian average.
Average people per household	2.4 people	2.6 people	
Family households	68.3%	70.8%	
Single or lone person households	28.6%	24.7%	
Group households	3.1%	4.5%	
Median weekly rent repayments	\$210	\$325	The median weekly rental payments were significantly lower than the Victorian average.
Proportion of households where rent payments are less than 30% of household income	89.4%	89.6%	
Proportion of households with rent payments greater than or equal to 30% of household income	10.6%	10.4%	

INDICATOR	MILDURA	VICTORIA	KEY FINDINGS
Culture and language			
Born in Australia	79.3%	64.9%	The proportion of the population who was born in Australia is significantly higher compared to the Victorian average.
English only spoken at home	82.3%	67.9%	
Households where non-English language is spoken	11.2%	27.8%	The Mildura LGA has a significantly higher proportion of households who speak only English at home. The proportion of the population that speaks a language other than English is significantly lower in comparison to the rest of Victoria.
Employment and income			
Labour force participation	87%	88.4%	Unemployment rates in the Mildura LGA are slightly higher than the state average.
Unemployment	7.3%	6.6%	
Volunteer participation	20.7%	19.2%	The slightly higher average of volunteer participation within the LGA suggests residents in the Mildura LGA are more likely to actively participate and be engaged in their local community. The median household income in the Mildura LGA is \$355 less than the Victorian average.
Median weekly household income	\$1,064	\$1,419	

3.2.3 SOCIAL CHARACTERISTICS

Social wellbeing indicators in the Mildura LGA demonstrate a two-speed economy; there is an abundance of industry growth, yet large numbers of people in Mildura who receive social welfare, making the LGA one of the top four socially disadvantaged LGAs in the state of Victoria.

3.2.3.1 SOCIO-ECONOMIC ADVANTAGE AND DISADVANTAGE

Mildura LGA rated 935 on the Social-Economic Indexes for Areas (SEIFA), close to Victoria's average of 1,000. This SEIFA score sees the Mildura LGA ranked as the 5th most disadvantaged LGA of 79 LGAs in Victoria indicating that existing communities experience proportionately high levels of disadvantage and are therefore likely to be more vulnerable to social change in their surrounds, particularly if sudden. Table 3.7 outlines the SEIFA ranking for the Mildura LGA.

Table 3.7 Relative socioeconomic disadvantage, ABS 2016

	DISADVANTAGE				
	Score	Rank within Australia	Percentile rank within Australia	Rank within Victoria	Percentile rank within Victoria
Mildura LGA	935	128	24	5	7

Figure 3.2 shows the distribution of relative disadvantage in Mildura LGA and surrounding LGAs.

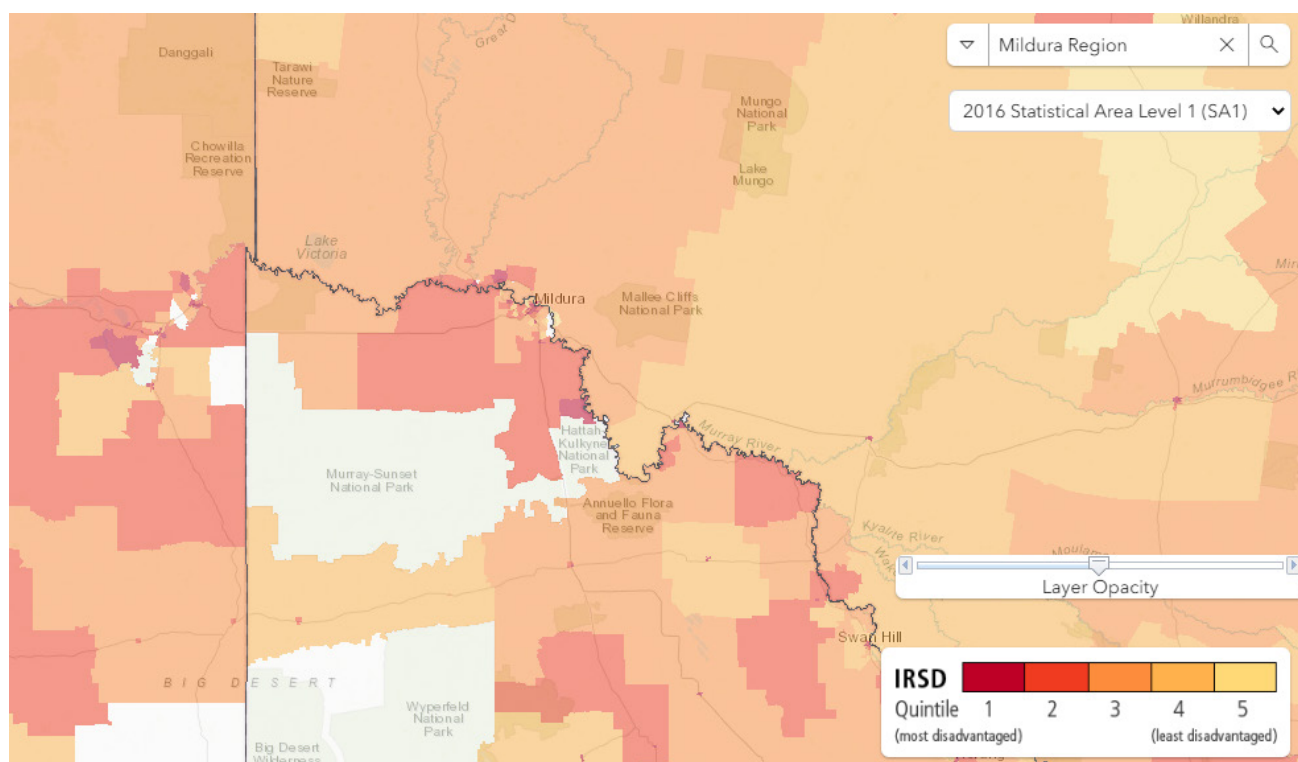


Figure 3.2 Distribution of the Index of Relative Socioeconomic Advantage and Disadvantage (IRSAD) SEIFA scores for Mildura LGA and surrounds

In comparison to the national minimum wage in 2016 set at \$656.90 per week by the Fair Work Commission, in Mildura LGA 26.8 per cent of households earn less than \$650 per week (ABS, 2016). This proportion of population below the minimum wage is higher than the Victorian average of 20.3 per cent of households.

It was estimated that 175 people were identified as homeless in the Mildura LGA in 2016 (ABS, 2016).

3.2.3.2 COMMUNITY PARTICIPATION

In 2016, 20.7 per cent of the population in Mildura LGA reported as participating in volunteer work. This is slightly higher than the Victorian average of 19.2 per cent and the Australian average of 19 per cent. This proportion of the population reporting as having participated in volunteer work somewhat suggests that residents within the LGA are likely to actively participate and be engaged in their local community.

3.2.3.3 COMMUNITY VALUES

Several community values were highlighted in Mildura Rural City Council's Annual Report for 2018–2019 which included advocacy and engagement on behalf of the community for the following issues of community value. These included:

- the health and future of the Murray Darling Basin
- ongoing challenges around waste recycling
- the need for more and better drug rehabilitation services
- the continuing push for the return of passenger rail services in our region (Mildura Rural City Council, 2019).

Other issues highlighted by the report and valued by the community included:

- improve issues faced by farmers (changes to farm visas in a bid and ensuring the workforce required by growers, and planning restrictions on farmland)
- ongoing drought issues (including increase in water prices and impact on horticultural areas) (Mildura Rural City Council, 2019).

Council's commitment to multiculturalism and diversity is shown in its commitment having declared as a Refugee Welcome Zone in 2002 and the establishment of SMECC which provides refugee settlement support services through a number of programs.

3.2.4 ECONOMIC CHARACTERISTICS

The Mildura LGA is integral to Victoria's agricultural industry including dryland farming, irrigated horticulture (table grapes, wine grapes, dried grapes, citrus and vegetables), as well as tourism, and food and beverage manufacturing.

3.2.4.1 LABOUR FORCE, INCOME AND EMPLOYMENT

The average rate of labour force participation in the Mildura LGA was 87 per cent, with 55.9 per cent reporting as working full-time and 31.1 per cent as working part-time (ABS, 2016). This is lower than the average for Victoria (88.4 per cent) and for Australia (88.1 per cent).

In 2016, the unemployment rate in the area was estimated to be 7.3 per cent which is higher in comparison to the Victorian regional unemployment rate of six per cent and the Victorian unemployment rate of 6.6 per cent (Profile Id, 2016). In comparison to the national unemployment rate of 6.9 per cent, the unemployment rate in the Mildura LGA was slightly higher (ABS, 2016). Between 2011 and 2016, the total number of people employed in Mildura LGA decreased by 1,070 people. It is presumed that this is due to those who entered retirement.

Mildura Rural City Council estimates that the economy supports approximately 22,368 jobs, representing 88.74 per cent of the 25,205 people working in the Mildura-Wentworth region (Mildura City Council, 2020). Furthermore, Council estimates that this represents around 0.7 per cent of the NSW labour force and around 0.8 per cent of Victoria's (Mildura City Council, 2020).

The median household income in the Mildura LGA was \$1,064 which is \$355 less than the Victorian average of \$1,419 (ABS, 2016).

3.2.4.2 OCCUPATION

The occupations of people living in Mildura LGA are outlined in Table 3.8 below.

Table 3.8 Occupations of people living in Mildura LGA

OCCUPATION	PERCENTAGE OF POPULATION IN MILDURA	PERCENTAGE OF POPULATION IN VICTORIA
Professionals	15.8	23.3
Managers	14.6	13.5
Technicians and Trades Workers	13.5	13.1
Labourers	13.4	9
Community and Personal Service Workers	11.4	10.6
Sales Workers	11.3	9.7
Clerical and Administrative Workers	11.2	13.3
Machinery Operators and Drivers	7	5.8

3.2.4.3 BUSINESS AND INDUSTRY

The top industry of employment in the Mildura LGA in 2016 was grape growing, generating 757 local jobs and accounting for 3.4 per cent of the labour force. Following grape growing, the top industries for employment in the area were:

- retail (3.3 per cent)
- hospitals (3.1 per cent)
- primary and secondary education (5 per cent).

Sourced from 2016, 2017 and 2018 ABS data, Remplan (2020) estimates Mildura's GRP at \$3.319 billion, which represents 83.4 per cent of Mildura-Wentworth's GRP of \$3.981 billion, and 0.2 per cent of Australia's Gross Domestic Product (GDP) of \$1.848 trillion, 0.5 per cent of NSW's Gross State Product (GSP) of \$604.414 billion, and 0.8 per cent of Victoria's GSP of \$430.504 billion.

Table 3.9 Mildura LGA's industry sectors (Remplan, 2020)

INDUSTRY SECTION	TOTAL AMOUNT (\$ MILLION)	PERCENTAGE
Manufacturing	\$89.492	14.14
Agriculture, forestry and fishing	\$845.493	13.38
Construction	\$670.238	10.6
Rental, hiring and real estate services	\$637.279	10.08
Health care & social assistance	\$399.830	6.33
Retail trade	\$334.505	5.29
Transport, postal & warehousing	\$276.090	4.37
Education & training	\$274.751	4.35
Financial & insurance services	\$262.681	4.16
Accommodation & food services	\$246.992	3.91
Wholesale trade	\$242.683	3.84
Electricity, gas, water & waste services	\$241.881	3.83
Administration and support services	\$226.038	3.58
Public administration and safety	\$222.503	3.52
Professional, scientific and technical services	\$2210.211	3.33
Other services	\$125.119	1.98
Information media and telecommunications	\$120.191	1.9
Mining	\$51.544	.82
Arts and recreation services	\$39.323	.62
Total	\$6,320.775 M (\$6.321 billion)	

RETAIL

Retail trade was the area's sixth largest industry sector in 2016 (ABS, 2016). The closest regional cities to Mildura are Horsham (Victoria) to the south, Swan Hill (Victoria) to the south east, Renmark to the west in South Australia and Broken hill to the north in NSW. Due to its location, retailers in Mildura provide retail services to a large and captive regional catchment (Mildura Retail Strategy, 2018).

Mildura's retail and shopping precincts include:

- Mildura Central Business District ('City Heart')
- Mildura City Gate Precinct containing the Mildura Central Shopping Centre, and recent adjoining retail developments including Big W, Dan Murphy's and Coles supermarket
- large format retailing along Fifteenth Street
- town centres in Merbein, Irymple and Red Cliffs
- a future neighbourhood centre in Mildura South
- other local retail facilities provided throughout the urban Mildura area (Mildura Retail Strategy, 2018).

In 2017, retail outlets accommodated the region's primary trade area (comprising of approximately 57,750 people residing in the LGA and Wentworth in NSW) as well as an estimated population of 40,640 residents from its secondary trade area (made up of areas extending towards Swan Hill and Horsham in, Broken Hill and the Riverland) (Mildura Retail Strategy, 2018). Combined, it is estimated that the regions retail precincts serviced approximately 98,390 people in 2017.

MANUFACTURING, AGRICULTURE AND HORTICULTURE

The majority of Mildura LGA's economy is generated by its manufacturing, agriculture and horticulture industry sectors. The LGA's manufacturing sector produces value added products from agricultural produce, manufacturing food, wine and beverages (Mildura Regional Development, 2016). As Mildura LGA is part of the Sunraysia region, the area produces high quality fruit and vegetables. The climate as well as the region's fertile alluvial soil and access to irrigation water along the river provides an environment that is particularly advantageous for plant growth (Mildura Regional Development, 2016).

The Mildura LGA is particularly known for its citrus cropping, growing approximately 24 per cent of Australia's citrus crops. The LGA also leads in table grape production, with 75 per cent of all table grapes that are grown in Australia coming from the Mildura LGA (Mildura Regional Development, 2016). Mildura city is home to the headquarters of Citrus Australia Ltd, the peak marketing body of the citrus industry in Australia, and the Australian Table Grape Association Inc. the peak industry body representing commercial table grape growers from across Australia (Mildura Regional Development, 2016). The Mildura LGA also contributes to the country's wine industry with the region (Murray-Darling) accounting for approximately 20 per cent of Australia's wine grape harvest (Wentworth Visitor Information Centre, 2020). Other crops in the area that Mildura is known as high producers of include almonds, pistachios, olives and olive oil, carrots, asparagus, melons, avocado, honey bees (hives) and honey production, livestock (sheep), and grains cropping (Mildura Regional Development, 2016).

TOURISM

In 2016, Mildura LGA's GRP for tourism was approximately \$259.73 million (ABS, 2016). Between July 2016 and June 2017, the overall region (including Irymple, Merbein, the Mildura Region, Red Cliffs, and Wentworth – Buronga, for reporting purposes) saw an estimated 490,000 domestic overnight visitors (Mildura Visitor Information Centre, 2017). The average length of stay was two nights and the largest group of visitors were 65 years and over (24 per cent), followed by 35 to 44 years (20.5 per cent) and 45 to 54 years (19.7 per cent).

The overall region (as previously described) received approximately 21,800 international overnight visitors in the same timeframe which spent an estimated \$21 million, with an average of \$41 per night (Mildura Visitor Information Centre, 2017). Day trip domestic visitors included 288,000 people, with a total spend of \$43 million in the region, with an estimated average of \$148 per visitor (Mildura Visitor Information Centre, 2017).

The Murray River is a well-known natural tourist attraction in the LGA which offers visitor activities including paddle steamer cruises, swimming, fishing and hiring houseboats. Other attractions to the region include food, wine, markets, arts, culture and history. As well as nearby National Parks Mungo, Hattah-Kulkyne or the Murray-Sunset country (Mildura Visitor Information Centre, 2017).

OTHER INDUSTRY AND EMERGING SECTORS

The LGA's emerging industries, or sectors experiencing growth, include renewable energy generation, aquaculture, mineral sands mining, manufacturing, property and construction and recycling. Mildura Rural City Council has identified that many of these sectors will require improved electrical infrastructure in the near future.

EnergyConnect is essential to the ongoing renewal and augmentation of the electricity connection; a major concern for Mildura's Regional Development Agency has been the capacity of the energy network. Development in the LGA is currently being delayed because existing power supply cannot be moved out of the system to allow for new renewable project developments to connect into the grid. The investment of EnergyConnect is incredibly welcomed and well placed because of this. There are numerous solar farm projects in the pipeline at present, with three already under construction. Solar energy investments are soaring in the Mildura LGA the past few years. It will take up to two years' post completion of the EnergyConnect infrastructure for the solar projects that are already waiting for grid capacity to be able to integrate with the system. Based on this, the sooner the proposal is progressed, the better for everyone.

SERVICING THE NEEDS OF THE PROPOSAL

Based on the recent and past industrial development, Mildura has a fair capacity of service industries relevant to the proposal's likely contracting requirements, including manufacturing and maintenance, engineering, design, fabrication, processing and assembly.

3.2.5 ABORIGINAL SOCIO-ECONOMIC CHARACTERISTICS

The existing environment includes this disaggregated consideration of Aboriginal communities residing in the socio-economic area of influence to identify the nuanced characteristics and to understand levels of vulnerability or resilience of community groups within the wider Mildura LGA population.

3.2.5.1 POPULATION AND AGE

Of the Mildura LGA population, 4.6 per cent identify as Aboriginal, which is comparatively higher to that of the Victorian average of 0.8 per cent (ABS, 2016).

3.2.5.2 HISTORICAL CONTEXT AND ABORIGINAL HERITAGE

Aboriginal places of significance in Mildura LGA include Hattah-Kulkyne National Park and lake Hattah-Kulkyne, Hattah, and Mildura Riverfront Path and Wetlands. The Murray River is significant to local Aboriginal culture heritage due to the location of shell middens, stone artefacts, tools, and significant scarred trees.

Mildura Rural City Council's Annual Report for 2018-2019 also identified Aboriginal Heritage as a value of the community. The importance of the regional Aboriginal Heritage is also highlighted through Council's commitment to supporting Reconciliation, the formation of the Aboriginal Action Committee to strengthen Council's relationships with the local Aboriginal community, and participation and celebrations for NAIDOC Week, National Sorry Day and National Reconciliation Week.

3.2.5.3 HOUSING, EMPLOYMENT AND INCOME

The average number of people per household was recorded as 3.2 people in comparison to 2.4 residing in non-Aboriginal households. The median weekly combined household income of approximately \$849 is significantly lower than the State average of \$1,200 and the national average of \$1,203.

Concerning household expenditure, the median weekly rent was \$203, which was \$7 less than to that of non-Aboriginal households (\$210). However, the average monthly mortgage payments were \$1,300, which was \$100 more expensive to that of the average monthly mortgage repayments of non-Aboriginal households (\$1,200).

3.2.6 INFRASTRUCTURE AND SERVICES

Mildura Rural City Council manages over 100 different services for the LGA's residents. This includes the maintenance of three customer centres as well as worksites and public access points including libraries, depots, waste management facilities, child care and health centres and swimming pools across the LGA (Mildura Rural City Council, 2017).

Appendix G provides the findings of the social infrastructure audit conducted for Mildura LGA, while the below summarises the key findings relevant to the impact assessment under the categories of housing and accommodation, health facilities, emergency services, transport and education facilities.

3.2.6.1 HOUSING AND ACCOMMODATION

Housing availability is currently undersupplied due the large number of development projects in the LGA. Specifically, the rental market was noted as presently saturated with very high to full occupancy rates.

In 2016, 89.3 per cent of private dwellings (or 19,816 homes) were occupied, with 10.7 per cent (or 2,368 homes) as unoccupied when recorded as part of the Census (ABS, 2016). Across Mildura LGA, homes were made up of separated houses (83.9 per cent), semi-detached, row or terrace houses or townhouses (8.6 per cent), flats or apartments (5.8 per cent) and other dwellings (1.1 per cent). The average number of rooms was three rooms per home with an average of 2.4 people per household. This is slightly lower than the averages in Victoria of three bedrooms and 2.6 people per household, and lower than the national average of 3.1 and 2.6 respectively.

Family households made up 68.3 per cent, with 28.6 per cent single or lone person households and only 3.1 per cent of those being group households. The median weekly rental payments were \$210, which is significantly lower than the State average of \$325 and the national average of \$335 per week. 89.4 per cent of households were those where rent payments were less than 30 per cent of the total household income, with 10.6 per cent of households where rent payments were equal to 30 per cent of the total household income (ABS, 2016).

At the time of this audit, there were 86 properties available for rent within the boundaries of the LGA (Realestate.com.au, 2020). Of the properties available, the weekly rent payments ranged from \$125 per week (two bedroom, one bathroom unit in Irymple) to \$1,000 per week (four bedroom, two bathroom house in Mildura).

The Mildura LGA has hosted numerous temporary workforces in recent years, giving the Mildura residential population, as well as service providers, a familiarity with the dynamics of transient populations that other townships or regional cities may not have experienced. These are from a range of industries including solar, mining, aviation and agriculture.

TEMPORARY ACCOMMODATION PROVIDERS

There are approximately 63 short stay and visitor accommodation options that are Registered Prescribed Accommodation businesses registered in 2015 with Mildura Rural City Council (Mildura Rural City Council, 2020). There are approximately 33 accommodation business that elected not be part of the prior listing with availability at the time of the audit (Mildura Visitor Information Centre, 2020). Accommodation options in the LGA comprise of apartments and houses, hotels, motels, inns, resorts, backpackers, caravan, holiday camps and parks, and rooming houses. The available tourist accommodation options (approximately 96 in total) are central to Mildura LGA's appeal due the range of accommodation options available with the majority centrally located in CBD which allows for close proximity to the area's retail shopping, restaurants and other services.

Temporary accommodation services are concentrated in Mildura city, followed by Wentworth town, however there is limited availability in the market at present across the entire area of socio-economic influence. Existing temporary accommodation providers in Mildura are in recent years, struggling to meet the increasing demand. Notably, information provided by Mildura Rural City Council indicates that new or upcoming projects with workforce housing requirements would struggle to find sufficient available accommodation in Mildura.

Regarding workforce accommodation, it was noted that the three solar farm projects currently under construction house their workers in local hotels, motels or caravan parks, with twice daily bus services to transport workers to and from the project sites. Horticultural companies have in recent years formed binding agreements with local motels to provide housing for their seasonal workers, resulting in other users being pushed elsewhere. It was also described that future solar developments will likely struggle to find ample availability in existing temporary accommodation providers, which may cause private rental properties to supply the required housing.

3.2.6.2 HEALTH FACILITIES

The Mildura LGA is serviced by approximately 25 general practice clinics, including Aboriginal health and community services, and three hospitals – Mildura Hospital, the Mildura Base Hospital, and the Mildura Health Private Hospital.

Mildura Hospital was reported to be already at capacity and not sufficient to service the region's growing needs. Many remote health providers are also based in Mildura.

The Mildura Base Hospital is a public 165 bed and teaching hospital that provides a range of acute, allied, community health and specialist services and is affiliated with Monash and La Trobe Universities for the provision of health training and education (Mildura Base Hospital, 2020).

The Mildura Health Private Hospital is a not-for-profit 50 bed surgical and medical hospital with general practitioners and specialists (Mildura Health Private Hospital, 2020).

3.2.6.3 EMERGENCY SERVICES

Mildura LGA is serviced by a number of emergency services facilities across the LGA with the majority located in Mildura City and Merbein. Smaller facilities are also located in the towns of Red Cliffs and Irymple.

Across the LGA there are three police stations, five fire and rescue stations, one rural ambulance station, one SES station and three Country Fire Authorities. A full list of emergency services can be found in Appendix G.

3.2.6.4 AIR TRANSPORT

Mildura Airport is a major infrastructure facility for the whole area, including residents and transient populations of the Wentworth LGA, with sixteen flights per day serviced by three air carriers (pre-COVID-19).

Mildura Airport is located approximately 9.3 kilometres south west of the city of Mildura and is the busiest regional airport in Victoria and second to Melbourne International Airport when measured by Regular Passenger Transport Movements for the state, with over 225,000 passenger movements recorded in 2017 (Mildura Airport, 2020). The airport is managed by an independent board and management team to oversee its operations appointed by Mildura Rural City Council in 2008. Airlines servicing the airport at the time of this assessment included Qantas, Virgin Australia and REX Regional Express. Mildura Airport (2020) highlighted the airline destinations and routes are as outlined in Figure 3.3.



Figure 3.3 Mildura Airport destination map (Mildura Airport, 2020)

Chartered flights from the airport are provided by Ramair Flying Services covering the Sunraysia, Riverland and Mallee regions. Mildura Airport has also recently begun offering a pilot training school run by Pearson Aviation of which in 2019 there was a cohort of 130 students, mostly international (Mildura Independent, 2019). Mildura Rural City Council anticipates the program to provide a substantial injection into the local economy in the coming years and has cemented the Mildura Airport as an important transport hub in the region. The Mildura Airport is also a base for several community groups such as the Mildura Aero Club and Mildura Sports Aviation.

3.2.6.5 ROAD AND RAIL TRANSPORT

Transport services and infrastructure are well-established in the Mildura LGA, including freight services, the direct rail link to Melbourne and the road network where multiple major highways intersect (Mildura Regional Development, 2016). Council maintains approximately 1,048 kilometres of local sealed roads and 4,110 kilometres of unsealed local roads (Mildura Rural City Council, 2019). Major road transport routes include:

- the Calder Highway from Melbourne
- the Sunraysia Highway from Ballarat (NSW)
- the Silver City Highway from Broken Hill (NSW)
- the Murray Valley Highway from Swan Hill (Victoria)
- the Sturt Highway from Adelaide in the west and Sydney from the north east.

3.2.6.6 EDUCATION FACILITIES

There are a number of tertiary education institutions in the town which also attract a consistent incoming population including La Trobe University, Sunraysia Institute of TAFE and Monash University Medical School. This is described in further detail in Appendix G.

4 IDENTIFICATION OF IMPACTS

This section identifies and discusses the potential socio-economic impacts associated with the construction and operations of the proposal. Socio-economic impacts, both positive and negative, are discussed according to the social factors described in the methodology.

4.1 WAY OF LIFE

Way of life is a broad category of social impact, defined as how people live, work, recreate and interact with each other on a daily basis.

4.1.1 HOW PEOPLE LIVE

It is common for communities to experience increases in housing costs or availability pressures associated with large-scale development projects. The combination of low supply, increased demand for housing and high income of migratory workers place strain on local housing markets causing occupancy rates, median rent and sale prices to often increase.

Consideration must be given to the housing needs of the temporary construction workforce to avoid placing strain on the already limited rental market as apparent currently in Mildura city, where most temporary accommodation providers are located. Moreover, the ‘twin town role’ of Mildura and Buronga townships has meant that both shires operate within the same housing market and have similar requirements for infrastructure and servicing (DPC, 2020). Also, housing requirements for temporary workforces in the Far West Region have already been understood to have affected supply and increased pressures on available housing for other population groups in recent years.

An increase in competition accessing temporary accommodation caused by the incoming construction workforce may result in unavailability of housing for other user groups. This unexpected increase in demand and the potential ability of non-permanent residents to pay higher rates, can lead to residents and particularly existing renters, being priced out of the market. This could place an increase in demand for social housing provision over time, or in more extreme situations, could cause outward migration of certain resident groups (Robertson 2010). In turn, these effects can have impact on people’s way of life and the longer-term composition of a community. Population groups likely to be most impacted by changes in the housing market in the area of socio-economic influence have been identified to include:

- low income households
- households receiving rental assistance or social welfare supports
- renters
- other temporary, transient or seasonal workforces
- tourists or visitors.

It is for these reasons that the proposal’s workforce accommodation needs should be considered in the localised housing market context. Workforce accommodation camps often reduce the adverse impacts on local housing markets in remote or regional areas, however such facilities often cannot remove impacts entirely and still have effect on the availability or accessibility of public services and amenities for local communities. This is commonly compounded by the limited infrastructure and services supply in regional settings that have not been planned around sudden spikes in population and demand.

The proposal plans to establish three workforce accommodation camp facilities for 100–200 people each, in order to reduce impact on the housing market during most of construction. Table 4.1 provides information on the indicative location of each camp and a description of the local setting, including the nearest township. The closest residential community to each camp is the most likely resident group to experience direct impacts of the accommodation camps and the incoming workforce.

Table 4.1 Workforce accommodation camp locations

SITE OPTION	CAPACITY	DESCRIPTION OF SITE LOCATION & ACCESS	CLOSEST TOWN
Anabranh South, Silver City Highway, NSW	100 FTE	<ul style="list-style-type: none"> — road connects Broken Hill to Wentworth towns through Far South West Region and Wentworth LGA — remote and arid landscape, no built infrastructure or residential areas other than the highway 	<ul style="list-style-type: none"> — Wentworth, approx. 34 km to the south east
Buronga NSW	200 FTE	<ul style="list-style-type: none"> — on Arumpo Road, next to existing Buronga substation, 1.5 kilometres from Lake Gol Gol, dry and arid, no built infrastructure 	<ul style="list-style-type: none"> — Buronga – 14 km south west — Gol Gol – 16 km south west
Wentworth NSW	100 FTE	<ul style="list-style-type: none"> — this site is subject to further investigation and site selection, but would be in general proximity to Wentworth town and its surrounds 	<ul style="list-style-type: none"> — Wentworth town would be at a minimum, 6 km south east

The proposal, although to a lesser extent, also plans to utilise existing temporary accommodation facilities throughout the construction period. This is expected to occur in Mildura city, given its proximity to the airport and its availability of accommodation options. This would most likely occur during the construction phase's early works and until accommodation camps are established for the arrival of the peak construction workforce. Additionally, TransGrid would encourage international and interstate workers to also reside in local accommodation while off-shift.

The Mildura LGA has over decades hosted and prepared for short-term increases in the residential population evident by the amount of hotels and motels and the number of sectors that rely on temporary workers. However, accommodation providers in Mildura city are currently at capacity and the rental market is understood to have very limited stock. While this has positive impacts for businesses and property owners, this can have long-term negative impact on housing affordability and availability affecting the broader population.

The Wentworth LGA has a more limited supply of temporary accommodation, although of those that do exist, they are often not at full occupancy and are located closer to the proposal area. Wentworth Shire Council has also expressed interest in seeing existing accommodation facilities utilised where feasible, to generate local benefit where opportunities exist.

4.1.2 HOW PEOPLE WORK

The SIA Guideline defines impacts on how people work to refer to access to employment, working conditions and working practices. Construction activities including the operations of the accommodation camps would avail local and regional employment opportunities for job seekers and would increase the commercial activity for local and regional service providers and contractors. Procurement of local contracting services and businesses would increase spending power of business owners and their families, bringing about increased social and economic capital in local and regional communities.

The analysis in this section is complemented by the Economic Assessment in Appendix K.

4.1.2.1 LOCAL AND REGIONAL EMPLOYMENT

Income derived from employment can directly shape other aspects of people's way of life, livelihoods and wellbeing, such as through access to improved housing, transport and health.

The proposal's anticipated construction workforce of 400 personnel would be sourced from a combination of regional (20 per cent), domestic (60 per cent; of which half are expected from New South Wales and half from Victoria and Queensland), and international (20 per cent) workers. The specific sourcing location of each required role is dependent on specialisation and construction program requirements. The proposal would have the following personnel requirements: catering, chef and cooks, cleaning, fencing, general labour, concreting, steel fixing, steel structure assembly, rigging, transmission line workers, industrial electricians, electrical and mechanical fitters, electrical testing, plant operation, drivers, vegetation management, security, traffic management and specialist consulting services including geotech, environmental and noise management.

In the area of socio-economic influence, there is a current shortage of employment opportunities due to the economic downturn experienced from the COVID-19 pandemic, mostly affecting the retail sector in local towns and the horticultural sector, due to the reliance on internationally sourced labour. Prior to COVID-19, the little employment opportunities for job seekers within Wentworth LGA had been identified as a vulnerability in the area of socio-economic influence. Additionally, it is understood that the Aboriginal community of Dareton and Coomealla have extremely high unemployment rates, with youth unemployment rates significantly higher than the non-Aboriginal resident population.

The Western Murray Regional Economic Development Strategy 2018–2022 directly links the benefits that local communities experience from new energy developments through employment with such projects. The Strategy continues to determine that the Far West Region contains a well-educated and skilled labour force, indicating that there is an existing resilience and economic adaptability within the area of influence yet insufficient work prospects. These local and regional realities indicate that local communities and other stakeholders will likely have high expectations of job opportunities from the proposal.

Providing support to residents to become 'job-ready' has been identified through community and stakeholder engagement as a priority; including through means such as facilitating the renewal of licences, white cards and other upskilling or training initiatives. Notably, local communities also have recent experience working on the Wentworth to Broken Hill Pipeline project with WaterNSW, as well as unemployed Aboriginal community members having received support from Aboriginal training and employment service providers in the Wentworth LGA as a result of this proposal. Additionally, TransGrid's recent experiences during the geotechnical drilling program and cultural heritage surveys for this EIS revealed that advertising casual labour opportunities and registering interest in employment or contracting services in the Courier Mail and the Sunraysia Daily was effective in sourcing local workers.

The operational requirements of the proposal do not offer ongoing employment or procurement opportunities to the local area or region. Despite this, the operation of the transmission line has the potential to facilitate other economic opportunities and developments, particularly solar energy projects that will generate employment opportunities and broader regional economic development (discussed further in Section 4.9.1).

It is estimated that up to eighty workers would be employed locally on fixed term contracts for construction activities. The completion of construction would see the conclusion of certain casual, full-time and contracted employment positions, which would occur progressively as work concludes. Given the large number of job seekers and the vulnerable economic environment due by COVID-19 in the Wentworth Shire, this matter should be considered through planning and development.

4.1.2.2 LOCAL AND REGIONAL PROCUREMENT

TransGrid recognises that ‘EnergyConnect must utilise global supply chain partners and international resources due to its size and complexity’ (EnergyConnect Australian Industry Participation Plan, 2020). However, TransGrid also upholds local employment and procurement conditions across all its assets of which all TransGrid’s contractors are contractually bound to. It is also anticipated that the procurement of goods and services during construction would be drawn from both the Wentworth and Mildura LGAs as well as from the capital cities of the three states of NSW, SA and Victoria.

Similarly, employment of Aboriginal and Torres Strait Islanders is a key identified priority of TransGrid’s Reconciliation Action Plan (RAP), as is procurement of Aboriginal owned businesses for operational service requirements (TransGrid RAP, 2018). For EnergyConnect, TransGrid’s Delivery Requirements (2020) place conditions on the construction contractor which include the upkeep of a Local Industry Participation Plan, an Aboriginal Workforce Participation Plan and a Workforce Development Plan (TransGrid, 2020). It is important to clarify that the EnergyConnect Draft Australian Industry Participation Plan and TransGrid’s Delivery Requirements for EnergyConnect both define local as within Australia (not international), whereas local within this SEIA refers to within the area of socio-economic influence.

Gillespie’s (2020) Economic Assessment determines that construction contractors ‘that undertake these types of developments frequently centralise their purchasing activities in capital cities, including overseas; tend to have an existing suite of suppliers that they have worked with before; and also often impose strict prequalification requirements which small to medium sized regional businesses can find difficult and expensive to meet. Consequently, the majority of service inputs would potentially be sourced from outside the region’ (Gillespie 2020, p. 14). This finding in the case of EnergyConnect is often understood as the ‘fly-over effect’; the movement of wealth generated from large-scale development projects where profits and wages are exported to urban city centres and not captured in local communities. The fly-over effect is associated with FIFO work arrangements often not balanced with rates of locally sourced employment.

A number of businesses within the area of socio-economic influence have already expressed interest in providing services to the proposal, including in engineering and construction, fencing, earthworks and in trades services. Fittingly, the Economic Assessment understands that some small regional businesses may be able to supply some of the minor non-labour service-based inputs to production. A review of all the goods and services to be acquired for the proposal, and whether opportunities to supply the key goods and services are expected for Australia and the region, found that in the order of \$71 million of goods and services over the four years of construction (i.e. \$18 million per year) may be provided by the region (Gillespie, 2020).

Previous experience of infrastructure projects suggests that the proposal may result in some level of localised inflation. In the same way that housing availability may be impacted, the expected economic stimulus may raise the prices of goods and services in response to an increased demand. For a small proportion of households living on very low incomes, localised inflation could represent a risk of potentially worsening disadvantage for the duration of the proposal. While directly employed workers are almost certain to be paid wages which account for the rate of inflation (and contribute to it), some existing residents would experience rising costs without the benefit of additional income streams.

Conversely, completion of construction may cause the prices of goods and services to deflate, causing commercial impact to local businesses and service providers. The Economic Assessment of the proposal found that goods and services in the order of \$71M over the construction period (or \$18M per year) may be able to be provided by the region (Gillespie, 2020). This regional spend would have the potential to cause localised deflation (even if temporal) following the completion of construction. Local facilities, amenities, small businesses and services who had experienced an increase in commercial activity and use of their enterprises, would likely feel a downturn following the construction period ending. This would be mostly felt by small business owners or service providers, as well as local consumers, in the area of socio-economic influence, which could contribute to socio-economic inequities. Planning for local investment opportunities is an important way to address these potential adverse effects.

4.1.3 HOW PEOPLE PLAY AND INTERACT

The demobilisation of the construction workforce during the decommissioning and close out phases may fragment social ties and interpersonal connections that formed during construction between incoming workers and residents. The outgoing migration of the 400 construction workers from the area of socio-economic influence may be felt by residents and communities who had engaged with, or experienced changes to their day-to-day lives, as a result of their presence during the construction period. The accommodation camps and facilities provided 'in-house' may result in this being a minor impact experienced by a few individuals only.

4.1.4 SUMMARY OF WAY OF LIFE IMPACTS

Table 4.2 Way of life impacts

IMPACT	NATURE & PHASE	STAKEHOLDER AFFECTED	LIKELIHOOD	CONSEQUENCE	SIGNIFICANCE
Increase in competition accessing temporary accommodation or rental housing may result in unavailability of accommodation for certain user groups.	Negative; construction	<ul style="list-style-type: none"> — Tourists/visitors, other incoming temporary workforces — Residential communities 	Possible	Minor	Moderate
Construction activities including the operations of the accommodation camps would provide local employment opportunities for job seekers and would increase the commercial activity for local service providers and contractors. Procurement of local contracting services and businesses would increase local spending power of business owners and their families, bringing about increased social and economic capital in local communities.	Positive; construction	<ul style="list-style-type: none"> — Residential communities — Wentworth Shire Council — Aboriginal communities — Business owners/operators 	Possible	Minor	Moderate (positive)
The completion of construction would see the conclusion of certain casual, full-time and contracted employment positions, which may cause a spike in localised unemployment, placing potential strain on social services and decrease in community social and economic capital.	Negative; operations	<ul style="list-style-type: none"> — Residential communities — Wentworth Shire Council 	Possible	Minor	Moderate
The decrease in business revenue following completion of construction may reduce local economic activity.	Negative; construction	<ul style="list-style-type: none"> — Business owners/operators 	Possible	Minor	Moderate
Localised inflation may result in certain products or services becoming difficult to access for some residents, while deflation following construction may cause commercial downturn to local businesses or service providers.	Negative; construction	<ul style="list-style-type: none"> — Residential communities in Wentworth and Buronga — Local businesses and service providers 	Possible	Minor	Moderate

IMPACT	NATURE & PHASE	STAKEHOLDER AFFECTED	LIKELIHOOD	CONSEQUENCE	SIGNIFICANCE
Social ties or interpersonal connections formed during construction may experience fragmentation as construction works conclude; the accommodation camps and facilities provided may result in this being experienced by a small number of individuals.	Negative; operations	<ul style="list-style-type: none"> Residential communities in Wentworth and Buronga Construction workforce 	Unlikely	Minor	Low

4.2 COMMUNITY

Social impacts to community refer to aspects of population composition, cohesion, character, function and sense of place. It is recognised that this category of impact involves a level of uncertainty because socio-economic environments and the processes that affect them are constantly changing, and can vary from place to place and over time.

4.2.1 COMPOSITION AND CHARACTER

The proposal would cause an increase in the population of the Wentworth LGA of up to 6 per cent within a one-year period due to the incoming construction workforce. Localised population changes and implications on the socio-economic area of influence are largely centred around where the incoming workforce would be residing, working, visiting and recreating. Assuming that 400 construction workers would reside in the workforce accommodation camps while on-shift, the localities can expect a significant population increase caused by the incoming construction workforce. Most notably, Wentworth town would experience an increase of up to 70 per cent and Buronga town would experience an increase of 17 per cent.

During construction, it is also recognised that there would be fluctuations in the number of workers, indicating that the rates of change above may not be consistent over time during the construction phase. The sudden increase to the population of small regional towns such as Wentworth, Buronga and possibly Pomona, would change the composition of these townships for the years of construction. Regional towns are often homogenous and relatively stable populations, can also experience changes to the character of a community and a community's sense of place through an incoming predominantly male population. The substantial number of interstate and international workers planned for the proposal also indicates that the workforce would also consist of people from numerous cultural, ethnic or linguistic backgrounds, which would have effect on the levels of multiculturalism and social integration of people from diverse backgrounds. This change in resident population would diversify existing community composition, bringing new and skilled people of working age into the town which can improve social and human capital within the community.

Based on the extensive experience that the Mildura LGA has already with incoming temporary workforces, and the planned location of the accommodation camps in the Wentworth LGA, Mildura Rural City Council does not perceive the construction workforce of the proposal to substantially alter the population composition or character for Mildura city.

The operational workforce requirements of the proposal are minimal, with routine technical inspections and maintenance staff for the transmission only needed on a three to six year cycle. The Buronga substation would require twice-weekly switching operator checks by just one or two personnel, otherwise maintenance and inspection requirements would be monthly, quarterly or yearly. The required maintenance staff would tend to assets across the TransGrid network, including the proposal, as part of their roles, indicating that they would be travelling into the area of socio-economic influence temporarily. Therefore, during the operational period of the proposal, there would be minimal to no increase in the local population and therefore changes to the community composition or character in the long-term would be insignificant to non-existent.

4.2.2 COHESION

Groups within a population who experience barriers to public participation indicate that there are existing vulnerabilities within a local community. An influx in predominantly international or interstate male and single workers have the potential to disrupt existing social norms and localised gender relations, which could disproportionately affect vulnerable community groups or women, however the establishment of workforce accommodation camps at a distance from residential populations would decrease the likelihood of this being experienced. The Far West Regional Plan 2036 recognises this, stating: ‘the size and scale of temporary workforce accommodation facilities should be decided with local communities and consider social integration, land use conflicts and impacts on community facilities’. It goes on to state ‘locating temporary populations on the outskirts of established centres may be preferable to enable temporary residents to use and contribute positively to facilities that serve the entire community, while better integrating temporary workers into these communities’.

Furthermore, the Wentworth Shire population has experience receiving incoming workforces from other sectors and thus, the incoming workers are perceived to bring opportunities for the local community to promote local industry and to support local economic stimulation. Both Wentworth Shire Council and Mildura Rural City Council understand that the incoming workforce would generally be welcomed by the existing community and would likely form a key part of the local economy and social fabric.

Outcomes from consultation with local Aboriginal representative groups indicated that the proposal could improve collaboration and interactions between community groups.

An unfair distribution of local benefit, even if perceived, related to compensation for land access or acquisition, may cause resentment and fragmentation between members of a community. This has been understood as a prevalent issue experienced by landholders across comparable energy infrastructure projects (Clean Energy Council of Australia, 2018). This may come about between people who expect to realise benefit and those who may experience personal disadvantage. The significance of this impact considers the extent to which the individual landholder depends on the affected property for their primary livelihood. An instance of this potential tension is the case of landholders who were initially engaged as those directly affected in the early stages of proposal design and planning, however through refinements to the route alignment are no longer considered directly affected would not be eligible to receive financial compensation. Also, landholders who are dissatisfied with the negotiated compensation amounts and land access process may have decreased trust and cohesion between neighbouring landholders. Longer-term this could cause division within the community if certain landholders perceive others to be in a stronger negotiating position or if there is a perceived unequal distribution of benefit across affected properties.

4.2.2.1 COMMUNITY PARTNERSHIPS PROGRAM

TransGrid’s Community Partnerships Program (CPP) operates in all areas where TransGrid assets are located or where they are under development. The CPP works by providing grant funding of up to \$5000 per project to not-for-profit groups or organisations ‘to help deliver initiatives that will have a tangible and lasting impact on local communities’.

The first round of CPP funding for EnergyConnect was completed in early 2020 with the next round of community applications expected later in the year. Two community organisations within the area of socio-economic influence received a grant as part of this first round, while the remaining beneficiaries to this round of CCP funding are nearer to the eastern section of EnergyConnect. Through these two grants, support has been provided to local Aboriginal cultural heritage, environmental and land management initiatives. This support holds substantial weight for the recipient community organisations, having a positive flow-on effects for local Aboriginal communities.

Stakeholder consultation indicated that local community organisations are frequent applicants for grants and funding opportunities such as the CPP. Such funding can provide substantial benefit to the local Aboriginal community, such as by instilling confidence or pride, and by empowering local youth through employment, skills, social and mental health support schemes (ABC, 2013). For instance, it was noted that the CPP grant recently awarded to BMEET will be a catalyst in uplifting positive change in the community. It was noted through stakeholder consultation that the funding will be used for works to protect an important site. This is also in the context that BMEET has sought funding from the federal government as well as other sources for several years, in order to sustain their existing community programs.

TransGrid's ability to enable positive socio-economic outcomes for local Aboriginal community groups through supports such as this have the potential to bring lasting positive legacies for local communities. Prioritising strategic partnerships with local Aboriginal communities would also align with the NSW Government's strategic direction to 'enhance the economic self-determination of Aboriginal communities' in the Far West Region, which states objectives of:

- giving Aboriginal people greater input into planning and development
- encouraging Aboriginal enterprises to gain economic benefit from their land
- providing opportunities for Aboriginal communities' economic independence and self-determination (DPC, 2020).

4.2.3 SUMMARY OF COMMUNITY IMPACTS

Table 4.3 Community impacts

IMPACT	NATURE & PHASE	STAKEHOLDER AFFECTED	LIKELIHOOD	CONSEQUENCE	SIGNIFICANCE
The sudden increase to the residential population would change the composition of the community and has the potential to change the character of the community.	Negative; construction	<ul style="list-style-type: none"> — Residential communities — Wentworth Shire Council 	Possible	Minor	Moderate
The change in resident population would diversify existing community composition, bringing new and skilled people of working age into the town which can improve social and human capital within the community.	Positive; construction	<ul style="list-style-type: none"> — Residential communities — Wentworth Shire Council 	Likely	Moderate	High (positive)
A perceived unfair distribution of local benefit may decrease trust or cohesion between neighbouring landholders.	Negative; construction	<ul style="list-style-type: none"> — Directly affected property owners or landholders 	Possible	Minor	Moderate
Recipients of CPP grants would increase in revenue and service delivery capacity to improve community cohesion and positive community development outcomes.	Positive; construction	<ul style="list-style-type: none"> — Community organisations/ groups — Local government — Residential communities 	Likely	Moderate	High (positive)

4.3 ACCESS TO AND USE OF INFRASTRUCTURE, SERVICES AND FACILITIES

This category of social impact covers a broad array of infrastructure, services and facilities provided by local, state and federal governments, as well as by for-profit and not-for-profit organisations.

4.3.1 PUBLIC

During construction, the proposal may increase competition for access to social infrastructure in the area of socio-economic influence, including health facilities, recreational facilities, emergency services and air and road transport. This increased pressure may reduce the ability for certain resident groups to continue accessing these services in local townships.

Planning for temporary workforces and sudden population growth is challenging for local governments as it is often unexpected, meaning there is a limited understanding of current and future needs. Local facilities and services are often impacted by increases in non-resident workforces, particularly health services, emergency services, transport networks, recreational facilities and sometimes schools (Rolfe & Kinnear, 2013). The Far West Regional Plan (DPC, 2036) stresses the need for project developers and local government alike to manage the impacts of project-induced population changes which have flow on effects on the demand for infrastructure and services.

The accommodation camps described in 4.1.1 are planned to include the following facilities and services for workers to access:

- food and catering services
- a bar or tavern
- fitness and recreational facilities including an indoor recreational room, an outdoor sports ground, a BBQ area and a gymnasium
- emergency response and first aid facilities
- telecommunications services for personal use.

Additionally, it is expected that the construction workforce would likely access local hospitality venues, food and retail services, sporting facilities, hotels, fuel stations and vehicle hire. A small number of the workforce may also utilise local accommodation. However, this extent to which these services are used and the subsequent social impact related to access as well as the local economic benefit realised would be subject to specified worker rosters, transport and travel routes, workforce codes of conduct and the specifications of facilities provision in the accommodation camps.

The outgoing construction workforce following closure of the accommodation camps would likely result in changes to the demand for local services as well as reduced usage of local infrastructure. Although not considered significant due to the majority of worker facilities likely to be offered within the accommodation camp facilities, this decrease in demand for local infrastructure and services may have effect on the operations of small businesses and services (including ancillary services to the accommodation camps). Post-construction, the accommodation camp infrastructure and facilities would be dismantled and removed. An opportunity exists to engage local stakeholders in the planning stages of this process to gather information on potential future uses if infrastructure were to be kept within the area of socio-economic influence. This could result in a positive longer-term legacy of the proposal, in ensuring that the operational phase also provides positive local outcomes.

4.3.1.1 HEALTH AND EMERGENCY SERVICES

The first aid facilities within the accommodation camps would reduce the impact of the incoming population on existing health services, however construction workers would also likely require access to existing health facilities in the Wentworth and Mildura LGAs while residing in the area of influence. Given the current strains on health infrastructure and services in both shires, the proposal workforce would likely heighten this pressure. The recently approved 'Health 1' Project in Buronga would help alleviate this, if operational within the construction period for the proposal. Likewise, emergency services requirements of the proposal construction activities and operations of the accommodation camps, including fire and emergency services, police and ambulance, need to be considered in the context of existing services being based between Wentworth, Buronga and Dareton, as well as at a further distance in Mildura city. The proposal's requirements for health and emergency services should be planned and managed in consideration of this context.

4.3.1.2 AIR TRANSPORT

It is anticipated that the construction workforce would be on FIFO or DIDO rosters for the duration of their employment term. As identified in the existing environment, the proposal area has access to Mildura Airport with frequent commercial flight services and the Wentworth Aerodrome nearby Wentworth township for private or chartered aircraft services.

If TransGrid and the construction contractor plan to utilise existing commercial flight services into Mildura for the incoming construction workforce, this may impact air transport connectivity for existing residents of Mildura city and other flight users across the Wentworth LGA. Depending on frequency of flights and number of flights induced by the proposal, this could either improve supply of services or alternatively, place potential demand pressures on existing services. It is understood that Mildura Airport has experienced a decrease in commercial flight services in 2020, from sixteen flights per day to four, caused by the COVID-19 pandemic and associated public movement restrictions. While Mildura Rural City Council does not anticipate the proposal's FIFO workforce to affect usual (pre-COVID-19) flight activity and operations of Mildura Airport, it is recognised that COVID-19 has substantially altered the aviation industry and frequency of air services has drastically reduced in 2020. For these reasons the proposal needs to better understand the post COVID-19 implications on regional flight services. In this context, interstate travel for the proposal would be subject to public health restrictions on movement at the time.

Alternatively, if the proposal plans use of private charter flight services to transport FIFO workers, this could give opportunity for the Wentworth Aerodrome to benefit from this additional supply and may respond to the current high levels of uncertainty of the aviation industry at present. This approach would also align with the NSW Government's priorities for the Far West Region, as per the Far West Regional Plan 2036, which states the strategic need of existing airports in leveraging regional economic growth.

Broadly, an increase in air traffic at local airports (Mildura Airport and Wentworth Aerodrome) caused by the FIFO workforce may improve connectivity to the region for all users (based on pre-COVID-19 frequency of services).

4.3.1.3 ROAD TRANSPORT

Daily life involving long travel times and distances is a core part of people's current way of life throughout the area of socio-economic influence. Reliance on cars is an inevitable consequence of living in a regional area, where the benefits of being surrounded by a high-quality natural environment creates a trade-off in terms of access to services and facilities. This means that populations are likely to be more sensitive to changes in traffic conditions that affect their road travel.

Construction-related traffic may impact road conditions and increase traffic on local or major roads (Technical paper 9) as a result of construction heavy vehicles increasing the volume of heavy vehicles on the public road network and construction workforce traffic movements, including movements of workers while 'off shift' as well as the indirect workforce traffic movements.

This may result in delays in travel time arising from longer queuing at any road works or potential detour routes. The proposal has incorporated strategies to minimise construction traffic volumes on the public road network including the use of bus shuttle services to transport workers to and from the work sites and accommodation camps, which would reduce the volume of light vehicles on public roads day to day and the provision of access roads along the transmission line corridor to reduce the volume of construction vehicles on the public road network. Despite these measures, a small number of stakeholder groups may be at increased risk of experiencing travel disruption due to the increased pressure on local roads, including:

- school children reliant on bus transport to access education who often travel long distances from rural locations into towns
- elderly or disabled residents reliant on community transport to access social and health appointments
- farmers with livestock crossing local roads or highways.

Community engagement outcomes have raised the desire for the proposal to consider new roadworks in the region, as opposed to simply upgrading tracks, particularly close to protected areas, to ensure that public access and mobility through the local road network is maintained.

Increased traffic on rural roads also has a public safety element, particularly with heavy vehicles. It is understood that shift workers and long-distance commuters are more at risk due to fatigue whilst driving (Queensland Government, 2008), posing a potential risk to shift workers and the broader community. The proposal has incorporated strategies to manage workforce fatigue and in turn reducing road safety risks, through means such as locating accommodation camps within proximity to the proposal to minimise road journey durations by work crews.

4.3.2 PRIVATE

The Economic Assessment acknowledges that any local spending during the construction would create opportunities for businesses to expand or establish within the region to service the increased local demand (Gillespie, 2020). This would be caused from contracting services to construction activities, as well as the facilities and businesses that the construction workforce would have been using during their off-shift time throughout this phase. However, the extent to which these services would be used and the subsequent economic benefit realised would be subject to specified worker rosters, transport and travel routes, workforce codes of conduct and the nature of facilities provided in the accommodation camps.

Workforce accommodation camp services and suppliers are planned to be sourced from Australian suppliers as part of the proposal's Local Industry Participation Plan, however it is unclear how much of these would be sourced from within the area of socio-economic influence. Wentworth Shire Council, through engagement, has requested that the proposal's workforce accommodation requirements should make use of existing services and suppliers as a means to integrate with local towns, particularly using existing accommodation providers where feasible, to ensure that money is spent locally and that services or labour are sourced locally.

Economically, the impact of commuting workers depends on the extent to which they spend money in the regional economy, however, commuting workers generally repatriate most of their wages and spending back to their home region. This is particularly the case where the commuting workforce reside in a remote accommodation camp. Where this commuting workforce choose from time to time to temporarily stay in the region when off shift, to enjoy recreation and other activities in the region, some of the wages would be captured by the region (Gillespie, 2020).

The Economic Assessment acknowledges that any additional local spending creates opportunities for businesses to expand or establish within the region to service the increased local demand (Gillespie, 2020). Likewise, current best practice of social and economic impact management acknowledges the need to capitalise on opportunities for local economic development (Esteves, Vanclay et al., 2011). The extent to which local communities benefit from local procurement initiatives is highly dependent on the capacity of local communities to supply goods and services to the proposal. In this aspect, it is important to consider the differences between communities or subgroups within residential communities.

In addition to the findings and analysis described in this section, the regional and local economic impacts of the proposal gathered through input-output modelling are outlined in the Economic Assessment, in Appendix K.

4.3.3 SUMMARY OF ACCESS TO AND USE OF INFRASTRUCTURE, SERVICES AND FACILITIES IMPACTS

Table 4.4 Access to and use of infrastructure, services and facilities impacts

IMPACT	NATURE & PHASE	STAKEHOLDER AFFECTED	LIKELIHOOD	CONSEQUENCE	SIGNIFICANCE
Increase in competition accessing local recreational facilities may reduce ability to access for certain resident groups.	Negative; construction	— Residential communities in Wentworth and Buronga	Unlikely	Minor	Low
Increase in competition accessing local healthcare facilities and services may reduce ability to access for certain resident groups.	Negative; construction	— Residential communities in Wentworth and Buronga	Possible	Moderate	High
Increase in competition accessing local emergency services may reduce ability to access for certain resident groups.	Negative; construction	— Residential communities in Wentworth and Buronga	Unlikely	Minor	Low
Increase in demand for flight services may place further strain on Mildura Airport's COVID-19 associated pressures, which may reduce ability for other users to access air transport.	Negative; construction	— Residential communities — Local businesses and service providers — Local government	Unlikely	Moderate	Moderate
Increase in air traffic at local airports or aerodromes caused by FIFO workforce may improve connectivity to the region for all users (based on pre-COVID-19 frequency of services).	Positive; construction	— Residential communities — Local businesses and service providers — Local government	Unlikely	Moderate	Moderate (positive)
Increased heavy vehicles and other proposal-related traffic may decrease local communities' ability to access and efficiently use road networks and decrease safety on roads.	Negative; construction	— Residential communities in Wentworth and Buronga — Wentworth Shire Council	Unlikely	Minor	Low

4.4 CULTURE

Culture refers to a community's or peoples' shared beliefs, customs, values, stories and language or dialect. Identified potential social impacts on culture for the proposal relate to connections to land, places or buildings and Aboriginal culture, spirituality, language and connection to Country.

From a sociological perspective, it is important to understand the extent to which existing communities place importance on cultural heritage values, as well as other cultural aspects that may be non-tangible. These may include community identities or on-Country attributes such as spiritual practices, cultural rituals and symbols of historical events that are of importance to people today. Aboriginal heritage sites have high cultural value to local Aboriginal communities given that finds provide direct physical and symbolic linkages to ancestral past, identities and to the landscape. Technical paper 2 (Cultural heritage assessment) identifies that the disturbance to or loss of Aboriginal cultural heritage values would be a direct impact of the proposal, stating that 'all archaeological objects and sites have cultural value for present-day Aboriginal people, as they were created by ancestral Aboriginal people and provide tangible evidence of past occupation of the landscape' (Technical paper 2). It is also possible, as was in BMEET's past experiences that some residents may be uninformed of the cultural significance and extent of the heritage artefacts present in the proposal area (ABC, 2013).

Built infrastructure changes to the landscape and the natural environment may alter cultural or community connections to land, sites or places of value nearby to or affected by the construction of the transmission lines. In turn, this may affect the upkeep of a community's customs, shared beliefs or stories associated with these values which could result in reduced community knowledge of cultural connections and values. The long-standing pastoral sector and the prevalence of Aboriginal cultural heritage sites across the proposal area, as well as the minimal built infrastructure across the landscape at present, indicates that community groups who have connection to these certain attributes of the natural environment may experience changes to how they interact with or engage with their culture due to the presence of the transmission lines. Intergenerational farming families and Aboriginal communities who both have attachment to the land and places in the proposal area would be the groups most likely to experience these effects.

During community consultation, it was noted that the proposal's impact on the locality around Lake Victoria is of concern to local Aboriginal community groups. This is due to it currently being a greenfield area with no built infrastructure and it hosting numerous cultural heritage sites of significance. Based on this, the transmission line alignment has been positioned to the north of Renmark Road to minimise any indirect or visual impacts on places of community and cultural value around the lake.

Working with Aboriginal representative bodies is critical in enabling a nuanced understanding of the socio-cultural worth of the heritage impacts during the construction of the proposal.

4.4.1 SUMMARY OF CULTURE IMPACTS

Table 4.5 Culture impacts

IMPACT	NATURE & PHASE	STAKEHOLDER AFFECTED	LIKELIHOOD	CONSEQUENCE	SIGNIFICANCE
Built infrastructure changes to landscape and effect on culturally significant sites or natural values may reduce community connection to cultural land, places and customs.	Negative; construction and operations	<ul style="list-style-type: none"> — Directly affected and adjacent landholders — Residential communities — Aboriginal communities 	Unlikely	Minor	Low
Perceived detrimental effect to traditional lands of Barkandji People and Native Title holders through construction of built infrastructure.	Negative; construction and operations	<ul style="list-style-type: none"> — Aboriginal communities and representative bodies 	Unlikely	Minor	Low
Damage to sites of Aboriginal cultural value may reduce community connection to cultural land, places and customs for Aboriginal communities.	Negative; construction and operations	<ul style="list-style-type: none"> — Aboriginal communities and representative bodies 	Possible	Minor	Moderate

4.5 HEALTH AND WELLBEING

Health is defined as a state of complete physical, mental and social wellbeing. Social impacts have the potential to result in poor health outcomes if stress or anxiety is caused. Social groups who may potentially experience impacts to their health and wellbeing include the construction workforce, especially international and interstate workers, residents of directly affected properties, and nearby residential communities.

4.5.1 PHYSICAL HEALTH

Landholders and residential communities nearby electrical infrastructure projects including substations and transmission lines commonly have concern regarding the perceived effect of EMFs on individual health. Perceived health implications generated by EMFs from the transmission lines may generate community anxiety and stress leading to a long-term reduced desire to reside or work near transmission lines. In the context of the proposal, some community members and landholders have perceived EMFs to effect local wetlands and to be unsafe for families living locally as well as for healthy food production.

Both the World Health Organisation (WHO) and the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) have concluded that EMFs found near powerlines do not have health consequences from exposure to low levels in people's day-to-day lives. TransGrid adopts a precautionary approach to the management of EMFs and offers public information in relation to their network of assets across NSW and accounts for EMFs in the design and location of new facilities, as well as through ongoing measuring of field strength in existing assets and through monitoring scientific and international policy research as it emerges (TransGrid EMF Fact Sheet). Furthermore, Technical paper 11 (Electric field and magnetic field study) concludes that the EMFs directly under the proposed transmission lines are below the public exposure reference limit.

Similarly, the perceived risk of a bushfire caused by the transmission line or substation infrastructure may cause anxiety, stress and insecurity within residential populations. Technical paper 10 (Bushfire impact assessment) outlines the risk of fires that could be started either by human activities, equipment and vehicles during the operational phase, or from the operation of transmission lines and substations themselves. Mechanical failure of a transmission line, or failure of a transmission line to operate correctly under fault conditions, could also initiate fire under specific conditions (TransGrid, 2013). A site-specific Bushfire Risk Management Sub-plan would be prepared to manage risks associated with construction activities, or risk to workers during a bushfire event.

These matters are likely to be raised throughout construction based on the perceived health risks. Based on this, strong public communications and community awareness initiatives around EMFs and bushfire management strategies, would be of importance for local communities to receive, to avoid these perceived impacts and in building confidence in local communities around the proposal's activities.

4.5.2 MENTAL HEALTH

It is understood that social isolation while working remotely with limited access and use of public facilities and services and irregular personal time or time at home, has health and wellbeing consequences on individuals. FIFO and DIDO workers often face unique health impacts directly linked to their employment. It is for these reasons that remote infrastructure projects often provide an array of worker facilities and services while off-shift, to enable a safe and productive work environment as well as to promote worker health and wellbeing. In particular, a bar or tavern service as part of an accommodation facility has been commonly understood to assist in creating a comfortable social environment and to provide workers with means to 'wind down' and relax after shift work, when physically away from their homes and personal networks. The planning of workforce accommodation facilities is a critical component in proposal development in ensuring workers are safe, healthy, cohesive and productive while at work. A 2018 report produced for the Western Australian Mental Health Commission outlined the risks associated with FIFO/DIDO work arrangements, focusing on psychological and wellbeing impacts (Centre for Transformative Work Design, 2018). The broader literature agrees FIFO workers have a high risk of experiencing:

- excessive drinking, recreational drug use and obesity
- relationship strain from geographical isolation leading to a sense of disconnect
- anxiety and stress caused by 'missing out' on family events and memories as well as limited ability to support during family crises
- difficulty adjusting between home and work life
- work related stress due to high intensity work environment and shift length
- job dissatisfaction and fears relating to job insecurity caused by 'lifestyle lock-in'.

Reported stigmatisation of mental health issues within the resource development sector and the masculine culture associated with the industry can be barriers that prevent workers seeking help (Gardner, Alfrey et al., 2017). Research also suggests that alcohol consumption trends are higher among FIFO/DIDO workers than other worker groups. The literature identifies some potential key factors which include; high disposable incomes, social isolation, lack of recreational activities, and a mixture of workplace and rural masculine cultures (Joyce, Tomlin et al., 2012). It is acknowledged that excessive drinking may also be a stress coping mechanism for some workers.

4.5.3 SOCIAL WELLBEING

The potential impacts on worker health and wellbeing, notably the nature of camp facilities provided to workers, also affects the extent to which workers interact with local communities and utilise existing services and amenities in nearby townships. FIFO workforces are commonly male-dominant, due to the historical gendered tendencies of remote work in primary industries and trades. Although the gender balance of remote workforces is experiencing gradual changes, it is expected that in the case of proposal construction workforce would be predominantly male. Rapid or sudden changes in gender balances in host communities can have perceived as well as real safety impacts. Research focusing on the criminological impacts of FIFO populations on remote or rural communities in Australia has shown:

- there is correlation between increases in localised crime and increases in male non-resident population (Carrington et al., 2012)
- FIFO workforces in remote or rural communities can increase anxiety on perceived levels of public safety especially for women in public spaces (Scott et al., 2012)
- excessive drinking, drug abuse and masculine culture often lead to male on male violence in worker camps and in host communities (Ennis and Finlayson, 2015).

The incoming construction workforce may cause a decrease in perceived public safety in existing communities; the extent of which would vary depending on the nature of facilities provided within accommodation camps and the frequency of interaction workers have with local community members. Planned facilities for workers within camps has been described in Section 4.3.1. Considering the experience of broader communities in the Mildura and Wentworth LGAs in welcoming temporary populations, and the proposed camp locations not proximate to existing vulnerable populations, this impact has been considered as minor.

4.5.4 SUMMARY OF HEALTH AND WELLBEING IMPACTS

Table 4.6 Health and wellbeing impacts

IMPACT	NATURE & PHASE	STAKEHOLDER AFFECTED	LIKELIHOOD	CONSEQUENCE	SIGNIFICANCE
Community anxiety and stress related to perceived EMFs or bushfire risk.	Negative; operations	<ul style="list-style-type: none"> — Residential communities — Affected landholders and adjacent landholders 	Possible	Minimal	Low
Decrease in worker health and wellbeing due to social isolation from families and existing personal networks.	Negative; construction	<ul style="list-style-type: none"> — Construction workers 	Likely	Moderate	High
Decrease in sense of public safety due to anti-social behaviour in townships nearby accommodation camps.	Negative; construction	<ul style="list-style-type: none"> — Residential communities — Construction workers 	Possible	Minor	Moderate

4.6 SURROUNDINGS

Surroundings refers to access to and use of ecosystem services, public safety and security, access to and use of nature and built environment, and aesthetic value or amenity. Natural capital or environmentally produced assets such as land, waterways, forests or minerals, are important matters to consider in understanding potential impacts to people's surroundings.

Findings from Technical paper 6 (Hydrology, flooding and water quality) and Technical paper 8 (Noise and vibration impact assessment) conclude that the area of influence currently enjoys access to clean air and water, and low levels of noise exposure. Likewise, Technical paper 4 (Visual and landscape character impact assessment) determines that the area of socio-economic influence has an abundance of natural and cultural landscapes, with sparse populations and very limited built infrastructure. Particularly, Lake Victoria has been identified as a locally and regionally sensitive site, with high spiritual and cultural significance to the Barkindji and Maraura people and is also important in local recreation and tourism. Based on this context, it is likely that local communities and existing user groups would be sensitive to changes to the surrounding natural environment and their continued use of or access to it.

The proposal anticipates impacts to both vegetation and habitat due to the land required for construction. A substantial avoidance process has been undertaken however some impacts would be unavoidable whereby offsetting is required. Related to vegetation, clearing would be required along the infrastructure corridor to enable safe operations and risk minimisation under the transmission lines.

Impacts on Lake Victoria have been avoided through a realignment of the transmission line. Further, there would be no impact to the use of or access to the natural environment caused by the proposal, however physical changes to the landscape may reduce the value placed on attributes of the natural environment by local communities.

Related to amenity, the proposal's construction activities anticipate causing noise, vibration, and possibly reduced air quality (if not properly mitigated). Construction activities would be largely carried out during daylight hours however would sometimes also continue after dark, as well as lighting from the workforce accommodation camps at night. These activities would likely cause light spill affecting nearby residents. Such disruption may cause irritation and feelings of personal inability to change one's surrounds, as well as potential changes to how people experience or conduct day-to-day activities.

Consultation outcomes indicate that visual amenity considerations are a priority for local stakeholders in relation to the proposal; in particular, the transmission lines are likely to impact upon the natural landscape or views that are currently experienced from residential dwellings as well as from community meeting places. Specifically, landholders have raised that the proposed transmission line would have potential impact on visual amenity from residential dwellings and from vantage points frequented by the community, such as river frontages and lakes.

Lastly, TransGrid acknowledges the heightened safety risk associated with high voltage transmission lines, and the differences from urban powerlines (TransGrid website 2020). As such, TransGrid discourages the development of built infrastructure in proximity to existing or planned high voltage transmission lines. Regardless, in the case of the proposal, landholders have raised concern for their safety operating machinery as well as residing near high-voltage transmission lines. In response to this, TransGrid restricts activity within easements to avoid any material risk to individual safety, and is therefore considered a minor and perceived issue only.

4.6.1 SUMMARY OF SURROUNDINGS IMPACTS

Table 4.7 Surroundings impacts

IMPACT	NATURE & PHASE	STAKEHOLDER AFFECTED	LIKELIHOOD	CONSEQUENCE	SIGNIFICANCE
Amenity impacts may cause irritation or result in changes in day-to-day activities.	Negative; construction	<ul style="list-style-type: none"> Affected and adjacent landholders to corridor and accommodation camps Regular road users 	Possible	Minor	Moderate
Changes to the landscape may reduce the values placed on attributes of the natural environment by local communities	Negative; operations	<ul style="list-style-type: none"> Affected and adjacent landholders Residential communities 	Unlikely	Minor	Low

4.7 PERSONAL AND PROPERTY RIGHTS

Personal and property rights refer to whether someone's economic livelihoods are affected and whether they experience personal disadvantage.

4.7.1 ECONOMIC LIVELIHOODS

There are between 25–30 landholders whose livelihoods would be directly affected by the proposal's construction activities requiring the acquisition of productive and privately-owned land or by making parts of a landholding inaccessible. Technical paper 3 (Agricultural land impact assessment) concluded that due to the relatively low average productivity of the land in the proposal area, the potential impact of disruption to agricultural enterprises caused by the proposal is relatively low. Furthermore, socio-economic impacts on agricultural land users in the proposal study area would likely be limited by the relatively small area of land permanently and directly affected and that the continuation of agricultural enterprises over most of the proposal area could occur. For example, grazing may continue around and under the easement towers and transmission line.

Technical paper 3 discusses that it is unlikely that the proposal would substantially restrict movements of landholders, nor their livestock and equipment, however noting that some movement would be affected temporarily during construction. It is understood that these restrictions would be of a short duration and in limited locations; therefore they would be unlikely to markedly affect movements for agricultural purposes. Notably, such restrictions are more likely in cropping and horticultural areas than rangeland grazing areas due to the higher intensity land use and greater movement restrictions imposed by cropped areas. Several additional properties would be impacted by ancillary construction activities (such as access tracks or construction compounds).

Although these impacted landholders may only experience temporal changes, it may cause disruption to the operations of the property or day-to-day activities through the relocation of livestock, temporary land leasing, restricted access to personal properties, earthworks, and land clearing for access tracks. Furthermore, landholders who may experience a reduction in productive land, even if proportionately small, may experience weakened economic livelihoods. However, based on Technical paper 3, these impacts are expected to be minor to minimal. Access routes could cause long-term changes to properties despite the majority being a requirement for construction activities only. A smaller number of landholders would experience ongoing change to their land caused by the construction of access tracks for permanent uses.

Through consultation with landholders, a range of sentiments towards the proposal and the potential impacts on properties have been raised. Most landholders have displayed a willingness to be engaged by TransGrid to develop the best possible outcome for both the proposed transmission line design and their personal or economic interests on the land. During this engagement process, TransGrid has been able to incorporate many preferences or solutions for a proposed easement on their property to best minimise any adverse impacts.

TransGrid maintains the Landholder and Easement Compensation Guidelines across all TransGrid assets. In accordance with the Landholder and Easement Compensation Guidelines, compensation for transmission lines and easements situated on private property is valued as per the *Land Acquisition (Just Terms Compensation) Act 1991* (the Just Terms Act). Socio-economic impacts related to land access, property acquisition and compensation consider factors including:

- number of properties directly impacted by proposal infrastructure (the transmission line and substation)
- number of properties directly impacted by ancillary proposal infrastructure (access tracks, laydown areas, accommodation facilities etc.)
- proportion of land parcels acquired relative to total property size
- land uses on each property and type of farming (such as grazing land compared to intensive farming)
- personal or private infrastructure impacted by proposal infrastructure
- profiles of property owners or operators (long-term residents, intergenerational farmers, temporary leaseholders).

These factors assist in understanding the anticipated changes to directly affected people, their businesses and livelihoods, and in determining the scale and extent of the impact.

Landholders directly affected by the transmission lines have indicated their priority to ensure a fair and equitable compensation process. Some landholders have indicated satisfaction with the compensation process, while others are seeking additional negotiation to account for the unique circumstances and specific characteristics of the property. Concerns have also been raised relating to land access arrangements and unauthorised access, route alignment and easement positioning, as well as compensation for property acquisition and damage to land or property caused by construction activities.

There would also be economic advantages for landholders caused by the land acquisition and compensation process, as well as leasing arrangements for the proposal's construction requirements. The Clean Energy Council of Australia (2018) states 'a common feature [of transmission and distribution infrastructure] is that landowners hosting powerlines receive payments for leasing their land, providing access and easement management'. An increase in household or property revenue under compensation or ongoing payment agreements can bring about greater local purchasing power and spending. Related, the receipt of monetary compensation would stimulate landholder livelihoods; however, the financial significance of the impact is unknown and would be only understood on a case-by-case basis. Additionally, the decrease in household or property revenue following completion of construction activities may reduce economic capital for recipients.

4.7.2 PERSONAL DISADVANTAGE

It is understood that the values of directly affected properties would be reduced due to the transmission line infrastructure and is a key concern that has been raised by landholders. The devaluation of land or properties is perceived by some landholders as greater than the compensation to be received. In this regard, devaluation of properties over time could reduce family or personal assets and financial stability.

Affected landholders have raised the following concerns regarding minimising or avoiding any personal disadvantage experienced through the compensation and land acquisition process:

- desire to minimise impact on overall landholding to account for future works, including installation of new infrastructure or planned subdivision of property
- potential impact on current and future land uses, including future developments (via subdivision, eco-tourism, farming expansion, resources activity)
- transmission line design to accommodate for local airstrips on landholdings

- potential impact on existing activities underneath transmission line, such as grazing or quarrying
- transmission towers to be minimised on property, and not be immediately adjacent to farming operations and associated infrastructure such as access gates where livestock movements occur, or for towers to be located away from, or spanning across, vineyard plantings
- perceived effect on wireless communications equipment used in farming operations
- ensuring dust suppression activities on properties during construction work would not impact ongoing operations of the property, such as impacting bluebush which would make it inedible for livestock
- clear protocols to manage access to landholdings for field studies and construction activity (based on concerns for unauthorised access), and times when access may not be permissible or appropriate (e.g. during the harvest season)
- biosecurity risks to land and agricultural operations may cause personal economic disadvantage.

Technical paper 3 identifies that biosecurity risks are relevant to the proposal due to the extensive nature of agriculture near the proposal corridor. The biosecurity risk posed is most prevalent during construction due to the high frequency of vehicle movement in and around the area of socio-economic influence and the increased number of incoming workers. Impacts on personal economic livelihoods related to biosecurity risk include an increase in costs associated with monitoring pests, weeds or diseases and implementing control measures and a reduction in revenue or income caused by reduced livestock, crop or pasture production, and possibly lower produce quality. As a result, landholders may have greater expectations of compensation or economic support.

4.7.3 SUMMARY OF PERSONAL AND PROPERTY RIGHTS IMPACTS

Table 4.8 Personal and property rights impacts

IMPACT	NATURE & PHASE	STAKEHOLDER AFFECTED	LIKELIHOOD	CONSEQUENCE	SIGNIFICANCE
Financial compensation would strengthen economic livelihood for recipients.	Positive; construction	— Affected landholders	Possible	Minor	Moderate (positive)
Land devaluation may be perceived as being greater than the compensation received for the construction of transmission line infrastructure.	Negative; construction and operations	— Affected landholders	Possible	Minor	Moderate
Acquisition of or restricted access to productive land may weaken landholder's economic livelihoods.	Negative; construction and operations	— Affected landholders	Possible	Minor	Moderate
Biosecurity risks to land and property may economically disadvantage landholders affected by proposal infrastructure.	Negative; construction	— Affected landholders	Unlikely	Minor	Low

4.8 DECISION MAKING SYSTEMS

Decision making systems refers to the extent to which people believe they can have their say in decisions that affect their lives, and are aware of and have access to complaint, remedy and grievance mechanisms (DPIE, 2017).

A large Native Title determination exists within the area of socio-economic influence which carries substantial socio-political value for Traditional Owners; although the proposal does not directly intersect with or effect the determined land. Initiatives undertaken by TransGrid on Native Title land elsewhere in the locality in collaboration with the Traditional Owners and the Dareton Local Aboriginal Land Council have the potential to provide economic returns that can be invested back into assistance programs in the community (DPC, 2020). Given that the proposal would require personnel to travel daily across the area of socio-economic influence, and the required ancillary infrastructure such as the accommodation camps, it is worthy to consider how the proposal may affect Native Title claimants' perceptions of autonomy over determined land and their perceived (or real) ability to control activities. Perceptions of reduced decision-making ability may instil fear or frustration for Traditional Owners for what the future in the area may hold. The level of economic growth that the proposal could generate across the region could potentially bring to light conflicting priorities. The establishment of strong working relationships with Traditional Owners and their representative bodies may assist in understanding the extent of this fear as well as enabling different parties to cooperate in forming shared priorities for the proposal's construction activities.

Related to land acquisition, at present, TransGrid have formed an agreement with most landholders directly affected by the proposal and the process is continuing for those remaining. It is possible that some landholders may feel that they have little agency in the land acquisition process and do not have means to veto development in or near their land. Landholders who have not yet formed agreement have raised specific concern of heightened adversity to their farming operations caused by the proposed easements, for example, impact on livestock yards, not wanting to lose property values and a relatively higher disturbance to land.

Outside of the infrequent land access requirements for general maintenance and monitoring post-construction, landholders would regain control over matters or activities taking place on their land and may experience an increased sense of certainty and confidence in land management and returned autonomy over personal assets, property and livelihoods.

4.8.1 SUMMARY OF DECISION MAKING IMPACTS

Table 4.9 Decision making impacts

IMPACT	NATURE & PHASE	STAKEHOLDER AFFECTED	LIKELIHOOD	CONSEQUENCE	SIGNIFICANCE
Traditional Owners may feel that they have limited agency in built infrastructure changes to traditional lands and do not have means to veto the development.	Negative; construction and operations	— Dareton Local Aboriginal Land Council — Native Title holders — Aboriginal communities	Unlikely	Minor	Low
Some landholders may feel that they have little to no agency in the land acquisition process and do not have means to veto the development.	Negative; construction	— Affected landholders	Possible	Minor	Moderate
Landholders may experience a sense of returned access and control on matters or activities taking place around them or on their land as well as an increased sense of certainty and confidence on managing their land and properties.	Positive; operations	— Affected landholders	Possible	Minor	Moderate

4.9 FEARS AND ASPIRATIONS

Fears and aspirations on the future of the community related to the above social impact categories are discussed in this section. Specifically, this section will consider the local, regional and State level economic stimulus that the proposal would generate, and how this would affect the future of the communities and social groups discussed throughout this SEIA.

The proposal would facilitate enhanced security and reliability of the energy supply with associated social and economic benefits to consumers at the State level across NSW as well as SA and Victoria. Benefits of the overall proposal may include:

- improvement of security and continuity of energy supply to NSW during periods of maximum demand
- reduce reliance of high cost gas plants in SA
- unlock renewable generation development en-route and allows greater market access
- creation of additional capacity in a heightened period with energy security being a critical issue for NSW and Australia
- opportunities for local construction employment and additional spend to boost local business.

Improvements in infrastructure activated by the proposal would stimulate further investment in local economies, and in particular in the energy sector. This would bring long-term economic benefit to the broader regional population, who will experience over time new industries establishing and former industries being re-boostered, both of which would bring about an incoming residential population, likely to be felt mostly in the major regional centres such as Mildura. Wentworth Shire Council and Mildura Rural City Council would both experience long-term economic development as a result of the proposal. This would have a flow-on effect, stimulating local government improvements in public infrastructure and services, future job opportunities and generally a stronger regional economy for the area. This resonates with outcomes from recent engagement where community members requested the proposal consider extension of the transmission line further south into Victoria to support new or future solar farm ventures.

Support for the proposal is linked to current public expectations of increasing Australia's uptake of renewable energy. It is also understood that transmission line infrastructure upgrades are essential in activating further renewable energy sector development in regional areas. EnergyConnect is understood to be the fundamental enabling infrastructure for the South West Renewable Energy Zone in NSW. EnergyConnect has been declared Critical State Significant Infrastructure (CSSI) by the NSW Minister for Planning and Public Spaces under Part 5 of the *NSW Environmental Planning and Assessment Act 1979*, which has determined EnergyConnect to be essential for the State for economic, environmental or social reasons. Specifically, the NSW Department of Planning, Industry and Environment has identified parts of the Far West Region suitable for renewable energy development due to their climate and solar characteristics as well as their proximity to existing transmission capacity (Western Murray Regional Economic Development Strategy 2018-2022, p. 7).

The proposal would stimulate energy development across New South Wales as well as into South Australia and Victoria, by catalysing further renewable energy investment within the local area and region. The proposal aims to reduce the cost of providing secure and reliable electricity transmission between NSW and SA in the near term, while facilitating the longer-term transition of the energy sector across the National Electricity Market to low emission energy sources. In particular, the Western Murray Regional Economic Development Strategy 2018–2022 identifies that the area around Hay and Balranald is suitable for large-scale solar power generation and that 'transport, power and water infrastructure should be considered a regional priority for new mining development'. This indicates that the proposal is in alignment with broader strategic planning, public priorities and economic growth objectives across the region and State. Stakeholder engagement outcomes have also demonstrated that residents, industry groups and local governments are interested to explore future opportunities in energy investments in the local and regional area, indicating that the proposal is also directly aligned with local expectations, strategies and plans for the future.

The proposal has a vital role in activating renewable energy in the region. Leading practice energy development in regional Australia understands the importance of community benefit sharing models to provide opportunity for strong and transformational community and economic development. A collaborative approach between TransGrid, other energy developers and government bodies could provide strategic and long-term benefit for surrounding communities (Clean Energy Council, 2019).

4.9.1 SUMMARY OF FEARS AND ASPIRATIONS IMPACTS

Table 4.10 Fears and aspirations impacts

IMPACT	NATURE & PHASE	STAKEHOLDER AFFECTED	LIKELIHOOD	CONSEQUENCE	SIGNIFICANCE
Improvements in energy infrastructure would stimulate investment in local and regional economies, generating a positive sense for the future within the community.	Positive; operations	<ul style="list-style-type: none"> Residential communities Local business and services Local government 	Likely	Moderate	High (positive)

4.10 CUMULATIVE IMPACTS

Cumulative impact assessment refers to the consideration of other nearby development projects along with the proposal. Projects with the potential for cumulative impacts with the proposal were identified through a review of publicly available information and environmental impact assessments from the following databases:

- NSW Major Projects website (NSW Government, searched June 2020)
- Wentworth Shire Council website (Wentworth Shire Council, searched June 2020)
- Australian Government – Department of Environment and Energy, EPBC Public notices list (Australian Government, searched June 2020).

Three proposed developments have been identified and these include:

- Copi Mineral Sands Mine
- Buronga Solar Farm
- Buronga – Gol Gol residential expansion.

4.10.1 COPI MINERAL SANDS MINE

The Copi Mineral Sands development, located around 25 kilometres north of the proposed alignment, involves an open cut mineral sands mine and associated infrastructure to extract and process up to 1.5 million tonnes per annum (Mtpa) for up to six years, transporting the heavy mineral concentrate via road for off-site processing; and progressively rehabilitating the site. This development is in the early stages of planning and is understood that the impacts of the project will largely be isolated from the proposal. Further detail on the project specifications is contained within the EIS.

The deposit is located around 25 kilometres from the proposal area, to the north of Lake Victoria. The closest public access route to the deposit is from Anabran Mail Road near its intersection with the Silver City Highway. The project is in line with strategic plans to progress growth in the underdeveloped mineral sands mining sector in the Far West Region (Western Murray Regional Economic Development Strategy 2018–2022).

Regarding potential socio-economic cumulative impacts, the following features of the proposed development are relevant:

- a workforce accommodation camp is proposed on-site
- the workforce is expected at 24 persons for construction and 27 persons for operations
- a site access road will be required from Anabranth Mail Road (31 kilometres)
- the nearest suburb of Pine Camp recorded 18 residents in the 2016 census
- construction will likely commence during the construction period of EnergyConnect
- the proponent plans to integrate development plans with the communities and economies of Wentworth and Broken Hill to generate local benefits
- a strain on accommodation, services and facilities in the local area has been recognised as a potential social impact of the proposed development, although expected to be minimal due to the accommodation camp plans
- no effect on the existing social fabric of the local community is anticipated
- the proponent plans to coordinate efforts with Wentworth Shire Council for community investment
- the proponent has plans to develop a Community Engagement Strategy focussed on establishing social acceptance (of the project) in the local community through building relationships with stakeholders and consultation with community groups
- the proponent is encouraging of local job seekers to apply for positions, once available
- the proposed development anticipates an increase in economic activity in local towns and regional centres
- the SEARs issued have requested consideration of the need for a Voluntary Planning Agreement as a mechanism to address the increase in demand for local infrastructure and services.

4.10.2 BURONGA SOLAR FARM

The Buronga Solar Farm development included a 400 MW solar farm with energy storage and associated infrastructure located adjacent to the proposal Buronga substation and approximately five kilometres north east of Buronga – Gol Gol town, on Arumpo Road. The SEARs issued for this project state that the EIS must include an assessment of the likely impacts on the local community and a consideration of the construction workforce accommodation.

Regarding potential socio-economic cumulative impacts, the following features of the proposed development are relevant:

- construction is expected at 18-24 months with the operational lifetime of the solar farm estimated at 30–40 years
- plans include connection into the Buronga Switching Station via a new overhead or underground transmission line of 1.5 kilometre distance
- the proposed solar farm is understood to be aligned with current local, state and federal plans for long-term resilient economic growth and in particular the longevity of Wentworth Shire's economic development
- the proposed development is aligned with national energy and climate change policy objectives as well as state-level renewable energy goals
- it is expected to significantly contribute to regional development and employment as well as ongoing local benefit to the Wentworth Shire
- the proponent understands that local communities and industry can most effectively benefit from new energy sources if the new infrastructure is located in proximity to them; the solar farm being an example of this; it is understood that local businesses and industries such as freight, hospitality, construction will all benefit from the solar farm
- the project would contribute to lower electricity costs for local businesses
- the project would contribute to skills development and lasting employment in the region.

Additionally, several solar farms are currently under construction in the Mildura LGA, with a number of others in their planning and approvals phase. Mildura Rural City Council has indicated through consultation as part of this SEIA that the solar energy sector in the LGA has gained momentum in recent years and requires improvements to the electricity network to be able to be fully realised.

4.10.3 BURONGA – GOL GOL URBAN DEVELOPMENT

Wentworth Shire Council is currently planning new subdivisions to provide approximately 500 new large residential housing allotments in the Buronga – Gol Gol growth area, approximately 10 kilometres to the west of the proposal study area. Wentworth Shire Council aims to ensure that future development in Buronga – Gol Gol achieves the following objectives:

- consolidation of future development to control urban expansion and ensure a sustainable and efficient built environment
- facilitating development of a commercial precinct to promote self-sufficiency and connectivity in Buronga Gol Gol
- rezoning of lands to support future and emerging land use needs
- expanding and upgrading infrastructure and facilities to meet demands of future growth.

4.10.4 SOCIO-ECONOMIC IMPLICATIONS

Based on the understanding of the four projects, the following cumulative socio-economic impacts have potential to occur:

- an increase in construction traffic on local roads and public highways such as the Silver City Highway, caused by concurrent construction of projects, may increase the local public concern for road safety
- an increase in incoming workforces caused by concurrent development of projects places additional pressures on existing infrastructure and services in nearby townships. This could include accommodation providers and the private rental market, potentially marginalising existing renters or affecting housing affordability, for disadvantaged communities
- concurrent projects have the opportunity to coordinate efforts for social initiatives and community investment, in partnership with community representative groups or councils, to strengthen the positive impact that initiatives can have in the area of influence
- there may be an increase in demand for labour in the local and regional economy, caused by multiple projects requiring workers concurrently, which may affect the cost of labour and availability for other industries.

Additionally, recent experiences with solar energy project construction workforces in Mildura highlights the need for a co-ordinated approach to regional economic development by both Wentworth Shire Council and Mildura Rural City Council to meet the local services and facilities requirements of concurrent developments. From a social perspective, this is critical to ensure that existing residential communities, vulnerable subgroups or socio-economically disadvantaged communities, do not experience further inequalities because of the economic growth in the region. Matters that need to be considered relate to housing, healthcare and employment.

4.10.5 SUMMARY OF CUMULATIVE IMPACTS

Table 4.11 Cumulative impacts

IMPACT	NATURE & PHASE	STAKEHOLDER AFFECTED	LIKELIHOOD	CONSEQUENCE	SIGNIFICANCE
Increase in traffic on public roads, especially heavy vehicles, caused by multiple construction projects underway concurrently, may increase public safety concern for road-related accidents.	Negative; construction	— Residential communities — Local businesses and services	Unlikely	Minor	Low
An increase in incoming workforces caused by multiple concurrent developments may place additional pressures on short-stay accommodation providers and the private rental market which could marginalise renters or disadvantaged communities from the market or could affect housing affordability. The accommodation camps established by the proposal would be the basis for alleviating this impact.	Negative; construction	— Residential communities	Unlikely	Moderate	Moderate
Potential increase in the opportunity to co-ordinate social investment and community benefit opportunities locally.	Positive; construction and operations	— Residential communities — Aboriginal communities	Unlikely	Moderate	Moderate (positive)
An increase in employment opportunities may see a rise in the demand for the local labour workforce leading to shortages and may lead to increase in the cost for labour available on local industries.	Negative; construction	— Local businesses, industries and service providers — Local government	Possible	Minor	Moderate

5 MITIGATION AND ENHANCEMENT

All negative impacts assessed in this SEIA can be reasonably mitigated throughout planning and development to reduce the significance of all impacts to moderate or low. All positive impacts identified can be enhanced through a collaborative approach to proposal development to realise the opportunities that the proposal offers.

The impacts anticipated during the construction phase can be feasibly mitigated through a comprehensive and informed Construction Environmental Management Plan (CEMP) which would include the following key mitigation measure components.

All mitigation measures are applicable for the detailed design and construction phases at all locations.

Table 5.1 Mitigation and enhancement measures

REFERENCE	MITIGATION OR ENHANCEMENT	SOCIAL IMPACT CATEGORY
SE1	<p>A Community and Stakeholder Engagement Plan will be implemented and will include:</p> <ul style="list-style-type: none"> — targeted stakeholder consultation with Local Government, chambers of commerce, Traditional Owners, landholders and service providers to ensure plans for the proposal are integrated with local needs and priorities and proactively respond to community or stakeholder concerns including those of neighbouring or nearby landholders — continuation of a consistent, open and transparent compensation and land acquisition process, giving due consideration of the interests or needs of directly affected landholders in accordance with the requirements of the <i>Land Acquisition (Just Terms Compensation) Act 1991</i> and the supporting NSW Government Land Acquisition Reform 2016 — culturally appropriate ceremonies of recognition aligned with project activities and key milestones, in alignment with TransGrid's Reconciliation Action Plan. 	<p>Community</p> <p>Culture</p> <p>Personal and property rights</p> <p>Cumulative impacts</p>
SE2	<p>A Local Business and Employment Strategy will be implemented to guide local opportunities during construction, and where possible, align with existing plans and strategies of Wentworth Shire Council and Mildura Rural City Council, and TransGrid's Reconciliation Action Plan. The initiatives will be prepared in consultation with key stakeholders and organisations in the region.</p> <p>The strategy will consider local market conditions and capacity, and will include initiatives for:</p> <ul style="list-style-type: none"> — local supplier and labour procurement targets — Aboriginal workforce and business participation — training and upskilling programs for local labour force — programs to inform local businesses of contracting opportunities and requirements — consideration of use of available local infrastructure and services for construction activities such as the Wentworth Aerodrome, where feasible — transitioning the local workforce following the completion of construction. 	<p>Way of life</p> <p>Access to infrastructure, services and facilities</p> <p>Fears and aspirations</p> <p>Cumulative impacts</p>

REFERENCE	MITIGATION OR ENHANCEMENT	SOCIAL IMPACT CATEGORY
SE3	<p>A Community Benefit Plan will be implemented to guide opportunities to deliver benefits to local communities during and following construction. The plan will be prepared in consultation with Wentworth Shire Council, Mildura Rural City Council and key community stakeholders and organisations in the region, and will align with TransGrid's Community Partnerships Program. The plan will include (but is not limited to):</p> <ul style="list-style-type: none"> — initiatives to create positive social contributions and to respond to community needs and priorities — initiatives for Aboriginal heritage impacts of the proposal to be managed in partnership with local Aboriginal organisations — exploring opportunities to repurpose temporary infrastructure (such as the accommodation camps) to address local infrastructure, facilities and servicing needs. 	<p>Community</p> <p>Access to infrastructure, services and facilities</p> <p>Culture</p> <p>Surroundings</p> <p>Decision making systems</p>
SE4	<p>A Workforce Management Plan will be implemented to provide construction workforce support services to promote health and wellbeing and to manage positive social integration with existing communities.</p> <p>The plan will be prepared in consultation with Wentworth Shire Council, Mildura Rural City Council and social infrastructure service providers near accommodation camps so that the needs of the construction workforce are coordinated to minimise pressure on existing health services and social infrastructure.</p>	<p>Way of life</p> <p>Community</p> <p>Health and wellbeing</p> <p>Access to infrastructure, services and facilities</p>

6 IMPACT ASSESSMENT SUMMARY

This section summarises the socio-economic impacts identified and analysed in Chapter 4 and includes the residual significance assessment of each impact post-mitigation or enhancement.

Table 6.1 Impact assessment summary

IMPACT CATEGORY	IMPACT DESCRIPTION	SIGNIFICANCE PRE-MITIGATION	IMPACT POST-MITIGATION		
			Likelihood	Consequence	Significance
Way of life	Increase in competition accessing temporary accommodation or rental housing may result in unavailability of accommodation for certain user groups.	Moderate	Unlikely	Minor	Low
Way of life	Construction activities including the operations of the accommodation camps would provide local employment opportunities for job seekers and would increase the commercial activity for local service providers and contractors. Procurement of local contracting services and businesses would increase local spending power of business owners and their families, bringing about increased social and economic capital in local communities.	Moderate (positive)	Likely	Moderate	High (positive)
Way of life	The completion of construction would see the conclusion of certain casual, full-time and contracted employment positions, which may cause a spike in localised unemployment, placing potential strain on social services and decrease in community social and economic capital.	Moderate	Unlikely	Minor	Low
Way of life	The decrease in business revenue following completion of construction may reduce local economic activity.	Moderate	Unlikely	Minor	Low
Way of life	Localised inflation may result in certain products or services becoming difficult to access for some residents, while deflation following construction may cause commercial downturn to local businesses or service providers.	Moderate	Unlikely	Minor	Low

IMPACT CATEGORY	IMPACT DESCRIPTION	SIGNIFICANCE PRE-MITIGATION	IMPACT POST-MITIGATION		
			Likelihood	Consequence	Significance
Way of life	Social ties or interpersonal connections formed during construction may experience fragmentation as works conclude. The accommodation camps and facilities provided may result in this being experienced by a small number of individuals.	Low	Unlikely	Minimal	Low
Community	The sudden increase to the residential population would change the composition of the community and has the potential to change the character of the community.	Moderate	Unlikely	Minimal	Low
Community	The change in resident population would diversify existing community composition, bringing new and skilled people of working age into the town which can improve social and human capital within the community.	High (positive)	Likely	Moderate	High (positive)
Community	A perceived unfair distribution of local benefit may decrease trust and cohesion between neighbouring landholders.	Moderate	Unlikely	Minimal	Low
Community	Recipients of CPP grants would increase in revenue and service delivery capacity to improve community cohesion and positive community development outcomes.	High (positive)	Likely	Moderate	High (positive)
Access to and use of infrastructure, services and facilities	Increase in competition accessing local recreational facilities may reduce ability to access for certain resident groups.	Low	Unlikely	Minor	Low
Access to and use of infrastructure, services and facilities	Increase in competition accessing local healthcare facilities and services may reduce ability to access for certain resident groups.	High	Unlikely	Minor	Low

IMPACT CATEGORY	IMPACT DESCRIPTION	SIGNIFICANCE PRE-MITIGATION	IMPACT POST-MITIGATION		
			Likelihood	Consequence	Significance
Access to and use of infrastructure, services and facilities	Increase in competition accessing local emergency services may reduce ability to access for certain resident groups.	Low	Unlikely	Minor	Low
Access to and use of infrastructure, services and facilities	Increase in demand for flight services may place further strain on Mildura Airport's COVID-19 associated pressures, which may reduce ability for other users to access air transport.	Moderate	Unlikely	Minor	Low
Access to and use of infrastructure, services and facilities	Increase in air traffic at local airports or aerodromes caused by FIFO workforce may improve connectivity to the region for all users (based on pre-COVID-19 frequency of services).	Moderate (positive)	Possible	Moderate	High (positive)
Access to and use of infrastructure, services and facilities	Increased heavy vehicles and other proposal-related traffic may decrease local communities' ability to access and efficiently use road networks.	Low	Unlikely	Minimal	Low
Culture	Built infrastructure changes to landscape and effect on culturally significant sites or natural values may reduce community connection to cultural land, places and customs.	Low	Unlikely	Minor	Low
Culture	Perceived detrimental effect to traditional lands of Barkandji People and Native Title holders through construction of built infrastructure.	Low	Unlikely	Minor	Low
Culture	Damage to sites of Aboriginal cultural value may reduce community connection to cultural land, places and customs for Aboriginal communities.	Moderate	Unlikely	Minor	Low
Health and wellbeing	Decrease in worker health and wellbeing due to social isolation from families and existing personal networks.	High	Unlikely	Minor	Low

IMPACT CATEGORY	IMPACT DESCRIPTION	SIGNIFICANCE PRE-MITIGATION	IMPACT POST-MITIGATION		
			Likelihood	Consequence	Significance
Health and wellbeing	Decrease in sense of public safety due to anti-social behaviour in townships nearby accommodation camps.	Moderate	Unlikely	Minor	Low
Health and wellbeing	Community anxiety and stress related to perceived EMFs or bushfire risk.	Low	Unlikely	Minimal	Low
Surroundings	Amenity impacts may cause irritation or result in changes in day-to-day activities.	Moderate	Unlikely	Minor	Low
Surroundings	Changes to the landscape may reduce the values placed on attributes of the natural environment by local communities.	Low	Possible	Minimal	Low
Personal and property rights	Financial compensation would strengthen economic livelihood for recipients.	Moderate (positive)	Possible	Minor	Moderate (positive)
Personal and property rights	Land devaluation may be perceived as being greater than the compensation received for the construction of transmission line infrastructure.	Moderate	Possible	Minor	Moderate
Personal and property rights	Acquisition of or restricted access to productive land may weaken landholder's economic livelihoods.	Moderate	Unlikely	Minor	Low
Personal and property rights	Biosecurity risks to land and property may economically disadvantage landholders affected by proposal infrastructure.	Low	Unlikely	Minor	Low
Decision making systems	Traditional Owners may feel that they have limited agency in built infrastructure changes to traditional lands and do not have means to veto the development.	Low	Unlikely	Minor	Low
Decision making systems	Some landholders may feel that they have little to no agency in the land acquisition process and do not have means to veto development.	Moderate	Unlikely	Minor	Low

IMPACT CATEGORY	IMPACT DESCRIPTION	SIGNIFICANCE PRE-MITIGATION	IMPACT POST-MITIGATION		
			Likelihood	Consequence	Significance
Decision making systems	Landholders may experience a sense of returned access and control on matters or activities taking place around them or on their land as well as an increased sense of certainty and confidence on managing their land and properties.	Moderate	Possible	Minor	Moderate (positive)
Fears and aspirations	Improvements in energy infrastructure would stimulate investment in local and regional economies, generating a positive sense for the future within the community.	High (positive)	Almost certain	Major	Extreme (positive)
Cumulative	Increase in traffic on public roads, especially heavy vehicles, caused by multiple construction projects underway concurrently, may increase public safety concern for road-related accidents.	Low	Unlikely	Minor	Low
Cumulative	An increase in incoming workforces caused by multiple concurrent developments may place additional pressures on short-stay accommodation providers and the private rental market which could marginalise renters or disadvantaged communities from the market or could affect housing affordability.	Moderate	Unlikely	Minor	Low
Cumulative	Potential increase in the opportunity to co-ordinate social investment and community benefit opportunities locally.	Moderate (positive)	Possible	Moderate	High (positive)
Cumulative	An increase in employment opportunities may see a rise in the demand for the local labour workforce leading to shortages and may lead to increase in the cost for labour available on local industries.	Moderate	Unlikely	Minor	Low

7 CONCLUSION

The SEIA found the proposal may have socio-economic effects on communities who live, work and visit the area of socio-economic influence. All identified impacts were assessed for significance which considers both consequence and likelihood levels. All identified impacts are also likely to be experienced differently across the place-based communities within the area of influence. The main impact categories relate to the influx of construction workers in a sparsely populated area, and the potential effect that the transient population could have on access to and use of existing facilities and services, in particular related to housing, healthcare and employment. Additionally, the local and regional economic opportunities that the proposal presents are significant, if fully realised by the proponent.

While communities across the Wentworth and Mildura LGAs have relative economic diversification and skills adaptability, as well as experience welcoming temporary workforces across a number of sectors, there are also vulnerabilities apparent within the community related to social disadvantage, an ageing population and high rates of unemployment. The Aboriginal population of the area of socio-economic influence is proportionately much higher in size than the NSW average, with a considerably high number of young people who are unemployed.

The proximity that the Wentworth LGA has to the Mildura LGA (Victoria) means that most people's day-to-day lives are directly linked to the services, industries, infrastructure and public life in Mildura city. For this reason, the Mildura LGA has also been considered in this SEIA as a key component of the area and communities of influence.

7.1 SUMMARY OF IMPACTS

The majority of identified impacts are temporal in nature. The changes or affects felt or experienced by communities is likely to correspond strongly with the presence of the construction workforce, expected to last for a period of two to four years. Particularly after the year 2024, the felt experience of most impacts will likely taper off and are not expected to be experienced in the longer term as part of the operational phase.

The townships closest to the proposed workforce accommodation camps of Buronga and Wentworth, as well as other residential populations along key road transport routes within the area of influence, are predicted to experience the socio-economic impacts to the greatest extent, both positive and negative. Local employment and contracting services for the proposal's construction works have the ability to benefit the wider Wentworth LGA population. If targeted processes are put in place in the planning and development phases, benefits and opportunities could be significant to the communities within the area of influence and could have a considerably greater positive impact for the identified vulnerable communities within the population.

All in all, the proposal will provide significantly greater capacity for the local and regional economy to activate new and emerging sectors, which in the long-term, can bring widespread regional benefit. All negative impacts assessed in Chapter 4 can be reasonably mitigated throughout planning and development to reduce their significance to moderate or low. All positive impacts identified can be reasonably enhanced through a collaborative approach to development for local stakeholders and communities to realise the extent of opportunities that the proposal offers.

Of note, given the current sensitive economic climate caused by COVID-19, employment opportunities and other local or regional socio-economic benefits that the proposal can offer, will likely generate a more significant advantage for beneficiaries and their dependents, when compared to a scenario of economic conditions without any proposed development in the area of socio-economic influence.

7.2 OVERVIEW OF MITIGATION AND ENHANCEMENT MEASURES

Overall, this SEIA anticipates the proposal would create many opportunities and benefits for people in the area of socio-economic influence. It may also create some short-term undesirable socio-economic changes. In the planning and development phase, TransGrid is in an opportune position to anticipate and respond to potential issues well before the peak of construction. Key recommended mitigation and enhancement measures include:

- a Community and Stakeholder Engagement Plan, to guide public participation and to ensure strategic engagement for the proposal's planning and development encompasses the diverse range of stakeholders' interests, concerns and priorities
- a Local Business and Employment Strategy, to guide local participation opportunities during construction, and where possible, to align proposal development with existing plans and strategies of local government
- a Community Benefit Plan, to guide opportunities to deliver benefits to local communities during and following construction
- a Workforce Management Plan to provide construction workforce support services to promote health and wellbeing and to manage positive social integration with existing communities.

8 LIMITATIONS

This Report is provided by WSP Australia Pty Limited (WSP) for TransGrid (Client) in response to specific instructions from the Client and in accordance with WSP's proposal dated September 2019 and agreement with the Client dated 31 October 2020 (Agreement).

8.1 PERMITTED PURPOSE

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APPENDIX A

EXISTING ENVIRONMENT SUMMARY



A1 EXISTING ENVIRONMENT SUMMARY

Table A.1 Key findings and implications of existing characteristics of Wentworth and Mildura LGAs

KEY FINDINGS	IMPLICATIONS
Wentworth LGA	
Population profile and proportional growth in over 65 years	The increasing ageing population will continue to place additional demands on the limited health infrastructure and services in the area. The demand for health services and infrastructure including aged care, community support services and disability services will increase proportionally with the ageing population growth.
Health services are currently at or near capacity	A further increase in the ageing population will place additional pressure on these services given that the existing infrastructure and health services do not currently meet the demand of the current population due to lack of GP services, hospital and specialist services and facilities.
Unemployment and support services	<p>The unemployment rate is slightly lower in the area in comparison to the State. It is evident that access to employment support services is difficult with those facing unemployment opting to access support services in Mildura.</p> <p>Recent economic changes due to the COVID-19 pandemic have led to a sudden spike in unemployment in the Wentworth LGA and an increase in active job seekers.</p>
Aboriginal demographic and socio-economic characteristics	<p>Wentworth LGA has a relatively large proportion of those identifying as Aboriginal and Torres Strait Islander and it is evident that the current social infrastructure available to this community is limited in support programs that are culturally appropriate.</p> <p>Though the median age is much younger than that of the non-Aboriginal community, the NSW Government estimates that by 2036 more people from this community aged 65 years and over will increase and will be living with chronic illness. This will have impacts to the current health care on the minimal services and facilities currently available in the LGA.</p> <p>Consideration needs to be given to the current housing conditions, barriers to education and further education opportunities and barriers to employment which impact on individual and family incomes are other identified areas to be addressed in attempts to close the gaps for these communities. Current employment rates for Aboriginal residents are significantly higher than non-Aboriginal residents.</p>
Housing and accommodation	Though the options of rental properties across the LGA are limited, there is some capacity of tourist or temporary accommodation options. Although it appears that there are minimal options available due to the relatively small number of establishments, the average occupancy rate of accommodation was less than 30% in 2016 which indicates capacity to provide some short-term accommodation options. These are mostly located in Wentworth town.

KEY FINDINGS	IMPLICATIONS
Active community participation and community values	<p>Community participation is high in the area and it is suggested that residents are more likely to be engaged in the local community. Consideration must be given to the number of community values reported which include:</p> <ul style="list-style-type: none"> — lifestyle and space (country feel and semi-rural-aspects) — natural environment and climate change (appreciation the existing environment, flora and fauna) — amenity and aesthetics — population and housing (more housing and development, more apprenticeships and job opportunities) — economy, industry and employment.
Current transport networks are adequate however, there is room for improvement	Major road networks are provided for with connections to NSW, Victoria and South Australian, although consideration must be given to suggestions by the community with respect to upgrading local roads for better access for road-trains, improved rail connectivity and improved public transport connectivity between Wentworth and Mildura.
Mildura LGA	
Population profile, general population growth and proportional growth in over 65 years	<p>The increasing population will continue to place additional demands on existing services and social infrastructure. Demand for educational and child care facilities will increase, along with health services, aged care, sporting facilities and open space, recreational spaces and community services, who find their demand for services increases proportionally with population growth.</p> <p>With the decrease in the working population and the increase in the aging population, the shifting demographic profile will increase demand on services and infrastructure including health care, aged care, community support services (aged care) and facilities which already service a wider area including Wentworth LGA and other surrounding areas.</p>
Health services are currently provided for	An increasing population will place additional pressure on health care and support services. In addition to the shifting demographic profile, future provisions will need to account for these changes.
Housing and accommodation	There are a number of establishments within the LGA that support incoming temporary workforce populations and visitors, however the housing market is currently under pressure due to the number of sectors experiencing growth.
Improved connection to Aboriginal heritage and the Aboriginal community	Council and the community have identified the need to enhance connections to local Aboriginal heritage and to strengthen connections and ties to the local Aboriginal community.
Multiculturalism	The community and Council value multiculturalism in the local community and actively support a program for new comers to the region. Mildura city has high numbers of diversity in ethnicity and languages spoken compared to most regional cities.

KEY FINDINGS	IMPLICATIONS
Active community participation and community values	<p>It is somewhat evident that residents within the LGA are likely to actively participate and be engaged in the local community due to the higher proportion in comparison to the State averages of those reporting as participating in volunteer work. Evidence that the community values:</p> <ul style="list-style-type: none"> — the natural environment (including the health of the Murray Darling Basin) — improvements to public transport in terms of passenger rail services — issues facing local farmers (workforce retention, restriction on farmland and drought issues).
Current transport networks are adequate	<p>Mildura is adequately connected due to its location and accessibility to major road networks to NSW and South Australia and also has rail freight connections.</p> <p>It is serviced by its well performing regional airport which provides routes to Adelaide in South Australia, Sydney and Broken Hill in NSW and Melbourne in Victoria.</p>

APPENDIX B

DEMOGRAPHIC CHARACTERISTICS COMPARISON



B1 DEMOGRAPHIC CHARACTERISTICS COMPARISON

The following section provides an overview of the demographic profiles for both Wentworth LGA and Mildura LGA.

B1.1 AGE

The age profile for Wentworth LGA in 2016 was somewhat similar to that of Mildura LGA, as the Mildura region shows an aging population, with a higher proportion in the working age groups, and a stable population in the younger age groups. The below table highlights the percentages for each age groups as reported by the ABS in 2016 against the national average for the same year.

Table B.1 Age profile as reported in 2016 and comparisons

AGE GROUP	WENTWORTH LGA	MILDURA LGA	NATIONAL AVERAGE
	Percentage		
Children (0-14 years)	18.8	19	18.8
Working (15-64 years)	60.8	62.1	65.5
Ageing (65 years and over)	20.2	18.7	15.7

Figure B.1 shows a visual comparison between both LGA's population broken down by age.

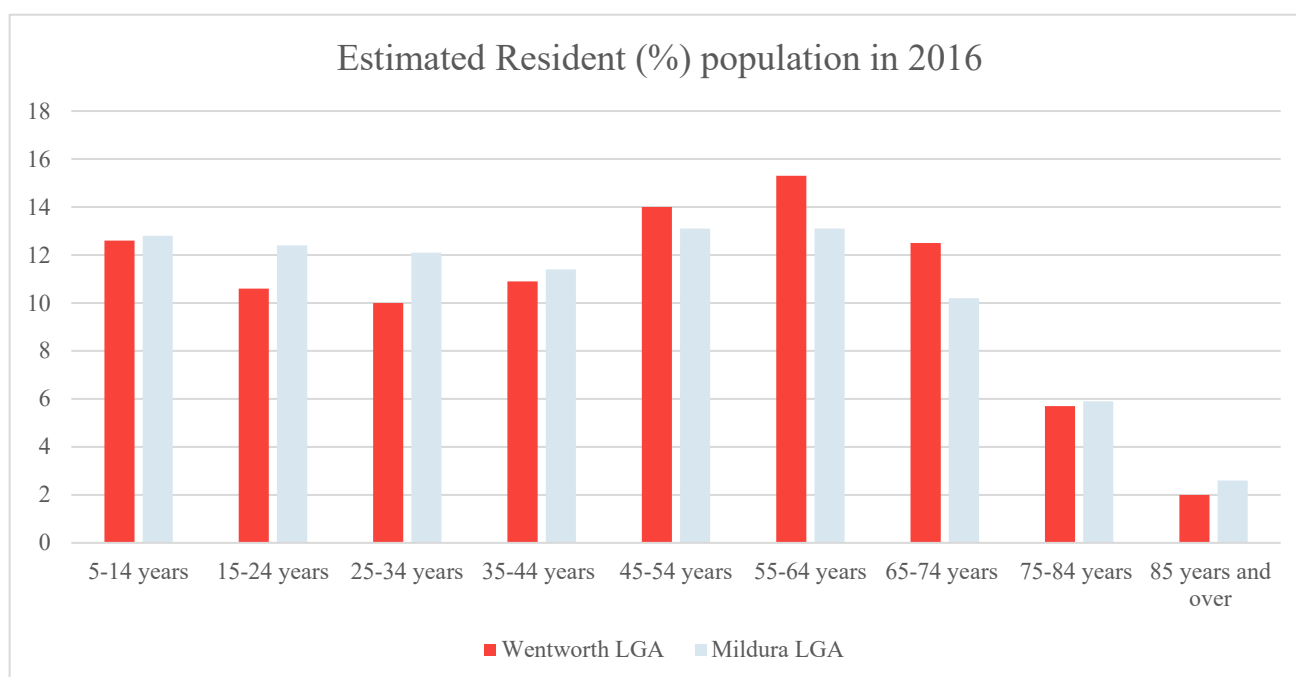


Figure B.1 Wentworth & Mildura LGA estimated resident population by age group in 2016

B1.2 ABORIGINAL POPULATION AND AGE

As reported in 2016, Wentworth and Mildura LGA had higher proportions of the population identifying as Aboriginal or Torres Strait Islander in comparison to the state average respectively, with Wentworth LGA reporting a significant difference (of 6.7 per cent). Both LGA's reported high proportions of females to males in comparison to state averages. Most importantly, the median age for these communities in both LGA's were significantly younger when compared to the median age of the non-Aboriginal population within the LGA. Table B.2 below provides an overview of demographic profile for each community below.

Table B.2 Aboriginal and Torres Strait Islander demographic profile in 2016

LGA	POPULATION OF ABORIGINAL & TORRES STRAIT ISLANDER	PERCENTAGE OF TOTAL POPULATION	STATE AVERAGE (PERCENTAGE)	
Wentworth	650	9.6	2.9 (NSW)	
Mildura	2, 065	3.7	.8 (Victoria)	
Gender split				
	Percentage Male	Percentage Female	State Average Male	State Average Female
Wentworth	48.6 (313)	51.4 (331)	49.7 (NSW)	50.3 (NSW)
Mildura	47.2 (977)	52.8 (1, 093)	49.4 (Victoria)	50.6 (Victoria)
Median age (years)				
	Median age	State median age	Median age of non-Aboriginal population in LGA	
Wentworth	26	22	44	
Mildura	20	23	40	

It was evident in Wentworth LGA that there was a higher proportion of the population being under 18 years old (35 per cent) compared with 22 per cent of the non-Aboriginal population. There was a lower proportion of those aged 65 or more (7 per cent compared with 22 per cent (Education Aboriginal Affairs, 2017).

B1.3 POPULATION TRENDS

Reported population estimates gathered from the Census in 2006, 2011 and 2016, indicated that the population of Wentworth LGA fluctuates every five years. Wentworth Shire Council indicate that this trend is due to the region being subject to an itinerant population of international travelling backpacker workers who travel to the area to undertake paid work such as seasonal fruit picking and other seasonal job roles.¹

Within the same reporting periods, Mildura LGA demonstrated an increase of approximately 3,000 people every five years. It is noted that the population of Mildura LGA is transient in nature as Mildura CBD acts as a hub for regional workers in various industries that are often FIFO workers.²

The estimated population as reported in the Census years can be viewed in Table B.3 below.

Table B.3 Estimated population by Census year

CENSUS YEAR	2006	2011	2016
Wentworth LGA	7,058	6,609	6,794
Mildura LGA	47,911	50,979	53,878

In Wentworth LGA, it is evident that the population has aged somewhat steadily from 2006 at 14.2 per cent to 20.2 per cent in 2016 (an increase of 6 per cent) of those 65 years and over. Between 2011 and 2016, the working population decreased by 3.8 per cent of people.

Similarly, in Mildura LGA the population has aged steadily from 2006 at 14.3 per cent to 18.7 per cent in 2016 (an increase of 4.4 per cent) of those 65 years and over. Between 2011 and 2016, the working population decreased by 4.6 per cent of people.

The reported estimated age profiles for each LGA as reported at each Census is provided in the Table B.4 below.

Table B.4 Age profile trends

LGA	CHILDREN (0-14 YEARS)	WORKING (15-64 YEARS)	AGEING (OVER 65 YEARS)
Percentage of population			
2006 Census			
Wentworth	21.3	64.2	14.2
Mildura	22.2	63.5	14.3
2011 Census			
Wentworth	20.2	64.6	17.8
Mildura	19.3	66.7	14
2016 Census			
Wentworth	18.8	60.8	20.2
Mildura	19	62.1	18.7

¹ As discussed with Wentworth Shire Council, meeting held June 29, 2020.

² As discussed with Mildura City Council, meeting held July 6, 2020.

B1.3.1 POPULATION FORECASTS

Wentworth Shire Council forecast that the LGA's population has and will continue to increase steadily from the reported population by the ABS from the 2016 Census. This is a secondary data source used other than the ABS for these predictions. Table B.5 below outlines Council forecast for the population projected using growth rate between 2016 and 2019 of .58 per cent.³

Table B.5 Wentworth Shire Council population forecasts

YEAR	TOTAL POPULATION	POPULATION CHANGE	PERCENT CHANGE
2016	6932	-	-
2017	6977	45	0.6
2018	7042	65	0.9
2019	7053	11	0.2
2020	7094	41	0.6
2021	7135	41	0.6
2026	7344	209	2.9
2031	7560	216	2.9
2036	7782	222	2.9
2041	8010	228	2.9

At the time of this audit, Mildura Regional Development were unable to provide population forecasts for Mildura LGA. However, it is estimated by Regional Development Victoria that the LGA will grow to 62,554 people by 2026 with a growth rate of .68 per cent (from 2016 to 2036) (Regional Development Victoria, 2020).

B1.3.2 CULTURE AND LANGUAGE

Approximately 83.2 per cent (or 5,650 people) of the population in Wentworth LGA was born in Australia, and 86.3 per cent (or 5,843 people) speak only English at home (ABS, 2016). Wentworth LGA has a significantly smaller proportion (5 per cent) of households who speak a language other than English in comparison to the rest of NSW (26.5 per cent).

Mildura LGA is a multicultural community with 79 different nationalities officially recognised. Council provides a range of services to support residents born overseas and who speak languages other than English including new citizens, asylum seekers and refugees (Mildura Rural City Council, 2020).

Mildura Rural City Council was declared a Refugee Welcome Zone in 2002 which is an LGA that has made a commitment in spirit to welcoming refugees into the community, upholding the human rights of refugees, demonstrating compassion for refugees and enhancing cultural and religious diversity in the community (Mildura Rural City Council, 2020).

³ As discussed with Wentworth Shire Council, meeting held June 29, 2020.

Approximately 20.7 per cent of Mildura LGA's permanent population was born overseas in 2016 (ABS, 2016). The Sunraysia Mallee Ethnic Communities Council (SMECC) concluded in its New & Emerging Communities Community Plan (SMECC, 2015) that the largest and fastest growing group of refugee and asylum seeker community members in the Sunraysia Region, with a number of families choosing to settle in Mildura, are from the Afghan and Hazara Communities (SMECC, 2015). SMECC also supports the region's new Asylum Seeker community members residing in the area while waiting for their residency status to be resolved (Mildura Rural City Council, 2020).

The Tamil Community were also a large group having chosen to settle in Mildura followed by the Burundian Community and other communities originating from countries including Iran, Iraq, Rwanda, Democratic Republic of Congo, Tanzania, Pakistan, and Kurdistan (SMECC, 2015). Changes that face new communities to the area included employment opportunities, access to services, language barriers, mental health and community leadership (SMECC, 2015).

Approximately 79.3 per cent (or 42,733 people) of the population in Mildura LGA were born in Australia, and 82.3 per cent (or 44,285 people) speak only English at home (ABS, 2016). Of the permanent population in Mildura LGA, England, Italy, New Zealand, India and Turkey were the most common countries of birth outside of Australia (ABS, 2016). Homes where non-English language was spoken made up 11.2 per cent or 2,431 households within the LGA. This is significantly lower than the State average of 27.8 per cent.

B1.3.3 DWELLING TYPE AND HOUSEHOLD COMPOSITION

Table B.6 details the ABS data collected from 2016 to provide an overview of housing characteristics in the Wentworth LGA.

Table B.6 Housing characteristics in Wentworth LGA

ABS CRITERIA	2016 DATA FOR WENTWORTH LGA
Occupied private dwellings	83.3%
Unoccupied private dwellings	16.7%
Family households	70.5%
Single or lone households	27.4%
Group households	2.1%
Median rental payments	\$160 per week
Percentage of households with rental payments less than 30% of household income	92.6%
Percentage of households with rental payments greater than 30% of household income	74%

APPENDIX C

POPULATION OF PLACE-BASED
COMMUNITIES IN WENTWORTH LGA



C1 POPULATION OF PLACE-BASED COMMUNITIES IN WENTWORTH LGA

Table C.1 outlines the population of the main townships and irrigated areas which together form the population of the Wentworth LGA.

Table C.1 Wentworth LGA population by township or irrigated area

NAME	TYPE	POPULATION
Wentworth	Main township	1,221
Buronga	Township	1,212
Dareton	Township	501
Coomealla	Irrigation area	826
Pomona	Village	161
Mourquong	Village	79
Trentham Cliffs	Village	69
Pooncarie	Township	166
Gol Gol	Township	1,523
Ellerslie	Village	82
Curlwaa	Irrigation area	393

APPENDIX D

LAND ZONING IN WENTWORTH LGA



D1 LAND ZONING IN WENTWORTH LGA

Table D.1 outlines Wentworth Shire Council's land use zones and associated planning objectives.

Table D.1 Wentworth Shire Council Land Use Zones and objectives⁴

CLASSIFICATION	WENTWORTH SHIRE COUNCIL OBJECTIVES
RU5 Village	<ul style="list-style-type: none"> — to provide for a range of land uses, services and facilities that are associated with a rural village — to promote development in existing towns and villages in a manner that is compatible with their urban function — to encourage well-serviced sustainable development — to ensure there are opportunities for economic development — to deliver new residential and employment growth in Buronga – Gol Gol — to ensure business and retail land uses are grouped within and around existing activity centres.
R5 Large Lot or Residential	<ul style="list-style-type: none"> — to provide residential housing in a rural setting while preserving, and minimising impacts on, environmentally sensitive locations and scenic quality — to ensure that large residential lots do not hinder the proper and orderly development of urban areas in the future — to ensure that development in the area does not unreasonably increase the demand for public services or public facilities — to minimise conflict between land uses within this zone and land uses within adjoining zones — to restrict the construction of new residential and other sensitive uses in flood prone areas.
RU1 Primary Production	<ul style="list-style-type: none"> — to encourage sustainable primary industry production by maintaining and enhancing the natural resource base — to encourage diversity in primary industry enterprises and systems appropriate for the area — to minimise the fragmentation and alienation of resource lands — to minimise conflict between land uses within this zone and land uses within adjoining zones — to ensure the protection of both mixed dryland and irrigation agricultural land uses that together form the distinctive rural character of Wentworth — to ensure land is available for intensive plant agricultural activities — to encourage diversity and promote employment opportunities related to primary industry enterprises, including those that require smaller holdings or are more intensive in nature.
IN1 General Industrial	<ul style="list-style-type: none"> — to provide a wide range of industrial and warehouse land uses — to encourage employment opportunities — to minimise any adverse effect of industry on other land uses — to support and protect industrial land for industrial uses.

⁴ Source: Wentworth Shire Council, 2020. Land Use Zones. Accessed: www.wentworth.nsw.gov.au/planningdevelopment/planning/land-use-zones.aspx

APPENDIX E

EXPANDED COMMUNITY VALUES IN WENTWORTH LGA



E1 EXPANDED COMMUNITY VALUES IN WENTWORTH LGA

During the consultation period for the review of the Community Strategic Plan in 2016, the Shire received a number of submissions and community feedback on these topics. Some feedback collated is highlighted below.

Table E.1 Community feedback⁵

CATEGORY	COMMUNITY FEEDBACK RECEIVED
Social issues and ideas	<ul style="list-style-type: none"> — “Volunteering/community groups are facing increasing costs and red tape” — “Engage with schools on environmental projects; more engagement with local schools” — “Measuring outcomes – reporting to the community” — “Recognition of the traditional custodians and tribal heritage”
Infrastructure, assets and access	<ul style="list-style-type: none"> — “Focus on heritage conservation” — “Divert heavy traffic away from towns, especially through Buronga and Gol Gol” — “Improve rail connectivity to boost export capabilities” — “Upgrade roads for better access by road-trains” — “Improve recreational facilities - provide shade sails in public places; more playgrounds and walking tracks; better library services; skate parks; better swimming pools” — “Provide better public transport connectivity between the towns and Mildura; more pick up points; improved and safe waiting areas”
Population, housing and development	<ul style="list-style-type: none"> — “Retain youth by offering study scholarships; more apprenticeships and job opportunities” — “Create a place where people want to come and live” — “Better promotion of the area, make sure people know we are here and that this is a great place to live and work” — “Encourage more housing development” — “Flexibility of zoning and development”
Bureaucracy and cross-border issues	<ul style="list-style-type: none"> — “Council should shift its operations to the growth area of the Shire” — “Council to have more decision making ability over land use”
Economy, industry and employment	<ul style="list-style-type: none"> — “Streamline development processes to encourage developers to the region – e.g. red tape” — “Establish an Economic Development Consultation Group” — “Engage business owners into community consultation” — “Increase new and diversified industry to increase employment opportunities” — “Free land given to start industry”
Environment and climate change	<ul style="list-style-type: none"> — “Greater appreciation of our natural environment, flora and fauna” — “That there be no more losses – the preservation of what is now, and what will be”

⁵ Wentworth Shire Council, 2017. 2017-2027 Community Strategic Plan (2020). Accessed: wentworth.nsw.gov.au/f.ashx/2027-Community-Strategic-Plan-FINAL.pdf

As a result of the feedback received in 2016, the Shire summarised the key areas of community concern to shape the 2017–2017 Community Strategic Plan as the following:

Table E.2 Summary of community issues reported in 2016⁶

CATEGORY	SUMMARY OF ISSUES
Social issues	— Disengaged youth; domestic violence & family abuse; public drunkenness; isolation and boredom; lack of educational opportunities; lack of recognition of the traditional custodians.
Infrastructure, assets and access	— Deterioration of major infrastructure roads, footpaths, water & sewer assets; lack of fast internet access; lack of natural gas to support industry; transport connectivity and access; infrastructure required to support tourism.
Population, housing and development	— An ageing population; population decline; development opportunities; retention of youth.
Bureaucracy and cross-border issues	— Disparity between Victorian and NSW communities; lack of co-operation at all levels of government; quality of regional representation.
Economy, industry and employment	— Deteriorating economic base; horticultural industries in decline; uncertainty over water security; lack of jobs, job opportunities and diversity in employment; lack of industry; the lack of our own identity (people don't know we exist).
Environment and climate change	— Economic impact of climate change, particularly on irrigated agriculture; reducing our carbon footprint; lack of recycling facilities.

⁶ Wentworth Shire Council, 2017. 2017-2027 Community Strategic Plan (2020). Accessed: wentworth.nsw.gov.au/f.ashx/2027-Community-Strategic-Plan-FINAL.pdf

APPENDIX F

SOCIAL INFRASTRUCTURE IN WENTWORTH LGA



F1 SOCIAL INFRASTRUCTURE IN WENTWORTH LGA

Table F.1 provides an overview of social infrastructure in Wentworth LGA.

Table F.1 Overview of community and social infrastructure in Wentworth LGA

CATEGORY	TYPE	TOTAL (APPROX.)	OVERALL TOTAL (APPROX.)
Education and childcare	Early education/childcare	5	14
	Primary schools	7	
	High schools	1	
	Tertiary education	1	
Hospitals and medical facilities	Hospitals	2 ⁷	3
	Medical clinics and General Practice	2	
Places of worship	Churches	8	8
Emergency services	Police stations	3	10
	Fire and rescue	2	
	Ambulance station	1	
	State Emergency services	1	
	Rural fire service NSW	3	
Aged Care	Aged care hostel	1	1
Cemeteries	Cemeteries	3	4
	Memorial gardens	1	
Community support services	Social, health and employment	6	6
Disability services	Home care and support	3	3
Community and cultural centres	Centres and halls	7	7
Sporting facilities	Complexes, ovals, pools and skate park	7	7
Parks and open space	Parks, playgrounds and public open spaces	14	14

⁷ Including the 'Health 1' facility upcoming development in Buronga.

CATEGORY	TYPE	TOTAL (APPROX.)	OVERALL TOTAL (APPROX.)
Waste and recycling	Waste management centre	4	6
	Rural transfer station	2	
Places of community significance	Aboriginal places of significance	284	284
	Heritage listed, nominated places and other places of significance	18	18
		Total (approx.)	385

F1.1 EDUCATION AND CHILDCARE

Across Wentworth LGA, the following education and childcare facilities are available:

- five early education/childcare facilities
- seven primary schools
- one high school.

Coomealla High School is the only high school located within the LGA boundaries and is located in the town of Dareton. Many high school students who reside in Wentworth LGA seek out their schooling in the nearby state of Victoria in the towns of Mildura, Red Cliffs and Irymple within the boundaries of the Rural City of Mildura LGA.

Tertiary education facilities are also limited with only the Coomealla TAFE NSW campus located in Dareton. Those students wishing to seek out university education have access to the nearby La Trobe University Mildura campus, Victoria.

F1.2 PLACES OF WORSHIP

There are eight churches that operate within the LGA and include:

- two Uniting Churches
- one Baptist church
- one Seventh Day Adventist Church
- three Catholic Churches
- one Anglican Church.

F1.3 EMERGENCY SERVICES

The emergency services in Wentworth are as outlined in Table F.2 below.

Table F.2 Emergency services

CATEGORY	ADDRESS
Police stations	
Wentworth Police Station	74 Darling St, Wentworth
Buronga Police Station	2/4 Chapman St, Buronga
Dareton Police Station	52 Sturt Pl, Dareton
Fire and rescue	
NSW Wentworth Fire Station	82 Adams St, Wentworth
NSW Rural Fire Service - Lower Western Fire Control Centre	Lower Western, 58-60 Mitchell Avenue, Dareton
Ambulance station	
Ambulance station	41-45 Armstrong Ave, Wentworth
State Emergency services	
State Emergency services (SES)	Armstrong Ave, Wentworth
Rural fire service NSW	
NSW Rural Fire Service	58-60 Mitchell Ave, Dareton
NSWRFS Curlwaa Fire Station	Curlwaa
Curlwaa RFB	40 Memorial Rd, Curlwaa

F1.4 COMMUNITY AND CULTURAL CENTRES

Cultural and recreational infrastructure has the ability to build community cohesion by providing a place for people to gather and often provides a place for local services to be accessed. The main community centres in Wentworth LGA include:

- Wentworth Town Hall & Community Meeting Room, Wentworth
- Midway Centre, Buronga
- Memorial Room and Wentworth Visitor Information Centre, Wentworth
- Pooncarie Hall, Pooncarie
- Anabranh Hall, Anabranh South
- Civic Centre, Wentworth
- Pomona Hall, Pomona.

F1.5 SPORTING, OPEN SPACE AND RECREATION

Of the facilities located across Wentworth LGA, the most notable sporting and recreation facilities include:

- Carramar Drive Sporting Complex Oval & Pavilion, Gol Gol
- Curlwaa Oval, Curlwaa
- Wentworth Sporting Complex Golf Club, Wentworth.

There are two public swimming pools located in Wentworth and Dareton, as well as a skate park that was completed in 2019.

F1.6 WASTE AND RECYCLING

The Shire is serviced by several waste facilities including Buronga Landfill Community Waste Recycling Centre, Ellerslie Tip, Pomona Tip, Pooncarie Tip and transfer stations of Dareton Transfer Station and Wentworth Transfer Station.

Recycled waste is also accepted at both stations and Pomona in addition to the main Buronga Landfill Community Waste Recycling Centre.

F1.7 PLACES OF COMMUNITY SIGNIFICANCE

There are approximately 284 indigenous registered sites currently listed with the NSW National Parks and Wildlife Service within the boundaries of Wentworth Shire LGA. These sites relate to Aboriginal morphology and culture, and include the significant Lake Nitchie area, the Rufus Creek Massacre Burial Site and the Snaggy Bend Aboriginal burial ground (Wentworth Shire Council, 2020).

Other places of significance include those registered with the National Estate, such as:

- Mallee Cliffs National Parks
- Nearie Lake Nature Reserve
- Snaggy Bend Aboriginal Burial Ground
- Willandra Lakes Conservation Area
- Wentworth Courthouse
- Wentworth Gaol
- Tarawi Mallee area (nominated)
- Lake Nitchie Skeleton and Lake Nitchie Area (nominated).

There are three significant places within the Wentworth township currently listed under the state heritage register including the St John's Anglican Church and Rectory and the Wentworth Hotel (interim).

Places registered with the National Trust of Australia (NSW) include:

- Former Wentworth Gaol
- Former Catholic School House
- Former Customs Officers Residence
- Wentworth Post Office
- St John the Evangelist Anglican Church
- Wentworth Courthouse
- McClymont House.

F1.8 TRANSPORT

Wentworth Shire Council is situated at three major national highways linking the capital cities of Sydney (1,075 kilometres to the east), Adelaide (420 kilometres to the south west), Melbourne (585 kilometres to the south), Brisbane and Perth. The Sturt Highway is located in the southern sector of the Shire and is a key national freight route and an important piece of tourism infrastructure for the region areas (Wentworth Shire Council, 2017).

The Shire Council includes and maintains a network of local and regional roads which consist of:

- 47 kilometres footpaths and shared-use ways
- 82 kilometres of kerb and gutters
- 1691 kilometres unsealed local roads
- 253 kilometres sealed local roads
- 173 kilometres unsealed regional roads
- 195 kilometres sealed regional roads
- 16 bridges and major culverts.

It is also responsible for the maintenance of 217 kilometres of the State Highway which consists of the Silver City Highway (SH22) and the Sturt Highway (SH14).

There are two aerodromes in the Shire including the Wentworth Aerodrome and the Pooncarie Aerodrome.

APPENDIX G

SOCIAL INFRASTRUCTURE IN MILDURA LGA



G1 SOCIAL INFRASTRUCTURE IN MILDURA LGA

Table G.1 below provides an overview of community and social infrastructure in Wentworth LGA.

Table G.1 Overview of community and social infrastructure in Mildura LGA

CATEGORY	TYPE	TOTAL (APPROX.)	OVERALL TOTAL (APPROX.)
Education and childcare	Early education/childcare	17	52
	Primary schools	16	
	High schools	16	
	Tertiary education	3	
Hospitals and medical facilities	Hospitals	2	27
	Medical clinics and General Practice	25	
Places of worship	Churches	32	32
Emergency services	Police stations	3	13
	Fire and rescue	5	
	Ambulance station	1	
	State Emergency services	1	
	Rural fire service NSW	3	
Aged Care	Aged care	21	21
Cemeteries	Cemeteries	11	12
	War memorial cemetery	1	
Community support services	Social, health and employment	48	48
Disability services	Home care and support	23	23
Community and cultural centres	Centres and halls	16	16
Sporting facilities	Complexes, ovals, pools and skate park	19	19
Parks and open space	Parks, playgrounds and public open spaces	51	51
Waste and recycling	Waste management centre	2	8
	Transfer station	6	

CATEGORY	TYPE	TOTAL (APPROX.)	OVERALL TOTAL (APPROX.)
Places of community significance	Aboriginal places of significance	4	4
	Heritage listed, nominated places and other places of significance	119	119
		Total (approx.)	445

G1.1 EDUCATION AND CHILDCARE

There are approximately 52 education providers in Mildura LGA which service the local region as well as Wentworth LGA. Of these, approximately 17 are early education/childcare services, 16 primary schools and 16 education institutions offering both primary and secondary services. Tertiary educational facilities in the region include the La Trobe University Mildura campus, Sunraysia Institute of TAFE (SuniTAFE) Mildura campus and MADEC.

The La Trobe University's Mildura campus offers a number of courses in arts, social sciences and communications, business and commerce, education and teaching, health, information technology and engineering, law and criminology and science. For some health science courses, the first year is made available at Mildura, with the subsequent years of the courses only offered at the University's Bendigo (Victoria) campus (La Trobe University, 2020). At the Mildura campus, blended learning courses are popular with students. This approach facilitates learning approach to learning includes blending online study, placements in Mildura and minimal visits to other La Trobe University campuses (La Trobe University, 2020).

SuniTAFE Mildura campus features a number of facilities including a child care and kindergarten centre, nursing labs, the region's largest academic library, a bookshop with a wealth of art supplies, a training restaurant, a beauty salon and a hairdressing salon (Sunraysia Institute of TAFE, 2020). SuniTAFE Mildura operates a 30 hectare horticultural training farm in the town of Cardross, outside of the Mildura LGA.

MADEC is a Nationally Registered Training Organisation (RTO) with its head office based in Mildura. Courses provided by MADEC include first aide, construction, retail, hospitality, foundation skills (skills for work and vocational pathways), health and community services, education, business administration, agriculture and cleaning (MADEC, 2018).

G1.2 PLACES OF WORSHIP

There are approximately 32 churches within the Mildura LGA and include:

- one Church of Christ
- four Catholic Churches
- two Uniting Churches
- one Lutheran Church
- one Baptist Church
- one Seventh-day Adventist Church
- seven Anglican Churches
- one Methodist Church
- 10 Christian Churches
- one Greek Orthodox Church
- one Church of Latter-day Saints
- one Presbyterian Church
- one Jehovah's Witnesses Church.

G1.3 EMERGENCY SERVICES

Table G.2 below outlines the emergency services in Mildura LGA.

Table G.2 Emergency services

CATEGORY	ADDRESS
Police stations	
Mildura Police Station	62 Deakin Ave, Mildura
Merbein Police Station	119 Commercial St, Merbein
Ouyen Police Station	19 Pickering St, Ouyen
Fire and rescue	
Mildura Fire Station	326 San Mateo Ave, Mildura
Mildura Fire Brigade	112 Orange Ave, Mildura
Irymple Fire Station	700 Koorlong Ave, Irymple
Merbein Fire Station	41 Box St, Merbein
Red Cliffs Fire Station	29 Jamieson Ave, Red Cliffs
Ambulance station	
Rural Ambulance Victoria	223 Deakin Ave, Mildura
State Emergency services	
VICSES Mildura Unit	70 Twelfth St, Mildura
Country Fire Authority	
Merbein CFA	Box St, Merbein
Red Cliffs CFA	35 Jamieson Ave, Red Cliffs
Nangiloc Fire Station	2660 Kulkyne Way, Nangiloc

G1.4 COMMUNITY AND CULTURAL CENTRES

There are approximately 15 community and cultural centres in Mildura LGA, including:

- Mildura Arts Centre, Mildura (creative hub of the Sunraysia region and includes a 444-seat performing arts theatre, Mildura Art Gallery, Rio Vista Historic House, sculpture park and cafe)
- Mildura Visitor Information and Booking Centre, Mildura (includes historic exhibition displays celebrating the Aboriginal history and 50-seat theatrette screens for history presentations)
- Irymple Community Leisure Centre, Irymple
- Merbein Community Hub, Merbein
- Red Cliff Civic Centre, Red Cliffs
- Alfred Deakin Centre, Mildura
- Art Vault, Mildura.

G1.5 SPORTING, OPEN SPACE AND RECREATION

Recreation and sporting facilities located across Mildura LGA include:

- Old Aerodrome Sporting Complex Pavilion, Mildura
- Mildura Recreation Reserve, Mildura
- Mansell Reserve, Mildura
- Henshilwood Memorial Reserve, Irymple
- Quandong Park, Red Cliffs
- Kenny Park Reserve, Merbein
- Chaffey Park Reserve, Merbein
- Blackburn Park, Ouyen
- Cardross Recreation Reserve, Cardross
- Nichols Point Reserve, Nichols Point
- Nangiloc Recreation Reserve, Nangiloc
- Johanssen Memorial Reserve, Lake Cullulleraine
- Murrayville Recreation Reserve, Murrayville
- Underbool Recreation Reserve, Underbool.

Indoor sport is also played in the Irymple Community Leisure Centre.

Indoor and outdoor swimming facilities are catered for at the following centres and pools:

- Mildura Waves Aquatics and Leisure Centre, Mildura
- Irymple Swimming Pool, Irymple
- Red Cliffs Swimming Pool, Red Cliffs
- Merbein Swimming Pool, Merbein
- Ouyen Swimming Pool, Ouyen
- Underbool Swimming Pool, Underbool.

Skate parks in the LGA consist of the Mildura, Merbein and Red Cliffs skate parks. Located Ouyen is the Ouyen Youth Oar which is a professionally designed facility for young BMX, skate board and scooter users (Mildura Rural City Council, 2020).

There are four golf courses in the region including Mildura golf Resort, Red Cliffs Gold Club (both golf and footgolf) and House of Golf Sunraysia Golf Range.

G1.6 WASTE AND RECYCLING

Council services several waste facilities including two waste centres in Mildura including Mildura Landfill and a rural facility called Cullulleraine Waste Facility. There are six rural transfer stations which comprise of Murrayville Landfill, Nangiloc Transfer Station, Ouyen Landfill, Underbool Waste Facility, Walpeup Waste Facility and Werrimull Waste Facility. Recycled Waste is accepted at all facilities, although the type of waste differs at each site (Mildura Rural City Council, 2020).

G1.7 PLACES OF COMMUNITY SIGNIFICANCE

Aboriginal heritage is an acknowledged gap in the Mildura Rural City Council's heritage knowledge base and has been considered as an area for further study. As part of this work, Council is exploring plans for investigations for ways to acknowledge pre-contact Aboriginal cultural history in the exploration of the use of the local Aboriginal language in naming as a way of recognising Traditional Owner ties with Country (Mildura Regional Council, 2019). This work is reportedly being considered through collaboration with the First People of the Millewa-Mallee Aboriginal Corporation and may include a future Aboriginal Heritage Study.

There are approximately 115 heritage listed places in Mildura LGA including a number of heritage buildings and significant places of war heritage. Particular items of importance are the Langtree Hall, Rio Vista Cultural House (as part of the Mildura Arts Centre), Millewa Pioneer Park, Psyche Bend Pumps and Kow Plains Homestead.

The Langtree Hall Museum was Mildura's first public hall built in 1889 and includes a great display of historical memorabilia (Mildura Information Centre, 2020).

Rio Vista Historic House is known as one of Mildura's most important heritage buildings and is visited by thousands of visitors each year. The house was inhabited by the Chaffey family, one of Mildura's significant families as part of the area's local history, before it was purchased and converted into an art gallery (Mildura Arts Centre, 2020).

Other significant places for the community in the LGA is the Mildura Arts Centre (including the Rio Vista Historic House), the Mildura Riverfront Gallery, and the Chaffey Trail.

The Chaffey Trail includes heritage places and other significant places as part of the development of Mildura and is named after the Chaffey family, including brothers George and William Benjamin Chaffey (Mildura Rural City Council, 2015). Settling in Australia in 1887 from California, United States of America, the brothers had a large pastoral lease and created the Mildura Irrigation Colony, Australia's first irrigated colony, which was the foundation of the region that is Mildura today (Mildura Rural City Council, 2015). The Caffey's developed a series of steam-driven pumps to lift water from the Murray River, first into King's Billabong, then to various heights to irrigate up to 33,000 acres (Mildura Rural City Council, 2015).

The Chaffey Trail is a self-guided tour that traces key heritage sites and buildings in the Mildura region including:

- Mildura Station Homestead
- Mildura Homestead Cemetery
- Rio Vista Historic House
- Lock 11 & Mildura Weir
- Mildura Wharf/Port of Mildura
- Psyche Pumps/King's Billabong
- Chateau Mildura
- Merbein (including the Pioneer Plantation along Blandowski Walkway and Chaffey Landing).

APPENDIX H

STAKEHOLDER IDENTIFICATION



H1 STAKEHOLDER IDENTIFICATION

Proposal documentation and data supplied from TransGrid and KJA was used to identify the stakeholders relevant to understanding and assessing socio-economic impacts for the proposal and this is provided in Table H.1.

Table H.1 Stakeholder identification and relevance to SEIA

STAKEHOLDER GROUP	RELEVANT SOCIO-ECONOMIC MATTERS
Property owners and/or landholders of which their land is proposed to host project infrastructure (24)	Direct material affect to land, property, livelihood, amenity, recipients of financial compensation.
Neighbouring landholders to the transmission line corridor	Amenity, visual landscape changes, perceptions on distribution of benefits.
Wentworth Shire Council	Hosting local government administration, local benefits, future planning, land development and approvals, community development, supply and demand of service provision.
Mildura Rural City Council	Neighbouring local government administration, local infrastructure and services, economic benefits, future planning.
Far West Joint Organisation	Representation of Wentworth Shire, Broken Hill City, Balranald Shire and the Central Darling Shire to the NSW Government, industry or infrastructure developments, future planning.
Dareton Local Aboriginal Land Council	Land access, land use, land management, local benefits and partnerships.
Barkandji Native Title Group Aboriginal Corporation	Based in Broken Hill, Native Title holders across the area of socio-economic influence.
Barkindji Maraura Elders Environment Team (BMEET)	Cultural heritage, land use and management, local benefits and partnerships.
Barkindji Maroura Elders Council (BMEC)	Cultural heritage, land use and management, local benefits and partnerships.
Kureinji Aboriginal Corporation	Cultural heritage, land use and management, local benefits and partnerships.
Residential communities in townships of Wentworth LGA	Local economic benefits, amenity and construction impacts, access and availability of infrastructure and services, population change.
Surrounding residential communities in Mildura (VIC) and Renmark (SA)	Local economic benefits, access and availability of infrastructure and services.
Barkandji communities	Traditional Owners, sensitivities to population changes, access and availability of infrastructure and services, cultural, spiritual and historical connection to land, cultural heritage protection.
Aboriginal communities	Vulnerabilities to socio-economic changes, to population change, access and availability of infrastructure and services, local community partnerships and economic benefits.
Community service providers in the above localities	Supply and demand of service provision, population change.
Business owners in the above localities	Changes to commercial activity, local economic benefits, population change.

STAKEHOLDER GROUP	RELEVANT SOCIO-ECONOMIC MATTERS
Community organisations or local interest groups active in the above localities	Local benefits and partnerships; groups including Lake Victoria Advisory Committee, Murrumbidgee Landcare, Rotary Club of Wentworth, Bottle Bend Land Managers Trust.
Industry groups active in the region	Land use and management, local benefits; groups including NSW Farmers Association (NSWFA), Regional Development Australia (RDA), Industry Capability Network (ICN), Western Local Land Services.
Proposal workforce	Personnel who will be residing, working, visiting and recreating in local area (construction and operations).

APPENDIX I

STAKEHOLDER ENGAGEMENT MATERIAL



I1 MEETING AGENDAS

I1.1 WENTWORTH SHIRE COUNCIL

Project	PS117658	Date	30 June 2020
Venue	Online - Zoom	Time	October 2020
Purpose	To gather Council insight and input on socio-economic matters		
Attendees	Stephanie Luyks, WSP Jessica Anagnostaras, Elton Consulting (a WSP company) Matthew Carlin, Director Health and Planning, Wentworth Shire Council	Apologies	Ken Ross, Executive Assistant General Manager, Wentworth Shire Council

Discussion Point

Introduce attendees and purpose of meeting

Overview of SEIA and EIS

- » SEARs issued, EIS planning pathway is progressing
- » SEIA is one of the technical studies that comprise the EIS to go to NSW DPIE later this year
- » SEIA scope: local community and local economy; how people in Wentworth Shire may perceive the proposal, views and expectations.

Preliminary social and economic matters

- » Council priorities and any expectations of the proposal
- » Interests, concerns and comments of the project for the LGA and residents
- » Any implications of the proposal on local infrastructure and service provision – current capacities of health, emergency services etc.
- » Interactions and existing coordination with Mildura RCC and Far West JO.

Council strategies and plans

Regarding the LSPS (2020), Community Strategic Plan 2027, Sustainable Wentworth Strategy (2016) and the Far West Regional Plan 2036:

- » How does Council see the proposal aligning with Council's strategic plans over the coming years?
- » How do you think the proposal can help to work toward these priorities?
- » What would be the priorities that the proposal could focus on in considering the local community and local economic outcomes?

Workforce accommodation strategy

- » Any prior experiences with an incoming temporary workforce and any lessons learned?
- » Discussion on any preliminary social and economic interests and comments related to the incoming workforce or other activities or attributes of the proposal.

11.2 MILDURA RURAL CITY COUNCIL

Project	PS117658	Date	6 July 2020
Venue	Online - Zoom	Time	2:30pm-3:30pm
Purpose	To gather insight and input on socio-economic matters from Mildura Rural City Council		
Attendees	Stephanie Luyks, WSP Jessica Anagnostaras, Elton Consulting (a WSP company) Andrew Millen, MRCC Brett Millington, MRCC, Mildura Regional Development Damien Sutton, MRCC	Apologies	Mitchell Hume, Community Engagement Lead for EnergyConnect, TransGrid

Discussion Point

Introduce attendees and purpose of meeting

Overview of SEIA and EIS (NSW planning pathway)

- » SEARs issued, EIS planning pathway is progressing
- » SEIA is one of the technical studies that comprise the EIS to go to NSW DPIE later this year
- » SEIA scope: local community and local economy; how people in Mildura may perceive the proposal, views and expectations
- » Relevance of Mildura RCC to the NSW project and planning pathway (area of influence/study area).

Preliminary social and economic matters

- » Council priorities and any expectations of the proposal
- » Interests, concerns and comments of the project for the LGA and residents
- » Any implications on local infrastructure and service provision – current capacity of health, emergency services, airport etc.
- » Interactions and existing coordination Wentworth Shire Council.

Council strategies and plans

- » How does Council see the proposal aligning with your strategic plans over the coming years? Particularly regarding ‘Mildura Regional Development’?
- » How do you think the proposal can help to address or work toward these strategies?
- » What would be the priorities that the proposal could focus on in considering the local community and local economic outcomes?
- » Any prior experiences with an incoming temporary workforce and lessons learned?

Future focussed planning and collaboration

- » Future investment in the regional energy sector – thoughts?
- » Any renewable projects in the works or other major projects of relevance?

APPENDIX J

STAKEHOLDER ENGAGEMENT OUTCOMES



J1 STAKEHOLDER ENGAGEMENT OUTCOMES

Feedback gathered from the community and stakeholder engagement activities has been used throughout the EIS and to inform the route corridor alignment options. Additionally, stakeholders provided feedback under the following impact themes:

- land use and acquisition (easement and property)
- corridor alignment and structure design
- property access
- construction amenity
- land use and property
- traffic and access
- biodiversity, soil and water
- local employment and business opportunities
- landscape character and visual amenity
- Aboriginal heritage
- electro-magnetic fields.

The following sections provide an overview of engagement outcomes according to stakeholder group.

J1.1 LOCAL GOVERNMENT

Throughout the scoping and EIS preparation phases, TransGrid has regularly engaged with Wentworth Shire Council and Mildura Rural City Council regarding the proposal. Both councils have indicated general support of the proposal, and that TransGrid's engagement is being positively received in the community.

J1.1.1 WENTWORTH SHIRE COUNCIL

Wentworth Shire Council has advised TransGrid of the following in relation to the proposal:

- engagement with stakeholders should focus on local benefits that would be delivered (temporary or otherwise)
- Wentworth Shire Council is broadly looking for local employment opportunities especially considering most the population is of working age (in Buronga – Gol Gol)
- route alignment considerations of the proposal should address the unique sensitivities of each property (for example, farming operations), and impacts be minimised as best as practical (Council has noted a level of angst in the community on other route alignment projects in the region)
- similar to community suggestions, Wentworth Shire Council has also recognised the potential opportunity for TransGrid to investigate mobile phone infrastructure on top of towers to improve coverage in the region. Wentworth Shire Council is also looking to the future, as it sees potential for renewable energy projects in the region
- key local issues related to EnergyConnect include water scarcity, employment and procurement opportunities, and impacts on roads and Wentworth Shire Council assets, particularly from construction loads
- the desire to clearly identify the EnergyConnect construction workforce, to differentiate from personnel of other projects in the region such as the WaterNSW Wentworth to Broken Hill pipeline.

Regarding the local setting, and Wentworth Shire Council's strategic interests, Wentworth Shire Council has described the following key characteristics:

- NSW Government and Wentworth Shire Council are both prioritising investment and economic growth across the Far West Region
- Wentworth Shire Council has current plans and programs to invest in new or upgraded infrastructure to reduce reliance on Mildura (particularly in health)
- the Wentworth Aerodrome is currently being upgraded to attract new users as well as to increase existing users' frequency, such as the Royal Flying Doctor's Service and NSW Ambulance Service as well as potentially to host overflow from Mildura's commercial flights
- despite being a part of the Far West Region Joint Organisation, Wentworth Shire Council holds the belief that the LGA's natural and biophysical setting is unique compared to the other councils in the Far West Joint Organisation; in particular, the Coomealla irrigation area, the major riverways and the strong connection to Mildura town make Wentworth LGA's localised characteristics particular and therefore have differing needs and priorities to that of Broken Hill or Dubbo.

J1.1.2 MILDURA RURAL CITY COUNCIL

Mildura Rural City Council has provided numerous inputs relevant to this SEIA.

Activating the energy sector

EnergyConnect is essential to the ongoing renewal and augmentation of the electricity connection; a major concern for Mildura's Regional Development Agency has been the capacity of the energy network. Development in the LGA is currently being delayed because existing power supply cannot be moved out of the system to allow for new renewable project developments to connect into the grid. The investment of EnergyConnect is incredibly welcomed and well placed because of this. There are numerous solar farm projects in the pipeline at present, with three already under construction. Solar energy investments are soaring in the Mildura LGA the past few years. It will take up to two years' post completion of the EnergyConnect infrastructure for the solar projects that are already waiting for grid capacity to be able to integrate with the system. Based on this, the sooner the proposal is progressed, the better for everyone.

Servicing the needs of the proposal

Based on the recent and past industrial development, Mildura has a fair capacity of service industries relevant to the proposal's likely contracting requirements. These include manufacturing and maintenance, engineering, design, fabrication, processing and assembly. Transport services and infrastructure are already strong, including freight services, and the direct rail link to Melbourne.

Housing availability is currently undersupplied due the large number of development projects in the LGA. Specifically, the rental market was noted as presently saturated with very high to full occupancy rates.

An economic hub

The city of Mildura is a population and services hub of the broader region, encompassing multiple other LGAs within Victoria as well as across the border in the Far West Region of NSW. Mildura Rural City Council's service portfolio usually considers a population of up to 100,000 people who regularly utilise infrastructure and services in Mildura city. Thousands of people cross the state borders by car every day to work in Mildura. Mildura Airport is a major infrastructure facility for the whole area, including residents and transient populations of the Wentworth LGA, with sixteen flights per day serviced by three air carriers (pre-COVID-19).

Sectors experiencing growth in the Mildura LGA, who will require improved electrical infrastructure in the near future, include:

- manufacturing
- primary production
- property and construction.

The Mildura LGA has hosted numerous temporary workforces in recent years, giving the Mildura residential population as well as service providers a familiarity with the dynamics of transient populations that other townships or regional cities may not have experienced. These are from a range of industries including solar, mining, aviation and agriculture. Consequently, Mildura Rural City Council does not perceive the EnergyConnect construction workforce to substantially alter the population composition or character, nor the commercial operations of the airport or other services located in Mildura.

Regarding workforce accommodation, it was noted that the three solar farm projects currently under construction house their workers in local hotels, motels or caravan parks, with twice daily bus services to transport workers to and from the project sites. Horticultural companies have in recent years formed binding agreements with local motels to provide housing for their seasonal workers, resulting in other users being pushed elsewhere. It was also described that future solar developments will likely struggle to find ample availability in existing temporary accommodation providers, which may cause private rental properties to supply the required housing.

Social infrastructure

Mildura Hospital was reported to be already at capacity and not sufficient to service the region's growing needs. Many remote health providers are also based in Mildura. Additionally, there are a number of tertiary education institutions in the town which also attract a consistent incoming population. These include:

- La Trobe University
- Sunraysia Institute of TAFE
- Monash University Medical School.

Lastly, indicators in Mildura LGA demonstrate a two-speed economy; there is an abundance of industry growth, yet large numbers of people in Mildura who receive social welfare, making the LGA one of the top four socially disadvantaged LGAs in the state of Victoria.

J1.2 TRADITIONAL OWNERS

Ten locally-based organisations representing the Traditional Owners of the lands in which the proposal is situated have been engaged during the planning and development of the proposal, specifically for the Cultural Heritage Assessment Report. These representatives are:

- Barkandji # 8 Registered Native Title Body Corporate
- Barkandji Maraura Elders Council (BMEC)
- Barkandji Maraura Elders Environment Team (BMEET)
- Dameions Contracting
- Dareton Local Aboriginal Land Council
- Gary Pappin
- Kureinji Aboriginal Corporation
- Mary Martin
- Pappin Family Aboriginal Corporation
- TaRu Elders
- Lake Victoria Advisory Committee.

The primary basis for engagement with each representative or group has been focused on sharing preliminary information on the proposal, facilitating Aboriginal cultural heritage surveys, as well as site supervision of the geotechnical drilling works program within the area of socio-economic influence. The following key outcomes on Aboriginal cultural heritage from these activities to date include:

- local Aboriginal representatives are willing to participate and speak for Country across aspects of project development (site walkthrough) and construction activities (such as excavation)
- there is a desire to promote Aboriginal cultural heritage finds through the EIS and to facilitate visits to cultural places on private land to explore shared values and enhance cultural heritage across the region
- sites of cultural or spiritual significance to Aboriginal groups in the area include: Lake Victoria, Fletcher's Lake north of Dareton, areas near Lake Victoria and the Darling River contain Women's Sites.

Local Aboriginal communities' participation with and benefit from the proposal's development more broadly is discussed in section J1.5 as well as in the impact assessment in Chapter 4.

J1.3 LANDHOLDERS

Landholders expressed a range of sentiments towards the proposal and potential impact on their properties. Overwhelmingly, landholders displayed a willingness to be engaged by TransGrid to develop the best possible outcome for the proposed transmission line design. During the engagement, TransGrid has been able to incorporate a vast majority of landholders' preferences and/or solutions for a proposed easement on their property to best minimise impacts. Landholders also worked with TransGrid in the development of comprehensive Property Management Plans. The key themes raised by landholders include:

- the alignment of a proposed transmission line, its potential impacts on structures, features and communications equipment on the landholding. This included the potential impact on visual amenity from the dwelling
- the potential impact on current and future land uses, including future developments (via subdivision, eco-tourism, farming expansion, resources activity)
- biosecurity, existing biodiversity and Aboriginal cultural heritage matters on each landholding
- clear protocols to manage access to landholdings for field studies and construction activity (based on concerns for unauthorised access); and times when access may not be permissible or appropriate (e.g. harvest)
- ensuring fair and equitable compensation for landholders.

J1.3.1 SPECIFIC ISSUES HIGHLIGHTED BY LANDHOLDERS

The following outlines the specific issues raised by landholders

- landholder desire to minimise impact on overall landholding to account for future works, including installation of new infrastructure or planned subdivision of property
- overall impact on value of property
- landholders seeking to avoid impact to specific areas due to old growth trees or biodiversity preservation areas
- landholders seeking confirmation that existing activity could continue underneath transmission line, such as grazing or quarrying
- potential visual impact of proposed transmission line from vantage points frequented by the community, such as river frontages and lakes, for activities including picnics and bird watching
- requesting transmission towers to be minimized on property, and when siting, not be immediately adjacent to farming operations and associated infrastructure e.g. access gates where livestock movements occur on property; towers located away from, or spanning across, vineyard plantings
- transmission line design to accommodate for local airstrips on landholdings
- ensuring dust suppression at properties during construction work did not impact ongoing operations of the property, for example dust impacting bluebush would make it inedible to livestock
- ensuring areas of riparian vegetation, mature trees and Mallee woodlands (identified on a number of landholdings) are retained

- concerns relating to health and electromagnetic fields (EMF) from transmission lines in proximity to residential dwellings, as well as potential impact on wireless communications equipment used in farming operations
- noting that dry land in the region may turn into thick clays after rains, and therefore prevent large truck access to landholdings for extended periods
- compensation amounts proposed to each landholding for easement acquisition: some landholders indicated satisfaction with proposal; while others are seeking additional negotiation to account for the unique circumstances of each property holding
- opportunity for TransGrid to open tower structures to improve mobile phone coverage in the region.

J1.4 LOCAL COMMUNITY

Feedback raised by members of the local community and community groups, who are not directly affected landholders, are similar in nature to the feedback and sentiment noted by directly affected landholders. These comments include:

- potential impacts of the proposal on pastoral leases, particularly when the land title has been modified for protection of flora and fauna
- consideration for new roadworks in the region, as opposed to simply upgrading tracks, particularly close to protected areas
- concern that EMFs will ruin wetlands and be unsafe for families and food production
- visual amenity considerations, that new towers would be an eyesore, would impact on view sheds from local dwellings and meeting places (such as Lake Victoria), and that this would have a flow on effect to devalue real estate in the region
- request to consider extension of the spur line further south into Victoria (beyond Red Cliffs) to support other solar farm ventures.

The local community also seeks continuation of being informed on the progress of the proposal development, and where possible, to work together with the proposal on specialist interest areas such as biodiversity and environmental matters.

J1.5 ABORIGINAL ENGAGEMENT

Engagement with Aboriginal community organisations or representative groups in the Wentworth and Mildura LGAs for the proposal began in early 2019. The community's first impressions of the proposal was that it is simply another infrastructure project that will promise high and leave behind little. Sentiment across local Aboriginal stakeholders since then has come a long way through cooperation, trust-building and forming positive working relationships through the cultural heritage survey processes described in section J1.2. The following findings have been consolidated from a series of engagements and consultation activities over the past year. The points identify a number of concerns and opportunities that may affect or involve local Aboriginal communities.

J1.5.1 *BENEFIT SHARING*

Local Aboriginal organisations and their partners, including Mildura Rural City Council and Wentworth Shire Council are encouraging of EnergyConnect to undertake skills development and training with the Aboriginal community, particularly youth, as part of the proposal's development. Getting people job-ready and organised is the priority; including helping to renew driving licences, white cards and other small upskilling training initiatives. Local communities have recent experience working on the Wentworth to Broken Hill Pipeline project (WaterNSW) as well as through several service providers in the Wentworth LGA focussed on Aboriginal training and employment. TransGrid's recent experiences during the geotechnical drilling program and cultural heritage surveys for this EIS revealed that advertising casual labour opportunities and registering interest in employment or contracting services in the Courier Mail and the Sunraysia Daily was effective.

There are opportunities for the proposal to support the Aboriginal community through TransGrid's Community Partnerships Program and employment opportunities associated with the construction phase of the project including field work supervision, catering, cleaning, trades and construction labour. TransGrid has identified through consultation, that communities and individuals are not well resourced and do not have access to the asset base that may be required for small business or contracting opportunities such as the means to invest in construction equipment. This will need to be a key consideration for the Aboriginal Participation Plan to be delivered by the contractors during construction.

It has been identified that Barkindji Maraura Elders Environment Team (BMEET) has an existing team of bushrangers who are well-experienced working on Country and could easily be considered in project planning and construction.

J1.5.2 COMMUNITY INVESTMENT

Small grants that are available as part of TransGrid's Community Partnerships Program have the ability to go a long way in the community, such as instilling confidence and pride in people, which can be widespread and significant. For example, the TransGrid grant recently awarded to BMEET will act as a catalyst for positive partnerships for the proposal and for uplifting change in the community. It was noted that the money will be used for welding, land clearing and fencing to protect a burial site.

A suggestion was made that opportunities exist to engage local Aboriginal artists in painting a mural or an art piece on the walls of the future Buronga substation. It is understood that this would be well received in the community and would visually represent a long-term commitment to the celebration of the local Aboriginal culture and heritage as well as in symbolising TransGrid's positive social contributions to the area.

J1.5.3 LOCALISED OBSERVATIONS

It was observed that the Dareton LALC may not capture all Aboriginal community members and the proposal should be cognisant of this localised dynamic; even though the LALC has the rights to talk on Country, it was recognised that other community organisations and groups need to be engaged.

Through physical observation and consultation, it has been understood that the Aboriginal community around Dareton is fragmented, disadvantaged and experiences high levels of demotivation. The Dareton Aboriginal community is reported to suffer from severe substance abuse issues. There is very little cohesion across the community with competing members or groups with their own agendas, priorities and needs. Intracommunity conflict was evident during time spent there and it was highlighted that this needs to be understood in planning community partnerships, local employment schemes and other engagements related to the proposal. Despite this, specific members of the community have been identified as natural leaders, as well as being interested in the proposal, engaged in the broader community and therefore have substantial potential to help in organising people to come together.

Stakeholder feedback concluded that projects such as EnergyConnect have the capacity to reunite communities and to bring together fragmented groups; seemingly minor activities such as an on-Country walkover or a cultural heritage survey, has the potential to heal rifts in community.

Lastly, the current COVID-19 pandemic places additional levels of concern on the health and wellbeing of local Aboriginal communities; in that incoming people for proposal-related activities, including any upcoming community engagement, would pose significant risks to local communities and must therefore be handled with absolute caution.

J1.6 INDUSTRY

TransGrid engages regularly with industry groups with a direct interest in EnergyConnect's area of influence, while also maintaining engagement with broader stakeholders involved in energy distribution and government policy. At a localised level, feedback provided to TransGrid by industry groups include:

- the desire to focus on economic benefits to the region
- the desire for TransGrid to implement a position that advocates employment and procurement opportunities for local businesses, suppliers and labour hire
- the desire for TransGrid to engage with communities early, and often
- to consider land use objectives for landholders, and protect farming land with biosecurity procedures
- to consider the nature of the farms where the alignment is proposed; and not simply opt for an alignment that passes through farms with low levels of development
- local industry stakeholders have indicated a positive approach to timely and early information, particularly in consultation with landholders.

APPENDIX K

ECONOMIC ASSESSMENT



EnergyConnect – NSW Western Section Economic Assessment

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Executive summary

TransGrid (electricity transmission operator in New South Wales (NSW)) and ElectraNet (electricity distributor in South Australia (SA)) are currently investigating the proposed construction and operation of a new electrical interconnector and network support options between New South Wales (NSW) and South Australia (SA), with an added connection to north-west Victoria (VIC).

The current preferred option involves constructing a new high voltage electricity interconnector approximately 900 kilometres long between the power grids of SA (starting at Robertstown) and NSW (finishing at Wagga Wagga). Collectively, the proposed interconnector is known as EnergyConnect.

The proposal, focusing on the western section of EnergyConnect in NSW, would involve the construction and operation of new 330kV transmission lines between the SA/NSW border and Buronga, an upgrade and expansion of the existing Buronga substation from an operating capacity of 220kV to 330kV and an upgrade of the existing transmission line between Buronga substation and the NSW/Victoria border.

TransGrid proposes to procure a single construction contractor via an Engineering, Procurement and Construct contract (EPC Deed) for the delivery of EnergyConnect components in NSW and Victoria.

The proposal would provide economic activity to the regional economy of Mildura Regional City local government area (LGA) and Wentworth LGA, particularly during the construction phase. This economic activity in the regional economy arises from:

- expenditure in the region on non-labour inputs to production
- direct employment of local labour
- expenditure of labour wages in the local economy.

The Economic Assessment predates the engagement of the construction contractor, and so is based on a number of assumptions about direct regional employment, income of employees and regional procurement. The impact of these assumptions on the regional economy were estimated using input-output analysis.

The economic impact of the estimated average annual non-wage expenditure (\$18 million) in the regional economy from the proposal is estimated at up to:

- \$32 million in annual direct and indirect regional output
- \$15 million in annual direct and indirect value-added
- \$8 million in annual direct and indirect income
- 89 direct and indirect jobs.

The economic impact of the wage spending of the estimated 80 local people directly employed by the proposal is estimated at up to:

- \$3 million in annual direct and indirect regional output
- \$2 million in annual direct and indirect value-added
- \$1 million in annual direct and indirect income
- 11 direct and indirect jobs.

1 Introduction

1.1 Overview of EnergyConnect

TransGrid (electricity transmission operator in New South Wales (NSW)) and ElectraNet (electricity transmission operator in South Australia (SA)) are seeking regulatory and environmental planning approval for the construction and operation of a new High Voltage (HV) interconnector between NSW and SA, with an added connection to north-west Victoria. Collectively, the proposed interconnector is known as EnergyConnect.

EnergyConnect comprises several components or 'sections' (shown on Figure 1-1). The Western Section (referred to as 'the proposal') is the subject of this technical paper.

EnergyConnect aims to secure increased electricity transmission between SA, NSW and Victoria, while facilitating the longer-term transition of the energy sector across the National Electricity Market (NEM) to low emission energy sources.

EnergyConnect has been identified as a priority transmission project in the NSW Transmission Infrastructure Strategy (Department of Planning and Environment, 2018), linking the SA and NSW energy markets and would assist in transporting energy from the South-West Renewable Energy Zone to major demand centres.

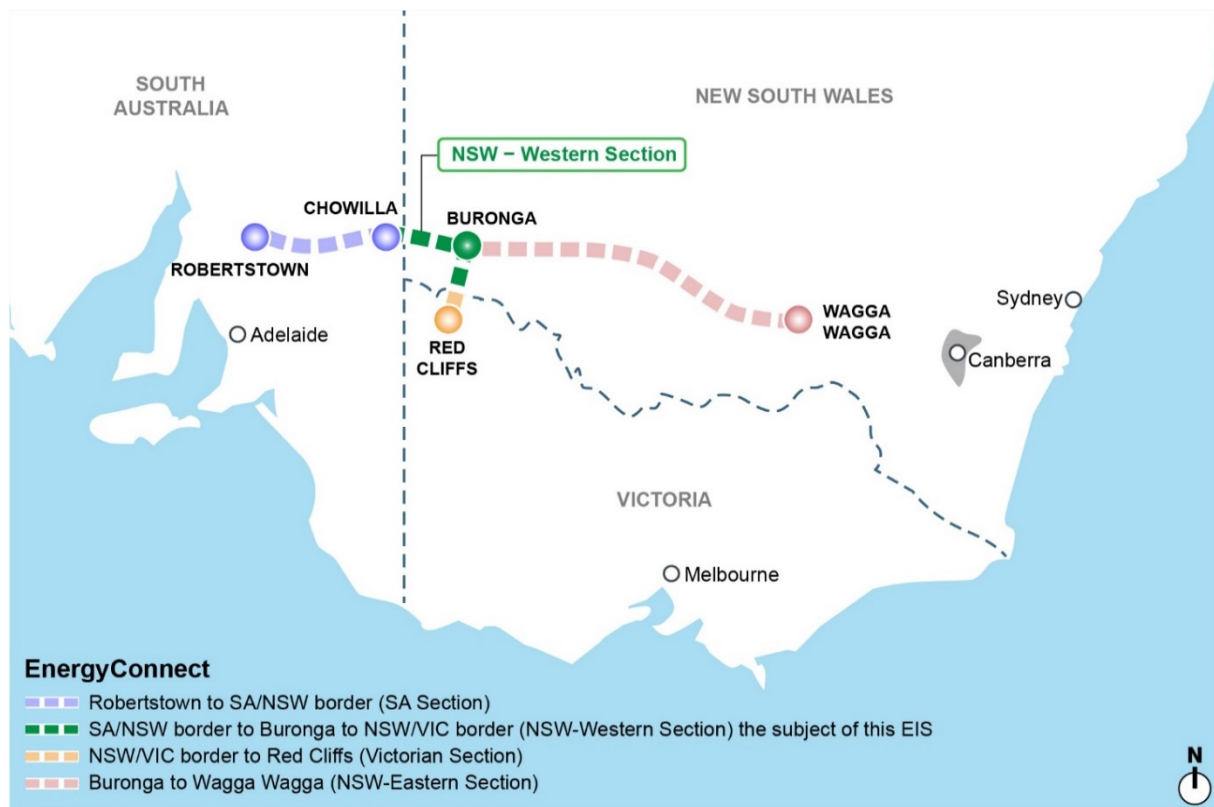


Figure 1-1: Overview of EnergyConnect

1.2 The proposal

TransGrid is seeking approval under Division 5.2, Part 5 of the *Environmental Planning and Assessment Act 1979* (the EP&A Act) to construct and operate the proposal. The proposal has been declared as Critical State Significant Infrastructure under Section 5.13 of the EP&A Act.

The proposal was also declared a controlled action on 26 June 2020 and requires a separate approval under the (Commonwealth) *Environment Protection and Biodiversity Conservation Act 1999*. The proposal is subject to the bilateral assessment process that has been established between the Australian and NSW governments.

The proposal is located in western NSW within the Wentworth Local Government Area (LGA), approximately 800 kilometres west of Sydney at its nearest extent. The proposal spans between the SA/NSW border near Chowilla and Buronga and the NSW/Victoria border at Monak, near Red Cliffs. It traverses around 160 kilometres in total.

1.2.1 Key proposal features

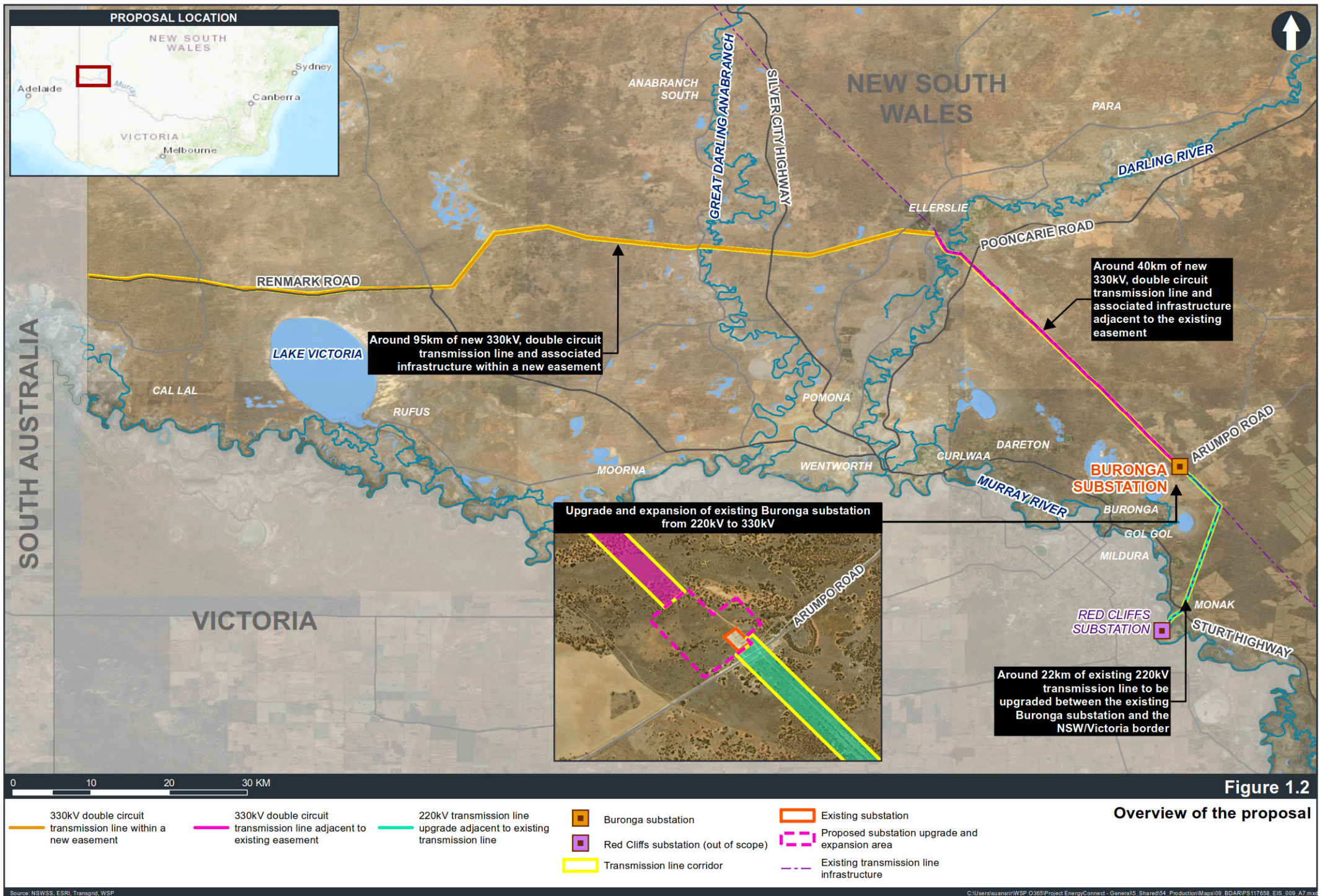
The key components of the proposal include:

- a new 330 kilovolt (kV) double circuit transmission line and associated infrastructure, extending around 135 kilometres between the SA/NSW border near Chowilla and the existing Buronga substation
- an upgrade of the existing 24 kilometre long 220kV single circuit transmission line between the Buronga substation and the NSW/Victoria border at Monak (near Red Cliffs, Victoria) to a 220kV double circuit transmission line, and the decommissioning of the 220kV single circuit transmission line (known as Line 0X1)
- a significant upgrade and expansion of the existing Buronga substation to a combined operating voltage 220kV/330kV
- new and/or upgrade of access tracks as required
- a minor realignment of the existing X2 220kV transmission line, in proximity to the Darling River
- ancillary works required to facilitate the construction of the proposal (e.g. laydown and staging areas, concrete batching plants, brake/winch sites, site offices and accommodation camps).

An overview of the proposal is provided in Figure 1-2. The final alignment and easement of the transmission line would be confirmed during detailed design and would be located within the transmission line corridor as shown in Figure 1-2.

Subject to approval, construction of the proposal would commence in mid-2021. The construction of the transmission lines would take approximately 18 months. The Buronga substation upgrade and expansion would be delivered in two components and would be initially operational by the end of 2022, with site decommissioning and rehabilitation to be completed by mid-2024. The final construction program would be confirmed during detailed design.

The proposal is further described in Chapter 5 and Chapter 6 of the Environmental Impact Statement (EIS).



1.2.2 Proposal need

The proposal is required to complete the missing transmission link between the SA and NSW transmission networks. The upgrade to the existing transmission line between Buronga and Red Cliffs would also enhance the capacity of the network to provide electricity between NSW and Victoria.

This connection would relieve system constraints and allow for NSW, SA and Victorian consumers to benefit from significant amounts of low-cost, large-scale solar generation in south-west NSW. The proposal is an essential component of EnergyConnect.

1.3 Purpose of this technical report

This Economic Assessment has been prepared to support Technical paper 5 (Socio-economic impact assessment), which forms part of the EIS for the proposal.

This assessment addresses the Secretary's Environmental Assessment Requirements (SEARs) issued for the proposal by the NSW Department of Planning, Industry and Environment (DPIE). The SEARs identify matters which must be addressed in the EIS.

The SEARs specific to this assessment and where these aspects are addressed are outlined in Table 1-1.

Table 1-1: Secretary's Environmental Assessment Requirements – Social and economic

Reference	Requirement	Section addressed
Key issues – Social and economic	Including an assessment of the likely social and economic impacts of the development (including the workers accommodation facility), for the region and State as a whole including consideration of any increase in demand for community infrastructure and services	Section 3 for economic matters. Refer to Technical paper 5 (Socio-economic impact assessment) for matters relating to impacts to community infrastructure and services.

To inform preparation of the SEARs, DPIE invited relevant government agencies to advise on matters to be addressed in the EIS. These matters were taken into account by the Secretary for DPIE when preparing the SEARs.

There are no economic assessment guidelines for high voltage transmission lines.

1.4 Structure of the report

This report is structured as follows:

- Section 2 provides an overview of the regional economy
- Section 3 assesses the economic impacts of the project on the regional economy
- Section 4 identifies measures to mitigate and manage economic impacts
- conclusions are provided in Section 5.

1.5 Limitations

The Economic Assessment predates the engagement of the construction contractor, and so is based on a number of assumptions about regional employment and regional procurement.

2 The regional economy

2.1 Introduction

The proposal is located in the Wentworth local government area (LGA) in NSW. Notwithstanding, the Wentworth LGA abuts the Mildura Regional City (RC) LGA containing the largest city in northwest Victoria. It is also the major service centre for towns in the south west of NSW. Mildura RC LGA provides employment for 41 per cent of employed workers who reside in Wentworth LGA (ABS, 2016 Census of Population and Housing). Consequently, for the purpose of this assessment the locality/region is defined as comprising both Wentworth LGA and Mildura RC LGA. This is the locality/region that has the potential to provide inputs to the proposal and derive economic benefits from the construction of the proposal.

2.2 Characterisation of the region

2.2.1 Residents of the region

Table 2-1 provides some characteristics of the usual residents of the two LGAs comprising the regional economy based on the Australian Bureau of Statistics (ABS) 2016 Census of Population and Housing. In 2016, the region had a population of 60,672 and a labour force of 27,257, with Mildura RC LGA comprising 89 per cent of the total. In 2016, there were 1,964 people unemployed with the majority of these located in Mildura RC LGA.

The main occupations of usual residents was Professionals followed by Managers (which includes farm managers). The percentage of usual residents employed as Professionals was greatest in Mildura RC LGA while the percentage of usual residents employed as Managers was greatest in Wentworth LGA.

Table 2-1: Characteristics of usual residents

	Mildura		Wentworth		Total Region	
	No.	%	No.	%	No.	%
Demographics						
Population	53,878		6,794		60,672	
Median Age	40		44			
In Labour Force	24,285	45.1%	2,972	43.7%	27,257	44.9%
Unemployed	1,784	7.3%	180	6.1%	1,964	7.2%
Median household weekly income	1,064		1,052		2,116	
Unoccupied private dwellings	2,368	10.7%	485	16.7%	2,853	
Median rent	210		160			
Occupations						
Professionals	3,564	15.8%	367	13.2%	3,931	15.8%
Managers	3,288	14.6%	626	22.5%	3,914	15.7%
Technicians and Trades Workers	3,038	13.5%	356	12.8%	3,394	13.7%
Labourers	3,026	13.4%	379	13.6%	3,405	13.7%
Community and Personal Service Workers	2,572	11.4%	270	9.7%	2,842	11.4%
Sales Workers	2,538	11.3%	232	8.3%	2,770	11.1%
Clerical and Administrative Workers	2,523	11.2%	289	10.4%	2,812	11.3%
Machinery Operators and Drivers	1,573	7.0%	213	7.6%	1,786	7.2%

Source: ABS, 2016 Census of Population and Housing, Community Profiles

The main industry sectors in which usual residents were employed in 2016 is provided in Table 2-2. Grape Growing was the most significant employment sector for both Mildura RC LGA and Wentworth LGA. The next most significant employment sectors in Mildura RC LGA - Supermarket and Grocery Stores and Hospitals and Education - reflects the LGA's role as a regional services centres. The next most significant employment sectors in Wentworth LGA - Citrus Fruit Growing and Sheep Farming - reflecting its rural nature.

Table 2-2: Top 5 Industry Sectors of Employment for Usual Residents

Mildura	No.	%	Wentworth	No.	%
Grape Growing	757	3.4	Grape Growing	142	5.3
Supermarket and Grocery Stores	741	3.3	Citrus Fruit Growing	101	3.8
Hospitals (except Psychiatric Hospitals)	701	3.1	Sheep Farming (Specialised)	86	3.2
Primary Education	573	2.6	Primary Education	80	3
Secondary Education	571	2.5	Supermarket and Grocery Stores	68	2.5

Source: Australian Bureau of Statistics, 2016 Census of Population and Housing, Community Profiles

An indication of the health of an economy can be gained from population changes. This theory of regional economic growth suggests that places that are able to attract population immigration create increased demand for goods and services and thus more jobs. This growth leads to increasing local multiplier effects, scale economies and an increase in the rate of innovation and capital availability (Sorensen, 1990). Conversely, population losses can contribute to a 'vicious cycle' of decline whereby reduced populations results in closure of services, which in turn makes it difficult to attract new populations (Sorensen, 1990).

Trends in regional economies as a result of globalisation and associated structural adjustment include:

- loss of significant industries such as abattoirs and timber mills from many rural areas
- increased mechanisation of agriculture and aggregation of properties, resulting in loss of employment opportunities in this industry
- growth of regional centres, at the expense of smaller towns
- preference of Australians for coastal living, particularly for retirement
- preference of many of today's fastest growing industries for locating in large cities (Collits, 2000).

The result is that there has been declining population in many rural LGAs that are located in non-coastal areas. There has also been a decline in the population of smaller towns even in regions where the population has been growing.

Against this backdrop, it is evident that the population of the region has been growing, at a rate of 7.2 per cent since 2006, with this mainly reflecting growth in the Mildura RC LGA. Population growth has been relatively stagnant in Wentworth LGA.

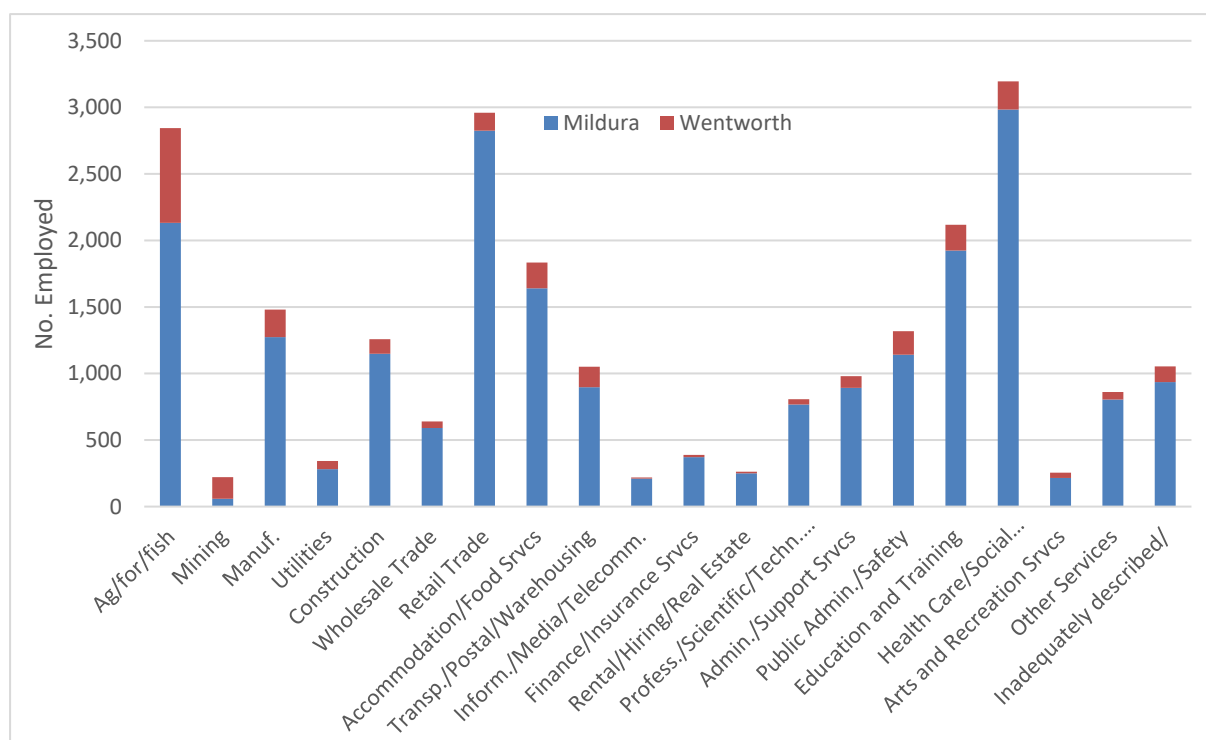
Table 2-3: Population Growth

	2006	2011	2016	Growth Rate 2006 - 2011	Growth Rate 2011 - 2016	Growth Rate 2006 - 2016
Mildura	49,815	50,979	53,878	2.3%	5.7%	8.2%
Wentworth	6,779	6,609	6,794	-2.5%	2.8%	0.2%
Total Region	56,594	57,588	60,672	1.8%	5.4%	7.2%
Victoria	4,932,422	5,354,042	5,926,624	8.5%	10.7%	20.2%

Source: Australian Bureau of Statistics, 2016 Census of Population and Housing, Community Profiles

2.2.2 Economic activity in the region

An indication of the nature of the regional economy can be gained by examining place of work employment by industry data - refer to Figure 2-1. This indicates the significance of the *Health Care and Social Assistance, Retail Trade* and *Agriculture, Forestry and Fishing* sectors.



Source: Australian Bureau of Statistics, 2016 Census of Population and Housing, Working Population Profiles

Figure 2-1: Place of Work Employment by Industry (1 digit ANZSIC Sectors)

Gillespie Economics has produced an Input-Output (IO) table for the regional economy using the Generation of Regional Input Output Tables (GRIT) procedure developed by the University of Queensland and recognised internationally - Refer to Attachment 1. The Gross Regional Product (GRP) of the regional economy was estimated at \$3,379 million for 2016.

The region is a net importer, with exports out of the region of \$1,572 million and imports into the region of \$2,218 million. Using the IO industry classifications, the largest exporting industries by value are:

- Other Agriculture (\$584 million)
- Fruit and Vegetable Product Processing (\$152 million)
- Wine, Spirits and Tobacco Manufacturing (\$128 million)
- Non-Ferrous Metal Ore Mining (\$103 million).

Exporting sectors are considered to be key drivers of regional economies and reflect a region's endowments and competitive advantages.

The following analysis uses the IO table data but reports the findings in terms of both the IO industry classifications and the ANZSIC One-digit industry classification.

Using the IO industry classifications, in terms of value-added, it is estimated that Other Agriculture (which includes grape growing and citrus fruit growing); Retail Trade; Health Care Services; Wholesale Trade and Residential Care and Social Assistance had the highest value added - in total, equal to approximately 29 per cent of the regional economy and 38 per cent of regional employment – Table 2-4.¹

Table 2-4: Gross Value Added for the 5 Largest Industries in the Regional Economy (IO Sectors)

Industry	Gross Value Added (\$m)	Proportion of Regional Economy (%)	Proportion of Regional Employment (%)
Other Agriculture	377	11%	8%
Retail Trade	211	6%	13%
Health Care Services	141	4%	8%
Wholesale Trade	139	4%	3%
Residential Care and Social Assistance	139	4%	6%

Source: Gillespie Economics Input-Output Table

Based on the ANZSIC One-digit industry classification, in terms of value-added, it is estimated that Agriculture, Forestry and Fishing (which includes grape growing and citrus fruit growing); Rental, Hiring and Real Estate Services; Health Care and Social Assistance; Retail Trade and Manufacturing (mainly fruit and vegetable processing and wine, spirits and tobacco manufacturing) had the highest value added - in total, equal to approximately 45 per cent of the regional economy and 47 per cent of regional employment - Table 2-5.

Table 2-5: Gross Value Added for the 5 Largest Industries in the Regional Economy (ANZSIC One-Digit Sectors)

Industry	Gross Value Added (\$m)	Proportion of Regional Economy (%)	Proportion of Regional Employment (%)
Agriculture/Forestry/Fishing	513	15%	12%
Rental, Hiring and Real Estate Services	324	10%	1%
Health Care and Social Assistance	280	8%	14%
Retail Trade	211	6%	13%
Manufacturing	184	5%	6%

Source: Gillespie Economics Input-Output Table

¹ Gross Value Added (GVA) measures the value of goods and services produced in a region.

3 Regional economic impacts

3.1 Introduction

The proposal would provide economic activity to the regional economy, primarily during construction. These regional economic impacts are assessed using IO analysis.

3.2 Input-Output analysis

IO analysis essentially involves two steps:

- construction of an appropriate IO table (regional transaction table) that can be used to identify the economic structure of the region and multipliers for each existing sector of the economy
- identification of the direct impact or stimulus of the proposal, in a form that is compatible with the IO equations, so that the IO multipliers and flow-on effects for the impacts or stimulus of the proposal can then be estimated (West, 1993).

The IO method is based on a number of assumptions that are outlined in Attachment 2. Most notably IO analysis assumes that the regional economy has access to sufficient labour and capital resources (from both inside and outside the region) so that an individual project does not result in any regional price changes e.g. wages in other industries or house rentals, which would lead to contractions ("crowding out") of economic activity in other sectors in the same region. Any "crowding" out is assumed to occur outside the region where the project is concentrated and the regional impact analysis is focused. A dynamic computable general equilibrium modelling approach may overcome the limitation of IO analysis but is unlikely to be warranted at local or regional scale or with small scale impacts.

The consequence of the assumptions of IO analysis, is that IO modelling results provide an upper bound economic activity impact estimate.

IO analysis identifies the economic activity of a project on the economy in terms of four main indicators:

- gross regional output – the gross value of business turnover
- value-added – the difference between the gross value of business turnover and the costs of the inputs of raw materials, components and services bought in to produce the gross regional output. These costs exclude wage costs
- income – the wages paid to employees including imputed wages for self employed and business owners
- employment – the number of people employed (including self-employed, full-time and part-time).

3.3 Regional impacts

3.3.1 Introduction

The focus of the regional economic impact assessment is the economic activity that a project will bring to the regional economy. The proposal would have significant capital costs (in the order of \$580 million). Expenditure from the proposal construction that can potentially be captured by the region within which it is located arises from:

- non-labour inputs
- expenditure of wages by labour directly employed on the proposal.

3.3.2 Non-labour inputs

Non-labour inputs to the proposal would include, but not be limited to:

- plant and equipment (e.g. capacitors, line hardware, phase shift transformers, steel supply, power transformers etc)
- firms providing a range of services (e.g. catering, civil works, concrete provision, cranes hire, security services etc).

Plant and equipment are mainly from specialty manufacturing sectors, that do not exist within the regional economy and hence would need to be imported to the region.

The proposal would be undertaken by a large, suitably qualified and experienced contracting company. The companies that undertake these types of developments frequently centralise their purchasing activities in capital cities, including overseas; tend to have an existing suite of suppliers that they have worked with before; and also often impose strict prequalification requirements which small to medium sized regional businesses can find difficult and expensive to meet. Consequently, the majority of service inputs would potentially be sourced from outside the region.

Notwithstanding, some small regional businesses may be able to supply some of the minor non-labour service-based inputs to production. A review of all the goods and services to be acquired for the proposal, and whether opportunities to supply the key goods and services are expected for Australia and the region, found that in the order of \$71 million of goods and services over the four years of construction i.e. \$18 million per year, may be able to be provided by the region. The main sectors directly potentially benefiting over the four years of construction are identified in Table 3-1. This is the basis of the modelling of non-labour inputs.

Table 3-1: Estimated Direct Expenditures in the Regional Community from the Proposal (\$M)

Sectors	Total Non-Labour Expenditure (\$M)	Yearly Non-Labour Expenditure (\$M)
Heavy and Civil Engineering Construction	15.8	3.9
Cement, Lime and Ready-Mixed Concrete Manufacturing	13.7	3.4
Rental and Hiring Services (except Real Estate)	12.0	3.0
Professional, Scientific and Technical Services	5.8	1.5
Road Transport	4.2	1.0
Construction Services	3.6	0.9
Transport Support services and storage	2.9	0.7
Agriculture, Forestry and Fishing Support Services	2.9	0.7
Wholesale Trade	2.6	0.7
Waste Collection, Treatment and Disposal Services	2.6	0.7
Accommodation	1.5	0.4
Food and Beverage Services	1.2	0.3
Electricity Transmission, Distribution, On Selling and Electricity Market Operation	0.8	0.2
Building Cleaning, Pest Control and Other Support Services	0.6	0.1
Retail Trade	0.3	0.1
Total	71	18

3.3.3 Direct Labour inputs

The impact of the provision of direct employment in the region arises from:

- the additional wages spent in the region
- the ability of the regional economy to produce and provide the goods and services demanded by households.

The level of additional wages that are spent in the region depends initially on:

- where labour is sourced (which in turn depends on the location of labour that has the skills required for the proposal)
- where labour resides during the proposal while off shift.

The labour for the proposal may potentially be sourced from:

- the local region either from:
 - the unemployment pool
 - new entrants to the labour force
 - workers from other industries.
- outside the region with labour:
 - moving into the region to reside as a permanent resident during the employment period
 - commuting from outside the region e.g. Fly-in-fly-out (FIFO) and Drive-in-drive-out (DIDO) and remaining in the region as a visitor when 'off swing' (i.e. not working shifts)
 - commuting from outside the region e.g. FIFO and DIDO and returning home when 'off swing'.

Whether local labour is sourced from the unemployment pool, new labour force entrants or from other industries within the region, it can increase the level of wages in the region. The existence of job chain² effects means that whether employment is filled directly from the unemployment pool or from workers in other industries, the additional wages that accrue to the region approximates the difference between the wages in the new job and unemployment benefits. To the extent that the job chain effects is only partial, the additional wages in the region will be less than this. However, to the extent that the job chain effects reaches all the way to new participants in the labour force, the additional wages in the region will be greater than this.

Where labour is sourced from outside the region and migrates into the region to live, the additional wages in the region is equivalent to the full wages of the job.

The impact of commuting workers depends on the extent to which they spend money in the regional economy. However, generally commuting workers would repatriate most of their wages back to their home region. Therefore, a commuting workforce will invariably have a large leakage of wage and salary income away from the region in which they are working. This is particularly the case where the commuting workforce reside in a remote accommodation camp. Where this commuting workforce choose from time to time to temporarily stay in the region when off shift, to enjoy recreation and other activities in the region, some of the wages would be captured by the region.

² The job chain effect refers to the situation where labour is sourced from other industries in the region making jobs available in those industries which are subsequently filled by people either from the unemployment pool or other industries with the latter making jobs available in that industry, etc.

Not all wages that accrue to labour in a region are spent in a region. The amount of wage spending that is captured by a region would depend on its economic structure and the ability to provide the goods and services demanded by people. Generally, the smaller a region the greater the leakage of expenditure to other areas. Even where wages are spent in the region, unless goods are also manufactured in the region only the margins on sales would accrue to the region.

Notwithstanding, any additional local spending creates opportunities for businesses to expand and/or establish within the region to service the increased local demand.

The proposal is estimated to provide 400 jobs in the region for the four-year construction period. These would all be located in temporary accommodation camps. Twenty percent of the jobs are estimated to be sourced from region, with the remainder sourced from the rest of Australia and overseas.

For the modelling of wage impacts the following assumptions are made:

- annual labour requirements for the proposal; construction, is estimated at 400 full time equivalent (FTE), for a period of four years
- 20 per cent (approximately 80 FTE) of the labour force is sourced from the regional economy
- 80 per cent (approximately 320 FTE) of the labour force is sourced from the rest of Australia and overseas and leave the region between shifts
- the locally sourced labour is a mix of occupations and on average receives the average wage for the Mildura region i.e. \$49,000 (ABS 2017, Regional data for Mildura RC LGA)
- with the consideration job chain effects, the additional wage accruing to the region is the difference between the average wage for the Mildura region and unemployment benefits i.e. \$33,350 per locally sourced person
- wages are spent in accordance with the average pattern of household expenditure given by the household sector in the regional input-output table.

3.3.4 Impact estimate

The regional economic impacts of the assumed levels of non-labour and labour expenditure are provided in Tables 3-2 and 3-3, respectively.

Table 3-2 Annual direct and indirect impact of non-labour expenditure in the region from the proposal

	Direct Effect	Production Induced	Consumption Induced	Total Flow-on	TOTAL IMPACT
OUTPUT (\$M)	17.64	8.67	6.13	14.80	32.43
<i>Type 11A Ratio</i>	<i>1.00</i>	<i>0.49</i>	<i>0.35</i>	<i>0.84</i>	<i>1.84</i>
VALUE-ADDED (\$M)	6.96	4.11	3.67	7.78	14.74
<i>Type 11A Ratio</i>	<i>1.00</i>	<i>0.59</i>	<i>0.53</i>	<i>1.12</i>	<i>2.12</i>
INCOME (\$M)	3.97	2.48	1.63	4.11	8.08
<i>Type 11A Ratio</i>	<i>1.00</i>	<i>0.62</i>	<i>0.41</i>	<i>1.03</i>	<i>2.03</i>
EMPLOYMENT (No.)	37	26	25	51	89
<i>Type 11A Ratio</i>	<i>1.00</i>	<i>0.69</i>	<i>0.68</i>	<i>1.37</i>	<i>2.37</i>

Table 3-3 Annual direct and indirect impact of local employee expenditure in the region from the proposal

	Direct Effect	Production Induced	Consumption Induced	Total Flow-on	TOTAL IMPACT
OUTPUT (\$M)	1.60	0.43	0.51	0.94	2.53
<i>Type 11A Ratio</i>	<i>1.00</i>	<i>0.27</i>	<i>0.32</i>	<i>0.59</i>	<i>1.59</i>
VALUE-ADDED (\$M)	0.99	0.22	0.31	0.53	1.52
<i>Type 11A Ratio</i>	<i>1.00</i>	<i>0.22</i>	<i>0.31</i>	<i>0.53</i>	<i>1.53</i>
INCOME (\$M)	0.42	0.12	0.14	0.26	0.67
<i>Type 11A Ratio</i>	<i>1.00</i>	<i>0.29</i>	<i>0.33</i>	<i>0.62</i>	<i>1.62</i>
EMPLOYMENT (No.)	7	1	2	3	11
<i>Type 11A Ratio</i>	<i>1.00</i>	<i>0.18</i>	<i>0.30</i>	<i>0.48</i>	<i>1.48</i>

The economic impact of the average annual non-wage expenditure (\$18 million) in the regional economy from the proposal is estimated at up to:

- \$32 million in annual direct and indirect regional output
- \$15 million in annual direct and indirect value-added
- \$8 million in annual direct and indirect income
- 89 direct and indirect jobs.

The economic impact of the wage spending of the estimated 80 local people directly employed by the proposal is estimated at up to:

- \$3 million in annual direct and indirect regional output
- \$2 million in annual direct and indirect value-added
- \$1 million in annual direct and indirect income
- 11 direct and indirect jobs.

Hence, total annual employment generated in the region by the proposal is estimated at 188 for four years i.e. 80 direct jobs, 11 jobs from wage expenditures and 89 jobs from non labour expenditure.

4 Mitigation and management measures

It is evident from Section 3 that proposal construction will provide positive economic activity to the regional economy.

The positive local employment and business opportunities will be maximised via:

- provision of employment opportunities for local workers where they have the necessary skills and experience
- collaborating with the local councils, economic development organisations, local chambers of commerce and State Government to:
 - inform local business of the goods and services required of the proposal, the service provision opportunities and compliance requirements of business to be able to secure contracts
 - encourage local business to meet the requirements of the proposal for supply contracts
 - develop relevant networks to assist qualified local and regional businesses tender for provision of goods and services to support the proposal.

5 Conclusion

The proposal would provide economic activity to the regional economy of Mildura RC LGA and Wentworth LGA, particularly during the construction phase. This economic activity in the regional economy arises from:

- expenditure on non-labour inputs to production
- direct employment of local labour
- expenditure of local labour wages in the local economy.

The economic impact of the estimated average annual non-wage expenditure (\$18 million) from the proposal in the regional economy is estimated at up to:

- \$32 million in annual direct and indirect regional output
- \$15 million in annual direct and indirect value-added
- \$8 million in annual direct and indirect income
- 89 direct and indirect jobs.

The economic impact of the wage spending of the estimated 80 local people directly employed by the proposal is estimated at up to:

- \$3 million in annual direct and indirect regional output
- \$2 million in annual direct and indirect value-added
- \$1 million in annual direct and indirect income
- 11 direct and indirect jobs.

6 References

Australian Bureau of Statistics (1995) *Information Paper Australian National Accounts Introduction to Input-Output Multipliers*. Cat. No. 5246.0.

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ATTACHMENT 1 – THE GRIT SYSTEM FOR GENERATING INPUT-OUTPUT TABLES

The Generation of Regional Input-Output Tables (GRIT) system was designed to:

- combine the benefits of survey based tables (accuracy and understanding of the economic structure) with those of non-survey tables (speed and low cost)
- enable the tables to be compiled from other recently compiled tables
- allow tables to be constructed for any region for which certain minimum amounts of data were available
- develop regional tables from national tables using available region-specific data
- produce tables consistent with the national tables in terms of sector classification and accounting conventions
- proceed in a number of clearly defined stages
- provide for the possibility of ready updates of the tables.

The resultant GRIT procedure has a number of well-defined steps. Of particular significance are those that involve the analyst incorporating region-specific data and information specific to the objectives of the study. The analyst has to be satisfied about the accuracy of the information used for the important sectors. The method allows the analyst to allocate available research resources to improving the data for those sectors of the economy that are most important for the study.

An important characteristic of GRIT-produced tables relates to their accuracy. In the past, survey-based tables involved gathering data for every cell in the table, thereby building up a table with considerable accuracy. A fundamental principle of the GRIT method is that not all cells in the table are equally important. Some are not important because they are of very small value and, therefore, have no possibility of having a significant effect on the estimates of multipliers and economic impacts. Others are not important because of the lack of linkages that relate to the particular sectors that are being studied. Therefore, the GRIT procedure involves determining those sectors and, in some cases, cells that are of particular significance for the analysis. These represent the main targets for the allocation of research resources in data gathering. For the remainder of the table, the aim is for it to be 'holistically' accurate (Jensen, 1980). This means a generally accurate representation of the economy is provided by the table, but does not guarantee the accuracy of any particular cell. A summary of the steps involved in the GRIT process is shown in Table A1-1 (Powell and Chalmers, 1995).

Table A1-1: The GRIT Method

Phase	Step	Action
PHASE I		ADJUSTMENTS TO NATIONAL TABLE
	1	Selection of national input-output table (1114-sector table with direct allocation of all imports, in basic values).
	2	Adjustment of national table for updating.
	3	Adjustment for international trade.
PHASE II		ADJUSTMENTS FOR REGIONAL IMPORTS (Steps 4-14 apply to each region for which input-output tables are required)
	4	Calculation of 'non-existent' sectors.
	5	Calculation of remaining imports.
PHASE III		DEFINITION OF REGIONAL SECTORS
	6	Insertion of disaggregated superior data.
	7	Aggregation of sectors.
	8	Insertion of aggregated superior data.

Phase	Step	Action
PHASE IV		DERIVATION OF PROTOTYPE TRANSACTIONS TABLES
	9	Derivation of transactions values.
	10	Adjustments to complete the prototype tables.
	11	Derivation of inverses and multipliers for prototype tables.
PHASE V		DERIVATION OF FINAL TRANSACTIONS TABLES
	12	Final superior data insertions and other adjustments.
	13	Derivation of final transactions tables.
	14	Derivation of inverses and multipliers for final tables.

Source: Bayne and West (1988).

References

Bayne, B. and West, G. (1988) *GRIT – Generation of Regional Input-Output Tables: Users Reference Manual*. Australian Regional Developments No. 15, Office of Local Government, Department of Immigration, Local Government and Ethnic Affairs, AGPS.

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ATTACHMENT 2 – UNDERLYING ASSUMPTIONS AND INTERPRETATIONS OF INPUT-OUTPUT ANALYSIS AND MULTIPLIERS

1. The basic assumptions in IO analysis include the following:
 - there is a fixed input structure in each industry, described by fixed technological coefficients (evidence from comparisons between IO tables for the same country over time have indicated that material input requirements tend to be stable and change but slowly; however, requirements for primary factors of production, that is labour and capital, are probably less constant)
 - all products of an industry are identical or are made in fixed proportions to each other
 - each industry exhibits constant returns to scale in production
 - unlimited labour and capital are available at fixed prices; that is, any change in the demand for productive factors will not induce any change in their cost (in reality, constraints such as limited skilled labour or investment funds lead to competition for resources among industries, which in turn raises the prices of these scarce factors of production and of industry output generally in the face of strong demand)
 - there are no other constraints, such as the balance of payments or the actions of government, on the response of each industry to a stimulus.
2. The multipliers therefore describe average effects, not marginal effects, and thus do not take account of economies of scale, unused capacity or technological change. Generally, average effects are expected to be higher than the marginal effects.
3. The IO tables underlying multiplier analysis only take account of one form of *interdependence*, namely the sales and purchase links between industries. Other interdependence such as collective competition for factors of production, changes in commodity prices which induce producers and consumers to alter the mix of their purchases and other constraints which operate on the economy as a whole are not generally taken into account.
4. The combination of the assumptions used and the excluded interdependence means that IO multipliers are higher than would realistically be the case. In other words, they tend to *overstate* the potential impact of final demand stimulus. The overstatement is potentially more serious when large changes in demand and production are considered.
5. The multipliers also do not account for some important pre-existing conditions. This is especially true of Type II multipliers, in which employment generated and income earned induce further increases in demand. The implicit assumption is that those taken into employment were previously unemployed and were previously consuming nothing. In reality, however, not all 'new' employment would be drawn from the ranks of the unemployed; and to the extent that it was, those previously unemployed would presumably have consumed out of income support measures and personal savings. Employment, output and income responses are therefore overstated by the multipliers for these additional reasons.
6. The most appropriate interpretation of multipliers is that they provide a relative measure (to be compared with other industries) of the interdependence between one industry and the rest of the economy which arises solely from purchases and sales of industry output based on estimates of transactions occurring over a (recent) historical period. Progressive departure from these conditions would progressively reduce the precision of multipliers as predictive device" (ABS 1995, p.24).

Multipliers indicate the total impact of changes in demand for the output of any one industry on all industries in an economy (ABS, 1995). Conventional output, employment, value-added and income multipliers show the output, employment, value-added and income responses to an initial output stimulus (Jensen and West, 1986).

Components of the conventional output multiplier are as follows:

- Initial effect - which is the initial output stimulus, usually a \$1 change in output from a particular industry (Powell and Chalmers, 1995; ABS, 1995).
- First round effects - the amount of output from all intermediate sectors of the economy required to produce the initial \$1 change in output from the particular industry (Powell and Chalmers, 1995; ABS, 1995).
- Industrial support effects - the subsequent or induced extra output from intermediate sectors arising from the first round effects (Powell and Chalmers, 1995; ABS, 1995).
- Production induced effects - the sum of the first round effects and industrial support effects (i.e. the total amount of output from all industries in the economy required to produce the initial \$1 change in output) (Powell and Chalmers, 1995; ABS, 1995).
- Consumption induced effects - the spending by households of the extra income they derive from the production of the extra \$1 of output and production induced effects. This spending in turn generates further production by industries (Powell and Chalmers, 1995; ABS, 1995).
- The simple multiplier is the initial effect plus the production induced effects.
- The total multiplier is the sum of the initial effect plus the production-induced effect and consumption-induced effect.

Conventional employment, value-added and income multipliers have similar components to the output multiplier, however, through conversion using the respective coefficients show the employment, value-added and income responses to an initial output stimulus (Jensen and West, 1986).

For employment, value-added and income, it is also possible to derive relationships between the initial or own sector effect and flow-on effects. For example, the flow-on income effects from an initial income effect or the flow-on employment effects from an initial employment effect, etc. These own sector relationships are referred to as ratio multipliers, although they are not technically multipliers because there is no direct line of causation between the elements of the multiplier. For instance, it is not the initial change in income that leads to income flow-on effects, both are the result of an output stimulus (Jensen and West, 1986).

A description of the different ratio multipliers is given below.

$$\text{Type 1A Ratio Multiplier} = \frac{\text{Initial} + \text{First Round Effects}}{\text{Initial Effects}}$$

$$\text{Type 1B Ratio Multiplier} = \frac{\text{Initial} + \text{Production Induced Effects}}{\text{Initial Effects}}$$

$$\text{Type 11A Ratio Multiplier} = \frac{\text{Initial} + \text{Production Induced} + \text{Consumption Induced Effects}}{\text{Initial Effects}}$$

$$\text{Type 11B Ratio Multiplier} = \frac{\text{Flow-on Effects}}{\text{Initial Effects}}$$

Source: Centre for Farm Planning and Land Management (1989).

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