

MacIntyre Wind Farm Precinct Social Impact Assessment

February 2021



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Executive Summary

ES1 MacIntyre Wind Farm Project

ACCIONA plans to construct and operate the MacIntyre and Karara wind farms across 36,000 ha of land within the Granite and Traprock country in South East Queensland (SEQ). The area is characterised by low hills and mountains, with large areas of rock outcrop and granite tors. The site is exposed to consistent winds across this part of the country and provides a suitable resource for the development of a wind farm.

The proposed MacIntyre Wind Farm Precinct is expected to have up to 180 turbines and a 1,026-megawatt (MW) export capacity, which will generate clean electricity to power about 700,000 homes and avoid the emission of nearly 3 million tons of carbon dioxide (CO₂) per year. Once completed, this Project will be ACCIONA's biggest renewable energy facility and one of the largest onshore wind farms in the world.

The proposed development includes an agreement with CleanCo, the Queensland (QLD) Government's newest renewable energy generator, for it to become the independent owner and operator of a 100 MW wind farm within the MacIntyre Precinct. In addition, CleanCo will acquire the annual production of 400 MW from ACCIONA's facilities for 10 years through a Power Purchase Agreement (PPA). By greening QLD's electricity mix, the MacIntyre Wind Farm Precinct will help the state meet its decarbonisation commitments and climate change mitigation strategies.

The construction phase of the proposed wind farms is anticipated to commence in 2021 and be operational in 2024 and have an expected operating life of 30+ years. The Project is expected to create up to 400 jobs, mostly during the construction phase, which will provide regional QLD communities with a significant economic boost.

ES2 Social Impact Assessment

EMM was engaged by ACCIONA to undertake a Social Impact Assessment (SIA) for the Project that addresses the social impacts and benefits of the proposed MacIntyre Wind Farm Precinct to the local region, and to the State. The SIA was undertaken in six phases as set out in Table ES1.

Table ES1 SIA Deliverables

Phase	Deliverable	Reference
1: Scoping and Inception	A written report that includes: <ul style="list-style-type: none">a brief identifying the local and extended areas of social influence; anda comprehensive socioeconomic baseline that provides a comprehensive community and demographic profile and identification of relevant local priorities, plans and policies. This document will then provide the benchmark against which potential social impacts can be identified and assessed and must also be used to inform subsequent field study activities.	Section 3 Section 5.1 Appendix A
2: Socioeconomic impact identification	A written summary of the identified impacts, including a 'needs and gap' assessment, with a particular focus on: <ul style="list-style-type: none">training and skilling opportunities;any potential housing and workforce accommodation issues;opportunities for indigenous participation;opportunities for local business participation; andany other matters of importance for the communities in the areas of social influence.	Section 5 Section 6 Section 7 Appendix A Appendix B Appendix D Appendix E

Table ES1 **SIA Deliverables**

Phase	Deliverable	Reference
3: Field studies	<p>Field studies to include:</p> <ul style="list-style-type: none"> • in-depth interviews with landowners and key potentially impacted stakeholders, Council representatives and service providers; • community workshops; • key stakeholder workshops (Community Engagement Committee, service providers, local area land Council and indigenous groups); • surveys of community values, aspirations and identity, needs, perceptions and aspirations); and • a site visit. 	Chapter 6 Appendix B
4: Socioeconomic impact risk assessment	<p>An assessment of each of the social impacts identified during phase 2 to predict the nature and scale of potential social impacts for the life of the Project, including decommissioning, using a social risk and benefit approach to assess the consequence and likelihood of potential negative social impacts without mitigation.</p> <p>This phase also includes a facilitated social risk workshop with representatives from ACCIONA.</p>	Section 8
5: Socioeconomic impact mitigation & benefit enhancement	<p>A set of written recommendations that identifies and considers the following:</p> <ul style="list-style-type: none"> • required impact mitigation measures; • potential benefits from Project construction; • potential benefits from Project implementation; • workforce strategies (including strategic hiring and training); and • community investment programs to meet needs and aspirations of communities in the areas of social influence. 	Section 9 Section 10
6: Final SIA Report	<p>A detailed SIA report that includes findings and recommendations relating to the following:</p> <ul style="list-style-type: none"> • a community socioeconomic baseline that includes but not limited to: <ul style="list-style-type: none"> – demographic profile; – local services profile; – workforce and skill profile; and – housing market availability and demand; • community perceptions, concerns and expectations from the Project; • identification of material potential social impacts and mitigation strategies; • identification of material potential benefits and measures for enhancement; • accommodation study that enables decisions to be made about the temporary accommodation of the construction workforce, informed by the stakeholders, returns economic benefits to the community and avoids economic impacts from overdevelopment of housing; • identification of participation opportunities for indigenous and other vulnerable groups participation; • identification of opportunities for businesses in the local and regional areas of social influence to participate and benefit from the Project; • Identification of matters of importance for the people that live in the community, and in particular what features they would like to see retained and their aspirations for the community; and • Identification and assessment of potential risks the community may face as a result of transport and logistical related factors associated with the movement of turbine components from the Port of Brisbane to the Premises, and the upgrade/construction of internal and external access roads at the Premises. 	SIA Report

Data from the preceding phases of the SIA provided the basis for the generation of recommended investment opportunities for the MacIntyre Wind Farm Precinct's Community Enhancement Program (CEP). Recommendations were developed using a shared value approach, aligning the needs of the community with the core values of ACCIONA and CleanCo, and shortlisted using the following criteria:

- the best outcomes for the affected local and regional communities;
- the needs of the affected local and regional communities; and
- the desire to maximise project related benefits and opportunities.

Recommended CEP investment opportunities were tested at a facilitated workshop with ACCIONA and CleanCo.

ES3 Key potential social impacts

The key potential social impacts identified during the study are set out in the following table:

Table ES2 Key potential social impacts

Potential social impact	Significance
Pre-construction	
Feelings of uncertainty and impacts on wellbeing	Extended planning stage of Project has potential to impact wellbeing amongst landowners and community members who have been uncertain of the future and in cases delayed decisions regarding the future of their properties. Potential for associated resentment or objection to the Project.
Construction	
Perceptions of insufficient community and stakeholder engagement and contribution	Community concerns Project will lack community engagement and would only provide limited opportunities to have a say – parallels drawn with the approvals process of the University of QLD Solar Farm in Warwick.
Limited availability of detailed Project information	Community concerns regarding insufficient available information and detail surrounding the Project. This could contribute to creating high expectations that would be difficult for the Project to fulfill. It could also lead to distrust in the Project, ACCIONA and CleanCo.
Limited/insufficient capacity amongst the local rental and purchasable housing	There is an existing high prevalence of homelessness and those at risk of homeless, and high rates of low socioeconomic disadvantage when compared to the State. The limited existing rental and purchasable housing on the market and the uncharacteristically high demand for such accommodation. Use of rental and/or purchasing housing for workforce accommodation may exacerbate this existing situation.
Increased traffic congestion caused by project workforce within SIA study area	Safety and wellbeing impacts related to the increased number of vehicles on the road caused by workforce vehicles travelling to and from accommodation locations during the construction phase (heavy/consistence traffic for an extended period).
Increased traffic congestion caused by material and machinery transportation along routes (from Brisbane Port to project site)	Safety and wellbeing impacts related to increased vehicles (including heavy machinery and trucks) on local roads, and the traffic impact and congestion that will likely be caused by slow moving heavy vehicles used for turbine and construction materials transportation.
Limited/insufficient capacity amongst local tourist accommodation	The limited supply of tourist short-term accommodation in the local area may cause increased competition and limited availability and capacity if not managed/coordinated by the Project.

Table ES2 Key potential social impacts

Potential social impact	Significance
Perceptions of increased water scarcity and/or competition for water resources	Perception of current water scarcity due to the draught may be exacerbated by the Project which in turn may result in community objection and conflict.
Traffic noise and vibration (impacting those close to the project site)	Potential impacts on wellbeing due to noise and vibration caused by traffic and construction, specifically at night for landholders close to access roads.
Traffic noise and vibration (impacting those along the turbine transport route away from site)	Potential impacts on wellbeing due to noise and vibration due to traffic, specifically for those living along turbine transportation routes (in towns such as Millmerran) during the night.
Limited local workforce supply	Limited skilled workforce in the study area seeking employment with necessary skills and training to fill available project positions which in turn will lead the Project to hire outside the local area and create feelings of lost opportunity.
Increased local job competition	Increased competition for jobs in surrounding areas where there is an already limited active workforce or where the supply of specific services that may also be used by the Project is also limited (eg fencing contractors).
Turbine safety and access concerns	Potential public safety concerns regarding climbing of turbines, scaffolding and construction equipment (such as cranes) by protesters or suicide attempts.
Construction impacts on property and business	Amenity (such as noise, traffic, and vibration) will likely affect landholders' ability to use certain areas for farming purposes.
Decreased productivity and livestock management impacts	Construction impacting on the ability to run optimal stock numbers on properties and rendering areas being unusable and potential traffic danger to unfenced stock.
Local road degradation due to increased traffic and heavy vehicles using roads	Impacts of construction activity and related workforce and equipment vehicles, significant increase in the use of small roads leading to the project site and through properties will likely affect the already limited quality of roads which may have significant safety issues for workforce and local residents.
Onsite waste management	Potential impacts from poor management of garbage and sewage waste onsite and its potential to impact the landscape and local environment.
Construction and operation	
Community expectations	High community expectations encouraged through the project commitments and consultation that has already been undertaken by ACCIONA. Also, the new and unprecedented nature of the project in the region means there are minimal preconceived negative connotations regarding windfarms.
Decrease in property values on properties neighbouring the Project site	Potential decrease in property value of properties neighbouring project site that may be affected due to the impact on the visual amenity and wild dog control.
Decrease of productivity in surrounding properties	Decrease of productivity in surrounding properties due to wild dogs been excluded more effectively from the Project site.
Community and social conflict	Possibility for the project to create and contribute to decrease in community cohesion due to conflicting opinions of the project and perceptions of unfair or equal benefit distribution.
Visual impacts	Visual impacts from wind turbines impacting wellbeing and cultural values attached to the natural landscape.
Perceptions and concerns regarding health-related risks of wind farms	The potential for those living close to the turbines to be distressed or concerned about perceived health risks of windfarms.

Table ES2 Key potential social impacts

Potential social impact	Significance
Reduced privacy and security	Reduced privacy for landholders on site due to construction activities and workforce and members of the public wanting to see the site entering and exiting site throughout the day and night. Impacts on security as construction activities attract people trespassing and looking for opportunities to steal from the Project and landholders.
Increased absent land due to turbines and relocation of landholders	Potential for local landholders who do not wish to live in close proximity to the turbines to relocate, or for landholders in the Project site that may receive sufficient compensation to relocate due to increased economic freedom.
Fire risks during construction and operational phases	Potential fire risk from turbines and related machinery. Potential fires would impact safety, livelihood, and business in the local area, as well as possibly spreading through the surrounding bush land.
Post-project uncertainty	Impacts on wellbeing caused by uncertainty and limited information regarding post-project turbine decommissioning.

ES4 ACCIONA and CleanCo's Commitments

ACCIONA has committed to developing a Project-wide Community Enhancement Program that focuses on providing long term legacy benefits throughout both the local and regional community to directly address social and economic development through a range of programs, partnerships, and sponsorships.

This commitment supports ACCIONA's core goal of promoting sustainable development from all three perspectives, environmental, economic, and social, by providing sustainable solutions to issues such as climate change and water scarcity.

CleanCo's purpose is to provide clean, secure, and reliable energy solutions for their customers. The company aims to support achieving the QLD Government's 50% renewable energy target by 2030. This core purpose is in line with ACCIONA's and the UN's goals of providing energy whilst encouraging sustainable development and responding to climate change.

Beyond, and regardless of the outcomes of this SIA, ACCIONA, independently and in partnership with CleanCo, has committed to contributing circa \$2.5 million to the local community during the construction phase of the Project, with additional funds allocated each year once the wind farm moves into operations. The investment is intended to have lasting effects in the medium to long term.

ES5 Community Enhancement Program Recommendations

Further recommendations for the MacIntyre Wind Farm Precinct Project CEP were generated by drawing from data gathered during the preparation of the SIA. Recommendations were developed using a shared value approach, aligning the needs of the community with the core values of ACCIONA and CleanCo, and shortlisted using the following criteria:

- the best outcomes for the affected local and regional communities;
- the needs of the affected local and regional communities; and
- the desire to maximise project related benefits and opportunities.

Recommended CEP investment opportunities were tested at a facilitated workshop with ACCIONA and CleanCo and the results summarised in Table ES2.

Table ES3 Community enhancement program recommendations

Key areas of social need	Recommendation	Strategies
Water scarcity and drought	The recommended strategies aim to collaborate with local stakeholders, build appropriate water infrastructure and develop educational programs and initiatives to encourage longer term drought proofing strategies.	<ol style="list-style-type: none"> 1. Improvements to community water infrastructure and access. 2. Water and drought research support. 3. Project water use and drought awareness program.
Bush fire preparedness and response	The recommended strategies aim to support the local community and firefighting capacity, by providing funding for Rural Fire Brigade (RFB) equipment and improving local water access and promote long term and self-sustaining benefits for the local community, emergency services and the RFBs.	<ol style="list-style-type: none"> 4. Funding equipment and improving local water access for local RFB. 5. Training and encouraging new volunteers. 6. Local bushfire research support and awareness programs.
Tourism	<p>The recommended strategies aim to utilise a co-design procurement process to identify the appropriate investment in tourist attractions and infrastructure. This includes leveraging partnerships to provide the necessary training and support to maximise the long-term viability of establishing the area as a tourist destination.</p> <p>Creating and enhancing tourism opportunities surrounding the Project site has the potential to bring significant economic activity and benefits to the local community, whilst also showcasing the Project and renewable energy. Tourism enhancement strategies should take a two-part approach to maximise these benefits and ensure long-term sustainable community led operation. These include, funding the development of permanent tourist related infrastructure and improving existing infrastructure (such as roads and carparking). A summary of the recommended investment opportunities is provided in Section 10.</p>	<ol style="list-style-type: none"> 7. Funding and facilitating permanent tourist infrastructure. 8. Upskilling and training local business and tourism providers. 9. Promoting local tourism.
Education and training	The recommended strategies aim to contribute to addressing the skills shortage in the local area by providing upskilling and training opportunities that will lead to increased employment opportunities. Scholarships and training programs will target low socioeconomic groups such as Aboriginal and/or Torres Strait Islander people, youth, and long term unemployed to ensure maximum benefits.	<ol style="list-style-type: none"> 10. Local training and upskilling. 11. USQ scholarship programs. 12. Primary and secondary school programs.
Community cohesion and events	The recommended strategies aim to contribute to promote community cohesion and community wellbeing through the funding of community led and identified projects and strategies. A summary of the recommendations is provided in Section 10.	<ol style="list-style-type: none"> 13. Improving local community facilities and halls. 14. Supporting a community run newspaper.

Table ES3 Community enhancement program recommendations

Key areas of social need	Recommendation	Strategies
Mental health and wellbeing	<p>The recommended strategies aim to support, and facilitate outreach services, development of partnerships for community led social enterprise, and mental health awareness and education initiatives.</p> <p>Providing funding and support to existing local mental health services to extend capability, as well as facilitating and assisting potential opportunities for new social enterprise and initiatives within the fields of mental health and community wellbeing as the potential to address existing mental health concerns within the local community. ACCIONA should aim to establish initiatives and services that can continue into the future, including providing organisations with the resources that they require to achieve outcomes that they are able to maintain. The three recommended strategies are summarised in Section 10.</p>	<p>15. Outreach services.</p> <p>16. Community-led social enterprise and initiatives.</p> <p>17. Mental health awareness and education.</p>
Aboriginal and Torres Strait Islander participation	<p>The recommended strategies aim to increase Aboriginal and/or Torres Strait Islander people's participation in employment and provide opportunities to capture and include their cultural knowledge and experience.</p> <p>Enhancing Aboriginal and/or Torres Strait Islander participation within each of the shared value recommendations has the potential to maximise the benefits that local Aboriginal and Torres Strait Islander Peoples experience due to the project. Targeting local Aboriginal and/or Torres Strait Islander employment, education, health, and wellbeing has the potential to create positive flow on effects for the broader community within the local region. Strategies include integrating local Aboriginal cultural heritage into tourism opportunities, supporting local Aboriginal and/or Torres Strait Islander education and employment through targeted training and scholarship programs, enhancing Aboriginal and/or Torres Strait Islander mental health and cultural wellbeing services, and funding research and education programs to support local Aboriginal culture and heritage. Each recommendation should be planned and strategized using a co-design process that prioritises local Aboriginal and/or Torres Strait Islander groups and organisations as the key stakeholders and partners. A summary of the recommendations is provided in Section 10.</p>	<p>18. Support Aboriginal cultural heritage research projects, and community culture and arts programs.</p> <p>19. Cultural heritage research project.</p> <p>20. Aboriginal and/or Torres Strait Islander employment, education, and support services.</p>

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1 Introduction

1.1 MacIntyre wind farm projects

ACCIONA plans to construct and operate two wind farms across 36,000 ha of land that is located approximately 200 kilometres (kms) south-west of Brisbane and is to be known as the MacIntyre Wind Farm Precinct. The proposed MacIntyre Wind Farm Precinct is expected to have up to 180 turbines and a 1,026 MW export capacity, which will generate clean electricity to power about 700,000 homes and avoid the emission of nearly 3 million tons of CO₂ per year. Once completed, this Project will be ACCIONA's biggest renewable energy facility and one of the largest onshore wind farms in the world.

The MacIntyre Wind Farm Precinct will accommodate two related wind farm projects: the MacIntyre Wind Farm and the Karara Wind Farm.

The proposed development includes an agreement with CleanCo, the Queensland (QLD) Government's newest renewable energy generator, for it to become the independent owner and operator of a 100 MW wind farm within the MacIntyre Precinct. In addition, CleanCo will acquire the annual production of 400 MW from ACCIONA's facilities for 10 years through a Power Purchase Agreement (PPA). By greening QLD's electricity mix, the MacIntyre Wind Farm Precinct will help the state meet its decarbonisation commitments and climate change mitigation strategies.

The construction phase of the proposed wind farms is anticipated to commence in 2021 and be operational in 2024 and have an expected operating life of 30+ years. The Project is expected to create up to 400 jobs, mostly during the construction phase, which will provide regional QLD communities with a significant economic boost.

ACCIONA is committed to maximising the benefits to the local and regional communities through employment and procurement opportunities for local residents and businesses, and through the establishment of a Community Enhancement Program and higher education Scholarship Program. The Project is anticipated to generate significant economic activity across the Goondiwindi, Southern Downs and Toowoomba Regional Council areas.

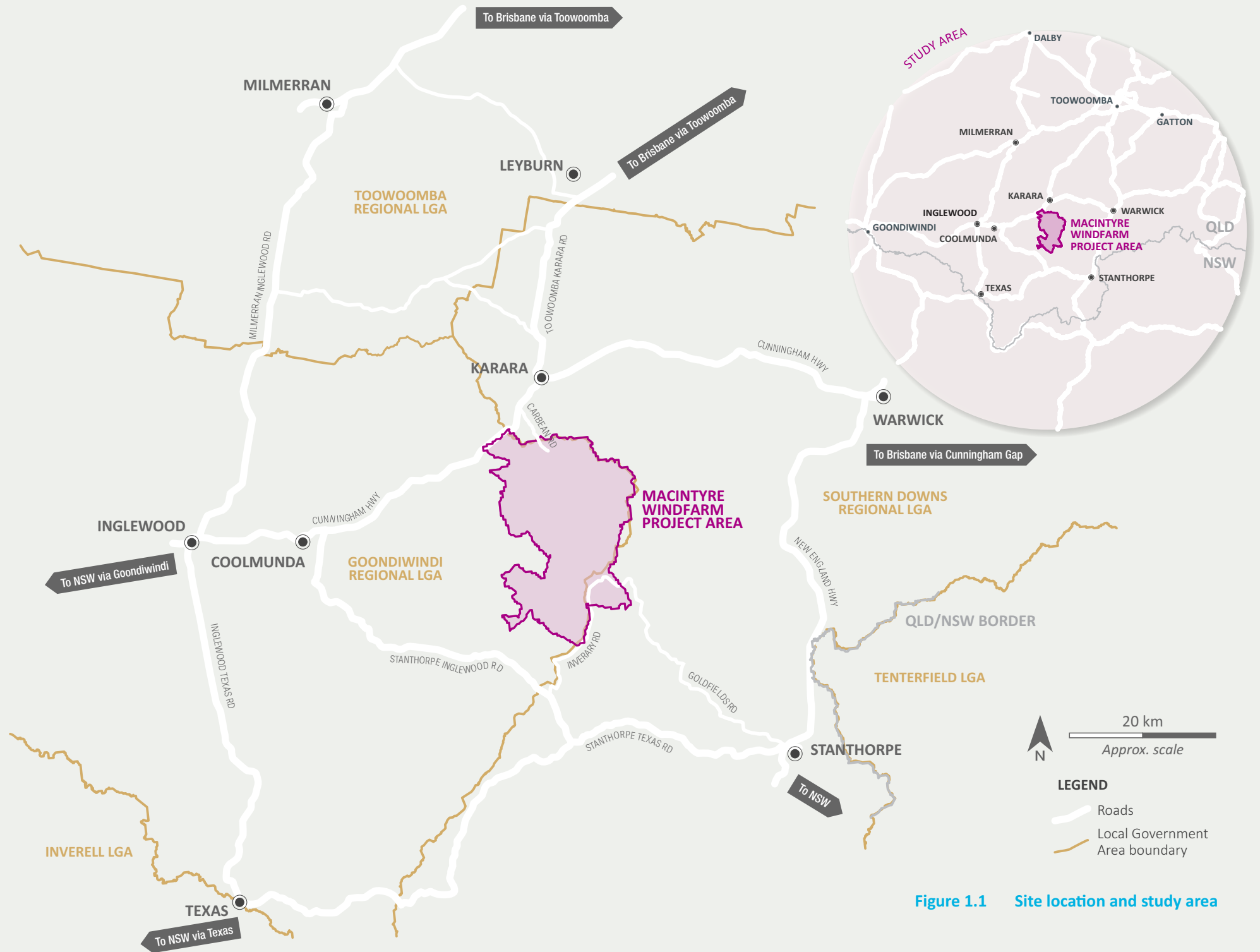
1.2 Location

The MacIntyre Wind Farm Precinct is in southern QLD approximately 200 kms south-west of Brisbane, 50 km south-west of Warwick and 10 kms south of Karara, as shown on Figure 1.1.

The precinct spans across the Southern Downs Regional Council (SDRC), Goondiwindi Regional Council (GRC) and Toowoomba Regional Council (TRC) areas.

The precinct is located within the Granite and Traprock area of South East Queensland (SEQ) on the edge of the Stanthorpe Plateau sub-region of the New England Tablelands Bioregion (adjacent to the Brigalow Belt South Bioregion). The area is characterised by low hills and mountains, with large areas of rock outcrop and granite tors. The site is exposed to consistent winds across this part of the country and provides a suitable resource for the development of a wind farm.

Much of the area has been cleared and is used for sheep farming for livestock and wool production. The Traprock area has long been renowned for its high-quality wool. Current farming practices will be able to continue during the construction and operation of the wind farms.



2 Project description

2.1 Purpose and scope of project description

The purpose of the project description is to support the identification of potential social and community impacts associated with the construction and operation of the MacIntyre Wind Farm Precinct project.

A brief description of the biophysical, community and infrastructure characteristics is followed by descriptions of:

- the elements that make up the combined wind farm projects;
- anticipated construction methods and sequence of construction activities;
- operational phase activities; and
- possible decommissioning activities.

The operation of the wind farms will require an overhead transmission line (OHTL) of sufficient capacity to support the combined output of the wind farms. The details and potential social and community impacts of the OHTL line have not been included in this description.

2.2 Wind farm projects

The MacIntyre Wind Farm Precinct is to be made up of two related wind farms:

- the MacIntyre Wind Farm; and
- the Karara Wind Farm.

2.2.1 MacIntyre Wind Farm

The MacIntyre Wind Farm Project will include the construction and operation of a wind farm involving the installation of 162 wind turbines, approximately 64 km of 330 Kilovolt (kV) OHTL (not included in this project description), six meteorological masts, two switching stations, two substations, access tracks, firebreaks, underground and overhead 33 kV medium voltage reticulation infrastructure and other ancillary temporary and permanent support works such as site amenities, construction compounds, laydown areas, operation and maintenance facilities, etc. supporting construction and operation phases.

This Project is anticipated to generate approximately 923 MW of renewable energy to contribute to the national electrical grid. The wind farm will include two substations, which will house a power transformer that converts the voltage from 33 kV to 330 kV. The power generated from both the MacIntyre and neighbouring Karara wind farms will be connected to the electrical grid via the proposed 64 km 330 kV OHTL. The OHTL will cut into the existing Powerlink Millmerran to Middle Ridge 330kV transmission lines at the proposed Tumnaville Switching Station located 22 km east of Millmerran.

The layout of proposed wind turbines, as well as above and below ground cabling and ancillary infrastructure for the MacIntyre Wind Farm is shown on Figure 2.1.

2.2.2 Karara Wind Farm

The Karara Wind Farm will include the construction and operation of a wind farm involving the installation of 18 wind turbines, two meteorology masts, one substation, access tracks, firebreaks, underground and overhead 33 kV medium voltage reticulation infrastructure and other ancillary temporary and permanent support works such as site amenities, laydown areas, stockpiles, etc. supporting construction and operation phases.

This Project is anticipated to generate approximately 102 MW of renewable energy to contribute to the national electrical grid. The wind farm will include one substation which will house a power transformer that converts the voltage from 33 kV to 330 kV. The power generated from the wind farm will be delivered into the existing electricity grid via the 330 kV OHTL that is proposed to originate within the MacIntyre Wind Farm to the south-east, passing through Karara Wind Farm and then connects both projects to the proposed Tummaville Switching Station.

The layout of proposed wind turbines, as well as above and below ground cabling and ancillary infrastructure for the Karara Wind Farm is shown on Figure 2.2.

2.2.3 Project area and footprint

Under the respective development applications, each development has a defined Project area and Project footprint.

The 'Project area' comprises:

- for the MacIntyre Wind Farm, an area of approximately 32,115 ha and includes 33 freehold lots;
- for the Karara Wind Farm, four freehold lots and a total area of approximately 4,633 ha; and
- one State Forest lot which is marginally encroached by the existing Carbean Road (Rd) carriageway and is therefore also relevant to site access to each project.

The 'Project footprint' is defined as the bounds within which ACCIONA will locate the wind turbines, access tracks, overhead and underground cables and other associated infrastructure for the construction and operation of each Project.

Following development approvals, the final turbine model will be selected for the projects, and further investigations undertaken to inform detailed design. The wind turbines and ancillary infrastructure (eg roads, above and below ground electrical reticulation, etc) may be micro-sited up to 100 metre (m) from the point of illustration on the layout plan (subject to conditions of approval), but always within the Project footprint.

In each case, turbine locations have been proposed on elevated rocky rises that have been subject to high levels of disturbance from land clearing for sheep grazing. Where it passes within, or close to, regulated vegetation and other areas of environmental value, the Project footprint has been refined to avoid and minimise impacts to these values, where practicable.

The Project area and Project footprint for each project is included on the below figures.

Source: GHD (October 2020) MacIntyre Wind Farm Project: Planning Assessment Report for ACCIONA Energy Australia Global Pty Ltd

Source: GHD (October 2020) MacIntyre Wind Farm Project: Planning Assessment Report for ACCIONA Energy Australia Global Pty Ltd

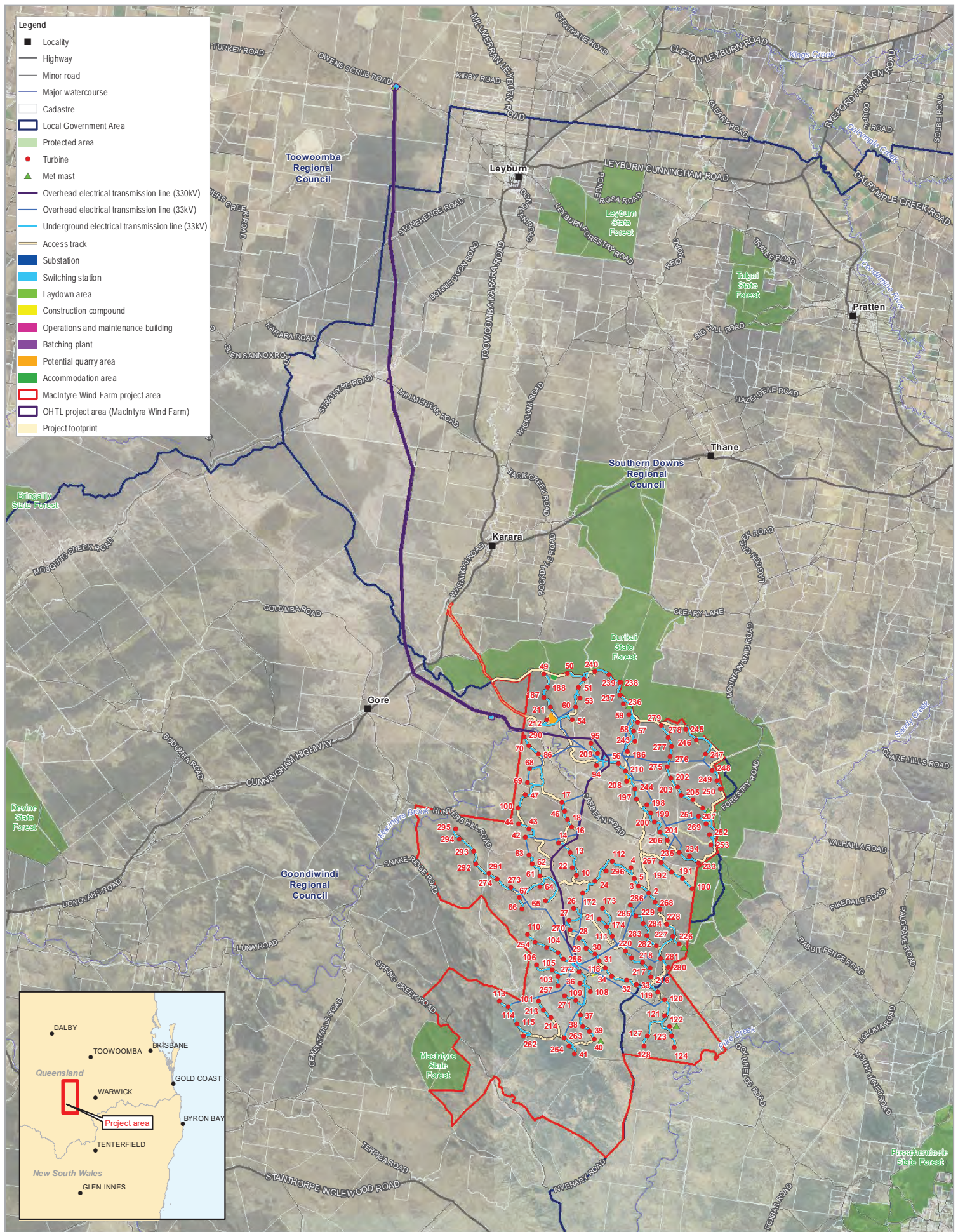
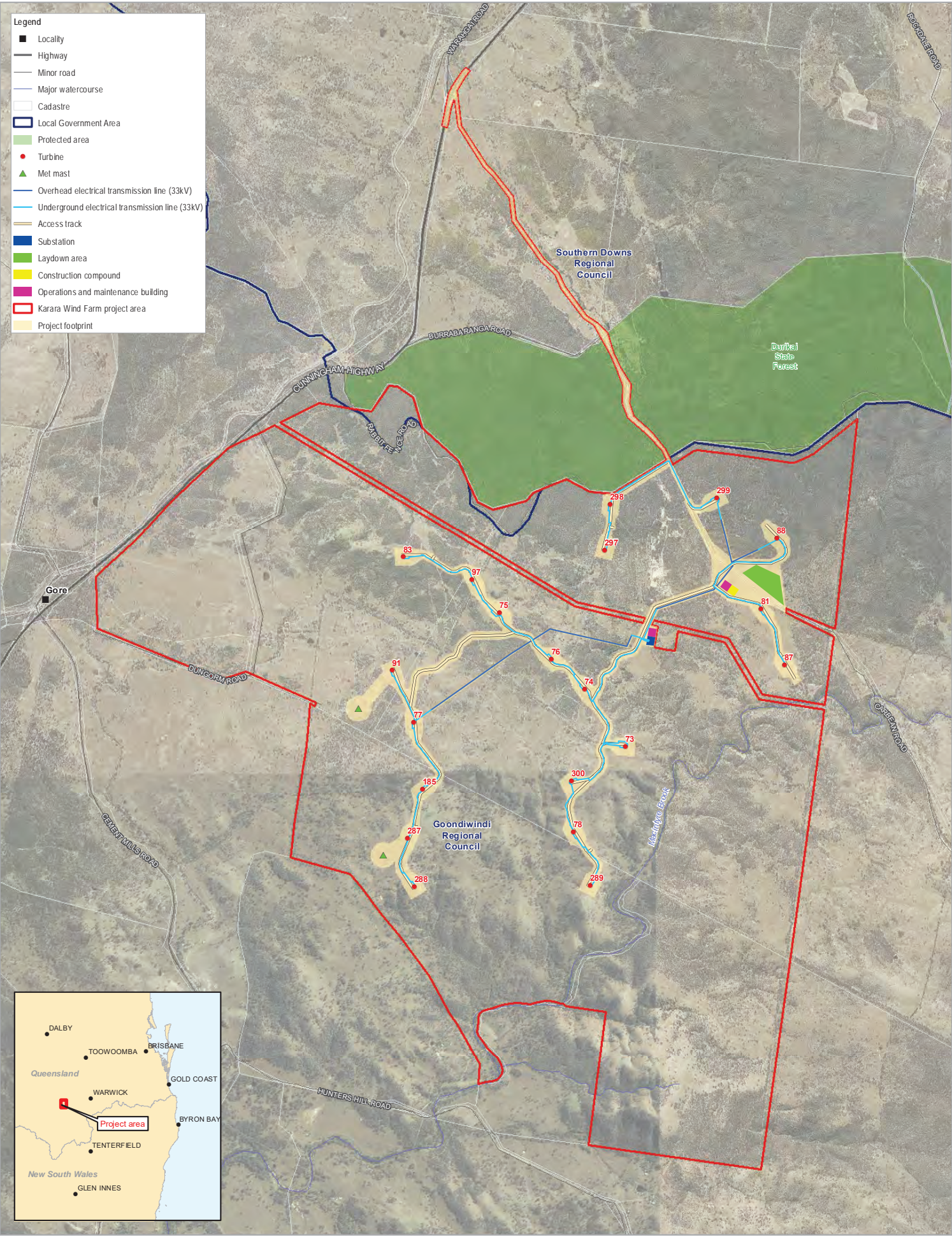


Figure 2.2 Karara Wind Farm

Source: GHD (August 2020) Karara Wind Farm Project: Planning Assessment Report for ACCIONA Energy Australia Global Pty Ltd



Based on or contains data provided by the State of Queensland 2020. In consideration of the State permitting use of this data you acknowledge and agree that the State gives no warranty in relation to the data (including accuracy, reliability, completeness, currency or suitability) and accepts no liability (including without limitation, liability in negligence) for any loss, damage or costs (including consequential damage) relating to any use of the data. Data must not be used for direct marketing or be used in breach of the privacy laws.

Paper Size ISO A3
0 1
Kilometres
Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56



Acciona Energy Australia Global Pty Ltd
Planning Assessment Report

Project area and
project footprint

Project No. 12525037
Revision No. 0
Date 08/07/2020

Figure 1-1

N:\AU\Brisbane\Project\111525037\G6\Map\MD\112525037_KBM_Locality.mxd
Print date: 08 Jul 2020 - 12:51

Data source: Acciona - Proposed Layout (25/08/2020); DE.S - Protected Area (2018); DNRM - Imagery (2015); Locality, Watercourses, Road, LGA, Cadastral (2019); G.A. Mainlands, Islands, Place names (2019); Created by: xie

2.3 Traffic and transport

2.3.1 Road network and transport infrastructure

A detailed assessment of the number of trips and vehicle type (class) required during the construction phase is provided in the Traffic Impact Assessment (TIA) (June 2020) that accompanied the development application. Most trips will be contained within the area of interest shown on figure 2.3.

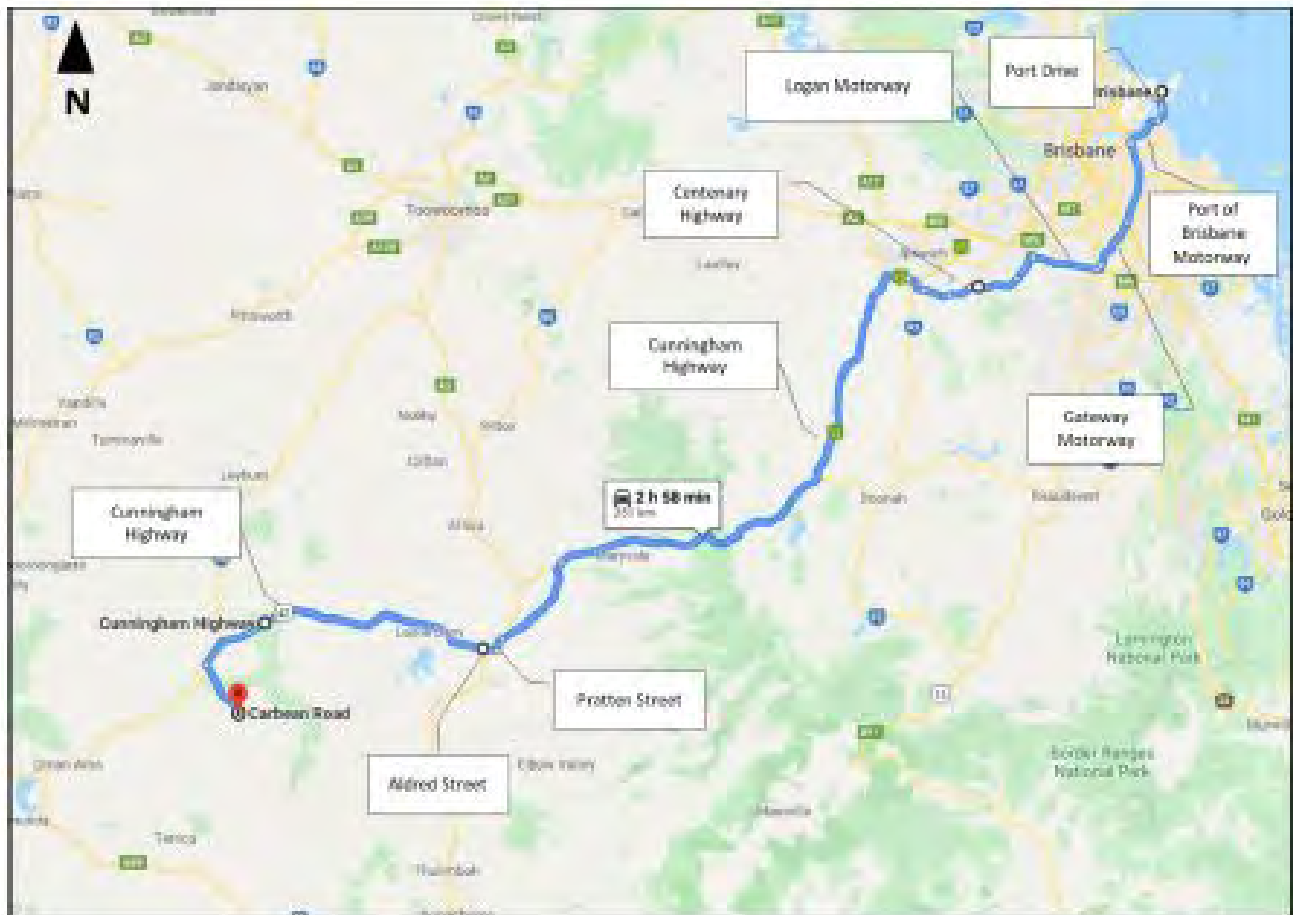
However, the road network for the project extends to the Port of Brisbane, to accommodate the importation and transport to site of the component parts that make up the wind turbines.

Two distinct transport routes have been identified that will allow the transport of imported component parts from Port of Brisbane to the project site. These are:

- Route 1: via Toowoomba Bypass/Pittsworth – for transport of oversized wind turbine blade components; (see Figure 2.2); and
- Route 2: via Cunningham Highway (Hwy) – for transport of oversized tower sections and other ancillary components (see Figure 2.3).

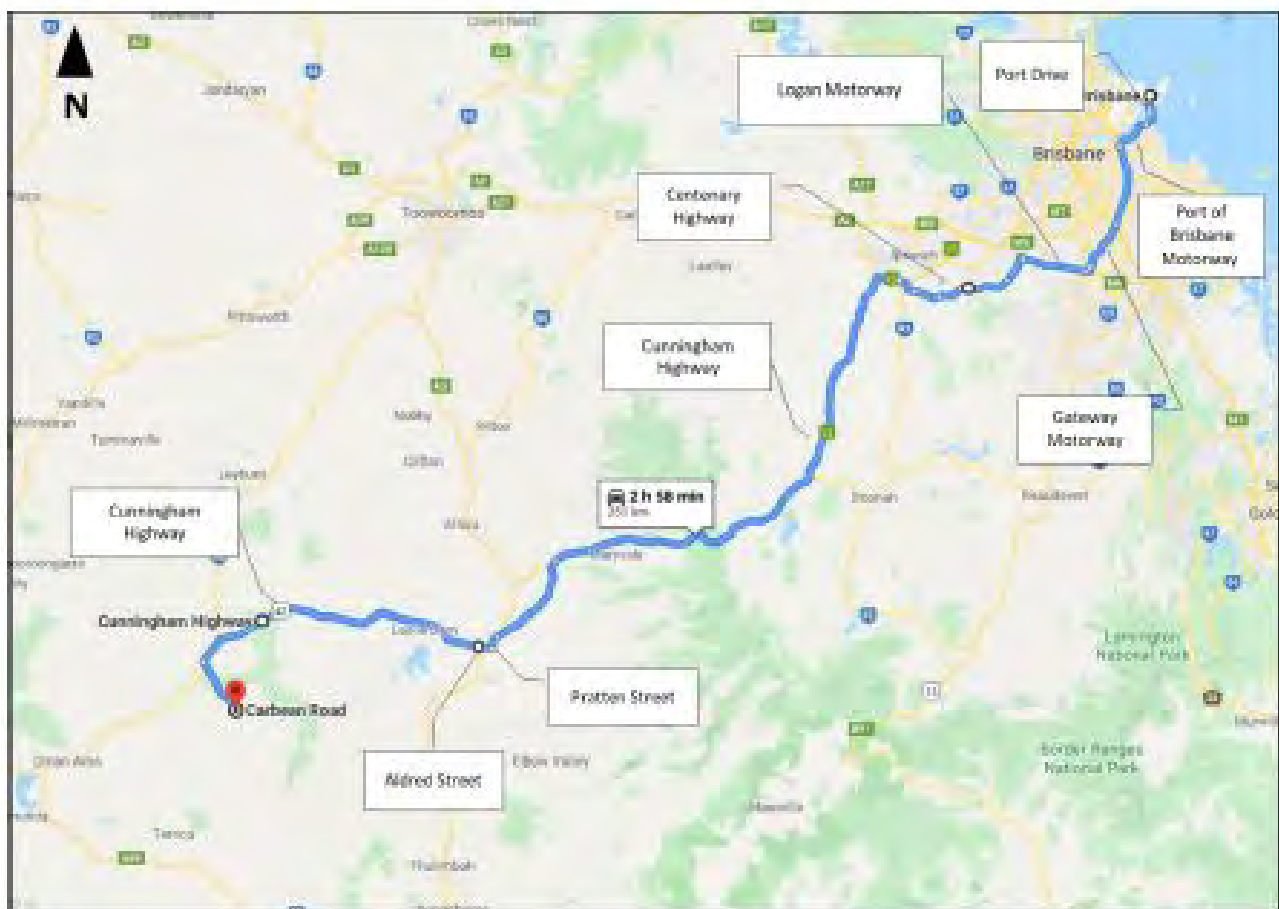
Given the size of the various component parts that make up the wind turbines, upgrades will be required to the intersection of the Cunningham Hwy and Carbean Rd and a section of Inverary Rd located within the Durikai State Forest to provide the southern gateway. Unsealed (gravel) roads and informal dirt tracks will also be required providing access to the locations of the wind turbines within rural properties.

Upon completion of the construction phase the operation of the proposed development is expected to generate minimal additional traffic.



(Source: Google maps modified by GHD)

Figure 2.3 Route 1 for transport of oversized wind turbine blade components



(Source: Google maps modified by GHD)

Figure 2.4 Route 2 for transport of tower sections and other ancillary components

2.3.2 Site access

The primary entrance to the project sites will be Carbean Rd, an existing council road via the Cunningham Hwy, a State-controlled road.

Road improvements are proposed to the road network near the southern extent of the project area providing a southern gateway to the project site and improving accessibility to Stanthorpe and the communities of the Granite Belt and Granite Highlands.

Most traffic generated by the project will occur during the construction phase. Upgrade works will be required to allow construction to proceed. These include:

- to the intersection of the Cunningham Hwy and Carbean Rd; and
- a section of Carbean Rd located within the Durikai State Forest.

Unsealed (gravel) roads and informal dirt tracks, providing access to local rural properties will also be required.

Internal tracks are required to allow access between the road network and the location of each wind turbine. The access tracks are required for construction purposes, to allow access for maintenance and at the time of decommissioning of the Project.

The internal access tracks have been designed to the following standards:

- tracks will typically be 5.5 m wide within a construction corridor and will be constructed from well-graded crushed rock;
- tracks may be wider in some areas to allow for regular passing places, turning areas and to account for site terrain; and
- track margins will be vegetated to reduce potential sediment-laden run-off.

Internal access tracks have been located to utilise the existing topography of the land, minimise the amount of land required where possible. Access tracks located in proximity to regulated vegetation have been individually refined to avoid and minimise impacts to regulated vegetation and to minimise the number of watercourse crossings.

New fencing alignments, together with grids and gates, will be installed on-site where required.

To facilitate access from the road network to the property sites, approximately 195 km of access tracks are to be constructed and approximately 8 km of existing roads are to be treated.

2.4 Wind turbines

2.4.1 Foundations and hardstands

Concrete foundations are built to safely secure the wind turbines. Foundations consist of concrete, reinforced steel and bolts. Each foundation is extremely strong and is up to 20 m in diameter and approximately three metres in depth. The foundations also contain approximately 950 metres cubed (m³) of concrete. They are wider rather than deeper to support vertical oscillation caused by the force of the wind.

A separate concrete pad will be built next to each turbine to support the crane, required for construction purposes, should the nacelle require removal and replacement and for demolition purposes.

It is not proposed that fencing be provided around the wind towers as has been the practice elsewhere.

2.4.2 Wind turbines and towers

Two types of wind turbines are under consideration for the MacIntyre Wind Farm Precinct:

- Nabrawind tower design: comprising a three-column lattice structure to the lower portion of the wind turbine, and an upper single tubular tower, as shown in the first photo below. Three individual footings are required, which can be backfilled using the original soil, creating a level surface.
- Nordex N163 turbine (traditional turbine tower) designs: comprising a single tubular tower of varying width, as shown in the second photo below.



Photograph 2.1 3D render of Nabrawind and Nordex wind turbines

It has been assumed that the traditional turbine tower (the Nordex wind turbine design) would be utilised for the Project. However, regardless of which design is used, turbine dimensions are similar. The following dimensions have been assumed for the Project:

- maximum tip height: 285 m;
- maximum hub height: 203.5 m; and
- rotor diameter: up to 163 m.

The turbines will be coloured light grey or white with a semi-matt finish to reduce their contrast with the background sky and to minimise reflections.

2.4.3 Support facilities

The individual wind turbines will be supported by:

- a network of overhead and underground electrical and communications cabling (see Figure 2.1 and Figure 2.2);
- several substations and a switchyard; and
- operations and maintenance facilities.

2.4.4 Temporary construction facilities

Temporary facilities will be required for the construction of the wind turbines. Temporary construction facilities will include:

- laydown areas;
- construction compounds;
- quarry/borrow pit areas (potential);
- water bores; and
- batching plants.

At the end of construction, the temporary construction facilities will be decommissioned, and the land rehabilitated to its former condition.

2.5 Construction

2.5.1 Preconstruction activities

Some activities will need to have commenced or be in place prior to the physical establishment of the wind turbines. These activities include:

- completion of outstanding, detailed site investigations, required prior to construction activities: such as geotechnical works, site surveys, background noise monitoring, cultural heritage surveys;
- obtaining all necessary secondary approvals/permits for construction;
- site mobilisation;
- establishing water supply, potentially through dams and bores, to enable construction;
- roadworks and off-site access works; and
- required modifications to roadway signage, lighting and signalling to allow the transport of wind turbine infrastructure from the Port of Brisbane to the site.

2.5.2 Construction activities

Establishment of the wind turbines and associated infrastructure will require the following activities:

- site establishment: provision of temporary site facilities, laydown areas for equipment and materials;
- vegetation clearing and earthworks for access roads, wind turbine foundations and set-back clearances;
- construction of access roads (road-base, paving and gravel cap) and drainage and erosion control measures for access roads and wind turbine hardstand areas;
- excavation and construction of wind turbine and crane foundations: ground anchors, bolt cages, reinforcement and concrete;
- construction of substations and operations centre;
- rollout of overhead and underground electrical and communications cabling and equipment from substations and operations centre to each wind turbine location;
- assembly of wind turbine transformers (nacelle and rotor and hub sets) in preparation for installation;
- installation of cranes for critical lifts for tower construction;
- installation of towers and wind turbines;
- reliability testing, commissioning and handover of wind farm and associated infrastructure; and
- progressive site-based rehabilitation and restoration.

With the exception of the project-based activities (primarily the establishment of site-wide construction facilities), the sequence of activities listed above will occur across multiple wind turbine locations, thereby increasing construction efficiencies and minimising the overall length of the construction programme.

2.5.3 Construction staging and timing

The MacIntyre Wind Farm Project is anticipated to be constructed over a period of approximately 27-36 months, depending on weather conditions, speed of construction and availability of materials. The Karara Wind Farm Project is anticipated to be constructed over a period of over two years with early works currently proposed to commence in May 2021 and construction continuing until about October 2024.

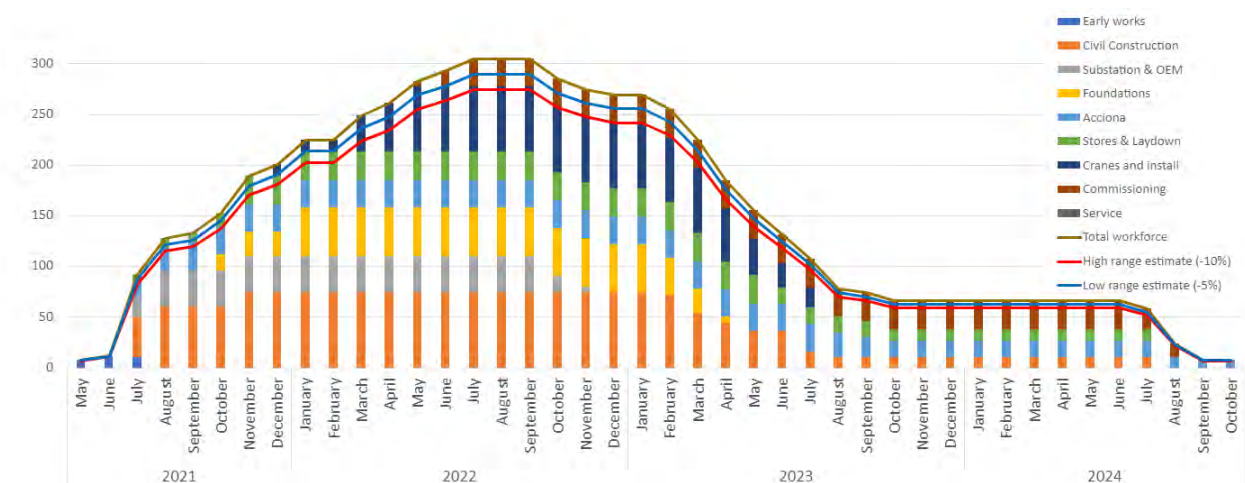


Figure 2.5 Estimated construction workforce and schedule

2.5.4 Construction workforce requirements

The wind farm will require a variety of skill sets to undertake pre-construction and construction tasks. Worker numbers directly engaged on the Project have been estimates for each of the following categories and for the numbers shown on Figure 2.5:

- early works;
- civil construction;
- substation and original equipment manufacturer (OEM);
- foundations;
- ACCIONA;
- stores and laydown;
- cranes and install;
- commissioning; and
- service.

The peak workforce for the project is estimated to be around 305 onsite workers (from July to September 2022) with a monthly average of around 151 and a minimum of 8 during the early and final stages of construction.

2.6 Operation

2.6.1 Operations

The main objective of maintaining a wind farm is to ensure that the turbines are operating effectively and that the wind farm is safely producing electricity. However, like any machine, wind turbines need to be regularly maintained to ensure peak performance. Centre-based staff will be supported by trained technicians and specialists who will undertake regular scheduled maintenance as well as respond to unscheduled incidents.

2.6.2 Monitoring

Each wind turbine will be connected to the operations centre where the performance of every turbine will be monitored using a Supervisory Control and Data Acquisition (SCADA) system. Each turbine will be monitored for a range of factors including:

- temperature and vibration;
- energy production; and
- environmental conditions.

If a turbine is close to functioning outside its design conditions, it will be automatically shut down.

2.6.3 Scheduled and unscheduled maintenance

All wind turbines will undergo regular maintenance that will include a physical assessment requiring access to the site. Maintenance activities will include the periodic replacement of:

- key components;
- the electrical systems, including electrical cables, batteries and sensors; and
- the mechanical systems, such as the brakes, gearbox and the systems that govern the pitch of the blades and the direction of the turbine.

Like any machine, wind turbine components can stop working properly, which can affect operational efficiency and compromise safety. Skilled technicians will be required and available to respond to situations where unscheduled maintenance is required. Typically, this would require a coordinated response between the operations centre, skilled field staff, and providers.

2.6.4 Workforce requirements

Up to 12 personnel will be employed once the windfarms are operational. It is expected that trained technicians and most specialists required during the Operational phase of the Project, will live in nearby communities.

2.7 Decommissioning

The wind turbines and associated infrastructure is expected to have an operating life of 30+ years with the operation facilitated by lease agreements between ACCIONA, CleanCo, and individual landowners.

At the end of the lease agreement period the Project could undergo either:

- refurbishment of existing infrastructure to prolong turbine life (subject to agreements and approvals);
- a program to replace turbine infrastructure on an as-needed basis (subject to agreements and approvals); or
- decommissioning and site rehabilitation.

The priority would be to keep the wind farm operating if they are financially viable and in good working order, in accordance with current industry practices. It is important to note that no wind farm has been decommissioned in Australia to date.

However, should the decision be made to withdraw from one or more leases, the site would need to be decommissioned in accordance with the conditions of approval which would be done in consultation with landholders. Decommissioning means that the wind turbines, site office and any other ancillary infrastructure is removed from the site, and roads and foundation pads are covered and revegetated, allowing land to be returned to its former use.

Sometimes parts of the wind farm that continue to serve a functional purpose may be left in place, such as the substation or access tracks. What remains will be negotiated and agreed with the landowners. In many cases, access tracks have become a desirable part of the landowner's property and the landowner wishes for them to remain.

3 Methodology

Social impact assessment (SIA) is an approach of assessing and predicting the likely consequences of a proposed action on potentially affected communities. SIA focuses on assessing potential benefits and costs in non-monetary terms. This involves understanding impacts from the perspectives of those most likely to be affected in a personal, community, social or cultural sense. Social assessment processes allow for the identification of all potential social impacts and their context and meaning.

The assessment of social impacts was conducted using the SIA Guideline's (QLD Government 2018) definition of social impacts which refers to potential changes to people's:

- **way of life:** how people live, work, play and interact;
- **community:** its composition, cohesion, character, how it operates and sense of place;
- **access to and use of infrastructure, services and facilities:** provided by all levels of government, not-for-profit organisations, or volunteers;
- **culture:** shared beliefs, customs, values and stories, and connection to land, places and buildings;
- **health and well-being:** physical and mental health;
- **surroundings:** access to and use of ecosystem, public safety and security, access to and use of natural and built environment, aesthetic value and/or amenity;
- **person and property rights:** economic livelihoods, personal disadvantage or civil liberties;
- **decision-making systems:** extent community can have a say in decisions that affect their lives, access to complaint, remedy and grievance mechanisms; and
- **fears and aspirations:** combination of above, or about future of their community (Vanclay, Esteves, Aucamp & Franks 2015).

This SIA has been developed in accordance with the:







- best practice guidance and standards set out by the International Association for Impact Assessment (IAIA) and International Finance Corporation (IFC);
- the QLD *Social impact assessment guideline September* (SIA Guideline) 2018; and
- social characteristics and community values of GRC, SDRC and TRC.

Table 3.1 and Table 3.2 provide detail on how this SIA methodology for the MacIntyre Wind Farm Precinct has been shaped by the requirements of the *Strong and Sustainable Resource Communities Act 2017 (SSRC Act)*, and the Guideline regarding SIA principles and the five core matters of SIA.

Table 3.1 **Adoption of SIA principles**

SIA Principle	How adopted
Lifecycle focused	<ul style="list-style-type: none"> Impacts and benefits connected to the Project's workforce have been assessed in relation to estimates for both the construction and operational phases of the Project. Findings from the assessment will be used to develop a Social Impact Management Plan (SIMP) and shared value proposal that will support the extended community, foster long-term relationships and improve sustainability practices for the life of the project.
Reasonable	<ul style="list-style-type: none"> Given the relatively rural location of the Project site, three regional council areas were chosen as study area based on their proximity to the site and their capacity to service the Project through the procurement of local goods and services. In these areas (SDRC, GRC, and TRC) workshops, interviews, and surveys were conducted along with an in-depth workforce and accommodation study aimed at enhancing the benefits of the Project within the local communities.
Participatory	<ul style="list-style-type: none"> Community workshops were employed to garner collective community sentiment. Directly affected landholders were invited to participate in one-on-one interviews to ensure a deeper understanding of their issues were understood. All other communities were included via an on-line survey that was distributed via various channels (such as Facebook, local libraries). Engagement with local communities and directly impacted stakeholders will help to identify the expectations and needs of the community. The findings will be applied to make useful enhancement and mitigation recommendations and inform the MacIntyre Wind Farm Community Enhancement Program as a shared value proposal.
Rigour	<ul style="list-style-type: none"> Thorough on-line searches were conducted to ensure that all data included the social baseline was current. Various channels were accessed as data sources (such as the Australian Bureau of Statistics (ABS), QLD Government Statisticians Office, Australian Institute of Health and Wellbeing (AIHW), and QLD Health) to provide a comprehensive profile of the potentially affected communities. Various academic and governments have been used to support claims throughout.
Effective management	<ul style="list-style-type: none"> The social impact management framework has been developed using strategies that are proven and processes incorporated to ensure that benefit enhancement and impact mitigation strategies can be adapted when and if required. The findings of the analysis will be used to help develop a tailored SIMP that will provide the basis for ongoing monitoring and consultation throughout the construction and operation of the MacIntyre Wind Farm Precinct.
Adaptive	<ul style="list-style-type: none"> The SIMP creates opportunity to respond to community concerns and social impacts as they may develop and adapt throughout the life of the Project, ensuring appropriate benefit enhancement and impact mitigation strategies are relevant and up to date.

Table 3.2 Addressing the SIA core matters

Core matter	How addressed	Report reference
 COMMUNITY ENGAGEMENT	Analysis of community and stakeholder engagement activities undertaken by ACCIONA to determine potential impacts and benefits of the Project.	
	Analysis of consultation findings to understand the expectations and needs of the community to inform shared value proposal through MacIntyre Wind Farm Community Enhancement Program.	Section 6
	Conducted community workshops and in-depth interviews within the communities most likely to be affected and with landowners.	Section 7.1 Appendix B
	On-line surveys open to the wider community surrounding the Project area providing opportunity for contribution to inform the SIA and furthermore the SIMP and shared value proposal.	Section 10
 WORKFORCE	Analysis of the capacity of the local area to supply the workforce requirements for the construction and operation phases of the Project based on unemployment and labour force participation rates, relevant skill sets within local communities, and potential training opportunities.	Section 2.5.4 Section 2.6.4 Section 5.8 Section 8.1
	Review of the potential presence of fly-in-fly-out (FIFO) and drive-in-drive-out (DIDO) workers, and their potential impacts on local communities, particularly on local businesses, infrastructure and facilities, social services, and accommodation providers.	Section 9 Section 10 Appendix A
 HOUSING	Review of availability of real estate in local communities, review of temporary accommodation options including Worker Accommodation Villages (WAV's), hotel/motel accommodation and other temporary accommodation options which may be required to facilitate a temporary influx of workers to the local area throughout the construction phase of the Project.	Section 0
		Section 7.2
		Section 8.2
		Section 9
		Appendix A Appendix D Appendix E
 BUSINESS	Review of Project requirements.	Section 1 Section 5.8 Section 7.6
	Review of industries in local communities to assess feasibility of local procurement and to source providers of materials, services, and skilled workers necessary to meet the requirements of the Project.	Section 8.3 Section 9 Section 10 Appendix A
 PROCUREMENT		
 HEALTH & COMMUNITY WELLBEING	Analysis of health and well-being of potentially impacted communities.	Section 5.4 Section 6
	Community engagement activities to identify issues and impacts, in addition to areas of desired improvement for MacIntyre Wind Farm Precinct Community Enhancement Program.	Section 8.4 Section 9
	Analysis of existing social services, facilities, and infrastructure to identify areas for investment that will enhance community benefits under the shared value proposal and improve the quality of life in those communities.	Section 10 Appendix A Appendix B

3.1 Social impact assessment scope

The scope of this SIA has been divided into 6 key phases, as shown in Figure 3.1 below. Each of these phases have been carefully considered and developed in reference to social research principles and methodology. The intended outcome of this SIA was to inform and provide guidance for the development and implementation of a social impact management strategy (SIMS) and plan that will ensure that ACCIONA maximises the value that the project delivers.



Figure 3.1 Proposed SIA methodology

3.1.1 Phase 1 – Scoping and inception

Phase 1 refers to the scoping and inception phase of the SIA. This is the initial starting point for any comprehensive SIA and ensures that the project has a comprehensive understanding of the Project, as well as the various characteristics of the local and regional area in which the windfarm is located.

The key steps of phase one were to:

- identify and define the key areas and communities that will inform the SIA study area;
- provide a current and accurate picture of the communities in the SIA study area and other key local and regional stakeholders;
- provide an understanding of the local and regional priorities of both of QLD Government and regional councils in the SIA study area; and
- review of other relevant activities, industries, and projects in the SIA study area.

The key outcome of phase one was the baseline study providing the benchmark against which potential social impacts were identified and assessed. This informed the field study activities.

3.1.2 Phase 2 – Socioeconomic impact identification

Phase 2 focused on the socioeconomic benefits and impacts of the proposed wind farm construction and operation on communities and individuals within the study area. This analysis informed the socioeconomic risk assessment (Phase 4). The identification of potential social impacts and benefits from the Project were completed through several different complementary approaches. These informed the triangulation of the findings and provided a degree of confidence on their accuracy. The approaches included a needs and gap assessment that was core to identifying potential impacts and opportunities for workforce, employment, training, accommodation, Indigenous participation, local business, and other matters of importance identified by the communities within the study area.

3.1.3 Phase 3 – Field studies

The field studies phase of the SIA is a crucial element of the SIA process, and is key in identifying the goals and concerns of a range of relevant stakeholders, understanding and engaging directly with the study area, and validating the socioeconomic data. The field study adopted the following methods (Table 3.3) to understand the community and key stakeholder needs, perceptions and aspirations.

Table 3.3 Stakeholder engagement methods

Method	Stakeholder Engagement
In-depth interviews	Landholders, neighbouring landholders, local government representatives from Toowoomba, Goondiwindi and Southern Downs Regional Councils, members of the Community Engagement Committee, representatives from the local chambers of commerce, key service providers (police, ambulance, fire, education, real estate), and special interest groups)
Community workshops	Community workshops were proposed at accessible locations within the study area for public consultation, however the interest was low. Those who did express interest were offered, and accepted, an in-depth interview.
Service capacity interviews	Local accommodation providers and social service providers including employment agencies and social/community support providers.
Online Survey	Survey regarding community values, aspirations, identity needs, perceptions and aspirations
Site Visit	Visit to the proposed site and area of social influence to contextualise and enhance the understanding of potential impacts from operations on the local community

Note: Number of participants by event type is provided in Section 6 in Table 6.1.

To ensure the robustness and comprehensiveness of the SIA , the following social research approaches were followed:

- **Validation** of the baseline data findings and assumptions gained through site visits, face to face meetings and workshops.
- **Familiarization** with the project site and surroundings areas. Site visits and meetings with landholders helped to provide greater understanding of the characteristics of the specific 21 properties.
- **Triangulation** of findings and information collected through Phase 1 scoping and Phase 2 socioeconomic impact identification.

3.1.4 Phase 4 – Socioeconomic impact risk assessment

This phase prioritised impacts and benefits to inform priorities and resource allocation when implementing impact mitigation and benefit enhancement measures. Each of the social impacts identified were assessed to predict the nature and scale of potential social impacts for the life of the project and post closure. A social risk and benefit approach was adopted to assess the consequence and likelihood of potential negative social impacts without mitigation. As such, the SIA considered the negative and positive social impacts and benefits of the project.

3.1.5 Phase 5 – Socioeconomic impact mitigation and benefit enhancement

Phase 5 of the SIA is the development of approaches for mitigating risks and enhancing benefits in response to the identified impacts and benefits to community. The Socioeconomic Benefit Enhancement & Creation allows for the identification of:

- required impact mitigation measures;
- potential benefits from project construction;
- potential benefits from project implementation;
- workforce strategies, including strategic hiring and training; and
- community investment programs to meet the needs and aspirations of communities in the areas of social influence.

3.1.6 Phase 6 – Social impact reporting

Phase 6 documents the findings and outcomes of all prior phases into a comprehensive SIA report. This report includes the following specific elements to inform the SIMP and shared value proposition:

- community socioeconomic baseline that includes but not limited to:
 - demographic profile;
 - local services profile;
 - workforce and skill profile; and
 - housing market availability and demand.
- community perceptions, concerns and expectations from the project;
- identification of material potential social impacts and their mitigation strategies;
- identification of material potential benefits and measures for enhancement;
- accommodation study;
- identification of opportunities for vulnerable groups, such as local Aboriginal and Torres Strait Islander participation;
- identification of opportunities for businesses in the local and regional areas of social influence to participate and benefit from the project.

3.2 Potentially affected communities

This section describes potentially affected communities in the local study area, and the regional area, which may be impacted, negatively or positively, by the Project.

Key considerations for identifying potentially affected communities are the risk of social impacts (negative and positive) as a consequence of the Project. Factors considered in defining the SIA scope included:

- proximity of properties and communities to the Project and its access routes;
- vulnerabilities that increase risk, and/or magnitude of potential impacts on communities or groups;
- the role, culture and identity of communities in the region;
- availability, and capacity of, housing and other social infrastructure to attract and support potential growth;
- availability of skilled workforce and experienced personnel, or ability of residents to gain the skills required for the renewable energy (wind farm) industry;
- cultural heritage and other interests held by Aboriginal and/or Torres Strait Islander groups;
- location of businesses who could supply the Project;
- communities and vulnerable groups potentially affected by other projects within the region; and
- likelihood of social impacts and opportunities for each town.

While there are a multitude of stakeholders involved in the SIA, we note the key stakeholders as the direct landholders (hosting the wind farm) and surrounding communities within the Goondiwindi, Southern Downs and Toowoomba Regional Council areas. This area has been defined as the study area for the purpose of this report, as it is the region that contains the majority of likely affected populations.

3.3 Study Area

This SIA addresses the social impacts and benefits of the proposed MacIntyre Wind Farm Precinct to the local region, and to the State to ensure ACCIONA maximises the value that the Project delivers.

The SIA study area refers to the geographical localities that will likely experience both the benefits and impacts from the project and its associated activities. The SIA study area was defined in accordance with the SSRC Act and guided by its statutory document the Social Impact Assessment Guideline (SIA Guideline) (OCG 2018) with specific reference to:

- definition of nearby regional community (i.e. 125 km radius from the Project site);
- nature and scale of Project;
- characteristics of potentially affected communities;
- available services;
- socio-economic profiles;
- natural flows between regional cities and towns to access employment and services;
- workforce availability (including employment rates and industries of employment and skills);
- infrastructure, urban and rural centres, and land use patterns;

- transportation time and distance to site; and
- other projects in the region and potential longer term cumulative social impacts.

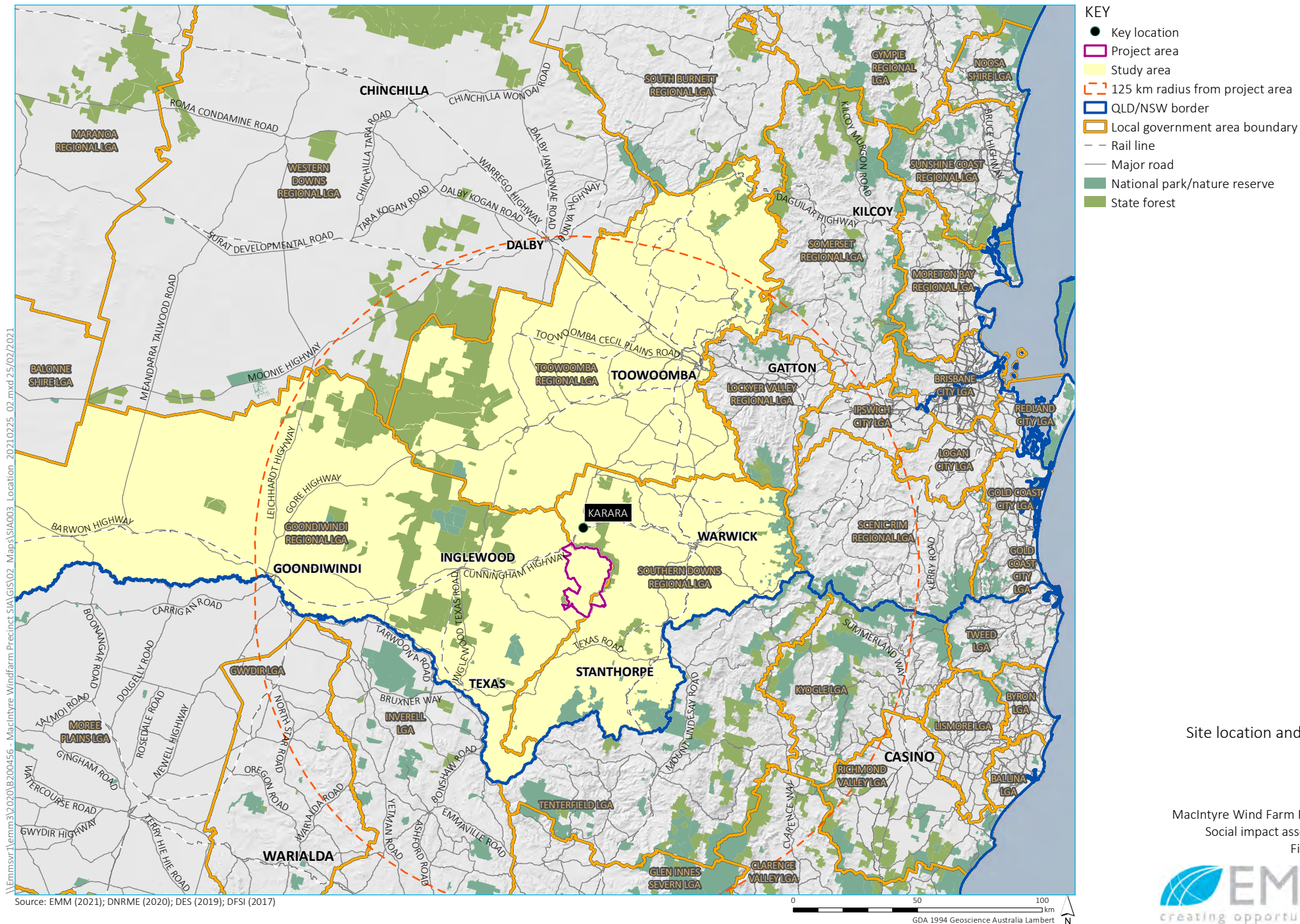
While a portion of land within the 125 km radius falls over the New South Wales (NSW) Border, these communities are not considered to be a part of the study area due the primarily QLD-focused nature of this project, as well as the road distance and travel times to the site. The Project's sourcing of employment, labour, equipment, and goods and services aims to prioritize and focus on providing benefits for local QLD communities. Hence, there will likely be minimal impacts or benefits experienced by NSW communities.

3.3.1 Area of Reference

For comparative purposes, the Darling Downs – Maranoa and Toowoomba regions are identified as the area of reference (Figure 3.2). This area will provide social trends and data for communities consistent with the study area of influence, thus providing a meaningful point of comparison.

i Considerations in identifying the Study area

Several considerations were made to identify the Study area for the MacIntyre Wind Farm Precinct SIA. These are discussed below in more detail for each of the three Local Government Areas (LGAs).



Site location and study area

MacIntyre Wind Farm Precinct
Social impact assessment
Figure 3.2

3.3.2 Goondiwindi Regional LGA

The project is situated directly within the Goondiwindi Regional LGA, with the primary point of access located in the township of Karara. It is evident that due to the location of the project within this area, there is likely to be significant social impacts. There are several towns within an hour drive of the Karara entrance to the project that will likely have the capacity to supply skilled employees to the project, as well as locations that may be ideal for relocating members of the workforce and their families due to their relatively high selection of services in towns such as Inglewood and Texas. Towns outside a one-hour drive may not be appropriate sources of local workforce, there is the potential for relocation, or DIDO employees.

Whilst the southern area of the Goondiwindi LGA falls within the Project's 125 km radius, the western portion of the area does not. This includes various small rural communities and large areas of remote farming land. Further west past the town of Goondiwindi there are very few established communities, with limited services, indicating this western portion likely only accounts for a small portion of the population which will not significantly skew the study area data. A major project that is projected to have a similar timeframe to the project and run through the Goondiwindi Regional LGA is the Border to Gowrie portion of the Inland Rail project, which proposes a 224 km long single-track dual-gauge railway from NSW/QLD Border to Gowrie (Department of State Development, Tourism, and Innovation [DSDTI] 2019). This will likely be a large-scale project that will have significant impacts on the Goondiwindi and Inglewood Townships due to their proximity of parts of the track, as well as smaller local communities within the LGA. As such, this development makes the LGA particularly vulnerable to experiencing cumulative impacts.

i Inglewood and Texas

Inglewood and Texas are the closest established communities to the project site in the Goondiwindi LGA, within a 45-minute to 1-hour drive from the Karara site entrance. Their primary industries of employment include a mix of agriculture, forestry and fishing and construction. There is some capacity to provide skilled project workforces and accommodate relocating families in these towns. However, unemployment rates are below the QLD averages in both Inglewood and Texas, indicating a possible shortage of available workforce personal (ABS 2016).

ii Goondiwindi

There is a high likelihood that the township of Goondiwindi will face impacts from the project, as it is the most populated community in the area and as such has the highest concentration of goods and services, as well as social infrastructure including a 32-bed hospital. Whilst it is unlikely that residents of Goondiwindi will commute to the Project Site, as it is a 1 hour and 41-minute drive, construction is the second highest industry of employment in the town, indicating a supply of skilled workers who may wish to relocate closer to the project or work as DIDO employees

3.3.3 Southern Downs Regional LGA

Southern Downs Regional LGA is the only LGA included within the study area to fall completely within the 125 km site radius. Hence, due to its proximity there will inherently be a range of impacts throughout the area. In the Southern Downs region, the most reported occupation was 'labourer' which accounted for around 18% of employed people of 15 years and older (ABS 2016). This indicates that there is a significant body of skilled workers available within the area, with the possible capacity to provide workers to the Project. There is also a significant variety of services and social infrastructure throughout the LGA, as well as relatively high housing availability, making the region an attractive area for relocating workers and their families to live.

i Warwick and Stanthorpe

Warwick and Stanthorpe are the closest larger towns to the project site. They have a large skilled construction workforce and the primary locations for most of the Southern Downs' infrastructure including a greater choice of housing. Around 6.8%-7.3% of the population reported being unemployed and seeking employment in 2016, indicating possible opportunities for local employment. As such these towns are highly likely to supply personnel to the Project and to attract large numbers of relocating families.

ii Allora, Yangan, Wallangarra, Killarney and other localities

Most of these smaller Southern Downs' communities are all located within an hour drive to the project site entrance, excluding communities such as Glen Alpin, Ballandeen and Wallangarra which are around 1 hour and 42 minutes away. The populations of the towns range from 4,600 – 5,800, however there are limited services in each community, suggesting that residents travel to and from larger hubs such as Stanthorpe and Warwick to access goods and services. The primary industry of employment is agriculture, forestry, and fishing in all towns, followed by construction. Unemployment numbers ranged from 4.3% - 6.2% indicating a possible demand for jobs in the area (ABS 2016).

3.3.4 Toowoomba Regional LGA

The vast majority of the Toowoomba Regional LGA falls within the Project's 125 km radius. The Toowoomba LGA includes the largest town in the region, Toowoomba. Due to the historical role of the town and its locations it is somewhat less rural and there is a higher concentration of communities and services in the direction of Toowoomba. It is likely that Toowoomba and surrounding towns will be a primary source of workforce for the project. Hence, although it is predicted that Toowoomba has the capacity to accommodate and service this project, there will be inevitable impacts. Furthermore, as it is the largest town in the region, Toowoomba is a 'resource hub' which is likely utilized by various other regional and local development and resource projects, resulting in possible cumulative impacts that must be considered. A portion of the Inland Rail Project, the Gowrie and Helidon development areas, will run through a large area within the Toowoomba Regional LGA, and be partially located on the outskirts of the township of Toowoomba itself. As such, Toowoomba will likely experience major impacts and demand from the project, meaning that a thorough consideration of cumulative impacts is essential.

4 Political and planning context

This section provides a summary of the relevant plans and strategies across the Federal, State and Local government jurisdictions that inform the social risk assessment, and mitigation and management strategies.

4.1 Federal

At the federal level, the project is located within the federal electorate of Maranoa which is currently represented (in the House of Representatives) by Hon David Littleproud Member of Parliament (MP), who is a member of the Liberal National Party (LNP) of QLD, Deputy Leader of the National Party, and Minister for Agriculture, Drought and Emergency Management.

The federal government's interest in the project includes:

- the provisions of the *Environmental Protection and Biodiversity Conservation Act 1999* (administered by the Department of Agriculture, Water, and the Environment [DAWE]) that seeks to protect and conserve cultural heritage sites and protected areas of national environmental significance; and
- the provisions of the *Renewable Energy (Electricity) Act 2000*, administered by the Department of Industry, Science, Energy and Resources.

Both Acts come into play with the project, though neither are likely to directly affect the outcomes of this SIA.

Of interest, however, is the supportive statement by the Department of Industry, Science, Energy and Resources titled *Technology Investment Roadmap: First Low Emissions Technology Statement 2020*, which outlines the Federal Government's priorities regarding low emission technology investment and supporting economic growth whilst reducing emissions. The statement identifies four visions:

- preserve and create jobs, capture new opportunities and revitalise Australia's regional economies;
- lower household living expenses with abundant, clean and low-cost energy;
- build competitiveness by leveraging our comparative advantages; and
- attract and retain the best minds in priority low emissions technology research fields.

4.2 State

4.2.1 Project approval

The wind farms are located within the QLD state electorate of Southern Downs. The current member for Southern Downs is James Lister MP of the LNP.

The proposed developments must be approved by the state before onsite works can commence.

Under the *Queensland Planning Act 2016*, a wind farm is assessable development (a material change of use for a wind farm) and requires assessment and decision by the Department of State Development, Tourism and Innovation (DSDTI) represented and assessed by the State Assessment and Referral Agency (SARA). In accordance with Planning Regulation 2017 (Section 21, Division 2, Table 1) wind farms are code assessable when it can be demonstrated that either all wind turbines are at least 1,500 m from a sensitive land use on a non-host lot, or where one or more wind turbines are less than 1,500 m from a sensitive land use on a non-host lot, the owner of the non-host lot has agreed (by deed) to the lesser separation distance. Consequently, the wind farms are being assessed against the performance outcomes and acceptable solutions set out in State Code 23: Wind farm development.

The wind farm developments must also have regard to any other relevant state planning instruments, such as State Development Assessment Provisions and State Planning Policies and as a result will require a suite of secondary approvals. These approvals may include waterway barrier works approvals, the taking and interfering with water in waterways, approved species management programs, road works permits and operational works permits for filling and excavation access works, and stormwater works.

4.2.2 QLD Government Social Impact Assessment Guideline

As described above, under QLD legislation, the level of assessment required for proposed wind farm developments is an assessment against the provisions of State Code 23: Wind farm development. If the proposed developments can comply with the Code, then there is no trigger to undertake further assessment for the use of the land, such as an environmental impact assessment or an SIA.

However, as previously stated, ACCIONA is committed to maximising the benefits to the local and regional communities through employment and procurement opportunities for local residents and businesses, and through the establishment of a Community Enhancement Program and higher education Scholarship Program. The Project is anticipated to generate significant economic activity across the Goondiwindi, Southern Downs and Toowoomba Regional Council areas. To ensure that ACCIONA maximises the value that the project delivers, ACCIONA is seeking to undertake a detailed SIA.

To this end, the decision was made to undertake this SIA in accordance with the QLD Government SIA Guideline that outlines the need to identify and assess potential social impacts, as well as address their management and monitoring.

Underpinning the guideline are the following principles that inform the development of an SIA:

- lifecycle-focused: an SIA is to consider the full lifecycle of the project;
- reasonable: an SIA is to be commensurate with the nature and scale of the project, the sensitivity of the social environment and the likely scope and significance of the resultant project related social impacts;
- participatory: engagement for an SIA is to be inclusive, respectful, meaningful and tailored to the needs of potentially impacted individuals and groups;
- rigorous: an SIA is to be based on objective, comprehensive social impact analysis, incorporating the most up to date information on the communities affected and the project;
- effective management: an SIA is to include effective social management measures that enhance potential benefits and mitigate potential negative impacts; and
- adaptive: management measures are to be monitored, reviewed, and adjusted to ensure ongoing effectiveness (QLD Government 2018).

The guideline defines SIA as the process for identification, analysis, assessment, management and monitoring of social impacts of a project and stipulates that an SIA must address the following key matters:

- community and stakeholder engagement;
- workforce management;
- housing and accommodation;
- local business and industry procurement; and
- health and community well-being (QLD and Government 2018).

4.2.3 CleanCo – a Government Owned Corporation (GOC)

In 2019 the QLD Government established CleanCo, QLD's first publicly owned clean energy company that endeavours to provide clean energy for Queenslanders, as part of the QLD Government's *Powering Queensland Plan*.

CleanCo is intended to help improve electricity affordability, contribute to the Government's 50 per cent renewable energy target by 2030, support and establish reliable electricity generation and create new investments and job opportunities throughout regional QLD. The GOC has established a target to support 1,000 MW of renewable energy generation by 2025 which will be achieved by building, owning, and operating assets and investing in renewable energy projects.

The MacIntyre Wind Farm Project includes an agreement with CleanCo for it to become the independent owner and operator of a 100 MW wind farm within the MacIntyre Precinct. In addition, CleanCo will acquire the annual production of 400 MW from ACCIONA's facilities for 10 years through a PPA.

Given the status of CleanCo as a GOC, the following QLD government policy may be relevant to this project.

4.2.4 State strategies and policies

i Queensland Procurement Policy

The QLD Procurement Policy is an overarching government policy which addresses the procurements of goods and services in order to maximise benefits for Queenslanders that can be delivered through procurement. This involves prioritising best values for money outcomes that pursue economic, environmental and social objectives. The policy aims to:

- **Focus on the economic benefit to QLD** – by applying a local benefits test for all significant procurement, and supporting secure and fair employment outcomes, and showcasing QLD's food and beverage industry;
- **Maximise QLD suppliers' opportunity to participate** – by ensuring that for each procurement opportunity, at least one regional and one QLD supplier, where possible, is invited to submit a quote or tender;
- **Support regional and remote economies** – by allowing agencies to procure outside of whole-of-government supply arrangements for regional and remote locations;

- **Support disadvantaged Queenslanders** – by increasing procurement with genuine, quality social enterprises; and
- **Stimulate the ICT sector and drive innovation** – by doubling the ICT pre-qualification exemption to \$1 million (QLD Government 2019).

ii Queensland Climate Transition Strategy

The QLD Government has issued a QLD Climate Transition Strategy in order to encourage a zero net emissions future that supports employment, industries, communities and the environment. The strategy outlines three key climate change commitments that contribute to achieving the overarching goal of achieving a zero net emissions economy. The three key commitments are:

- power QLD with 50% renewable energy by 2030;
- contribute to global efforts of arresting climate change by achieving zero net emissions by 2050; and
- demonstrate the State's commitment of reducing carbon pollution by setting an interim emissions reductions target of at least 30% below 2005 levels by 2030.

The three commitments have been developed in accordance with the strategy's vision of creating an innovative and resilient QLD that addresses the risks and harnesses the opportunities of the changing climate.

iii Queensland Renewable Energy Zones

To contribute to QLD's renewable energy target, the QLD Government have invested in renewable energy zones (REZ) across the state, spanning from Far North QLD to the Darling Downs west of Brisbane. The purpose of the REZs is to:

- grow QLD's position as an investment destination; and
- create more jobs as part of the Corona Virus Disease 2019 (COVID-19) road to recovery blueprint (QLD Government 2020).

REZs comprise of a mix of electric generation, namely storage, solar and wind, to provide a reliable electricity source for the state. Under this initiative, it is believed that coordinated clean energy infrastructure investments will attract new projects within the renewable energy zones as well as place downward pressure on prices, boost local industry and decrease energy prices for consumers. REZs within Southern QLD, where the project is located, are proposed to offer diversification opportunities for the agricultural, mining and resources sector as well as provide an opportunity to attract new industries within the region.

iv The Queensland Renewable Energy Plan

The *Queensland Renewable Energy Plan* is a comprehensive economic and industry development strategy that aims to accelerate the growth of the renewable energy sector in QLD and maximize regional development opportunities. The plan states that renewable energy projects will serve the local, state and federal populations through climate change mitigation, and regional and rural economic development and employment.

Additionally, broad policy platforms are addresses which concern QLD's renewable energy sector with reference to several initiatives, specifically 'smart industry, jobs and investment' (QLD Government 2009). The initiative introduces The Renewable Energy Jobs Policy in order to support the rapid expansion of the renewable energy sector in QLD by implementing an education, training and skill-building framework to ensure that appropriate skills are developed throughout QLD's workforce. This involves collaborating with industry and education institutions as well as strengthen the coordination of employment and training development throughout the QLD Government. The plan recommends strengthening Government coordination by introducing measures throughout Government agencies that adapt curricula, re-skill workforces as well as provide information and incentives throughout industry and for individuals.

v Powering Queensland Plan

The *Powering Queensland Plan* outlines the Government's strategy to guide the state through the short-term and long-term challenges occurring in the energy market. The Plan aims to deliver stable energy prices, ensure long-term security of electricity supply, transition to a cleaner energy sector and create new investment and jobs. Supported by this Plan, the QLD Government have made a commitment to increase renewable energy generation by 50 per cent between 2020 and 2030, which will deliver broad benefits to the economy, particularly in regional QLD through investment and increased employment.

vi Skills for Queensland – Great training for quality jobs

The *Skills for Queensland Plan* aims to create more jobs, improve training pathways, and raise investments for local businesses and workforces to ensure working-aged Queenslanders are skilled, adaptive, and meet the current and future needs of the labour market across the state. The Plan emphasises employment within regional QLD, with various committees established across regional QLD (including Toowoomba) as a result. The committees aim to drive job growth in their local regions and encourage strong local leadership of skills and workforce challenges by:

- developing strategies that address local workforce and skills issues;
- identifying new skills opportunities; and
- ensuring the local workforce has the skills needed to fill future jobs (QLD Government 2018).

The committees, which comprise of local businesses, government, community leaders, training providers, industry representatives, high schools and unions, have been implemented to develop regional job and training plans in order to contribute to local job growth.

4.3 Local

The project is located across SDRC and GRC areas, which have the highest proportion of directly impacted stakeholders.

In QLD, land use planning occurs at the local government level, in accordance with the state-wide legislation and policy (including the provisions of Code 23: Wind farm development described above) and taking into account any state interest in regional matters (as required by the provisions of the *Regional Planning Interests Act 2014*).

Planning at the local government scale is set out in Corporate and Community plans, reflected in strategic and planning scheme provisions that address land use development and infrastructure. The relevant plan for the Council areas of Southern Downs, Goondiwindi and Toowoomba are summarised in Table 4.1.

Table 4.1 Regional Planning Context

Plan/Strategy	Summary	Responsibility	Timeframe
Southern Downs 2030 Community Plan	<p>The long-term community plan is a visionary document that addresses local and regional matters relating to social well-being, economic development, environmental management, and governance. The plan details several 'key vision themes' that have been outlined by the community. One key vision theme concerns developing 'a economically strong, sustainable and diverse Southern Downs'. Under this theme, the community aspires the region to be recognised for diverse range of employment opportunities, support for primary and developing industries, and attractive investment opportunities.</p> <p>The plan also details the challenges and opportunities for the Southern Downs region identified by the local community, whereby 'protecting the environment' has been acknowledged as a challenge for the region. From this, the community recognises implementing renewable energy resources, such as wind, as an opportunity to protect the local environment.</p>	SDRC	2011-2030
Southern Downs Planning Scheme	<p>The planning scheme intends to secure the future of the Southern Downs Region by establishing the region as QLD's choice for lifestyle, business and tourism.</p> <p>The plan outlines several elements that are of value to the community within the region. In particular, emphasis is placed on the strong sense of place that exists throughout the towns and localities of the region (namely Warwick, Stanthorpe, Allora and Killarney) and the importance of maintaining each location's 'distinct identity' whilst providing improved and increased community facilities, services, business, employment and residential developments (SDRC 2015).</p> <p>The scheme also focuses on several elements such as commercial development, climate change and environmental hazards. It is stated that commercial developments must ensure the needs of the community for goods and services are met and employment opportunities are provided. In regards to the environmental planning context for the region, the plan acknowledges the need to develop strategies that mitigate and minimize the impacts of climate change and reduce the carbon footprint of the Southern Downs. As such, the use of low emission technologies and generation of renewable energy is supported (subject to the consideration of amenity).</p>	SDRC	2012-2022
2019 – 2024 Corporate Plan	<p>The Corporate Plan focuses on aspects needed to encourage livability throughout the region and incentivise potential future residents. The plan aims to:</p> <ul style="list-style-type: none"> • accelerate population growth within the region; • maintain and enhance transport networks to ensure efficient movement of commodities, services and skills; • strengthen the existing industries and encourage business growth to increase employment opportunities and create a viable and high-value economy; • protect and nurture the landscapes and natural assets of the Southern Downs region to sustain the resilient communities and country lifestyle (SDRC 2019). 	SDRC	2019-2024

Table 4.1 Regional Planning Context

Plan/Strategy	Summary	Responsibility	Timeframe
Goondiwindi Region Planning Scheme 2018	<p>The Planning Scheme establishes the controls and use of land that apply to land in the region and is currently used in assessing development applications.</p> <p>The scheme seeks to advance state and regional policies through more detailed local responses, taking into account the local context and integrates aspects of state planning policy that are relevant to the region and includes a strategic framework and local government infrastructure plan.</p> <p>Expansion of the resource sector and industrial development, diversification, and growth are key strategic elements of in the Goondiwindi Region Planning Scheme. In addition, there is focus on ‘maintaining the character and vibrancy of town centres as the pre-eminent locations for business, service provision and community life in the region’ (GRC 2018).</p> <p>The scheme also highlights the need to encourage employment opportunities and enhance accessibility of infrastructure and services throughout town centres and industrial development areas. The scheme also outlines several elements, with one element focusing on a ‘low carbon economy’ and encourages increasing permanent plantations and renewable energy facilities that use natural resources and coexist with sustainable rural production as well as offer potential economic benefits for the region.</p>	GRC	2018-2038
2019 – 2024 Corporate Plan	<p>The Corporate Plan sets out the council’s vision for the region and provides a strategic framework of enhancing the quality lifestyle currently enjoyed by the community. The vision for GRC is ‘to strengthen our thriving regional lifestyle and prosperous economy’ which is supported by a mission statement:</p> <ul style="list-style-type: none"> • ‘To provide leadership in making locally responsive and informed decisions, delivering quality services and facilities to the communities of the Goondiwindi region’. <p>Strategies within the Corporate Plan are informed by the vision and mission statements that have been set by the GRC. These strategies endeavor to establish Goondiwindi as a thriving community, a strong economy, a sustainable region, and a high-performing organization.</p>	GRC	2019-2024
Goondiwindi Region: A Blueprint for Prosperity	<p><i>Goondiwindi Region: A Blueprint for Prosperity</i> is an economic development plan which specifies the economic opportunities and actions for the region. The plan establishes the need to work collaboratively with partners in government, the non-government sector, industry and community to help facilitate change and progress to secure prosperity throughout the region.</p> <p>There is a significant emphasis on embracing the region’s rural lifestyle and enhancing the vibrancy, economic diversity, livability and sustainability of the Goondiwindi Region’s economy by supporting and promoting business activity and securing a sustainable employment base as well as a strong economic future.</p>	GRC	2018-2023

Table 4.1 Regional Planning Context

Plan/Strategy	Summary	Responsibility	Timeframe
2019-2024 Corporate Plan	<p>The Toowoomba Regional Council Corporate Plan outlines the environmental, social, cultural, economic and governance considerations that underpin all strategic and operational decision making by the Council between 2019 – 2024 (Toowoomba Regional Council 2019). The five goals, people, place, sustainability, prosperity and performance have been established in order to secure a sustainable and bright future for the Toowoomba Region. When combined, the goals ensure the council collaborate with the local community and agencies across Toowoomba to:</p> <ul style="list-style-type: none"> • create opportunities for residents; • encourage sustainability; • conserve the region’s ‘natural assets’ and agricultural land; and • attract new businesses and industry to retain employment opportunities (Toowoomba Regional Council 2019). 	TRC	2019-2024
Toowoomba Regional Planning Scheme	<p>The Toowoomba Regional Planning scheme outlines several elements in order to help inform development objectives within the region. The planning scheme seeks to create a safe and resilient region that ensures the needs of residents are met at present and into the future.</p> <p>The key elements in relation to this project concern the natural environment, natural resources and landscape, infrastructure and services and economic development. These elements aim to ensure that essential services are made accessible and affordable, employment and business activities support needs for those within the region, environmental sustainability and that natural resources and regional landscapes are maintained. In addition, the scheme focuses on encouraging energy infrastructure that supports the use of low emission energy sources.</p>	TRC	2012-2032
<p>Toowoomba Region Economic Development Strategy</p> <p>Bold ambitions 2038: A blueprint for regional prosperity</p>	<p>The Toowoomba Region Economic Development Strategy aims to enhance the vibrancy, liveability and economic stability of the region. The plan outlines several key strategic objectives in order to improve the region’s quality of life, industry and ensure economic resilience. The strategy acknowledges the need to promote local energy resource assets, infrastructure and expertise to enable the Toowoomba Region become a national energy hub and boost investment and export opportunities. It is also acknowledged that the growth of renewable energy projection will help diversify industry exports, which is an outlined key strategic objective, and contribute to meeting emissions targets.</p>	TRC	2018-2038

5 Social baseline

This chapter provides a summary of the baseline information for the study and reference areas to identify key social conditions for the social area of influence for the Project. The baseline provides contextual information for the identification of social benefits and impacts in the SIA. Impacts in the study area can be experienced socially through access to housing, access to social services, health and wellbeing, employment, and economic livelihoods, or physically through insufficient capacity or capability of infrastructure, including housing and accommodation, transport and roads, or water access and supply. These impacts are exacerbated by pre-existing social conditions and are most significantly felt by vulnerable groups of people (see Section 5.2). The social baseline study provides an understanding of those pre-existing social conditions and identifies the vulnerable groups who are more prone to experiencing the negative impacts of the Project. The data relating to housing and accommodation and local workforce skill and capacity also serve to inform the workforce and accommodation recommendations, with a focus on maximising benefits to the local community. A summary of the vulnerabilities and subsequent opportunities identified within the social baseline study is shown in Table 5.1. A complete baseline study that forms the basis for the SIA is provided in Appendix A.

5.1 SIA study area

The study area (see Figure 5.1) for the MacIntyre Wind Farm Precinct includes the following LGAs:

- Goondiwindi Regional LGA, which is the predominate location for the Project site and will experience direct and indirect local impacts;
- Southern Downs LGA, which has a small portion of the Project site located within it and will experience direct and indirect local impacts; and
- Toowoomba Regional LGA; which is included due to its proximity to the Project site and role as provider of goods and services and consequent likelihood of experiencing direct impacts.

For comparative purposes, the Darling Downs – Maranoa Statistical Area Level 4 (SA4) and the Toowoomba SA4 are identified as the reference area (see Figure 5.1). This area provides social trends and data for communities more consistent with the study area, thus providing a meaningful point of comparison.

Whilst the study area includes all communities within the identified LGAs, several suburbs throughout the study area have been identified as key potentially affected communities due to their relative size and proximity to the Project. These suburbs include Toowoomba, Warwick, Stanthorpe, Inglewood, Texas, Goondiwindi, and Karara. Inclusion of locations in the social baseline has been assessed with the following considerations:

- proximity of properties and communities to the Project and its access routes;
- vulnerabilities that increase risk, and/or magnitude of potential impacts on communities or groups;
- the role, culture, and identity of communities in the region;
- availability, and capacity of, housing and other social infrastructure to attract and support potential growth;
- availability of skilled workforce and experienced personnel, or ability of residents to gain the skills required for the renewable energy (wind farm) industry;
- native title rights and other interests held by Aboriginal and/or Torres Strait Islander peoples;

- location of businesses who could supply the Project;
- communities and vulnerable groups potentially affected by other projects within the region; and
- likelihood of experiencing social impacts and opportunities.

5.2 Vulnerable minority groups

There are numerous vulnerable groups within the study area community including the elderly and persons with a disability (need for assistance), socio-economically disadvantaged groups, homeless persons, and Aboriginal and/or Torres Strait Islander persons.

5.2.1 Aboriginal and/or Torres Strait Islander population

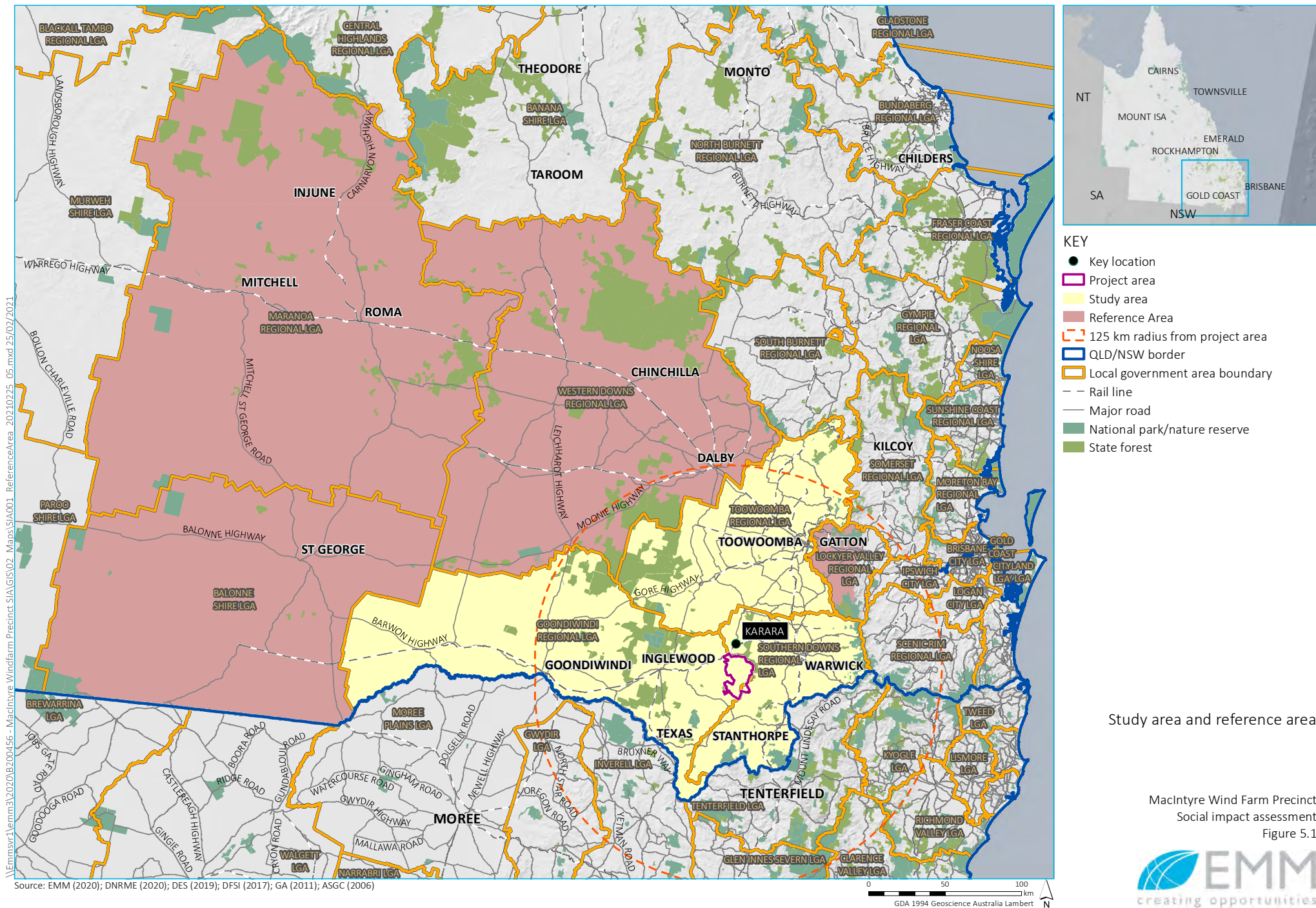
The proportion of Aboriginal and/or Torres Strait Islander persons in the study area is highest in Goondiwindi LGA at 5.4% compared to Toowoomba LGA (4.0%), Southern Downs LGA (4.5%), and QLD (4.0%) (ABS 2016a). Aboriginal and/or Torres Strait Islander persons are vulnerable to impacts from the Project due to intergenerational socioeconomic disadvantage, worsened mental health outcomes, and related health-risk behaviours, including greater proportions of smoking and alcohol use amongst the Australian Indigenous population (AIHW 2020). Lower socio-economic advantage, worsened health outcomes, and related health-risk behaviours for Aboriginal and/or Torres Strait Islander communities in the study area present an opportunity for capacity building within these communities.

5.2.2 Disability

In the study area 6.0% of persons, compared to 5.2% in QLD, require assistance in one or more of the three core activities of self-care, mobility, and communication due to a long-term health conditions/disability (lasting 6 months or longer) or old age (ABS 2016a). The greater proportion of persons requiring assistance in the study area is likely attributable to the provision of health and community services as people living in major cities are less likely to have problems accessing services such as doctors and disability services, while those in outer regional/rural areas (such as Goondiwindi and Southern Downs LGA) can experience difficulty accessing these services (Baxter, Hayes and Gray 2011).

5.2.3 Socioeconomic disadvantage

According to the 2016 Socio-Economic Indexes for Areas (SEIFA) (ABS 2016b), Toowoomba LGA and Goondiwindi LGA are in the 5th or higher decile for all indexes, suggesting they are at or above the QLD median in terms of advantage/ disadvantage. Southern Downs LGA, however, falls in or below the bottom 40% of communities in QLD for all SEIFA indexes, suggesting high levels of disadvantage (ABS 2016b). For Index of Relative Socio-Economic Disadvantage (IRSD), Index of Relative Socio-Economic Advantage and Disadvantage (IRSAD), and Index of Education and Occupation (IEO) Southern Downs LGA ranked in the 3rd lowest percentile, and in the 4th lowest for Index of Economic Resources (IER), indicating higher levels of disadvantage. Ranking in the 4th decile for the IER suggests there are many households paying low rent (rent is \$230 per week compared to \$330 in QLD) and few households with high income (median weekly household income is \$1,212 compared to \$1,402 in QLD) (ABS 2016b; ABS 2016a). Ranking in the bottom 30% for IRSD, IRSAD, and IEO suggests that the area could have many people in low skilled or unskilled occupations and few people with a high level of qualifications or in highly skilled occupations, reflective of the LGA's high proportion of labourers (17.8%) compared to the reference area (13.8%) or QLD (10.5%) (ABS 2016b; ABS 2016a). This presents an opportunity to provide training and upskilling of the local workforce in the Southern Downs LGA.



5.2.4 Homelessness

The study area rate of homelessness is 28.3 homeless persons per 10,000 persons, which is low compared to 46.1 per 10,000 persons in QLD (ABS 2016c). Toowoomba LGA has the highest rate of homelessness within the study area (30.7 per 10,000 persons) (ABS 2016c). Homelessness can be caused by existing poor physical or mental health, reducing a person's ability to earn an adequate income to support themselves (Australian Human Rights Commission [AHRC] 2021). Homelessness can also lead to health problems including poor nutrition, depression, substance abuse, poor dental health, and mental health conditions (AHRC 2021). Access to health services is also significantly poorer for homeless persons than the general population due to hardships with finances, transport, identification, Medicare, and difficulty with appointment maintenance/treatment plans (AHRC 2021). As such, homeless persons are at greater risk of being adversely affected by potential impacts from the Project.

5.3 Health and wellbeing

Poorer physical and mental health outcomes in the study area, most prominently in Goondiwindi LGA and Southern Downs LGA, suggest that a portion of the study area population are more vulnerable to health impacts as a consequence of the Project, notably through air quality.

5.3.1 Physical health

The following three major physical health risk factors can be used as an indicator of population health: excessive alcohol consumption, tobacco smoking, and obesity. These three indicators are some of the "...most important preventable causes of ill health and death in Australia", with tobacco smoking being the single most (AIHW 2018). Asthma and smoking are indicators of respiratory health of the community and vulnerability to dust and other air impacts. Community health can also be determined through self-assessed health (QLD Health 2019).

Persons in Goondiwindi LGA may be more vulnerable to impacts resulting from the Project as the health of persons residing in Goondiwindi LGA is generally poorer than the rest of QLD. Goondiwindi LGA has the highest proportion of lifetime risky drinkers across the study area (28.6%) and compared to QLD (21.2%) (QLD Health 2019). Daily smokers in the study area are also most prominent in Goondiwindi LGA (12.7% in 2018) though trends across the study area are generally declining, similar to QLD (QLD Health 2019). Excess weight and obesity is higher in the study area than QLD, with Goondiwindi LGA consistently the highest over the period 2009 to 2018, however declining to the third highest in 2018 (64.3%), below Toowoomba LGA (65.3%) and Southern Downs LGA (67.0%). Obesity throughout the study area is higher than in QLD (60.4%) (QLD Health 2019).

Persons in the community with asthma and other respiratory conditions are more vulnerable to effects of poor air quality. Between 2017 and 2018, 11.9% of persons in QLD (no data available for study or reference area), suffered from asthma, higher than the national rate of 11.2% (Asthma Australia 2021) and 11.1% of persons in QLD in 2018 were smokers (QLD Health 2019). Smoking and asthma greatly decrease the resilience of the respiratory system against poor air quality that may result from construction activities. This suggests that a portion of residents within the study area are likely to experience increased respiratory impacts from poor air quality conditions and the presence of dust as a result of the Project.

Positive self-assessed health in Goondiwindi LGA (80%) and Southern Downs LGA (81.9%) is slightly lower than in Toowoomba LGA and QLD (84.2% and 85.2%, respectively). This is likely reflective of poorer availability of community and healthcare services in more rural areas, when compared to the extensive services in Toowoomba and major cities (QLD Health 2019; Health direct Australia 2020).

5.3.2 Mental Health

The mental health of the study area can be determined by rates of intentional self-harm hospitalisations and levels of psychological distress (QLD Health 2019).

The rate for intentional self-harm hospitalisations (per 100,000 persons of all ages) in the study area have remained above the rate in QLD for majority of the period analysed (2001 – 2018) suggesting that mental health in the study area may be worse than in QLD, or that mental health services in the study area are insufficient (QLD Health 2019). Whilst there are many mental health services available in Toowoomba LGA, Goondiwindi LGA and Southern Downs LGA lack sufficient mental health services, leading to a higher rate of intentional self-harm hospitalisations.

The level of high/very high psychological distress was slightly greater in the Darling Downs and West Moreton Primary Health Network (PHN) (24.3%) and Darling Downs Hospital and Health Service (23.8%), compared to that of QLD (22.3%) (QLD Health 2019). This indicates psychological distress may be slightly more prevalent in the study area and as such, mental and general health services may face a greater demand for psychological care. An increase in population in the study could put extra strain on the limited mental health services available in Goondiwindi LGA and Southern Downs LGA.

5.3.3 Safety and crime

The most common crime reported within the study area was unlawful theft (26.4%), most prominent in Toowoomba LGA (29.6%) (Queensland Police Service [QPS] 2020). Traffic and related offenses made up a greater proportion of reported crimes in the study area (16.6%) than in QLD (11.5%), reflecting the high number of road incidents in the area. Good order offenses, weapons act offenses, trespassing and vagrancy, liquor (excluding drunkenness), and handling stolen goods were also more frequently reported in the study area when compared to QLD (QPS 2020). Theft was also highlighted as an issue and concern for local landholders during consultation, highlighting concerns for the additional presence of Project personnel on their properties (pers. comm. 2020).

5.4 Access to services

Access to education, community services, and health services varies across the study area. Karara, which is closest to the Project site, has minimal access to services requiring community members to travel to regional towns such as Warwick and Inglewood, or the larger city of Toowoomba to access medical services.

Toowoomba LGA has the highest availability of education options (191 childcare services, 87 schools, one university and one TAFE campus), healthcare facilities and services (six hospitals, 26 General Practitioner (GP) services, mental health services, and specialist services), emergency services (14 police stations, 11 ambulance stations, 11 fire stations, and a State Emergency Service [SES] unit), and community services. The extensive services in Toowoomba LGA is attributable to Toowoomba City having the largest population in the study area and being the service centre for the region (ABS 2016a).

Goondiwindi and Southern Downs LGAs have much less extensive provision of services, with persons in these LGAs required to travel to Toowoomba LGA to access many services, likely indicative of poorer health outcomes for these LGAs, as discussed in Section 5.3.1. Any increase in population in the study area may place increased pressure on health and community services in Goondiwindi LGA and Southern Downs LGA, hindering access for local community members.

The lack of service capacity in the study area, particularly in Karara, Goondiwindi LGA, and Southern Downs LGA presents an opportunity for community enhancement strategies relating to service provision and capacity in these areas. Karara presents a unique opportunity to fund or support the provision of health services locally to meet basic healthcare needs.

5.5 Public infrastructure

5.5.1 Transport and roads

The main access route for the Project (Cunningham Hwy/Carbean Rd) is located just outside the town of Karara in the Southern Downs LGA (GHD 2020). The key risk areas on the transport route are Carbean Rd at Karara, Pratten St in Warwick, Shell service station at Aratula, and the Cunningham Hwy at Karara, each presenting an opportunity for upgrades to the road network and rest areas to increase capacity for over-size and/or over-mass (OSOM) vehicles and safety on the roads.

i Carbean Rd at Karara

Carbean Rd is a 26 km long unpaved dirt road with approximately seven residential properties located close to the road (the closest approximately 12 m from the road). Carbean Rd is identified as a key vulnerability in the study area for numerous impacts including noise, dust, disturbed sleep, and flashing lights. Persons in the Southern Downs LGA along Carbean Rd are anticipated to be the most directly impacted by transport related impacts during the construction phase of the Project.

ii Pratten Street in Warwick

Pratten Street (St) in Warwick is the current oversize vehicle route through the town. The street is mainly residential with 206 residential houses, two schools, one kindergarten, one church, four private businesses including a hotel and bus charter company, four bus stops, and two community parks located from 50 Pratten St to 246 Wood St. These characteristics suggest a large amount of pedestrian activity as there will be children and families, residents, church staff and attendees, and customers to local businesses accessing the area in cars and by foot. This poses a safety risk to the community which is not familiar with the presence of a large number of oversize vehicles, nor the precautionary measures that coincide with the presence of those oversize vehicles.

iii Shell service station at Aratula

The Shell service station at Aratula on the Cunningham Hwy is expected to experience high numbers of heavy and light vehicle traffic during the construction phase of the Project (GHD 2020). This service station is likely to experience regular or frequent delays with the influx of OSOM vehicles accessing the Cunningham Hwy through this route and making stops at the Shell at Aratula for rest breaks and to reconfigure the trucks. The increase in traffic, in particular large/ heavy vehicles, has the potential to negatively impact the road access and usual way of life for any people who utilise the route for daily activities and commuting to their place of residence. Additionally, the presence of large trucks entering and exiting the service station onto the Cunningham Hwy will inevitably cause temporary blockages to the highway's traffic flow, thus presenting a potential safety risk through an increased chance of traffic related incidents.

iv Cunningham Hwy at Karara

Karara is a small town on the Cunningham Hwy at the northern end of the Project site. Due to the location of the proposed site access point at Carbean Rd, Karara township will experience high volumes of traffic, particularly oversized trucks, during the construction phase of the Project. The small town consists of several residential properties, a church, a tavern, and a motel. This community will be exposed to increased road noise and dust as a consequence of the Project's traffic and materials transportation, which has the potential to impact the health and wellbeing of community members, in particular for those vulnerable people who suffer from pre-existing health conditions.

5.5.2 Water

A water strategy for accessing water through the construction phase has not been sited so does not inform this assessment. Given the recent drought and that Southern Downs region are currently on water restrictions, there is much angst in all sectors of the community around the scarcity of water (pers. comm. 2020). Stanthorpe is currently receiving 40 – 50 trucks of water per day and has been since January 2019 (Australian Broadcasting Corporation [ABC] News 2021). The sensitivity surrounding water as a natural resource and a critical human need will exacerbate any existing tensions should the Project use existing sources such as dams and waterways. Additionally, there is a large proportion of agriculture, forestry, and fishing industries and businesses in the study area that would rely on water for their livelihoods (ABS 2016a). The risk of community outrage around water is very high if not managed correctly and this is evident in recent times in projects across NSW during a prolonged drought. This will be further compounded with the growing knowledge and experiences of global warming, which will lead to more frequent extreme events, such as the recent droughts experienced across the Southern Downs and more hazardous fire seasons.

ACCIONA's recent provision of a borehole at Karara indicates that there is groundwater that can be accessed, and which could potentially provide a water source to the Project. Given the sensitivities surrounding access to water it would be prudent to communicate with the community regarding any water related strategies for the Project and doing so would diminish the angst in the community. If water resources are not managed properly and with adequate infrastructure, the insufficient capacity of water in the region will affect these communities across many areas of social impact, including way of life, access to infrastructure, health and wellbeing, and livelihood.

5.6 Housing and accommodation

5.6.1 Local housing and rental market

A vast majority of dwellings in the study area are separate houses (84.7%), higher than QLD (76.6%), but similar to the reference area (86.1%) (ABS 2016a). The proportion of flats and apartments was significantly lower in the study and reference areas (4.3% and 3.9%) than QLD (11.3%). This is representative of the nature of small rural towns as places with mostly low density housing and large properties. Most dwellings in the study area are owned outright (30.1%), a slightly lower proportion are rented (27.8%) or owned with a mortgage (28.1%), similar to the reference area (29.4% outright, 27.8% rented, 27.1% mortgage) (ABS 2016a). Housing in the study area and reference area is more affordable than in QLD with weekly rent payments in the study area (\$280 or lower) and reference area than in QLD (ABS 2016a). Mortgage repayments are also cheaper at below \$1,600 in the study area (particularly Goondiwindi LGA and Southern Downs at \$1,300) and reference area compared to \$1,733 in QLD (ABS 2016a).

On 29 September 2020, in selected key towns throughout the study area there were 1,088 properties for sale and 135 properties for rent; the vast majority of which were located in the Southern Downs LGA, with Toowoomba LGA also having many properties available (REA Group 2020). This indicates that there is some capacity for a population increase to be accommodated within the study area in the current buying market, but minimal capacity for an influx of renters. This is also supported by the residential vacancy rates in the study area; market indicators that "measure the proportion of residential properties vacant and available for rent at any point in time" (Real Estate Institute of New South Wales [REINSW] 2019). There has been a high degree of fluctuation in residential vacancy rates throughout Toowoomba LGA and Southern Downs LGA from March 2017 – December 2019 (Real Estate Institute of QLD [REIQ] 2020). Over the past year there has been limited current local residential vacancy due to the COVID-19 pandemic affecting local property markets.

5.6.2 Housing availability during COVID-19

There is some variation throughout the study area (see Figure 5.2) in the proportion of occupied dwellings, however the difference is not significant, with all LGAs having between 86 - 90% occupied dwellings (ABS 2016a). However, consultation with local real estate agents has determined that this occupancy rate has been severely impacted by COVID-19, with many people choosing to move to rural locations such Stanthorpe and Warwick (pers. comm. 2020). This has led to a significant uptake in local accommodation rentals and sales, with very small numbers of temporary accommodation available. Multiple real estate agents expressed that finding rental accommodation in local towns would be difficult given the current occupancy trends, however, believed that this is an anomaly that is directly related to COVID-19 and that the market would return to its previous state in the coming months and years (pers. comm., 2020). Accommodation within the local area was also said to be highly fluctuating depending on the season, time of year, and availability of local employment.

Two real estate agencies in the study area noted the usual 3-5% vacancy rate dropped significantly to around 1% since mid-2020 due to COVID-19 (pers. comm., 2020). Low vacancy rates in the study area may significantly limit accommodation options for housing workforce within the local towns during the construction phase of the Project. In addition, sourcing local temporary accommodation may be challenging given the current circumstances, with long term residents utilising temporary accommodation options whilst unable to afford long-term housing (pers. comm. 2020). As such, temporary tourist accommodation is recommended to benefit not only accommodation providers, but other business activity in the local towns.

5.6.3 Tourist accommodation

There is a wide selection of tourist accommodation within the study area varying in size and style. An extensive list of tourist accommodation options is shown in Appendix A Although a total of 316 tourist accommodation locations were identified throughout Southern Downs, Goondiwindi, and Toowoomba LGAs, many of these establishments were not appropriate for the purpose of housing the Project's workforce due to a range of factors including proximity, interest, size, amenities, and quality. Of all suitable accommodation providers within an hour drive of the Project site (in adherence to health and safety guidelines) that were consulted, 20 accommodation providers expressed interest in the potential to provide accommodation to the Project's workforce. Within the 20 accommodation providers interviewed, it was determined that the average occupancy ranged from 30% – 100% with the most common occupancy sitting around 60% – 75% (pers. comm. 2020), suggesting an availability of unoccupied tourist accommodation in the study area. The potential to house the Project's workforce in local towns within the study area will benefit many businesses within these communities beyond the direct accommodation providers, including local restaurants, cafés, grocery stores, and any other businesses that provide local day-to-day services.

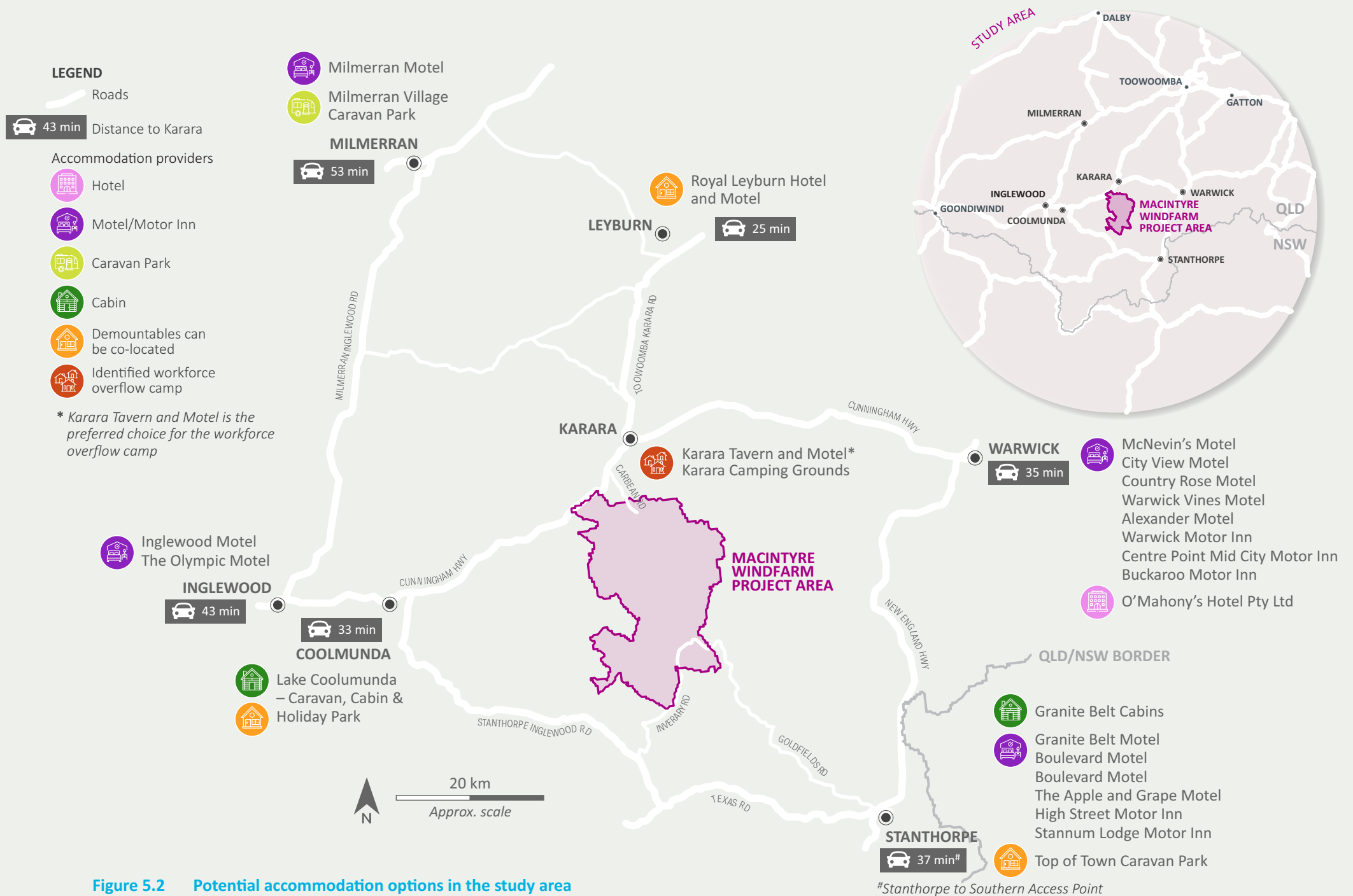


Figure 5.2 Potential accommodation options in the study area

5.7 Local workforce skill and capacity

There are several towns within an hour's drive of the Karara entrance to the Project site. The relevance of a one-hour commute is due to health and safety considerations to manage driver fatigue and prevent fatality for those working a 12-hour shift. Variations of the one-hour commute would require a reduction of the shift hours to manage fatigue.

Despite these limitations, the towns within an hour commute from the project site include Toowoomba, Warwick, Stanthorpe, Inglewood, Texas, Goondiwindi, and Karara and as such could provide and/or accommodate a construction workforce. Age group distribution in the study area suggests that more than 60% of the population are in the working age bracket of 15 – 64, similarly to the reference area and QLD (ABS 2016a).

A majority of persons in the study area have certificate level qualifications (39.4%) with a particular concentration in Southern Downs LGA (43.4%) (ABS 2016a). In line with the high number of certificate level qualifications in the study area, a large proportion of persons are labourers, technicians and trades workers, particularly in Goondiwindi LGA and Southern Downs LGAs (ABS 2016a). The second highest proportion of non-school qualifications in the study area are bachelor degrees (19.3%) (ABS 2016a). Engineering and related technologies (15.7%) is the most studied field, followed by management and commerce (15.0%) indicating an availability of skilled workers in those fields (QLD Government Statistician's Office [QGSO] 2020a).

Industries of employment in the study area are not consistent with Project's workforce requirements. Industries of employment that are relevant to the Project such as construction, or electricity, gas, water and waste services only constitute 8.2% and 1.1% of the study area population, respectively (ABS 2016a). This data suggests that while there is some availability of relevant skilled workers in the study area, predominantly technicians and trades workers (14.7%), labourers (13.2%), and machinery operator and drivers (7.3%) (ABS 2016a), a local workforce for highly specialised areas of construction may be difficult to source and will require the utilisation of FIFO or DIDO workers. To ensure benefits of the Project are experienced by the local community, upskilling programs could be implemented to better equip local people to meet the needs of the Project's workforce.




5.8 Community strengths and vulnerabilities

The key vulnerabilities within the study area as determined through the social baseline (refer to full study in Appendix A) include low residential vacancy rates and lack of availability within the local housing market, which limits the ability to source local temporary accommodation for the Project's workforce. In response to such accommodation vulnerabilities, there are opportunities to improve accommodation capacity or hire locally. Additional vulnerabilities identified within the Project area pertain to the limited services available for mental health and the higher levels of socio-economic disadvantage within the Southern Downs Region. The high proportion of road incidents could indicate poor road infrastructure within the study area, specifically within the Toowoomba LGA. When identifying strengths in the Project area, it is evident that the region overall has a growing population and is well serviced with social infrastructure and services (particularly health, community, and education services in Toowoomba). Additionally, the higher proportion of skilled workers, local businesses, and suppliers is recognised as a strength and opportunity in relation to the Project in terms of local procurement. A summary of key strengths and vulnerabilities within the community based on the existing social conditions is provided in Table 5.1.

Table 5.1 **Community strengths, vulnerabilities and opportunities**

Strengths & Vulnerabilities	Impacts	Opportunities
Existing workforce of labourers, trades workers and technicians		Potential for local workforce sourcing for less specialised/technical aspects of Project construction
Growing population throughout the study area		Potential for growing workforce pool as persons in the study area reach working age or graduate from training/study
Sufficient capacity of services in the study area for the current population including extensive capacity of all types of services in Toowoomba		Potential to increase availability and capacity of services in Goondiwindi LGA and Southern Downs LGA to support growing population and demand
Poorer health outcomes in Goondiwindi LGA and Southern Downs LGA		Increase access and availability of healthcare services in these areas
No access to health services in Karara		Increase access to healthcare services to Karara residents by influencing outreach programs to visit the locality
Lack of highly specialised, technical skills required for turbine installation/assembly and logistics and transportation of oversized turbine components in the local workforce		Provide training opportunities for workforce in the study area eg upskilling
Levels of education and resource disadvantage in Southern Downs LGA		Training opportunities for the local workforce to increase skills and income potential
Roads in the study area (particularly unsealed Carbean Rd) unsuitable for high volumes of oversize and over mass traffic over 36-month period		Upgrade roads to ensure they are able to support high volumes of oversize and over mass vehicle without causing safety hazards for other users
No capacity in the current rental market with few rental properties available and low residential vacancy rates throughout the study area		Approval and delivery of housing developments to improve housing and accommodation capacity Local hiring or utilisation of temporary tourist accommodation to avoid exacerbating an already tight rental market
Availability of water within the study area after major drought period		Aiding nearby landholders through provision of bores for Project water and/or allowing landholders access to Project water supply and infrastructure
High rates of theft and trespassing crime in the study area		Increase capacity of the police force to respond to crimes effectively

Table 5.1 **Community strengths, vulnerabilities and opportunities**

Strengths & Vulnerabilities	Impacts	Opportunities
High number of traffic and related offences and road incidents in the study area		Improve capacity and safety of road networks
Higher socioeconomic and health disadvantages for Aboriginal and/or Torres Strait Islander populations in the study area		Contribute to the improvement of socioeconomic and health outcomes through direct employment supported by training and capacity development
OSOM vehicles causing safety hazards on the Cunningham Hwy through Aratula		Upgrade roads/rest areas to improve capacity for OSOM vehicles

6 Community and stakeholder engagement

This section summarises the findings from the community engagement activities (Appendix B) undertaken as part of the data collection for the SIA.

6.1 SIA field study

An online newsletter, community survey, in-depth interviews, service capacity interviews, and community workshops were utilised to engage the community and key stakeholders regarding the Project. For a detailed breakdown of the SIA engagement and recruitment refer to Appendix B.

6.1.1 Participation

The methods of engagement with community and key stakeholders and details of participation are provided in Table 6.1. A total of 60 representative stakeholders were invited to engage in an in-depth interview, and an outcome of 32 interviews with 55 participants were conducted. 37 stakeholders were invited to engage in service capacity interviews and a total of 26 interviews took place. The online community survey produced 22 responses, and the community workshop did not eventuate, however three in-depth interviews were held in its place. The total number of interviews and participants has considered the five participants who represented two different stakeholder groups in one interview, which have not been duplicated in the total.

Table 6.1 Participation by engagement event

Method	Event	Administered	Invited	Interviews conducted	Total participants
In-depth interviews	Key potentially impacted stakeholders including:				
	• Landholders	Face-to-face	11	8	16
	• Neighbouring landholders	Phone interviews	5	4	4
	• Local government representatives from Toowoomba, Goondiwindi and Southern Downs shire councils	Face-to-face	3	3	14
	• Local Aboriginal Land Council (LALCs) and other representative indigenous groups	-	2	0	0
	• Community Engagement Committee (CEC)	Individual face-to-face sessions	6	5*	6*
	• Chamber of Commerce	Face to face	3	2**	2**
	• Regional Development Australia (RDA)– Darling Downs and South West Inc.	Face to Face	1	1*	1*

Table 6.1 Participation by engagement event

Method	Event	Administered	Invited	Interviews conducted	Total participants
	<ul style="list-style-type: none"> Key service providers <ul style="list-style-type: none"> health emergency services (police, ambulance, and fire), real estate education providers other special interest stakeholders: <ul style="list-style-type: none"> Fraser's transport Traprock group Granite Belt Sustainable Action Group Toowoomba Surat Basin Enterprise 	-	2^	0	0
		Face-to-face	4	2	3
		Face-to-face/ phone interviews	4	3	3
		Teleconference	8	2	2
		Face-to-face	7	4*	6*
Service capacity interviews	Local accommodation providers	Phone interviews	23	20	20
	Social service providers	Phone interviews or email questionnaire	14	6	6
	Employment agencies				
	Social/community support providers				
Community workshops	Three Community workshops held at an accessible location within study area open to the public, NGOs, and businesses for consultation.	Face-to-face/ phone interviews	Wider community (4 to in-depth interviews)	3	3
Online Surveys	1 survey regarding community values, aspirations, perceptions, and identity	Online	Wider community	-	22
Site visit	Visit to the proposed site and area of social influence to contextualise and enhance the understanding of potential impacts from operations on the local community	In-person	-	-	3 team members
Total		In-depth interviews	60	32	55
		Service capacity interviews	37	26	26
		Online survey	-	-	22
		Total	97	58	103

Notes: (*) indicates an in-depth interview and the participant have already been accounted for in another stakeholder category, due to some stakeholders representing multiple groups in one interview. Hence, the total number of interviews conducted accounts for those multi-faceted representatives which have not been duplicated.

(^) Consultation arrangements were made with representatives Warwick hospital and Stanthorpe hospitals and an in-depth meeting was scheduled on 6 Nov 2020 before they had to withdraw from consultation due to the State Election intermediary period, in which the government entered 'caretaker mode'. A follow up was made after the election however the health service representatives were unable to participate in the consultation. Engagement with other services providers took place and covered key health issues such as community mental health.

6.1.2 Summary of SIA field study findings

The findings from all community engagement and stakeholder consultation activities (outlined in Table 6.1 above) are categorised by theme in accordance with the key matters outlined in the SIA guidelines (State of QLD 2018). The data collected from the community has been appropriately classified as an **impact**, **benefit**, or **opportunity** under each of the key matters for SIA, which include workforce management, housing and accommodation, local business and industry procurement, and health and community well-being. The impacts and benefits reflect the perceptions of stakeholders and depict what they anticipate seeing as potential negative impacts and positive benefits directly related to the development of the MacIntyre Wind Farm Precinct. The opportunities identified by the community during consultation activities are indirectly related to the implementation of the Project and depict the wishes and desires of community members in the proposed Community Enhancement Program and Scholarship Program funded by ACCIONA to share benefits across the local community (refer to Table 6.2).

i Workforce management

a Impacts

A recurring fear among stakeholders was the anticipation that there may not be a sufficient capacity of local workers for the highly skilled roles required for the construction of the wind farm. Due to the specialized nature of the construction roles required, some of the community expressed concerns that the necessary workers, training, and skills would be sourced from Brisbane and Wacol rather than developing those capabilities in the local area, and furthermore limiting the spread of benefits within the local community. Worker fatigue in conjunction with lengthy commutes to and from the project site was recognised as a potential impact with severe or even fatal consequences for the workforce and the local community, if not managed in a safe and practical way.

b Benefits

Local workforce procurement in the construction of the Project was recognised as a significant benefit to the community. While many stakeholders recognised the necessity for highly specialized skilled workers for the wind turbine construction, it was widely agreed upon that trades people required for civil works could easily be sourced within the local and regional area, providing an increase in demand and economic activity for local businesses. Engagement with employment providers confirmed that the opportunity for more local jobs and locally sourced workers would bring many benefits to the local community.

c Opportunities

Throughout the community and stakeholder engagement activities the potential for training and upskilling local people was recognised as a very positive opportunity. Additionally, the potential for upskilling and training in collaboration with local educational institutions such as TAFE QLD, University of Southern QLD, and Stanthorpe State High School (SSHS) was perceived as an opportunity that could help to provide the skills necessary for wind farm construction and have a long-lasting impact on the workforce capabilities in the area beyond the Project's construction.

ii Housing and accommodation

a Impacts

Community engagement with real estate agents in Warwick and local accommodation providers highlighted the extremely limited availability of rental properties in the area. Participants noted that the region has seen a great increase in demand for rental and purchase properties because of the COVID-19 pandemic. As such, there is very limited capacity for long-term rental accommodation options that might be suitable for workers of the project. While Worker's Accommodation Villages are an alternative solution for temporary accommodation, there were fears expressed that this type of accommodation would result in limited community integration from workers and limited benefits to the local economy as a flow on effect of a locally based workforce. One community support service recognised that an increased demand for local rental properties due to an influx of workers seeking accommodation in the area could have significant impacts on already vulnerable members of the community, such as homeless people and welfare recipients, as the increased demand may create an increase in rental prices and impact the affordability of local rental accommodation. This was confirmed by a local real estate agent who mentioned that rental prices have already increased slightly due to a spike in demand throughout COVID-19.

b Benefits

The greatest benefit in terms of accommodation is the potential surge in demand for local accommodation that may be utilized to house workers over the construction phase of the Project. Participants of the engagement activities, in particular local accommodation providers, perceived the potential opportunity to accommodate workers of the project on a long-term basis as a highly beneficial opportunity that would generate significant economic activity. The recent effects of border closures due to COVID-19 has severely challenged the local tourism industry and particularly the accommodation providers that rely on tourism, hence the local businesses and the community welcomed the increased business and economic activity.

c Opportunities

There were minimal opportunities identified in relation to housing and accommodation. However, some stakeholders suggested a preference for workers accommodation camps to be built as reusable structures or 'dongas' that could be donated or repurposed after construction period. The prospect of grants to provide reusable accommodation in the form of self-contained cabins was an idea welcomed by some local landholders. This opportunity would enable locals and landholders to reuse the temporary workers accommodation structures for tourist accommodation and become an ongoing benefit to the local economy and community.

iii Local business and industry procurement

a Impacts

The most recognised potential impact on local industry is the management of livestock over the construction and operation phases of the Project. As the project site is used for sheep grazing there are a range of issues in protecting and managing the livestock that are very vulnerable to wild dog attacks, prone to injury from construction vehicles, and sometimes at risk of theft. If not managed using sufficient processes and fencing, the loss of livestock could be a significant impact on the local landholders' business and livelihoods. Throughout stakeholder engagement there was a recurring sentiment of concern that the local industry capacity would be insufficient to provide the scale of materials and services required for the project, which might cause construction work and materials to be sourced elsewhere under contracts with larger multinational companies. Participants were concerned that if construction materials were supplied by a large company from outside of the local region, the potential for economic benefits through procurement would be very limited or completely lost for smaller local businesses.

b Benefits

Locally sourced materials and labour in the construction of the wind farms would bring significant direct benefits to the local community. Additionally, locally sourced services such as police escorts, bus services for worker transport, and other hospitality services would provide greater economic activity and trickle down into the local community who will have more capacity to spend money, increased ability to engage in opportunities, and improved health and well-being as a result. A locally based workforce is also perceived to bring economic benefits to the local area through day-to-day expenditure in local businesses and services.

c Opportunities

Throughout community engagement the opportunity for a new market in tourism was noted by a wide range of stakeholders. The scale and uniqueness of the MacIntyre Wind Farm Precinct, along with the sustainability and 'progressive' appeal of the wind farms is expected to attract many visitors according to local stakeholders. This potential market for 'eco-tourism' or 'energy-tourism' could be enhanced by a range of investments, including a wind turbine viewing platform and a tourist information centre, drawing in tourists who are already in the area for leisure, or even as a core attraction in the region itself.

iv Health and community wellbeing

a Impacts

Amenity impacts relating to visual and noise were frequently mentioned by the local community as potential impacts throughout consultation, however the actual degree of concern remained relatively neutral. There was a strong concern among stakeholders regarding the scarce water resources in Stanthorpe and the region as a whole. The community expressed that the issue of water scarcity may be amplified by the wind farm's construction activities and the increased workforce population. It was noted that insufficient water resources would have severe impacts on the local community in terms of industry (farming and agriculture), physical health, mental health (stress) and overall, the livelihoods and way of life of the local people. Community consultation also revealed a shared sentiment that the degree of knowledge and awareness about the Project was low among the wider community and even some of the key stakeholders.

Some landholders and other stakeholders recognised that community division and conflict may arise from the perceived unfair spread of benefits for the Project, through the creation of an 'us and them' or 'winners and losers' duality. This type of conflict has the potential to disturb the social cohesion among the community and furthermore impact the emotional well-being of the local community. Another key potential impact was identified in the increased safety risks for the public and for landholders. More broadly, the increased traffic and influx of vehicles and large trucks required for materials transportation and construction will pose a higher threat to road-user safety throughout the local and regional areas. Safety and privacy are a concern among landholders who expressed fears of managing workforce and emergency service entry/exits to their properties during construction and the potential issue of trespassers when the wind farms are in operation as some people may attempt to access the wind turbines on their private property.

b Benefits

Participants of the consultation and engagement activities recognised a wide range of benefits to the health and well-being of the community, most significantly noted through higher employment rates, economic growth, and increased economic activity throughout the region that would come as a result of the Project. The guaranteed income for landholders and perceived increase in the value of their properties would be a benefit to their livelihoods and mental health by improving financial security, especially since their industry has suffered considerably from drought in recent years. Other benefits were noted in the development of their reputation as a leading region in renewables. This reputation is perceived quite positively by the community and it has the potential to contribute to the social character of the region. The growing reputation of a renewable energy region has been built on the implementation of the solar farm in Warwick and would be enhanced by the development of the MacIntyre Wind Farm Precinct. The influx of workers and training opportunities associated with the Project are also expected to provide benefits to community well-being through population growth and retention, particularly of young people and families in the region.

c Opportunities

Community and stakeholder consultation activities shed light on an abundance of opportunities with the potential to benefit health and community well-being across the local and regional areas. An important opportunity related to the improved water access and security, which could be realised through legacy projects such as water bores. An emphasis on legacy projects was emphasised by some participants who expressed that they want to see long-lasting investments as benefits to the wider community. Another opportunity that would make a substantial positive impact on the wider community was identified as infrastructure upgrades to improve mobile phone coverage and service. Such an investment would improve the livelihoods, access, safety, and security of many members of the local community who are impacted by poor mobile phone coverage, in addition to tourists and visitors to the region.

Other opportunities were recognised as potential sponsorship or funding for community events that could increase social cohesion and serve more broadly in the creation of a positive community perception of the wind farm. Sponsorship and funding in local sports clubs was noted by a range of stakeholders as a simple investment that would provide widespread benefit to a range of children and families in the community. It was suggested during consultation that a relatively simple and equitable way to share benefits around the community could be to distribute small amounts of money (\$500 - \$1000) to local kids sporting teams to purchase new uniforms and other sporting gear. This kind of community benefit is a relatively small investment, however if a team could purchase new uniforms through a sponsorship from the Project it would benefit both parents in the community and their children – *‘then you’d have 10 families on board with the Wind Farm’* (pers. comm., 6 November 2020). Additionally, this type of opportunity could incorporate branding or advertising for the Project and serve to enhance and maintain a positive community sentiment about the Wind Farm. Funding for community infrastructure and facilities, such as improving town halls, was a welcomed opportunity which would bring shared benefits to communities across the region. In addition, the prospect of smaller individual or community grants and funding for local emergency services were repeatedly mentioned in the consultation activities as a great opportunity to spread benefits from the Project throughout local and regional communities.

6.2 Community identified impacts and opportunities

A summary of the potential social impacts identified by participants in the SIA are provided in Table 6.2.

Table 6.2 Community identified impacts, benefits and opportunities







 WORKFORCE		
Impacts	Benefits	Opportunities
<ul style="list-style-type: none"> Insufficient capability among local businesses for skilled workforce procurement Skills and training will be sourced from the city and not the local area Minimal employment opportunities after construction Worker fatigue 	<ul style="list-style-type: none"> Local employment 	<ul style="list-style-type: none"> Upskilling and building local workforce ability Apprenticeships and training opportunities Work with USQ and TAFE QLD to grow wind-farm related skills – student opportunities, scholarships, research projects
  HOUSING ACCOMMODATION		
Impacts	Benefits	Opportunities
<ul style="list-style-type: none"> Lack of local accommodation availability Lack of community integration due to onsite accommodation camps for workers. Increased demand with limited capacity of housing. Housing affordability for vulnerable people. Annual events attract loyal customers every year accommodation is often booked out well in advance for certain dates of the year. 	<ul style="list-style-type: none"> Increased business for local accommodation providers. Potential for long term rental agreements in local accommodation for workers. 	<ul style="list-style-type: none"> reusable infrastructure for workers accommodation village. 'Air B&B' style leveraging existing spare beds and granny flats for long term workers accommodation.
Local Business and Industry Procurement   BUSINESS PROCUREMENT		
Impacts	Benefits	Opportunities
<ul style="list-style-type: none"> Limited capacity of local services. Livestock management in construction phase. Waste disposal and management Potential competition for skilled labour among existing local businesses. Big businesses will have procurement opportunities over smaller local businesses. Livestock loss (theft and injury from vehicles and wild dog attacks). 	<ul style="list-style-type: none"> Locally sourced materials & labour. Increased tourist activity. Locally based workforce with increased spending in local businesses. Local police escorts, bus services, food and catering suppliers 	<ul style="list-style-type: none"> New market for eco-tourism/ energy-tourism in the region. Wind farm tourist/ information centre. Funding for wild dog exclusion fences can provide local jobs and money spent at local businesses. Flow on effect of higher livestock numbers to support local industry.

Table 6.2 **Community identified impacts, benefits and opportunities**

<div> <div>Health and Community Wellbeing</div>  </div>		
Impacts	Benefits	Opportunities
<ul style="list-style-type: none"> • Emergency vehicle access • Increased demand on local health and emergency services • Water resource shortage • Social cohesion and community division • Lack of knowledge about the project • Deteriorating quality of roads • Dust • Transportation of oversize turbine parts • Increased traffic on local roads • Increased local population • Lack of awareness and information among local community • Safety around turbines (construction and operation) • Potential for scaling turbines in suicide attempts • Environment and wildlife – migrating bird strikes • Noise from turbines • Visual amenity • Landholder privacy and security (trespassers) • Uncertainty of project afterlife/ disposal/ decommissioning • Concerns for potential groundwater impacts • Safety of landowner's livestock • Negative media attention • Myths around wind turbine sickness • Fire risks 	<ul style="list-style-type: none"> • Highly sought-after economic benefits in a post-drought community • Direct and indirect economic growth • Infrastructure upgrades – roads • Raising the community's sustainability awareness • Population retention and growth • More young people/ families in the local area • Labour influx could bring more students to local schools/ more teachers • Affordable, clean energy in the community • Higher employment • Reduced fossil fuel creation • Growing reputation as a leading region for renewable energy in Australia • Guaranteed income for landholders • Improved mental health through financial stability • Increased property value for landholders • On-site nurse or ambulance for project workers 	<ul style="list-style-type: none"> • Legacy projects (bores/ scholarships) • Educational programs • Educational grant for local students to attend boarding school • Better water access and security • Infrastructure upgrades – mobile phone service • Individual and community grants • Improved community halls and shared infrastructure, new multi-purpose facility • Funding to help community organisations become more sustainable • Community sports funding and sponsorship • Wind farm viewing platform • Subsidized machinery loans to locals • Full size turbine blade as an interactive community monument • Funding for Men's Sheds • Funding for Rural Fire Brigades (RFBs) • Cardiopulmonary resuscitation (CPR) awareness and training • Local community events, Barbeques (BBQs), and sporting events • Model windfarm

7 Social impact themes

This section summarises the key recurring social impact themes demonstrated across the social baseline data and findings from community stakeholder engagement. Research and examples of wind farm projects and large-scale resource developments, predominately in QLD and Australia, have been drawn on to provide context and background information that will inform the social impacts discussed in Section 8. The key social impact themes identified and discussed in this chapter are:

- community perceptions;
- property, housing, and accommodation;
- traffic and road safety;
- water supply and drought;
- amenity and surroundings; and
- local business and economic impacts.

7.1 Community Perceptions

Community perceptions have the ability to influence planning and approvals processes of proposed windfarm developments in regional Australia (Gross 2007; Hall, Ashworth & Devine 2013). Research regarding windfarm developments has found that perceptions are heavily influenced by consultation and stakeholder engagement processes, as well as varying ideological or cultural values (Hall, Ashworth & Shaw 2012; Gross 2007). Such underlying cultural or ideological concerns may consist of anti-development stances and opposition to climate action political agendas within regional and rural communities, as these may be viewed as prioritising those in urban centres (Hall, Ashworth & Shaw 2012). Such agendas associated with wind farm developments may trigger uncertainty within rural and regional communities, due to the perceptions of urban centres neglecting regional communities (Hall, Ashworth & Shaw 2012). Such community perceptions relate to notions of fairness, particularly during consultation and planning processes, which may influence social cohesion and as such, the support or opposition of a wind farm project (Gross 2007; Hall, Ashworth & Shaw 2007). Concerns regarding the potential for community objection were noted during local stakeholder engagement, as discussed in Section 6.1.2, as were perceptions of insufficient and unequal community consultation activities undertaken by the project thus far.

Transparent and well-structured community engagement regarding wind farms in Australia can help influence community acceptance and perceptions, ultimately contributing to the approval and installation of wind farms in regional areas (Hall, Ashworth & Shaw 2012). In a rural community in Victoria, an anti-windfarm community sentiment developed due to the failure of engagement processes to address concerns of the community. This ultimately led to significant project opposition and protest within the community (Anderson 2013). As a result, the project did not go ahead. Therefore, community perceptions can impact the progress of wind farm developments in regional areas, and in some instances can even prevent the approval of project development applications. These findings have influenced the impact mitigation recommendations made in Section 8.4.4 in response to potential project impacts on community cohesion, focusing on additional stakeholder consultation targeting the wider local community through a range of consultation activities.

During consultation, fears social conflict would occur between landholders receiving turbine lease payments and neighbouring residents who are not receiving payments, was commonly mentioned by stakeholders surrounding the Project site. Research has shown that in some circumstances social conflict can occur within communities due to wind turbine property leasing arrangements (Gross 2007; Hall, Ashworth & Devine-Wright 2013). Such conflicts may arise between landholders with turbine leasing agreements and nearby neighbours, due to perceived unfairness of leasing arrangements and payments, which may further encourage or add to social divisions within the local area (Hall, Ashworth & Devine-Wright 2013). This has the potential to be further exacerbated by unfair consultation processes, impacting the perceived legitimacy and fairness of the Project from the community's perspective (Gross 2007). Additionally, negative perceptions of wind farms may induce stress for local residents, impacting the health and wellbeing of those concerned (Hall, Ashworth & Shaw 2012). As such, it is important to ensure the benefits relating the project, regarding community investment, procurement opportunities, and clean energy resources, are made clear especially within the regional context. These findings have directly informed the recommendations made in Sections 8.4.4 and 10.9 regarding enhancing community events and social infrastructure. However, many of the mitigation strategies raised in Section 8 rely on community engagement, communication, and consultation to manage the project expectations of stakeholders, and ensure that anticipated impacts are expected prior to the beginning of the project.

These findings have informed impacts and mitigation recommendations regarding community perceptions, conflict and social cohesion identified in Sections 8.4.3, 8.4.4, 10.9 and throughout Section 8.

7.2 Property, housing, and accommodation

The project has committed to ensuring that a minimum of 10% of the project's work hours are undertaken by local workers within a 125 km radius of the site. As such, a portion of the project's workforce is likely to reside locally and not require temporary accommodation. However, the remaining workforce will likely consist of FIFO and DIDO workers, who will require accommodation within a one-hour radius of the project site. Predominately FIFO and DIDO workforces have the potential to place strain on local accommodation providers and housing markets, including limiting the choice of housing in the region, increasing property and rental prices, deterring tourism, and potentially further displacing already low income and vulnerable populations (Australian Centre of Excellence for Local Government [ACELG] 2012).

Strategies provided by ACELG for distributing benefits from projects that utilise predominately temporary workforce include ensuring any worker camps are developed adjoining local towns, designing, and utilising accommodation options that can be "converted into other uses post-[project] leaving a local legacy" (ACELG 2012, p. 18). Ensuring any temporary accommodation used to house project workforce, either through the use of existing temporary accommodation such as hotels and motels or through worker camps, is located in or outside local towns and communities provides a range of socio-economic benefits to the local community, as money spent by workers within the town will likely have flow on effects. As such, suggestions regarding temporary workforce accommodation strategies as discussed in Section 8.2, 8.3.4 and 8.3.5 focus on proximity to local towns and the reusability of housing options.

Reusing and repurposing workforce accommodation buildings after a project's completion or designing accommodation that can be easily maintained and used by community members and organisations provides a significant opportunity for shared value to be created, and long-term legacies to be integrated into the community (Finucane & Tanoway 2019). An example of a development project that was able to create a long-term shared value benefit by repurposing workforce accommodation infrastructure is at the Tom Price iron Ore Mine in Western Australia. Demountable buildings used for workforce accommodation and project office buildings were repurposed as clubrooms for the local Horse and Pony Club, contributing benefits for recreation and social wellbeing within the community (Finucane & Tanoway 2019). A study conducted by the Sustainable Tourism Co-operative Research Centre (CRC) identified the potential tourism opportunities for mining project infrastructure, identifying a range of opportunities for Indigenous and eco-tourism particularly (Barker et al. 2007). Mining camps and temporary accommodation structures were highlighted as key opportunities to establish tourist accommodation and resorts, with the potential for local Indigenous ownership and management within the community. In these examples, reusing infrastructure is perceived as of high shared value, as project companies often do not have further uses for the structures and needed to find a solution for decommissioning and disposal, whilst the community receives economic, recreational and wellbeing benefits from structures being reused a repurposed locally, mitigating the need for removal and providing legacy project benefits. The potential for temporary and demountable worker accommodation units to be repurposed and reused was raised during consultation (see Section 6.1.2) and has informed the recommendations made in Section 8.2.3 and Appendix E. Regarding the operational stages of windfarm developments, there will likely be minimal impacts on local property, housing, and accommodation, however amenity impacts may potentially affect the liability and desirability of the local area for some. Research has even shown that property values surrounding wind farm developments can increase (Walker & Swift 2015). However, there is no conclusive evidence of this in Australia (Urbis 2016).

Impacts and mitigation recommendations regarding property, housing, and accommodation have been identified in Sections 8.2, 8.3.4, 8.3.5 and Appendix E based on these findings, the data highlighted in Section 5 and Appendix A and community consultation.

7.3 Traffic and road safety

Wind turbine transportation involves the movement of heavy and oversized components that may present safety impacts due to the awkward and potentially hazardous nature of loads. This makes the process of transporting turbine components to site logistically challenging, as there are several turbine components of varying shapes and sizes, that require varying types of different trucks and vehicles, and sometimes even multiple transportation routes. There will be a total of 180 wind turbines constructed for the project, and each tower will be 248m tall (ACCIONA 2020). Tower components will need to be transported from the Port of Brisbane, where they will arrive via freight and require road transportation to the project site. For this project, there are two main transportation methods for turbine components; the blades which will travel through the Toowoomba Bypass to reach the project site, and the tower sections which will travel via the Cunningham Hwy. This is due to the varying height and length restrictions that limit available roads the vehicles can take. Each turbine requires three blades, which measure 80.5 metres in length and will be transported using a delivery vehicle and escorted by a pilot vehicle and police traffic control vehicle (ACCIONA 2020; GHD 2020). The tower section cannot use the same route as the blades due to their height and inability to cross under road bridges, but they will also require a pilot and police escort.

An economic impact report prepared for the Mount Emerald Windfarm in North QLD highlighted that traffic was a key identified impact of the development, due to an increase in project related vehicles travelling to and from site. The following key business and social impacts were outlined in relation to traffic and road safety impacts:

- increased noise, dust and construction traffic, impacting on amenity for visitors and users of the facilities and changing perceptions about road safety;

- potential traffic disruptions and delays due to increased construction traffic on local roads; and
- increased traffic on roads near schools, resulting in changes to perceptions about student safety (Jacobs Group 2014).

Similar public safety, amenity, wellbeing, and way of life impacts relating to turbine transportation have been assessed and discussed in Sections 8.4.7 - 8.4.8, 8.4.11 - 8.4.14, including noise, dust, traffic volume, and congestion related issues.

It is anticipated that project related transportation and traffic generation will require significant road works, including improvements and maintenance to existing roads, as well as the construction of approximately 206 km of internal access roads throughout the project site (ACCIONA 2020; GHD 2020). Traffic impacts on road quality and maintenance is discussed in Sections 8.4.5 and 8.4.6. Economic impact for Mount Emerald Windfarm also indicated that initial expenditure relating to road works and infrastructure improvements required for the project was undertaken within the region, with a total capital cost of \$7.38 million. This illustrates potentially significant economic benefits that may arise within the study area due to anticipated traffic and road safety impacts and related mitigation and improvements (Cummins Economics 2013). These findings informed the recommendations presented in Section 8.4.6 and 8.4.10, including the utilisation of local workforce to fill road work, safety and traffic control team positions required during the project's construction phase.

The project will also require transportation of various other components to and from site, including machinery (much of which will also be oversized), materials such as concrete supplies, and workforce. Project related traffic and transport will likely be frequent and requires a high volume of various vehicle types. This will result in an overall significant increase of general traffic and vehicles on the road daily over the construction phase of the project, as discussed in Section 8.4.7 – 8.4.12 (GHD 2020).

Impacts and mitigation recommendations regarding traffic and road safety identified in Sections 8.4.3, 8.4.4, 10.9 and throughout Section 8 have been informed by these findings.

7.4 Water supply and drought

Water supply is essential amongst regional communities, particularly for the study area due to the large proportion of agriculture, forestry and fishing industries and businesses that rely on water for their livelihoods (see Section 5.8). As of 1 December 2020, the Australian Government declared 67% of QLD's land area as fully drought-declared, which includes the Goondiwindi, Southern Downs, and Toowoomba LGAs. Drought and water supply within Australia has been a significant issue for farmers and rural communities due to economic struggle and productivity impacts that arise during drought conditions (Office of the Coordinator General [OCG] 2019). Dry seasons that lead to droughts are a common feature of the climatic conditions throughout QLD and the local area (Chamberlain et al. 2008) which is a significant issue for the regional agriculture industry. Future climate projections predict that the local area and surrounds will be susceptible to higher temperatures, less rainfall during winter and spring, and frequent warm spells ultimately leading to increased drought conditions (Department of Environment and Science [DES] 2019). Drought within regional communities impacts the local economy as well as the profitability and productivity of farms which often exacerbate social impacts relating to the health and wellbeing of farmers, their families and community (OCG 2019). During drought conditions, negative economic outcomes which arise from restricted productivity can be a further detriment to social connections, mental health, and wellbeing of farming communities (Edwards, Gray & Hunter 2018).

Water security and supply for the Project was a significant concern shared by stakeholders during consultation, as the region has been subjected to severe droughts since 2013, as discussed in Section 6. During consultations, landholders revealed that water supply during drought was unstable resulting in severe water scarcity which had not been previously experienced by the community, resulting significant hardship and impacts to productivity and economic stability (pers. Comm 2020). To secure a water supply, two boreholes were drilled within the GRC area (GRC 2020). Additionally, water restrictions and a community drought resilience plans were established (GRC 2020). The SDRC have also experienced significant hardship due to water scarcity and drought conditions, where the water supply to the town of Karara was shut off due to the poor quality of underground pipes and water restrictions have been categorised as severe (SDRC 2020). Outlined in the SDRC Community Plan, the regional council establish a goal to develop a reliable water supply in order to support the growth of local industries, which would include agriculture. As such, water supply and drought in relation to the project is a key social impact theme identified from community consultations and research.

Stakeholders shared concerns during consultation regarding where the Project will source water from during construction and operation, and how it will contribute to the water security of the region. Research on wind energy developments and water use has found that the operation and installation of wind farms does not require significant quantities of water in comparison other forms of developments (ie extractive energy projects) (Moss, Coram & Blashki 2014). However, construction activities such as concrete pouring and hosing down unsealed access tracks will likely require large quantities of water. Additional research regarding societal acceptance of wind farms found that local economic benefits relating to projects have 'drought-proofed' their farming income, especially amongst landholders with wind turbine leasing arrangements, (Hall, Ashworth & Devine-Wright 2013). However, it remains imperative to take into consideration the value of water throughout the project region considering the findings from consultation activities demonstrating stakeholder's angst and experiences of drought. These findings have informed the suggestions regarding project water use and perceived impacts on scarcity discussed in Sections 8.3.3 – 8.3.4, 8.3.6 – 8.3.7 and 8.4.1 – 8.4.2.

7.5 Amenity and surroundings

Project related amenity impacts, including noise and visual disturbances, were raised by local community members throughout consultation as a potential concern. Such concerns are common in communities where windfarms are proposed, due to the often rural and picturesque nature of such sites. Noise and visual amenity impacts associated with windfarm developments may contribute to feelings of annoyance and negative perceptions wind farm sites (Chapman, St George, Walker & Cakic 2013). Evidence suggests that communities can interpret the introduction of wind turbines in non-industrial, rural areas as an intrusion on the surrounding landscape (Shaw, Ashworth & Hall 2014). As such, proposed wind farm developments in Australia have been rejected by local communities due to changes in landscape, visual amenity, and noise impacts, in addition to prior negative perceptions associated with such (Hall, Ashworth & Shaw 2012).

Wind turbines are in many cases large and imposing structures that may be perceived as intrusive to visual landscapes (Botterill & Cockfield 2013) which can inform negative perceptions of developments. Visual impacts resulting from wind turbines, which concern changes to the local landscape, does not affect local communities physically, rather influences the subjective concerns and sentimental values associated with regional landscapes (Botterill & Cockfield 2014). Research suggests that this is in correlation with place attachment, whereby visual changes to a landscape can influence community attitudes towards wind farms (Hall, Ashworth & Devine-Wright 2013), as regional landscapes may hold potential value within areas where there is a strong agricultural production presence, akin to the Project area. This is in relation to agricultural production's cultural and social significance for regional communities (Botterill & Cockfield 2014). Therefore, the strong presence of the agriculture industry within the local area, as discussed in Section 7.4, may influence the concerns over visual amenity raised in the community consultations. However, the visual impacts from wind turbines do not uniformly affect local communities as for some individuals, wind turbines may appear visually pleasing, with a majority who perceive wind turbines to be beautiful (National Research Council [NRC] 2007).

In regard to amenity impacts concerning noise, there is no evidence to suggest that noise directly causes health impacts, rather noise associated with wind farms (which is identified as mechanical, electrical, and aerodynamic) can lead to annoyance resulting in noise being perceived as a negative impact (Department of Health 2013). However, during consultations the majority shared concerns regarding noise impacts in relation to the construction phase of the project. Amenity impacts relating to the high volume of project related traffic and turbine transportation will likely be significant (as outlined in Section 7.3). As such, concerns regarding amenity impacts during the operational phase of the Project are believed to be subjective and based on personal landscape and aesthetic preferences. General project impacts on amenity and surroundings have been discussed in Sections 8.4.11 – 8.4.14, 8.4.19 and 8.4.20, relating primarily to construction and transportation activities.

7.6 Local business and economic impacts

The Southern Downs Region is reported to have various industry-leading operators located within the region (SDRC nd). Agriculture is a significant aspect of the local industry, with agricultural imports accounting for almost half of the region's exports (SDRC nd) (see Section 5). Consultation with the community and site visits supported this, demonstrating the highly agricultural quality of the project site and its surrounds. The majority of landholders spoken to were in the business of sheep farming, both for wool and meat. In Goondiwindi and Southern Downs Regional LGAs, agriculture, forestry and fishing is the top industry of employment, at around 10x and 5x higher than QLD as a whole, respectively (see Appendix A). Agriculture, forestry, and fishing is also the most common registered business by industry in the study area, at 45% in Goondiwindi LGA, and 38% in Southern Downs LGA (see Appendix A). Environmental factors such as the recent drought and related water scarcity, as well as local wild dog problems, were perceived by the community surrounding the project area as significant impacts on agriculture, productivity, livelihood, and the broader local economy.

The project site is encompassed by the Granite and Traprock area of SEQ which covers the area between Warwick, Inglewood, Texas, and Wallangarra including Karara, Stanthorpe, and Ballandean. The region features characteristically hilly and rough land-surfaces, which present a range of challenges amongst pastoralists and agriculturalists such as erosion, poor water holding, limited accessibility, and stony shallow soil coverage (Traprock Group 2020). As highlighted during the consultation period, sheep and wool production in the region is the most recognised and common agricultural industry, however, in areas further towards the east in the Granite Belt Region and Stanthorpe, horticultural industries specialising in stone fruit and grapes are a popular means of production (Traprock Group 2020). On a broader level, the general production environment of Southern QLD, which encompasses the local area, consists of a diverse range of soils, climate types and landscapes that encourage the production of a wide range of agricultural products (Department of Agriculture and Fisheries [DAF], USQ, RDA & Flood Leaders Australia nd). These findings have highlighted the significance and importance of agricultural practices and productivity throughout the region and have closely informed various impacts and strategies discussed in Section 8.

The Cooper's Gap Windfarm, which is approximately 200 km North of the project site, is similarly located on properties used for agriculture, specifically grazing and animal husbandry (ERM, 2008). The socio-economic assessment of the project illustrated that although impacts on local agricultural practices would likely result in significant economic impacts, this was highly unlikely to occur. The total land occupied by wind turbines, internal roads and infrastructure was 1% of the project area, which represented a minor and insignificant reduction in the availability of productive land that could be used by landholders (AECOM 2016). Further, the assessment highlighted that internal access roads constructed for the project may provide benefits for landholder and improve operational access within properties, as well as creating fire breaks and access for emergency services. Turbine structures were even noted as potential opportunities to provide shade and shelter for livestock in sparse, open paddocks (AECOM 2016).

As such, the operational phase of the project, it is unlikely that turbines will impact the productivity of the agricultural land on which they are located (Walker & Swift 2015). However, construction impacts to amenity and surroundings may potentially affect local landowner's ability to run livestock as per regular operations, as discussed in Section 8.3.3 – 8.3.4.

Impacts and mitigation recommendations regarding local business and economic impacts, particularly in relation to agriculture as discussed in Section 8.3, and 8.4.1 – 8.4.2, have been informed by these findings.

8 Social impact assessment

This chapter provides a ranking of the identified social impacts of the Project. The aim of the SIA is to assess the proposed change to the current social conditions and has utilised data from several sources to develop a layered picture of the potential social impacts (see Section 3) that are likely consequences or changes experienced by the community in which the proposed Project is located.

In order to prioritise the identified social impacts, a risk-based framework, provided in Appendix C, has been adopted in the assessment of social impacts. The framework is applied using a likelihood (Table 8.1) and consequence (Table 8.2) ranking to potential social impacts and benefits.

Table 8.1 Likelihood ranking and definition

Level	Rank	Definition
Almost certain	5	Has occurred in the past in this project (or operation) or in similar project OR circumstances could cause it to happen during the project (or operation).
Likely	4	Has occurred in the life of this project (or similar project*) or in the last few years of operations or circumstances could cause it to occur again in the next few months.
Possible	3	Has occurred at least once in this project or a similar project (or in the history of this operation).
Unlikely	2	Has never occurred in this project (or operation) but has occurred at other similar projects (operations) with similar risk/benefit profile.
Rare	1	Is possible but has not occurred to date in this project or similar projects.

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Table 8.2 Consequences ranking and definition

Positive Consequences (Benefits)			
Level	Rank	Extent of the benefit (people & geography - definitions for SIA*)	Duration of the benefit (definitions for SIA*)
Highly Desirable	4	The local, regional and potentially the national economy will benefit significantly. Improvements on social services and/or social cohesion.	Benefits will realise in the short term and will be permanent
Desirable	3	The local and regional economy will benefit. Improvements on social services.	Benefits will realise in the short to medium term and may or may not be permanent
Minor	2	The local economy will benefit. Improvements on social services.	Benefits will realise in the medium to long term and not be permanent
Minimal	1	Marginal improvements/contribution to local economy. Marginal improvements/contribution to social services and/or social cohesion.	Benefits will realise in the short term and not permanent

Table 8.2 Consequences ranking and definition

Negative Consequence (Impacts)			
Level	Rank	Level of impact (definitions for SIA*)	Duration of impact
Negligible	1	No or negligible socioeconomic impact.	Short timeframe impact on livelihood or liveability.
Marginal	2	Socioeconomic impact that will take small effort to restore and does not threaten livelihood. NO exogenous resources are required for the recovery.	Impacts on the livelihood or liveability are limited to the life of the project.
Moderate	3	Socioeconomic impact will require additional external resources to recover.	Impacts on livelihood and/or liveability will survive the life of the project.
Major	4	Socioeconomic impact will depend on external resources to recover.	Impacts on livelihood and liveability could survive long after the life of the project or can be permanent.
Extreme	5	Socioeconomic impact will depend on external resources to recover and may not be back to how it was before the impact.	Impacts on livelihood and liveability could survive long after the life of the project or can be permanent.

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Consideration of the findings from technical reports as well as the perceptions of stakeholders when conducting the social risk ranking to ensure an integration of expert and local knowledge in impact assessment and the development of appropriate impact mitigation, amelioration and enhancement strategies.

The impact assessment has been conducted using the primary and secondary data, findings from technical studies and academic research against the social baseline, and by balancing a range of complex factors and often competing interests, such as has:

- assessed some aspects of the Project as both negative and positive as they relate to different groups of people;
- included negative impacts on local communities while documenting the benefits to the broader region;
- considered the impacts on vulnerable groups and provided management strategies to ensure that any existing disadvantages are not exacerbated; and
- considered each community's access to critical resources, such as natural resources, housing, and health care, and how this affects their resilience.

The assessment is two tiered:

1. unmitigated negative impacts or unenhanced benefits using a worst-case scenario; and
2. residual effect on the basis that mitigation of negative impacts or enhancement of positive impacts are successfully implemented.

The assessment uses the terms unmitigated and mitigated when referring to negative impacts and un-enhanced or enhanced when referring to positive impacts.

The following summarises the findings from the social impact workshop for the life cycle of the Project as they relate to four core matters:

- workforce management;

- housing and accommodation;
- local business and industry; and
- health and community well-being.

8.1 Workforce management

This section provides a detailed assessment, unmitigated/mitigated and unenhanced/enhanced, of the workforce management matters and the livelihood impacts on the local and regional communities as a consequence of the Project related to:

- local workforce and local job competition (construction); and
- local workforce and local job competition (operation).

8.1.1 Livelihood related to local workforce and local job competition (construction) – unmitigated

Due to the highly specialised, technical nature of this Project, it is expected that the majority of the skilled workforce required for turbine installation/assembly and logistics and transportation of oversized turbine components will be sourced from outside of the study area as the highly skilled workforce within the study area is more limited compared to QLD (see Section 5). However, there will likely be indirect employment opportunities for local companies to provide services to workers and machinery used in installation and transportation stages, such as tyre repairs for cranes and trucks.

It is anticipated that a local workforce will be engaged, where possible to fulfill the civil works requirements of the Project. Opportunities for local workforce recruitment may include trade workers, engineers, construction labourers, electricians, ground maintenance, road maintenance, and road safety personnel. Sourcing workers locally will likely have a significant economic and social benefit for the local community and across the region both directly and indirectly.

Community and stakeholder consultation activities found that a recurring concern among stakeholders was the anticipation that there may not be sufficient availability of local workers for highly skilled roles during construction. Due to the specialised nature of the construction roles required, some of the community expressed concerns that the necessary workers, training, and skills would be sourced from Brisbane rather than developing capability in the local area, and furthermore limiting the spread of benefits within the community. During consultation participants also raised concerns that in areas near the Project where there is an already limited active workforce there are concerns that additional jobs generated by the Project will take skilled workers from local businesses. The Project may also generate competition for local goods and service providers within the local area – such as fencing contractors, food and accommodation services, security services, electrical services, ground maintenance, and road maintenance services – reducing their availability to work on other jobs within the study area. This competition may impact both local businesses providing goods and services to the Project and local residents who also require these services. As evidenced by the SIAs conducted for the Olive Downs Coking Coal Project (Elliott Whiteing 2018) and the Issac Downs Project (SMEC 2020), within communities characterised by large resource projects, boom times can establish pressure on local communities due to labour draw and competition for local resources. Local workforce and local job competition created by the Project during construction may impact local businesses' ability to retain both their staff and their existing local business commitments. Skilled workers may choose to leave their current employment if they are provided the opportunity to work for the Project, which may include reasons related to consistency of available work, salary/wage increases, and career opportunity and development (Elliott Whiteing 2018; SMEC 2020). Loss of staff would reduce local businesses' ability to maintain their current business capacity, reducing their economic viability.

Reducing local residents' access to skilled workers and local services could not only impact on local ability to hire services required for their livelihood and homes but could cause these services to become more expensive. As the local community surrounding the Project site has not experienced competition of the sort associated with the development of large resource projects and may not be familiar or equipped for the competition. Based on the assumption of supply and demand market forces, if supply of these goods and services does not increase with the increased demand of local goods and services by the Project, prices will rise.

Unmitigated, the impact of taking a skilled workforce and local service providers from the existing market to service the Project is assessed as Medium-8. As ACCIONA has committed to use local contractors it is almost certain that a proportion of those contractors will be hired locally. This competition for human resources is anticipated to have marginal consequences as the impacts on livelihood are limited to the construction phase of the Project.

8.1.2 Livelihood related to local workforce and local job competition (construction) – mitigated


Consultation participants across a range of stakeholder groups consistently identified employment arising from the Project as a significant potential benefit. Ongoing local employment creates a multitude of local benefits, including continued provision of income for local workers, recirculation of a greater share per dollar into the local economy due to local supply chains and investment in local employees (Civic Economics 2012, 2013), and improved community well-being and resilience (Adams 2018). It is recommended that ACCIONA hire subcontractors directly (opposed to hiring individuals) to avoid employee drain on local businesses. It is also recommended that Project workforce and subcontracting needs are clearly communicated to subcontractors so that they can communicate any delays to their customers or hire additional employees to service their existing business. As long as contractors are aware of Project needs, they can assess their options for managing their existing local business.

During consultation, many stakeholders raised the potential benefit associated with providing training and upskilling opportunities to local workers and youth in the study area. The provision of staff development and training opportunities is shown to increase job satisfaction amongst employees, resulting in increased productivity and quality of work (Truitt 2011; Australian Government 2020). Additionally, training and upskilling employees leads to improved company competitiveness due to maximisation of employee knowledge and innovation (Marin-Diaz 2014). In the local area, there are employment services who offer training, apprenticeship and traineeship services, and employment support services. Training and upskilling programs can be provided through local institutions such as Technical and Further Education (TAFE), University of Southern QLD (USQ) and the SSHS trade training centre, which includes provision of apprenticeship opportunities and scholarships for locals. Training and upskilling programs should focus on engaging and training/educating disadvantaged, Indigenous, unemployed, and young people with a view to employing recent graduates.

The successful implementation of these strategies would create additional economic activity within the community associated with local employment, provide opportunities for youth finishing secondary school, and further reduce unemployment within the study area. These measures could provide shared value legacy benefits which enhance the local workforce's and increase the region's capability to support large resource projects, specifically renewables. This would potentially lead to future opportunities and investments in the local area and create a skilled workforce to service future ACCIONA projects across Australia. Forming partnerships with Skills QLD to find apprenticeship and employment opportunities for workers who have been upskilled, started an apprenticeship program, or who are interested in beginning an apprenticeship program will further enhance this benefit.

With these mitigation strategies in place, livelihood impacts related to local workforce and local job competition becomes a Significant-11 Benefit. It is likely that these benefits will be realised, with positive consequences in the short to medium term which will extend to the local and regional economy. A summary of the assessment is provided in Table 8.3.

Table 8.3 Summary of livelihood related local workforce and local job competition (construction)

Social impact	Issue	Affected parties	Duration	Extent	Unmitigated	Mitigated
 LIVELIHOOD	Limited local workforce supply and increased local job competition	Local businesses servicing the Project and local residents who use those local services required of the Project	Construction – 24 months	Study area	Medium-8	Significant-11 Benefit

8.1.3 Livelihood related to local workforce and local job competition (operation) – unmitigated

The operational workforce of the Project will consist of up to 12 personnel. However, it is assumed that the operational workforce includes workers performing operational maintenance requirements (such as ground maintenance, fencing maintenance, road maintenance, and security), which could be sourced locally. Although the operational phase of the Project is not anticipated to create significant competition for local jobs and services, ACCIONA's commitment to local hiring could still result in a degree of competition for local workforce and businesses.


Unmitigated, the impact of taking a skilled workforce and local service providers from the existing market to service the Project during operation is assessed as Low-6. As ACCIONA has committed to use local contractors it is almost certain that a proportion of those contractors will be hired locally. However, negligible consequences are anticipated due to the small size of the operational workforce.

8.1.4 Livelihood related to local workforce and local job competition (operation) – mitigated

If the recommended enhancement measures during construction are successfully implemented (see Section 8.1.2), it is assumed that capacity of the local workforce and local businesses will have increased by the time the Project is operational, thereby reducing operational Project competition. In particular, the provision of training and apprenticeship opportunities related to servicing windfarm operations will create legacy benefits as more qualified personnel are trained year on year within the study area.

With the mitigation strategies implemented during construction, the impact of local workforce and local job competition during operation becomes a benefit, assessed as Moderate-6. It is possible that these benefits will realise, with positive consequences realising in the medium to long term which will extend to the local economy. A summary of the assessment is provided in Table 8.4.

Table 8.4 Summary of livelihood related to local workforce and local job competition (operation)

Social impact	Issue	Affected parties	Duration	Extent	Unmitigated	Mitigated
 LIFESTYLE	Limited local workforce supply and increased local job competition	Local businesses servicing the Project and local residents who use those local services required of the Project	Operation – life of the Project following construction	Study area	Low-6	Moderate-6 Benefit

8.2 Housing and accommodation

This section provides a detailed assessment, unmitigated/mitigated and unenhanced/enhanced, of the housing and accommodation matters and the livelihood and personal disadvantage impacts on the local and regional communities as a consequence of the Project related to:

- capacity and availability of local tourist accommodation; and
- capacity and availability of local rental and market housing.

8.2.1 Livelihood related to capacity and availability of local tourist accommodation – unmitigated

The study area is known for having the capacity to host large events of national and international scale and accommodate their crowds, an example was the Polocrosse World Cup in 2019 that attracted a crowd of over 5,500 (Andina 2019). As such, the 305 workforce of the Project is not expected to have a negative impact on the local tourism industry. A total of 316 accommodation options were identified within the study area through the SDRC accommodation database and desktop searches of accommodation within the Goondiwindi and Toowoomba areas. The SDRC database provided information regarding the number of rooms for each registered establishment, with a total of 1,044 rooms listed across 193 locations, which was the largest supply of accommodation within the study area. This is likely due to Stanthorpe's large tourism industry that peaks during the colder months from May to August, and subsequent fruit picking season in the summer months, where workers are often temporarily housed in short term accommodation, and Warwick's hotels, motels and caravan parks that service a busy calendar of events.

Whilst there is a large supply of short-term accommodation within the study area, the capacity and availability of these establishments is limited, as identified through consultation with local stakeholders, community members, and accommodation providers. Although a total of 316 tourist accommodation locations were identified throughout Southern Downs, Goondiwindi, and Toowoomba LGAs, many of these establishments were not appropriate for the purpose of housing the Project's workforce due to a range of factors including proximity, interest, size, amenities, and quality (see Section 5). The Karara pub is the closest short-term accommodation to the Project site and offers 4 motel style rooms. A search of local accommodation found that 24 short-term accommodation establishments were identified within a one-hour drive to the Karara site entrance and a minimum of 10 rooms, throughout the towns of Warwick, Inglewood, Millmerran, Tregony, and Elbow Valley. Amongst these, over 60% of identified accommodation was located within Warwick, which is approximately 30 minutes to Karara by car. Of the 24 businesses contacted, 20 expressed their interest in supplying accommodation to the Project and responded to questions relating to their capacity, occupancy, and facilities. An estimated total of approximately 183 private rooms of short-term accommodation was identified that complied with the requirements and standards identified above, with an average occupancy of 62.8% (ranging from a minimum of 6% and a maximum of 85%). However, many of these accommodation providers, as well as other consulted community members, expressed uncertainty regarding the capacity, availability, and capability of tourist accommodation in the area to house the Project's workforce.

A recurring issue raised during consultation was the inability for many accommodation providers to commit to long-term bookings over the 24-month construction period. The popularity of Stanthorpe as a local tourist destination as well as the success of various yearly events that are held in Warwick and Stanthorpe – such as the Rodeo in October and the Jumpers and Jazz festival in July – and throughout the region relies on the capacity in the study area to accommodate tourists. These establishments fluctuate significantly in occupancy and are often completely booked out during busy periods of the year and weekends leading to bookings up to a year in advance to cater for frequent attendees of annual events. If the remaining tourist accommodation is fully inundated with Project related bookings, and there is a lack of available accommodation for other visitors, there may be associated economic and social impacts such as a decrease in local business, tourism and attendance to events and festivals. Many business owners also referred to the presence of long-term guaranteed annual or regular customers as valuable and imperative to the continued economic viability of the tourism industry. If these customers are unable to find accommodation during the Project's construction phase, they may not return to the same establishments after the Project is completed, requiring these businesses to invest additional resources (such as advertising) to re-build their presence and customer base following Project construction. Furthermore, reducing the capacity of local tourist accommodation without increasing the supply of accommodation could put additional pressure on the market, resulting in increased accommodation prices throughout the study area which could deter tourists from purchasing accommodation and ultimately attending events and visiting the region. Subsequently, this could affect tourist spending within the study area and would leave accommodation providers with long term negative impacts following the cessation of Project-related business.

Unmitigated, the livelihood impact as a consequence of reduced capacity of local tourist accommodation providers to service their existing business is assessed as High-12. As ACCIONA has committed to using as much local accommodation as possible, the likelihood of livelihood impacts arising from limited capacity and availability of local tourist accommodation is almost certain. Without mitigation measures, moderate negative consequences are anticipated which could survive the life of Project and require additional external resources to recover business lost to the Project.

8.2.2 Livelihood related to capacity and availability of local tourist accommodation – mitigated

It is recommended that ACCIONA and their contractors only accept the rooms that accommodation providers are comfortable and interested in offering and limit the number of rooms of short-term tourist accommodation used by the Project. The preference for contractors to accommodate their workers in as few locations as possible may result in a perception that contractors are forcing or persuading accommodation providers to offer more accommodation to the Project than is their preference, at the risk of not being able to service the Project at all. The decision to rent to the Project may appear to be based on economically rational decision making. However, economic rational choice theory is based within the concept of rationality, and considers options and decisions within local structures of thought (DiRita 2014) which does not adequately consider agent cognition, goal-formation, and utility (ie worth/value) maximisation versus payoff (ie monetary) maximisation (Hodgson 2012; Ganti 2020). Although businesses are not compelled to rent to the Project there is significant benefits for their businesses during the construction of the Project. Local short-term accommodation providers with the capacity to rent at least ten rooms to service the Project would benefit from being provided the opportunity to rent the rooms they have available to the Project, while still being able to allocate rooms to service their existing business, which they have expressed is of significant value.

As part of the Accommodation Study (Appendix D) accommodation was identified for approximately 180 – 200 temporary workers at peak construction. Although there are likely financial incentives and logistical convenience for the Project to house the Project workforce in fewer locations, accepting accommodation providers' stated capacity will ensure that these providers are still able to allocate accommodation to their existing business commitments and customers. These providers and their capacity are presented in the Accommodation Strategy (Appendix E). ACCIONA and their contractors should also ensure that negotiations and contracts with tourist accommodation providers are flexible and account for general long-term commitments and customers to further avoid losses in their regular business. If only a portion of tourist accommodation is allocated for use by the Project construction workforce, the potential for businesses to forgo and potentially lose regular tourist business will be reduced. To supplement the use of local tourist accommodation to house the Project construction workforce, it is recommended that demountable housing is provided to accommodate the remaining proportion of Project workers. The use of land such as caravan parks, camping grounds and residential properties to install temporary workforce accommodation in the form of cabins and demountable buildings may provide economic opportunities and benefits for local individuals and businesses. Demountable housing could be repurposed by accommodation providers following the completion of the Project for tourist purposes. As there would not be an upfront investment for these structures, accommodation providers could decide to rent or purchase the demountable housing for tourist use following the cessation of the construction period to maintain their increased accommodation capacity. These demountable structures could also be used for social enterprise such as office spaces for local not-for-profit organisations who currently do not have the necessary resource to lease a space, or social/affordable housing. The Accommodation Strategy has identified an option for this demountable accommodation that is made of towable, registrable houses (Appendix E).


The use of cabins and demountable structures could also create a legacy benefit by diversifying local accommodation providers' clientele to include Project workforces and increasing the study area's capacity to service large upcoming projects, which is of particular interest with the anticipated development of the Inland Rail and Emu Swamp Dam projects (Department of State Development, Manufacturing, Infrastructure and Planning [DSDMIP] 2021) (see Section 8.5). This diversification would not only benefit accommodation providers but would inject resources into businesses supplying goods and services to accommodation providers, such as food/catering and cleaning goods and services. An increased capacity of local accommodation providers to house project workforces will also contribute to additional spending within local communities by these project workforces.

The implementation of these strategies would not only reduce the pressure arising from workforce accommodation on local tourist accommodation but would create additional benefits for local tourist accommodation providers and flow-on benefits to the study area. To increase benefits to the local community, it is recommended that workforce accommodation prioritises local businesses and locations in smaller towns surrounding the Project site, such as Inglewood and Karara, which do not receive much tourism. This would likely benefit these accommodation providers, as well as nearby towns by introducing new economic activity into these areas which are characterised by higher socioeconomic disadvantage.

In support of QLD Procurement Policy (see Section 4.2.4i) which aims to 'stimulate the ICT sector and drive innovation', there is also a potential opportunity to engage with ICT or develop a platform to liaise with local accommodation providers who have the potential to provide accommodation to workers of the Project. By harnessing the capability of modern software and technology, a communicative platform which could display the availability of local short term/ tourist accommodation, including smaller and less commercial providers, has the potential to support the Project's workforce and benefit the local community and economy by facilitating housing arrangements within local businesses. However, this will require additional feasibility assessment by ACCIONA. If further accommodation is required outside of these areas due to capacity and amenity constraints, comprehensive consultation with interested accommodation providers should be undertaken to ensure no long-term negative effects on business. This increased demand for local accommodation has the potential to result in positive economic activity and growth within the study area, if appropriately implemented and managed.

Assuming the successful implementation of these mitigation strategies the impact from increasing the capacity and availability of local tourist accommodation is assessed as Moderate-7 Benefit. A summary of the assessment is provided in Table 8.5.

Table 8.5 Summary of livelihood related to capacity and availability of local tourist accommodation

Social impact	Issue	Affected parties	Duration	Extent	Unmitigated	Mitigated
	Limited capacity and availability of local tourist accommodation	Local tourist accommodation providers in the study area and local goods and service providers for accommodation services (eg cleaning, laundry, catering, maintenance).	Construction – 24 months	Study area	High-12	Moderate -7 Benefit

8.2.3 Personal disadvantage related to capacity and availability of local rental and market housing – unmitigated

Consultation with local real estate agents and local accommodation providers revealed an extremely limited availability of rental properties in the area. Searches on realestate.com.au on early November and December 2020 and repeated in early January and February 2021 reflected these observations, with only 12 properties available for rent within Warwick, 5 properties for rent within Stanthorpe, and 6 properties for rent within Inglewood (REA Group 2021). Consultation participants noted that the region has seen a great increase in demand for rental and market properties in the past year, largely as a consequence of the COVID-19 pandemic with increasing number of people choosing to relocate to less-urban locations, as well as the Warwick meat processing plant that is a major source of local employment. As such, there is very limited availability of long-term rental accommodation options. Issues can arise from housing wind farm construction workforces which can place demand on the housing market and availability (Walker & Swift 2015). If local rental accommodation is inundated with additional demand to service the Project's workforce, this will likely cause increased housing scarcity and a further decrease in rental affordability. A decrease in rental affordability and availability would likely impact residents who are already vulnerable and may not have the flexibility and resources to find alternative housing. One community support service recognised this, expressing that an increased demand for local rental properties due to an influx of workers could significantly impact vulnerable members of the community such as homeless people and welfare recipients. Furthermore, after consultation with a real estate agent in Stanthorpe, it was highlighted that the increase in properties being purchased by those relocating from urban centres has in many cases caused landlords to put their previous rental properties on the market, leading to an increased number of tenants being evicted from their homes. This increase in individuals looking for replacement accommodation contributed to the strained availability of rentals in Stanthorpe. If additional pressure is put on the rental market, those who are left without accommodation may be at risk of homelessness in some extreme cases.

It should be noted that although the rental market has been significantly impacted by COVID-19 in Southern Downs, this has the potential to change by the time the Project begins construction. Various individuals expressed the perspective that there is currently an uncharacteristically high demand for rental accommodation, and the market will likely return to its previous state in a matter of months. However, given the unprecedented nature of this issue, it is difficult to predict how the housing market will have changed in the study area by the time the Project begins construction.


Unmitigated, the impact of adding additional pressure on the local rental and housing market to service the housing requirements of the Project is assessed as Unacceptable-16. Assuming a worst-case scenario without mitigation measures in place, the likelihood of impact is almost certain. If rental prices are increased as the Project workforce utilises rental housing in the local area and tenants are evicted or unable to afford rental costs, vulnerable residents who are living in locations such as Warwick and Inglewood may have to relocate to areas with fewer opportunities and services to afford rentals and housing. Major consequences could arise from this impact due to the forcing of vulnerable members of the community from their current homes. If the inflation of the rental market remains after the construction phase of the Project, the impacts on livelihood and liveability could survive long after the life of the Project or be permanent.

8.2.4 Personal disadvantage related to capacity and availability of local rental and market housing – mitigated

Currently, rental and market housing within towns such as Stanthorpe and Warwick likely cannot adequately support the influx of the Project's workforce. An effective mitigation approach to negatively impacting the capacity and availability of local rental and market is to prioritise other forms of temporary workforce accommodation during the construction phase of the Project. Potential options include tourist accommodation, and demountable/towable buildings and cabins (see Section 8.2.3). High demand for housing within the study area that is currently leading to evictions and housing uncertainty. The use of rental housing would exacerbate this problem. Therefore, the use of tourist accommodation supplemented by demountable housing to accommodate the Project workforce would avoid placing additional strain on the local property market. Furthermore, the demountable housing units that are easily towable and registrable and can be moved to local towns such as Warwick, Stanthorpe and Inglewood where rental accommodation is particularly limited (also do not require council approval processes and fees) are ideal for short term or longer social housing options and fulfil the community suggestion of ensuring any external workforce accommodation is repurposed or reused.

Mitigated, the impact from increasing the capacity and availability of local tourist accommodation is assessed as Negligible-1. With the successful implementation of the identified enhancement strategies, the likelihood of negative impact is rare with anticipated negligible consequences to the local community. A summary of the assessment is provided in Table 8.6.

Table 8.6 Summary of personal disadvantage related to capacity and availability of local rental and market housing

Social impact	Issue	Affected parties	Duration	Extent	Unmitigated	Mitigated
	Limited capacity and availability of rental and market housing	General population within 1 hour drive Project area - particularly vulnerable populations	Construction – 24 months	Study area, particularly those within 1 hour drive of the Project area	Unacceptable -16	Negligible -1

8.3 Local business and industry procurement

This section provides a detailed assessment, unmitigated/mitigated and unenhanced/enhanced, of the local business and industry procurement matter and the livelihood, economic resilience, and safety impacts on the local and regional communities as a consequence of the Project related to:

- limited capability and capacity of local content and suppliers;
- lack of business interest or awareness;

- agricultural livelihood impacts from construction;
- agricultural livelihood impacts from operation;
- economic benefits from tourism; and
- livelihood and safety impacts from fire risks.

8.3.1 Livelihood and economic resilience related to capability, capacity, and awareness of local content and suppliers – unenhanced

While agriculture, forestry and fishing industry is the most prevalent in Goondiwindi and Southern Downs LGAs and a high proportion of registered construction, rental, hiring and real estate services (see Section 5) indicating possible local suppliers that could be utilised during the construction of the Project. However, only 21 of the approximately 700 businesses who registered their interest to service the Project via the Industry Capability Network (ICN) gateway were located within SDRC and GRC areas. Based on consultation with local government and the local community during consultation, this registered interest does not reflect the availability of local businesses able to service the Project within the study area. This could indicate a lack of local businesses and services that meet the requirements to service and supply the Project or ability to access ICN to register their interest. This may also reflect a lack of business interest or awareness within the local area regarding the opportunity to service the Project or potentially a lack of awareness about the Project itself or limited information provided about how to register interest for the Project through the ICN gateway.

During consultation, participants expressed that the flow-on economic benefits arising from the Project would create opportunities within the study area, including continued development of industry and general benefits to the local and regional economy. The potential for the Project to create local benefits by engaging local content and suppliers to service the Project was frequently mentioned by stakeholder groups within the local community, including landholders, social service providers, local councils, the local chamber of commerce, and local organisations. However, the potential for the realisation of this benefit, both directly to local businesses and services and from flow-on economic benefits and provision of additional jobs, is reduced if suppliers do not possess the capability and capacity to service the Project. Additionally, without adequate provision of information and resources to allow interested local businesses to engage in the Project, local businesses will not be able to capitalise on the potential socioeconomic benefits of the Project.

Unenhanced, the benefit from engaging local businesses and suppliers to service the Project is assessed as Limited-3. Although it is possible that local businesses and services will be engaged by the Project, forgoing local businesses and suppliers by outsourcing due to a perceived limited capability and capacity of local suppliers represents a lost economic benefit. As such, without enhancement measures in place, the positive consequence is anticipated to be minimal due to marginal improvements and contributions to the local economy.


8.3.2 Livelihood and economic resilience related to capability, capacity, and awareness of local content and suppliers – enhanced

While at the time of the completion of this report the major contractor has been identified, there are many opportunities for local service providers to engage with the Project providing goods and services to those major contractors such as Project materials, cleaning, catering, and office supplies. To enhance the local and regional benefits from engaging local businesses and suppliers it is recommended that ACCIONA implement local buy programs such as the use of local buy cards. Local buy cards distributed to contractors, subcontractor, and workers, which would act as a debit or credit card which is only redeemable at identified local businesses, would enable the purchasing of goods and services directly from local businesses who do not have the capacity to fully service the Project. The provision of local buy cards for use at local businesses to purchase goods and services for the Project would allow contractors to purchase smaller amounts of required Project resources from local businesses, increasing their opportunity to supply the Project where the opportunity is usually lost to larger suppliers. It is also recommended that ACCIONA provide compliance workshops and supplier training to increase the capability and capacity of local businesses to the standard required to service the Project. An opportunity exists to form a partnership with the QLD Department of Employment, Small Business and Training (DESBT) to facilitate these trainings and liaise with their network of small businesses operating within the study area.

ACCIONA held two supplier information sessions (one each in Warwick and Stanthorpe) which provided information about Project subcontracting requirements and expression of interest registration through the ICN gateway. However, during consultation stakeholders felt that additional supplier information sessions would be necessary to accommodate local businesses who were not aware of the presentations that were held or who were not able to attend. In particular, GRC expressed that a supplier information session should be held in Goondiwindi LGA to increase information and awareness about subcontracting to the Project within the Goondiwindi area. It is recommended that ACCIONA hold additional supplier information sessions in Goondiwindi and Inglewood, as well as additional sessions in Warwick and Stanthorpe (at different times to accommodate attendance by business representatives working on different schedules) to further increase awareness about the Project needs and how local businesses can register. This would require ACCIONA to re-open the ICN gateway to allow additional local businesses to register their interest until at least the end of 2021. It is also recommended that ACCIONA offer appointments, information, and workshops at the Warwick ACCIONA shop front to provide additional assistance with using the ICN gateway. Further developing partnerships with local chambers of commerce would also enhance the opportunity for local businesses to be engaged by the Project, particularly by providing local chambers of commerce with information regarding the process of registering interest through the ICN gateway to relay to local suppliers. ACCIONA will address these jointly once the engineering, procurement and construction (EPC) contractor has been engaged. The implementation of these enhancement measures would increase the opportunities for suppliers to gain economic benefits from the Project. Providing additional opportunities for businesses who may not have been aware of the registration of interest for the Project would enhance the opportunities for suppliers to gain economic benefits from the Project. This would also create flow-on economic benefits to the local area as these businesses also require local goods and services for their own operation. In addition, the provision of training and compliance workshops would create a legacy by increasing supplier's capacity and capability, offering new increased business opportunities to supply future large projects within the local and regional areas. Improved capability and capacity would result in increased local and regional economic benefits due to local supply chains. This represents a shared value opportunity by increasing ACCIONA's access to qualified and compliant suppliers for future projects within the local and regional area.

The successful implementation of these enhancement strategies it is almost certain that local businesses and suppliers will be engaged by the Project, resulting in desirable positive consequences that benefit both the local and regional economy, and realised in the short to medium term. This benefit is assessed as Significant-12, a summary of the assessment is provided in Table 8.7.

Table 8.7 Summary of livelihood and economic resilience related to capability, capacity, and awareness of local content and suppliers

Social impact	Issue	Affected parties	Duration	Extent	Unenhanced	Enhanced
	Limited capability, capacity, and awareness of local content and suppliers	Local businesses and service providers and the local community within the study area	Construction and operation –life of the Project	Study area	Limited-3	Significant-12

8.3.3 Livelihood related to agriculture – unmitigated

The construction phase of the Project will contribute to the largest impacts to agricultural properties within the Project site. Various construction impacts (such as noise, traffic, vibration, and land use) will likely affect landholders' ability to use certain areas for agricultural purposes, including potential decreases in productivity and issues with livestock management. During the construction phase, intensive construction on paddocks may reduce the quality and productivity of land and interrupt existing stock grazing patterns. During consultation landholders raised concerns regarding the disturbance of their property during the construction of the Project due to the significant increases in traffic running around and through their paddocks, and the disturbance to their agricultural activities. Of particular concern to landholders was the potential for gates being left open, resulting in unplanned migration of their livestock and more importantly, increasing their susceptibility to wild dog attacks. The National Windfarm Commissioner of Australia (2020) explains that during construction significant disruptions to landowners can occur, with typical issues including:

- mismanagement of gates resulting in unplanned movement and escaping of livestock;
- reduced availability of land for agricultural purposes due to civil works, components waiting to be assembled, equipment moving around, and presence of construction staff; and
- last minute changes to the location and routing of internal roads, causing unexpected losses of pasture.

Traffic also poses a potential risk to endangering livestock – particularly at night and on unfenced access tracks. During consultation landholders raised concerns that increased traffic from construction vehicles could further risk the safety of their stock, which is already vulnerable to wild dog attacks and livestock theft. If not managed properly, the additional loss of livestock as a consequence of Project construction traffic could further impact local landholders' stock and potentially impact their livelihoods.

Dust generated by the Project can also impact agriculture livelihoods. Livelihood impacts associated with Project dust generation is largely associated with impacts to productive land and livestock feed located along unsealed roads near the Project site. Thick dust and debris can hinder the potential for crops and feed to grow in paddocks, limiting the potential productivity of livestock, especially during times of drought and limited water supply where feed is scarce. This was supported by landholders and graziers in and around the Project site, who stated that feed did not grow during recent periods of prolonged drought, and in some cases, trees had to be cut down for sheep to eat the leaves. Additional impacts on growing feed for sheep and cattle may have significant effects on local livelihood and agricultural industries. Greening (2011) describes the impacts of vehicle-generated dust, estimating that across the approximate 13 million km of unsealed roads worldwide, around 26 million ha of agricultural (cropping and grazing) land is negatively affected and productivity is reduced.

Most landholders engaged in consultation did not raise concerns that the operation of the Project would significantly impact their ability to continue their agricultural practices. In fact, landholders frequently noted the potential benefits of Project operation for their agricultural ventures, such as regular income from turbine lease payments providing financial security for their businesses, instead of identifying potential operational impacts. Consultation participants noted that they did not anticipate the Project to occupy large enough quantities of agricultural land to affect their current agricultural activities, particularly as the predominant agricultural activities operating within the Project site are grazing and animal husbandry which can be continued despite the presence of turbines within paddocks. Research examining the effects of windfarms on grazing and animal husbandry activities reflects the sentiments expressed by landholders, with studies demonstrating that windfarm impacts to grazing during operation can be considered negligible as livestock are able to graze beneath turbines (Hall, Ashworth & Shaw 2012) and most paddocks already contain access roads (Helldin et al. 2012). However, the absence or mismanagement of gates during the operation of the Project may contribute to operation activities impacting farming infrastructure, activities, and resources – particularly leaving livestock vulnerable to attacks by wild dogs.

Unmitigated, impacts to agricultural livelihood from Project construction and operation is assessed as High-12 as the likelihood of the impact is almost certain and there is the potential for moderate consequences due to the socio-economic impact associated with dust affecting livelihood activities, loss of space to continue grazing and potential endangerment of livestock. As the construction of the Project is occurring within the space of already operating agricultural businesses, the socio-economic impact would depend on a reasonable number of resources to recover (in the instance that livestock are harmed or killed), with the impacts within the local and regional area potentially surviving the life of the Project in extreme cases.

8.3.4 Livelihood related to agriculture – mitigated

Frequent communication and provision of information regarding the predicted construction impacts prior to Project construction are necessary to prepare landholders for impacts that cannot be fully mitigated and to provide an opportunity for landholder feedback and engagement. This communication will continue throughout the construction of the Project, with consistent and frequent communication occurring between landholders/farm management teams and Project management/construction teams. Exchange of contact details and establishment of grievance and redress mechanism will support effective communication and build trust.

It is imperative that gate and property access procedures, specific to individual landholder needs and requests, are developed and properly performed to reduce the potential for unplanned migration of livestock and to prevent wild dog attacks, road kills and mustering costs. The development of gate and property access procedures will require thorough and specific consultation with landholders, which has already been initiated by the ACCIONA Project team. The development of gate and property access and procedures will also include safeguarding measures specific to individual landholder preferences to ensure that the procedures are being followed, which may include calling landholders to notify them when gates are being opened and closed or taking photos of the gates to demonstrate proper protocols have been followed. Land access rules agreed with landowners will be provided to all corresponding construction and operation personnel. To reduce the potential impacts to livestock from construction traffic, driver and construction personnel will undergo inductions and training regarding transport and construction operations in and around Project sites and interactions with farming activities.

The placing of signage around Project areas to remind drivers and construction/operation personnel of livestock in the area, avoiding traffic movements directly around residences (as possible), and limiting speeds will also reduce impacts. In the instance that any livestock is injured or killed (whether from improper gate and property access and procedures or from construction/operation traffic) it is recommended that compensation be offered to landholders. However, high care should be taken to avoid this. The above mitigation measures would provide benefits to landholders by reducing landholder shock, irritation, and ensuring the safety of their stock during Project construction and operation. This would also enable landholders to plan and prepare their properties and businesses for the anticipated impacts and develop trust between landholders and the Project team.

Dust created by the Project can also be effectively managed if appropriate strategies are put in place and diligently followed. It is assumed that the Project will be required to improve roads and grade/compact surfaces to allow for high volumes of heavy traffic to pass through, as outlined in the TIA (GHD 2020). Road maintenance and monitoring should continue throughout the Project as discussed in Section 8.4.6, to ensure that road degradation does not further contribute to dust impacts surrounding the Project area. Roads should also be frequently compacted and graded to ensure surfaces do not become loose, and frequent hosing down and wetting of roads should be undertaken whenever roads become dry and dusty, as well as when heavy vehicles and high volumes of traffic are expected to pass through. Reducing the number of vehicles driving over dirt roads each day by utilising bus services and carpooling policies for workforce transportation (see Section 8.5.12) may also reduce the severity of dust created. Sealing 200m sections of road directly in front of properties and residences and the application of dust control measures onsite (such as watering of exposed areas) may reduce the degree to which dust is created. Communication and engagement with stakeholders and residents who will likely be affected by dust impacts along Carbean Rd and surrounding the Project site may further mitigate impacts by allowing for residents to prepare for and expect any dust related impacts, including consistent communication about any dust impacts on grazing productivity and any requirements to mitigate the impacts (including provision of stock feed, if necessary).

The provision of additional access tracks throughout the Project area and the installation of additional fencing could also provide benefits to landholders. The development of access tracks and improvements to existing roads across properties will not only provide ease of transport across properties and between turbines for Project worker but could provide improved transport conditions for landholders' day to day operations. During consultation, landholders expressed that the provision of access tracks and improvements to roads could be beneficial, with one landholder stating:


It's going to be very exciting because the tracks we've got at the moment are terrible...they haven't been changed for 30 years".

The installation of fencing could provide an additional benefit by assisting in the management of stock and protecting stock from wild dogs. Ultimately, the more that local farmers can produce from their agricultural activities the more the local economy will benefit. As local farmers increase their production capacity, they will require additional agricultural resources leading to the local purchasing of goods and services to support their agricultural ventures.

The identified mitigation measures implemented during construction should also extend to Project operations. During operation, further benefits to agricultural livelihood would arise due to the significant financial benefit to landholders from receiving turbine lease payments. The turbine lease payments would not only provide additional cash-flow which landholders can invest into their agricultural ventures but would provide financial security in the form of ensured income for 30 years (during the life of the Project). During consultation landholders frequently expressed that the lease payments from turbines would allow them to invest in resources that would improve the productivity and resilience of their agricultural businesses, including allowing them to install additional fencing to protect their stock from wild dogs, supplementing water and food for their stock during times of drought, and enabling them to re-stock or purchase additional stock.

With the implementation of the above mitigation and enhancement measures, the mitigated impact becomes a benefit, assessed as Moderate-6. Consistent communication, effective gate and property access and procedures, updated access tracks, the installation of fencing, and the financial benefits from turbine lease payments will have minor benefits, including benefits to the local economy and increased trust between landholders and the Project team, with a possible likelihood of benefit. A summary of the assessment is provided in Table 8.22.

Table 8.8 Summary of livelihood related to agriculture

Social impact	Issue	Affected parties	Duration	Extent	Unmitigated	Mitigated
	Construction activities impacting on farming infrastructure, activities, and resources	Residents in the study area, particularly landholders (farmers) within the Project site	Construction and operation – life of the Project	Study area, particularly those within the vicinity of construction and operation activities	High-12	Moderate-6 Benefit

8.3.5 Livelihood related to accommodation providers and the broader community due to economic benefits from tourism – unenhanced

During consultation and interviews with local stakeholders, the opportunity for local and regional tourism arising from the Project was frequently raised as a potential economic benefit. The potential tourism opportunities that will likely exist during the operational stage of the Project as a site seeing destination, may result in direct and flow on economic benefits for existing and new local business.

Wind farms are often recognized as tourism sites, with various windfarms throughout Australia offering tours, viewing platforms (AECOM 2016) and are associated with improving rural tourism that can help promote regional areas as ‘green destinations’ (De Sousa & Kastenholz 2015). Ecotourism in QLD is recognized as a fast-growing industry with Government plans in place to develop the ecotourism industry across the state (DPTIS 2020), as such the Project would contribute to the growing ecotourism industry, especially for the Southern Downs Region.

In various locations across Australia, windfarms have succeeded as tourist destinations and improved local rural tourism significantly due to positive perceptions amongst the public (Australian Wind Energy Association [AusWEA] 2002; De Sousa & Kastenholz 2015). However, this may detract from other tourist features within the local area and has the potential to only appeal to a small portion of the population interested in ecotourism or renewable energy sources (Commonwealth Scientific and Industrial Research Organisation [CSIRO] 2012). Towns such as Stanthorpe are currently recognized as regional tourism destinations, attracting significant numbers of visitors each year. Within the Southern Downs Region, the tourism industry comprised 6% of the local economy in 2016/17, with an increase in tourism outputs of 20% between 2011/12 and 2016/17 (SDRC 2018). The range of arts and cultural sites within the study area (see Section 5 and Appendix A) is likely reflective of the tourism industry in the Southern Downs Region, particularly in Stanthorpe (SDRC nd) and indicates a tourism market that could benefit from the Project and increased tourists. In addition, there is potential for tourists coming to Southern Downs that visit the Granite Belt Region to also visit the Project due to its proximity, and vice versa.

Unenhanced, the benefit from ongoing local employment during the operation of the Project is assessed as Limited-3 as Project-related tourism is possible but will likely only provide minor positive consequences. Windfarm-related tourism will likely exist in the local area without enhancement strategies and will likely fail to contribute significantly to the local economy or attract large volumes of visitors to the region.

8.3.6 Livelihood related to accommodation providers and the broader community due to economic benefits from tourism – enhanced

Enhancement strategies should focus on the establishment of, and improvements to, local tourist infrastructure to engage visitors and encourage local economic growth. Installation of infrastructure such as:

- signage;
- an Information Centre;

- viewpoints and lookouts, and
- a wind turbine replica or part (such as a blade) located either near the highway or within the local town.

This infrastructure would draw additional attention to the wind turbines providing and opportunities for tourists to see and do more when visiting the region. Distributing informational and tourist flyers to tourist information kiosks and hotels would increase interest and awareness of the site and what to do in the area.

An Information Centre in Karara may provide various opportunities for local business, such as a café or giftshop selling local wares and products. An Information Centre could potentially be established as a small windfarm museum, detailing the history of the site and the local area, as well as the development of the MacIntyre Windfarm Precinct and wind and renewable energy in SEQ and Australia. The Information Centre would require staff creating additional opportunities for local employment and economic benefits. According to AusWEA, hundreds of thousands of people visit wind farms in Australia each year, including both tourists who are casual observers and those who participate in tours (AusWEA nd). Examples of existing windfarms in Australia recognized as successful tourism sites often include significant tourism infrastructure and allow visitors to enter the site and see turbines up close (AusWEA 2002) such as Albany Wind Farm in Western Australia. The Albany Wind Farm is open to the public every day of the year, entry is free, and the site features large car-parking area, and boardwalks complemented by artwork and information panels (Verve Energy 2006) resulting in approximately 100,000 people visiting in 2003 (ERM 2008). The Albany Windfarm is a highly successful attraction, with 786 excellent and very good reviews out of 843 reviews posted on Tripadvisor (Tripadvisor 2021). Woolnorth Windfarm Tours in Tasmania is also highly rated amongst tourists (Tripadvisor 2021; Woolnorth Tours 2019). Wind farm tourism is also pursued internationally, with successful operations including (but not limited to):


- Whitelee Wind Farm and Visitor Centre (Eglesham, Scotland) – provides a visitor centre to learn about wind energy and is the access point to trails and other outdoor activities (Tripadvisor 2021);
- Jersey-Atlantic Wind Farm (New Jersey, USA) – approximately 15,000 tourists per year (Shahan 2011); and
- McCamey, Texas – advertised as the Wind Energy Capital of Texas (McCamey City 2021).

Bus tours are another potential incentive to attract tourists to the Project site and encourage local spending and economic activity within the local region. The Codrington Wind Farm in Victoria is a popular tourist attraction, running bus tours six days a week that illustrate the daily operational activities of the project. The Project could either provide self-operated and resourced bus tours of the Project site, or alternatively prepare information packages for local tourism companies, who may be able to run private tours providing interest and demand.

The positive benefits of attracting tourists to the Project site will likely exist outside the immediate local area and provide flow on economic benefits throughout the wider region. Visitors may be attracted to the region to visit the windfarm, and as a result visit other local town and engage in tourism activities throughout the study area. In this case, there will likely be a significant increase in business amongst establishments such as local accommodation, restaurants and cafes increased.

Enhanced, the economic benefits from tourism are assessed as Significant-11. With the successful implementation of high quality and well-designed tourism infrastructure, advertisements and visitor activities and information such as bus tours, a café or a small museum, it is likely that desirable benefits will occur. These services and facilities do not necessarily need to be operated by ACCIONA but can be facilitated by community members or local organisations to maximise the benefits for the community by providing increased sustainable economic outcomes that improve the livelihoods of local residents and businesses, creating shared value for the local community and the Project. The positive consequences increase to desirable as the local and regional economy will benefit from increased use of local businesses and additional visitors. Opportunities arising from tourism will likely be legacy benefits that continue in the long term, for the life of the Project, with economic impacts potentially extending beyond. A summary of the assessment is provided in Table 8.9.

Table 8.9 Summary of livelihood related to accommodation providers and the broader community due to economic benefits from tourism

Impact	Issue	Affected parties	Duration	Extent	Unenhanced	Enhanced
	Tourism opportunities associated with wind farm sightseeing	Residents and businesses within the regional area	Operation – life of the Project following construction	Study area	Limited-3	Significant – 11

8.3.7 Livelihood and safety related to fire risks – unmitigated

Occurrences of fire arising from construction activities and operation of windfarms is rare. However, the movement of construction vehicles through flammable vegetation, welding works, any electrical works, and construction workforce behaviours may contribute to fires within the Project site during construction. The operation of wind farms may pose additional fire risks arising from lightning strikes, machinery breakdown, failure in electrical installations, and resonant circuits (Confederation of Fire Protection Associations Europe [CFPA] 2010). Drought conditions may further increase these fire risks.

During consultation, multiple stakeholders raised concerns about potential fire risks associated with the Project. A representative of the fire brigade stated:

One thing that I can see is going to happen is that there's going to be a high risk of fire, from overhead lines and vehicles... and carelessness – people throwing their (cigarette) butts out.

Multiple stakeholders asked what consideration of fire risk will be taken into account and expressed an existing need for enhanced support and resourcing for the local fire brigade. One stakeholder noted that there is a need for improved appliances for the fire brigade, as the brigade within the Project site is only a bush brigade which does not have ample resources to fight fire on their own. Other stakeholders raised the issue of funding, the need for equipment to be maintained and updated, and a lack of volunteers. Without adequate resourcing of the RFB, local management of any potential fires would not be sufficient and could result in a significant fire event.

Stakeholders often raised the issue of fire in relation to the potential for bushfire to occur as a consequence of the Project, with these concerns arising from their recent experiences with the bushfire event that occurred in Stanthorpe in September 2019 and the continued drought-prone nature of the area. Although drought conditions will not necessarily result in bushfire, any bushfires that do occur would impact safety, livelihood, and business in the local area, and could possibly spread through the surrounding bushland. This would have significant impacts on the local and regional economy, as was evident during the Stanthorpe bushfire.

Unmitigated, the livelihood and safety impacts from Project fire risks are assessed as High-15. Although the likelihood of fire impacting the livelihood and safety of residents within the study area is rare, the negative consequences that would occur would be major, as evidenced by the recent Australia bushfire events which resulted in significant direct and indirect socioeconomic costs, including lost property, losses to agricultural production, loss of tourism, and loss of retail income. This is exacerbated by ongoing mental health impacts and inability to fully recover livelihood activities (Ambrey, Flemming, Manning 2017; Restructure and Taxation Advisory 2020). The socioeconomic impacts from bushfire will depend on a reasonable amount of external resources to recover (including firefighting resources, recovery lost livelihood resources and infrastructure, and loss of property) and could survive long after the life of the Project or be permanent. A summary of the assessment is provided in Table 8.10.

8.3.8 Livelihood and safety related to fire risks – mitigated

ACCIONA will conduct a bushfire risk assessment and subsequently prepare a Bushfire Management Plan, including emergency management, to ensure that the risk of bushfire is understood, and proper response protocols and procedures are in place. The following strategies should be incorporated into the development and implementation of a Bushfire Management Plan:


- engage with local emergency services (ie local fire brigades and rural fire response) to develop an emergency response procedure and clear lines of communication;
- assess the potential for establishing and maintaining asset protection zones;
- prepare rapid response units and train staff to operate;
- and provide landholders and nearby neighbours with the contact details of initial responders to ensure quick initial response time (also provide to surrounding local area via newsletter/Project site potentially).

It is also recommended that the minimal fuel load (ie ignitable vegetation) within the Project site is maintained by grazing, slashing, and/or mowing. During both construction and operation, this will be achieved by organising regular grounds maintenance of the Project site to ensure fire-prone vegetation is reduced within the area. Payments from turbine leases to landholders may also contribute to maintenance of the minimal fuel load during Project operation by enabling re-stocking or increased stocking of sheep and grazing animals. During consultation, many landholders within the Project area identified the most significant contributors to declines in their stock during the last few years to be wild dogs (killing of stock) and drought (insufficient water and food to support stock). Landholders who will be hosting wind turbines explained that the lease payments for the turbines would allow them to construct fencing to keep out wild dogs and maintain water and food supply to support their stock during times of drought. This re-stocking would contribute to increased grazing of paddocks within the Project site, thereby reducing fire fuel loads by removing highly flammable materials and ultimately reducing the intensity of wildfires in these grassed areas (Mountain Cattleman's Association of Victoria [MCAV] 2010; Davies et al. 2010; Launchbaugh, Limb & Torrell 2014).

Furthermore, an investment by ACCIONA in the form of an annual donation, firefighting equipment, and additional resources for the RFB could provide a shared value opportunity from improved fire protection for both the Project and the local community. During consultation, stakeholders suggested an annual donation to the RFB to address their underfunding. Stakeholders also explained that the RFB would have to travel to Karara to pick up water to manage any fires that occur within the Project site. During construction, it is assumed that boreholes will be drilled around the Project site to provide some of the water required during Project construction. If some of these bores remain after Project construction for use by the RFB, this could provide a low-cost solution to aid in the better management of potential fires within the Project site. Access roads constructed as part of the Project could also provide fire breaks and improved firefighting access. The creation of management plans and risk mitigation measures for prospective fires in a drought-prone area combined with the improvement of the resources of the local RFB (by providing additional equipment and/or leaving bores for firefighting purposes) would protect both the windfarm and the local community, creating a shared value outcome for ACCIONA and the local community.

In the current environmental landscape characterised by climate change and the associated increased risk of fire in areas prone to drought, the provision of increased abilities and resources to fight fires is paramount. With the successful implementation of the identified mitigation strategies, any fires that moved through the Project area and the greater study area could be better managed, even if those fires did not start within the Project area. With the successful implementation of the identified mitigation measures the livelihood and safety impacts from fire risk become a benefit with the community better placed to address any fires that occur in or move through the area. The livelihood and safety impacts from fire risks are assessed as Moderate-8 Benefit with an almost certain likelihood benefits to the community. The improvements to the readiness and capacity of the local community will realise in the medium term, with benefits occurring to both the local economy and emergency services, resulting in minor positive consequences. A summary of the assessment is provided in Table 8.10.

Table 8.10 Summary of livelihood and safety impacts from fire risks

Social impact	Issue	Affected parties	Duration	Extent	Unmitigated	Mitigated
 LIVELIHOOD	Project related fire risks during construction and operation	Residents of the study area	Construction and operation – life of the Project	Study area	High-15	Moderate-8 Benefit

8.4 Health and community well-being

This section provides a detailed assessment, unmitigated/mitigated and unenhanced/enhanced, of the health and community well-being matters and the access to infrastructure, community, way of life, public safety and wellbeing, amenity, personal and property rights, and livelihood impacts on the local and regional communities as a consequence of the Project related to:

- access to infrastructure due to water scarcity;
- community cohesion and social conflict;
- road degradation;
- traffic;
- amenity: dust, noise, vibration and light
- turbine safety;
- privacy and security;
- onsite waste management; and
- educational and related socioeconomic opportunities.

8.4.1 Access to infrastructure related to water scarcity – unmitigated

Water is a significant topic of concern and conversation across the study area, as result of severe drought declared in May 2018 and experienced over several years (SDRC 2020). As of 1 December 2020, the Australian Government declared the Goondiwindi and Southern Downs regions as fully drought-declared shires. The Goondiwindi Region have had medium water restrictions in place since 19 February 2020 which involves a 10% reduction for commercial properties and a daily limit of 250 litres per person within residential households (GRC 2020). During this time, the GRC released a drought resilience plan, imposing that farmers must scale back production and minimize production costs to adapt to the conditions of drought (GRC 2020). Drought has greatly impacted the Southern Downs region, with extreme level water restrictions in place, that prohibit outdoor water use, and general water use is limited to 120 litres per person per day (SRC 2021). Both Southern Downs and Goondiwindi Regional Councils have various support plans and initiatives in place to provide relief from drought (see Section 7.4). During consultations, concerns were raised regarding water sourcing for the Project as the region continues to struggle with drought throughout 2020 with graziers and landholders sharing how drought conditions have greatly impacted productivity and livelihood, resulting in significant economic hardship over the last several years. Residents interviewed shared that although personal water supply is currently stable, as recently as 2019 it was unstable, and tanks were almost empty. The unstable water supply caused particularly severe impacts for residents surrounding the Project site, as prior to the recent drought, landholders had not experienced water scarcity to this degree and had relied on surface water. As such, there are few bores in the local area, and residents rely on sources such as rain tanks and dams. In 2018, SDRC cut water access to Karara due to the poor quality of the underground pipes. On 18 March 2020 two boreholes were drilled in Goondiwindi to ensure long-term water security for the town (GRC 2020). In December 2019, ACCIONA funded a bore, pump, and tank system installed by the Karara Public Hall Committee. This allowed the town to access underground water supplies, providing an alternative to surface water which has been limited in recent years. The bore was met with significant support and positivity by the community and continues to be an example of community benefits resulting from the Project.

It is assumed that the Project's construction activities will require a significant volume of water (for activities such as concrete mixing and dust mitigation – see Section 8.4.11, however the source of this water supply remains unknown at this time. Assuming the Project draws water from a mix of sources, including surface water and underground water (through dams and bore holes) it is likely that activities will cause potential competition for, and impacts on residents' access to critical water infrastructure due to the existing scarcity and drought conditions. This may be particularly severe and unacceptable to residents, due to the recent history of drought in the region, and memories of extreme financial and social hardship. Although this impact will likely be felt mostly surrounding the Project area, there is also potential for an increase of local workforce staying in towns such as Stanthorpe and Warwick to increase water usage, which is currently strictly controlled. This was a concern raised by a local resident of Stanthorpe, who explained that any increase in population may have impacts on the community's access to water. This is supported by reports that Stanthorpe has been receiving 40 – 50 trucks of water per day since January 2019 (Robinson & Bradfield 2021).

Local community and stakeholder perceptions regarding project water use and access have the potential to affect wellbeing. Perceived project impacts on local water scarcity may cause significant upset and even distress if local residents reliant on water supply for their livelihood and everyday use perceive the Project is threatening their access to water due to inequitable use of local underground and surface water supplies. There is potential for community conflict, heightened stress, and overall diminished wellbeing if community perceptions are not adequately managed and mitigated, especially during the construction phase of the project.

Unmitigated impacts on access to infrastructure due to water scarcity is assessed as High-14, as the likelihood of the impact is likely and there is the potential for major consequences due to the socio-economic impact associated with competition for water resources in the local area, community perceptions, and the existing issue of water scarcity, which would require reasonable external resources to recover such as requirements to cart in water from elsewhere. The Project related competition for local water supply will likely only last the construction phase of the Project, but there is potential for impacts on agriculture to have long term economic consequences. A summary of the assessment is provided in Table 8.11.

8.4.2 Access to infrastructure related to water scarcity – mitigated

Ensuring that the Project maintains ongoing communication and engagement with the community regarding water use plans and strategies will assist in managing the community's perceptions surrounding water scarcity, water use and uneven distribution. Communicating fairness and equity of local water distribution and demonstrating that council approved water use plans are upheld during the life of the Project would likely improve overall community sentiment and perceptions of the Project's water use. Informing the community about where the Project water will come from and that hydrological studies do not anticipate it would diminish local supply and access to valuable resources will also help manage perceptions.


Project related improvements to water infrastructure may also offer opportunities for shared benefit outcomes, as the Project will have access to needed water supply that can also be provided to the community. This may include drilling bores, bringing in water from elsewhere via truck, improving local mains water supply, or constructing additional dams. Allowing the community and local residents to benefit from this increased water supply, either for business or personal purposes, may mitigate competition for existing water, and concerns relating to water scarcity and Project consumption. Project related water supply access points should ideally be placed in locations that benefit the wider community and neighbouring landholders to the Project site to avoid perceived uneven benefits to those additionally receiving turbine compensation.

A landowner within the Project site suggested locating a borehole at a communal location near the Project to allow all local residents to utilise additional supplies for agricultural or general use, as well as potential recreational and community events. Cement Mills community hall was identified as an example location for the bore as it has been recently renovated, is in an ideal location close to the Project site and features additional space that could be used for tourism purposes. In this example, water could easily be carted in trailers or trucks to nearby properties, which would be especially beneficial for residents during drought times as well as servicing neighbouring properties that are not receiving turbines. The bore location could then be further utilised to park caravans and establish a small campground, eg Cement Mills community hall has good quality bathroom facility that were recently fully renovated. Providing tourism opportunities may have associated economic benefits for local businesses and services, as well as small scale business such as firewood sales. Providing tourists access to areas where they can easily view turbines is likely to reduce trespassing on private properties.

Regardless of proposed improvements to local water access, the Project may impact and contribute to local water scarcity and draw from the limited supply in the region. As such, it is suggested that water needed for the Project should in part be brought in via truck from alternate locations. This may take pressure off local supply and prioritise the use of water by local agricultural businesses. However, local improvements to water access remain key mitigation strategies, as they provide enhanced benefits for the local community. Doing so has the potential to provide long term benefits, beyond completion of the Project, for local residents and farmers. Development of a water use plan in consultation with local community members, businesses, and regional councils, would increase compliance with current and future water restrictions.

The successful implementation of the mitigation strategies, including enhanced community consultation, water use plans, trucking in water, and installation and improvements to local water access points, would make improved local water infrastructure and local access to underground and surface water possible with the consequence providing a desired long-term legacy with social and economic benefits exceeding the Project's lifetime. The water scarcity is assessed as Significant-10 Benefit. A summary of the assessment is provided in Table 8.11.

Table 8.11 Summary access to infrastructure related to water scarcity

Social impact	Issue	Affected parties	Duration	Extent	Unmitigated	Mitigated
 PERSONAL & PROPERTY RIGHTS	Increased water scarcity	Residents of the study area	Construction – 24 months	Study area	High-14	Significant-10 Benefit

8.4.3 Community related to community cohesion and social conflict – unmitigated

Community cohesion impacts and social conflict was raised during community consultation, particularly by landowners who live within the Project site and will be receiving turbine lease payments. Some residents felt that they would experience other's jealousy and potentially loose relationships due to the presence of windfarms on their land and associated income. As such, there is potential for the Project to create and contribute to community and social conflict due to differing opinions of the Project and perceived unfair community consultation and benefit distribution across the study area. This may be particularly exasperated by the impacts experienced by landholders close to the Project site who will not be receiving direct economic compensation, and place potential strain on neighbour and community personal relationships (see Section 6 and Appendix B). If personal and community relationships breakdown, this may have ongoing effects on mental health and wellbeing, as residents may lose local support networks that are essential at times of hardship associated with agriculture (as discussed in Section 6 and Appendix B). This may also have flow on economic and social impacts, as disputes may affect where local residents choose to buy their goods and services (eg some individuals may avoid small towns where other resident's live or work to avoid further conflict and confrontation).

Previous research regarding wind farm developments has shown that during consultations, conflicts over wind farms often occur within the community (Anderson 2013; Gross 2007). Planning processes involved in wind farm developments have the potential to impact the wellbeing of a community if the community perceives the outcomes of engagement and planning processes to be unfair (Gross, 2007). The consultation and planning process, therefore does influence the overall support of a wind farm project with fairness being a major contributor to the perceived legitimacy and support for the Project from the community (Gross, 2007). Additionally, unfair consultation processes may lead to further conflict and distrust (Anderson, 2013). In rural Victoria, an anti-windfarm process occurred as the public participation process failed to address the concerns of the communities which led to the project being opposed by the community (Anderson, 2013). As a result, the project did not go ahead. Therefore, fairness should inform the community and stakeholder engagement process.

Unmitigated, community impacts related to community cohesion and social conflict is assessed as Medium-9 as the likelihood of the impact is possible and there is the potential for moderate consequences due to the social impact associated with loss of community relationships and support networks, potentially leading to a long-term impact on local community cohesion that may not cover following the completion of the Project. A summary of the assessment is provided in Table 8.12.

8.4.4 Community related to community cohesion and social conflict – mitigated


Ensuring that community consultation is equal and even and does not prioritise only those who are located directly within the Project site may improve conflict associated with unfair stakeholder engagement perceptions. Holding regular community information sessions, meetings and providing newsletters to the local community may allow the broader community to have a say and contribute to stakeholder consultation activities, whilst also increasing awareness of the Project and its anticipated impacts, and more importantly benefits of the Project.

Community activities and initiatives that involve a variety of stakeholders and contributors may increase cohesion and wellbeing, as well as ensuring residents receive frequent Project updates and information. Publishing printed newsletters or community newspapers may provide an opportunity for contributions from the local community in the form of local stories, historical and archival material, and events that are being held in the local area, as well as advertising of local businesses and Project information and updates. Ensuring any Project publication focuses on the community as opposed to being heavily branded, which may be perceived as a public relations exercise, would enhance community cohesion. Funding the printing and distribution of newsletters or community newspapers would allow them to remain independent and community driven. In addition, funding local events and initiatives such as the Karara Campdraft, community halls and agricultural shows would increase community cohesion, whilst ensuring Project benefits are evenly distributed and available to all in the local area. These events also provide relationship building opportunities for ACCIONA allowing them to be viewed as a part of the community in the longer term.

Community halls have been identified as symbolically and culturally important amongst the local population, as they represent the community and the value of coming together and supporting each other during times of shared hardship, as reflected during the drought period. Local residents explained that during the drought period, where many members of the community were experiencing financial and emotional difficulties, regular get-togethers at community halls, such as BBQs, were held weekly as social and support events. Funding of similar events at local halls, such as regular BBQs during the construction phase of the Project, with community members, ACCIONA representatives and local workforce in attendance, may increase community cohesion and allow local residents to discuss their shared experiences of the Project. This may provide an opportunity for the community to come together and discuss the Project as it is being constructed, support one another with any concerns they have and discuss the experience. This has the potential to create long term wellbeing and community cohesion benefits, that may be continued following the completion of the Project's construction stage if interest remains.

Assuming the successful implementation of the mitigation strategies, community events and initiatives, community impacts related to community cohesion and social conflict will likely improve as community cohesion is achieved and social conflicts avoided, consequently improving, and supporting a resilient, cohesive, and supportive community. The community benefits are assessed as Significant-11. Upon successful implementation of the proposed mitigation measures, the potential for significant community benefits becomes likely, with desirable positive consequences for the local and regional economy. A summary of the assessment is provided in Table 8.12.

Table 8.12 Summary of community related to community cohesion and social conflict

Social impact	Issue	Affected parties	Duration	Extent	Unmitigated	Mitigated
 COMMUNITY	Community and social conflict	Residents of the study area	Construction and operation – life of the Project	Study area	Medium-9	Significant-11 Benefit

8.4.5 Public safety and wellbeing related to road degradation– unmitigated

The existing road quality surrounding the Project site is currently not optimal for Project activities, making it especially at risk of further degradation due to Project related increases in traffic during the construction phase, that may significantly impact public safety and wellbeing. The road traffic assessment (GHD 2020) describes the existing conditions along turbine transportation routes and the adjacent road network to the Project area. Whilst highway sections of routes are identified as high-quality sealed roads, Carbean Rd is described as an unsealed uncompacted dirt road with poor quality pavement conditions, and inadequate skid resistance for turning vehicles. Carbean Rd is the main road connecting the Cunningham Hwy to the Project site and will be utilised as the primary access route for delivery, haulage and workforce vehicles entering the site. The TIA (GHD 2020) also predicts that during the core construction period there will be an estimated 299 trips per day over 20 months, across turbine and material transportation, and general workforce traffic. This estimate assumes that peak workforce will be 232 people and that workforce vehicle occupancy rates will be 1.5 people per vehicle. However, updated workforce numbers assume that there will be a peak workforce of 305, hence the traffic estimate should be used as a low range figure. Whilst there is no data provided regarding the current baseline traffic volume on Carbean Rd, the TIA highlights that construction traffic is expected to increase well above the threshold daily volumes of 5%.

Poor quality local roads, as well as potential impacts on public safety and wellbeing deriving from Project-related traffic were frequently mentioned as an area of concern from community members involved in stakeholder engagement. Multiple landholders within the Project site that rely on Carbean Rd identified the poor quality of the road as a current problem facing the local community. They noted that there have been recent difficulties attempting to get the road graded, and that local residents felt that the council had neglected road maintenance of local roads, specifically Carbean and Cement Mills Rds, which will be used by most Project traffic, including heavy oversized haulage vehicles. One landowner voiced specific concern regarding the potential for poor quality local roads to impact local health services, due to a potential increase in traffic accidents caused by road degradation and increased traffic. Considering the poor quality of roads such as Carbean and Cement Mills, in addition to the high volume of anticipated Project traffic, there is a significant potential for road quality to worsen, with an increase in potholes and uneven surfaces causing traffic incidents that may result in injury or potentially death of road users, including Project personnel, residents, and emergency services.

Unmitigated, the impact to public safety and wellbeing related to Project generated traffic and road degradation is assessed as Unacceptable-16 as the likelihood is almost certain as road quality is already poor and a safety concern, and any additional heavy frequent use will likely degrade the quality significantly. The potential consequence for this impact is intolerable, as any road related incidents caused by Project-related degradation have the potential to result in serious injury or death, which will have a lasting impact on safety and wellbeing that may survive long after the life of the Project. A summary of the assessment is provided in Table 8.13.

8.4.6 Public safety and wellbeing related to road degradation – mitigated


Preliminary road maintenance and improvements will likely mitigate initial road degradation concerns by ensuring that roads are of a good quality when the construction phase begins. This process should begin early to ensure that roadworks do not occur overlap with construction, as this will likely create and prolong the identified traffic impacts. It is understood that planning permits will require road improvements prior to the commencement of any construction activities, which will significantly mitigate associated safety and wellbeing impacts. Engaging bus services and carpooling as a workforce transportation strategy will likely mitigate some road degradation impacts due to the reduced number of vehicles travelling to and from site daily. Road improvement requirements as outlined in the TIA report (GHD 2020) are assumed existing commitments of the Project to mitigate identified traffic related safety impacts. On Carbean Rd these include widening the cross-section of the road to allow for two-way traffic, providing compacted shoulders, sealing 200 m of the road with bitumen at the Cunningham Hwy intersection/turn off, and developing a traffic management plan (TMP) and road user management plan (RUMP). In addition to these improvements to Carbean Rd, it is suggested that the length of the road is regraded, either by local councils or the Project directly, to minimise uneven surface and the potential for potholes to develop.

Following initial road improvements and upgrades and the development of the TMP and RUMP, mitigation strategies should be ongoing to include ongoing frequent road monitoring and maintenance to prevent further degradation and impacts to public safety and wellbeing. Employing and engaging local road workers to conduct maintenance and monitoring activities may provide shared benefits to both the local community and the Project, as roads and site access will be maintained whilst local workers receive economic benefits and employment.

Frequent road monitoring and maintenance between Karara and the Project site to mitigate degradation impacts, such as potholes or uneven surfaces, will enhance the safety of site access for local residents and the Project team. Frequent road surveys, conducted at intervals appropriate to the Project Workstage, should be conducted to ensure monitoring is up to date and consistent. These road safety positions; road maintenance and monitoring will likely involve a number of jobs that require minimal qualifications or skills which can be filled by local unskilled/unemployed workforce who may not have the capability to work directly onsite. Local workers will also likely have a specialised knowledge of local roads and conditions. Employment of road works and monitoring team can begin early in the construction phase of the Project to prepare for the gradual increase in construction activities and workforce.

Following mitigation, safety and wellbeing impacts arising from road degradation due to increased Project-related traffic is assessed as a Limited-4. Upon successful implementation of the proposed mitigation measures, including initial road improvements, the development of a TMP and RUMP, and the ongoing monitoring and maintenance of roads by road workers from the local community, the potential consequence are enhanced to a likely benefit, due to the potential long term road improvements surrounding the Project site improving safety and wellbeing. However, benefits will be limited as they will not be widespread throughout the wider community and are likely to only impact residents surrounding the Project site and living directly along improved roads. However, the likelihood of the impact remains almost certain. A summary of the assessment is provided in Table 8.13.

Table 8.13 Summary of public safety and wellbeing related to road degradation

Social impact	Issue	Affected parties	Duration	Extent	Unmitigated	Mitigated
	Local road quality and degradation caused by increase in Project related traffic and transportation	Residents and road users along the traffic route within the study area	Construction – 24 months	Study area (particularly Carbean, and Cement Mills Rds)	Unacceptable -16	Limited-4 Benefit

8.4.7 Way of life related to traffic delays – unmitigated

A significant increase in Project related traffic and vehicles on local roads may have impacts on way of life for residents and road users in the study area and along transportation routes, due to potential traffic congestion, delays, and disruption. The TIA provides baseline traffic volumes by using the 2018 annual average daily traffic (AADT) data from the Department of Transport and Main Roads (TMR). The data demonstrates that sections of Toowoomba-Karara Rd and Cunningham Hwy (Warwick to Inglewood - section west of Toowoomba-Karara Rd intersection) will have traffic increases from 4.9% to 30.2%. All other points along the transportation routes will have minimal traffic increases below 5%. Data was not available for key areas expected to experience particularly significant traffic delays such as Pratten St in Warwick, and Carbean Rd in Karara. However, the assessment noted that traffic on Carbean Rd was expected to have a minimum increase over the 5% threshold. The traffic assessment (GHD 2020) assumes Project traffic on a low range estimate of 299 Project related trips per day at the peak construction phase, including turbine transportation, material deliveries and Project workforce. This figure will likely be significantly higher, due to the increase in estimated Project workforce to a peak of 305 people during construction (ACCIONA 2020). Furthermore, the traffic route surveys (LCR 2020; 2020) outline several points in which traffic build ups and congestion may occur due to inability to allow traffic to overtake loads, including parts of Cunningham's Gap that do not feature dual lanes, and hence require oncoming traffic to be stopped as the load

will use the whole road. However, these movements will occur during the night to minimize the number of vehicles affected by such delays. Vehicles are also subject to a curfew when passing through towns such as Warwick, between 7am to 9am and 4pm to 6pm to avoid peak traffic times and additional congestion. If vehicles leave the port late at night or in the early hours of the morning, they will likely reach the Project site before the 7am-9am curfew. However, when the vehicles then return to port, they will likely be driving through towns at busy morning times, posing additional traffic delays. Workforce will also likely arrive on site in the morning before peak traffic and school drop off times, minimising delays for local commuters. However, it is difficult to predict when workforce will be finishing shifts and returning to their accommodation, as there may be varying shift times and onsite project delays.

At points along transportation routes and surrounding the Project site there will be a significant increase in the number of vehicles on the road that will lead to traffic delays to some degree, in addition to the delays that will occur for any road users at critical points where overtaking is not possible. Impacts on lifestyle may occur when residents and road users experience delays that impacts their daily activities and way of life, such as going to work or school. As stated in Appendix A, the primary means of travel to work in the study area is by car, either as the driver or as a passenger (74.3%), with a very small proportion of public transport use (0.5%). As such, the study area likely already generates a high degree of traffic vulnerability to delays and relies heavily on this mode of transport to ensure their livelihood. If traffic accidents or incidents occur due to an increase in vehicles on the road, this will further cause delays and disruptions for road users and residents within the study area. Concerns regarding Project related traffic increases and congestion was raised multiple times during community consultation, including with council members, landholders, and other general community members. A point of contention was concerns regarding transporting turbine components through Cunningham's Gap, as this route is already frequently used by general traffic and heavy loads, and additional oversized vehicles would cause potentially major traffic delays and disruptions.

Unmitigated, the impact to lifestyle due to Project related traffic delays is assessed as Low-6 as the likelihood is almost certain as outlined in the traffic assessment and route surveys. However, the consequence of this impact is considered negligible as the impacts will be short term, at the times the traffic is road busy, and cease following the completion of the construction phase of the Project. A summary of the assessment is provided in Table 8.14.

8.4.8 Way of life related to traffic delays – mitigated

Like Section 8.5.6, it is assumed that the Project will undergo several road improvement strategies to improve the capacity of local roads to facilitate high volumes of Project related traffic. This includes widening the cross-section of Carbean Rd to allow for two-way traffic. Road improvements outlined in the TIA may mitigate some traffic delay impacts surrounding the Project site. Utilising the Toowoomba Bypass (second range crossing), which largely avoids major towns, to return haulage vehicles from the Project site back to the Port may mitigate additional delays associated with driving oversized vehicles through Warwick during the day.

Communication and engagement with stakeholders and residents who will likely be most affected by traffic delays may mitigate lifestyle impacts by allowing for road users and residents to plan alternative travel routes, and ensure they expect the volume of traffic that is anticipated. This may include doorknocking and private meetings with residents located in key impacted communities and along routes, community information sessions, public notices, or newsletter style communication. Consultation will also provide residents with opportunities to voice their concerns and comments regarding traffic impacts. This includes liaising with local councils, TMR, local schools, businesses and any other relevant stakeholders regarding expected congestion and traffic delays.


Installation of signage indicating possible delays and congestion may also mitigate related lifestyle impacts. Signage should be located before traffic issues to ensure drivers are given sufficient warning and are able to detour before they reach the point of congestion and are unable to reroute. This may require additional consultation with the local community and councils to establish which locations would be ideal for signage based on detour options, as local knowledge of roads and routes will be useful to determine this. An example given by a stakeholder in Inglewood was to install signage visible when leaving town in the direction of Warwick, to allow for drivers to bypass Karara entirely if desired. This will require engagement with relevant local councils regarding public roads and infrastructure.

The additional traffic generated by the Project will primarily be vehicles associated with turbine transportation and material deliveries, which cannot be reduced. However, another significant source of traffic will be workforce coming to and from site. Utilising charter bus services or enforcing carpool policies amongst the workforce may significantly reduce the Project's daily traffic volume, and in turn minimise potential lifestyle impacts arising from traffic delays in the study area. As the majority of workforce will likely be housed in temporary accommodation within 10-45 minutes of the Project site, bus services could pick up and drop off employees directly at accommodation locations each day. This would require accommodation to be located in relatively close clusters to avoid long trips, which would be an additional unnecessary cost to the Project. Bus services may successfully mitigate workforce related traffic and congestion, whilst also providing economic and social benefits to the workforce and local community. Local bus service companies would receive direct economic benefits, whilst Project related emissions and fuel consumption would be reduced overall. The risk of driver fatigue and overexertion is also mitigated by shared transportation, increasing workforce safety and productivity. There is also potential for enhanced social cohesion and integration within the Project workforce, reducing the amount of time workers spend alone which may be beneficial for mental health and wellbeing.

Carpooling policies would provide similar benefits whilst mitigating traffic delay impacts. One company car could potentially transport up to 4 workers staying in the same accommodation location to and from site, reducing the number of cars on the road by three quarters. In addition to reducing the number of cars on the road, both bus and carpooling strategies may benefit local landholders who have raised concerns regarding security and privacy on their properties during the construction phase of the Project. Project branded cars and charter busses would likely be more recognisable than private employee cars, allowing landowners to easily identify who is a member of the Project team.

Following mitigation, it is unlikely that traffic delay impacts on lifestyle will change, as Project related traffic cannot be completely eliminated. As such, the impact to lifestyle due to Project related traffic delays remains a Low-6. However, mitigation strategies may reduce the degree to which traffic delays occur and allow for those affected to prepare for expected impacts in advance. A summary of the assessment is provided in Table 8.14.

Table 8.14 **Summary of way of life related to traffic delays**

Social impact	Issue	Affected parties	Duration	Extent	Unmitigated	Mitigated
	Increased traffic congestion caused by turbine transportation	Road users along haulage routes and residents	Construction – 24 months	From the Port of Brisbane to the Project site via Cunningham Hwy and Toowoomba by-pass (entire haulage routes)	Low-6	Low-6

8.4.9 Public safety related to traffic– unmitigated

Public safety impacts may occur due to Project related increases in traffic on roads surrounding the Project site and along haulage routes. It is estimated that the Project will generate at least 299 daily trips during the core construction phase. Additional traffic on roads, including oversized vehicles on small or unsealed local roads, has the potential to cause an increase in collisions and accidents in the study area. The TIA notes that there have been 19 crashes within the adjacent road network to the development area since 2000, between the Cunningham Hwy/Toowoomba Karara Rd intersection, and Cunningham Hwy 8 km section as reviewed in the report. Six of these incidents resulted in hospitalisation, and one led to fatality. However, this data does not include crash history on Carbean Rd, or the wider transportation routes. As stated in Section 5.3.4 of Appendix A, road incident trends between 2014 – 2018 demonstrate that Southern Downs LGA had a higher rate of incidents when compared to Goondiwindi LGA, although both LGAs recorded significantly lower incidents than Toowoomba LGA. This data suggests that currently road incidents surrounding the Project site are relatively stable but may increase alongside a significant increase in Project related traffic. The low number of traffic incidents in the area may cause local drivers to not anticipate potential hazards and additional traffic resulting in an increased risk of collisions and accidents. Local residents also expressed safety concerns arising from additional Project traffic and hazardous loads. A neighbouring landowner to the Project site explained that he felt it was an inherent risk to public safety having high volumes of traffic travelling at speed down small dirt roads, which may be enhanced if road degradation is not adequately mitigated (see Section 6 and Appendix B).

School zones, residential, and commercial areas have been also identified as particularly at-risk due to safety concerns, as people are more likely to be crossing roads and using footpaths. Towns and roads closer to the Project site, such as Karara and Carbean Rd, will likely receive the majority of direct public safety related impacts, as a higher concentration of Project related vehicles will be passing through, and roads have been noted as poor quality by local residents. Residents of Pratten St in Warwick are also expected to experience particularly enhanced public safety impacts, due to narrow footpaths, driveways, multiple school zones and a high number of residential properties. Due to the safety standards in place for oversized haulage, including full police escorts and requirements to travel during the night, significant safety impacts are unlikely during turbine transportation trips.

Another potential issue that may enhance public safety impacts is driver fatigue experienced by both workers travelling to and from the Project site, often after long physically exhausting shifts, and logistics and transportation drivers who have been driving for extended periods, often through the night. The potential for fatigued drivers to be involved in road incidents is significant, and may put local residents, pedestrians, other drivers, and workers themselves, at significant risk.

Unmitigated, the impact to public safety due to an increase in traffic is assessed as Unacceptable-16 as it is considered likely for road accidents to occur when a high number of additional vehicles are on the road, some of which will be oversized and hazardous, challenging loads, and drivers are at risk of fatigue. The potential consequence for this impact is intolerable, as any road related incidents caused by Project-related traffic have the potential to result in serious injury or death, which will have a lasting impact on safety and wellbeing that may survive long after the life of the Project. A summary of the assessment is provided in Table 8.15.

8.4.10 Public safety related to Project traffic – mitigated


Similarly, to traffic delay impacts on lifestyle (Section 8.4.8), it is difficult to completely mitigate the risk of traffic accidents and collisions in the study area. However, it is assumed that the Project will enforce several road safety standards and policies to mitigate potential incidents and driver fatigue. These may include enforcing driver training, induction and codes of conduct, additional road curfews, speed limits, and Project grievance mechanisms. The TMP and RUMP aim to highlight potential hazards, risks and dangers associated with roads that will be heavily used by the Project, to anticipate and prevent any expected impacts on public safety (GHD 2020). Local road improvements, as highlighted in the TIA, include sealing the first 200m of Carbean Rd after the Cunningham Hwy. Three crashes have been reported at this turn off since 2000, one of which resulted in hospitalisation. Improving this intersection may reduce the risk of crashes and injury associated with additional traffic turning onto Carbean Rd. Widening this road and conducting regular maintenance will also mitigate safety impacts. Improvements to local infrastructure may also offer potential long-term benefits to the community that can be utilised following the commencement of any traffic related impacts and the Project as a whole. Installation of improved signage for the safety of drivers will potentially mitigate some safety concerns. This may also include signage indicating hazards and oversized loads. Communication with the community, and relevant authorities and organisations may improve safety, as road users and stakeholders will be able to anticipate and expect potential safety risks and hazards on local roads. Relevant authorities may include the local QPS division, SDRC, GRC, and TMR.

As discussed in Section 8.5.8 utilising local bus services, and enforcing carpooling policies amongst the local workforce to get to and from site may reduce the volume of daily Project-related traffic volume significantly. This may in turn mitigate public safety impacts arising from Project traffic, as the overall number of individual cars on the road would be reduced. Carpooling and bus services may also mitigate the safety impacts of driver fatigue, as workforce will not be driving alone to and from site after long, and physically enduring shifts. This is a benefit for both workforce health and safety, as well as that of the general public and other road users.

Directly engaging road traffic control and safety teams along routes with anticipated heavy traffic will likely mitigate safety impacts by ensuring monitoring of local roads and driver conduct is undertaken during periods of heavy congestion and deliveries. Furthermore, hiring traffic control personnel from the local community has the potential to create additional employment opportunities related to the Project that may not require the same degree of experience and skill as turbine construction positions. Economic benefits may extend to local communities, especially those in close proximity to the site that have minimal resources to offer such as Karara and Inglewood.

Following mitigation, public safety impacts from Project traffic is assessed as High-15. Upon successful implementation of the proposed mitigation measures, including the implementation of safety policies and driver training, communication with stakeholders and authorities, enforcing bus and car-pooling policies, and engaging local road safety and traffic control teams, the potential likelihood is reduced to rare. However, the consequences of a rare road accident or collision to occur remain intolerable, as the potential for injury or death remains. A summary of the assessment is provided in Table 8.15.

Table 8.15 Summary of public safety related to Project traffic

Social impact	Issue	Affected parties	Duration	Extent	Unmitigated	Mitigated
	Potential road accidents arising from Project traffic congestion (material transportation and movement of workforce)	Road users, residents, and pedestrians along transportation routes and surrounding the Project site	Construction – 24 months	Roads within the study area and along transportation routes	Unacceptable -16	High-15

8.4.11 Health and wellbeing related to amenity issues from traffic– unmitigated

Anticipated high volumes of Project related traffic, and the heavy oversized vehicles, as outlined in the TIA (GHD 2020), will potentially create dust and debris along unpaved roads surrounding the Project site. Dust may also occur as a consequence of machinery and increased personal onsite, causing displaced dust which may be particularly exacerbated given the dry and sparse nature of the Project site. Dust may also be increased due to road degradation and existing poor quality unsealed roads. This may lead to Impacts on amenity, health, and livelihood.

Dust impacts on amenity may impact the ability for residents to utilise and enjoy their surroundings as they usually would in day-to-day life. This may be exacerbated by the rural and remote nature of the Project site and surrounding properties. These properties are also predominantly sheep farms, with landholders running and managing properties and stock themselves, meaning that they spend large periods of their day working in paddocks outside. This will likely place landholders more at risk to experience any amenity or health impacts associated with dust.

Health concerns relating to dust were primarily raised in regard to existing respiratory impacts, with concerns that an ongoing increase in dust and debris in the air during the Project phase may exacerbate symptoms of conditions such as asthma, chronic obstructive pulmonary disease (COPD), allergies, rhinitis, and emphysema. During consultation with one landholder, located 2 km from the Project is concerned about health impacts from vehicle related dust as the existing dust levels cause suffering due to an existing chronic respiratory condition. The increase in Project related traffic and the known impacts of dust on people suffering from chronic respiratory conditions support the concerns for such residents (QLD Health 2018). As such, it is expected that other individuals surrounding the Project area may be at risk of dust related health impacts, or potentially suffering from other respiratory illnesses.

Amenity and wellbeing impacts associated with heavy and frequent traffic on transportation routes also include noise, vibration, and light pollution, all of which have the potential to significantly impact the quality and quantity of sleep for local residents. Lack of sleep will likely lead to resident's wellbeing, and may have ongoing effects regarding related health, productivity, and livelihood. For resident's living along Carbean Rd, amenity and wellbeing impacts will likely be significant, as all Project-related vehicles will be required to use this road at all times of the day. Noise and vibration from construction activities will also likely be felt by residents of Carbean Rd, enhancing cumulative impacts to noise and amenity. Noise, vibration, and light is expected to affect the way that residents interact with their surroundings and go about their day to day lives. However, the most significant aspect of persistent long-term noise, vibration and light will be potential impacts on sleep and associated wellbeing. As oversized turbine transportation vehicles are expected to arrive early in the morning accompanied by a full police escort, it will be difficult to mitigate these impacts. Studies demonstrate that there is a casual relationship between sleep disturbance and environmental noise exceeding 55 decibels (dB) through building facades (Environmental Health Standing Committee [Enhealth] 2018). The average noise level of a car travelling at 80 kilometres per hour (km/h) from 7.5 m is around 71 dB, a medium truck is 79 dB, and a heavy truck is 81dB (TMR 2013). Furthermore, there is evidence to suggest that high levels of environmental noise may negatively impact cognitive performance, including reading comprehension, attention span and memory (Enhealth 2018). Health and wellbeing impacts may affect those with pre-existing conditions and/or experience hyper-sensitivity.

Residents of Carbean Rd will also likely experience significant impacts, as loads will be required to slowly maneuver down the smaller roads, creating additional noise due to breaking and reversing sound, as well as workforce yelling and talking, that will be prologued due to the slow-moving nature of the vehicles. Furthermore, delays and congestion at site entrance points may also lead to congestion and potential backups of vehicles that may occur for extended periods of time, drawing out impacts. These impacts will likely cause particular irritation and impacts on wellbeing for landholders neighbouring the Project site who will experience significant impacts but will not be receiving any direct compensation. This was reflected during stakeholder consultation, where neighbouring landholders expressed concerns regarding noise, vibration and light caused by Project related traffic and turbine transportation in the night. For landholders who rely on agriculture for their livelihood, working long hours that require early morning starts are necessary, and a lack of sleep has the potential to significantly hinder productivity. Due to the minimal construction, traffic and development that occurs surrounding the Project site, it is also likely that amenity impacts will be perceived as particularly noticeable due to the stark comparison between existing low levels of noise, vibration, and light pollution, and the expected Project related impacts.

Unmitigated, health and wellbeing impacts caused by amenity issues (ie dust, noise, vibration, and light) is assessed as High-12, as the likelihood of the impact is almost certain due to the anticipated noise and lights from project vehicles, unsealed roads, dry conditions, volume of Project traffic and heavy vehicles. The consequence of this impact is moderate due to the compounding effects of the amenity issues. Although the amenity issues will only last during construction there is the potential for health and economic impacts to survive long after the life of the Project which may even be permanent in the case of significant health conditions. A summary of the assessment is provided in Table 8.16.

8.4.12 Health and wellbeing related to amenity issues from traffic– mitigated

Dust created from Project related traffic can be effectively mitigated if the appropriate strategies are put in place and diligently followed. Mitigating the creation of dust by Project vehicles will in turn mitigate associated impacts on amenity, health, and livelihood. It is assumed that the Project will be required to improve roads and grade/compact surfaces to allow for high volumes of heavy traffic to pass through, as outlined in TIA (GHD 2020). Road maintenance and monitoring should continue throughout the Project as discussed in Section 8.4.6, to ensure that road degradation does not further contribute to dust impacts surrounding the Project area. Roads should also be frequently compacted and graded to ensure surfaces do not become loose, and frequent hosing down and wetting of roads should be undertaken whenever roads become dry and dusty, as well as when heavy vehicles and high volumes of traffic are expected to pass through. Reducing the number of vehicles driving over dirt roads each day by utilising bus services and carpooling policies for workforce transportation (see Section 8.5.10) may also reduce the severity of dust created.

Sealing 200m sections of road directly in front of properties and residences may reduce the degree to which dust is experienced by residents in their homes. Residents who suffer from health conditions and are vulnerable to dust impacts should be identified prior to the commencement of the Project's construction phase and strategies to mitigate these impacts should be immediately implemented, such as sealing roads, installing air conditioning in residences, and offering weatherproofing services to prevent dust from entering homes. Following the completion of the construction phase of the Project, house washing may be offered to landowners to remove residual dust that may have built up during the construction phase.

Communication and engagement with stakeholders and residents who will likely be affected by dust impacts along Carbean Rd and surrounding the Project site may mitigate impacts by allowing for residents to prepare for and expect any dust related impacts. This may include doorknocking and private meetings with residents, community information sessions, public notices, or newsletter style communication. Consultation will also provide residents with opportunities to express any additional concerns or requirements they may have regarding dust along transport routes.

Communication is the primary mitigation method for amenity impacts, as tolerance and wellbeing will likely be significantly enhanced if stakeholders and relevant communities are informed and impacts are raised prior to the Project's commencement. Similarly, conducting a doorknock and/or sending out a letterbox drop to affected residents and businesses with contact details for further information, may help to prepare people for upcoming impacts. Consultation may also include private meetings with residents located in key impacted communities and along routes, community information sessions, public notices, or newsletter style communication. This will also provide residents with opportunities to voice their concerns and comments regarding traffic impacts and foster a positive perception of the Project as transparent and community minded.



For landholders near the Project site and living on Carbean Rd where traffic amenity impacts cannot be eliminated, temporary accommodation options on properties may be provided as alternative locations to sleep. These may be temporary towable accommodation units similarly to those used for workforce accommodation – see Section 8.2.1, which can be used for alternate purposes during the Project's construction. Onsite-temporary accommodation units allow landholders to stay on their own properties during the construction period, which may be particularly beneficial for agriculturalists who are required to work long hours on their properties and may not be able to travel to and from alternative accommodation locations. Complete temporary relocation to areas further removed from the Project site may also be necessary for residents with existing medical conditions.

A package of amenity relief options for landowners who live further back from Carbean Rd and experience a lesser degree amenity and wellbeing impacts could also be offered and distributed during construction. This will allow residents to choose which mitigation strategies they wish to use, in line with their own requirements. These may include:

- respite options (overnight, weekend, week) during peak periods;
- double glazing of windows;
- air conditioning;
- noise cancelling headphones;
- vouchers for movies and/or dinners in local venues; and
- regular updates and access to complaints mechanisms.

Following mitigation, health and wellbeing impacts due to Project generated amenity issues (ie dust, noise, vibration, and light) is assessed as Low-6. Upon successful implementation of the proposed mitigation measures, including road improvements, maintenance, bitumen sealing, temporary relocation of key impacted stakeholders, communication with residents, and the choice of other amenity relief options the likelihood of dust related impacts is reduced to possible, and consequences become marginal, as amenity issues will be minimised, and residents will be able to appropriately anticipate and prepare for these impacts. A summary of the assessment is provided in Table 8.16.

Table 8.16 Summary of health and wellbeing related to amenity issues from traffic

Social impact	Issue	Affected parties	Duration	Extent	Unmitigated	Mitigated
 SURROUNDINGS	Amenity issues (ie dust, noise, vibration, and light) caused by Project traffic affecting health and wellbeing	Residents along the traffic route within the study area, particularly surrounding the Project site	Construction – 24 months	Study area	High-12	Low-6
 HEALTH & COMMUNITY WELLBEING						

8.4.13 Amenity and wellbeing related to noise, vibration, and light on Pratten St – unmitigated

The travel route survey outlining the preliminary transport route via Cunningham Hwy, outlines the direction vehicles are required to take to pass through Warwick via Albion St (New England Hwy) and Pratten St (LCR 2020). According to the travel route survey, the choice to pass through Pratten St rather than continuing along the highway was made to eliminate the need for the removal of various points of street furniture and traffic lights (LCR 2020). This is also the current oversize route through Warwick. Along the Pratten St portion of the route, from 50 Pratten St to 246 Wood St, there are 206 identified residential houses (excluding businesses, schools, and other organisations). Other establishments and facilities on Pratten St include two schools (one private primary and one state mixed), a kindergarten, a church, 4 private businesses (including a hotel and bus charter company), 4 bus stops, and 2 community parks. As such, Pratten St has been identified as a section of the transportation route where residents will likely experience amenity and wellbeing impacts due to noise, vibration and light from turbine transportation vehicles and police escorts.

Amenity and wellbeing impact from noise, light, and vibration on Pratten St in Warwick will likely be similar to the impacts experienced by those living on Carbean Rd (see Section 8.4.11). Carbean Rd will experience all turbine transportation vehicles regardless of the route, as well as additional general workforce and delivery traffic, whilst Pratten St residents will only experience impacts from vehicles using the Cunningham Hwy transportation route carrying tower sections. However, Pratten St is a predominantly residential street, with a high concentration of private dwellings located along the portion of the road that trucks will be travelling. Whilst impacts on Carbean Rd will be frequent and significant, there will only be a small number of residents directly affected. On Pratten St, amenity and wellbeing impacts will likely affect a high number of stakeholders and will require significant mitigation inputs. Further, residences on Pratten St are located close to the road, with narrow footpaths separating the street from dwellings, unlike Carbean Rd, where many of the properties are separated long driveways, private roads, and paddocks. As such, resident's experiences of similar impacts may differ based on surroundings and environment. Pratten St also features one hotel which may experience economic impacts in the case business is diminished due to of the frequent noise, light, and vibration during the night.

Unmitigated, the impact to amenity and wellbeing from noise, vibration and light on Pratten St is assessed as Medium-8 as the likelihood of the impact is almost certain and there is the potential for marginal consequences due to the wellbeing and amenity impact associated with loss of sleep, enjoyment of surroundings and potential diminished productivity that will only occur temporarily during the construction phase of the Project. A summary of the assessment is provided in Table 8.17.



8.4.14 Amenity and wellbeing related to noise, vibration, and light on Pratten St – mitigated

As described in Section 8.5.11, communication is an important mitigation strategy to reduce amenity and wellbeing impacts from noise, vibration, and light. However, impacts will still be highly intrusive and disturbing despite communication and impact a high number of local residents.

A key mitigation strategy to impacts on health and wellbeing is providing alternative accommodation options for periods where amenity impacts are anticipated to be high, such as nights where high numbers of loads are coming through impacted communities. Providing residents with an option to have a break from amenity impacts on their terms may also be beneficial, organising accommodation alternatives by request and offering a package of options for residents to manage amenity, as described in Section 8.4.11. This may be in the form of hotel rooms or other temporary accommodation options located as close to residences as possible. Double glazing windows could also be offered to residents along main access routes, as could air conditioning units to mitigate the effects associated with being unable to leave windows open through the night due to noise, heat and lack of air circulation. These strategies may also be perceived as long-term benefits that landowners can continue utilising following the Project's completion. A potential risk involved in this strategy is the lack of temporary accommodation in local towns such as Warwick, exasperated by the construction workforce demands for local housing. Further, providing alternative accommodation and amenity management options for 209 households may come at a significant cost to the Project, and require a large amount of resources and management. If these inputs are not available, the Project may have to reconsider turbine transportation routes to avoid Pratten St and continue on the parallel main road/highway (Wood St). This will require some street furniture and lights to be raised to accommodate for the oversized height of the tower pieces. It should be noted that this strategy assumes that rerouting the Cunningham Hwy transportation route to continue along Wood St (Cunningham Hwy) is logistically possible.

Following mitigation, amenity and wellbeing impacts from noise, vibration and light is assessed as Low-6 upon successful implementation of the proposed mitigation measures, including providing alternative accommodation and amenity management options. However, amenity, and wellbeing impacts from noise, vibration and light is assessed as Negligible-2 if the transportation route is rerouted through Warwick to avoid Pratten St completely, as the potential consequence is reduced to negligible and the likelihood is reduced to unlikely. However. A summary of the assessment is provided in Table 8.17.

Table 8.17 Amenity and wellbeing related to noise, vibration, and light on Pratten St

Social impact	Issue	Affected parties	Duration	Extent	Unmitigated	Mitigated
 SURROUNDINGS	Noise, vibration, and light caused by Project traffic affecting amenity and wellbeing	Residents living on Pratten St along the traffic route	Construction – 24 months	Study area	Medium-8	Alternative accommodation options: Low-6 Rerouting to avoid Pratten St: Negligible-2
 HEALTH & COMMUNITY WELLBEING						

8.4.15 Safety and security related to public access to the Project construction site— unmitigated

Safety and security impacts related to the potential climbing of construction equipment such as large-scale cranes during the construction phase¹ of the Project was raised by the Warwick Police specifically, as a key concern. Officers explained that incidents requiring crisis response are common in the area (around two a month, including incidents such as firearm sieges, suicides requiring intervention or protests), and suicide rates are high. The key risk identified was suicidal individuals or protest groups entering the Project site during the construction phase and climbing up structures such as cranes, uncompleted turbine bases, or scaffolding. Whilst protest is a possibility, suicide incidents were highlighted as the primary concern due to high rates of incidents in the region, and the lack of other high structures. If suicides or climbing related injuries and death do occur, this may also have a severe impact on the mental health and wellbeing of landholders and workforce who may witness the incident, potentially even causing long-term trauma.

In Australia, agriculturalist and farmers have been identified as a particularly high-risk group regarding suicide and mental health (Perceval, Ross, Kölves, Reddy & De Leo 2018). This is in line with the suicide rates recorded in rural or remote Australia. Whilst defining the cause of suicide in any locale is complex, research has demonstrated various factors that may contribute to these high numbers, including environmental factors such as climate and its impacts on agricultural productivity, limited access to health services and treatment and other compounding social, economic, and cultural stressors (Kölves, Milner, McKay & De Leo 2012). As raised during community and stakeholder consultation, the recent severe drought in the study area and surrounding the Project site caused significant economic and emotional hardship for many individuals. Local residents explained that there has been a major perceived increase in depression, especially amongst men in the community, due to environmental factors such as drought and wild dogs.

As described in the baseline (see Section 5 and Appendix A), mental health statistics for the region, rates of self-harm hospitalizations and high/very high levels of psychological distress are slightly higher within the study area compared to the state of QLD. Whilst there are no statistics to demonstrate suicide-related deaths in the region, the rate per 100,000 persons of all ages for intentional self-harm hospitalizations was reportedly above the QLD average between 2001 – 2018 (see Section 5 and Appendix A). This however does not reflect all occurrences of intentional self-harm in the local region, as not all incidents are likely to be reported and recorded, suggesting intentional self-harm hospitalizations may be significantly higher. The level of psychological distress in adults based on the Kessler-10 (K10) Scale for those who indicated high/very high psychological distress was slightly higher in the Darling Downs and West Moreton PHN (24.3%) and Darling Downs Hospital and Health Service (23.8%), compared to that of QLD (22.3%) (see Section 5 and Appendix A). This suggests that psychological distress may be more prevalent within the study area and that general health services may have greater demand for psychological care. However, when reviewing available mental health services within the study area it was apparent that there is a lack of services and organization, particularly within Goondiwindi and Southern Downs LGAs (see Section 5 and Appendix A).

Unmitigated, the impact to safety and security related to public access to the Project construction site associated with climbing structures such as scaffolding and cranes is assessed as High-15 as likelihood is rare and there is the potential for intolerable consequences, due to the potential for serious injury and loss of life. Severe impacts on safety may not recover and could survive past the life of the Project. A summary of the assessment is provided in Table 8.18.

¹ Safety and security associated with access to the Project site during operation is not assessed to be a concern as the public will not be able to climb operational turbines, as climbing of turbines is only accessible via internal staircases (within turbine bases) secured by locked entry and exit points.

8.4.16 Safety and security related to public access of the Project construction site – mitigated


Site safety should be closely monitored and controlled during the construction phase of the Project when machinery and equipment such as large-scale cranes are present onsite and presents a potential climb risk. Secure fencing, gates, signage, and security measures surrounding turbines will mitigate the ability for individuals to enter the Project site, and access structures. Engaging with local police services will allow for any points of vulnerability (such as climb and hang points on structures) to be identified and addressed within safety plans and policies.

Whilst mitigation strategies to minimise access to the Project site may reduce the number of individuals who access construction equipment, there is still a potential for suicidal people and protesters to gain access, as expressed by the Warwick Police. Engagement with further local emergency services including police, police crisis response teams, ambulance, and fire departments to develop emergency response and site access plans in the case of security breaches or emergencies, will help to mitigate any situations that may arise if individuals are successful in accessing structures, and reduce the likelihood of an outcome of death or serious injury.

Following mitigation, safety and security impacts related to public access to the Project construction site is assessed as High-15. Upon successful implementation of the proposed mitigation measures, including increased security to prevent access to construction structures and the implementation of crisis response plans, the likelihood and consequence remain unchanged, incident resulting in death or injury would be rare, but remains intolerable due to the severe consequences of potential outcomes. A summary of the assessment is provided in Table 8.18.

The identified lack of mental health and wellbeing services in the study area, as outlined in Section 5, alongside the high rates of suicide and mental health issues in towns such as Warwick and Karara identified by local stakeholders and service providers, and supported by Section 5, raises a potential opportunity for the Project to contribute to long term legacy benefits regarding mental health in the area. Funding and support of healthcare in the local area may improve long-term health and wellbeing and reduce incidents of suicide and mental health conditions significantly. The lack of existing infrastructure and services may also provide an opportunity for the Project to fill a need within the community by establishing social enterprise and developing initiatives such as a mental health crisis support clinic in Warwick, or a men's shed in Karara. This will provide a significant legacy benefit to the local area that will continue long after the Projects lifetime.

Table 8.18 Summary of safety and security related to public access of the Project construction site

Social impact	Issue	Affected parties	Duration	Extent	Unmitigated	Mitigated
	Safety concerns related to access to construction site and structures	Residents, workforce, and landowners	Construction – 24 months	Project site	High-15	High-15

8.4.17 Personal and property rights related to access to the Project site – unmitigated

Multiple landholders raised the issue of reduced privacy and security of their properties during construction and operation of the Project. During consultation, landholders frequently identified the security of their property as a potential impact arising as a consequence of the Project, particularly relating to theft, invasion of personal space, trespassing, and impacts to their agricultural livelihood activities. In an area where landholders already experience theft of livestock and their personal effects, landholders were concerned about additional presence of personnel on their property. One stakeholder explained:

When you have 20 worker vehicles coming through a day, it makes it more difficult to know which vehicle is which... makes it more difficult to identify who the crooks are.

Another landholder explained that there has also been frequent theft of posts from the rabbit-proof fence. An additional landholder described instances of trespassing by tourists to camp in the forest within their property – an issue which may become more prominent during the operation of the Project due to tourists wanting to view the turbines. Data from the QPS reveals that unlawful theft is the most common crime reported within the study area. Trespassing and vagrancy also have a higher rate of reporting within the study area compared to QLD (see Section 9.2.2 of Appendix A).

Unmitigated, the impact on landholders' personal and property rights due to reduced privacy and security is assessed as Low-7. Due to the history of theft and trespassing on landholders' property within the Project site, is it likely that the Project will further reduce the privacy and security of landholders' properties, with anticipated marginal consequences occurring. A summary of the assessment is provided in Table 8.19.

8.4.18 Personal and property rights related to access to the Project site – mitigated


To mitigate the personal and property rights impacts associated with reduced privacy and security throughout the life of the Project, the following security measures are recommended:

- provision of onsite security guards during construction phase of the Project;
- installation of closed-circuit television (CCTV) at entry and exit points of the Project site;
- increased no trespassing signage if needed on fencing surrounding properties;
- engagement with police to identify required signage and additional protocols that can be taken to secure properties; and
- clear protocol regarding gates and how to properly secure them developed in consultation with landowners; and
- provision of the Project construction schedule and list of individuals and vehicles entering properties provided to landholders on a regular basis.

It is also recommended that ACCIONA require bussing of workforce and carpooling to and from the Project site to decrease the number of cars visiting the site during construction. The use of ACCIONA branded cars would also increase the visibility of potential trespassers by more easily identifying non-permitted private vehicles. The implementation of a tourism program, including provision of increased viewpoints and bus tours to view turbines (see Section 8.4.5 and Section 8.4.6) could also reduce the number and frequency of trespassers coming onto private land to view the turbines. The successful implementation of these mitigation measures would increase feelings of security and safety amongst landholders and more easily identify deter any potential for theft or trespassing.

Mitigated, the impact on landholders' personal and property rights due to reduced privacy and security is assessed as Negligible-2 as it is unlikely that theft and trespassing will occur with security measures in place. With mitigation measures in place, the negative consequence would be negligible as potential security threats would be prevented from creating socioeconomic impacts to landholders. A summary of the assessment is provided in Table 8.19.

Table 8.19 Summary of personal and property rights related to access to the Project site

Social impact	Issue	Affected parties	Duration	Extent	Unmitigated	Mitigated
 <small>PERSONAL & PROPERTY RIGHTS</small>	Reduced privacy and security	Residents/landholders of the Project site	Construction and operation – life of the Project	Project site	Low-7	Negligible-2

8.4.19 Amenity related to waste – unmitigated

During consultation, waste was raised as a potential concern for landholders, including rubbish produced by the construction workforce and the use of portable toilets creating visual and odour impacts. Concerns were also raised about where collected waste would be taken, with one stakeholder inquiring:

“So where would they take the rubbish? Because poor little Karara couldn’t handle all of that rubbish”.


There is the potential for rubbish and sewerage to impact the amenity of the Project site, particularly in the form of visual and olfactory amenity impacts. However, it is assumed that a waste management plan that outlines the regularity of waste collection and removal, as well as the storage and waste disposal plans, will be outlined within the Project’s conditions of approval – which will be communicated to the community to inform them of the exact onsite waste management plans. This plan will both ensure that waste is correctly disposed of and managed to avoid pollution and increase community awareness about the waste management practices of the Project. Adherence to the waste management plan would also contribute to positive community perception of the Project.

Unmitigated, the amenity impacts from onsite waste management are assessed as Negligible-2. It is unlikely that impacts from ineffective waste management will occur as these are anticipated to be included in the Project’s conditions of approval, with negligible consequences arising from this impact. A summary of the assessment is provided in Table 8.20.

8.4.20 Amenity related to waste – mitigated

As it is assumed that onsite waste management protocols will be followed as per the Project’s conditions of approval, the mitigated impact remains Negligible-2. A summary of the assessment is provided in Table 8.20.

Table 8.20 Summary of amenity related to waste

Social impact	Issue	Affected parties	Duration	Extent	Unmitigated	Mitigated
 <small>SURROUNDINGS</small>	Onsite waste management	Residents/landholders of the Project site	Construction – 24 months	Project site	Negligible-2	Negligible-2

8.4.21 Access to services related socioeconomic opportunities – unenhanced

The potential opportunity for educational programs utilising the wind farm site was a benefit raised by multiple stakeholders, including the principal of a local high school, during community consultation and interviews. Some members of the community also expressed an overall sentiment that the windfarm may help to raise awareness and education regarding renewable energy sources, which was considered a desirable and beneficial topic of knowledge. Fieldtrips and site visits were noted as potential opportunities to enhance learning experiences, whilst also bringing increased visitors to the area which will likely provide economic benefits for local businesses. This opportunity is largely reliant on the development of education programs by the Project and education institutions, and as such does not provide any benefits without the implementation of enhancement strategies. Without an enhanced education program, school may be able to incorporate the example of the Project within classrooms, but this is unlikely, and benefits will be minimal.

Unenhanced, the benefit of access to services such as education and related flow on socioeconomic opportunities during the operation of the Project is assessed as Limited-1 as benefits without enhancement will be rare and minimal. The positive consequences will be minor due to the lack of established educational programs, and inaccessibility of the site without approvals and Project personnel. A summary of the assessment is provided in Table 8.21.

8.4.22 Access to services and related socioeconomic opportunities – enhanced

Developing an education program, and opportunities for primary and secondary level fieldtrips and tours may significantly enhance the educational and socioeconomic opportunities associated with the Project. Programs may include a detailed description of windfarm energy, information regarding other forms of renewables, how the Project was constructed or an overview of how windfarms function. Visits to the site may centre around an information centre in Karara, where talks and activities could be held, and lunch/amenities provided. Alternatively, bus tours with local ACCIONA tour guides could be undertaken, allowing students to see the wind farm up close. It is likely that this in-person, interactive educational experience may provide an enjoyable and an effective learning tool for local primary and secondary schools, and schools across greater SEQ. These programs may also provide shared benefits in increasing positive perceptions of the Project, and renewable energy production and wind farms more generally. This would contribute to dispelling myths and unknowns regarding wind farms and renewables as relatively new modes of energy production in Australia and QLD (such as concerns regarding health and safety etc). Flow on economic impacts would likely result from additional visitors and groups to the region, with potential for local wares and products to be sold in the information centre to showcase the local area.


There are also potential opportunities to incorporate the Project into state curriculum in local schools, regarding renewable energy education, as raised by some local community members including the principal of a local school. For example, the QLD Department of Education, Training and Employment (DETE) have established the QLD Environmentally Sustainable Schools initiative which aims to implement educational programs and actions into schooling activities within the classroom and throughout facilities (canteens or tuck-shops, school grounds and offices) (DETE 2020). The initiative already implements educational programs regarding energy, with several programs intended to raise awareness regarding environmental issues and support environmental sustainability. These programs may be enhanced or incorporated into Project related trips and educational activities, to create enjoyable and interesting opportunities for students around the local area and state.

Furthermore, on a local level, when taking into consideration the large availability of schools near the Project site (see Section 5) there is potential opportunity to incorporate the program into the local school's state curriculum which would align with the DETE's Environmentally Sustainable Schools initiative. However, the ability to incorporate/influence state curriculum will need to be assessed. Educational institution attendance for primary and secondary institutions in 2016 for the Southern Downs and Goondiwindi LGAs was higher compared to greater QLD (see Section 5.4), demonstrating potential capacity and demand for the implementation of educational programs within the local schools to increase education regarding renewable energy and contribute to the perception of the region as a renewable energy hub.

Despite these benefits, there is a potential risk that the involvement of the Project in primary and secondary school level education may be interpreted as marketing to children and youth and lead to community objection and negative perception. As such, programs should be focused on the educational benefits of windfarm and renewable energy education and avoid the type of company branding and public relations activities that may be perceived negatively by the community which would undermine the intent of the program. The potential for significant long-term benefits within the local community, both economically and educationally, as well as around QLD more broadly.

Assuming the successful implementation of a high quality, well planned and accessible educational program, the likelihood of benefits is increased to possible. The positive consequences increase to desirable as the local and regional economy will benefit from increased use of local businesses and services associated with additional visitors and groups, and educational benefits for students across QLD. This assessment also assumes that the Project will invest considerable funds and resources into an educational program as part of their commitment to a local community benefits program. The access to services such as education and related flow on socioeconomic opportunities assessed as Significant-10. A summary of the assessment is provided in Table 8.21.

Table 8.21 Summary of educational and socioeconomic opportunities

Social impact	Issue	Affected parties	Duration	Extent	Unenhanced	Enhanced
	Education opportunities arising from wind farm	Local businesses within the study area, students throughout SE QLD	Operation – life of the Project following construction	Socioeconomic benefit: study area Educational benefit: SEQ community	Limited-1	Significant – 10

8.5 Cumulative impacts

There are five concurrent development projects operating or intended to operate in and around the study area. These projects may contribute cumulative impacts to the Project. A summary of State significant development projects as identified through the DSDMIP *Coordinated projects* webpage and the QLD Government *Current projects* webpage, including workforce forecasts in construction and operational phases, is given in Table 8.22.

Table 8.22 Concurrent development projects

LGA	Project name	Anticipated timeframe/ project life	Development type	Status	Determination date	Construction workforce	Operational workforce
SDRC GRC	MacIntyre Wind Farm Precinct	30+ years	Electricity Generation-Wind	SIA active	—	305	12
SDRC GRC	MacIntyre Wind Farm Precinct Transmission Line*	30+ years	Electricity Generation-Wind	Environmental Impact Statement (EIS) active	—	95	—
SDRC	Emu Swamp Dam Project	100 years	Water Supply and Management	Approved with conditions	29 September 2014	700	250
GRC TRC	Inland Rail – Border to Gowrie project	—	Rail transport facility	EIS active	—	400	—
Lockyer Valley Regional Council TRC	Inland Rail - Gowrie to Helidon	—	Rail transport facility	EIS active	—	1,800	TBA
TOTAL						3,300	162

Source: DSDMIP 2021; QLD Government 2021

*This SIA has not taken into consideration the overhead transmission line. As such it has been included as a separate project.

When reviewing the combined workforces of the concurrent projects within the study area, there is a peak construction workforce of 3,300 and operational workforce of 162. The construction phase of the Project will result in a peak of approximately 305 new jobs between July – September 2022. It is anticipated that the construction workforce for the project will be employed on a temporary basis (FIFO/DIDO) with minimal permanent relocated workforce. The Emu Swamp Dam Project, which is closest project located to the Project site, has commence pre-construction with construction anticipated to commence between 2021-2023. As this will coincide with the project timeframe, it is important to take into consideration the cumulative impacts of construction of two major projects occurring within the same time frame and how it will impact the local community. The construction workforce for the Emu Swamp Dam project is expected to reach 700 personnel. Depending on the determined construction phase start date of the Emu Swamp Dam project this could cause disruptions and further impact the study area by placing strain on local services and infrastructure.

The Inland Rail projects are anticipated to commence construction in 2021 with the expected completion year of all Inland Rail projects being 2024-25. Although the proposed railway projects are within proximity of the project site, there is potential for the projects contribute to the cumulative impacts due to the larger construction workforces.

9 Social impact management strategy

This section outlines the proposed MacIntyre Wind Farm Precinct's SIMS that would inform decision making around the preferred opportunities to mitigate negative impacts, enhance positive impacts, and opportunities for funding legacy programs that benefit the community. These strategies form a foundation for development of the Project's SIMP.

This SIMS includes management strategies for impacts and benefits related to the following matters:

- community and stakeholder engagement;
- workforce management;
- housing and accommodation;
- local business and industry procurement; and
- health and community well-being.

The SIMS provides proposed strategies to mitigate the identified potential social impacts and to maximise social benefits for the local and regional communities designed for further development of a SIMP by ACCIONA, in consultation with the community, key stakeholders and partners, and provides for an adaptive approach to the management of social impacts and benefits.

The adaptive approach allows ACCIONA to manage and respond to changing circumstances and new information over time through ongoing monitoring and periodic review of mitigation strategies allowing for modification if required and appropriate.

9.1 Monitoring, review, and update

To ensure that the identified negative impacts and benefits are monitored over time and to measure the effectiveness or otherwise of the proposed mitigation and enhancement measures detailed in the SIMS. Monitoring the implementation of the strategies across the project lifecycle is necessary, as such the monitoring program will provide the framework for:

- tracking progress of mitigation and management strategies;
- assessing actual project impacts against predicted impacts;
- identifying how information will be captured for reporting to impacted stakeholders including landholders, communities and government on progress and achievements;
- facilitating engagement, consultation, and collaboration with stakeholders;
- identifying key performance indicators, targets, and outcomes;
- identifying responsible parties and timing of monitoring; and
- identifying mechanisms for ongoing adaption of management measures when and if required.

To ensure the effectiveness of the management measures for the identified negative impacts and benefits, it is recommended that a continuous improvement approach be adopted allowing for the review and adaption of impacts, benefits, management measure and outcomes.

Table 9.1 Social Impact Management Strategy – Workforce management



Social Impact	Issue	Social Risk	Potential Partners	Proposed Mitigation Strategies / Enhancement Measures	Timeframe
 <p>LIVELIHOOD</p> <p>Livelihood related to local workforce and local job competition (construction) (see Section 8.2.1).</p>	Limited local workforce supply and increased local job competition.	Unmitigated Impact Medium-8 Enhanced Benefit Significant-11	<ul style="list-style-type: none"> TAFE; Stanthorpe High School Trade Training Centre; USQ and other; Energy Skills QLD. Skills Queensland; Queensland Government subsidised training and incentive programs (eg, job trainer, apprenticeship programs, TAFE subsidies); Local employment organisations. 	<ul style="list-style-type: none"> Partner with local institutions such as TAFE, USQ and Stanthorpe High School Trade Training Centre to facilitate and fund training and upskilling programs. Provide apprenticeship opportunities for locals, particularly to youths. Work with partners to assist potential contractors and their trainees to receive QLD Government subsidised training and incentives relating to the relevant skills and qualifications required by the Project. ACCIONA and contractors to employ recent graduates directly from local training and education institutions. ACCIONA and contractors to focus on engaging and providing training/capacity development opportunities to disadvantaged, Indigenous, unemployed, and young people. Form partnerships with Skills Queensland to find apprenticeship and employment opportunities for workers who have been upskilled, started an apprenticeship program, or who are interested in beginning an apprenticeship program. Project's main Contractors to hire local subcontractors directly to avoid employee drain on local businesses (eg, fencing, electrical, etc). Communication and coordination of what skilled workers are required at each stage of the project (work schedule). 	Phase: Construction Commence: Immediately
 <p>LIVELIHOOD</p> <p>Livelihood related to local workforce and local job competition (operation) (see Section 8.2.3)</p>	Limited local workforce supply and increased local job competition	Unmitigated Impact Low-6 Enhanced Benefit Moderate-6	<ul style="list-style-type: none"> Trained / upskilled workers 	<ul style="list-style-type: none"> Continue employment opportunities during the operation to locals that received training / skilling opportunities during the construction. Support those that received training / skilling opportunities during the construction in identifying opportunities in upcoming projects in the region as well as other ACCIONA's projects. 	Phase Operation Commence: Continue partnerships from construction

Table 9.2 Social Impact Management Strategy – Housing and Accommodation



Social Impact	Issue	Social Risk	Potential Partners	Proposed Mitigation Strategies / Enhancement Measures	Timeframe
 <p>LIVELIHOOD</p> <p>Livelihood related to capacity and availability of local tourist accommodation (See Section 8.3.1)</p>	Limited capacity and availability of local tourist accommodation	Unmitigated Impact High-12 Enhanced Benefit Moderate-7	<ul style="list-style-type: none"> Local tourist accommodation providers Local goods and service providers for accommodation services (cleaning, laundry, catering, maintenance) 	<ul style="list-style-type: none"> Limit the number of rooms of short-term tourist accommodation used by the Project to those identified in the Accommodation Strategy in the identified accommodation facilities. The Accommodation Strategy identifies the providers and their available capacity for the Project (180 rooms), allowing contractors taking more could put at risk the sustainability of those accommodation providers. Ensure negotiations/contracts are flexible and account for general long-term commitments and customers (to avoid losses in business and regular customers). Increase local workforce accommodation capacity by hiring towable cabins and locating them on local properties close to towns (eg, caravan parks, residential properties etc). Repurpose demountable accommodation following the completion of the Project, for tourist use, or social enterprise such as office spaces for local not-for-profit organisations who currently do not have the necessary resources to lease a space or social/affordable housing. Assess the potential to implement an ICT platform which could display the availability of local short term/ tourist accommodation, including smaller and less commercial providers, this will require additional feasibility assessment by ACCIONA. 	Phase Construction (mainly) and operation Commence: Immediately
 <p>HOUSING</p> <p>Personal disadvantage related to capacity and availability of local rental and market housing (See Section 8.3.3)</p>	Limited capacity and availability of rental and market housing	Unmitigated Impact Unacceptable-16 Enhanced Benefit Negligible-1 / Significant 11	N/A	<ul style="list-style-type: none"> Avoid using rental and purchasable housing for the purpose of workforce accommodation during the construction phase of the project to avoid placing additional strain on the already limited local supply. Utilise available local tourist accommodation and install required remaining units of temporary accommodation on local properties (as described above). If demountable accommodation is acquired by ACCIONA: <ul style="list-style-type: none"> units could be reused as a potential social housing solution to address the lack of rental accommodation in the area; a small social housing enterprise could be established by ACCIONA where Project acquired temporary demountable accommodation is used for social enterprise housing purposes; and/or units could be donated to community groups / organisations. 	Phase Construction Commence: Immediately

Table 9.3 Social Impact Management Strategy – Local Business and Industry Procurement



Social Impact	Issue	Social Risk	Potential Partners	Proposed Mitigation Strategies / Enhancement Measures	Timeframe
 <p>LIVELIHOOD</p> <p>Livelihood and economic resilience related to Limited capability, capacity, and awareness of local content and suppliers (See Section 8.4.1)</p>	Limited capability, capacity, and awareness of local content and suppliers	Unmitigated Benefit Limited-3 Enhanced Benefit Significant-12	<ul style="list-style-type: none"> Local businesses and service providers Chambers of commerce Local governments 	<ul style="list-style-type: none"> Local buy programs for small business that for example use local buy cards. Engage with local businesses and communicate opportunities (refer to strategy below for limited local business's interest or awareness in supplying the project). Tendering directly to local councils who then engage with local businesses and suppliers. Compliance workshops and supporting local business to bring their standards to those required in the Construction industry (as relevant). Additional supplier information workshops and information sessions in Inglewood and Goondiwindi, as well as additional sessions in Warwick and Stanthorpe (at different times to accommodate attendance by business representatives working on different schedules) Continuing ICN gateway for additional local suppliers to register interest. Appointments, info sessions and workshops at the Warwick ACCIONA shop front for assistance using the ICN gateway. Partnerships with local chambers of commerce – providing information regarding the process of registering interest through the ICN to local chambers to relay to local suppliers. 	Phase Construction (mainly) and operation Commence Immediately
 <p>LIVELIHOOD</p> <p>Livelihood related to agriculture (See Section 8.4.3)</p>	Construction activities impacting on farming infrastructure, activities, and resources	Unmitigated Impact High-12 Enhanced Benefit Moderate-6	<ul style="list-style-type: none"> Residents in the study area, particularly landholders (farmers) within the project site 	<ul style="list-style-type: none"> Honest communication and information regarding the predicted construction impacts prior to the project to prepare the landholders for impacts that cannot be fully mitigated and provide an opportunity for feedback and engagement (ie, the number of trucks and vehicles that will be entering a property daily.) Consistent and frequent communication between landholders/farm management and project management/construction team. Land access agreements in place and procedures to ensure Project workers adhere to them. Driver and construction personnel inductions and training regarding transport and construction operations in and around paddocks. Provide document outlining specific paddock procedures for each property in line with land access agreements. Avoid traffic movements directly around residences, and if necessary, limit speed. 	Phase Construction Commence Prior to starting site works

Table 9.3 Social Impact Management Strategy – Local Business and Industry Procurement


Social Impact	Issue	Social Risk	Potential Partners	Proposed Mitigation Strategies / Enhancement Measures	Timeframe
				<ul style="list-style-type: none"> Place signage around project areas to remind drivers and construction personnel of livestock in the area. Agreement of compensation offered if any livestock is injured or killed (high care should be taken to avoid this however). Ensure land access agreements in place for operation purposes. Establish a grievance, complaints, and redress mechanism. Consistent and frequent communication between landholders/farm management and project team. Maintain signage around project areas to remind workers of livestock in the area. Maintain agreement of compensation offered if any livestock is injured or killed (high care should be taken to avoid this however). 	
 <p>LIVELIHOOD</p> <p>Livelihood related to accommodation providers and the broader community due to economic benefits from tourism (See Section 8.4.5)</p>	Tourism opportunities associated with wind farm sightseeing	<p>Unmitigated Benefit Limited-3</p> <p>Enhanced Benefit Significant – 11</p>	<ul style="list-style-type: none"> Residents and businesses within the regional area 	<ul style="list-style-type: none"> Installation of infrastructure such as an information centre (ideally at Karara), viewpoints and lookouts, signage, and potentially a wind turbine replica or part (eg blade) located collocated with the information centre. Branding the area and increasing the perception of eco-tourism within the local region building in the already a strong focus on agriculture in towns like Stanthorpe. Support local business operators to run tours leaving from local towns and the information centre and taking tourists around the project site to see a turbine up close. Landowners in the Karara Wind Farm (the Sussman's are keen to explore further opportunities). ACCIONA staff to educate tourism operator on wind farms, renewable energy, and provision of key messages. 	<p>Phase Operation</p> <p>Commence Towards the end of construction and prior to full commissioning</p>

Table 9.3 Social Impact Management Strategy – Local Business and Industry Procurement



Social Impact	Issue	Social Risk	Potential Partners	Proposed Mitigation Strategies / Enhancement Measures	Timeframe
  Livelihood and safety related to fire risks (See Section 8.4.7)	Project related fire risks during construction and operation	Unmitigated Impact High-15 Enhanced Benefit Moderate-8	<ul style="list-style-type: none"> Rural Fire Service (RFS) Residents of the study area 	<p>It is assumed that the Project will drill boreholes at selected locations across the site to access water for construction purposes. It is also assumed that these bores will have water tanks.</p> <ul style="list-style-type: none"> During construction co-locate water tanks next to Project boreholes across the Project site that can be used for firefighting purposes. Once construction has finished some of these water tanks and their boreholes can be repurposed for firefighting purposes providing the RFS and landholders enhanced firefighting capabilities. Contribution of firefighting equipment to the local RFS such as water tanks. Engage with local emergency service (ie, local fire brigades and rural fire response) to develop plan and clear lines of communication. Conduct bushfire risk assessment and subsequent creation of Bushfire Management Plan, including emergency management. Maintenance of minimal fuel load by grazing, slashing, or mowing. Potential for establishing and maintaining asset protection zones, fire appliances on site, rapid response unit and trained staff to operate. Provide landholders and nearby neighbours with contact details of initial responders to ensure quick initial response time (also provide to surrounding local area via newsletter/project site potentially). 	Phase Construction and operation Commence Prior to commence site works

Table 9.4 Social Impact Management Strategy – Health and community well-being



Social Impact	Issue	Social Risk	Potential Partners	Proposed Mitigation Strategies / Enhancement Measures	Timeframe
 <p>ACCESS TO INFORMATION/ SERVICES</p> <p>Access to infrastructure related to water scarcity (See Section 8.4.1)</p>	Increased water scarcity	<p>Unmitigated Impact High-14</p> <p>Enhanced Benefit Moderate-6</p>	<ul style="list-style-type: none"> Residents of the project site and surrounding properties 	<p>It is assumed that the Project will drill boreholes at selected locations across the site to access water for construction purposes. It is also assumed that these bores will have water tanks.</p> <ul style="list-style-type: none"> The project's water supply may require drilling bores, bringing in water from elsewhere, improving local mains water supply, constructing additional dams etc. These sources could be made available to the local residents for general use following completion of the construction phase. Water supply access points should ideally be placed in locations that benefit the wider community and neighbouring landholders to the project site, to avoid perceived uneven benefits to those already receiving turbine compensation. In order to avoid conflict, engagement, and communication with the local community regarding the water use plan would be required. Water could easily be carted by landowners in trailers or trucks to nearby properties, which would be beneficial especially in the dry times, and service a large number of neighbouring residents who are not receiving turbines. 	<p>Phase Construction</p> <p>Commence Prior to start site works</p>
 <p>LIFESTYLE</p> <p>Way of life related to traffic delays (See Section 8.4.7)</p>	Increased traffic congestion caused by turbine transportation	<p>Unmitigated Impact Low-6</p> <p>Mitigated Impact Low-6</p>	<ul style="list-style-type: none"> ACCIONA's transport and logistics contractor/s 	<ul style="list-style-type: none"> Plan for wind turbine component movements through the night considering curfew hours in Ipswich, Gatton but particularly in Warwick. Implement recommendation in the Traffic Impact Assessment. Communicate transport impacts via <ul style="list-style-type: none"> direct communication with residents and users of the roads affected; and installation of signs on the road announcing possible delays. Implement strategies to reduce other Project generated sources of additional traffic. 	<p>Phase Construction</p> <p>Commence With start of works</p>

Table 9.4 Social Impact Management Strategy – Health and community well-being


Social Impact	Issue	Social Risk	Potential Partners	Proposed Mitigation Strategies / Enhancement Measures	Timeframe
 <p>Health and wellbeing related to amenity issues from traffic (See Section 8.4.11)</p>	<p>Amenity issues (ie dust, noise, vibration, and light) caused by Project traffic affecting health and wellbeing</p>	<p>Unmitigated Impact</p> <p>High-12</p>	<p>ACCIONA's transport and logistics contractors</p>	<ul style="list-style-type: none"> Sealing sections in front the houses of residents where project traffic will be most acute and for most of the construction phase. Implement construction dust suppression techniques. Provide alternative accommodation with the landholder in Carbean Road that has a respiratory condition. Temporary accommodation options for landholder most directly and acutely affected. This can be demountable in their own property to minimise impacts. Offer a package of amenity relief options for landholders less affected. The package could include: <ul style="list-style-type: none"> respite options (overnight, weekend, week) during peak periods; double glazing of windows; air conditioning; noise cancelling headphones; vouchers for movies and/or dinners in local venues; and regular updates and access to complaints mechanisms. Engage with landowners and provide regular information. When transporting components through Leyburn and Karara avoid <ul style="list-style-type: none"> travelling during school drop-off hours; lights beaming to houses in the early hours of the morning; and loud breaking and other noises that can disrupt sleep of the local residents. 	<p>Phase</p> <p>Construction</p>
		<p>Mitigated Impact</p> <p>Low-6</p>			<p>Commence</p> <p>With start of site works</p>

Table 9.4 Social Impact Management Strategy – Health and community well-being





Social Impact	Issue	Social Risk	Potential Partners	Proposed Mitigation Strategies / Enhancement Measures	Timeframe
 SURROUNDINGS	Noise, vibration, and light caused by Project traffic affecting amenity and wellbeing	Unmitigated Impact Medium-8	<ul style="list-style-type: none"> ACCIONA's transport and logistics contractors 	<ul style="list-style-type: none"> Plan for wind turbine component movements through the night considering curfew hours in Ipswich, Gatton but particularly in Warwick. Implement noise and flashing light management when transporting materials through populated (urban and semi-urban areas) to minimise disruption to sleep. When transporting components through Warwick, consider using the Cunningham Highway in lieu of Pratten Street for oversize over mass vehicles through Warwick. Actions would include: <ul style="list-style-type: none"> consultation with Queensland Transport and Main Roads and the Southern Downs Council to determine whether this option is available from political and engineering, design, and safety perspectives; and an assessment of the extent and cost of alterations to existing road design and infrastructure (street furniture and traffic lights) that will be required to allow this to occur. 	Phase Construction
		Amentity Mitigated Impact Low-6 Wellbeing Enhanced Benefit Negligible-2			Commence With start of site works
 HEALTH & COMMUNITY WELLBEING Amenity and wellbeing related to noise, vibration, and light on Pratten Street (See Section 0)					
 SAFETY	Safety concerns related to access to construction site and structures	Unmitigated Impact Unacceptable-16	<ul style="list-style-type: none"> Police Queensland Ambulance Rural Fire Brigade 	<ul style="list-style-type: none"> Engagement with local emergency services (police, ambulance, and fire departments) to develop emergency response and site access plans in the case of security breaches or emergencies. Secure fencing, gates, signage, and security measures surrounding turbines. Engage with local crisis response team (Warwick Police) to identify and mitigate climb risks and public access of turbines during construction and operational phases. Opportunity to address high suicide numbers in the local area by providing funding to support local mental health initiatives, local health providers and/or local not-for-profit organisations (legacy opportunity) <ul style="list-style-type: none"> Creating social enterprise that not only ACCIONA but other local community members can get involved in (eg, opportunities for volunteering). Some examples include providing regular funding or donation to existing programs or funding the development of a men's shed. 	Phase Construction
		Mitigated Impact High-15			Commence Shortly after starting of site works
 SAFETY Safety and security related to public access to the Project construction site (See Section 8.4.15)					

Table 9.4 Social Impact Management Strategy – Health and community well-being




Social Impact	Issue	Social Risk	Potential Partners	Proposed Mitigation Strategies / Enhancement Measures	Timeframe
 <p>PERSONAL & PROPERTY RIGHTS</p> <p>Personal and property rights related to access to the Project site (See Section 8.4.17)</p>	Reduced privacy and security	<p>Unmitigated Impact</p> <p>Low-7</p> <p>Enhanced Benefit</p> <p>Negligible-2</p>	<ul style="list-style-type: none"> Landowners in the project site and those in Carbean Road 	<ul style="list-style-type: none"> Implement site security arrangements: <ul style="list-style-type: none"> – security guards during construction phase of the project; – CCTV at entry, exit and other key points of the project site; – increased signage as needed on fencing surrounding properties; – clear protocol regarding gates and how to properly secure them developed in consultation with landowners; – construction schedule and list of individuals and vehicles entering properties provided to landowners on a regular basis; – carpooling and bussing of workforce to and from site to decrease the number of cars coming on site during the day; and – ACCIONA and contractors branding or numbering of cars to increase visibility of potential trespassers. Engagement with police to identify required signage and additional protocols that can be taken to secure properties. <ul style="list-style-type: none"> – Increased viewpoints, site seeing locations and tourist activities such as bus tours to view turbines may decrease the number of trespassers coming on to private land to get a view of the turbines. 	<p>Phase</p> <p>Construction and operation</p> <p>Commence</p> <p>Prior to commence site works</p>
 <p>SURROUNDINGS</p> <p>Amenity related to waste (See Section 8.4.19)</p>	Onsite waste management	<p>Unmitigated Benefit</p> <p>Negligible-2</p> <p>Enhanced Benefit</p> <p>Negligible-2</p>	<ul style="list-style-type: none"> Landowners in the project site 	<ul style="list-style-type: none"> Waste management plan that outlines the regularity of waste collection and removal, as well as the storage plans. Refer back to conditions of approval and communicate to the community, include in the Project Community and Stakeholder Consultation Plan. 	<p>Phase</p> <p>Construction and operation</p> <p>Commence</p> <p>At start of site works</p>

Table 9.4 Social Impact Management Strategy – Health and community well-being

Social Impact	Issue	Social Risk	Potential Partners	Proposed Mitigation Strategies / Enhancement Measures	Timeframe
 <p>ACCESS TO INFORMATION/ SERVICES</p> <p>Access to services such as education and related socioeconomic opportunities (See Section 8.4.22)</p>	Education opportunities arising from wind farm	Unmitigated Benefit Limited-1	<ul style="list-style-type: none"> Queensland Department of Education, Training and Employment Local schools 	<ul style="list-style-type: none"> Develop an education program, and opportunities for primary and secondary level fieldtrips and tours may significantly enhance the educational and socioeconomic opportunities associated with the Project. 	Phase Operation
		Enhanced Benefit Significant – 10			Commence At start of operations

10 Community enhancement program recommendations

This section outlines the recommended investment opportunities for the MacIntyre Wind Farm Precinct's CEP. The recommendations have been developed using a shared value approach (see Section 10.2) and will inform decision making for investment under the CEP. The recommendations were informed by the outcomes of the SIA and a facilitated workshop with ACCIONA and CleanCo.

During the workshop a range of investment opportunities were considered that provided:

- the best outcomes for the affected local and regional communities;
- addressed the needs of the affected local and regional communities; and
- maximised project related benefits and opportunities.

Strategies identified in Sections 8 and 9 are focused on mitigating and enhancing the potential impacts identified through the SIA and form ACCIONA's and CleanCo's business as usual activities. While the CEP investment opportunities recommended in this section also align with ACCIONA and CleanCo's core values they have the added benefit of placing the needs of the community at the core of the decision-making process.

10.1 Purpose and core values

10.1.1 ACCIONA

ACCIONA operate under a "business as *unusual*" model promoting environmental, economic, and social sustainable development outcomes as their core goal. They achieve this by providing sustainable solutions to issues such as climate change and water scarcity (ACCIONA 2020b).

ACCIONA's key relevant policies include:

- Sustainability Policy 2018;
- Human Rights Policy 2018; and
- Social Action Policy 2018.

These policies outline their intention to address the environmental, economic, and social issues in the communities in which they operate. The *Social Action Policy* (ACCIONA 2018) specifically outlines the intent to take a leading role in contributing to sustainable development in communities they operate in and to help improve the quality of life of the people residing in them. ACCIONA, in line with basic human rights, and the United Nations Sustainable Development Goals, respects the right of communities to have access to food, clean water, sanitation, energy, education, health, and housing, and to live in a clean and healthy environment. These principles flow into the commitments made by the company to enhance opportunities in the communities around the Project and provide a shared value proposition.

10.1.2 CleanCo

CleanCo's purpose is to provide clean, secure, and reliable energy solutions for their customers. The company aims to support achieving the QLD Government's 50% renewable energy target by 2030. This core purpose is in line with ACCIONA's and the United Nations goal of providing energy whilst encouraging sustainable development and responding to climate change.

10.2 Shared value

Shared value refers to developing strategies that simultaneously address community needs, takes advantage of existing company assets and expertise, and promote business opportunities (Figure 10.1). Utilising the experience, resources, and innovation of the private sector to address the key social issues within a community has the potential to create significant long-term benefits for a range of groups and individuals. This approach also considers how strategies will simultaneously improve the overall efficiency and profitability of company projects, ultimately creating and enhancing value that is shared across all key stakeholders. Shared value should aim to contribute sustainable benefits to the community, maximise positive business outcomes and support the process of gaining meaningful social license to operate (Shared Value Project 2021). The competitiveness of ACCIONA and CleanCO and the wellbeing of the community in which they operate are mutually dependent. Understanding and leveraging on the interdependency between social and economic progress can promote growth.

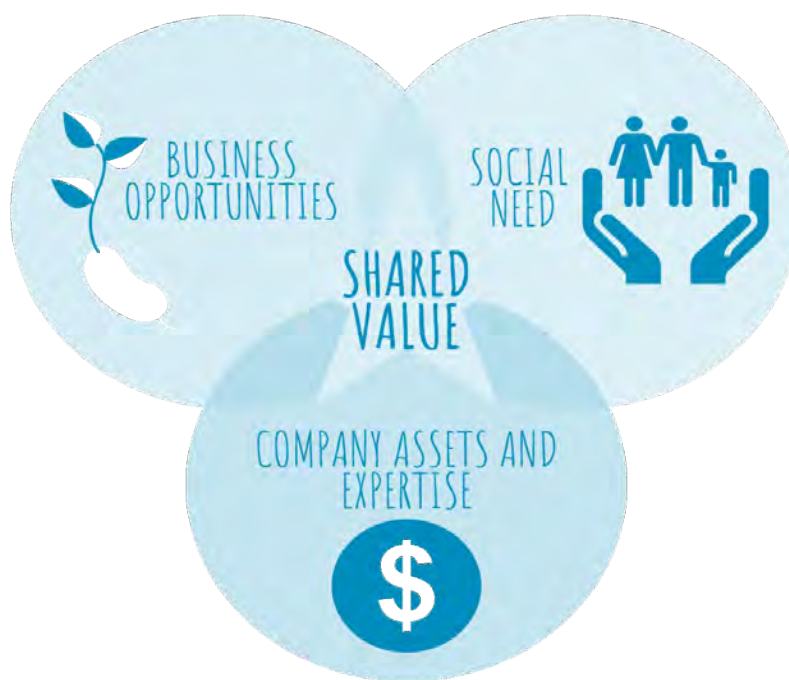


Figure 10.1 Shared value model

10.3 CEP Commitments

The SIA process has contributed to providing information that aims to assist in maximising the benefits of the CEP, and ensuring that long term, sustainable value is maintained over the life of the project and beyond. ACCIONA have committed to developing a Project wide CEP that focuses on providing long term legacy benefits throughout both the local and regional community to directly address social and economic development through a range of programs, partnerships, and sponsorships. They state that the CEP aims to *“create benefit; reduce the identified impacts; and continue to meet the evolving needs of our stakeholders throughout the Project lifecycle”*, with a focus on shared community benefits (ACCIONA 2020a). ACCIONA are committed to initiatives that flexibly adapt to local needs and demands of communities in which it operates (ACCIONA 2018). The Project’s CEP is made up of the following initiatives:

- local jobs and training;
- local procurement opportunities;
- sponsorship and small grants program;
- scholarship program;
- research and development program;
- employee volunteerism (ACCIONA 2020).

ACCIONA commissioned this SIA to identify opportunities that elevate their commitments and inform investments that provide additional value add opportunities, these are outlined in Sections 10.5 to 10.11.

ACCIONA, have committed to contributing more than \$1.5 million to the local community during the construction phase of the Project, with additional funds allocated each year once the wind farm moves into operations. The CEP will be allocated across the first 10 years of the Project, various programs, events, and initiatives intended to have lasting effects in the medium to long term (ACCIONA 2020b).

ACCIONA’s global business model aims to value and focus on the needs and desires of the community throughout the process of construction, operational, and beyond, whilst also attempting to prioritise all aspects of environmental and sustainable practise (ACCIONA 2021). As such, these priorities, alongside those of the community, have been closely considered to develop these CEP recommendations. Therefore, the CEP moves beyond managing project impacts and risk mitigation to create lasting benefits for the community and assumes that the impacts identified in Sections 8 and 9 are managed as part of their business-as-usual processes throughout the life of the project.

10.4 Community needs and aspirations

Community, social and economic needs and aspirations were identified through the findings from the social baseline (see Section 5 and Appendix A), community and stakeholder consultation and SIA (see Section 8). These findings identified the following key areas of social need:

- water scarcity and drought;
- bush fire preparedness and response;
- tourism;
- education and training;

- community cohesion and events;
- mental health and wellbeing; and
- Aboriginal and Torres Strait Islander participation.

These key topics have been workshopped to maximise the viability, sustainability, and benefits of potential community enhancement strategies, programs, initiatives, and funds within the study area and local community. In line with ACCIONA's values, it is imperative that strategies provide long term legacy benefits and opportunities throughout the region and can be sustainably led and operated by the community. Each strategy has attempted to target and address the local communities and stakeholders that may experience heightened disadvantage and will likely be subject to the project's impacts. These recommendations, in line with ACCIONA's core business values, aim to promote sustainable development (environmental, economic, and social) outcomes.

10.5 Water and drought security

10.5.1 Social need

The local area has been subjected to severe drought conditions and water use restrictions which has significantly impacted local industry and landowners (see Section 8.4.1). Water scarcity was a significant theme identified in community engagement, with issues concerning water supply mentioned several times by local and regional stakeholders. Most landholders involved in stakeholder engagement have had to source water externally and de-stock their farms, which has led to significant economic repercussions. Therefore, there is a need to ensure access to a reliable and ongoing water supply for the local region, mitigate drought impacts and reduce mental health determinants associated with the impacts of drought (see Section 8.4.15).

The SDRC (2018) foresees a diminished water supply within the region due to changing climatic conditions. Whilst the GRC identify water as priority infrastructure for development in the region (GRC 2018).

Water supply is expected to be an ongoing issue for the local area, it is imperative to implement strategies that invest in viable long term water infrastructure and ensures that the Project activity does not exacerbate the impacts of drought. It is also essential to ensure that perceptions of water use for the Project are made clear to the community to mitigate community stress and concerns over water availability. Communication and awareness regarding the Project's water procurement plan should be implemented within local communities to address these potential perceptions and ensure Project transparency. This involves active communication and employing innovative strategies to ensure that future water supply is secure for the region, rather than just investing in short-term, immediate solutions. As water supply is paramount for local stakeholders and their livelihoods, Project related infrastructure could benefit the local area.

The availability of bores and underground water supply surrounding the Project site is minimal which exacerbates community concerns regarding water supply. There is a need to mitigate social conflict surrounding community backlash and Project objection relating to perceptions of the Project utilising local water supply and intensifying local water insecurity. Therefore, strategies should take into consideration the contested issues of water supply and aim, where possible, for Project related water infrastructure to be used by the local community.

10.5.2 Business opportunities, assets, and experience

The Project will require significant water input and therefore the investment in water infrastructure for the Project, which is likely to include the development of bores. This investment in water infrastructure within a drought impacted region will minimise disruption during Project construction and provide opportunity to explore the provision of bores outside the Project footprint. This would improve social capital and reduce the likelihood of Project delays as a consequence of community and local government resistance that could lead to a loss of social licence. Additionally, the CEP resources could provide funding to Council for education programs.

SDRC acknowledge the changing climate of the region (SDRC 2018), which aligns with ACCIONA's valuable experience in programs within the environment and climate space. By endorsing programs and strategies that encourage long term solutions to water access and drought proofing it would align with the company's goals and branding, whilst developing social infrastructure and capital and providing long lasting sustainable solutions.

10.5.3 Recommendation

The recommended strategies aim to collaborate with local stakeholders, build appropriate water infrastructure and develop educational programs and initiatives to encourage longer term drought proofing strategies. Their implementation is proposed to begin before construction starts and carry through the operation phase as described below.

i Improvements to community water infrastructure and access

It is recommended that the Project infrastructure, such as bores, should be extended to the community, potentially on or near neighbouring properties to reduce social conflict, and/or on community spaces such as community halls to promote social cohesion by providing opportunities for social interaction. Doing so will provide more equitable distribution of the benefits from the Project across the community.

Water infrastructure surrounding the Project site is limited, therefore Project supported improvements to local water infrastructure and access could ease concerns regarding water supply. As the Project would require its own water supply and infrastructure, extending the use for the neighbouring properties and broader community outside of the Project footprint would encourage long term water and drought mitigation measures.

To ensure that strategies regarding water and drought provide long term drought proofing solutions, engagement will be required to determine the most appropriate water infrastructure needed to guarantee absolute productivity for neighbouring properties post construction. Investing in potential water infrastructure programs and design would also encourage long term solutions for water supply and drought in the region. This would involve working with local farmers, community members and council to determine the already existing infrastructure and any potential water related Projects that could benefit from further support and funding. Once existing water infrastructure is identified, investing in upgrades, and identifying where additional infrastructure could be installed, such as stock watering plants, could be considered. Lobbying council and further engagement to advocate for local water supply, for example reinstating the water supply within Karara, would provide an innovative solution to demonstrate community investment and address the long-term problem of drought in the locality and the region.

These strategies would commence pre-construction and continue throughout construction and operations.

ii Water and drought research support

- a) It is recommended to establish water and drought specific research programs within the local region in partnership with local universities, research institutions, water advocacy organisations, local councils and Government departments. An initial gap analysis conducted with the identified partners would allow for identification of strategies and programs that require funding and support.

- b) It is recommended to fund a PhD student to conduct a research project focusing on drought and water in the local area. The outcomes of the project would help inform water-related programs that allow for accessible, distributive initiatives and create awareness of water and drought within the region. The expertise involved in degree research would contribute to further developing the drought proofing and preparedness strategies and a greater understanding of the region's water access and conditions of drought.
- c) It is recommended a Creating Partners Project be developed to build and foster relationships with interested parties seeking water solutions. The partnerships would underpin all water and drought related strategies.

Potential partners may include the One Basin Cooperative Research Centre (CRC) (<https://onebasin.com.au>) to identify local solutions to strength the preparedness of community, industry (both tourism and agriculture) and local governments for changing water supply and demand and the International Water Centre (www.watercentre.org/) to educate and empower communities in changing the way people think about water and address complex water management issues.

The One Basin CRC is a collaboration of private industry partners, researchers, and state institutions to “develop policy, technical and financial solutions to support and reduce exposure to climate, water and environmental threats in the Murray-Darling Basin” (One Basin nd). The CRC focusses specifically on water use, security, and drought across the country, which are key issues for those living within the study area and surrounds. Key projects include the ‘Basin Foresight Program’ which aims to identify future based solutions and approaches to drought and water scarcity issues, the ‘Water Solutions Program’ which will research alternative water sources to optimize the use, storage, and transportation of resources across the country, and the ‘Adaptive Solutions Program’ which focuses on agricultural stakeholders and their reliance on water over the coming years. Each of these research programs and the information that they aim to produce will have significant long-term benefits for those living within the study area. There is a significant opportunity for the project to support these research initiatives, and to address the key issue of water scarcity from a more high-level research-based initiative aimed at providing long term solutions.

Across South East QLD (SEQ), and Australia more broadly, drought and water scarcity is a highly relevant and current issue that affects a significant proportion of the population, especially those living in regional and rural communities. As such, programs addressing and responding to the growing topic of water security, management and solutions have been created and implemented by multiple national, state, and private institutions. Potential partnerships and current project opportunities include the DES ‘Queensland Water Modelling Network’ focusses on researching surface water and groundwater modelling across the state (DES 2021). The ‘Innovate 4 Water’ project co-organised by the International Water Council (IWC), Waterpreneurs and Business Models Inc, may also offer an opportunity for local stakeholders to collaborate and contribute to the 2-day event which aims to bring “together [water related] solutions and needs, curated into investment focussed themes” (Water Centre 2020). The project site also offers an opportunity to provide a location for collaborative research projects surrounding water solutions in regional SEQ, as the local area offers an ideal environment to explore the effects of long-term drought and water scarcity on land and resources. Potential interested partnership opportunities include universities and research institutions, the Office of the QLD Chief Entrepreneur, and innovation focused small to medium-sized enterprises (SMEs).

iii Project water use and drought awareness program

- a) It is recommended to fund, support and partner with drought awareness and education programs that currently exist within the study area or can be implemented immediately. Delivery of educational local water and drought awareness programs within schools and the broader community would inform the community on how the Project will utilise water and the drought proofing strategies. Raising awareness of the Project's water consumption across local landholders and stakeholders, will ease concerns about the Project and its use of local water. The awareness program would include communication material developed and delivered by the Project Community Relations Team

The Rural Water Futures Program is a current Department of Natural Resources, Mines and Energy (DNRME) led initiative focusing on regional water education, management, and awareness. The SDRC announced their partnership and support of the program in 2019, stating that “the media and education campaign will compliment and cement the Council’s communications, and serve to further increase the level of awareness in the community as water restrictions continue impact residents and businesses” (SDRC 2019). The Rural Water Futures Program presents an ideal partnership between the project, DNRME and local regional councils to enhance and diversify local awareness, education and support surrounding drought and water security within the study area. Similar water and drought educational programs directly targeting school aged children may also serve as potential project partnerships, including the Seqwater ‘H2O Kids learning program’ which offers school-based incursions, excursions, virtual lessons, guided lessons and more (Seqwater 2021). Funding local schools to book these learning experiences will potentially create opportunities that would otherwise not be possible for students, whilst addressing the identified issue of water security and drought in the local community. It is recommended that programs are offered to smaller state schools surrounding the project site that may not receive funding for these kinds of projects due to their location and small student population.

- b) It is recommended to promote and provide workshops on grant applications to local small agricultural businesses and farms.

The DAF offer a range of assistance farmers and rural communities; existing relevant DAF grants include the ‘On-farm Emergency Water Infrastructure Rebate Scheme’ and the ‘Drought Relief Assistance Scheme’. Working in partnership with DAF to facilitate grant application workshops within the local community would ensure local agricultural workers are aware of these programs and provide additional support to enhance grant application skills and knowledge.

Considering the timeframe for the completion of these strategies, it is recommended their implementation begins prior to the beginning of construction.

10.5.4 Inputs

The inputs provided in Appendix G will assist with the initial planning and development of water and drought security strategies in the local region. Further actions and consultation need to be undertaken to implement strategies and enhance community and project benefits as outlined in Appendix G.

10.6 Bush fire preparedness and response

10.6.1 Social need

According to the CSIRO, the Southern Downs region is likely to become warmer due to climate change and pose an increasing danger of environmental hazards because of stressed water resources, experienced through more frequent droughts, higher fire risk, and increased flash flooding (SDRC 2015). Likewise, “[t]he risk of bushfire to life and property is significant in the central and eastern parts of Goondiwindi Region which are more heavily vegetated and encompass several State Forests. Temperature increases forecast as a result of climate change may increase bushfire risks” (GRC 2018). Fire danger poses a threat to the environment, infrastructure, and human life in rural areas where fire can ignite and spread uncontrollably. Furthermore, this can impact on local business and livelihood within the prominent agricultural industry and pose a threat to the community’s health, wellbeing and safety. Community and stakeholder engagement has identified the challenging drought that has impacted the local area and further enhanced the risks associated with wild bushfires, and there are concerns among the community that the Wind Farm construction and operation could increase the risk of bush or grass fires in the area. The study area population is anticipated to increase by 18.7% between 2016 – 2041 (Appendix A) increasing the risks and impacts related to bush fires and the subsequent demand for emergency services. This will create a need to increase the capacity of emergency services to enable them to support and protect the growing local and regional communities.

Adequate bushfire preparedness and response strategies are critical to support and protect local landowners, the local community, the Project’s workforce, and the Project infrastructure itself – bringing shared value to the region and stakeholders of the Project. Consultation with the Karara RFB indicated that while there is an adequate availability of volunteers, their firefighting capacity is reported as limited because of insufficient equipment and water access. The current capacity of the local RFBs is deemed inadequate to respond to bush fires efficiently and effectively in the case of an immediate threat to the Project area or surrounding communities. As such, there is a prevalent social need to enhance bushfire preparedness and response not only in the Project site but in the local area.

Investment in bushfire response strategies and resources beyond that required to manage project risk would minimise risk of the dire impacts caused by bushfire on human health and safety (both community members and project workers), local business and industry (grazing/agriculture), livelihoods, infrastructure, and natural surroundings. In addition to working with RFBs forming partnerships with the SDRC and GRC would allow for identification of sustainable strategies and infrastructure that require funding and support. The Southern Downs Planning Scheme (SDRC 2015) recognises, as a land use strategy in response to climate change and environmental hazards, the necessity that “[n]ew development and associated infrastructure is responsive to the potential impacts of climate change including increased heat and weather events. The responses include fire hazard reduction plans and activities”. The Goondiwindi Region Planning Scheme (GRC 2018) also identified a specific outcome of the plan to minimise the risk of loss of life and property through bushfires and other natural hazards arising from climate change.

10.6.2 Business opportunities, assets, and experience

ACCIONA and CleanCo have knowledge and experience in the environmental management with endorsement in the clean energy sector, with ACCIONA’s main goal encompassing their desire to ‘positively contribute to society and the planet, offering sustainable solutions to global warming’ (ACCIONA 2020b) which aligns with investing in bushfire preparedness and response in the local area to promote environmental, economic, and socially sustainable outcomes. The Project benefit is two-fold, protecting the physical infrastructure and assets of the Wind Farm and fostering social licence to operate in coherence with the company aim to address urgent issues such as climate change (and its consequences). As the impacts of climate change are realized through more prevalent extreme weather conditions, there is opportunity to engage in forward thinking and innovative fire mitigation strategies and technologies with the potential to draw on company assets and technological expertise.

10.6.3 Recommendation

The recommended strategies aim to support the local community and firefighting capacity, by providing funding for RFB equipment and improving local water access and promote long term and self-sustaining benefits for the local community, emergency services and the RFBs.

i Funding equipment and improving local water access for local RFBs

- a) It is recommended that ACCIONA allocate water access required for the construction of the Project (i.e. bores and tanks) to the RFB for their use post-construction to assist with local firefighting.

Water supply and availability is a challenge for the RFB based in Karara. Currently, the Karara RFB and local bush brigades are required to travel to Karara to re-fill water tanks to fight any fires that ignite within and surrounding the Project site. This significantly reduces the capacity of the local RFB to respond to fire adequately and effectively in the local area – increasing the possibility of significant fire events. As water supply sources are currently located in few places, water access (i.e. bores and tanks) will aid in ensuring rapid response and response from multiple sources to one front when required.

- b) It is recommended that ACCIONA provide funding for needed firefighting equipment to the local RFB.

As access to bores will not be possible until construction is complete the provision of funding for necessary firefighting equipment during construction would assist in increasing the RFB capability. Additional resources will provide the most significant long-term benefit within the local community and the Project.

ii Training and encouraging new volunteers

It is recommended that ACCIONA fund and support the facilitation of annual training/upskilling programs to local RFB members across the SDRC and GRC areas and establish a workforce volunteer campaign.

This strategy aims to train and attract new volunteers focusing on increasing the capacity and capability of volunteers for the local RFB by providing ongoing training for existing volunteers, local residents, and encouraging Project workforce to volunteer to the RFB.

During consultation, the local community expressed that the RFB based in Karara existing volunteer base is adequate, but perceived that they are not sufficiently equipped or trained. This provides ACCIONA with an opportunity to support the local RFB by supporting training and education surrounding bushfire preparedness and response amongst current local volunteers. This could be provided on both a large and/or a small scale to local RFB members across the SDRC and GRC areas. Through liaison with the QLD Rural Fire Service (RFS), ACCIONA could provide financial and organisational support for an annual volunteer training event to help increase the capability, capacity, and efficiency not only within the local area, but throughout the Project study area, improving the resilience and bushfire preparedness across the region.

During consultation, landholders and members of the local community revealed a disconnect between landholders and other residents of Karara, and the wider community. This related to how they socialise as well as their socioeconomic status. The divide is reflected in the volunteer base for the local RFB, which is largely comprised of those most at risk of the effects of bushfires, such as landholders and residents living on properties within the Project site. The disconnect poses a challenge of how to engage and motivate the wider community to become involved in volunteer activities, including volunteering for the local RFB.

In the wider community, it is recommended to encourage residents to volunteer with their local RFB by advertising volunteering positions outside of physically fighting fires. These positions could include, but are not limited to, community education, administration, incident management, communication, and catering (Rural Fire Brigade Association QLD [RFBAQ] 2021). These volunteering positions may be advertised at local events, in the ACCIONA shopfront in Warwick, funding information sessions, and on Project social media platforms. An opportunity also exists to engage local Aboriginal and/or Torres Strait Islander communities to engage and contribute to the RFB through the funding of traditional fire management knowledge paired with contemporary engagement programs to further increase knowledge about fire preparedness and response within the local community.

In addition, ACCIONA should establish a workforce volunteer campaign which regularly identifies and communicates volunteer opportunities within the local area, and encourage workers living locally to volunteer directly with the local RFB. These locally based workers that volunteer would increase the capacity of the local RFB and integrate the workforce into the local community increasing social connectivity and creating a legacy benefit.

iii Local bushfire research support and awareness programs

- a) It is recommended that ACCIONA develop an educational program in partnership with local councils, government agencies, emergency services and educational institutes to encourage innovative and long-term solutions for the bush fire preparedness and response within the local area.
- b) It is recommended that ACCIONA provide funding for scholarships for tertiary education institutes to initiate bushfire-related research in the region. Facilitating in-depth research of bushfires in the region has the potential to develop innovative, long term solutions to address bushfire risks.
- c) It is recommended that ACCIONA provide partnership opportunities to link local responders with organisations such as the QLD Reconstruction Authority (QRA).

The QRA focus on providing disaster recovery funding and resilience enhancement projects, including bushfire mitigation and response. Examples of QRA projects include disaster education and preparedness, community wellbeing, helping communities understand their risk, reaching out to vulnerable communities, and developing resilient infrastructure (QRA 2021). This partnership may be in the form of directly contributing to funding to enhance local infrastructure or supporting and encouraging projects to be developed and implemented across the study area.

Implementing this strategy must involve engaging with the local councils to determine any bushfire-related programs in place as well as relevant Government departments, primary, secondary tertiary education institutions, and local organisations. Engagement would also help inform how research should be conducted and where funding should be allocated. Overall, the strategy aims to encourage long term solutions for the community in relation to bushfire preparedness and response.

The establishment of strong partnerships will help facilitate fire safety and awareness programs and encourage greater understanding of bushfire mitigation measures in a broader context by researching and identifying the source of bushfires within the region. Promoting preparedness and awareness surrounding bushfires could involve partnering with the council, primary and secondary schools, and emergency services to facilitate a fire safety and awareness program. Such programs in schools could encourage innovation, raise awareness of bushfire risks, help students understand their region as well as promote a positive perception of ACCIONA.

10.6.4 Inputs

The inputs provided in Appendix G will assist with the initial planning and development of bush fire preparedness and response in the local region. Further actions and consultation need to be undertaken with RBFs, SDRC, GRC and local communities and volunteers to identify specific equipment and design and implement strategies that enhance community bush fire preparedness as outlined in Appendix G.

10.7 Tourism

10.7.1 Social need

Tourism is an industry that generates significant local visitors and economic activity within the study area. The SDRC has outlined tourism as one of the eight key themes within their 2018 strategic planning scheme, with the central aim to “offer outstanding tourism experiences” utilising the region’s natural environment, history and heritage, and food and wine aspects (SDRC 2018). Further, the council aims to encourage the development and enhancement of local eco-tourism industries, which is a key component of wind farm and renewable related tourism projects (as discussed in Section 8.3.5 and 8.3.6). Goondiwindi’s current tourism industry, although less prominent than Southern Downs, has the potential to grow significantly in the near future. The GRC Corporate Plan 2019 – 2024 identifies tourism as a key emerging opportunity throughout the region (GRC 2019). During consultation, representatives and stakeholders residing in both council areas identified tourism and development as highly desirable outcomes of the project and opportunities investment of CEP funds.

Socioeconomic disadvantage is prominent in Goondiwindi and Southern Downs LGA as shown in Table 10.1 and this is particularly true of towns surrounding the project site, notably Karara and Inglewood, this was supported by stakeholder engagement. As a result, Karara and Inglewood would benefit greatly from development of economic opportunities, activity, and investment. Encouraging local tourism would contribute to the local economy by providing opportunities for local businesses to expand and develop. Community driven tourism initiatives along with comprehensive training and support, will assist local business owners to increase their overall capability that could lead to a range of flow on opportunities and benefits such as small businesses and jobs. Provision of jobs and improved economic conditions benefits the broader community by increasing social cohesion and enhanced wellbeing.

Table 10.1 Population by Index of Relative Socio-Economic Disadvantage quintiles^(a) by LGA, MacIntyre Windfarm region and QLD, 2016

Area	Quintile 1 most disadvantaged	Quintile 2	Quintile 3	Quintile 4	Quintile 5 least disadvantaged
Goondiwindi LGA	28.2	30.5	14.2	16.1	11.1
Southern Downs LGA	38.4	37.8	17.9	5.3	0.6
Toowoomba LGA	23.8	25.4	17.1	15.9	17.8
QLD	20.0	20.0	20.0	20.0	20.0

The quintiles are population based and derived at the QLD level (state-based quintiles and not national based quintiles)

Source: ABS 2033.0.55.001 Census of Population and Housing: SEIFA, Australia, 2016, (QLD Treasury derived)

10.7.2 Business opportunities, assets, and experience

ACCIONA have demonstrated previous experience in establishing tourist infrastructure, for example the Waubra Windfarm in Victoria features an architecturally designed turbine viewing platform and informational plaques. ACCIONA and CleanCo have skills in development of business cases and accessing procurement processes that could assist small businesses and local communities in preparing submissions and funding applications necessary for approvals for tourism related developments or projects.

Establishing the MacIntyre Wind Farm Precinct as an innovative regional tourism destination has the potential to create significant awareness regarding the Project and renewable energy more generally. Creating opportunities to educate the local and regional population regarding wind farm energy, through infrastructure such as the information centre and museum, will have long term impacts as to how the community perceives the Project and its impact on the area as a whole.

Due to the nature of the road works that will be required during the construction period of the project, it is likely that the necessary equipment and personnel will be onsite to facilitate any construction or improvements required in or around Karara, such as an additional access road and carpark. This may be funded by the project and carried out by local subcontractors or councils, or managed internally by the project's workforce and equipment, dependant on logistical aspects of the project.

10.7.3 Recommendations

The recommended strategies aim to utilise a co-design procurement process to identify the appropriate investment in tourist attractions and infrastructure. This includes leveraging partnerships to provide the necessary training and support to maximise the long-term viability of establishing the area as a tourist destination. Evidence has shown that wind farms have the capacity to attract tourists when associated tourism facilities and services are available (see Section 8.3.5). The combined recommendations are proposing to leverage the opportunities that existing Warwick and Stanthorpe tourism provide to establish and promote tourist destinations in Karara and Inglewood.

Creating and enhancing tourism opportunities surrounding the Project site has the potential to bring significant economic activity and benefits to the local community, whilst also showcasing the Project and renewable energy. Tourism enhancement strategies should take a two-part approach to maximise these benefits and ensure long-term sustainable community led operation. These include, funding the development of permanent tourist related infrastructure and improving existing infrastructure (such as roads and carparking). A summary of the recommended investment opportunities is provided below.

i Funding and facilitating permanent tourist infrastructure

It is recommended that ACCIONA utilise co-design procurement process to provide funding for establishment of tourist attractions and supporting infrastructure that would encourage tourists to stop and spend time and money in the area surrounding the MacIntyre Windfarm. Identified investment opportunities include:

- a) **Karara Information Centre:** potential infrastructure developments may include a community-run information centre at Karara, which can be utilised as a museum space to showcase the Project, renewable energy, and the history of the local region. Engaging local stakeholders, council, and tourism providers to construct, operate and maintain this centre will ensure that the benefits are not reliant ongoing Project funding, and are self-sustaining with opportunities for business growth and expansion. Locating an additional attraction at the information centre, such as a replica wind turbine, or genuine blade, may increase interest in the site, and further encourage passers-by to stop at the location to take photos, touch, and appreciate the scale of the wind turbine structures.

- b) **Café or restaurant:** potentially co-located with the Karara Information Centre and developed in partnership with local food and wine providers and institutions such as the QLD College of Wine and Tourism based in Stanthorpe. Enhancing the design and accessibility of Karara will also likely improve the attractiveness for travellers to stop in this location.
- c) **Constructing bathroom facilities, car parking space, and improvements to local access roads:** exploring the best locations for development and delivery of valuable infrastructure enhancements with GRC will aid the success and ongoing viability of an information centre and other local businesses.
- d) **Viewing locations:** platforms and sites that are designed to enhance viewing of turbines in Inglewood, which offers the best view of turbines, may also be beneficial for local economic growth due to the number of existing establishments and businesses that may be able to benefit from additional visitors.
- e) **Amenities:** Collocating next to the platforms picnic tables and seating featuring solar panels and charging ports, would make the location a more attractive stop off point to passing tourists and grey nomads. This opportunity can be developed in partnership with the GRC and SDRC.
- f) **Art displays** – Other potential additions to attractions surrounding the project may include painting sections of the turbine bases to feature artwork by local artists, including local Aboriginal artists from the area. A small section of the project site may then serve as an open-air gallery, where tourists can take guided tours to see the artwork and structures. An existing Australian example of this can be seen at the Hornsdale Wind Farm in South Australia, where the project commissioned artists from the two local Traditional Owner groups, the Nukunu and Ngadjuri people, to create artworks that now adorn two of the turbine bases (Clean Energy Council 2019). Opportunities to partner with local tourism companies and provided bus tours of the local area and site (dependant on safety policies) may also contribute to encouraging local tourism surrounding the site.

Adoption of a co-design procurement process will allow for ACCIONA to identify of the most appropriate and effective investment opportunities while allowing the local providers and businesses to explore the opportunity and tailor their proposal to best deliver a viable and sustainable proposition that meets the community needs. It also allows them to explore potential partnering options. Ensuring that key organisations, including council will be important to ensure any infrastructure will be maintained. This approach draws on local knowledge and incorporates into projects during the beginning stages of planning, and as such the overall feasibility, sustainability and benefits are enhanced. Funding for the initial codesign process and infrastructure would come directly from the project's CEP, and there is potential to explore cofunding or grant matching with relevant state and private institutions, with the intention of creating community driven economic sustainability into the future.

Case Study: Wind farm tourism – Albany and Grasmere case study



The Albany and Grasmere Wind Farm is comprised of 18 turbines situated on a coastal escarpment outside of Albany in Western Australia, an approximately 4.5hrs drive from Perth. The wind farm has become a popular landmark and tourist destination, ranked the 5th favourite traveller attraction in Albany on Tripadvisor (Tripadvisor 2021). The site is open to the public every day of the year and is free to enter, attracting more than 200,000 visitors each year (Bright Energy Investments 2021). Tourist facilities at the wind farm include a large carpark, paved and board-walk pathways, several lookouts, public toilets, an information centre, and informative panels about wind-energy to engage with along the walking track. The panels also incorporate local Indigenous environmental knowledge, featuring both traditional and contemporary information and practices. The wind farm walk constitutes a small section of the *Bibbulmun Track*, which is an attraction in its own right, with 85km of walking track from Denmark to Albany. The Sand Patch Coastal Platform/lookout is located parallel to the wind farm, boasting spectacular views of the project site and the coastline.



ii Upskilling and training local business and tourism providers

It is recommended that ACCIONA fund skills training to small business providers and tourist operator based on findings from a detailed skills audit and gap analysis to identify skills shortages.

Local tourist operators and business owners will require appropriate knowledge and skills to maximise and sustain new business opportunities created by new tourist infrastructure and maximise long-term benefits. This may include partnering with Business QLD to facilitate the delivery of training and upskilling local businesses in the fields of tourism, financial training, business management skills, to ensure local businesses have the skills and capability required to ensure that long-term benefits are fully experienced. Local training may occur as a one-off initiative at the beginning of the infrastructure upgrades or continue semi-regularly, such as annually and refresher courses. Contributing to training and education will likely also provide flow on benefits regarding local employment and general capability growth in a range of different sectors and industries. In addition, Business QLD provide a range of grants and business support that can be made available to local businesses to ensure they have the skills required to participate in procurement opportunities and business enhancements. ACCIONA can facilitate the provision of these resources and/or raise awareness in their shop front, website, and social and other media.

Partnerships with relevant tourism organisations and bodies may also assist in providing additional funding and benefits to local providers and could be utilised to facilitate local tourism workshops and courses, potentially encouraging long term connections and local partnerships. Organisations such as Destination QLD, the QLD Tourism Industry Council and the Department of Tourism and Innovation would likely offer opportunities to contribute and offer established tourism programs and resources directly to the community, as would more localised tourism boards such as Southern QLD Country Tourism, Tourism and Events QLD, and Southern Downs and Granite Belt Tourism.

iii Promoting local tourism

It is recommended that ACCIONA provide support, and actively participate, in the promotion of the MacIntyre Windfarm and surrounding region as a tourist destination.

Ensuring that the region and project is branded and promoted as a tourist destination will be key in attracting visitors to the region and generating local business. Promoting wind farm related tourism opportunities may have flow on benefits for other local towns and attractions that do not currently receive significant tourist attention or revenue. For example, creating a 'tourist route' around the project and advertising other key towns that visitors can stop at and things to see and do at each location. This initiative is in line with the SDRC strategic plan, which highlights "well identified tourist routes" as an element of the 'strategic framework' which "sets the policy for the planning scheme and the basis" for development (SDRC 2018). During consultation, this recommendation was also raised and supported by several stakeholders in the Goondiwindi region, including Council representatives and the Mayor. There is potential for a route to be established by creating a loop around the project site between Warwick, Karara, Inglewood, Yelarbon, Texas, and Stanthorpe. This route would include the key established tourist destinations in the region such as Stanthorpe and Warwick, whilst incorporating less visited areas, including towns in Goondiwindi LGA, maximising benefits for smaller regional towns, and connecting tourists concentrated in Stanthorpe to the project site. An example route is illustrated in Figure 10.1. Installing signage, as well as printing and distributing tourist maps and promotional brochures at key tourist locations may enhance the benefits of any tourist infrastructure surrounding the project.

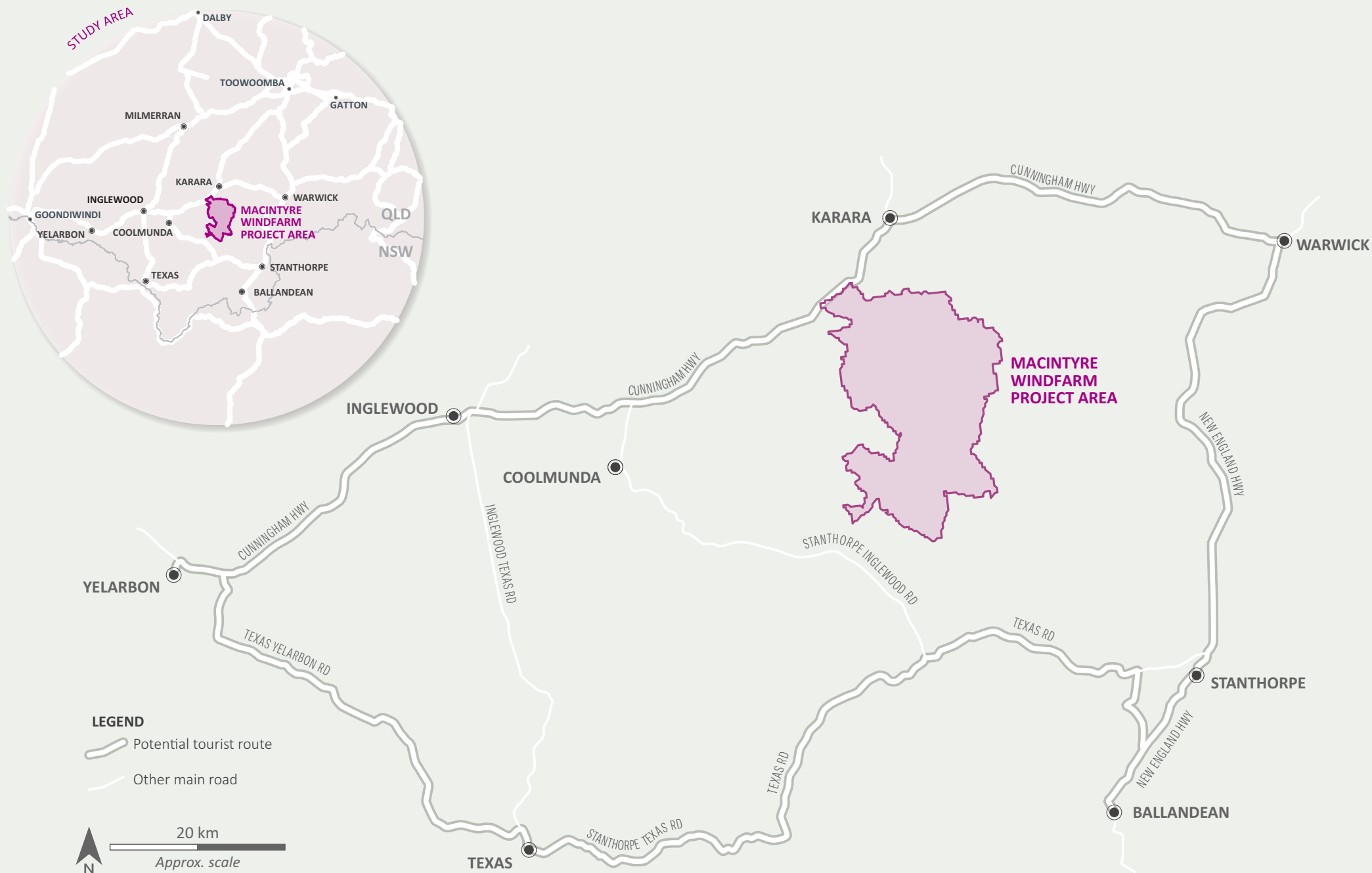


Figure 10.2 Potential tourist route through key towns and communities

10.7.4 Inputs

The inputs provided in Appendix G will assist with the identification and procurement of appropriate tourist attractions and infrastructure in the local region. Adoption of a co-design procurement process will need to be undertaken and would need to include GRC, SDRC, chambers of commerce and local tourist providers as a minimum to ensure the appropriate locations and tourist opportunities are identified. A summary of inputs and partners in show in Appendix G.

10.8 Education and training

10.8.1 Social need

Socioeconomic disadvantage is prominent in Goondiwindi and Southern Downs LGA as shown in Table 10.1 and this is particularly true of towns surrounding the project site, notably Karara and Inglewood, this was supported by stakeholder engagement. This is believed to be in relation to the lack of employment and education opportunities within the study area, specifically for those living in populated centres rather than on farming properties, as many residents, especially younger demographic groups, often move from the local area seeking further education and jobs. Therefore, there is potential to address this disadvantage by ensuring opportunities are made accessible for local residents and developing the capacity and capability of the local workforce to work on large scale renewable projects in the future.

Both SDRC (2018) and GRC (2018) emphasises education and training and facilities to support industries and promote a strong economy with a stable and reliable workforce and employment opportunities through their relevant *Planning Schemes*.

During consultation, concerns were raised regarding the capacity of the local workforce with several mentions made about the skills shortages which is supported by the findings demonstrated in Section 5 of Appendix A which identifies technicians and trade workers. The recent closure of the Warwick Daily newspaper in 2020 has created significant local job loss, which is expected to increase with the closure of the Woolworths distribution centre in Warwick in 2023. These closures may increase the number of unemployed workers with existing skills and experience in logistics, distribution, general labour, and transport positions. There is potential for the project to offer training to these workers to address the increase in local unemployment, and further develop and enhance technical skills and employment opportunities.

Therefore, there is an opportunity to integrate education and training strategies to help increase workforce capacity and opportunity for residents. Upskilling also provides business and employment opportunities within the local area which would encourage residents to stay within the local area rather than relocate for further opportunities. This will also help residents service upcoming development and infrastructure projects in the region that will require a similar skillset such as Inland Rail, Emu Swamp Dam and the MacIntyre transmission line, thus establishing an educational and upskilling legacy for ACCIONA.

10.8.2 Business opportunities, assets, and experience

Currently ACCIONA offers the MacIntyre Wind Farm Scholarship at USQ that aims to "support one student commencing a bachelor's degree" with a one-off payment of \$2,000 in the first semester of study (USQ 2020). Enhancement of the criteria and funding along with additional scholarship opportunities will increase social license to operate within the local community and provides a high-profile media opportunity to promote the granting of the scholarships. The ability for ACCIONA and CleanCo to potentially provide employment opportunities within the Project provides a shared value proposition.

The community driven aspects of Project led traineeships, programs and scholarships will encourage positive community perceptions of the Project. By supporting the local community and providing training in skills where the skills audit identifies a shortage, it will allow for capacity building and increase the availability of the workforce for the Project. Increased capacity in the community would be attributed to ACCIONA and the Project, which would sustain the ACCIONA legacy within the region. In addition, a skilled workforce suited for the Project will allow for an increased availability of a local workforce and reduce costs associated with a predominant FIFO/DIDO workforce. Implementing the recommended education and training strategies would also increase the likelihood of meeting the local workforce commitments.

By encouraging community-based programs, Project led education and training strategies it will create a legacy that may inspire future renewable developments and innovation.

10.8.3 Recommendation

The recommended strategies aim to add additional value to the local community by tailoring scholarship criteria to address specific localised disadvantage and contribute to addressing the skills shortage in the local area by providing upskilling and training opportunities that will lead to increased employment opportunities. Scholarships and training programs will target low socioeconomic groups such as Aboriginal and/or Torres Strait Islander people, youth, and long term unemployed to ensure maximum benefits.

i Local training and upskilling

It is recommended that ACCIONA develop a Project led training and upskilling of local residents in technical skills related to turbine installation, assembly, transport and logistics to work on the Project and/or future renewable projects. To successfully implement appropriate training and upskilling, a gap analysis will need to be undertaken to identify the local capacity and the skills needed by the Project. This will inform funding for training. The gap analysis is anticipated to be conducted by facilitating discussions with employment agencies, organisations, GRC and SDRC; available data has been collected and is presented in the social baseline in Appendix A.

The workforce for the Project, during construction and operation, requires specialised and technical skills relating to turbine installation, assembly, and logistics, which are not likely available in the local area (see Section 8.1.1 and 8.1.3). As such, Project led training and upskilling can encourage opportunities for local workforce to participate in the Project and future renewable projects. Once the gaps are identified the skills required for this Project can also be utilised for other local projects non-specific to wind farms, such as general construction and civil works, which would help build capacity within the local workforce. This strategy relates to key themes identified within the SDRC and GRC planning schemes which emphasise the need encourage increased employment opportunities for the regions, diversify and develop their regional economies (GRC 2018; SDRC 2018).

Project led training and upskilling relating to construction, the environment and the renewable energy industry conducted by ACCIONA and related contractors, can be a once-off initiative during the beginning of the Project, particularly for the construction of the site. This is to ensure that skills are developed in the beginning phase of the Project and will be further consolidated in the construction phase. As such a legacy of skilled and experienced workers will be the outcome of providing training and encouraging upskilling. The training can target disadvantaged and marginalised groups and available workforces in the local area. Such available workforces could be sourced from other resource industries for example the coal industry, and the projects that are anticipated to be shut down. This provides an opportunity to train the available workforces to work in the renewable energy sector. In addition to Project led training, workshops can also be facilitated throughout the local area to encourage upskilling for local businesses, specifically suppliers and small businesses, and their capabilities in terms of securing procurement opportunities.

Partnerships with organisations and training providers that already offer these services and funding may streamline the process of upskilling local workers and suppliers, whilst maximising benefits. Examples include TAFE QLD which offers funding and subsidy options, the Department of State Development, Infrastructure, Local Government and Planning's 'Jobs and Regional Growth Fund', the Superyacht Industry Development Fund (SIDF), and Deadly Deals which offers grant for Indigenous businesses. Business development workshop providers include Advance QLD, the Department of Small Businesses (DSB), National Retailers Association (NRA), Australian Taxation Office (ATO), and the Australian Small Business Advisory Services (ASBAS). Local employment agencies and organisations, such as Canvas Coworking based in Toowoomba and Small Business QLD, can also be engaged to assist with entrepreneurial upskilling. Local businesses, suppliers, and SMEs may also be eligible for financial assistance to acquire certification and accreditation through these organisations to enhance the local industry competition, which could be enhanced and supported by the project.

ii USQ scholarship programs

It is recommended that ACCIONA develop partnerships and fund a scholarship program with USQ that aims to provide educational and employment pathways for youth within the Project area. Preliminary research and a gaps analysis will need to be undertaken to determine the disadvantage within the region to ensure that scholarship opportunities fund the disciplines that are lacking.

Development of employment pathways for youth will enable access to a locally based skilled workforce and help ensure that younger people can gain skills, employment and live locally. The partnerships should involve ACCIONA engaging with USQ to establish a scholarship which either increases the number of scholarships available or the amount invested in scholarships, particularly targeted to those residing in smaller towns that may be more affected by the Project, such as Karara, Inglewood or Leyburn. This would involve implementing a refined and targeted selection criterion that prioritises students from low-socioeconomic communities. Facilitating programs that ensure direct project employment and experience following the completion of training would encourage local employment opportunities and tertiary educational retainment in the local area.

Addressing education and the qualifications disparity within the local area will help target the issue of capacity within the local workforce and ensure the youth stay within the area whilst developing a workforce suitable for the Project. Ongoing provision of scholarships which ensure that students from lower socio-economic communities and groups can fund their education (who otherwise could not) resulting in a more highly skilled local population and providing students with relevant qualifications to pursue meaningful employment.

A challenge for the Project Team implementing these will be the identification and engagement of candidates for the scholarship. This will require engaging and working in collaboration with schools, employment service providers, community leaders and local industry to identify and engage suitable candidates.

iii Primary and secondary school programs

It is recommended that ACCIONA implement Project-led and community service driven programs within the primary and secondary schools of the Project area to enhance tertiary education pathways and promote the education of renewable energy.

School level programs can promote an increase of student attendance and education retainment within the Project area by exhibiting opportunities available for local residents.

Schools within proximity of the Project site have been identified as disadvantaged with consultations confirming that resources are lacking, and student numbers are decreasing. By establishing educational programs to help enhance the educational and socioeconomic opportunities associated with the Project, there is potential to encourage a diverse industry and enhanced education pathways, which aligns with the SDRC vision of enhancing education facilities, namely secondary schools, to develop opportunities for innovation within the region's current industries (SDRC 2018).

The 12 schools in the Project area include:

- Broadwater State School;
- Glennie Heights State School;
- Greenlands State School;
- Inglewood State School;
- Karara State School;
- Leyburn State School;
- Stanthorpe State High School;
- Stanthorpe State School;
- Warwick Central State School;
- Warwick East State School;
- Warwick State High School; and
- Warwick West State School.

10.8.4 Inputs

The inputs provided in Appendix G will assist determining the target populations and the criteria for scholarship and training programs to ensure the investment maximises social outcomes. The partnerships with USQ and Principals will assist in identifying recipients and providing support that maximises their success in completing their studies and translating it to sustainable employment. The strategies, partners and other inputs that enhance education and training is outlined in Appendix G.

10.9 Aboriginal and Torres Strait Islander engagement

10.9.1 Social need

The study area demonstrates that the percentage of the population in the study area that identify as Aboriginal and/or Torres Strait Islander is notably higher than the overall percentage throughout QLD (see Section 5.2.1). In Australia generally, many Aboriginal and Torres Strait Islander Peoples experience a heightened degree of marginalisation and disadvantage when compared to non-Indigenous Australians. This is evident across a range of indicators in areas such as education, health, life expectancy and socio-economic wellbeing. A cultural heritage survey and assessment of the project site was conducted, and engaged two Aboriginal representative groups, the Githabul and the Kambuwal People. Although there may be other individuals and communities with traditional connections to the land, these groups are deemed the primary parties of interest within the project site. While the land on which the project will be located is freehold title, it is no less recognised as holding traditional and cultural significance and value for local Aboriginal peoples and groups, who should be considered amongst the project's key stakeholders. As such, it is important that the Project consider the input and engagement of local Aboriginal and/or Torres Strait Islander people throughout each of the community enhancement programs and strategies that will be employed. Furthermore, the SDRC planning scheme outlines the significance of local Aboriginal stakeholders and cultural heritage under the region's 'community identity and diversity' priority. It states that local Aboriginal groups should be "involved in planning" and development processes, "and [that] their relationship with the land and natural resources [should be] understood and respected" (SDRC 2019).

10.9.2 Business opportunities, assets, and experience

The cultural heritage assessment that has been undertaken for the planning and approvals phase of the project is an important asset to the project. Sharing this knowledge in a culturally appropriate way and incorporating it into local culture and arts programs and exhibitions has the potential to result in a range of benefits and positive community driven outcomes.

10.9.3 Recommendations

The recommended strategies aim to increase Aboriginal and/or Torres Strait Islander people's participation in employment and provide opportunities to capture and include their cultural knowledge and experience.

Enhancing Aboriginal and/or Torres Strait Islander participation within each of the shared value recommendations has the potential to maximise the benefits that local Aboriginal and Torres Strait Islander Peoples experience due to the project. Targeting local Aboriginal and/or Torres Strait Islander employment, education, health, and wellbeing has the potential to create positive flow on effects for the broader community within the local region. Strategies include integrating local Aboriginal cultural heritage into tourism opportunities, supporting local Aboriginal and/or Torres Strait Islander education and employment through targeted training and scholarship programs, enhancing Aboriginal and/or Torres Strait Islander mental health and cultural wellbeing services, and funding research and education programs to support local Aboriginal culture and heritage. Each recommendation should be planned and strategized using a co-design process that prioritises local Aboriginal and/or Torres Strait Islander groups and organisations as the key stakeholders and partners. A summary of the recommendations is provided below.

i Support Aboriginal cultural heritage research projects, and community culture and arts programs

It is recommended that ACCIONA and CleanCo could use the shop front as a live space to facilitate an exhibition, and provide support for publications, and/or local research project that incorporates and showcases local Aboriginal Cultural heritage in the form of physical sites and artefacts, language, oral histories, photographs, art, music, or archival records.

Aboriginal cultural heritage is a valuable resource not only amongst local Aboriginal groups, but also the wider regional community and beyond. The information, knowledge and investigations that have been undertaken to complete the project's cultural heritage assessment, could form the basis for an exhibition, publication, or local research project that incorporates and showcases local Aboriginal Cultural heritage in the form of physical sites and artefacts, language, oral histories, photographs, art, music, or archival records. The suggested information centre at Karara (Section 10.7.3 Recommendation 10.7.3ia) may feature a permanent exhibition detailing the Aboriginal history of the local area, including displays and information surrounding local tangible and intangible cultural heritage.

ii Cultural heritage research project

It is recommended that ACCIONA and CleanCo fund a research scholarship and/or grants program through USQ and other relevant universities and organisations focusing on local Aboriginal and/or Torres Strait Islander history and cultural heritage.

Developing research programs to enhance the knowledge surrounding local Aboriginal history, language, culture, and heritage in the region will likely provide various opportunities for local Aboriginal and/or Torres Strait Islander peoples to become involved in cultural projects. Language was raised as a key cultural value and priority for local Aboriginal groups, as like in many parts of the country, traditional dialects have fallen out of common use and knowledge for many people. There is a potential opportunity for the project to fund a research project to establish a database of language words and phrases that can be preserved and maintained. This project could then lead to various community led arts, culture, and education programs, incorporating language into accessible forms such as music, theatre, and literature. The project could also contribute to the publication of a book or resource regarding the Aboriginal history and culture in the region, in partnership with relevant education and research institutions. Scholarships and research funding should aim to target and prioritise local Aboriginal People, and where possible, those with familial and historical connections to the region. It is important that these programs and projects are all developed in collaboration with the local Aboriginal groups and organisations, to ensure a range of perspectives and opinions are considered to maximise cultural sensitivity and local benefits.

iii Aboriginal and/or Torres Strait Islander employment, education, and support services

It is recommended that ACCIONA and CleanCo explore the opportunities to provide Aboriginal and/or Torres Strait Islander employment, education, and social support services in consultation with Traditional Owners, local Aboriginal and/or Torres Strait Islander services, and representative bodies.

Many of the strategies and recommendations that have been discussed throughout this section have the potential to target and engage with Aboriginal and Torres Strait Islander peoples and culture to enhance local benefits and mitigate impacts. Integrating and prioritising Aboriginal and/or Torres Strait Islander participation and contribution within each strategy will maximise the overall benefits and create socioeconomic opportunities within communities experiencing heightened disadvantage. Ensuring that employment and scholarship programs are offered specifically to Aboriginal and/or Torres Strait Islander applicants will enhance the accessibility and likelihood of individuals receiving long term project benefits and positions. Engaging Aboriginal and Torres Strait Islander members of the workforce should include both technical training and upskilling where needed, and well as general workplace cultural safety training. Ensuring the workplace is a culturally competent and supportive place for

Aboriginal and/or Torres Strait Islander employees will contribute to fostering positive social impacts within the community, whilst also boosting local employee retention.

Aboriginal and/or Torres Strait Islander social and health services within the study area, specifically targeting mental health and wellbeing, are key opportunities to address community specific needs and services through existing organisations and institutions. As in Section 10.6, there is potential for the project to contribute to the funding and support of services to enhance the accessibility, quality, reach and cultural capabilities of key services within the community. Tourism and community programs also have the potential to be enhanced by Aboriginal culture and heritage by ensuring that local Aboriginal and/or Torres Strait Islander stakeholders are closely involved and represented throughout codesign processes. The initial step towards maximising project benefits for the local Aboriginal and/or Torres Strait Islander community should focus on identifying the gaps and needs in the local community amongst specific Aboriginal and/or Torres Strait Islander services and organisations such as health, education, and cultural services. Engagement with these services will assist in identifying how to improve accessibility, resources, and overall benefits. Publicly

10.9.4 Inputs

The inputs provided in Appendix G will assist with initial planning and development of Aboriginal and/or Torres Strait Islander strategies in the local region. The strategies, partners and other inputs that enhance the employment, education and social services for Aboriginal and/or Torres Strait Islander peoples is outlined in Appendix G.

10.10 Community cohesion and events

10.10.1 Social need

Wind farm developments have the potential to place community cohesion under strain due to negative community perceptions and experiences (see Section 8.4.3) which should be taken into consideration in relation to the Project as there is potential for conflicts to arise. From stakeholder engagement it was confirmed there are concerns regarding community division and conflict due to the perceived unfair spread of benefits relating to the Project, which has the potential to negatively influence community cohesion (see Section 6.1.2 and Section 8.4.3). With examples of this already occurring on existing wind farm projects (see Section 8.4.3) it is imperative to take into consideration the local context and values of the local area to avoid any impacts to social cohesion.

Confirmed by statistical data, mental health within the local area has been an ongoing issue which is likely to be linked with the impacts of drought and limited avenues for support. This has the potential to be further exacerbated by impacts to social cohesion and personal and community relationships due to the Project. As such, investing and supporting community initiatives that allows for increased community cohesion is required in the community as a prevention and mitigation measure. For the SDRC, social cohesion is valued and must be protected from developments that have the potential to introduce negative impacts and that community facilities, such as community halls, must meet the needs of residents for services, cultural experiences, education, and entertainment (SDRC 2018). As for the GRC, there is a community facilities zone code in place to ensure that land is dedicated for community related activities and facilities (GRC 2018).

During consultations, community halls were recognised as symbolically and cultural significant for stakeholders, as they were used as meeting places to share experiences and provide support during hardships (see Section 8.4.4). However, communities within the local area, specifically the Pikedale community, have been struggling to source funding to maintain their town halls which has the potential to further impede on community cohesion. Therefore, there is an identified need to provide additional funding and resources to be able to facilitate community events and infrastructure. Additionally, there is no longer a community print newspaper which has been recognised as a loss in terms of sourcing local news and updates. By strengthening community wellbeing and cohesion through supporting local infrastructure this can facilitate spaces where community members are able to access support and discuss shared experiences.

10.10.2 Business opportunities, assets, and experience

There is significant risk for the Project to experience community pushback and objection due to potential of social conflict, division, and lack of community cohesion. As seen in previous Australian windfarm examples, community conflict has the potential to undermine approvals processes and reinforce negative company perception. The strategies recommended aim to increase community presence and mitigate any issues that arise during development which are not uncommon for wind farm development projects. Investing in community cohesion and events may reduce the likelihood of community pushback, which will help foster good relationships and create ease during the construction phase where the majority of impacts will be experienced.

10.10.3 Recommendations

The recommended strategies aim to contribute to promote community cohesion and community wellbeing through the funding of community led and identified projects and strategies. A summary of the recommendations is provided below.

i Improving local community facilities and halls

- a) It is recommended that ACCIONA provide funding and/or resources to upgrade the community halls in Cement Mills Hall and the Karara Community Hall.
- b) During consultation, community and town halls were identified by many residents surrounding the project site as culturally and socially significant locations amongst individuals and communities. Key locations where people gather surrounding the project site were noted including the Cement Mills Community Hall and the Karara Community Hall. The project should consult with the community to determine what enhancements would most benefit the local area and residents. This may include engaging the project's workforce to paint halls, refurbishing bathroom facilities, providing a BBQ or funding for other maintenance and expansion projects.
- c) It is recommended that CleanCo and ACCIONA work with the local community and relevant Government agencies to identify and secure a suitable location for the Pikedale community hall and its subsequent relocation to the identified site.

The Pikedale community hall was a key location repeatedly raised during consultation as a potential opportunity for the project to fund a site of great community significance. The Pikedale community hall has been a long-term community led project, aimed at providing members of the community a gathering place where they can provide support to each other during times of drought and hardship. Whilst the SDRC has provided the community with a building, the structure needs land and once identified to be relocated to the site. Despite long term community led fundraising programs, the building has not yet been able to secure a lot for the community hall. This provides a key opportunity for CleanCo and ACCIONA to use their influence and connections to help facilitate the securing of appropriate land and fund the subsequent relocation or utilise the existing transportation and logistics capability and resources to move the building.

ii Supporting a community run newspaper

It is recommended that ACCIONA explore the possibility of co-funding either a school based, or university based independent local newspaper to be published across GRC and SDRC areas.

A local print newspaper was identified as a community need during consultation, as the local papers that service the project site and immediate community have now been taken out of print like many regional print publications. There is an opportunity to provide initial start-up funding for an independent paper to be run by either by a local high school or USQ that allows students interested in media to gain skills and experience while providing a community service. Facilitating and funding an independent community paper has the potential to further enhance community cohesion and support.

Print publications are an important way for many residents living in isolated and rural areas to stay connected and up to date with others in the area, especially those who are older and may not have secure internet access or connection. Further, given the community led nature of the publication, the subject matter discussed within the paper will likely focus on the community, including the various cultural, historical, and social aspects of the region that bring people together. A community newspaper may also provide an opportunity for regular updates, notices, and communication regarding the project. However, it is important that any publication of this type remains independent and is not construed by the community as project led. Supporting and developing a community run newspaper will also require a local committee or organisation to compile community submissions, format, print, distribute and organise the publication. This may also require some minor training and assistance in basic skills required for small scale publication and printing. A small-scale local co-design process with community members and potential education partners in forming the paper committee will assist in determining what funding, support and resources are needed to ensure the project is able to be maintained and continued long term.

10.10.4 Inputs

The inputs provided in Appendix G will assist with funding the refurbishment of community halls, identifying a location for the Pikedale community hall, and ongoing printing and distribution of the community run newspaper. The strategies, partners and other inputs that enhance community cohesion and events is outlined in Appendix G.

10.11 Mental health and wellbeing

10.11.1 Social need

In Australia, agriculturalist and farmers have been identified as a particularly high-risk group regarding suicide and mental health (Perceval, Ross, Kølves, Reddy & De Leo 2018). This is in line with the suicide rates recorded in rural or remote Australia. Whilst defining the cause of suicide in any locale is complex, research has demonstrated various factors that may contribute to these high numbers, including environmental factors such as climate and its impacts on agricultural productivity, limited access to health services and treatment and other compounding social, economic, and cultural stressors (Kølves, Milner, McKay & De Leo 2012). As raised during community and stakeholder consultation, the recent severe drought in the study area and surrounding the Project site caused significant economic and emotional hardship for many individuals. Local residents explained that there has been a major perceived increase in depression, especially amongst men in the community, due to environmental factors such as drought and wild dogs. Emergency services also identified depression and suicide as key concerns in the study area.

As described in the social baseline (see Section 5 and Appendix A mental health statistics for the region, rates of self-harm hospitalizations and high/very high levels of psychological distress are slightly higher within the study area compared to the state of QLD. This suggests that psychological distress may be more prevalent within the study area and that general health services may have greater demand for psychological care. When reviewing available mental health services within the study area it was apparent that there is a lack of services and organization, particularly within more rural communities in Goondiwindi and Southern Downs LGAs such as Karara, Inglewood, Cement Mills, and Pikedale (see Section 5 and Appendix A). During consultation service providers confirmed this need for additional mental health services within the study area.

The identified lack of mental health and wellbeing services in the study area, as outlined in Section 5, alongside the high rates of suicide and mental health issues in towns such as Warwick and Karara identified by local stakeholders and service providers, and supported by Section 5, raises a potential opportunity for the Project to contribute to long term legacy benefits regarding mental health in the area. Funding and support of healthcare in the local area may improve long-term health and wellbeing and reduce incidents of suicide and mental health conditions significantly. The lack of existing infrastructure and services may also provide an opportunity for the Project to fill a need within the community by establishing social enterprise, increasing outreach programs, and developing initiatives such as a mental health crisis support clinic in Warwick, or a men's shed in Karara. This will provide a significant legacy benefit to the local area that will continue long after the Project's lifetime.

10.11.2 Business opportunities, assets, and experience

ACCIONA has existing mental health programs they provide to staff, a resource that could be offered to community members. ACCIONA is actively engaging with the local community and understands their social experiences and needs. This established rapport will enable ACCIONA to conduct additional, targeted consultation with local community and mental health service providers to identify the specific resources that will be required to facilitate enhanced outreach programs, community-led social enterprise and initiatives, and mental health awareness and education programs, as well as the opportunities which could address the largest need.

10.11.3 Recommendations

The recommended strategies aim to support, and facilitate outreach services, development of partnerships for community led social enterprise, and mental health awareness and education initiatives.

i Outreach services

It is recommended that ACCIONA provides funding to outreach services to enable mental health services to be provided to smaller towns across the Project area, but in particular to places such as Karara.

Men's sheds are community-based, non-commercial organisations that are open to all men. Men's sheds "improve the health and wellbeing of their members by giving them a safe place to make friends, share meaningful activities, talk, and access health information and resources" (Department of Health 2021). There are 4 men's sheds currently operating nearby the Project site, including in Warwick, Stanthorpe, Leyburn, and Inglewood (Mates Shed). As part of the Australian Men's Shed Association's (2017) *Framework for the Future: Strategic Plan 2017 – 2019*, regional outreach programs are identified as a key objective in ensuring the improvement of shed operations. There is an opportunity to establish a partnership with the Australian Men's Shed Association and the sheds within the local community to facilitate additional outreach opportunities to smaller towns within the local area. Outreach may include:

- development of a regular program of regional Men's Shed gatherings using existing spaces within the local community (such as the Karara or Cement Mills community hall);
- providing financial support to Men's Shed operations to hold regional events in the local community;
- assisting Men's Sheds in apply for funding and grants, such as the Australian Government's National Shed Development Programme Grants which supports the delivery of programs and improvements to facilities (two rounds of funding totalling \$1,000,000 are offered per year), to provide additional financial support for outreach activities;

- funding a mobile Men's Shed; and/or
- provision of a vehicle to enable transportation of community members to and from existing Men's Shed locations.

Outreach services could also be provided by other mental health and support services operating within regional hubs within the study area (such as Warwick and Stanthorpe). However, discussions with existing services will need to be conducted to assess their capacity, capability, and the resources required to extend their services to cover a wider area to reach the more isolated members of the community. Services to engage with in the local area regarding outreach services include the Country Women's Association (CWA); hospitals and health services in Warwick, Stanthorpe, and Inglewood; Headspace Warwick; and local psychology and counselling service providers. Additional outreach opportunities include forming a partnership with the Toowoomba Regional and Rural Mental Health Service which provides outreach psychologist and counselling services.

ii Community-led social enterprise and initiatives

It is recommended that ACCIONA assist with the facilitation, funding and partnerships required for community led social enterprise and initiatives relating to mental health and wellbeing (i.e. establishing a rural local counselling service, enhancing local communities' halls, or organising an ongoing community activity).

To ensure ACCIONA gain a full understanding of the mental health needs of the community and service providers, additional consultation would allow for investment in the most appropriate opportunities to assist the community in establishing community-led social enterprise and initiatives. This could include supporting the establishment of a rural local counselling service, supporting other local not-for-profit organisations, and establishing community events programs which encourage community members to come together and engage activities informed by mental health imperatives (e.g. community gatherings, community workshops, exercise programs/sport, music events, etc.). Consulting with the QLD Health director of nursing at Warwick Hospital may also provide insight regarding localized health and wellbeing priorities and issues. The consultation for the SIA has identified initial opportunities for consideration, including the improvement of community halls in Karara and Cement Mills and establishment of a Pikedale community hall (see Recommendation i).

Another opportunity for ACCIONA to assist in the establishment of community-led social enterprise and initiatives is through the introduction and funding of youth support services. There is the potential for ACCIONA to support school-based mental health initiatives to ensure that children within the local community are receiving mental health education and support from an early age. This would contribute to improved mental health awareness, literacy, and action into adulthood. Headspace Warwick is a free and confidential mental health service available to persons aged 12 – 25 years and provides an outreach service to Stanthorpe as well as providing services from the Warwick office. Headspace also offers school-based programs and initiatives – including mental health promotion, prevention, early intervention and postvention programs for both staff and students (Headspace 2021). There is the potential for ACCIONA to form a partnership with Headspace to deliver mental health programming and support to students in the local community.

iii Mental health awareness and education

It is recommended that ACCIONA explore the opportunity to increase the local community's awareness surrounding mental health through programs that provide education, advice on how to have conversations surrounding mental health, and how to receive support or help give support to others.

Partnership with QLD Health Mental Health Community Support Services (MH CSS) would be required to identify and source appropriate materials and general advice. The MH CSS provides the Group Based Peer Recovery Support Program that gives people access to group-based peer-led activities by peer workers and aim to empower and support the person by working through group processes and sharing life experiences with others who have similar experiences. The Program helps develop support networks for crisis situations experienced across the region such as drought and bushfires.

Raising awareness of mental health in regional and rural communities where conventional mental health services may not be as accessible or available, and where community support networks are key to supporting the mental health of the local community. This could include providing mental health information and resources at local community halls (in the form of pamphlets, lists of web resources, phone numbers, and identified local services operating within the area). This could also include bringing in speakers or funding mental-health tents at community events.

Traprock Group provides support to primary producers (primarily agriculture) within the Traprock region which includes SEQ through to Northern NSW (in which the study area is located) (Traprock Group n.d.). Traprock group currently provides the 'Connecting Traprock Community' initiative which operates within Stanthorpe providing events for community members to connect and socialise. This presents a partnership opportunity for ACCIONA to identify and support mental health initiatives specifically targeting farmers within the local area. It is also recommended that ACCIONA liaise and/or partner with the Darling Downs and West Moreton PHN. The Darling Downs and West Moreton PHN funds numerous initiatives aimed at supporting and improving health within the region (including Southern Downs LGA, Goondiwindi LGA, and Toowoomba LGA). These include their community events grant, community connections program, and their drought calendar – all of which aim to increase community resilience, enhance mental health awareness and action, and destigmatise mental health in the region.

Another opportunity to increase mental health awareness is through a partnership with MATES, an industry intervention program which provides mental health education and support programs to workers in the construction and building industries. As ACCIONA has committed to local employment and to engaging local suppliers, the provision of mental health training and education to their workforce would contribute to improving mental health awareness within the local community. ACCIONA will need to liaise with their contractors regarding an investment in this initiative.

10.11.4 Inputs

The inputs provided in Appendix G will assist with initial planning and development of mental health and wellbeing enhancement strategies in the local region. The strategies, partners and other inputs that enhance community mental health and wellbeing is outlined in Appendix G.

Acronyms

Acronym	Meaning
AADT	Annual average daily traffic
ABC	Australian Broadcasting Corporation
ABS	Australian Bureau of Statistics
ACELG	Australian Centre of Excellence for Local Government
AHRC	Australian Human Rights Commission
AIATSIS	Australian Institute of Aboriginal and Torres Strait Islander Studies
AIHW	Australian Institute of Health and Wellbeing
ASBAS	Australian Small Business Advisory Service
ATO	Australian Taxation Office
ATSILS	Aboriginal and Torres Strait Islander Legal Service
AusWEA	Australian Wind Energy Association
BBQ	Barbeque
CCCA	Centre for Cultural Competence Australia
CCTV	Closed-circuit television
CEC	Community Engagement Committee
CEP	Community Enhancement Program
CFPA	Confederation of Fire Protection Associations Europe
CISER	Centre for Indigenous Studies, Education and Research
CJG	Community Justice Groups
CO2	Carbon dioxide
COPD	Chronic obstructive pulmonary disease
COVID-19	Corona Virus Disease 2019
CPR	Cardiopulmonary resuscitation
CRC	Co-operative Research Centre
CSIRO	Commonwealth Scientific and Industrial Research Organisation
CWA	Country Women's Association
DAF	Department of Agriculture and Fisheries
DATSIP	Department of Aboriginal and Torres Strait Islander Partnerships
DAWE	Department of Agriculture, Water and the Environment
dB	Decibels
DES	Department of Environment and Science
DESBT	Department of Employment, Small Business and Training
DETE	Department of Education, Training and Employment
DIDO	Drive-In-Drive-Out

Acronym	Meaning
DNRME	Department of Natural Resources, Mines and Energy
DSB	Department of Small Businesses
DSDMIP	Department of State Development, Manufacturing, Infrastructure and Planning
DSDTI	Department of State Development, Tourism, and Innovation
EIS	Environmental Impact Statement
enHealth	Environmental Health Standing Committee
FIFO	Fly-In-Fly-Out
GOC	Government Owned Corporation
GP	General Practitioner
GRC	Goondiwindi Regional Council
Hwy	Highway
IACIF	Indigenous Art Centre Infrastructure Fund
IAIA	International Association for Impact Assessment
ICN	Industry Capability Network
ICT	Information and Communication Technology
IEO	Index of Education and Occupation
IER	Index of Economic Resources
IFC	International Finance Corporation
IPSS	Indigenous Parenting Support Service
IRADF	Indigenous Regional Arts Development Fund
IRSAD	Index of Relative Socio-Economic Advantage and Disadvantage
IRSD	Index of Relative Socio-Economic Disadvantage
IWC	International Water Council
K10	Kessler-10 approach
km	Kilometer
km/h	Kilometers per hour
kV	Kilovolt
LALC	Local Aboriginal Land Council
LGA	Local Government Area
LNP	Liberal National Party
m	metre
m ³	metres cubed
MCAV	Mountain Cattleman's Association of Victoria
MP	Member of Parliament
MW	Megawatt
NGO	Non-governmental organization
NRA	National Retailers Association
NRC	National Research Council

Acronym	Meaning
NSW	New South Wales
OCG	Office of the Coordinator General
OEM	Original Equipment Manufacturer
OHTL	Overhead transmission line
OSOM	Over-size and/or over-mass
PCYC	Police Citizens Youth Club
PHN	Primary Health Network
PPA	Power Purchase Agreement
QGSO	Queensland Government Statistician's Office
QLD	Queensland
QPS	Queensland Police Service
QRA	Queensland Reconstruction Authority
Rd	Road
RDA	Regional Development Australia
REINSW	Real Estate Institute of New South Wales
REIQ	Real Estate Institute of Queensland
REZ	Renewable Energy Zones
RFB	Rural Fire Brigade
RFBAQ	Rural Fire Brigades Association Queensland
RFS	Rural Fire Service
RSIS	Regional Skills Investment Strategy
RUMP	Road user management plan
SA4	Statistical Area Level 4
SARA	State Assessment and Referral Agency
SCADA	Supervisory Control and Data Acquisition
SDGs	Sustainable Development Goals
SDRC	Southern Downs Regional Council
SEIFA	Socio-Economic Indexes for Areas
SEQ	South East Queensland
SES	State Emergency Service
SIA	Social Impact Assessment
SIDF	Superyacht Industry Development Fund
SIMP	Social Impact Management Plan
SIMS	Social Impact Management Strategy
SLQ	State Library of Queensland
SME	Small to medium-sized enterprises
SSHS	Stanthorpe State High School
SSRC Act	<i>Strong and Sustainable Resource Communities Act 2017</i>

Acronym	Meaning
St	Street
TIA	Traffic Impact Assessment
TMP	Traffic management plan

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10.3 CEP Commitments

The SIA process has contributed to providing information that aims to assist in maximising the benefits of the CEP, and ensuring that long term, sustainable value is maintained over the life of the project and beyond. ACCIONA have committed to developing a Project wide CEP that focuses on providing long term legacy benefits throughout both the local and regional community to directly address social and economic development through a range of programs, partnerships, and sponsorships. They state that the CEP aims to *“create benefit; reduce the identified impacts; and continue to meet the evolving needs of our stakeholders throughout the Project lifecycle”*, with a focus on shared community benefits (ACCIONA 2020a). ACCIONA are committed to initiatives that flexibly adapt to local needs and demands of communities in which it operates (ACCIONA 2018). The Project’s CEP is made up of the following initiatives:

- local jobs and training;
- local procurement opportunities;
- sponsorship and small grants program;
- scholarship program;
- research and development program;
- employee volunteerism (ACCIONA 2020).

ACCIONA commissioned this SIA to identify opportunities that elevate their commitments and inform investments that provide additional value add opportunities, these are outlined in Sections 10.5 to 10.11.

ACCIONA, have committed to contributing more than \$1.5 million to the local community during the construction phase of the Project, with additional funds allocated each year once the wind farm moves into operations. The CEP will be allocated across the first 10 years of the Project, various programs, events, and initiatives intended to have lasting effects in the medium to long term (ACCIONA 2020b).

ACCIONA’s global business model aims to value and focus on the needs and desires of the community throughout the process of construction, operational, and beyond, whilst also attempting to prioritise all aspects of environmental and sustainable practise (ACCIONA 2021). As such, these priorities, alongside those of the community, have been closely considered to develop these CEP recommendations. Therefore, the CEP moves beyond managing project impacts and risk mitigation to create lasting benefits for the community and assumes that the impacts identified in Sections 8 and 9 are managed as part of their business-as-usual processes throughout the life of the project.

10.4 Community needs and aspirations

Community, social and economic needs and aspirations were identified through the findings from the social baseline (see Section 5 and Appendix A), community and stakeholder consultation and SIA (see Section 8). These findings identified the following key areas of social need:

- water scarcity and drought;
- bush fire preparedness and response;
- tourism;
- education and training;

Appendix A

Social Baseline

Social Baseline

MacIntyre Wind Farm Precinct

Prepared for ACCIONA & CleanCo
February 2021

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Social Baseline

MacIntyre Wind Farm Precinct

Report Number

B200456 RP 1

Client

ACCIONA & CleanCo

Date

4 February 2021

Version

v1

Prepared by



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Social Planners

4 February 2021

Approved by



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4 February 2021

This report has been prepared in accordance with the brief provided by the client and has relied upon the information collected at the time and under the conditions specified in the report. All findings, conclusions or recommendations contained in the report are based on the aforementioned circumstances. The report is for the use of the client and no responsibility will be taken for its use by other parties. The client may, at its discretion, use the report to inform regulators and the public.

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1 Purpose

The baseline study describes the existing population and social conditions of potentially affected communities within the social impact assessment (SIA) study area which form the benchmark against which the social impacts are assessed. As described by the Queensland (QLD) Government's *Social Impact Assessment Guideline 2018* (the Guideline), a social baseline is crucial to understanding the relevant pre-existing social pressures (OCG 2018). Although all social indicators assessed in the social baseline study area will not necessarily be impacted, it is imperative to obtain a thorough understanding of the social conditions and trends in the study area. Gaining a broad understanding of the study area allows us to differentiate between, and measure, a change that is likely to occur as a result of the project, as opposed to what would have likely occurred without the project (IAIA 2015). Accordingly, this social baseline identifies the study area for the MacIntyre Windfarm Precinct project and its existing known and predicted social conditions for its community.

2 Study area

The SIA study area refers to the geographical localities that will likely experience directly both the benefits and impacts from the project and its associated activities. The SIA study area was identified in accordance with the *Strong and Sustainable Resource Communities Act 2017* (SSRC Act) and guided by the SIA Guideline (State of QLD 2018).

The MacIntyre Wind Farm Precinct (the Project) falls predominately in Goondiwindi Regional local government area (LGA), with a small portion of the site falling into the Southern Downs LGA, making these the local area of social influence (**study area**) (see Figure 2.1). The Toowoomba Regional LGA has also been included in the study area given its proximity to the Project site and role as provider of goods and services and consequent likelihood of experiencing direct impacts.

Whilst the study area includes all communities within the identified LGAs, several state suburbs (SSCs) throughout the area of influence have been identified as key suburbs of interest due to their relative size and proximity to the Project. These suburbs include Toowoomba, Warwick, Stanthorpe, Inglewood, Texas, Goondiwindi, and Karara.

For comparative purposes, the Darling Downs – Maranoa Statistical Area Level 4 (SA4) and the Toowoomba SA4 are identified as the **reference area** (see Figure 2.1). This area will provide social trends and data for communities more consistent with the area of influence, thus providing a meaningful point of comparison.

These communities have been mapped to the ABS categories used for data collection and are presented in Table 2.1. The area of social influence is illustrated in Figure 2.1.

Table 2.1 **Area of social influence**

Area of social influence	Geographic area	ABS data category	Referred to in report as:
Local area of social influence	Goondiwindi Regional	Local government area (LGA)	Study area
	Toowoomba Regional		
	Southern Downs Regional		
Area of reference	Darling Downs – Maranoa	Statistical area 4 (SA4)	Reference area
	Toowoomba		
State of QLD	State of QLD	State/Territory (S/T)	QLD

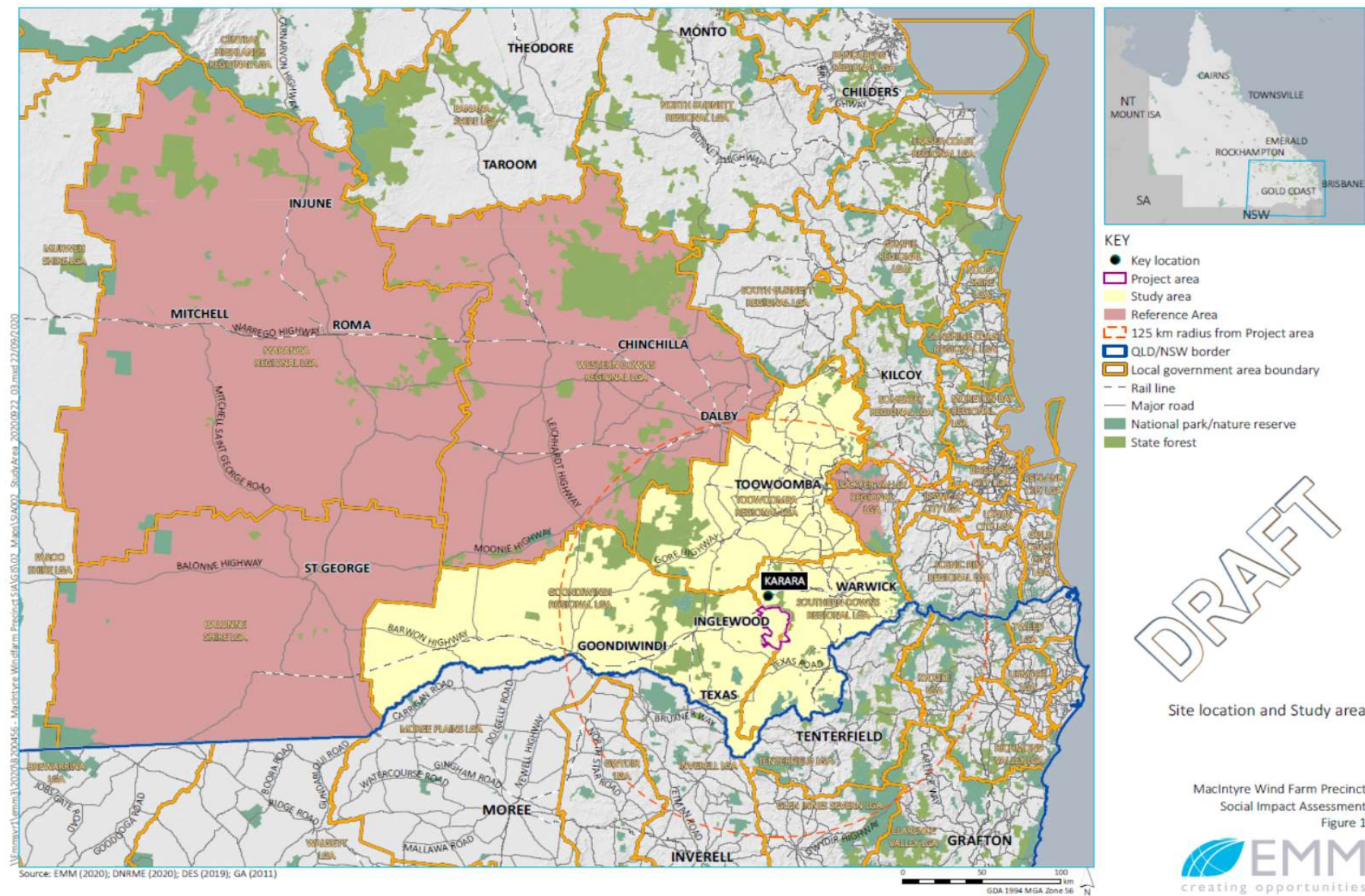


Figure 2.1 Study area in regional context

3 Demographic profile

3.1 Population trends

In 2016 the study area had a total population of 206,519 persons and a 2019 estimated resident population of 215,259 (ABS 2016a; ABS 2019). Population in the study area consisted of 10,630 people in Goondiwindi LGA, 35,110 people in Southern Downs LGA, and 160,779 people in Toowoomba LGA. Between 2006 – 2016, the study area population increased by 34.2%, compared to 17.0% for all of QLD. This growth was largely driven by the increases in Goondiwindi and Toowoomba LGAs.

There was a significant increase in the population of Goondiwindi LGA and Toowoomba LGA from 2006 – 2011 (55.7% and 43.9% respectively), however Southern Downs LGA population decreased by 16.1% during the same period. The population trends in the period 2011 – 2016 show a lower rate of increase, at 5.2% in the study area compared to 7.9% for all of QLD.

Toowoomba and Goondiwindi have experienced strong population growth since 2006, particularly in Toowoomba where the population was already 90,198 in 2006. Toowoomba was already the largest regional town in QLD, this rapid growth can be attributed to several reasons, including a booming resources industry that uses services and workforce from Toowoomba. The population trends within the study area, reference area, and QLD are presented in Table 3.1 below.

Table 3.1 Population trends, 2006 – 2019

Location	2006	2011	2016	2019 ¹	Total % change 2006 – 2016	Total % change 2011 – 2016
Goondiwindi LGA	4,713	10,628	10,630	10,799	55.7%	0.02%
Southern Downs LGA	41,026	33,883	35,110	35,452	-16.8%	3.5%
Toowoomba LGA	90,198	151,189	160,779	169,008	43.9%	6.0%
Study area	135,937	195,700	206,519	215,259	34.2%	5.2%
Darling Downs Maranoa SA4	--	122,273	126,289	128,710	--	3.2%
Toowoomba SA4	--	140,220	149,512	158,460	--	6.2%
Reference area	--	262,493	275,801	287,170	--	4.8%
QLD	3,904,534	4,332,739	4,703,193	5,094,510	17.0%	7.9%

Source: ABS 2016a, Census of Population and Housing: General Community Profiles; ABS 2011, Census of Population and Housing: General Community Profiles; ABS 2006, Census of Population and Housing: General Community Profiles; ABS 2019, 3218.0 – Regional Population Growth, Australia 2017-18.

Notes: 1. The population indicated in 2019 is a rebased estimate of the resident population of provided by the ABS, while the population data for 2006, 2011, and 2016 is provided from the 2016 Census.

3.1.1 Projected population

The projected population of the study area is estimated to increase to 253,953 persons by 2041, representing a total increase of 18.7% and an average annual increase 0.4% (QGSO 2018; ABS 2016a). This growth rate is similar to that forecast for the reference area, which is projected to increase by approximately 18.1% for the same period. The population growth projections in the reference area and the study area are lower than the expected population growth rate for all of QLD over the same period (32.3%). The average annual growth rate between 2016 – 2041 is 0.04% in the study area and reference area, depicting a lower projected growth rate than for all of QLD over the same period (0.1%). The largest population growth within the study area between 2016 – 2041 is projected to occur in Toowoomba LGA (21.3%), while Goondiwindi LGA is expected to have the lowest population growth rate of 0.2% over the same period.

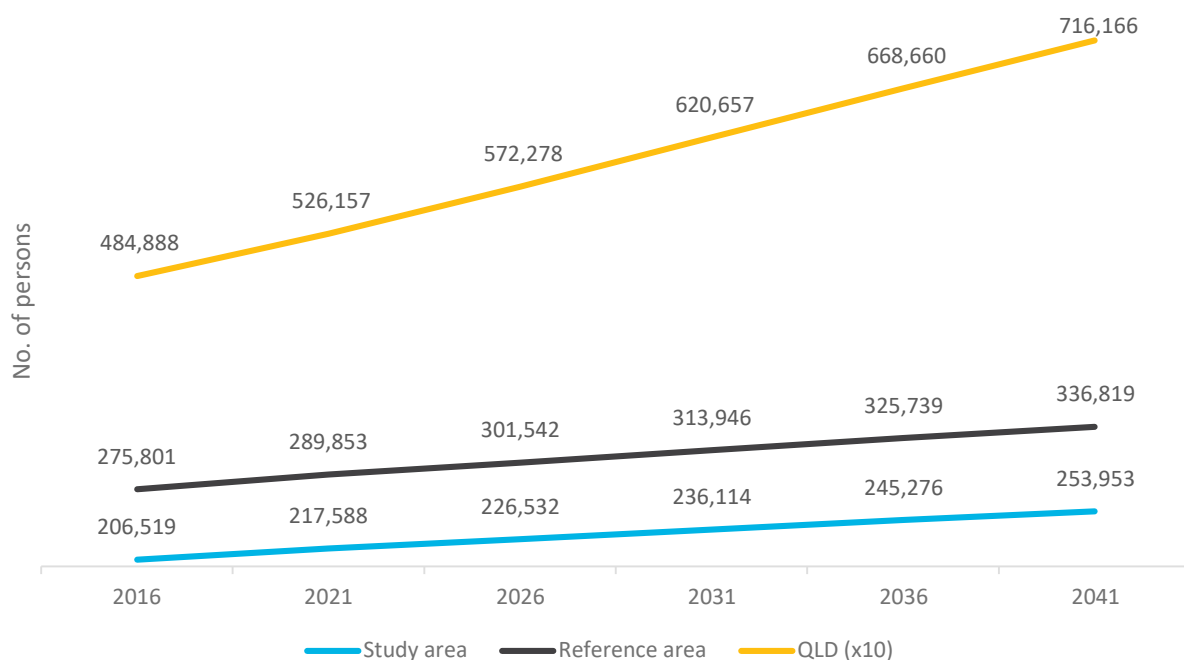
The similarity in the population growth between the study and reference areas corresponds to the strong growth in Toowoomba. It denotes the difference in growth rates between rural and urban areas across QLD and generally across Australia. Some of this is explained by the rural to urban migration but also the fact that a significant portion of the population growth in Australia is due to international migration. In Toowoomba growth is driven by the recent adoption of Government policy driving refugee and migrant settlement to rural locations and regional cities like Toowoomba (Babacan, Dale & McHugh 2020). This growth has been also supported in the region by the multiple coal seam gas projects. Population projections for the study area are presented in Table 3.2 and Figure 3.1.

Table 3.2 Projected population¹, 2016 – 2041

Location	2016	2021	2026	2031	2036	2041	Total change 2016 – 2041	Total % change 2016 – 2041	Average annual growth rate 2016 – 2041
Goondiwindi LGA	10,630	10,837	10,806	10,785	10,737	10,652	22	0.2%	0.0003%
Southern Downs LGA	35,110	35,826	36,696	37,564	38,321	38,969	3,859	9.9%	0.02%
Toowoomba LGA	160,779	170,925	179,030	187,765	196,218	204,332	43,553	21.3%	0.05%
Study area	206,519	217,588	226,532	236,114	245,276	253,953	47,434	18.7%	0.04%
Darling Downs Maranoa SA4	126,289	129,687	132,516	135,403	137,899	139,994	13,705	9.8%	0.02%
Toowoomba SA4	149,512	160,166	169,026	178,543	187,840	196,825	47,313	24.0%	0.5%
Reference area	275,801	289,853	301,542	313,946	325,739	336,819	61,018	18.1%	0.04%
QLD	4,848,877	5,261,567	5,722,780	6,206,566	6,686,604	7,161,661	2,312,784	32.3%	0.1%

Source: QGSO 2018, QLD Government population projections: Regions, 2018 edition; ABS 2016a, 3235.0 - Population by age and sex, regions of Australia

Notes: 1. The projected population has been determined by using the ABS ERP population count which takes Census counts of people where they usually live (accounting for interstate visitors and removing overseas visitors), adjusts for Census undercount and overcount using the Census Post Enumeration Survey (PES), adds in Australians who are temporarily overseas, and applies further demographic adjustments – this is why the 2016 populations are not consistent with the ABS Census populations identified in Table 3.1



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

Figure 3.1 Projected population, 2016 – 2041

3.1.2 Population by age and gender

As shown in Table 3.3, the median age of persons in the study area in 2016 varied between Toowoomba LGA (38 years), Goondiwindi LGA (40 years), and Southern Downs LGA (45 years) (ABS 2016a). Across the 3 LGAs, the median age of persons in 2016 remained higher than in QLD (37 years). The data shows that a higher proportion of the population in the study area and reference area are aged 55+ years (31.3%) when compared to the State (27.1%). The dominant age bracket across the study area and reference area is 5 – 14 years, except for Southern Downs LGA where the largest age bracket is 55 – 64 years. The proportion of adults between 20 – 34 years is lower in the study area than in the State (17.8% and 20.5% respectively). Distribution of age group and median age across the study area shows that the study area has a higher median age than for all of QLD. Lower numbers in the 20 – 34 years age bracket in the study area compared to the State confirms findings from stakeholder consultation that indicate a desire for younger adults to move away from the rural areas to larger cities for employment, lifestyle and leisure opportunities. The age group distribution and median ages are presented in Table 3.3, with the largest group in each area highlighted.

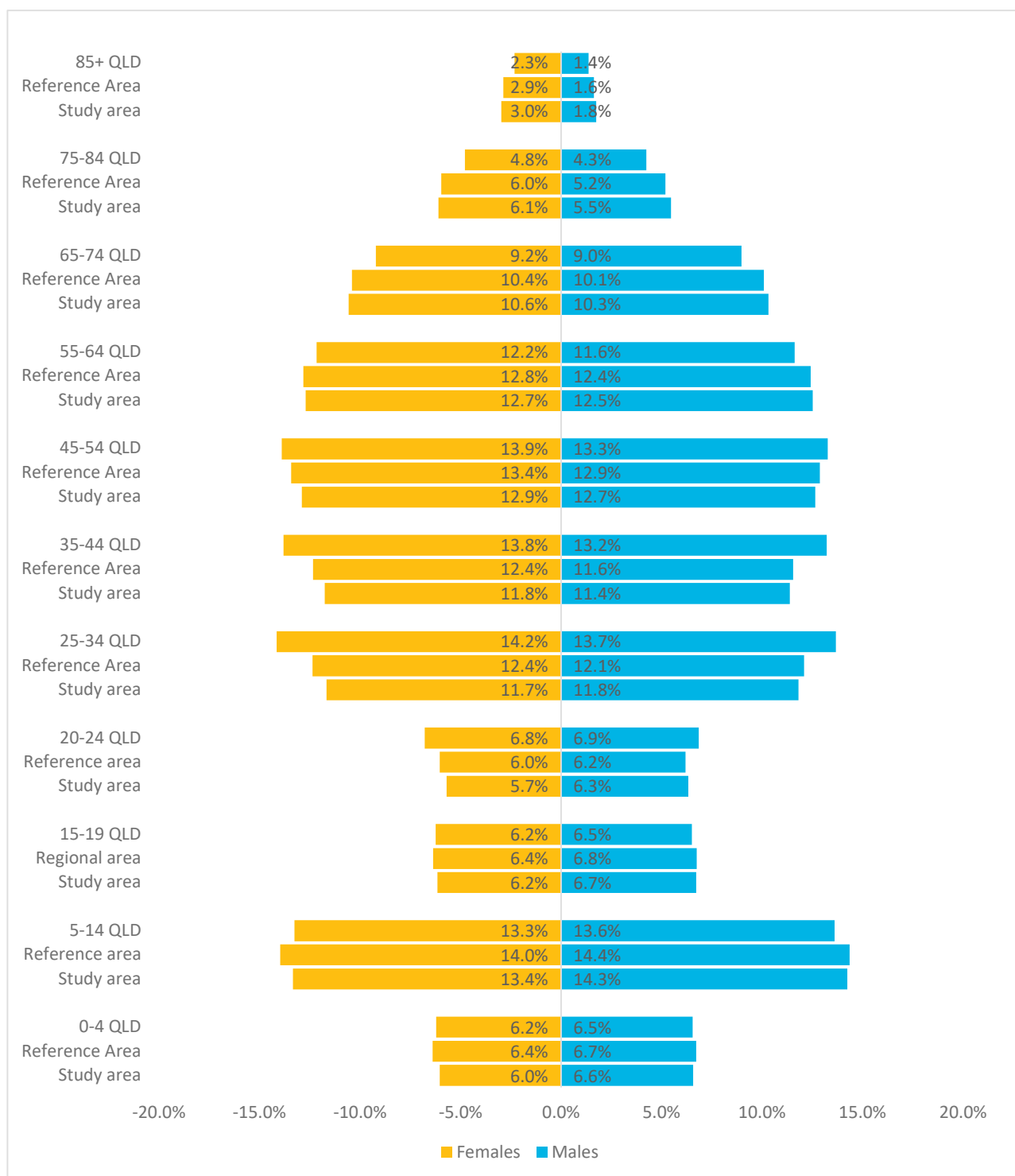
Table 3.3 Age group distribution and median age, 2016

Age group	Goondiwindi LGA	Southern Downs LGA	Toowoomba LGA	Study area	Darling Downs Maranoa SA4	Toowoomba SA4	Reference Area	QLD
0 – 4 years	6.9%	5.7%	6.4%	6.3%	6.5%	6.4%	6.5%	6.3%
5 – 14 years	14.8%	13.4%	13.8%	13.8%	14.1%	13.8%	14.0%	13.3%
15 – 19 years	5.6%	6.2%	6.6%	6.5%	6.0%	6.8%	6.5%	6.3%
20 – 24 years	5.1%	4.8%	6.3%	6.0%	5.2%	6.8%	6.0%	6.7%
25 – 34 years	12.2%	9.1%	12.3%	11.8%	11.0%	13.0%	12.1%	13.8%
35 – 44 years	11.6%	10.4%	11.8%	11.6%	11.6%	12.0%	11.8%	13.4%
45 – 54 years	13.2%	13.0%	12.7%	12.8%	13.4%	12.6%	13.0%	13.4%
55 – 64 years	13.3%	14.8%	12.1%	12.6%	13.4%	11.7%	12.5%	11.8%
65 – 74 years	10.1%	13.5%	9.8%	10.5%	11.1%	9.3%	10.1%	9.0%
75 – 84 years	5.6%	7.0%	5.6%	5.8%	5.8%	5.3%	5.5%	4.5%
85 years and older	2.0%	2.6%	2.4%	2.4%	2.1%	2.3%	2.2%	1.8%
Median age of persons 2016	40	45	38	--	41	37	--	37

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

The distribution of males and females is relatively even throughout the study area, area of reference and QLD as shown in Figure 3.2. The data shows a slightly higher ratio of females to males above the age of 35, that is consistent across all assessed areas. In contrast, the data shows there is a slightly higher ratio of males to females in younger age groups (under 24 years), which is consistent throughout the study area, reference area and QLD. The slightly higher percentage of females to males in the older age categories is reflective of Australian statistics suggesting that women have longer life expectancy rates (ABS 2019).

In the study area, there is a lower proportion of the population between the ages of 20 – 54, and higher proportion of the population 55 years +, when compared to population distribution by age in QLD (ABS 2016a). This is likely due to limited tertiary education facilities (with University of Southern QLD in Toowoomba being the only University in the study area and reference area) as well as limited specialised career opportunities that are often found in larger cities or urban centres. As previously mentioned, young people may be more inclined to move to larger centres such as the Gold Coast, Ipswich, or Brisbane to seek further education and employment (refer to Section 6), and lifestyle options as indicated during stakeholder consultation. This also reflects desires to live closer to more abundant social and health services and cultural activities (Hugo & Harris 2011; D'Alessandro & Bassu 2015). The distribution of the population by age and gender is presented in Figure 3.2.



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

Figure 3.2 Population distribution, 2016

3.2 Aboriginal and Torres Strait Islander population

In the study area, 4.2% of the population identified as Aboriginal and/or Torres Strait Islander in 2016 (ABS 2016a). This figure is slightly greater than the percentage of the population who identify as Aboriginal and/or Torres Strait Islander in QLD (4.0%). In Goondiwindi Regional LGA there is a higher percentage of Aboriginal and/or Torres Strait Islander population (5.4%) when compared to the broader study area, reference area and QLD. This may be indicative of established Indigenous communities and family networks within the study area, as well as historical or familial ties to the region. The Bigambul Native Title determination throughout Goondiwindi LGA suggests that there is a significant presence of Bigambul Peoples with continuing connection to country living in the area today (NNTT 2020; It is likely that other groups without present determinations also share similar connections and reside within the area. The proportion of Aboriginal and Torres Strait Islander persons in the area of social influence is presented in Table 3.4.

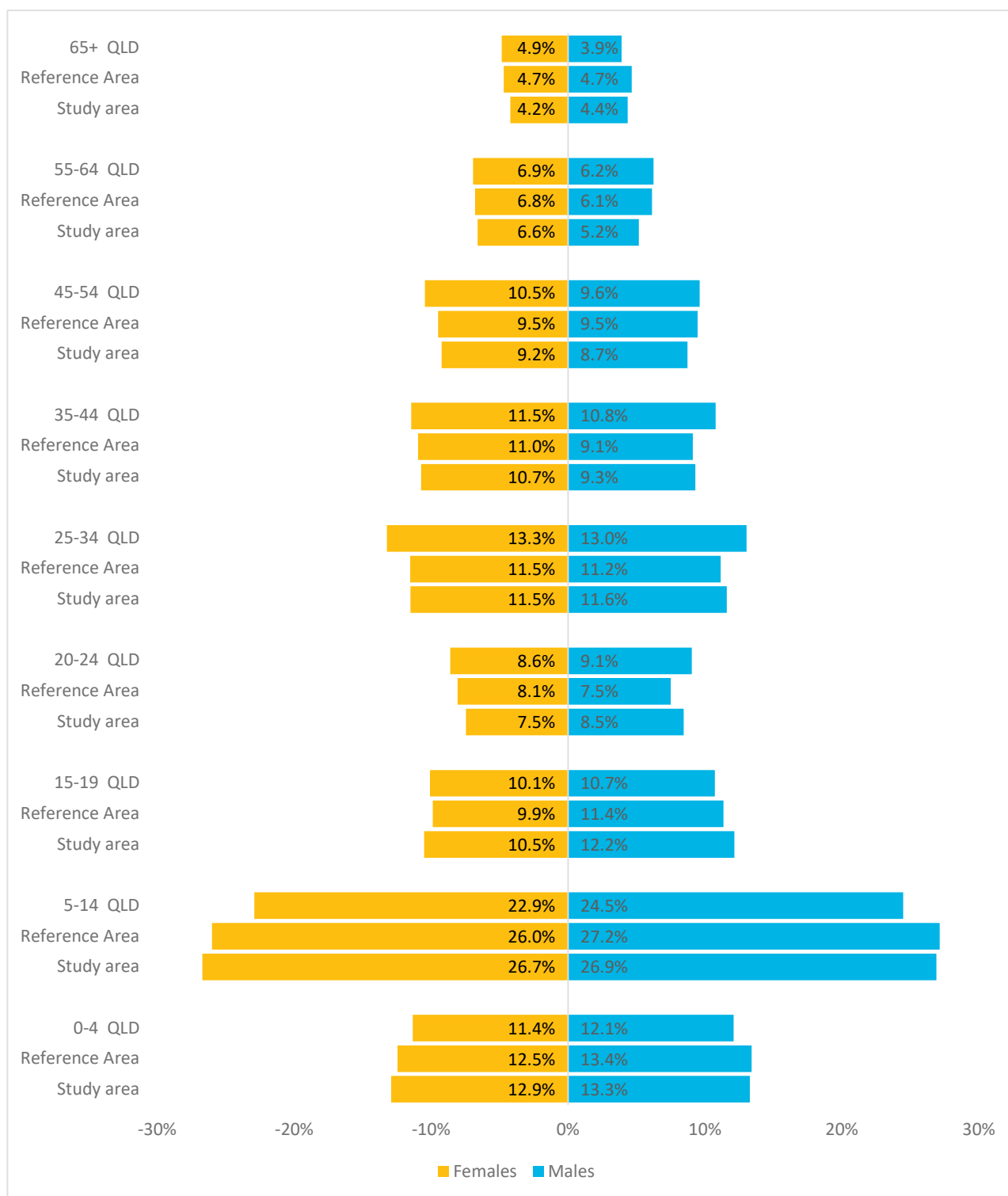
Table 3.4 Aboriginal and Torres Strait Islander persons as percentage of population, 2016

Location	Aboriginal and Torres Strait Islander population
Goondiwindi LGA	5.4%
Southern Downs LGA	4.5%
Toowoomba LGA	4.0%
Study area	4.2%
Darling Downs Maranoa SA4	5.4%
Toowoomba SA4	3.9%
Reference area	4.6%
QLD	4.0%

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

The distribution of Indigenous males and females by age category similar to the distribution seen for the whole population (see Figure 3.3), with a large proportion of persons aged 5 – 14, though lower proportions of persons aged 25 – 74 (ABS 2016a). There is a relatively even ratio of Indigenous males to females, however the data trend depicts a slightly higher proportion of younger Indigenous males (under 24 years), and a slightly higher distribution of older Indigenous females (35+ years), which is consistent throughout the study area, reference area, and QLD. There is a significant proportion of the Indigenous population in the 5 – 14 years age bracket, which is also true of the reference area and QLD. The study area has a slightly higher proportion of Aboriginal and/or Torres Strait Islander males and females in the younger age categories (0 – 19 years) and a slightly lower percentage of adult and elderly Indigenous peoples (20 years +) when compared to the State.

The smaller proportion of the Aboriginal and Torres Strait Islander persons (both males and females) living beyond 65 years aligns with the generally lower life expectancy among Indigenous Australian's nationally (AIHW 2018), which is related to the increased socioeconomic disadvantage, worsened mental health outcomes, and related health risk behaviours, including greater proportions of smoking and alcohol use amongst the Australian Indigenous population (AIHW 2020a). The distribution of Indigenous and non-Indigenous populations is presented in Figure 3.3.



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

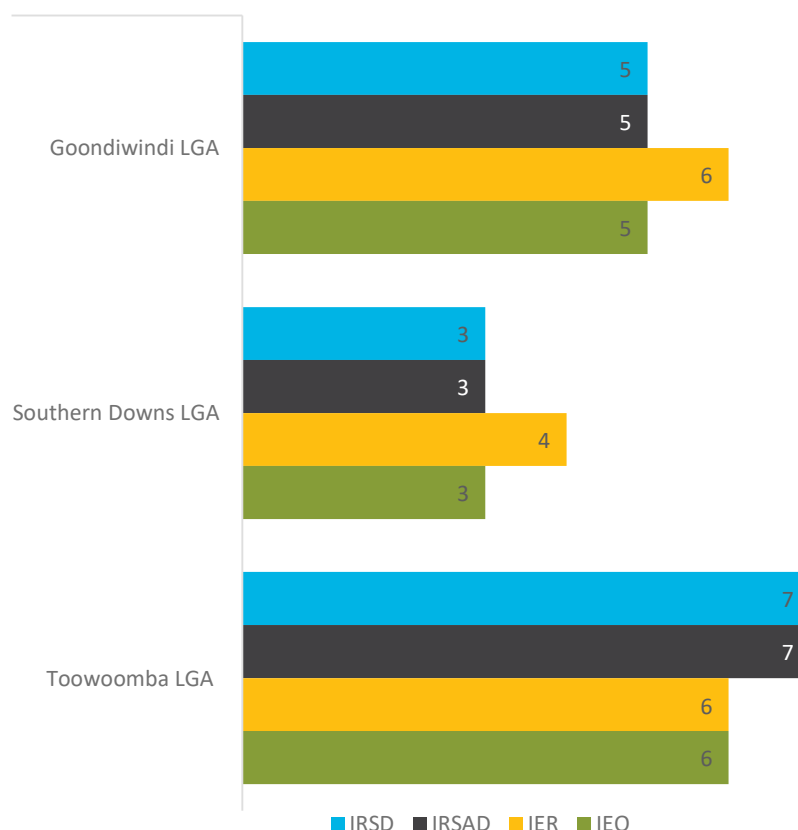
Figure 3.3 Population distribution of Aboriginal and/or Torres Strait Islander persons, 2016

3.3 Vulnerable groups

The level of disadvantage or advantage in the population is indicated in the Socio-Economic Indexes for Areas (SEIFA) which focuses on low-income earners, relatively lower education attainment, high unemployment and dwellings without motor vehicles (ABS 2016b). SEIFA is a suite of four summary measures that were created from Census data, including:

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

Each index is a summary of a different subset of Census variables and focuses on a different aspect of socio-economic advantage and disadvantage. **Low rankings are deemed most disadvantaged** and **high rankings least disadvantaged** within a decile ranking system where the lowest 10% of areas within Australia are given a decile number of 1 and the highest 10% of areas are given a decile number of 10. The rankings of the communities within the study area for each of the four summary measures are demonstrated in Figure 3.4.



Source: ABS 2016b, 2033.0.55.001 – Census of Population and Housing: Socio-Economic Indexes for Areas (SEIFA).

Figure 3.4 SEIFA deciles in the study area, 2016

According to the 2016 SEIFA (ABS 2016b), Toowoomba and Goondiwindi LGA are in the 5th or higher decile for all indexes, suggesting they are less disadvantaged than the rest of QLD. Southern Downs LGA, however, is in the bottom 40% of communities in QLD with IRSD, IRSAD and IEO in the 3rd lowest percentile, and IER in the 4th lowest, suggesting high levels of disadvantage. Toowoomba is the least disadvantaged within the study area, especially in terms of IRSD and IRSAD, which are both in the 7th highest percentile. This is likely due to the higher levels of educational and formal qualification attainment, which are greater than both the reference area, and other LGAs in the study area (see Section 5.2). This is likely due to the relatively large selection of primary and secondary schools in the area (see Section 5.2.1), as well as the Southern QLD University in Toowoomba City, as well as skill sets in demand in the area.

High decile rankings in the study area generally indicate that there is a high, or medium, number of high-income households spread across the study area with large proportions of residents with qualifications and skilled occupations, especially in Toowoomba LGA. There is likely to be a significant number of households with low incomes, with a portion of residents that may not have formal qualifications and/or low skilled occupations, particularly in Southern Downs LGA. The lower rankings across all indexes in Southern Downs may be attributed to the area's low level of university level qualification attainment (see Section 5.2.2) and households paying low rents (see Section 7.2).

3.3.1 Cultural diversity

Cultural diversity in the study area, determined by the portion of the population born in Australia, is similar to the reference area (81.3% and 81.0% respectively) (ABS 2016a). The study area reflects a significantly less diverse population than QLD, with 65.5% of the QLD population born in Australia. In QLD, only 45.4% of people have both parents born in Australia and 26.5% of households speak a non-English language. Comparatively, in the study area 70.8% of people have both parents born in Australia and only 5.3% of households speak a non-English language.

The data shows that there is some variety among the different LGAs in the study area. It is evident that Toowoomba LGA has a slightly more culturally diverse population than Southern Downs LGA and Goondiwindi LGA, while Goondiwindi LGA is the least culturally diverse area, with only 2.8% of households speaking a non-English language. Cultural diversity is presented in Table 3.5.

Table 3.5 Country of birth, 2016

	Born in Australia	Both parents born in Australia	English only spoken at home	Households where a non-English language is spoken
Goondiwindi LGA	82.9%	77.1%	86.9%	2.8%
Southern Downs LGA	82.3%	71.3%	89.5%	3.9%
Toowoomba LGA	81.0%	70.3%	86.8%	5.7%
Study area	81.3%	70.8%	87.3%	5.3%
Darling Downs Maranoa SA4	82.1%	74.1%	87.9%	3.4%
Toowoomba SA4	80.1%	68.9%	85.8%	6.5%
Reference area	81.0%	71.3%	86.8%	5.0%
QLD	65.5%	45.4%	68.5%	26.5%

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

3.3.2 Disability

As shown in Table 3.6, the population in the study area requires more assistance than that in the reference area and the rest of QLD (6.0% and 5.2% respectively) (ABS 2016a). The Southern Downs LGA population has the highest need for assistance (7.2%). The need for assistance relates to activities of self-care, mobility, and communication due to a long-term health condition (lasting 6 months or longer), a disability (lasting 6 months or longer) or old age. These figures may be in part attributed to the greater proportion of elderly persons in the study area (see Table 3.6). There is an abundance of social infrastructure available in the study area, especially in relation to disability services and aged care facilities with high level care available (see Section 5.3). Core activity need for assistance is demonstrated in Table 3.6.

Table 3.6 Core activity need for assistance, 2016

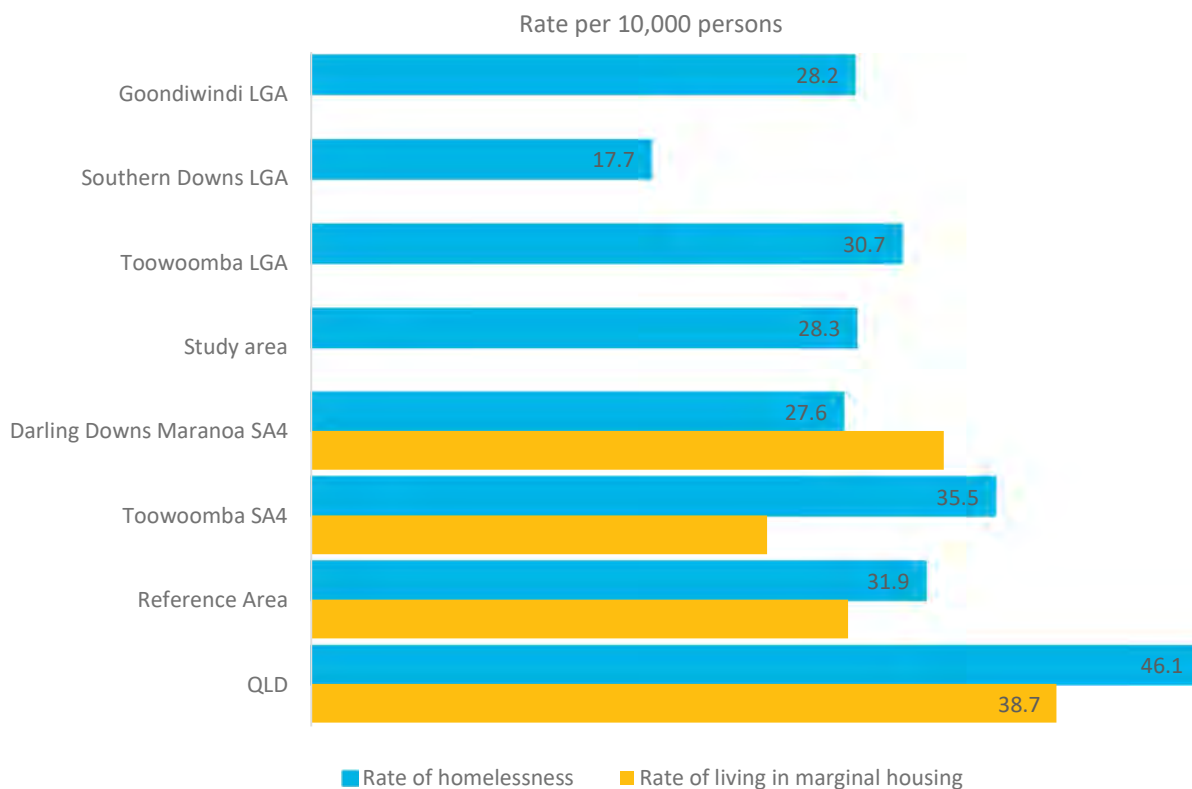
	Has need for assistance	Does not have need for assistance
Goondiwindi LGA	4.6%	84.5%
Southern Downs LGA	7.2%	85.9%
Toowoomba LGA	5.9%	86.8%
Study area	6.0%	86.6%
Darling Downs Maranoa SA4	5.8%	84.8%
Toowoomba SA4	5.7	87.1%
Reference area	5.8%	86.1%
QLD	5.2%	87.3%

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

3.3.3 Homelessness

Homelessness can be caused by existing poor physical or mental health reducing a persons' ability to earn an adequate income to support themselves (AHRC 2021). Homelessness can also lead to health problems including poor nutrition, depression, substance abuse, poor dental health, and mental health conditions (AHRC 2021). Access to health services is also significantly poorer for homeless persons than the general population due to hardships with finances, transport, identification, Medicare, and difficulty with appointment maintenance/treatment plans (AHRC 2021). As such, homeless persons are at greater risk of being negatively affected by potential impacts on livelihoods and health and wellbeing.

According to the 2016 Census estimations of homelessness, there is a lower rate of homelessness in the study area and reference area when compared to QLD (ABS 2016c). In the study area, the rate of homelessness is 28.3 homeless persons per 10,000 persons while in QLD the rate of homelessness is 46.1 per 10,000 persons. Toowoomba LGA has the highest rate of homelessness within the study area (30.7 per 10,000 persons). The lower rates of homelessness throughout the study area compared to QLD reflect a national tendency for homeless persons to be located closer to or within a city or urban centre. This may be due to better opportunities and amenity access for homeless persons in urban centres, or by necessity as the cost of living is higher in such places (QCOSS). The study area is also well equipped with local housing and homelessness services given the population size (as demonstrated in Section 5.3.5iv). Rates of homelessness per 10,000 persons in the study and reference areas are presented in Figure 3.5.



Source: ABS 2016, 2049.0 – Census of Population and Housing: Estimating Homelessness.

Note: Marginal housing data is not available for the LGAs in the study area.

Figure 3.5 Rates of homelessness per 10,000 persons, 2016

4 Community culture, values, and aspirations

The study area comprises three local government areas (LGAs): Southern Downs, Goondiwindi, and Toowoomba. As such, there are three regional council areas to consider.

Southern Downs Regional Council

The Southern Downs Regional Council (SDRC) outline their community values in the *Southern Downs 2030 Community Plan* (SDRC n.d.) under 8 key themes, including:

- the Southern Downs sense of community;
- the healthy and active Southern Downs;
- the Southern Downs learning community;
- the economically strong, sustainable and diverse Southern Downs;
- Destination Southern Downs;
- the environmentally sustainable Southern Downs;
- the well-connected Southern Downs; and
- the well-governed Southern Downs.

Goondiwindi Regional Council

The Goondiwindi Regional Council (GRC) outline their community values and aspirations through a vision and mission statement in the *2019 – 2024 Corporate plan* (GRC 2019).

The GRC vision is: “to strengthen our thriving regional lifestyle and prosperous economy”.

The GRC mission is: “to provide leadership in making locally-responsive and informed decisions, delivering quality services and facilities to the communities of the Goondiwindi region”.

Toowoomba Regional Council

Toowoomba Regional Council (TRC) outline their communities’ goals and values within a *Corporate Plan 2019-2024* (TRC 2019).

The TRC vision is: “the Toowoomba Region is a vibrant, inclusive and liveable region where respect for tradition and diversity is embraced”. The vision’s values include connectivity, diversity, liveability and tradition.

The TRC mission is: “we partner with the community through authentic leadership and responsible governance to ensure a sustainable and bright future for our region”. The mission’s values include accountability, safety and wellbeing, teamwork, honesty, and respect.

4.1 Indigenous history

The Darling Downs region of QLD was inhabited by Aboriginal Peoples for at least 40,000 years before European settlement. The region was home to various groups of Wakka Wakka language speakers including the Keinjan around Warwick and the Giabal around Toowoomba. In the south – west of the Darling Downs were the Bigambal and Kambuwal of the Kamilaroi speakers, and to the east were the Jagera and Turubal speakers. The Downs indigenous peoples were known as the Gommiangguru – ‘men of the Condamine’. The indigenous people of the area used a technique in hunting food in which they burned the long grasslands as the new, green sprouts attracted animals. They were known by coastal Aboriginal Peoples as “Goonberra” or “the ones who hunt with fire”. It is estimated that the indigenous population pre-settlement was between 1500 – 2500 people (TRC 2020; Parsons 2003).

Following its colonisation by European Settlers in 1827, the relationship between the Aboriginal Groups and European settlers faced tension and conflict. The most well-known and serious of conflict on the Downs was the Battle of One-Tree Hill, which took place on what is now known as Tabletop Mountain. Between 1897 and 1957 the Aboriginal People of the Darling Downs faced relocation under the control of the QLD Government, and many were sent first to Fraser Island and then to Taroom Reserve after 1911. The local Aboriginal Peoples were forced into segregation from white settlers for many years, often in the form of missionaries and camps. European settlement had disastrous impacts on the Indigenous population, as they brought with them diseases like smallpox, influenza, and measles. As a result of disease and the social disruption, relocation and murder by settlers, the Indigenous population of the Darling Downs was significantly diminished by 1870 (TRC 2020; Parsons 2003).

Around 1957 this sentiment changed as assimilation policies were formally adopted by the state, aiming to instil European norms and drive Aboriginal Culture and People into ‘extinction’. Assimilation Policies required Aboriginal People to separate themselves from their Indigenous heritage. Both the assimilation and segregation policies enforced by the State Government in QLD led to the forced removal and relocation of many Aboriginal and Torres Strait Islander Children and Adults throughout the state and country. As such, it is the case that many Indigenous Peoples living the Darling Downs area, and QLD more broadly, are not direct descendants of the region. Despite this, there are still many individuals and groups who have historical or familial ties to the regions (TRC 2020; Parsons 2003).

4.2 Native title determinations

The Bigambul Part A & B Native Title Determination is the only current determined case of native title within the study region, although there are multiple current claims registered with the National Native Title Tribunal. Bigambul land is predominately located in the Goondiwindi LGA, occupying approximately 17,134 sq km of exclusive and non-exclusive land. The Bigambul Native Title Aboriginal Corporation states that Bigambul country “is neighboured in the north by the Barunggam, and by land associated with the Mandandanji to the north-west. In the south-east at Beebo and Texas lies a transitional boundary zone in which Bigambul and Gambuwal/Kambuwal people likely share interests, and to the north-east lies Gabel country. The southern extent of Bigambul country abuts Kamilaroi country and the south-western corner meets Yuwaalaraay country” (Bigambul Native Title Aboriginal Corporation, 2020). As such, the land located within the study area and project site has a long Aboriginal history and connection that must be acknowledged.

4.3 Non-Indigenous settlement history

The Darling Downs was first known to European settlers when it was ‘discovered’ by explorer Allan Cunningham, who set off from the Hunter Valley in New South Wales with 6 convicts, 11 horses and plenty of equipment. The area was named after Sir Ralph Darling, the governor of NSW. In 1928, Cunningham discovered a gap in the Great Dividing Range which would allow access to the Darling Downs from Brisbane and Moreton Bay, conveniently named ‘Cunningham’s Gap’ (Queensland Places 2018).

The area was described by Cunningham:

“The lower grounds... furnish an almost inexhaustible range of cattle pasture at all seasons of the year – the grasses and herbage generally exhibiting, in the depth of winter, an extraordinary luxuriance of growth. Froth these central grounds, rise downs of a rich, black and dry soil, and very ample surface; and as they furnish an abundance of grass, and are conveniently watered, yet perfectly beyond the reach of those floods, which take place in a season of rains, they constitute a valuable and sound sheep pasture” (National Trust n.d.).

Despite European discovery of the Darling Downs, it was not until about 12 years later that settlement in the area began after the penal colony of Moreton Bay was closed and Scottish settler Patrick Leslie arrived in the area with followers. More settlers followed Leslie to the Darling Downs and established their own sheep runs and farms, claiming land that had not officially been allocated to them by the government. In a voyage towards Ipswich to take his wool clip to market, one of the settlers found that Cunningham’s Gap was steep and dangerous to navigate, so eventually found a new route near the site of the current Warrego Highway (National Trust n.d.).

Dairying dominated the Darling Downs’ economy between World Wars, and wheat and other cereal crops boomed. In the post-war period, sealed roads rendered the rail network superfluous and rural electrification saw poles and wires strung across open plains. The long century-end drought posed challenges for local governments and dam levels fell alarmingly at the same time the north-western Downs had seen the development of water intensive coal-mining and coal-seam gas power generators (French 2020).

5 Social Infrastructure

5.1 Childcare and early learning

In Goondiwindi LGA there are 10 childcare providers within the study area, offering a total of 358 approved places (ACECQA 2020). In Southern Downs LGA there are 20 childcare providers, offering a total of 951 approved places. Toowoomba LGA has an abundance of childcare service providers (191) and as such, detailed information on services available has not been provided. The absence of exact information regarding these services is based on the premise that there is sufficient capacity to supply childcare services in Toowoomba LGA to any influx of population as a consequence of the project. The services in the area range from long day care, preschool, and outside of school hours care (OSHC). The childcare services available Goondiwindi LGA and Southern Downs LGA are presented in Table 5.1.

Table 5.1 Childcare services, 2020

Suburb	Service name	Type	Service	Number of places
Goondiwindi LGA				
Goondiwindi	Coolabah Early Childhood Development Centre - Goondiwindi	Centre-based care	Long day care, early learning program	61
	Goondiwindi & District Family Day Care Scheme	Family day care	Family day care, mobile children's services, in home care	-
	Goondiwindi and District Child Care Centre	Centre-based care	Long day care	58
	Goondiwindi Kindergarten	Centre-based care	Preschool	25
	Lead Childcare - Goondiwindi	Centre-based care	Long day care	85
	PCYC Goondiwindi - Goondiwindi SS	Centre-based care	OSHC, vacation care	30
	St Mary's Parish School Outside School Hours Care	Centre-based care	OSHC, vacation care	30
Inglewood	Inglewood Childcare & Kindergarten	Centre-based care	Long day care	49
Texas	Texas and District Kindergarten	Centre-based care	Preschool	20
	Wrigglers & Giggles Child Care Centre	Centre-based care	Long day care	29
Southern Downs LGA				
Warwick	Busy Bees at Warwick	Centre-based care	Long day care	105
	Churchill State School Combined After School Car	Centre-based care	OSHC	58
	C&K Glennie Heights Community Kindergarten	Centre-based care	Preschool	24
	Enhance Family Day Care - Warwick & District	Family day care	Family day care	-
	Goodstart Early Learning Warwick - Percy Street	Centre-based care	Long day care	57
	Goodstart Early Learning Warwick - Wood Street	Centre-based care	Long day care	74
	Kidszone Australia	Centre-based care	OSHC, vacation care	75

Table 5.1 **Childcare services, 2020**

Suburb	Service name	Type	Service	Number of places
	Little Tackers Childcare Centre	Centre-based care	Long day care	75
	St Mary's Kindergarten, Warwick	Centre-based care	Preschool	22
	St Mary's Outside School Hours Care Warwick	Centre-based care	OSHC, vacation care	30
	Warwick Community Kindergarten	Centre-based care	Preschool	48
Allora	C&K Allora Community Kindergarten	Centre-based care	Preschool	20
	Headstart Australia Pty Ltd	Centre-based care	Long day care	40
Killarney	Little Rascals Child Care Centre	Centre-based care	Long day care	29
Stanthorpe	Aussie Kindies Early Learning Stanthorpe	Centre-based care	Long day care	61
	C&K Stanthorpe Community Kindergarten	Centre-based care	Preschool	23
	Milestones Early Learning Stanthorpe	Centre-based care	Long day care	75
	Southern Downs Regional Council Outside School Hours Care	Centre-based care	OSHC, vacation care	30
	Stanthorpe Cool Kids	Centre-based care	OSHC, vacation care	40
Wallangarra	Fee Range Kids - Wallangarra	Centre-based care	Long day care	65
Harristown	Goodstart Early Learning Harristown	Centre-based care	Long day care	138

Source: ACECQA 2020, Service search, SIA field studies.

5.2 Education

At the time of the 2016 Census, there were 62,565 persons attending an educational institution in the study area, including preschool, infants/primary, secondary, technical, or further educational institution, university or other tertiary institution, and other type of educational institution (ABS 2016a).

The proportion of persons attending a university or other tertiary institution in the study area (10.9%) and reference area (10.1%) was lower than QLD (14.8%), which is indicative of only a small number of tertiary education options in the study area and the demand for such tertiary education for gaining employment in the local economy compared to urban environments. The proportion of persons attending primary or secondary schools in the study area (29.6% and 22.7%, respectively) was similar to the reference area (29.3% and 20.6%), though higher than QLD (27.7% and 20.6%), which is indicative of the large proportion of young people (aged 5 – 14 years) in the study area (see Section 3.1.2), as well as the abundance of schooling options in the area including schools with boarding facilities. Education attainment in the study area is also reflected in the socio-economic indicators as described by the SEIFA (see Section 3.3). Educational institution attendance in the area of social influence, as a percentage of total attendees, is demonstrated in Table 5.2 .

Table 5.2 Educational institution attendance, 2016

	Preschool	Infants/ primary	Secondary	Technical or further educational institution	University or other tertiary institution	Other type of educational institution
Goondiwindi LGA	3.7%	30.5%	18.4%	4.0%	5.1%	37.0%
Southern Downs LGA	3.2%	32.1%	25.5%	4.8%	5.2%	27.3%
Toowoomba LGA	3.8%	29.0%	22.5%	5.3%	12.3%	24.6%
Study area	3.7%	29.6%	22.7%	5.2%	10.9%	25.7%
Darling Downs Maranoa SA4	3.7%	30.6%	21.4%	4.3%	5.0%	33.2%
Toowoomba SA4	3.7%	28.3%	22.4%	5.4%	14.2%	23.5%
Reference area	3.7%	29.3%	22.0%	4.9%	10.1%	27.8%
QLD	3.9%	27.7%	20.6%	5.3%	14.8%	25.0%

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

5.2.1 Primary and secondary

According to the QLD Government Statistician's Office (QGSO) (2020), the study area has a total of 135 schools across the three LGAs, with 13 in Goondiwindi, 35 in Southern Downs, and 87 in Toowoomba. The 135 schools include both private and public schools and centre types of associated facility, campus, community school, non-state school, special campus, special school, specific purpose school, state high school and state school. This demonstrates that there is variety in the schools available with the area, primary, secondary, and combined as well as both private and public. It is likely that there is a high capacity to absorb an influx of students to the study area, given the large offering of educational options.

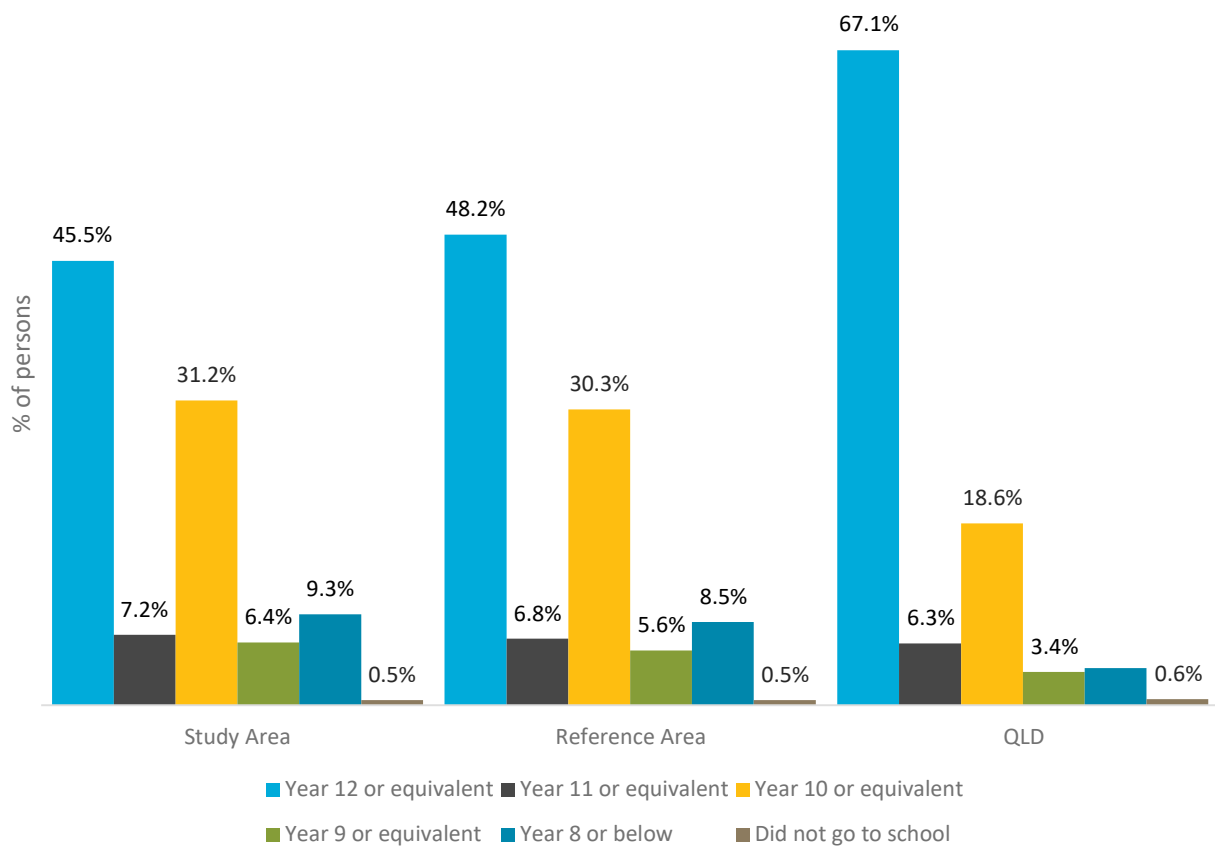
The closest schools to the project site are Karara State School and Wheatvale State school (ACARA 2020). Warwick also has a total of 15 schools, including three secondary schools, seven primary schools, three combined, and two special schools. This indicates a relatively large availability of schools near the project site. It is noted that the Karara State School has an enrolment of only 6 children, indicating the school is operating well below capacity.

The study area and reference area have significantly smaller proportions of persons who have completed Year 12 or equivalent (49.2% and 48.2%, respectively) compared to QLD (67.1%) (ABS 2016a). This is reflective of the main industries in the study and reference area, which include agriculture, forestry and fishing, and construction, which may not require Year 12 level completion (see Section 8). The proportion of persons with Year 10 equivalent being the highest level of schooling completed is much higher in the study area (29.8%) and reference area (30.3%) compared to QLD (18.6%). This is possibly due to the prevalence of certain industries and employment in the study area that do not require Year 12 completion (see Section 8). The highest level of schooling completed within the area of social influence is presented in Table 5.3 and Figure 5.1.

Table 5.3 Highest level of schooling completed for persons 15 years and over, 2016

	Year 12 or equivalent	Year 11 or equivalent	Year 10 or equivalent	Year 9 or equivalent	Year 8 or equivalent
Goondiwindi LGA	45.5%	7.2%	31.2%	6.4%	9.3%
Southern Downs LGA	41.1%	7.3%	34.4%	7.0%	9.7%
Toowoomba LGA	51.3%	6.6%	28.8%	5.2%	7.7%
Study area	49.2%	6.8%	29.8%	5.5%	8.1%
Darling Downs Maranoa SA4	42.4%	7.2%	33.3%	6.7%	10.0%
Toowoomba SA4	53.0%	6.6%	27.8%	4.8%	7.2%
Reference area	48.2%	6.8%	30.3%	5.6%	8.5%
QLD	67.1%	6.3%	18.6%	3.4%	3.8%

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



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

Figure 5.1 Highest level of schooling completed for persons 15 years and older, 2016

5.2.2 Non-school qualifications

There is a wide range of tertiary education options in the study area, including the University of Southern QLD (USQ) in Toowoomba, two TAFE campuses in Warwick and Toowoomba, and the QLD College of Wine and Tourism (QCWT) in Stanthorpe (Google n.d.). Stanthorpe High School is also equipped with a Trade Training Centre on campus, offering various certificates and apprenticeship programs (SSHS 2020).

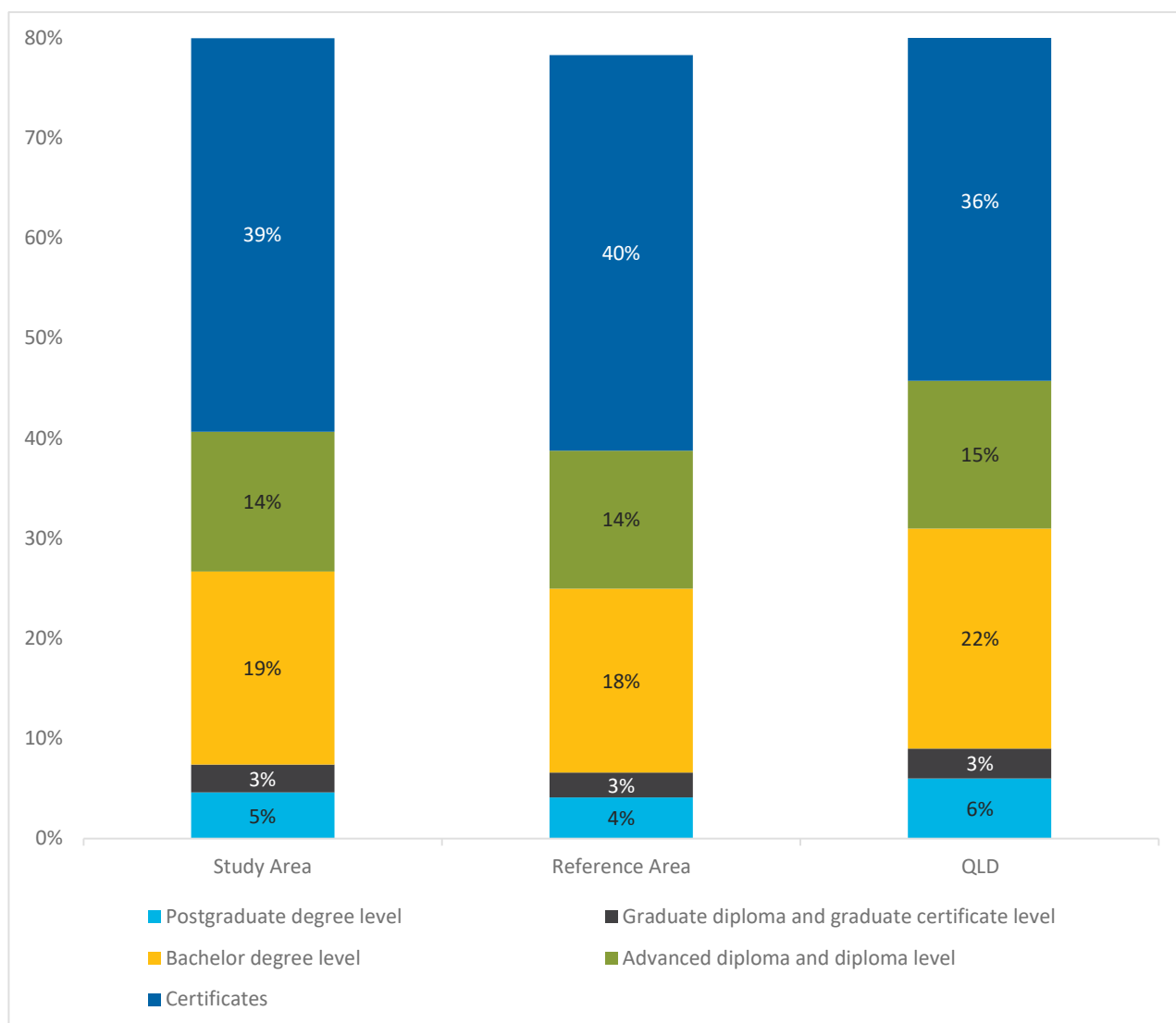
As shown in Table 5.4, of people with a non-school qualification throughout the study area and reference area, the highest proportion of persons had qualifications at a certificate level (39.4%) followed by bachelor's degree level (19.3%) (ABS 2016a). These figures are similar to the non-school qualifications in the reference area, where 39.6% of the population had certificate level qualifications and 18.4% of people had a bachelor's degree qualification. A greater proportion of the population in the study area and the reference area have attained certificate level qualifications than in QLD (36.0%), however a lower proportion had attained bachelor's degree qualifications than in QLD (22.0%).

The data indicates that the most common form of non-school qualification in the study area is through certificate level training which usually occurs outside of a university setting. This may be due to the opportunities that are available locally for acquiring certificate level education, through the TAFE, QCWT, and the various programs offered by local schools. This could also be indicative of limited local university options, comparatively low rates of secondary school/Year 12 completion and required qualifications for local employment. University level qualifications were more common in Toowoomba LGA and SA4 across postgraduate degree level, graduate diploma, and graduate certificate level, bachelor's degree level, and advanced diploma and diploma level when compared to other areas in the study and reference area. This could be attributed to the presence of a major university (USQ) in Toowoomba City (Google n.d.). Data on the proportion of people with non-school qualifications is presented in Table 5.4 and Figure 5.2.

Table 5.4 Proportion of persons over 15 with a non-school qualification, 2016

	Postgraduate degree level	Graduate diploma and graduate certificate level	Bachelor degree level	Advanced diploma and diploma level	Certificates
Goondiwindi LGA	1.6%	1.7%	17.2%	13.8%	37.8%
Southern Downs LGA	2.7%	2.2%	15.2%	13.6%	43.4%
Toowoomba LGA	5.2%	2.9%	20.2%	14.0%	38.7%
Study area	4.6%	2.8%	19.3%	14.0%	39.4%
Darling Downs Maranoa SA4	2.0%	1.9%	14.9%	13.4%	41.8%
Toowoomba SA4	5.6%	3.0%	21.1%	14.0%	38.0%
Reference area	4.1%	2.5%	18.4%	13.8%	39.6%
QLD	6.0%	3.0%	22.0%	14.8%	36.0%

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



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

Figure 5.2 Proportion of persons over 15 with a non-school qualification, 2016

a Non-school qualification field of study

The fields of study undertaken in non-school qualifications can reflect the availability of skilled workers in the study area and reference area. The top three fields of study in the study and reference areas are engineering and related technologies (15.7%), management and commerce (15.0%), and health (10.9%), which may be attributed to the geographic overlap of the two areas (QGSO 2020). The top fields of study in QLD are management and commerce (17.5%), engineering and related technologies (15.7%), and society and culture (10.7%). The proportion of engineering and related technologies, as well as management and commerce, trained persons within the study area is consistent with the reference area and State, possibly indicating an availability of skilled workforce required for the Project. The fields studied by persons with non-school qualifications are presented in Table 5.5, the top three fields of study in each area are highlighted.

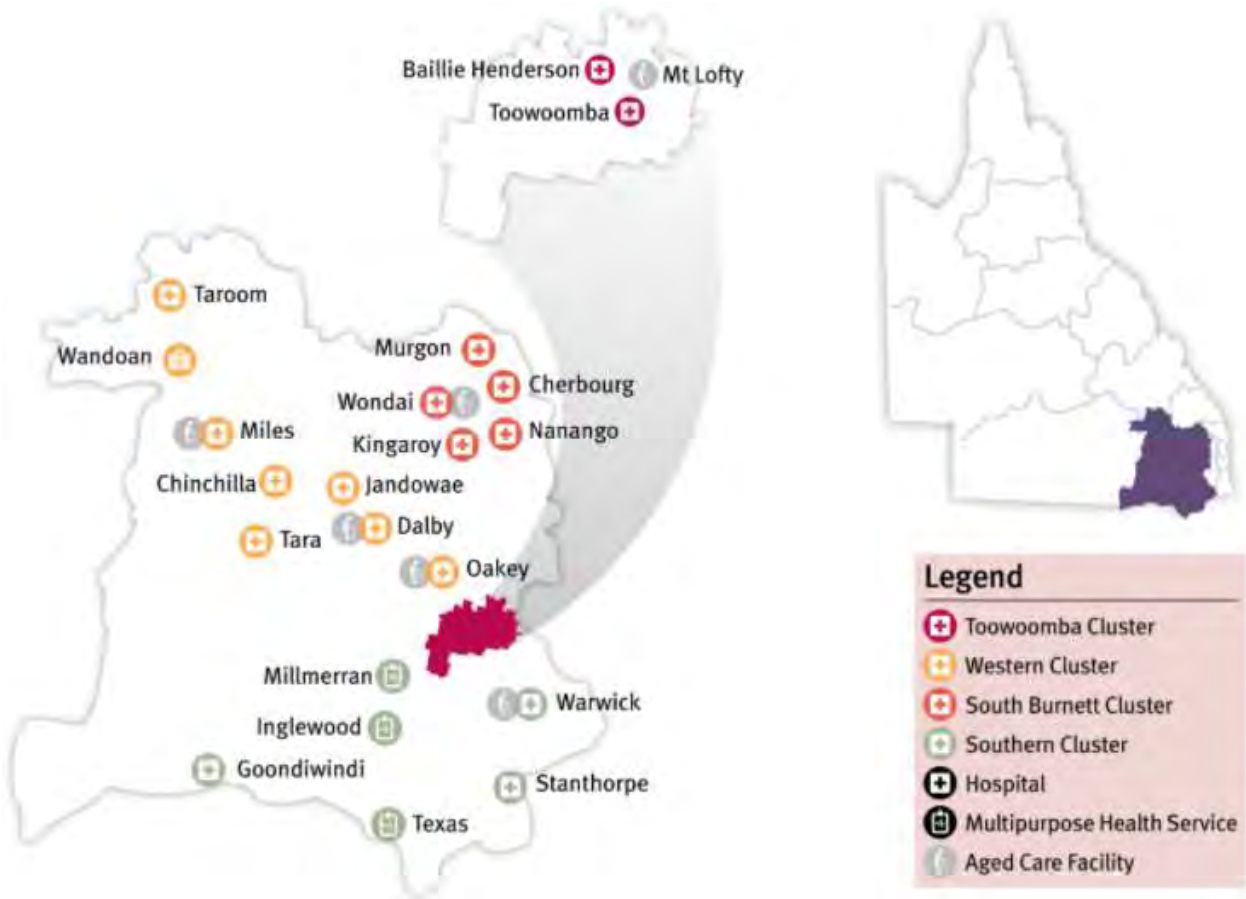
Table 5.5 Field of study in non-school qualifications, 2016

	Goondiwindi LGA	Southern Downs LGA	Toowoomba LGA	Study area	Darling Downs Maranoa SA4	Toowoomba SA4	Reference area	QLD
Natural and Physical Sciences	0.8%	1.6%	1.8%	1.7%	1.1%	2.0%	1.6%	2.3%
Information Technology	0.4%	0.9%	1.5%	1.4%	0.7%	1.6%	1.2%	2.2%
Engineering and Related Technologies	14.7%	15.3%	15.8%	15.7%	16.8%	15.4%	16.0%	15.7%
Architecture and Building	4.6%	5.9%	5.6%	5.6%	5.3%	5.7%	5.5%	6.2%
Agriculture, Environmental and Related Studies	9.2%	4.4%	3.4%	3.8%	6.3%	3.0%	4.4%	1.9%
Health	9.8%	9.9%	11.1%	10.9%	8.9%	11.3%	10.3%	9.8%
Education	8.6%	9.4%	9.2%	9.2%	8.3%	9.3%	8.9%	7.5%
Management and Commerce	11.6%	13.6%	15.5%	15.0%	12.5%	16.0%	14.5%	17.5%
Society and Culture	7.2%	9.4%	10.1%	9.8%	8.1%	10.3%	9.3%	10.7%
Creative Arts	1.2%	1.7%	2.2%	2.0%	1.3%	2.2%	1.8%	3.0%
Food, Hospitality and Personal Services	4.8%	6.3%	5.4%	5.5%	5.5%	5.4%	5.5%	5.5%
Mixed Field Programmes	0.3%	0.5%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
Field of study inadequately described	0.9%	1.2%	1.1%	1.1%	1.1%	1.1%	1.1%	1.2%
Field of study not stated	25.9%	20.0%	17.0%	17.9%	23.7%	16.2%	19.5%	16.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: QGSO 2020, Regional Profiles.

5.3 Health services

The study area is located within the Darling Downs Local Health Network (LHN) (see Figure 5.3).



Source: QLD Health 2020

Figure 5.3 Darling Downs Local Health Network

5.3.1 Hospital services

There are 12 hospitals within the study area consisting of both public and private hospitals offering a wide range of services (AIHW 2020b). Toowoomba Hospital is the largest hospital in the study area with 320 beds available and the most extensive services offered. The details of the closest hospitals in the study area are presented in Table 5.6.

Table 5.6 Hospitals in the area of social influence, 2020

Location	Hospital	Type	Number of beds
Clifton	Clifton Medical Practice	Private	12
Goondiwindi	Goondiwindi Hospital	Public	28
Inglewood	Inglewood Hospital	Public	<50
Millmerran	Millmerran Hospital	Public	11
Stanthorpe	Stanthorpe Hospital	Public	45
Texas	Texas Hospital	Public	--
Toowoomba	Toowoomba Hospital	Public	320
	Baillie Henderson Hospital	Public	--
	St Andrew's Toowoomba Hospital	Private	155
	St Vincent's Private Hospital Toowoomba	Private	191
	Toowoomba Surgicentre	Private	10
Warwick	Warwick Hospital	Public	97

Source: AIHW 2020b, MyHospitals.

As evidenced by Table 5.7, the total number of patients admitted to Toowoomba Hospital slightly decreased between 2011 – 2013, however between 2013 – 2017 there was a steady increase in admissions (30,000 to 50,000) (AIHW 2020c). More than two thirds (68%) of hospital admissions Toowoomba Hospital are attributable to medical emergencies and medical non-emergencies. Over one third (36%) of the admissions are through the emergency department. Although the local area has an aging population (see Section 3.1.2) and a higher proportion of the population that reported core activity need for assistance compared to NSW (see Section 3.3.2) admissions for these services has been consistently low each year. The growing number of admissions reflect the population growth in the area but also highlight the Toowoomba hospital is the main tertiary hospital in the study and reference areas. The number of admissions to Toowoomba Hospital from 2011 – 2017 are presented in Table 5.7.

Table 5.7 Number of admissions to Toowoomba Hospital, 2011 – 2017

Admission category	2011 – 2012	2012 – 2013	2013 – 2014	2014 – 2015	2015 – 2016	2016 – 2017
Childbirth	1,859	1,970	1,929	1,904	2,023	1,977
Surgical (emergency)	1,639	1,582	1,716	1,737	1,954	2,202
Surgical (non-emergency)	3,818	3,705	4,495	5,226	5,310	4,963
Medical (emergency)	8,992	10,383	12,356	14,399	15,907	15,718
Medical (non-emergency)	12,735	10,588	11,382	12,491	13,136	18,713
Other acute (emergency)	225	247	261	325	442	468

Table 5.7 **Number of admissions to Toowoomba Hospital, 2011 – 2017**

Admission category	2011 – 2012	2012 – 2013	2013 – 2014	2014 – 2015	2015 – 2016	2016 – 2017
Other acute (non-emergency)	180	148	237	1,869	3,105	3,780
Mental health	1,409	1,516	1,479	2,170	1,928	1,905
Rehabilitation	0	0	181	147	167	122
Palliative	0	0	360	296	281	240
Other subacute and non-acute	399	377	344	319	355	333
Total	31,256	30,516	34,740	40,883	44,608	50,421

Source: AIHW 2020c, MyHospitals.

5.3.2 Primary health services

i General practitioner services

General practitioner (GP) services in the local area and in selected suburbs throughout the regional area are offered in both public and private practices. According to the National Health Services Directory (Health direct Australia 2020) there is sufficient availability of GP services within the town centres of Stanthorpe, Warwick, and Toowoomba, with several more available in each smaller town in the study area. Local residents also expressed satisfaction with general healthcare providers in the area and felt they were adequate to service the community (pers. comm., 2020). Many specialist services are also available in the study area from GPs. GP practices in selected suburbs throughout the study area are summarised in Table 5.8.

Table 5.8 **GP practices in the study and reference area**

Suburb	Service name	GP services	Community health services	Aboriginal health services	Mental health services	Maternal, child, and family health services	Aged care services	Other specialist services
Goondiwindi LGA								
Goondiwindi	Goondiwindi Medical Centre	✓	x	✓	✓	✓	✓	x
Inglewood	Inglewood Medical Centre	✓	x	✓	x	✓	x	✓
Texas	Texas RFDS Rural Women's General Practice Service	✓	x	x	✓	x	x	x
	Texas Family Medical Centre	x	x	x	x	✓	✓	✓
Southern Downs LGA								
Stanthorpe	Stanthorpe Medical Centre	✓	x	x	x	✓	✓	x
	Stanthorpe Medical Clinic	✓	x	x	x	x	x	x
	Granite Belt Medical Service	✓	x	x	x	✓	x	✓
	Southern Downs Medical Pty Ltd	✓	x	x	x	x	x	x
	MyFamily Medical	✓	x	x	x	✓	x	✓

Table 5.8 GP practices in the study and reference area

Suburb	Service name	GP services	Community health services	Aboriginal health services	Mental health services	Maternal, child, and family health services	Aged care services	Other specialist services
Warwick	Carbal Medical Services – Warwick Medical Centre	✓	x	✓	x	✓	x	✓
	Condamine Medical Centre	✓	x	x	✓	✓	x	x
	Peppertree Medical	✓	x	x	x	x	x	x
	Rose City Medical Centre	✓	x	✓	x	✓	x	✓
Allora	Allora Medical Practice	✓	x	x	x	x	x	x
Toowoomba LGA								
Clifton	Clifton Medical Practice	✓	x	x	✓	✓	✓	✓
Pittsworth	Pittsworth Medical Centre	✓	x	x	x	x	x	x
	Pittsworth Platinum Medical Centre	✓	x	x	✓	✓	x	✓
Toowoomba	Hooper Medical Centre	✓	x	x	x	x	x	x
	James Neil Medical	✓	x	x	✓	✓	x	x
	Grand Central Medical Centre	✓	x	x	x	x	x	x
	headspace - Toowoomba	✓	x	x	✓	x	x	✓
	Carbal Medical Services – Toowoomba Medical Centre	✓	x	✓	x	✓	x	✓
	Iona Medical Centre	✓	x	✓	✓	✓	x	✓
	East Toowoomba Clinic	✓	x	x	x	x	x	x
	Lindsay Street Medical Centre	✓	x	x	x	x	x	x
	Mary Street Family Practice	✓	x	x	✓	✓	✓	✓
	Dr Peter John Sklavos Medical Practice	✓	x	x	x	x	x	x
	Toowoomba Medical and Dental Centre	✓	x	x	x	x	x	✓
	Dr Shane Sullivan	✓	x	x	x	x	x	x
	GPs on Curzon	✓	x	x	x	x	x	✓
	Goolburri Aboriginal Health Advancement Co. Ltd	✓	x	✓	x	x	x	✓
	Leichhardt House Medical Centre	✓	x	x	x	x	x	x
	Bakers Family Medical Centre	✓	x	x	x	x	x	x
	Rangeside Medical Centre	✓	x	x	x	✓	x	✓

Table 5.8 GP practices in the study and reference area

Suburb	Service name	GP services	Community health services	Aboriginal health services	Mental health services	Maternal, child, and family health services	Aged care services	Other specialist services
	Northpoint Medical Centre	✓	x	x	x	✓	x	✓
	Westridge Medical Centre	✓	x	✓	✓	✓	x	✓
	St Andrew's Toowoomba Medical Centre	✓	x	x	✓	✓	x	✓
	Platinum on North Medical Centre	✓	x	x	✓	✓	x	✓
	Range Medical High Street	✓	x	x	x	✓	x	✓
	Downs Rural Medical – Wyalla	✓	x	x	✓	✓	✓	✓
	Middle Ridge Family Practice – Mulga Medics	✓	x	✓	x	✓	x	✓
Kearneys Springs	Willowglen Medical Centre	✓	x	x	✓	✓	x	✓
	7Springs Medical Practice	✓	x	x	x	x	x	x
Wilsonton	WtMED The Doctors on Erin Street	✓	x	x	x	x	x	x
	Wilsonton Medical Centre	✓	x	x	✓	✓	x	✓
Harristown	Toowoomba Medical Centre	✓	x	x	✓	✓	x	✓
Darling Heights	USQ Health Services	✓	x	x	x	x	x	x
Drayton	Drayton Medical Centre	✓	x	x	x	✓	x	✓
Westbrook	Westbrook Family Medical	✓	x	x	✓	✓	✓	✓
Highfields	Highfields District Medical Centre	✓	x	x		✓	✓	✓
	Village Medical Centre	✓	x	x	✓	✓	x	✓
Kingsthorpe	Kingsthorpe Medical	✓	x	x	x	x	x	x
	Downs Rural Medical	✓	x	x	✓	✓	✓	✓
Oakey	Downs Rural Medical	✓	x	x	✓	✓	✓	✓
Goombungee	Goombungee Family Practice	✓	x	x	x	x	x	x
Crows Nest	Crows Nest Medical Centre	✓	x	x	x	x	x	x

Source: Health direct Australia 2020, National Health Services Directory.

ii Mental health services

In addition to the mental health services offered through GP practices there are mental health services offered through psychology and counselling practices and hospitals within the study area. Such facilities can be found at Toowoomba at Baillie Henderson Hospital (Extended Inpatient Service), Mi-Mind Centre, and Toowoomba Hospital (Acute Mental Health Unit) in Toowoomba, at Karakan Ltd in Drayton, at Southern Downs Mental Health Service in Warwick, at Millmerran Hospital, at Goondiwindi Hospital, Rural Sky, and Goondiwindi Mental Health Services in Goondiwindi, and at the Multipurpose Health Service in Inglewood (Ask Izzy 2020). Given the size of the population, these services are assumed to be sufficient for the study area.

iii Specialist services

Specialist services are offered by a range of health service providers, including GPs, hospitals, and stand-alone specialist service providers. However, those living in smaller, more remote towns within the study area will need to travel to larger town centres, such as Toowoomba, in order to seek specialist services that are unavailable at local rural medical centres. It may also be the case that residents are required to travel to larger cities, such as Brisbane, for specialist medical services.

5.3.3 Emergency services

The study area is well serviced by emergency services. There are 26 police stations, 18 ambulance stations, 20 fire and rescue stations, and one SES unit (QGSO 2020). The nearest police stations to the project site are in Leyburn, Inglewood, Warwick, and Stanthorpe (QPS 2020). The nearest ambulance and fire stations are in Inglewood, Warwick, and Stanthorpe (QAS 2020; QFES 2020). The SES unit for the region is located in Toowoomba with volunteers living across the study area (SES 2020). Consultation with local Police and Ambulance divisions suggest that the area is well serviced, and the quality of staff and resources is high (pers. comms 2020). It was determined that local police have the capacity to undertake turbine transportation escorts, due in part to their existing experience with other regional windfarms in the area. The Ambulance network similarly expressed capacity to service the Project with on-site personnel if required (pers. comms 2020). The number of available emergency service stations in the study area are summarised in Table 5.9.

Table 5.9 Emergency service stations in the study area

Location	Police station	Ambulance station	Fire and rescue station	SES unit
Goondiwindi LGA	5	4	4	--
Southern Downs LGA	7	3	5	--
Toowoomba LGA	14	11	11	1
Study area	26	18	20	1

Source: QPS 2020; QAS 2020; QFES 2020; SES 2020

5.3.4 Transport infrastructure

i Modes of travel

In the study area, the primary means of travel to work is by car, either as the driver or as a passenger (74.3%), with a very small proportion of public transport use (0.5%) (ABS 2016a), similar to the reference area where 72.5% use a car to travel to work. Both the study area and reference area have a higher proportion of car use (74.3% and 72.5%, respectively) and a significantly lower proportion of public transport use (0.5% for both) than QLD (69.3% car use and 5.9% public transport).

These figures are likely due to the limited availability, accessibility, and ease of public transport systems within the study area due to its nature as a regional and rural area where low population density prevents the establishment of regular services. Daily commutes are also generally further in rural areas when compared to urban settings making travel by car more convenient and feasible. The prevalence of farming and agricultural industries means that many people may not even require a commute to work and instead work in the same location as their residence (see Section 8).

Due to the large size of properties in the study area and the low-density population compared to cities and urban centres, the availability and use of public transport services are much lower. Toowoomba City is connected to TransLink services – providing public transport within South East QLD, however there are only around 9 bus routes operating in the city centre (Translink 2020). There is also a central train station in Toowoomba with services operated by QLD Rail Regional services (QR 2020). The availability of TransLink and QLD Rail services in Toowoomba is depicted in the data on public transport use, which is higher than the rest of the study area at 0.6% (ABS 2016a). Other forms of public transport in the study area include regional bus and train services that usually run between major towns. Modes of travel to work in the study area are summarised in Table 5.10.

Table 5.10 **Modes of travel, 2016**

	By car (as driver, as passenger)	By public transport (train, bus, ferry, tram)
Goondiwindi LGA	69.3%	0.3%
Southern Downs LGA	70.5%	0.3%
Toowoomba LGA	75.7%	0.6%
Study area	74.3%	0.5%
Darling Downs Maranoa SA4	67.0%	0.5%
Toowoomba SA4	77.5%	0.6%
Reference area	72.5%	0.5%
QLD	69.3%	5.9%

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

ii Air

The Toowoomba Wellcamp Airport is an international public, jet-capable, and passenger airport located 25 minutes from the Toowoomba CBD in the suburb of Wellcamp (Toowoomba Wellcamp Airport 2020). This airport services domestic freight and is a gateway airport which connects Toowoomba and the Darling Downs to the rest of Australia and overseas via the major capital cities. The airport services three carriers, Qantas, Airnorth, and Regional Express, offering domestic services, as well as some limited international passenger and freight flights.

The Toowoomba City Aerodrome is located in Wilsonton, 5km west of Toowoomba (Toowoomba Region 2020a). The Aerodrome offers several flying schools, charter operators, business operators, and maintenance providers, as well as the finest Australian collection of war aircrafts. The Aerodrome is utilised for fly-in fly-out and itinerant workers who use the aerodrome as a base for work travel to and from Toowoomba.

Millmerran airfield has a 1,231 m long and 18 m wide runway with a central 10 m sealed surface, the runway is unrated and only available for use during the day, with typically only low-flying aircrafts operating from the airfield (Toowoomba Region 2020b).

The Pittsworth Airfield is owned and operated by TRC and is officially classified an Aircraft Landing Area (ALA) (Toowoomba Region 2020c). The airstrip at Pittsworth Airfield is 880 m long and 18 m with an 8 m sealed central strip. Users of the airfield are encouraged to inspect the condition of the runway prior to use and on departure.

There are additional small air travel facilities in Inglewood, Stanthorpe, Texas, and Tenterfield (NSW). For more domestic or international air travel services, travelling 218 km from Karara to Brisbane Airport 285 km to Coolangatta Airport may be required.

iii Road network

a Haulage routes from Brisbane

The *MacIntyre Windfarm Route Survey* dated February 2020 (GHD 2020) has identified two distinct transport routes from the Port of Brisbane to the development area:

- Route 1 – via Toowoomba Bypass/Pittsworth – for transport of oversized wind turbine blade components.
- Route 2 – via Cunningham Highway – for transport of oversized tower sections and other ancillary components.

b Local road network

Site access to the development project will be provided exclusively via the intersection of Cunningham Highway/Waraghai Road/Carbean Road. It is expected that all construction traffic will be turning left onto Carbean Road from the Cunningham Highway. A minor proportion of construction traffic related to the overhead transmission line (OHTL) section towards Tummalville will be utilising Owens Scrub Road, Stonehenge Road and Millmerran Road for traffic access. The development area currently includes unsealed gravel roads and informal dirt tracks which provide access to local rural properties. To facilitate access to the relevant project infrastructure within the proposed wind farm, approximately 218 km of access tracks are to be constructed and approximately 9.5 km of existing roads are to be treated (GHD 2020). The major roads and internal unsealed road map within the MacIntyre Wind Farm section of the project site are shown in Figure 5.4 and the major roads and internal unsealed road map within the Karara Wind Farm section of the Project site are shown in Figure 5.5.

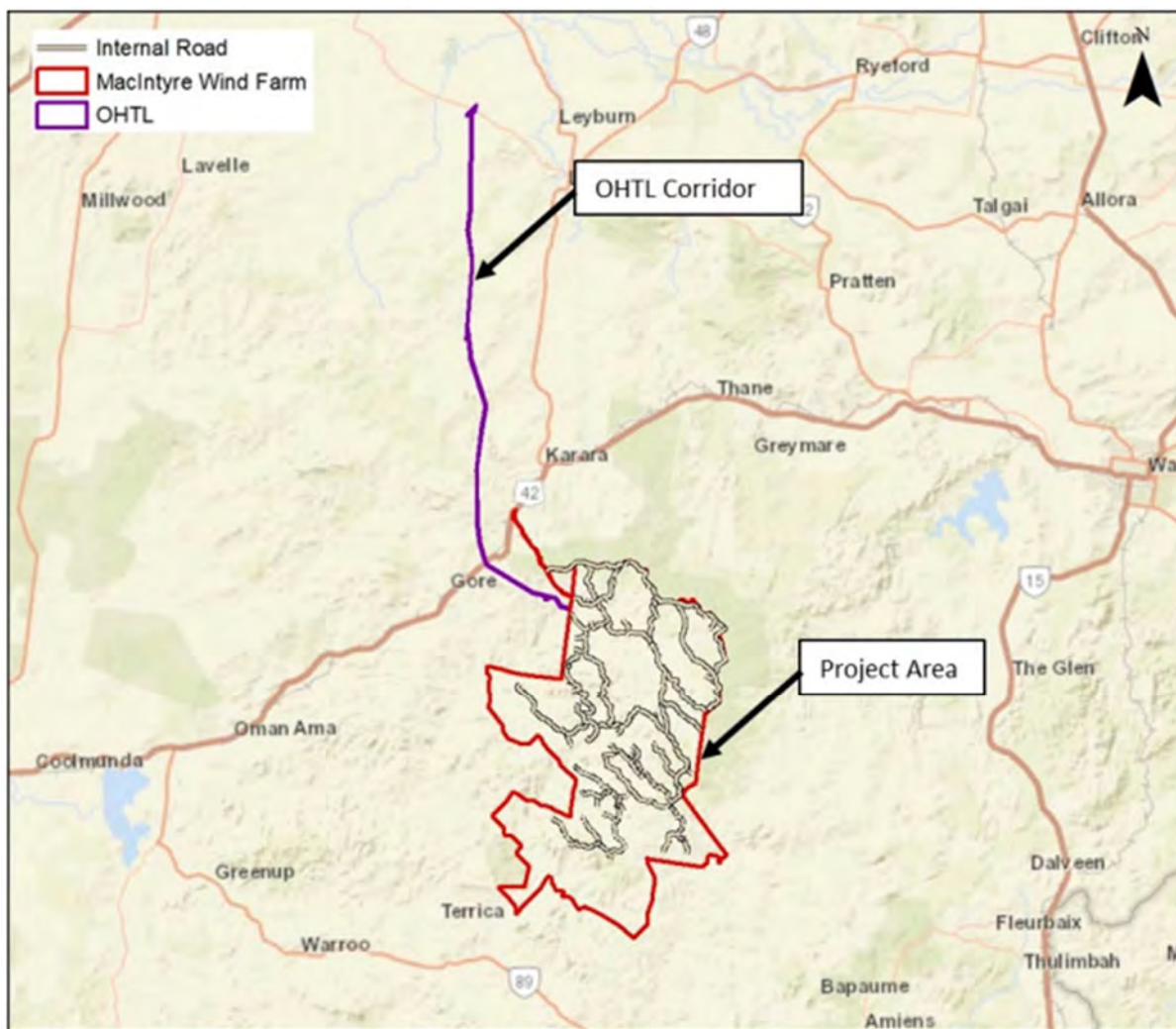


Figure 5.4 Road network and internal road map for Macintyre Wind Farm section of project site.

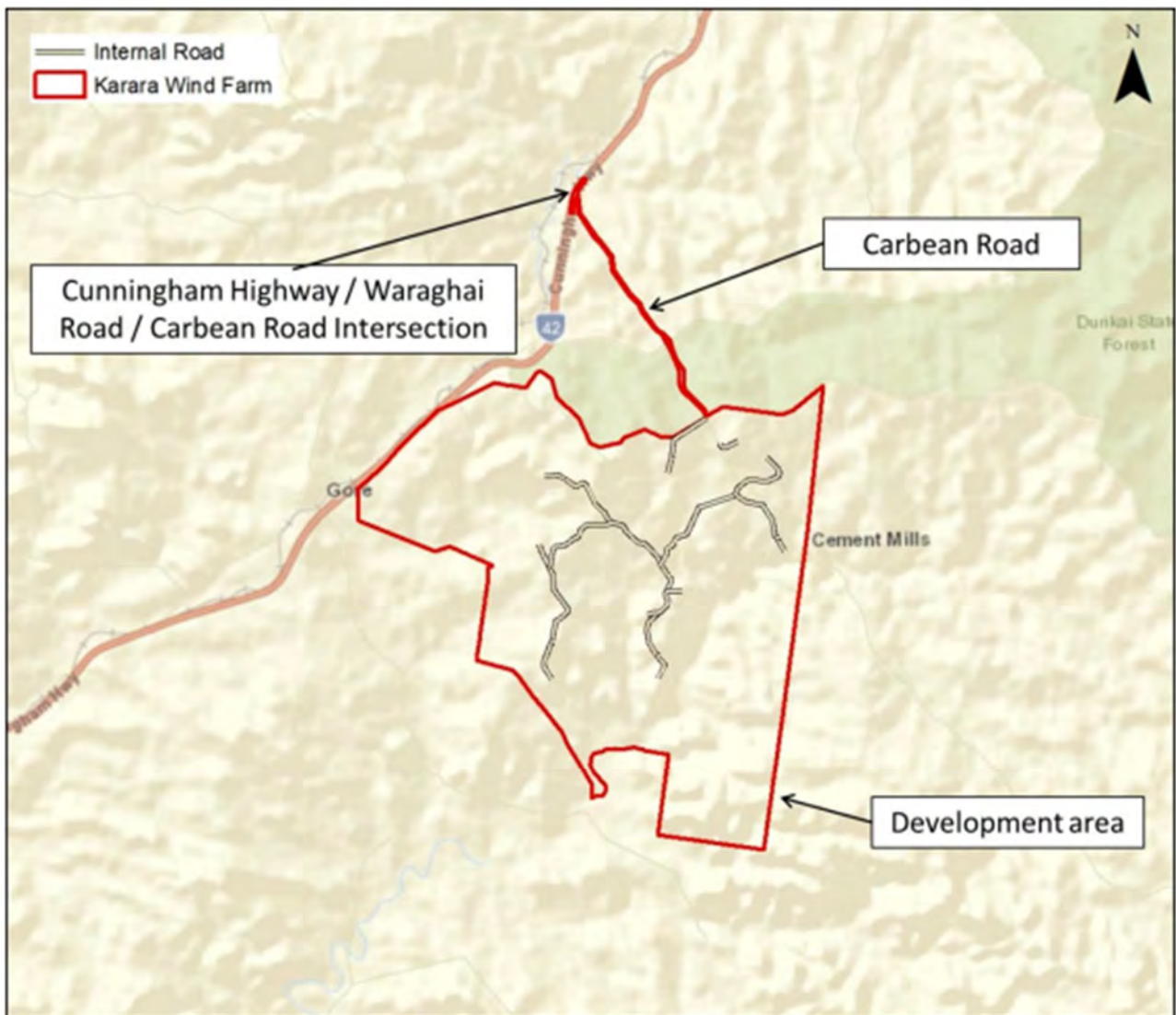
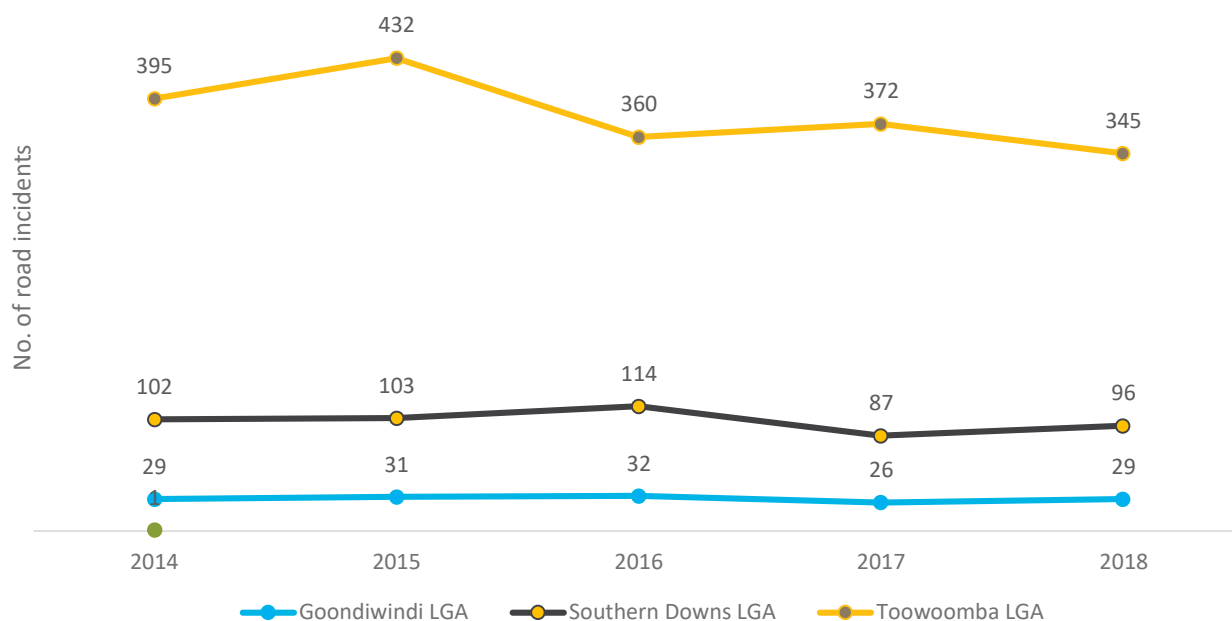


Figure 5.5 Road network and internal road map for Karara Wind Farm section of project site.

iv Road incidents

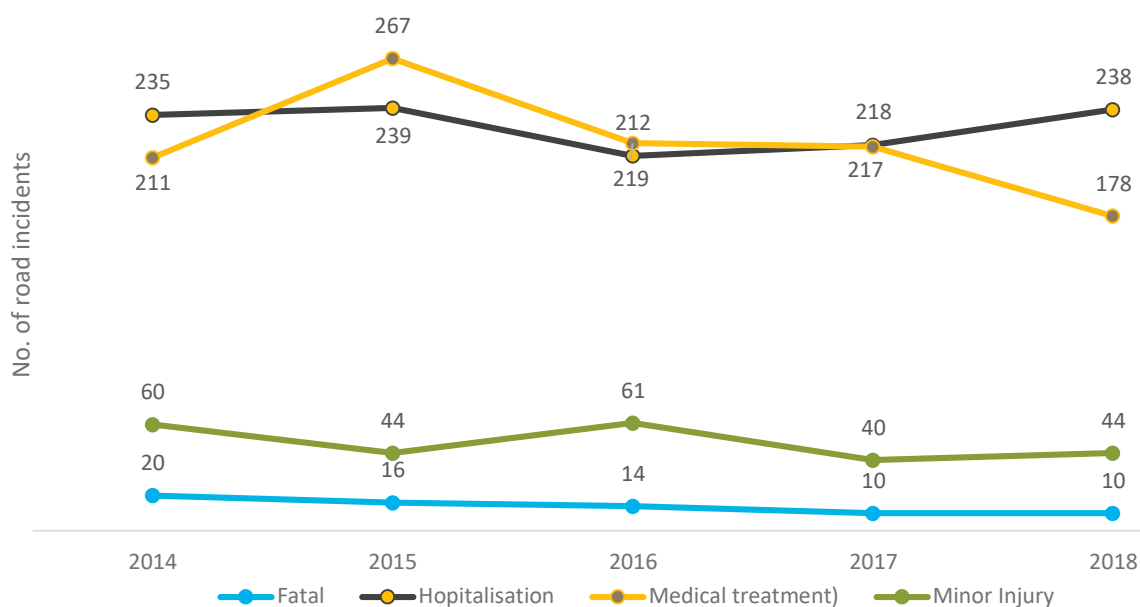
Road incident trends between 2014 – 2018 showed that Goondiwindi LGA and Southern Downs LGA have maintained similar patterns of a relatively stable number of road incidents over that period (TMR 2019). Toowoomba LGA had a much higher number of road incidents, attributable to its larger population and more dense urban landscape. This number has seen a significant decrease since 2015, from 432 to 345 road incidents per year. The study area overall has a high proportion of recorded traffic and related offenses (see Section 9.2.2) suggesting that the roads are well patrolled by police, possibly mitigating high numbers of road incidents.

The severity of road incidents is analysed throughout the whole study area. The data shows a 50% decrease in fatal road incidents between 2014 – 2018. While the number of road incidents resulting in minor injury is relatively low in the study area, 2018 saw 238 incidents resulting in hospitalisation (an increase of 20 from the previous year) and 178 road incidents resulting in medical treatment. Crash trends for the study area are presented in Figure 5.6 and Figure 5.7.



Source: TMR 2019, Crash data from Queensland roads

Figure 5.6 Road incidents in study area, 2014 – 2018



Source: TMR 2019, Crash data from Queensland roads

Figure 5.7 Crash trends in the study area by severity, 2014 – 2018

v Journey to work

The QLD Government Statistician's Office Regional Profiles (2020) provide a summary of unpublished 2016 Census of Population and Housing data which detail the usual residence and place of work for the population. This data provides the natural flows within the study and reference areas to determine where the potential workforce for the project is likely to travel to and from.

Of 4,716 persons travelling to work in Goondiwindi LGA, most are likely to come from Goondiwindi SA2 (56.5%) and Inglewood – Waggamba SA2 (35.0%). With smaller proportions travelling from SA2s in NSW (13.5%) and from Southern Downs SA2s (East 12.7%, West 11.1%).

Of the 13,205 persons working in the Southern Downs LGA, most are likely to reside in Warwick SA2 (41.2%, followed by Stanthorpe Region SA2 (15.6%), Stanthorpe SA2 (13.5%), and Southern Downs – East (12.7%) and West (11.1%) SA2s.

Of the 69,266 persons working in Toowoomba LGA, data for SA3s shows that the majority of workers reside within the Toowoomba SA3 (78.2%) and Darling Downs – East SA3 (13.9%). At the SA2 level, the highest proportion of workers in Toowoomba come from Toowoomba-West SA2 (8.5%), followed by Highfields SA2 (7.9%), Toowoomba – Central SA2 (7.6%), Darling Heights (7.2%), and Wilsonton (6.7%). The majority of workers in Toowoomba live in multiple other SA2s (62.1%) including those within the rest of Australia and responses inadequately described.

This data suggests that whilst there is a relatively high proportion of workers living and working in the same LGA, there is still a degree of travel that takes place between LGAs. This is most apparent in Goondiwindi LGA indicating a possible travelling workforce that may be more comfortable commuting longer distances to the Project site. This could also be indicative of limited employment opportunities in these LGAs, suggesting that residents may be forced to travel distances to jobs that are compatible with their skills. The top five usual resident SA2s from which people travel to work in the study area LGAs are presented in Table 5.11.

Table 5.11 Journey to work

	No.	%
Travel to work in Goondiwindi LGA from:		
Goondiwindi SA2	2,664	56.5
Inglewood – Waggamba SA2	1,649	35.0
New South Wales (all SA2)	209	13.5
Southern Downs – East SA2	1,682	12.7
Southern Downs – West SA2	1,469	11.1
Other SA2 ¹	776	5.9
Total	13,205	100.0
Travel to work in Southern Downs LGA from:		
Warwick SA2	5,436	41.2
Stanthorpe Region SA2	2,059	15.6
Stanthorpe SA2	1,783	13.5
Southern Downs – East SA2	1,682	12.7

Table 5.11 Journey to work

	No.	%
Southern Downs – West SA2	1,469	11.1
Other SA2 ¹	776	5.9
Total	13,205	100.0
Travel to work in Toowoomba LGA from:		
Toowoomba – West SA2	5,863	8.5
Highfields SA2	5,497	7.9
Toowoomba – Central SA2	5,266	7.6
Darling heights SA2	4,978	7.2
Wilsonton SA2	4,662	6.7
Other SA2 ¹	43,000	62.1
Total	69,266	100.0

Source: QGSO 2020, QLD Regional Profiles; ABS 2016, Census of Population and Housing, Working Population Profile, unpublished data and QLD Treasury estimates

5.3.5 Community Services

The study area is serviced by a variety of community services supporting Aboriginal peoples, children and families, youth, housing and homelessness, disability, aged care, domestic violence and more. Most of these services are accessible in Toowoomba as the largest urban centre within the study area. Some community services are available in the larger towns of Stanthorpe and Warwick. Organisations operating within the study area offer a range of services to various groups and include both specific service providers and multi-service providers. Additional information related to selected services is presented in the sections below. The adequacy of some of the below services has been supplemented by community consultation findings, this has been noted in the relevant sections.

i Aboriginal and Torres Strait Islander community services

There are four Aboriginal and Torres Strait Islander community service providers near Toowoomba and four located in Goondiwindi, one medical service in Warwick and no services directly available in Stanthorpe (My Community Directory 2020). Persons located outside of Toowoomba or Goondiwindi wishing to access Indigenous community services require longer travel to reach service providers. Indigenous services across the Southern Downs LGA present a significant gap on services due to the high number of Indigenous identifying individuals in the region (see Section 3.2). Aboriginal community services in the study area are summarised in Table 5.12.

Table 5.12 Aboriginal community service in the local area, 2020

Suburb	Service	Aboriginal health services	Housing and accommodation services	Education programs	Child and family services	Youth services	Counselling services	Justice, representation, and cultural	Self-help and support services
East Toowoomba and Warwick	Carbal Medical Centre	✓	x	✓	✓	x	✓	x	✓
Goondiwindi	Breakthrough for Families QLD (Drug.ARM)	✓	x	x	x	x	x	x	x
	Aboriginal & Torres Strait Islander Legal Service QLD – Goondiwindi (ATSILS)	x	x	x	x	x	x	x	x
	Indigenous Parenting Support Service (IPSS)	x	x	✓	✓	x	x	x	✓
	The Goondiwindi Community Justice Groups (CJG)	x	x	x	x	x	x	x	x
Toowoomba	Goolburri Aboriginal Health Advancement Co. Ltd	✓	x	x	✓	✓	✓	x	✓
	ATSILS Toowoomba	x	x	x	x	x	x	x	x
	Aboriginal and Torres Strait Islander Health Service - Toowoomba	✓	x	✓	✓	x	x	x	✓

Source: mycommunitydirectory.com.au

ii Child and family services

There are a variety of child and family services in the study area, mostly located in Toowoomba. These services include education service, counselling and mediation services, foster care services, childcare services, and child and family support services. There are two child and family service providers in Goondiwindi, three in Warwick, and one in Stanthorpe, however, people wishing to access child and family services who are located outside of Toowoomba may require travel to reach service providers. Child and family services in the study area are presented in Table 5.13.

Table 5.13 Child and family services in the local area, 2020

Suburb	Service	Education Services	Counselling and mediation services	Foster care services	Childcare services	Child and family support services
Stanthorpe	Granite Belt Community Centre	✓	x	x	x	✓
Toowoomba	Goolburri Aboriginal Health Advancement Co. Ltd	x	✓	x	x	✓

Table 5.13 Child and family services in the local area, 2020

Suburb	Service	Education Services	Counselling and mediation services	Foster care services	Childcare services	Child and family support services
	Family & Child Connect Toowoomba	x	✓	x	x	✓
	Mercy Community South West QLD	x	✓	x	x	✓
	Mental Health and Family Wellbeing – Toowoomba	x	✓	x	x	✓
	Child Safety Service Centre	x	✓	x	x	✓
	Lifeline Darling Downs and South West QLD	x	✓	x	x	✓
	Toowoomba Act for kids	x	✓	x	x	✓
	St Vincent de Paul Society QLD	x	✓	x	x	✓
	Kath Dickson Family Centre	x	x	x	✓	✓
Warwick	Australian Red Cross - Intensive Family Support	x	✓	x	x	✓
	Mercy Services Warwick	✓	✓	✓	x	✓
Warwick, Goondiwindi, and Toowoomba	Child and Youth Mental Health Service	x	✓	x	x	✓

Source: mycommunitydirectory.com.au

iii Youth community services

There are a range of youth community services in the study area offering counselling services, referral services, youth crisis services, recreational activities, and youth support services. People wishing to access youth community services who are located outside of the areas listed below may require travel to reach service providers. Youth services in the local area are presented in Table 5.14.

Table 5.14 Youth community services in the local area, 2020

Suburb	Service	Counselling services	Referral services	Youth crisis services	Recreational activities	Youth support services
Goondiwindi	Youth Access Services	✓	✓	✓	x	✓
Goondiwindi	PCYC Goondiwindi	x	x	x	✓	✓
Goondiwindi	Goondiwindi Branch Little Athletics Centre	x	x	x	✓	x
Millmerran	Scouts QLD Millmerran	x	x	x	✓	x

Table 5.14 Youth community services in the local area, 2020

Suburb	Service	Counselling services	Referral services	Youth crisis services	Recreational activities	Youth support services
Millmerran Downs	Wylahra Grove Junior Sports & Recreation Association Inc. - Millmerran Downs	x	x	x	✓	x
Mount Lofty	Bunya Park Scout Group Toowoomba	x	x	x	✓	x
Mount Lofty	Girl Guide Hut	x	x	x	✓	x
Stanthorpe	Granite Belt Community Centre	✓	x	x	✓	✓
Toowoomba	Toowoomba Youth Justice Centre	x	x	x	x	✓
Toowoomba	Youth with a Mission Toowoomba	x	x	x	x	✓
Toowoomba	Emerge	✓	x	x	x	✓
Toowoomba	Downs Industry Schools Co-op (DISCO)	✓	x	x	x	✓
Toowoomba	Toowoomba Boys' Brigade	x	x	x	x	✓
Toowoomba	The BASE Youth Centre	x	x	x	x	✓
Toowoomba	The Smith Family	x	x	x	x	✓
Warwick	Headspace	✓	x	x	x	✓
Warwick, Goondiwindi, and Toowoomba	Child and Youth Mental Health Service	x	✓	x	x	✓

Source: mycommunitydirectory.com.com.au

iv Housing and homelessness services

Housing and homelessness services in the study area range from public housing services, transitional accommodation, crisis accommodation, short-term accommodation, housing referrals, and support services. There are limited housing and homelessness services in the whole study area and travel may be necessary to access such services. This may be due to the relative size of the local population, and the low rates of homelessness (see Section 3.1 and Section 3.3.3). Housing and homelessness services are summarised in Table 5.15.

Table 5.15 Housing and homelessness services in the study area, 2020

Suburb	Service	Public housing services	Transitional accommodation	Crisis accommodation	Short-term accommodation	Housing referrals	Support services
Stanthorpe and Warwick	Endeavour Foundation Accommodation Services	x	x	x	x	✓	✓
Toowoomba	Richmond Fellowship QLD	x	✓	x	x	✓	✓
	Toowoomba Housing Hub	✓	x	x	x	✓	✓
	Rent Connect	x	x	x	x	✓	✓
	The Salvation Army Supported Accommodation Service Toowoomba	✓	x	✓	x	✓	✓
	HAF Accommodation	x	✓	✓	✓	x	✓
	YWCA Toowoomba	✓	✓	✓	✓	x	✓
Texas	Texas Multipurpose Health Service – Crisis Emergency Housing Services	x	x	✓	✓	x	✓

Source: mycommunitydirectory.com.au

v Employment services

There are a range of employment services available in the study area, the majority of which are located in the urban centre of Toowoomba. These services cover employment placement, training services, and resume and interview preparation. People located in rural areas and away from town centres or Toowoomba CBD may require travel to access these services. The quantity of employment services in the area is considered sufficient given the higher levels of unemployment (see Section 6.1) and a transient workforce. Several services identified also focus on assisting individuals with disability in finding employment and training opportunities, which may be reflective of the higher proportions of disability within the region (Section 3.3.2). Employment services in the study area are summarised in Table 5.16.

Table 5.16 Employment services in the study area, 2020

Suburb	Service	Employment placement	Training services	Resume and interview preparation	Wage subsidies
Goondiwindi	BEST Employment Goondiwindi	✓	✓	✓	x
	Gateway to Training	✓	✓	✓	x
	Goondiwindi SILO Inc	✓	✓	✓	x
Goondiwindi and Warwick	Gateway to Training	✓	✓	✓	x
Stanthorpe	Stanthorpe Specialist Employment Service	✓	✓	✓	x

Table 5.16 **Employment services in the study area, 2020**

Suburb	Service	Employment placement	Training services	Resume and interview preparation	Wage subsidies
Toowoomba	CHR Employment & Training Services	✓	✓	✓	x
	MAX Employment	✓	✓	✓	x
	Challenge Employment and Training	✓	✓	✓	x
	Help Employment and Training	✓	✓	✓	x
	Mylestones Employment	✓	✓	✓	x
	Dpt Employment and Training	✓	✓	✓	x
	BUSY At Work - Toowoomba Apprenticeship Services	✓	✓	x	x
	MAXimus Solutions	✓	✓	✓	x
	Aurora Training Institute	✓	✓	✓	x
Toowoomba, Goondiwindi, and Stanthorpe	APM Disability Employment Services	✓	✓	✓	x
Warwick	BEST Employment Warwick	✓	✓	✓	x
	BUSY At Work - Warwick Apprenticeship Services	✓	✓	x	x
Warwick	Endeavour Foundation Industries Warwick	✓	✓	✓	x

Source: mycommunitydirectory.com.au, SIA field work

vi Disability services

There are a range of disability services in the study area, however the majority are located in Toowoomba. However, many of these services offer in-home support, in which providers can travel small distances to provide support. Disability services offered cover social and community participation, advocacy support services, employment services, and disability support services. Travel may be required for persons requiring disability services who are not located in Toowoomba, Warwick, Stanthorpe, Goondiwindi or Harristown. This may impact individuals with limited mobility who are not able to travel distances for support and are otherwise isolated from local communities. Disability services in the local area are summarised in Table 5.17.

Table 5.17 **Disability services in the local area, 2020**

Suburb	Service	Social and community participation	Advocacy support services	Employment services	Disability support services
Goondiwindi	Disability Services Local Area Coordinator - Goondiwindi	x	x	x	✓
Harristown	Downs Association for the Blind	x	x	x	✓
Toowoomba	Toowoomba And District Down Syndrome Support Group Incorporated	✓	✓	x	✓
	Spinal Life Australia	✓	✓	x	✓
	Alya	✓	x	x	✓
	YellowBridge QLD	✓	x	x	✓
	Life Without Barriers	✓	x	x	✓
	Warrina	✓	✓	x	✓
	BigDog Support Services	x	x	x	✓
	Ozcare	✓	x	x	✓
	Epilepsy Support Group Toowoomba	x	x	x	✓
Toowoomba	Breakaway Toowoomba	✓	✓	x	✓
	CPL - Choice, Passion, Life	✓	✓	x	✓
Warwick	UnitingCare	✓	x	✓	✓
	Churches of Christ South West QLD	x	x	x	✓
	Flourishing at Living Life	✓	x	x	✓
	Candice Care	✓	x	x	✓
Warwick, Stanthorpe, and Toowoomba	Endeavour Foundation	✓	✓	✓	✓
Warwick and Toowoomba	Wellways	✓	x	✓	✓
	Guide Dogs QLD	✓	x	x	✓

Source: mycommunitydirectory.com.au

vii Aged care services

There are 19 aged care service providers in the study area ranging from high-level care facility, low-level care facility, residential respite care, self-contained independent living, and aged care support services. The majority of these services are located in Toowoomba. The abundance of aged care facilities may be in part due to the high demand indicated by the aging population within the study area, and the higher proportion of the population requiring assistance (see Section 3.1.2 and Section 3.3.2). Community members identified a lack of aged care facilities in the Inglewood region near the Project site, expressing that the facility had recently been closed, leaving some people isolated and unable to access aged care services at all (pers. comm. 2020). Community members also highlighted that aged care services in Warwick were “desperate for workers” (pers. comm. 2020). Aged care services in the local area are presented in Table 5.18.

Table 5.18 Aged care services in the local area, 2020

Suburb	Service	High-level care facility	Low-level care facility	Residential respite care	Self-contained independent living	Aged care support services
Clifton	Clifton Co-Op Hospital	x	x	x	✓	✓
Goondiwindi	Kaloma Home for the Aged	✓	✓	✓	✓	✓
Killarney	Killarney Memorial Aged Care	x	✓	✓	x	✓
Millmerran	Yallambee Millmerran Centenary Retirement Village	✓	✓	✓	✓	✓
Mount Lofty	Mt Lofty Heights Nursing Home	✓	✓	✓	x	✓
Pittsworth	Beauararaba Living	✓	✓	✓	✓	✓
Stanthorpe	Churches of Christ	x	✓	✓	✓	✓
	Bluecare	✓	✓	✓	x	✓
Toowoomba	The Village on the Downs	x	✓	x	✓	✓
	Meals on Wheels	x	x	x	x	✓
	Yukana Private	✓	✓	✓	✓	✓
	Drayton Villas Retirement Village	x	✓	x	✓	✓
	Bupa Aged Care Glenvale	✓	✓	✓	x	✓
	Oxford Crest	x	✓	x	✓	✓
	Brodribb Retirement Village	x	✓	x	✓	✓
	Freedom Aged Care Taylor St	✓	✓	✓	x	✓
Warwick	Akooramak Care of Older Persons	✓	✓	✓	✓	✓
	Churches of Christ Care - South West Qld Home Assist Secure	x	✓	✓	x	✓

Source: mycommunitydirectory.com.au

viii Domestic violence services

There are two providers of domestic violence services in the study area covering drug and alcohol services, counselling services, referral services, prevention and intervention services, and domestic violence support services. Given the size of the study area, it may be difficult for all persons seeking these services to commute to these two locations in which service is provided, especially in situations where opportunities for transport is limited. This indicates very limited domestic violence services in the area, especially in Goondiwindi LGA.

Domestic violence services in the study area are summarised in Table 5.19.

Table 5.19 Domestic violence services in the study area, 2020

Suburbs	Service	Drug and alcohol services	Counselling services	Referral services	Prevention and intervention service	Domestic violence support services
Toowoomba	The Domestic Violence Action Centre	x	✓	✓	✓	✓
Warwick	Southern Downs Human Solutions	✓	✓	x	x	✓

Source: mycommunitydirectory.com.au

ix Arts and cultural community facilities

There are a range of arts and cultural sites in the study area including indigenous cultural sites, theatre and/or cinema, open air performance centres, art galleries, art studios, museums, libraries, halls, and conference rooms. This is likely reflective of the significant tourism industry in Stanthorpe and Toowoomba, which are both popular destinations for regional tourism. This abundance of arts and cultural community facilities indicates a capacity for an influx of population or workforce to enjoy leisure activities within the study area and contribute economically to the local region through recreation. These sites also indicate a possible tourism market that could be benefitted by the project and increased sightseers. The arts and cultural sites and facilities in the local area are presented in Table 5.20.

Table 5.20 Arts and cultural sites and facilities in the local area, 2020

Name	Indigenous cultural sites	Theatre and/or cinema	Open air performance centre	Art gallery	Art studio	Museum	Library	Halls	Conference/ seminar/ mtg rooms
Cobb+Co Museum	x	x	x	x	x	✓	x	x	x
DownsSteam Tourist Railway & Museum	x	x	x	x	x	✓	x	x	x
Toowoomba Regional Art Gallery	x	x	x	✓	x	✓	✓	x	x
Empire Theatre	x	✓	x	x	x	x	x	✓	✓
Crows Nest Regional Art Gallery	x	x	x	x	x	x	x	x	x
Rosalie Gallery	x	x	x	x	x	x	x	x	x
Pittsworth Art Gallery & Visitor Information Centre	x	x	x	x	x	x	x	x	x
Museum of Australian Army Flying	x	x	x	x	x	x	x	x	x
Clifton Historical Museum	x	x	x	x	x	x	✓	x	x
Milne Bay Military Museum	x	x	x	x	x	x	x	x	x
Cecil Plains Library	x	x	x	x	x	x	✓	x	x

Table 5.20 Arts and cultural sites and facilities in the local area, 2020

Name	Indigenous cultural sites	Theatre and/or cinema	Open air performance centre	Art gallery	Art studio	Museum	Library	Halls	Conference/ seminar/ mtg rooms
Clifton Library	x	x	x	x	x	x	✓	x	✓
Crows Nest Library	x	x	x	x	x	x	✓	x	x
Highfields Library	x	x	x	x	x	x	✓	x	x
Toowoomba City Library	x	x	x	x	x	x	✓	x	x
Millmerran Library	x	x	x	x	x	x	✓	x	x
Oakey Library	x	x	x	x	x	x	✓	x	x
Pittsworth Library	x	x	x	x	x	x	✓	x	x
Highfields Cultural Centre	x	x	x	x	x	x	x	✓	✓
Toowoomba Civic Precinct	✓	x	✓	✓	x	x	x	✓	✓
Oakey Cultural Centre	x	✓	x	✓	x	x	x	✓	✓
Jondaryan Woolshed	x	x	x	x	x	✓	x	✓	✓
Millmerran Community and Cultural Centre	x	x	x	x	✓	x	x	✓	✓
Cecil Plains Hall	x	✓	x	x	x	x	x	✓	✓
Southbrook Hall	x	✓	x	x	x	x	x	✓	✓
Goondiwindi Regional Civic Centre Gallery	x	x	x	✓	x	x	x	x	x
Inglewood Heritage Centre	x	x	x	x	x	✓	x	x	x
Texas Heritage Centre & Tobacco Museum	x	x	x	x	x	✓	x	x	x
Customs House Museum	x	x	x	x	x	✓	x	x	x
Goondiwindi Cinema	x	x	x	x	x	x	x	x	x
Texas Rabbit Works	x	x	x	x	x	✓	x	x	x
Gumbi Gumbi Gardens	x	x	x	x	x	x	x	x	x
Gummingurru	x	x	x	x	x	x	x	x	x
Warwick Art Gallery	x	x	x	✓	x	✓	x	x	x
Warwick Historical Society Museum	x	x	x	x	x	✓	x	x	x
Stanthorpe Regional Art Gallery	x	x	x	✓	x	✓	x	x	x
Southern Downs Steam Railway	x	x	x	✓	x	✓	x	x	x
Stanthorpe Heritage Museum	x	x	x	x	x	✓	x	x	x
Allora regional Sports Museum	x	x	x	x	x	✓	x	x	x

Table 5.20 Arts and cultural sites and facilities in the local area, 2020

Name	Indigenous cultural sites	Theatre and/or cinema	Open air performance centre	Art gallery	Art studio	Museum	Library	Halls	Conference/ seminar/ mtg rooms
Geln Alpin gardens Art Gallery	x	x	x	✓	x	x	x	x	x
Allora & District Historical Society Museums	x	x	x	x	x	✓	x	x	x
Goondiwindi Library	x	x	x	x	x	x	✓	x	x
Inglewood Library	x	x	x	x	x	x	✓	x	x
Texas Cultural Centre	x	x	x	✓	x	✓	✓	x	x
Warwick Library	x	x	x	x	x	x	✓	x	x
Stanthorpe Library	x	x	x	x	x	x	✓	x	x
Allora Library	x	x	x	x	x	x	✓	x	x

Source: GRC 2020, TRC & SDRC 2020

x Recreation services

Similarly, to the abundance of arts and community cultural facilities within the study area, there are many options for leisure activities in the form of recreation services. The study area has a range of facilities for outdoor recreation including parks and reserves, walking trails, campgrounds, national parks, and a vast range of sporting facilities and clubs.

Sporting and recreational clubs in the local area include polocrosse, darts, tennis, lawn bowls, taekwondo, squash, rugby league, bowling, golf, Tai Chi, mixed martial arts, touch football, soccer, horse riding, swimming, netball, gymnastics, hockey, cricket, fishing, dance, dirt biking, bridge, sporting cars, sprints, quilting, embroidery, lapidary, pottery, music, craft, Guides, Scouts, Lions, CWA, RSL and YMCA. Various clubs and sporting locations are spread across the study area, with many recreational activities available across a variety of interests. The recreational and sporting facilities within the study area are presented in Table 5.21.

Table 5.21 Parks and sporting facilities in the study, 2020

Parks facilities		Sporting facilities	
Facility	Count	Facility	Count
Community park	316	Netball courts	6
Community reserve	48	Rec basketball courts	41
Botanical and city gardens	8	Sporting grounds (cricket/rugby/hockey)	62
Dog parks	27	Collections of tennis courts	40
Walking tracks and trails	98	Cycling	31
Campgrounds and caravan parks	35	Skate parks	4

Table 5.21 Parks and sporting facilities in the study, 2020

Parks facilities		Sporting facilities	
Facility	Count	Facility	Count
National and state parks	9	Bowling greens and clubs	23
Indigenous site trails	1	Soccer field	32
		Aquatic centres	16
		Golf club	15

Source: GRC 2020, TRC & SDRC 2020, Google.com 2020

6 Workforce and income

6.1 Employment

At the time of the 2016 Census, the rate of unemployment and youth unemployment in the study area (6.5% and 14.2%) was fairly consistent with that of the reference area (6.4% and 13.7%) and QLD (7.6% and 15.8%). Within the study area, Goondiwindi LGA had a much lower rate of unemployment (3.7%) and youth unemployment (7.3%). This may be explained by the particularly rural landscape in this region meaning most people are employed in the agricultural, forestry, and fishing industry, as well as the transient/seasonal agricultural workforce as reported by local community members (see Section 8). The low rate of youth unemployment may be a result of the low proportion of persons aged 15 – 24 in the area as young people are more likely to move to regional centres where work and education opportunities are more abundant (see Section 3.1.2).

Labour force participation in the study area (58.4%) is consistent with the reference area (58.9%), though slightly lower than QLD (61.0%).

During consultation with local service providers it was expressed that unemployment in the Warwick area is currently high, due to the closing down of various local large-scale employers, such as the local newspapers which have recently ceased production. This is likely to increase with the upcoming closure of the Woolworths Distribution Centre for south east QLD. It was also expressed that local people felt that there was a lack of skilled workforce in the region, and as such a lack of capability. However, areas such as Goondiwindi and Toowoomba were seen to have a large supply of skilled and competent workforce and suppliers available (pers comm., 2020). Unemployment and labour force participation rates in 2016 are presented in Table 6.1.

Table 6.1 Unemployment and labour force participation rates, 2016

	Unemployment rate	Youth unemployment rate	Labour force participation rate (15 years and older)
Goondiwindi LGA	3.7%	7.3%	60.4%
Southern Downs LGA	6.3%	12.3%	52.8%
Toowoomba LGA	6.7%	14.9%	59.6%
Study area	6.5%	14.2%	58.4%
Darling Downs Maranoa SA4	5.5%	11.6%	57.8%
Toowoomba SA4	7.0%	15.1%	59.9%
Reference area	6.4%	13.7%	58.9%
QLD	7.6%	15.8%	61.0%

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

The COVID-19 pandemic has had drastic effects on employment nationally and globally (Gilfillan 2020). Despite this, the unemployment rate in the study area has decreased since 2016 in Southern Downs (from 6.3% to 2.1%) and Toowoomba (6.7% to 4.6%) LGAs (QGSO 2020). The same trend has occurred in Darling Downs – Maranoa SA4 (down from 5.5% to 4.0%) and QLD (7.6% to 6.1%) (ABS 2020; QGSO 2020). This may be reflective of the current job keeper status, in which persons receiving such payments are classified as employed regardless of time worked.

Youth unemployment in Toowoomba SA4 has significantly increased since 2016 with 27.2% of youth unemployed as of September 2020. This may be due to the parameters surrounding job keeper payments, such as the requirement of being employed for 12 months prior to the pandemic. This high level of youth unemployment may also be due to the nature of part-time work often undertaken by younger individuals, such as in hospitality and service roles, which have been the most impacted by COVID-19 restrictions. Unemployment and labour force participation rates in 2020 are presented in Table 6.2.

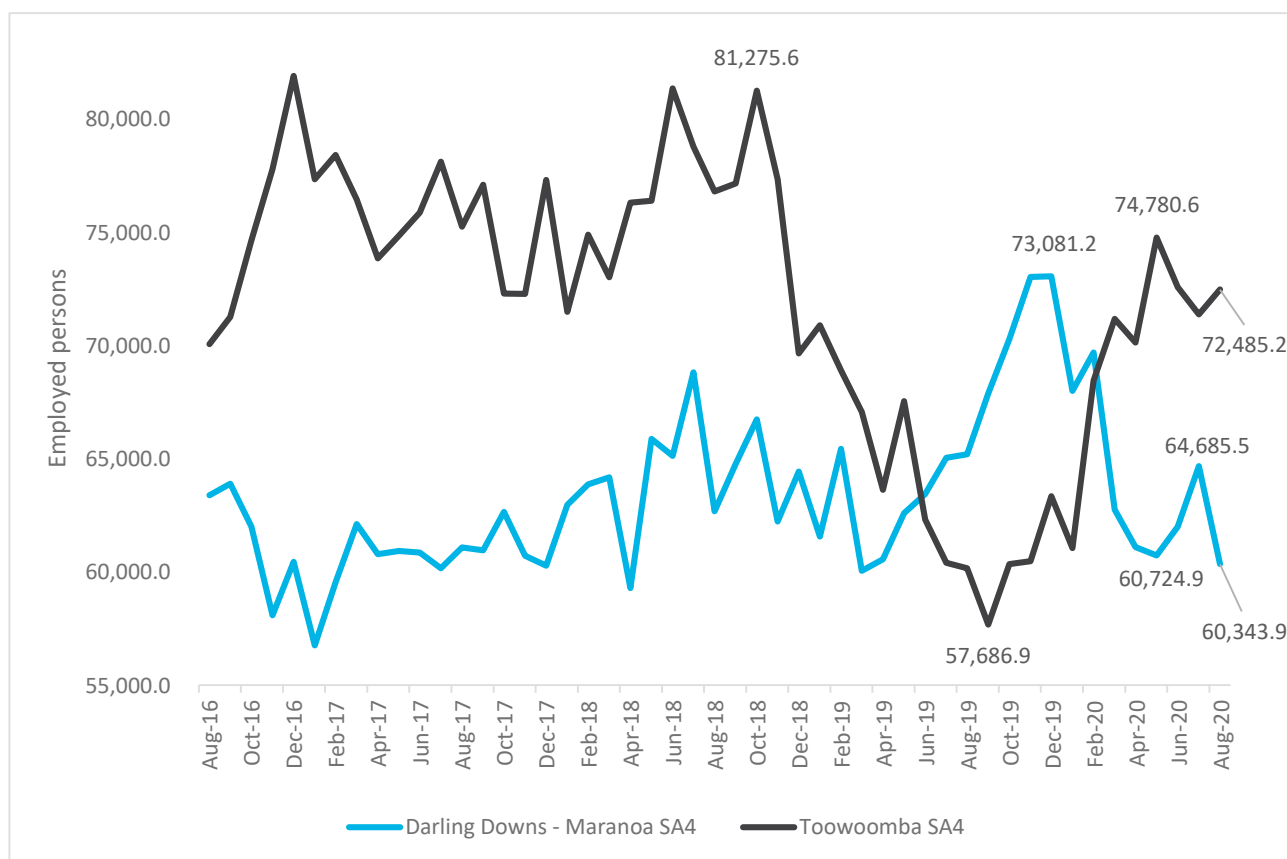
Table 6.2 Unemployment and labour force participation rates, August 2020

	Unemployment rate	Youth unemployment rate ²	Labour force participation rate (15 years and older) ³
Goondiwindi LGA	4.2% ¹	--	--
Southern Downs LGA	2.1% ¹	--	--
Toowoomba LGA	4.6% ¹	--	--
Study area	3.9%¹	--	--
Darling Downs Maranoa SA4	4.0% ³	15.1%	67.6%
Toowoomba SA4	7.2% ³	27.2%	56.7%
Reference area	5.0%	--	--
QLD	6.1%	15.8%	63.6%

Source: QGSO 2020, Labour and employment; QGSO 2020, QLD Regional profiles; ABS 2020, 6291.0.55.001.

1. As of March 2020.
Small Area Labour Force data have been generated from a Structure Preserving Estimation (SPREE) methodology using ABS and Centrelink data. As such these estimates can exhibit considerable variability and care should be taken in their interpretation.
2. ABS 6291.0.55.001 September 2020
“Due to the high standard errors associated with regional labour force survey data, the ABS and QGSO recommend using 12-month averages to reduce the volatility of the underlying original data. This volatility means it can be difficult to detect real world phenomena, such as those caused by the social distancing measures introduced to combat COVID-19, in the data. As a result, it is not recommended that regional labour force data be used to assess the impact of COVID-19” (QGSO 2020).
3. As of August 2020.

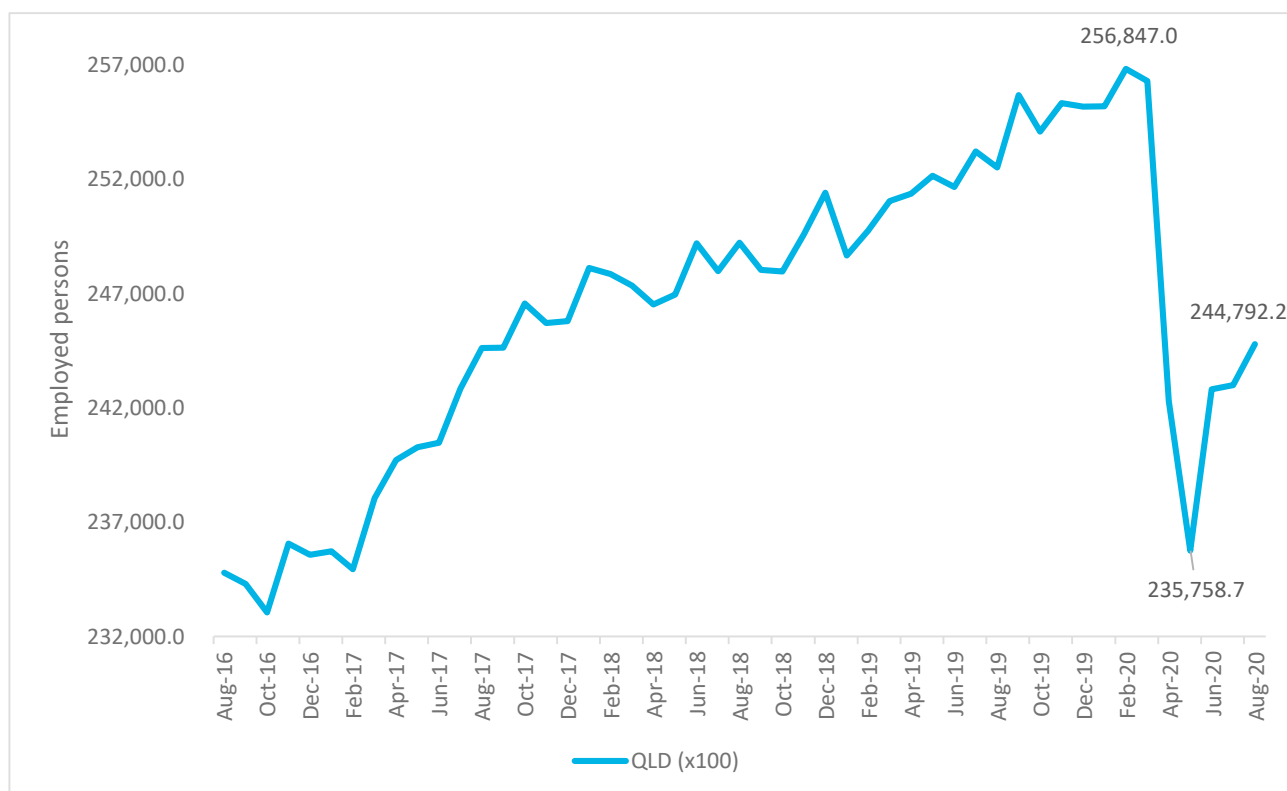
The number of employed persons in Darling Downs – Maranoa SA4 peaked at 81,275.6 persons in October 2018 before sharply decreasing to its lowest point at 57,686.9 employed persons in September 2019 (QGSO 2020). This may be due to the major drought experienced over this period throughout the region, in which many industries that relied on agricultural work were severely impacted. When the first COVID-19 cases were initially discovered in December 2019, employment in the area was rising, and continued to rise throughout the COVID period. This may be in part due to the fruit picking season that attracts a large number of workers to areas such as Stanthorpe to work on farms (pers. comm. 2020). During the same time period, Toowoomba SA4 experienced rising employment from 60,052 persons in March 2019 to 73,081 in December 2019. The area experienced a steady decrease of around 13,000 employed persons to May 2020 followed by a temporary increase in July 2020, decreasing again to 60,344 in August 2020 (QGSO 2020). Employed persons in the reference area are shown in Figure 6.1.



Source: QGSO 2020, Labour and employment

Figure 6.1 Employed persons in the reference area, August 2016 – August 2020

The data for employed persons in QLD shows a decrease of roughly 5,500 employed persons from at the onset of COVID-19 in December 2019 to February 2020, followed by a significant decrease in employment of roughly 2,300,000 people from February to May/June 2020 when the tightest restrictions to stop the spread of the virus were in place. Employment is increasing again now that social distancing measures and restrictions have lessened with positive trends looking to continue. The notable difference in trends relating to unemployment and COVID-19 between QLD and the study area may be reflective of the rural setting of LGAs within the study area. These areas have likely been less affected by the COVID-19 restrictions in comparison to larger cities such as Brisbane and the Gold Coast that heavily rely on industries such as hospitality, service, and international tourism (Gilfillan 2020). Furthermore, none of the local towns within the study area have experienced outbreaks of localised cases, with Toowoomba LGA having a total of between 15 – 41 cases, Southern Downs between 1 – 14, and no reported cases in Goondiwindi (Department of Health 2020). Employed persons in QLD from August 2016 to August 2020 are presented in Figure 6.2.

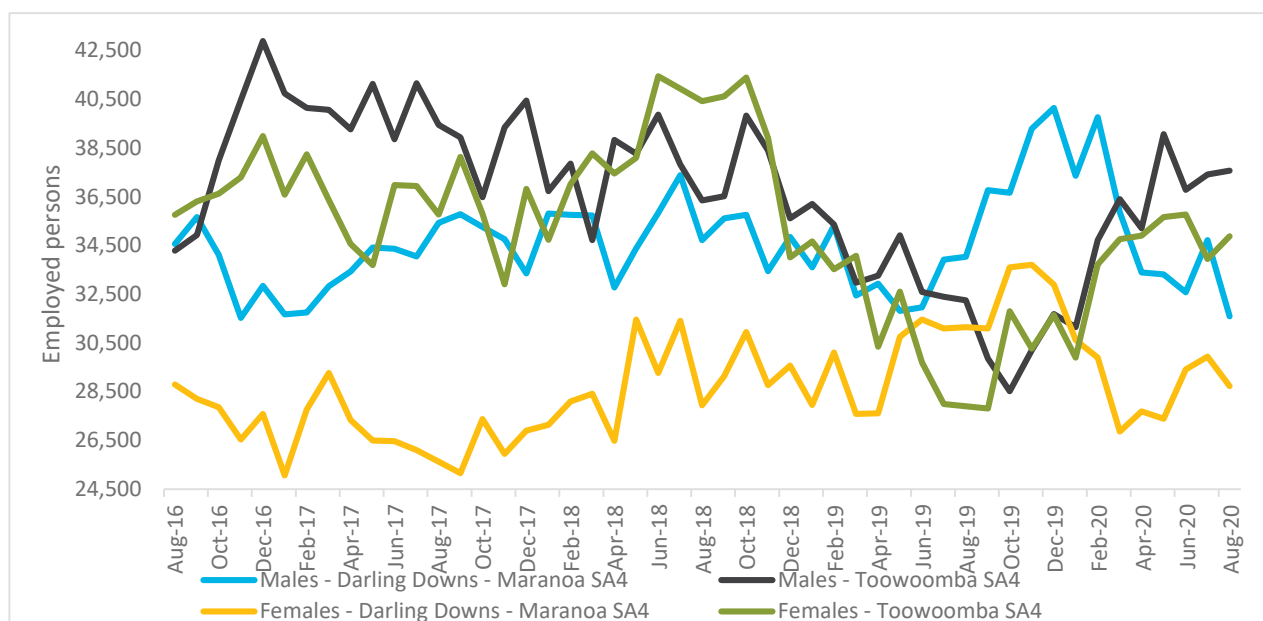


Source: QGSO 2020, Labour and employment

Figure 6.2 Employed persons in QLD, August 2016 – August 2020

Employment of males and females in Toowoomba SA4 has been relatively equal since 2016. In 2020, males make up the majority of the workforce, with an increase in employment for both men and women from August 2019 – August 2020, following a decreasing trend from late 2018 (QGSO 2020).

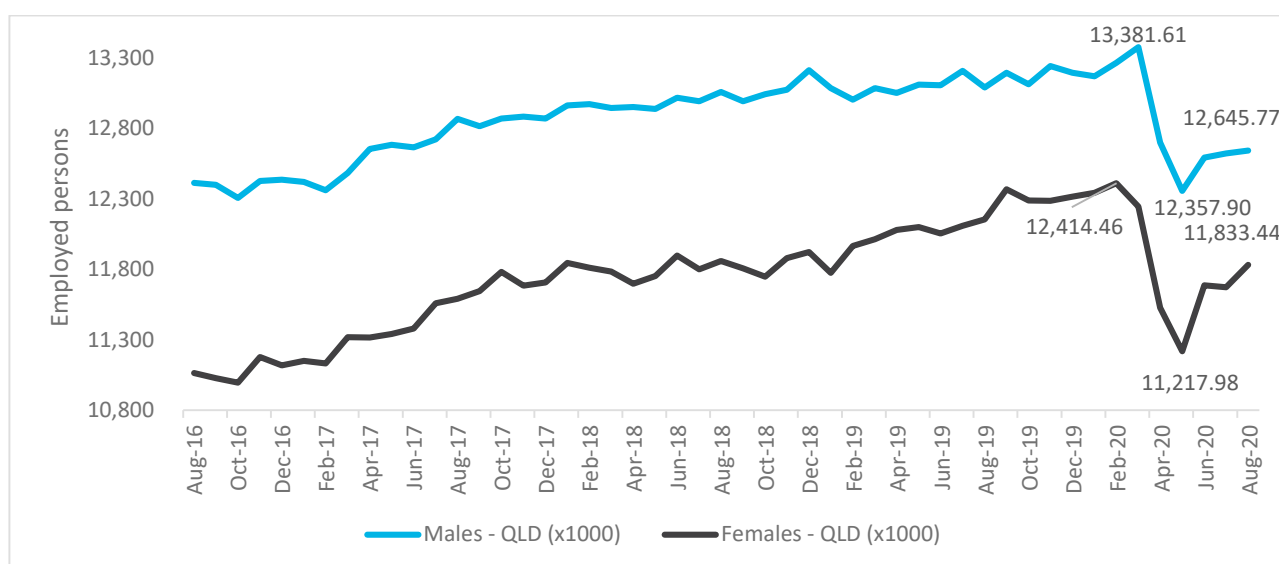
Employment in Darling Downs – Maranoa SA4 is higher for males than females across the same time period, possibly due to a higher number of persons employed in traditionally male dominated industries such as agriculture, fishing, and forestry (see Section 8). The area experienced a decrease in employment for both males and females in late 2019/early 2020 and shows a decreasing trend from August 2020, likely reflective of the state-wide effects of COVID-19 restrictions (see Figure 6.2). Employed males and females in the reference area are presented in Figure 6.3.



Source: QGSO 2020, Labour and employment

Figure 6.3 Employed males and females in reference area, August 2016 – August 2020

Employment in QLD is much higher for males than females, with pre-COVID employed female numbers (1,241,446) only just reaching the number of males employed during the social distancing restrictions related to COVID (1,235,790) (QGSO 2020). However, females appear to be regaining employment at a higher rate than males as the labour market returns to normal post-COVID. From the peak of COVID restrictions in May/June 2020 to August 2020 employment has increased by 61,546 females, compared to only 28,787 males in the same period. The number of employed males and females in the QLD from August 2016 to August 2020 is presented in Figure 6.4.

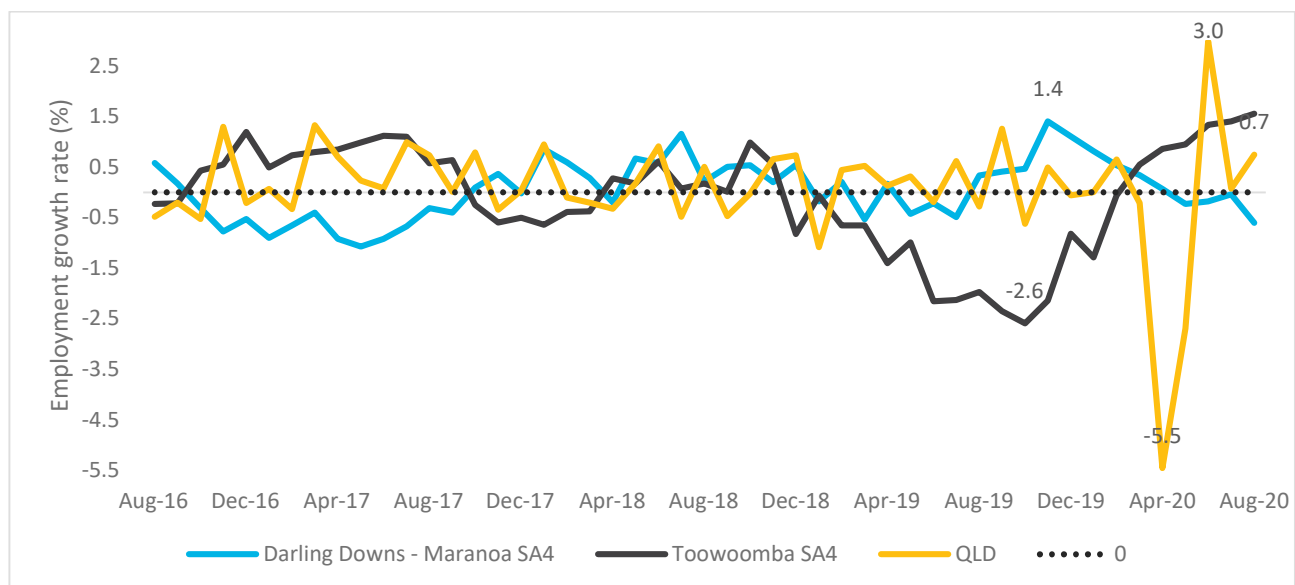


Source: QGSO 2020, Labour and employment

Figure 6.4 Employed males and females in QLD, August 2016 – August 2020

According to the QLD Government Statistician's Office (QGSO) (2020) employment in QLD in August 2020 rose by 0.7%, with an increase of 17,900 part-time employees and 200 full-time employees in the month. Employment figures are also influenced by persons not working but receiving Job Keeper payments from their pre-COVID employers. As such, the clearest indicator of the employment impacts of COVID-19 are hours worked which as of August 2020 were down 4.3% since March 2020, though up 5.9% from May 2020 (QGSO 2020). Trends in employment growth between the reference area and QLD have been significantly different during the COVID 19 pandemic, with QLD's employment rate decreasing to -5.5% in April 2020 whilst Darling Downs – Maranoa's employment rate was steadily increasing, and Toowoomba's employment rate was steadily increasing, and Toowoomba was only slightly decreasing.

Growth in employment in the reference area has been fairly constant at between -1.5% to 1.5% from August 2016 to late 2018 when the region experienced severe drought. Toowoomba SA4, as a regional centre not reliant on agriculture, continued to experience minimal change in employment growth to late 2019. From December 2018 Darling Downs – Maranoa SA4 experienced a steady decreasing rate of employment growth up until October 2019, likely due in part to localised droughts, from which growth has steadily increased appearing to continue in the same direction beyond August 2020. Toowoomba SA4 experienced decreasing employment from November 2019 to August 2020. Employment growth in the reference area is presented in Figure 6.5.



Source: QGSO 2020, Labour and employment

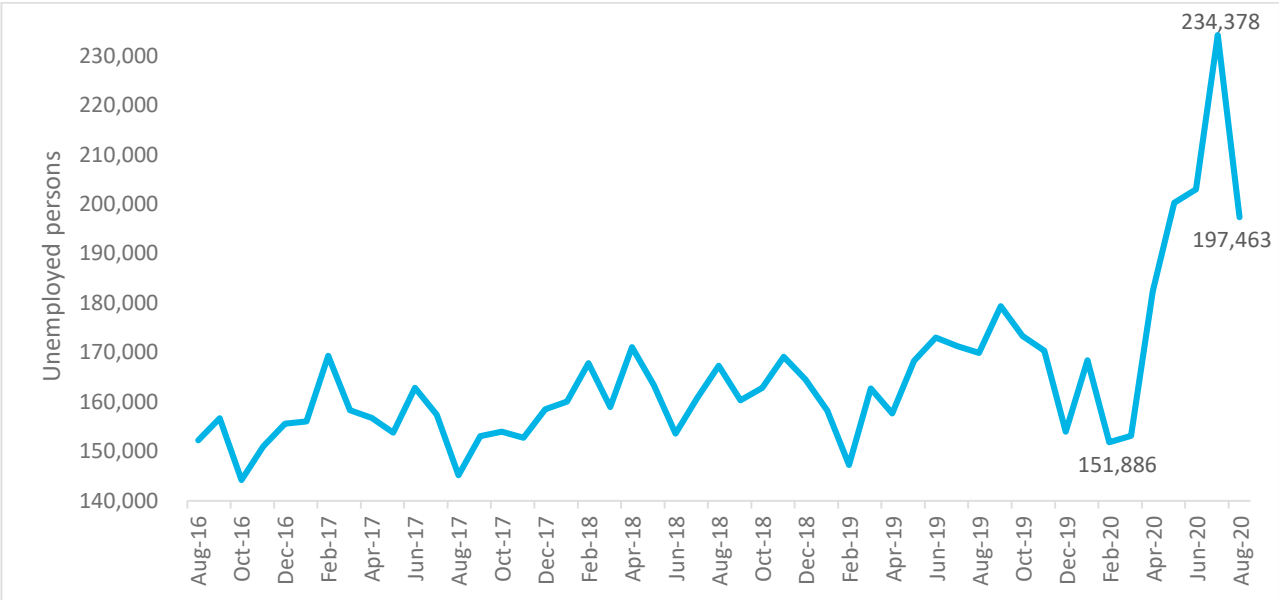
Figure 6.5 Employment growth in the reference area, August 2016 – August 2020

From February 2020 to July 2020, during COVID-19 social distancing measures and travel restrictions, QLD experienced a significant increase in unemployed persons, with 234,378 unemployed in July 2020 (QGSO 2020). This number decreased to 197,463 unemployed by August 2020 with similar trends experienced by both males and females in QLD.

Estimates of numbers of unemployed persons for the reference area are too variable to be considered reliable representations. However there is data for the rate of unemployment which is considered more reliable (ABS 2020; QGSO 2020). The rate of unemployment in the Toowoomba SA4 shows a similar trend to that of QLD with rising unemployment from late 2019 to July 2020. However, QLD experienced a decrease from July to August 2020 while Toowoomba SA4’s unemployment shows a continuing rising trend. Darling Downs – Maranoa SA4 has experienced a different trend with a decreasing unemployment rate from March 2019 to May 2020, though a similar trend is seen from early 2020 to August 2020. This low level of unemployment throughout the Darling Downs Maranoa region may also be due to the rural and remote nature of these communities and suggest that COVID restrictions had a lesser impact on these populations, similarly to that within the study area. Unemployment trends in the study area are presented in

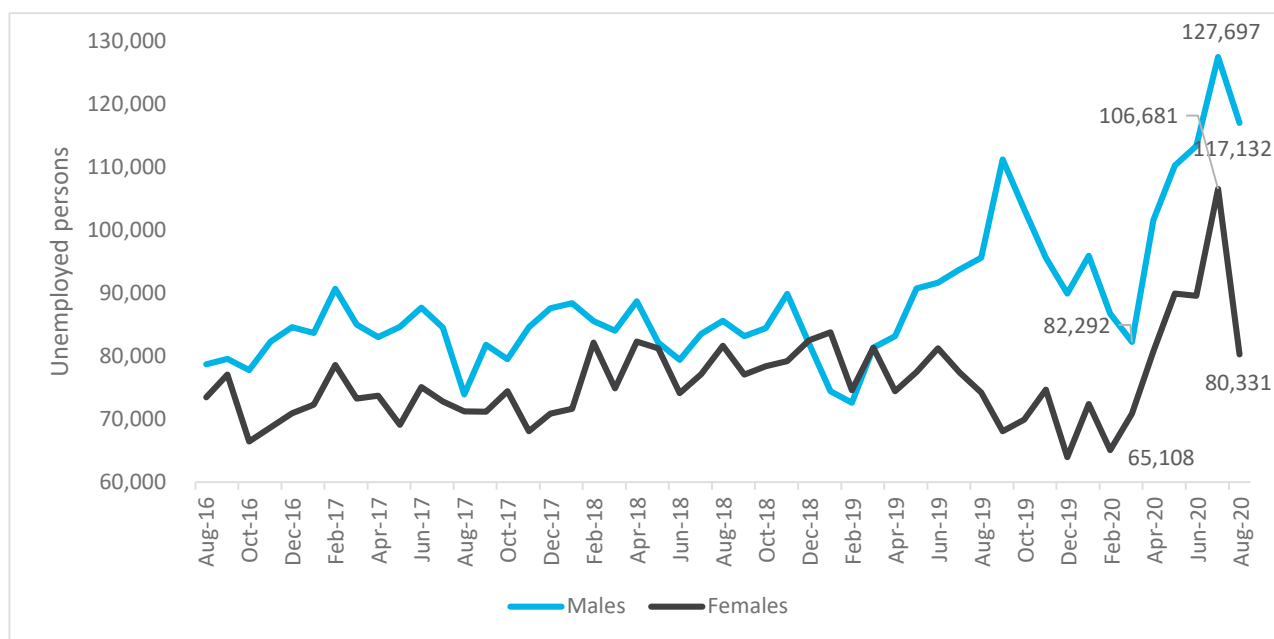
Figure 6.6, Figure 6.7, and

Figure 6.8.



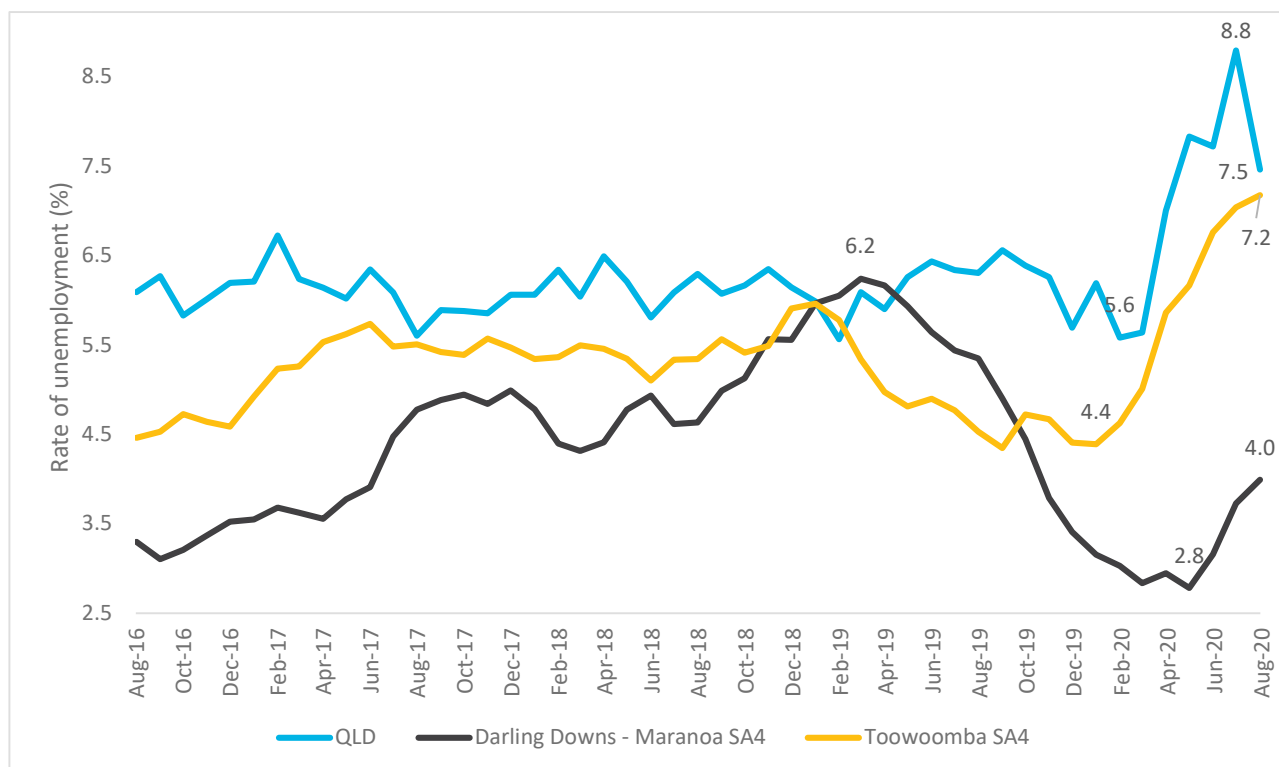
Source: QGSO 2020, Labour and employment

Figure 6.6 **Unemployed persons in QLD, August 2016 – August 2020**



Source: QGSO 2020, Labour and employment

Figure 6.7 Unemployed males and females in QLD, August 2016 – August 2020



Note: The rate of unemployment for the reference area from August 2016 to August 2020 is shown in Figure XX.

Source: QGSO 2020, Labour and employment

Figure 6.8 Rate of unemployment, August 2016 – August 2020

6.2 Occupations

In the study area the top three occupations are professionals (17.3%), technicians and trades workers (14.7%), and managers (13.4%) (ABS 2016a). Most professional jobs require a bachelor-level degree qualification. Approximately two thirds of professionals are employed within health care and social assistance, education and training, and professional, scientific, and technical services (DJSB 2020). The higher proportion of professionals in the study area is likely due to Toowoomba LGA being the regional hub for the area, with health care and social assistance as the largest industry of employment (see Section 8). Although most managers hold post-school qualifications in the form of a bachelor degree or higher and/or Certificate III or higher, this is less common amongst farmers and farm managers and retail and service managers (DJSB 2020). The proportion of managers in the study area reflects the major industries of employment in the area, which includes retail and agricultural industries (see Section 8), as well as the achievement of qualifications in the local area (see Section 5.2.2). A higher proportion of trades-related occupations could be reflective of educational outcomes. As discussed in Section 5.2.2, most people with a non-school qualification throughout the area of social influence have a certificate qualification, which can be indicative of less education opportunities and education resources available throughout the area (Regional Education Expert Advisory Group 2019). The occupations within the area of social influence are presented in Table 6.3, top three occupations in each area are highlighted.

Table 6.3 Occupations, 2016

Occupation	Goondiwindi LGA	Southern Downs LGA	Toowoomba LGA	Study area	Darling Downs Maranoa SA4	Toowoomba SA4	Reference area	QLD
Managers	20.8%	15.9%	12.4%	13.4%	19.8%	10.8%	14.9%	12.1%
Professionals	11.7%	12.3%	18.6%	17.3%	11.5%	19.6%	15.9%	19.8%
Technicians and trades workers	12.5%	13.2%	15.1%	14.7%	14.2%	15.1%	14.7%	14.3%
Community and personal service workers	9.3%	10.6%	11.1%	10.9%	9.0%	11.4%	10.3%	11.3%
Clerical and administrative workers	11.1%	10.7%	13.3%	12.8%	10.9%	13.7%	12.4%	13.6%
Sales workers	8.0%	9.3%	9.0%	9.0%	7.8%	9.5%	8.7%	9.7%
Machinery operators and drivers	10.0%	8.4%	6.9%	7.3%	9.4%	6.5%	7.8%	6.9%
Labourers	15.2%	17.8%	12.2%	13.2%	15.8%	12.1%	13.8%	10.5%

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

6.3 Income

Median individual weekly incomes in the study area were similar to the QLD medians, however across each LGA household weekly median incomes were slightly lower than the state, ranging from a \$133 difference in Toowoomba LGA, to a \$190 difference in Goondiwindi and Southern Downs LGAs (ABS 2016a). This may be due to the aging population across the study area, in which households are usually smaller and individuals are more likely to be unemployed or retired. This difference in income may also be reflective of the higher rates of unemployment across the study area, as well as the lack of local high paying positions. Median incomes in the reference areas are similar to those of the study area, however, the Toowoomba SA4 had a higher median weekly household income than all LGAs within the study area. This may be in part due to the trend of higher paying jobs being concentrated within cities and urban centres, as well as increased general employment opportunities. Hence why the Darling Downs Maranoa SA4 demonstrates the lowest individual median weekly income at \$582, which is significantly less than all other locations. Median incomes in the area of social influence are presented in Table 6.4.

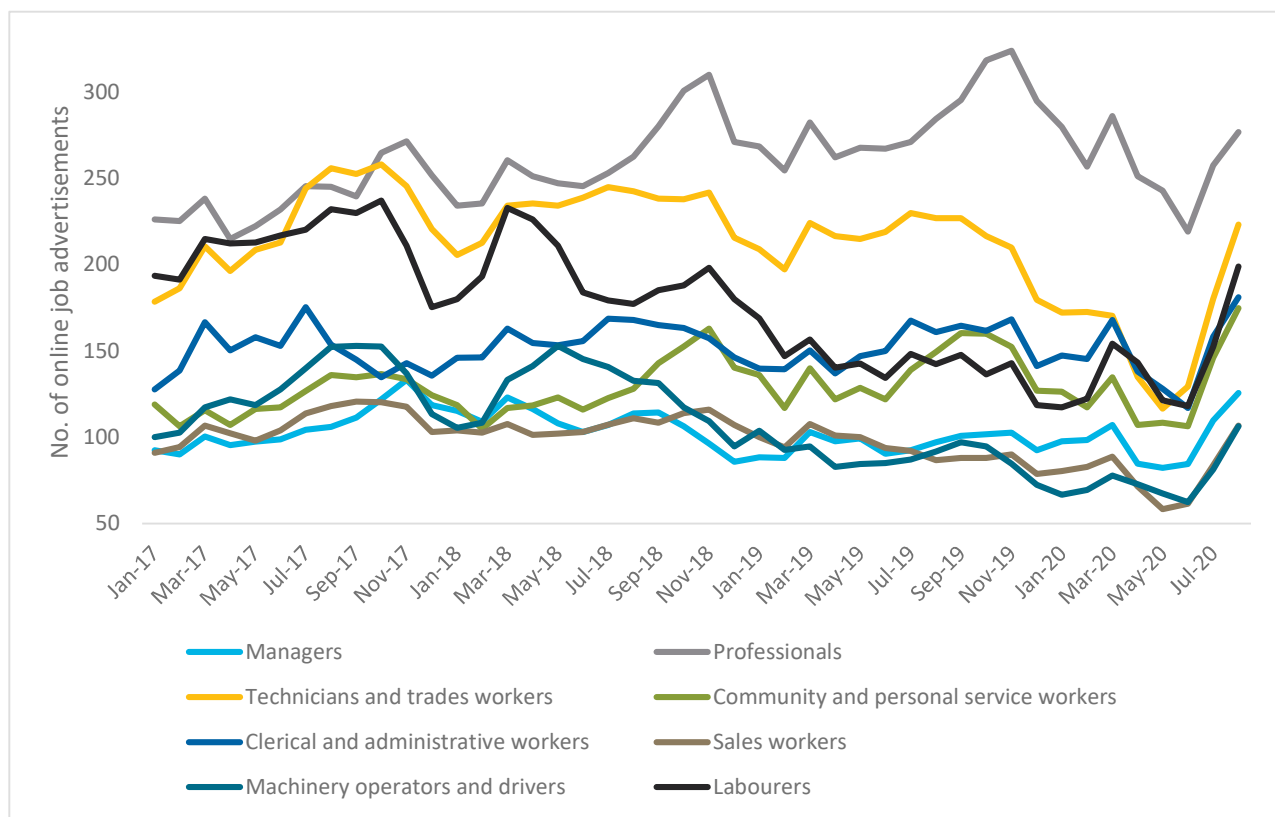
Table 6.4 Median income, 2016

	Goondiwindi LGA	Southern Downs LGA	Toowoomba LGA	Darling Downs Maranoa SA4	Toowoomba SA4	QLD
Individual (median income \$ weekly)	653	653	642	582	649	660
Household (median income \$ weekly)	1,212	1,212	1,269	1,129	1,298	1,402

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

6.4 Job vacancies

The Internet Vacancy Index (IVI) available on the Australian government Labour Market Information Portal (2020) provides data on the job advertisements posted online to give an indication of availability in the labour market. The data for Toowoomba and South West QLD shows a decline in job advertisements from December 2019 with a slight increase in January 2020, followed by another steady decrease from February to June 2020. Job advertisements began to increase again in June – July 2020. These trends are evident of the restrictions and case numbers surrounding the COVID-19 pandemic during this period. It is likely that during this time many companies were downsizing their workforce and unemployment trends are likely to be higher than at the time of the 2016 Census. The recent increase in job advertisements is indicative of the State working towards economic recovery and companies rebuilding their workforces. The job advertisements online from January 2017 to August 2020 are presented in Figure 6.9.



Source: Australian Government 2020, Labour Market Information Portal, Vacancy Report.

Figure 6.9 Online job advertisement for Toowoomba and South West QLD, 2017 – 2020

7 Housing and accommodation

7.1 Housing type and structure

The vast majority of dwellings in the study area are separate houses (84.7%), higher than QLD (76.6%), but similar to the reference area (86.1%) (ABS 2016a). The proportion of flats and apartments was significantly lower in the study and reference areas (4.3% and 3.9%) than QLD (11.3%). This is representative of the nature of small rural towns as places with mostly low density housing and large properties. The proportion of semi-detached, row or terrace houses, and townhouses was only slightly less in the study area (9.6%) than that of QLD (10.6%) which is influenced mainly by the 11.1% in Toowoomba LGA compared to a very low proportion in Goondiwindi LGA (2.1%) and relatively low proportion in Southern Downs LGA (5.3%). This is due to Toowoomba City being the business and service centre for the region and having a higher demand for higher density housing, whilst Goondiwindi and Stanthorpe/Warwick as the centres for the other LGAs are much more rural.

There is some variation throughout the study area in the proportion of occupied dwellings, however the difference is not significant, with all LGAs having between 86 - 90% occupied dwellings (ABS 2016a). However, consultation with local real estate agents has determined that this occupancy rate has been severely impacted by COVID-19, with many people choosing to move to more rural locations such as those within the study area. This has led to a significant uptake in local accommodation rentals and sales, with very small temporary accommodation occupancy rates available. Multiple real estate agents expressed that finding rental accommodation in local towns would be difficult given the current occupancy trends, however, believed that this is an anomaly that is directly related to COVID-19 and that the market would return to its previous state in the coming months and years (pers. comm., 2020). Accommodation within the local area was also said to be highly fluctuating depending on the season, time of year, and availability of local employment.

This indicates a very limited capacity for population growth within the study area, though if these high occupancy rates do return to their previous numbers, there should be sufficient local accommodation for population growth as the availability of unoccupied housing in the study area (10.7%) is very similar to that in QLD (10.6%). Housing type and structure is presented in Table 7.1.

Table 7.1 Housing type and structure, 2016

	Goondiwindi LGA	Southern Downs LGA	Toowoomba LGA	Study Area	Darling Downs Maranoa SA4	Toowoomba SA4	Reference Area	QLD
Separate house	88.5%	90.2%	83.2%	84.7%	91.8%	81.4%	86.1%	76.6%
Semi-detached, row or terrace house, townhouse	2.1%	5.3%	11.1%	9.6%	3.3%	12.3%	8.2%	10.6%
Flat or apartment	6.4%	2.5%	4.5%	4.3%	2.7%	4.9%	3.9%	11.3%
Other dwelling	1.7%	1.4%	0.6%	0.8%	1.3%	0.8%	1.0%	1.0%
Total private dwellings	4,419	15,401	64,557	84,377	15,401	59,339	112,796	1,852,407
Total occupied dwellings	85.8%	86.7%	90.2%	89.3%	84.4%	90.7%	87.7%	89.4%

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

Families comprise most households in the study area (70.3%), reference area (70.6%), and across QLD (71.9%), followed by lone person households, and a small proportion of group households. This is likely attributable to the high number of youths under 18 in the study area (see Section 3.1.2). Lone person households were more common across the study area (26.5%) and reference area (26.1%) than in QLD (23.4%). This may be due to the aging population in the area, with older persons living by themselves following the death of a partner, or the smaller number of group households usually characterised by young adults or students 'share housing' or 'flatting' (Clark et al. 2017). Household composition in the study area is presented in Table 7.2.

Table 7.2 Household composition, 2016

Household type	Goondiwindi LGA	Southern Downs LGA	Toowoomba LGA	Study Area	Darling Downs Maranoa SA4	Toowoomba SA4	Reference Area	QLD
Family households	70.0%	69.5%	70.5%	70.3%	70.8%	70.8%	70.6%	71.9%
Group households	2.7%	2.4%	3.4%	3.2%	2.7%	2.7%	3.3%	4.7%
Lone person households	27.1%	28.1%	26.1%	26.5%	26.4%	26.4%	26.1%	23.4%

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

7.2 Tenure

Most dwellings in the study area are owned outright (30.1%) and a slightly lower proportion are rented (27.8%). This trend is the same for the reference area. In QLD, a higher proportion of dwellings are rented (30.6%). The higher instance of home ownership compared to renting in the study and reference areas could indicate higher levels of socio-economic advantage, however, it is likely in this instance it is more representative of a lack of rental availability, as well as lower property prices in the area (see Section 7). Furthermore, given the majority of housing in the study area is 'separate houses', it is more common for individuals to own these homes in comparison to apartments and flats that are more often rented (as seen in Table 7.3). This could also represent the smaller population of young people (Section 3.1.2) who often make up the majority of renters. A lesser demand for rental accommodation may lead to higher availability in the area, however, it may be the case that there is an overall lack in rental properties. Tenure within the study area is presented in Table 7.3.

Table 7.3 Tenure (based on total private dwellings), 2016

Tenure	Goondiwindi LGA	Southern Downs LGA	Toowoomba LGA	Study area	Darling Downs Maranoa SA4	Toowoomba SA4	Reference area	QLD
Owned outright	29.3%	34.1%	29.1%	30.1%	30.8%	28.1%	29.4%	25.4%
Owned with a mortgage	22.5%	24.7%	29.2%	28.1%	23.9%	30.0%	27.1%	30.1%
Rented	30.3%	24.5%	28.4%	27.8%	26.2%	29.2%	27.8%	30.6%
Other tenure	1.0%	0.8%	1.0%	0.9%	0.9%	1.0%	0.9%	0.8%

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

i Mortgage repayment and rent

Rent and mortgage repayments in the study area were significantly lower than that of QLD. In the study area mortgage and rent repayments are the highest in Toowoomba LGA (\$1,517/month and \$280/week, respectively). The low mortgage repayment prices in the study area are likely attributable to the rural location of housing in the LGAs, as well as the lower median individual and household weekly incomes area (see Section 6.3). Housing affordability is likely to decrease in relation to proximity to larger cities and urban centres due to high demand and low market availability, thus Toowoomba LGA has the highest rent and mortgage repayments in the study area, being the area's regional centre. Housing affordability is also often determined by the average household income within an area, which is also higher in Toowoomba LGA than elsewhere in the study area (see Section 6.3). Mortgage and rent repayments in the study area are presented in Table 7.4.

Table 7.4 Mortgage repayment and rent, 2016

	Goondiwin di LGA	Southern Downs LGA	Toowoomba LGA	Darling Downs Maranoa SA4	Toowoomba SA4	QLD
Mortgage repayments (median mortgage repayments \$ monthly)	1,300	1,300	1,517	1,300	1,560	1,733
Rent (median rent \$ weekly)	200	230	280	215	285	330

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

Housing stress is considered to occur when households in the lower 40% of income distribution spend more than 30% of their income in housing costs (rents or mortgage repayments) (AHURI 2019). This can mean that local people not employed in high income jobs may be unable to afford local rents which can be pushed up by higher salaries.

In the study area the proportion of households where mortgage payments are greater than or equal to 30% of household income (5.0%) is lower than in QLD (6.4%). Similarly, rent repayments that were greater than or equal to 30% of household income only made up 10.0% of households in the study area, lower than QLD with 12.8%. This indicates that housing is mostly priced accordingly to the means of the population within the study area, as such, there is a high degree of housing affordability. This also reflects the higher proportion of home ownership in the study area, as discussed in Section 7. Housing affordability in the area of social influence is demonstrated in Table 7.5.

Table 7.5 Housing affordability, 2016

	Households where rent payments greater than/equal 30% household income (%)	Households where mortgage payments greater than/equal 30% household income (%)
Goondiwindi LGA	8.3%	4.5%
Southern Downs LGA	10.7%	5.6%
Toowoomba LGA	11.1%	5.1%
Study area	10.0%	5.0%
Darling Downs Maranoa SA4	8.5%	5.1%
Toowoomba SA4	11.8%	5.1%
Reference area	10.15%	5.1%
QLD	12.8%	6.4%

Source: ABS 2016, Quickstats

7.3 Housing and rental market trends

7.3.1 Mortgage repayment and rent trends

In the study area, median mortgage payments were stable in the study area from 2011 – 2016, compared to QLD which decreased by 1.3%. However, from 2006 – 2016, median mortgage payments increased by 20.0% in Goondiwindi LGA, 26.8% in Southern Downs LGA, and 40.1% in Toowoomba LGA, greater increases than QLD, with only 3.3%. Rent repayments in the study area also had a significantly higher growth from 2006 – 2016, with Goondiwindi LGA increasing least at 6.7% growth and Southern Downs LGA increasing most at 44.4% growth, compared to QLD at only 2.0% growth. This is likely attributable to the significant population growth in the study area from 2006 – 2016, as discussed in Section 3.1. Median mortgage payment and rent payment data was not available for the identified communities in the reference area from 2006 – 2016. Mortgage and rent repayment growth rates in the area of social influence are presented in Table 7.6.

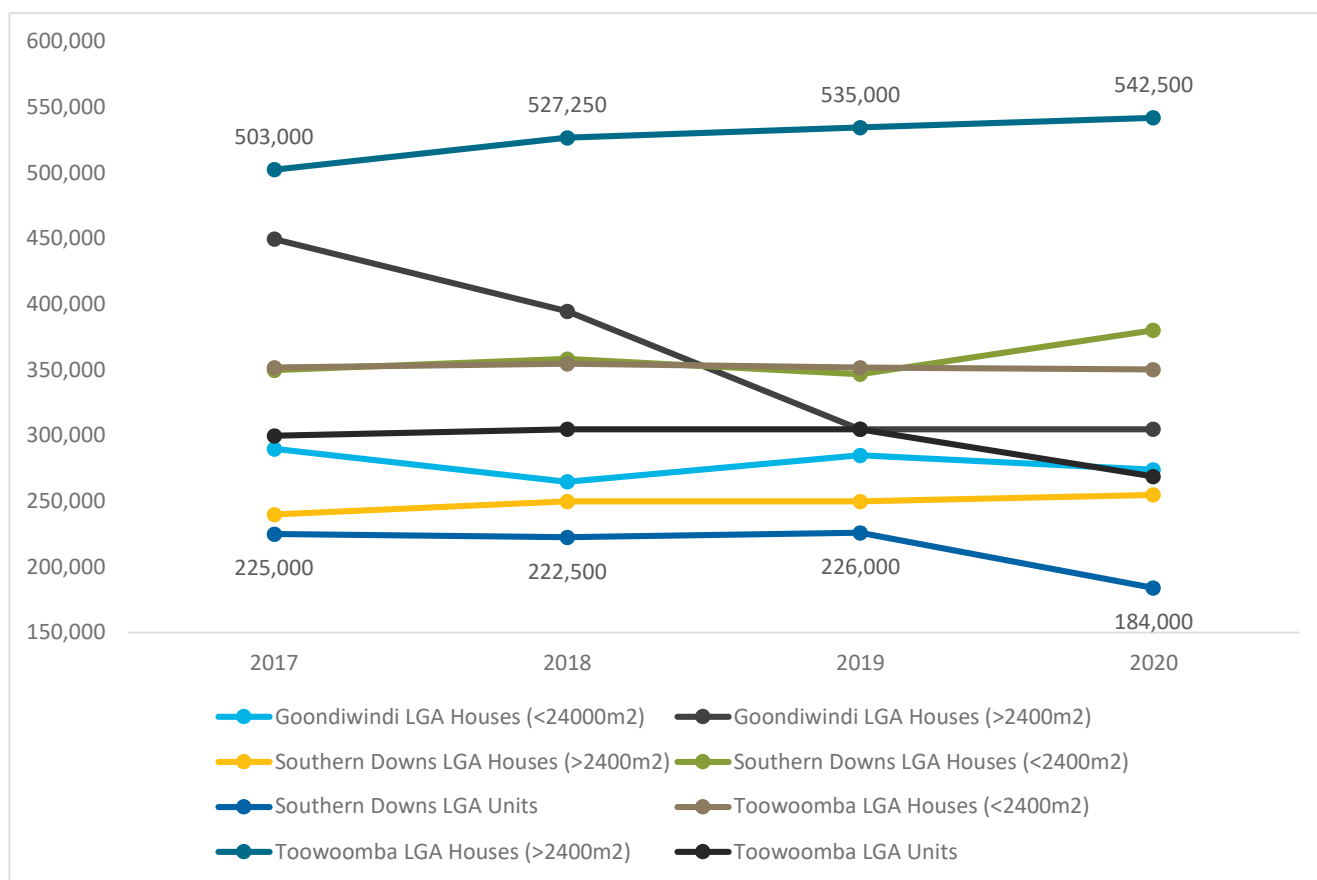
Table 7.6 Mortgage repayment and rent growth rates, 2006 – 2016

	Mortgage repayments		Rent repayments	
	2006 – 2016	2011 – 2016	2006 – 2016	2011 – 2016
Goondiwindi LGA	20.0%	0.0%	6.7%	25.0%
Southern Downs LGA	36.8%	0.0%	44.4%	17.9%
Toowoomba LGA	40.1%	0.0%	31.4%	21.7%
Darling Downs Maranoa SA4	--	0.0%	--	19.4%
Toowoomba SA4	--	1.6%	--	18.8%
QLD	3.3%	-1.3%	6.5%	2.0%

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

i Median property price trends

Data for median property price trends was only available from 2017 – 2020. Despite some fluctuation, prices for houses within the study area have generally been increasing from 2011 – 2016 at a similar rate, and units have generally been decreasing. Houses greater than 2,400 m² in Toowoomba LGA were consistently the highest priced properties in the study area, whilst Southern Downs LGA units were lowest priced. Units in Goondiwindi LGA saw the highest degree of fluctuation, with prices falling significantly from 2017 – 2019. The most expensive property price in the study area across the time period is \$542,500 for houses more than 2,400 m² in Toowoomba LGA in 2020, and least expensive is \$184,000 for units in Southern Downs LGA in 2020. Property price trends in the local area and regional area are demonstrated in Figure 7.1.



Source: realestate.com.au/neighbourhoods.

Notes: Data for housing price trends was not available for Goondiwindi LGA houses (>2400m²). The data was assumed to be the same as the previous year.

Figure 7.1 Median property price trends for houses, 2017 – 2020

On 29 September 2020, in selected key towns throughout the study area there were 1,088 properties for sale and 135 properties for rent (REA Group 2020). The vast majority of these available properties were located in the Southern Downs LGA, with Toowoomba LGA also having many properties available. Whilst some of the identified towns do not have any properties available for rent, the close proximity to other accommodation options, and the relatively low cost of purchasing a house suggests that this will not cause a problem. This indicates that there is some capacity for a population increase to be accommodated within the study area, but minimal capacity for an influx of renters. Properties for sale in selected suburbs within the local area of social influence (by LGA) are presented in Table 7.7.

Table 7.7 Properties for sale and rent, 29 September 2020

Suburb	Number of properties for sale	Number of properties for rent
Goondiwindi LGA		
Karara	7	0
Inglewood	47	4
Texas	23	0
Yelarbon	0	12
Goondiwindi	121	22
Southern Downs LGA		
Warwick	372	31
Allora	39	0
Yangan	10	0
Killarney	32	0
Maryvale	14	0
Dalveen	12	0
Thulimbah	6	0
Applethorpe	7	0
Stanthorpe	176	9
Toowoomba LGA		
Toowoomba	174	55
Clifton	54	1
Brookstead	0	1

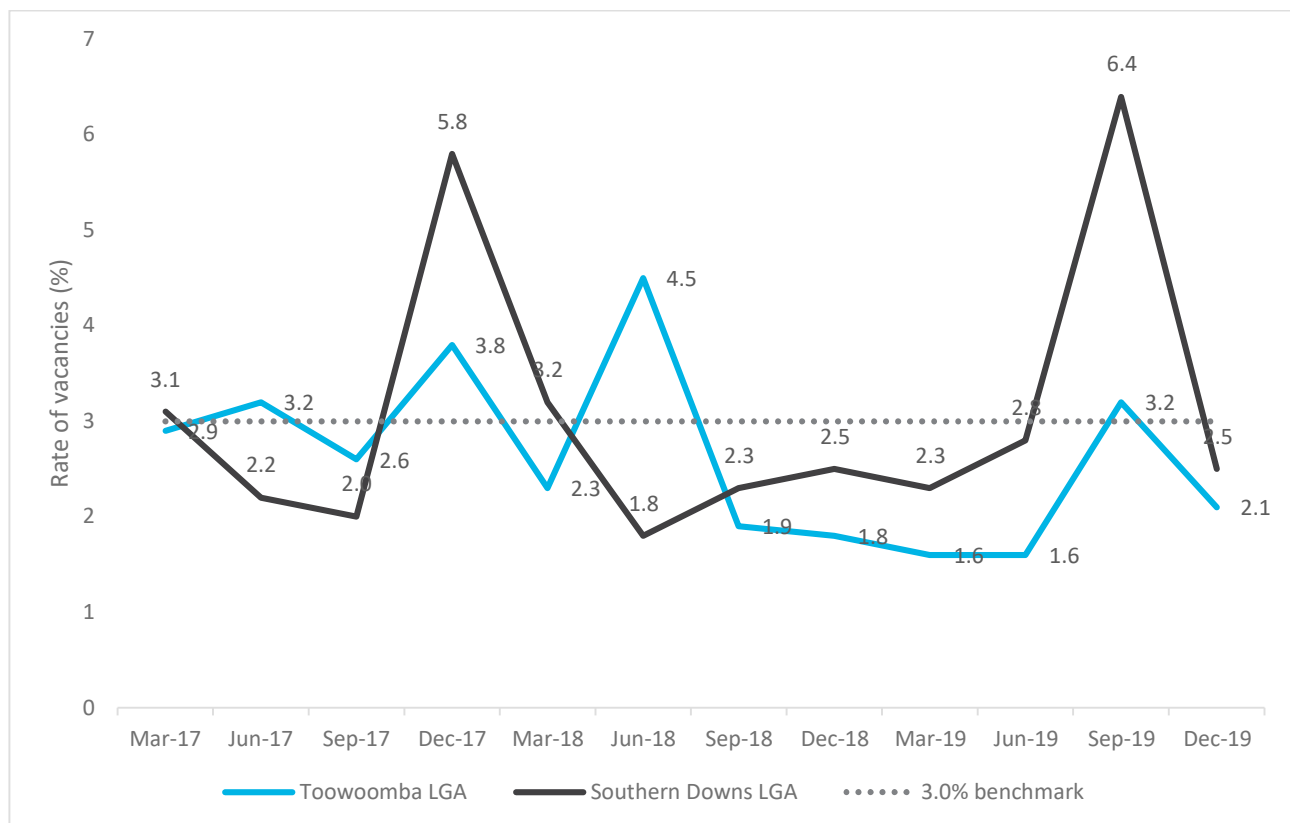
Source: REA Group 2020, 29 September 2020.

Note: Toowoomba properties for sale and rent include Toowoomba City, South Toowoomba, East Toowoomba, and North Toowoomba.

ii Residential vacancy rates

According to the Real Estate Institute of New South Wales (REINSW) (2019), rental vacancy rates are traditional market indicators that “measure the proportion of residential properties vacant and available for rent at any point in time”. The Real Estate Institute of QLD (REIQ) (2020) has three categories for rental markets according to vacancy rates: weak (3.5% – plus), healthy (2.5 – 3.5%), and tight (0 – 2.5%). A rental market with a vacancy rate of 3.0% is considered at equilibrium (Brewsters Property Group n.d).

There has been a high degree of fluctuation in residential vacancy rates throughout Toowoomba LGA and Southern Downs LGA from March 2017 – December 2019. Despite these spikes, there has been a general increase in vacant property in Toowoomba LGA and decrease in Southern Downs LGA. However, As discussed in Section 7 this has changed significantly over the past year, with limited current local residential vacancy due to the COVID-19 pandemic affecting local property markets. Real estate companies in the study area indicated that the usual 3-5% vacancy rate dropped significantly to around 1% since mid-2020 due to COVID-19 (pers. comm. 2020). For workforce considering rentals within the local towns during the construction phase of the project, these low vacancy rates may significantly limit accommodation options. Sourcing local temporary accommodation may be challenging given the current circumstances. The residential vacancy rate trends for Toowoomba LGA and Southern Downs LGA are available in Figure 7.2.



Source: REIQ 2019, Residential Vacancy Report 2019

Note: No vacancy rate data was available for Goondiwindi LGA.

Figure 7.2 Residential vacancy rate trends, 2019

7.4 Tourist (short stay) accommodation

There is a wide selection of tourist accommodation within the study area, varying in size and style. An extensive list of tourist accommodation options is shown in Attachment A. A shortlist of accommodation providers was created to identify the most suitable providers for interviews via phone consultation. The shortlist was based on a selection criterion which determined the providers with the highest potential of offering accommodation to workers of the Project. A detailed list of accommodation providers who were engaged in phone consultations is displayed in **Error! Reference source not found.** The shortlist criterion included:

- travel time to the entrance point at Karara of under 1 hour, or located in Stanthorpe township;
- capacity of at least 10 rooms; and
- accommodation class and type.

Southern Downs LGA offers the highest number of accommodation options, with about 141 registered establishments, the majority of which are located in or around Stanthorpe. This is largely due to Stanthorpe's large tourism industry that peaks during the colder months from May to August. Although there is a large number of accommodation options throughout Southern Downs, the popularity of Stanthorpe as a local tourist destination, as well as the various yearly events that are held in Warwick such as the Rodeo in October and the Jumpers and Jazz festival in July, means that these establishments fluctuate significantly in occupancy and are often completely booked out during busy periods of the year (pers. comm. 2020). However, accommodation options in Warwick are ideal as there are a number of high capacity motel style establishments in relatively close proximity to the project site (see Figure 7.3).

Toowoomba LGA has 90 tourist accommodation locations within Toowoomba City. Whilst there are likely many more options outside the city, the distance between the project site and Toowoomba LGA is over an hour drive and hence cannot be utilised for workforce accommodation due to health and safety relating to driver fatigue.

Goondiwindi LGA has 33 tourist accommodation options across Goondiwindi, Coolmunda, Texas, Inglewood, and Karara, some of which are in close proximity to the site. The Karara pub is the closest temporary accommodation to the project site and offers 4 motel style rooms. A full list of accommodation providers is presented in **Error! Reference source not found.**

Of all accommodation providers within an hour drive of the Project site, 23 were invited to be interviewed regarding their capacity and interest in providing accommodation for the Project's workforce. The data displayed in Table 7.8 is intended to provide a snapshot of the local accommodation capacity, availability, and the willingness of providers to potentially rent rooms to workers of the Project on a long-term basis. Of the 23 accommodation providers who were interviewed, three expressed that they would not be interested in providing accommodation for the Project and interviews did not progress further (not included below), two said 'maybe', and the remaining 18 state that they would be interested in the opportunity. Occupancy ranged from 30% – 100% with the most common occupancy sitting around 60% – 75%. One possible issue that may be encountered in relation to booking out workforce accommodation for long periods is the fluctuation in occupancy that many of these establishments experience, and the regular patrons that would come at various times throughout the year. Despite this, there is a significant level of enthusiasm amongst the accommodation providers interviewed regarding the business opportunity of providing possible rooms to the Project (pers. comms. 2020). Detailed accommodation options from phone consultation with service providers is shown in Table 7.8. These options have also been mapped to the study area, presented in Figure 7.3.

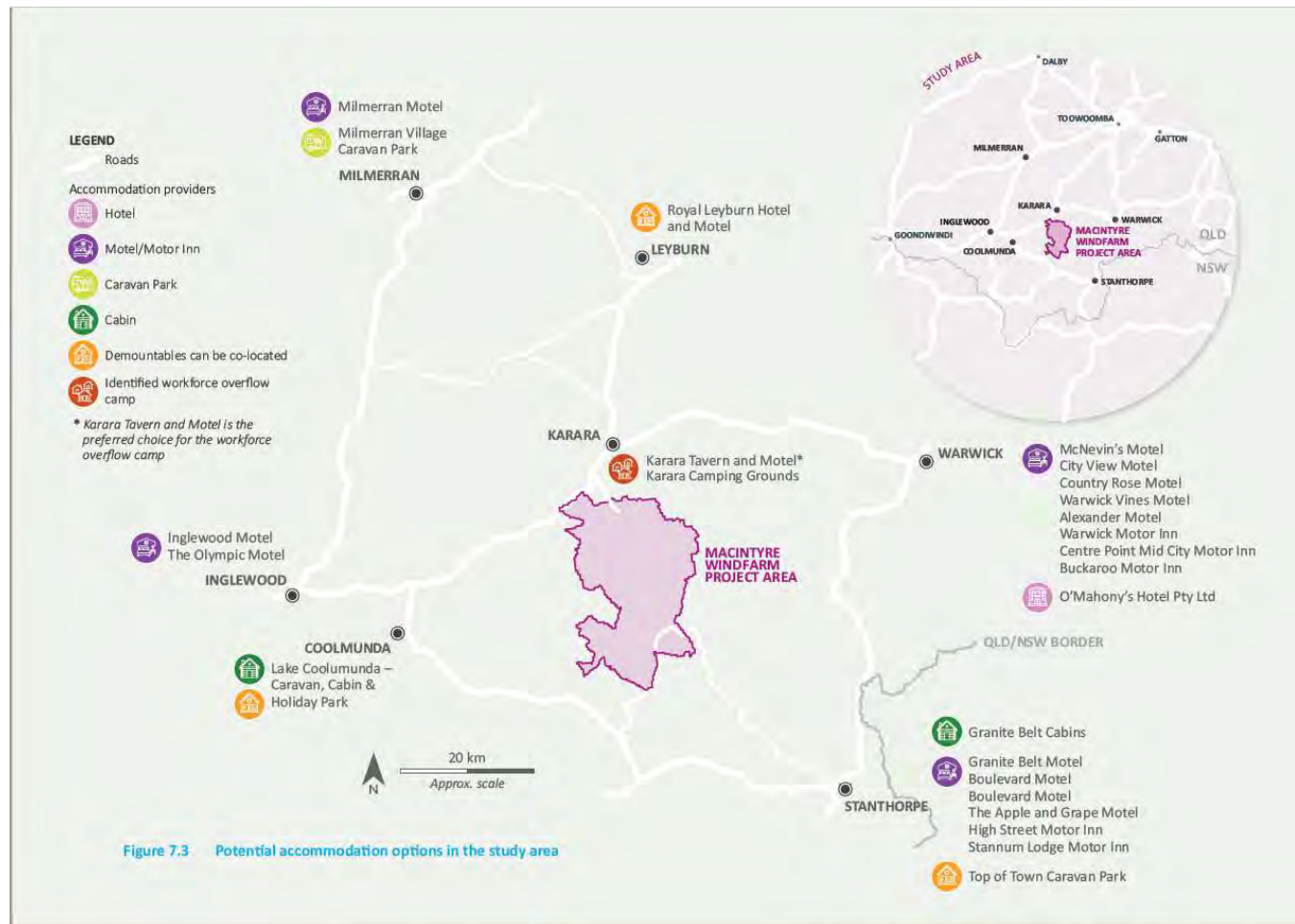


Figure 7.3 Potential accommodation options in the study area

Table 7.8 Accommodation provider consultation results, October-November 2020

Name	Interested / current av. occupancy	Rooms with ensuite and AC	Room capacity for long term rent	Busy dates	Staff/facilities stress from higher occupancy	Other facilities	Capacity for meal provision	Additional catering capacity	Expansion plans	Star Rating
Coolmunda										
Lake Coolmunda - Caravan, Cabin & Holiday Park	✓ approx. 50%	6 (3 family, 3 queen)	All if available	October long weekend	x	Laundry, camp kitchen, BBQ, fire pit, pool	x	x	x	3.5 /4
Inglewood										
Inglewood Motel	✓ 55%	13	8/ 9	x	x	BBQ, pool, kitchen	x	x	x	Self-rated 3
The Olympic Motel Inglewood	✓ 60%	12	6	x	x	BBQ, lawns, laundry, pool (under construction), off-street parking, truck parking onsite	Continental breakfast, packed lunch, restaurant onsite - 50 seat	✓	x	4.5
Milmeran										
Millmerran Motel	✓ usually 65%	11	11	x	x	Kitchen, rooftop, outdoor area, BBQ	Kitchen + 10 seat restaurant + outdoor area, takeaway lunches	Maybe	Possibly 1 more room	3.5
Millmerran Village Caravan Park	✓ 75%	35	25	March and May 2021	x	Central amenities, tavern, camp kitchen, workers kitchen,	Chargebacks on offer through the bakery (breakfast and lunch), dinner at tavern – chargeback	x	x	4.5
Stanthorpe										
Granite Belt Cabins Stanthorpe	✓ --	14	>7	x	x	Commercial kitchen, pool table, laundromat, off street parking, BBQ	✓	✓	x	Self-rated 4.5

Table 7.8 Accommodation provider consultation results, October-November 2020

Name	Interested / current av. occupancy	Rooms with ensuite and AC	Room capacity for long term rent	Busy dates	Staff/facilities stress from higher occupancy	Other facilities	Capacity for meal provision	Additional catering capacity	Expansion plans	Star Rating
High Street Motor Inn Stanthorpe	✓ about 50%	20	>10	May – September. Flexible.	x	Restaurant, courtyard	✓	✓ (can cater up to 60 Tues – Sat nights)	x	3.5
Granite Belt Motel Stanthorpe	✓ 85%	19	All if available. Executive home available for rent – 4 bed house on creek.	x	x	BBQ, outside eating areas, laundry, free Wi-Fi, Foxtel (new rooms), new beds, undercover carparking, lots of green space, liquor licence.	✓	✓ (with notice)	x	Self-rated 3 – 4
Boulevard Motel Stanthorpe	✓ approx. 80%	15	8	2 – 4 July 2021 & 25 – 28 Feb 2022	x	--	Breakfast - room service, packed lunches, dining offsite/ takeaway with chargebacks	x	x	Self-rated 3
The Apple & Grape Motel Stanthorpe	✓ approx. 70%	27	18/20	All year	x	BBQ	No - pub 1 minute away, chargebacks possible. Packed lunches.	x	x	3.5 – 4
Stannum Lodge Motor Inn Stanthorpe	Maybe approx. 80%/higher	12	A few if available	Winter weekends	x	Kitchenettes, restaurant next door.	x	x	x	Self-rated 4
Warwick										
McNevin's Warwick Motel	✓ 60%	22	--	Oct & June	x	Laundry, restaurant, pool, BBQ.	Breakfast / lunch easy, depends how many / if restaurant open.	Kitchen/ restaurant fits 80 – could meet demand	x	Self-rated 4

Table 7.8 Accommodation provider consultation results, October-November 2020

Name	Interested / current av. occupancy	Rooms with ensuite and AC	Room capacity for long term rent	Busy dates	Staff/facilities stress from higher occupancy	Other facilities	Capacity for meal provision	Additional catering capacity	Expansion plans	Star Rating
Warwick Motor Inn	✓ 100%	21	12/more	All year	x	Pool, BBQ, café next door.	✓ (café next door)	✓ (café fits 50 and outdoor seating)	x	4
Centre Point Mid City Motor Inn Warwick	✓ Weekends booked, <60% during week	19	9/10	End July/end Oct	x	Pool area, BBQ, lawn	x	x	x	3.5
City View Motel Warwick	✓ approx. 75 – 80%	10	All if available, minimum 4 guaranteed	April, July, & October	x	BBQ	✓	x	x	Self-rated 3.5/4
Country Rose Motel Warwick	✓ approx. 50%	13	10	x	x	No laundry, pool, BBQ	✓	x	x	3.5
Warwick Vines Motel	✓ approx. 30 – 40%	16	Maybe 30%	Peak periods	x	--	x	x	x	3.5
Buckaroo Motor Inn Warwick	Maybe <70%	19	8	Feb – Nov	x	Pool, BBQ	✓ (no dining)	x	x	3.5
Alexander Motel Warwick	✓ 60% - 76%	18	All if available, minimum 10.	All year	x	Smoking area/ might turn into BBQ, restaurant.	✓	✓	x	3.5
O'Mahony's Hotel Pty Ltd Warwick	✓ <75%	x	>25	All year	x	BBQ, outdoor beer garden, lounge room, piano.	✓	✓	✓ (would need more staff)	4

Source: pers. comm. 2020, Accommodation provider phone consultation

7.5 New housing and rental supply

Housing forecasts for the local area predict a total increase of 21,157 dwellings between 2016 – 2041 in response to population growth and shifting patterns in household structure and number (QGSO 2018). The average household size is not expected to change significantly from 2016 – 2041. Household requirement in the study area is presented in Table 7.9.

Table 7.9 Household requirement and population growth forecasts, 2016 – 2041

	2016	2021	2026	2031	2036	2041
Total population	206,519	217,588	226,532	236,114	245,276	253,953
Total households	83,916	87,333	91,580	96,091	100,126	103,731
Average household size	2.3	2.3	2.3	2.2	2.2	2.2
Projected dwellings	87,739	91,804	96,248	100,933	105,143	108,896
Total dwelling change (required new dwellings)	--	4,065	4,444	4,685	4,211	3,753

Source: QGSO 2019, Projected households (medium series), by household type, local government areas, QLD, 2016 to 2041.

Recent growth in housing supply for the study area can be estimated from residential building approval figures. In the year ending June 2020, there were 640 approvals for new houses and 106 approvals for other residential buildings (equalling a total of 746 new residential building approvals for the year) (ABS 2020b). This represents a decrease of 150 from the previous year. Total residential building approvals in the study area are provided in Table 7.10.

Table 7.10 Total residential building approvals in the study area

Year (ending June 30)	Number			Changes on prior year		
	Houses	Other	Total	Houses	Other	Total
2019-20	640	106	751	-65	-85	-150
2018-19	705	191	901	-381	-124	-503
2017-18	1,086	315	1,404	182	-137	42
2016-17	904	452	1,362	-61	-120	-180
2015-16	965	572	1,542	-29	54	30
2014-15	994	518	1,512	190	-173	16
2013-14	804	691	1,496	68	450	518
2012-13	736	241	978	27	111	139

Source: ABS 2020b, Building Approvals, Australia (8731.0).

To determine if residential building approvals in the local area will adequately support expected demand for new dwellings, the median of the total residential building approvals from 2012 – 2019, equalling 1,379 approvals per year, is used to create a reasonable estimation of residential building approvals into the future. The median of the total number of residential approvals from 2012 – 2019 provides a conservative estimate of the expected trends for building approvals in the local area into the future, as it takes into account the fluctuations present in the previous approval rates. Although it is possible that actual residential approval totals could be higher or lower, without complete certainty in the factors that are driving approval decisions year on year, the median provides a reasonable degree of confidence in these estimations. The projected residential building approvals from 2016 – 2041 are demonstrated in Table 7.11.

Table 7.11 **Estimates of future building approvals in the study area, 2016 – 2041**

	2016 – 2021¹	2021 – 2026²	2026 – 2031	2031 – 2036	2036 – 2041
Estimated residential building approvals	5,801	6,915	6,915	6,915	6,915

Notes: 1. 2016 – 2021 includes number of actual approvals from 2016 – 2020, and an estimate of 28 residential approvals per year from 2021 – 2021.
 2. Projections from 2021 – 2041 are based on an estimate of 28 residential approvals per year.

The above table illustrates the capacity of the local building industry. Assuming that building approvals continue at a rate of the median of 1,379 approvals per year, this is more than enough to meet the expected demand for new dwellings shown in Table 7.9 in 2016 and beyond.

8 Local business and industry

The top industries of employment throughout the study area are healthcare and social assistance (13.9%), education and training (10.5%), and retail trade (9.8%) (ABS 2016a). This is due to the higher proportion of persons throughout the study area residing in Toowoomba LGA (see Section 3.1), where these are the top industries. Goondiwindi and Southern Downs LGAs differ with agriculture, forestry, and fishing (27.6% and 13.8% respectively) as the top industry of employment, largely reflective of the non-school qualifications across the study area (see Section 5.2.2). These employment industries and qualifications are representative of the rural characteristics of Goondiwindi and Southern Downs compared to Toowoomba which has a larger urban centre and business district. The large proportion of persons in the study area who are employed in the industries of health care and social assistance, education and training, and retail trade reflects an extensive amount of health, community, educational, and retail services in the study area (see Section 5). The top industries of employment within the area of social influence are presented in Table 8.1, with the top three industries in each area highlighted.

Table 8.1 Major industries of employment, 2016

Industry	Goondiwindi LGA	Southern Downs LGA	Toowoomba LGA	Study area	Darling Downs Maranoa SA4	Toowoomba SA4	Reference area	QLD
Agriculture, Forestry and Fishing	27.6%	13.8%	6.4%	8.7%	20.2%	4.5%	11.6%	2.8%
Mining	0.8%	1.0%	1.8%	1.6%	2.5%	1.6%	2.0%	2.3%
Manufacturing	3.4%	8.7%	6.8%	6.9%	6.3%	6.5%	6.4%	6.0%
Electricity, Gas, Water and Waste Services	1.1%	0.8%	1.2%	1.1%	1.7%	1.1%	1.4%	1.1%
Construction	7.2%	7.2%	8.5%	8.2%	7.7%	8.6%	8.2%	9.0%
Wholesale Trade	2.7%	1.8%	3.0%	2.8%	2.6%	3.0%	2.8%	2.6%
Retail Trade	9.9%	11.3%	9.5%	9.8%	9.2%	9.8%	9.5%	9.9%
Accommodation and Food Services	5.8%	7.6%	5.9%	6.2%	5.6%	6.3%	6.0%	7.3%
Transport, Postal and Warehousing	4.2%	5.7%	4.2%	4.4%	4.7%	4.2%	4.4%	5.1%
Information Media and Telecommunications	0.5%	0.7%	0.7%	0.7%	0.5%	0.8%	0.6%	1.2%
Financial and Insurance Services	1.3%	1.1%	2.6%	2.3%	1.1%	2.8%	2.0%	2.5%
Rental, Hiring and Real Estate Services	0.7%	1.1%	1.5%	1.4%	1.0%	1.5%	1.3%	2.0%
Professional, Scientific and Technical Services	3.3%	3.2%	4.4%	4.2%	3.0%	4.7%	3.9%	6.3%

Table 8.1 Major industries of employment, 2016

Industry	Goondiwindi LGA	Southern Downs LGA	Toowoomba LGA	Study area	Darling Downs Maranoa SA4	Toowoomba SA4	Reference area	QLD
Administrative and Support Services	2.0%	2.2%	2.4%	2.4%	2.1%	2.6%	2.4%	3.5%
Public Administration and Safety	3.5%	4.5%	6.6%	6.1%	5.5%	6.7%	6.1%	6.6%
Education and Training	8.3%	9.0%	11.0%	10.5%	8.1%	11.5%	9.9%	9.0%
Health Care and Social Assistance	9.2%	11.2%	14.8%	13.9%	9.6%	15.1%	12.6%	13.0%
Arts and Recreation Services	0.5%	0.9%	0.9%	0.9%	0.6%	1.0%	0.8%	1.6%
Other Services	4.0%	4.0%	4.1%	4.1%	3.6%	4.2%	4.0%	3.9%

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

In 2019, there were 22,192 businesses in the study area, with 0.04% employing over 200 people, and 2.4% employing between 20 – 199 employees (ABS 2019). A vast majority of registered businesses in the study area were non-employing (65.3%) while almost one-third of businesses employed between 1 – 19 people (32.3%). This is representative of the number of farming properties and small-scale rural businesses in the region, with a significantly higher proportion of individuals employed in agricultural industries throughout the study area, especially in Goondiwindi and Southern Downs, than QLD. In Goondiwindi LGA and Southern Downs LGA, most businesses were non-employing or employed 1 – 19 people (98.3% and 97.6% respectively), indicating a dominant presence of small businesses in the areas, likely also representative of agricultural industries in these LGAs (see Table 8.1). Registered businesses by employment size are presented in Table 8.2.

Table 8.2 Registered businesses by employment size, 2019

Area	Non-employing	1-19 employees	20-199 employees	200+ employees	No.
Goondiwindi LGA	63.6%	34.7%	1.7%	0.0%	1,896
Southern Downs LGA	67.6%	30.0%	2.4%	0.1%	4,187
Toowoomba LGA	65.0%	32.6%	2.4%	0.04%	16,109
Study area	65.3%	32.3%	2.3%	0.04%	22,192

Source: ABS 2019, 8165.0—Counts of Australian Businesses, including Entries and Exits, June 2015 to June 2019.

Turnover range within the study area is consistent across the three LGAs, with most businesses operating in the \$50k – less than \$2m turnover range (70.1%) (ABS 2019). A small proportion of businesses (5.9%) turnover more than \$2 m annually, and 24.1% turnover \$0 – less than \$50k. Registered businesses by turnover range are presented in Table 8.3.

Table 8.3 Registered businesses by turnover range, 2019

Area	\$0 to less than \$50k	\$50k to less than 200k	\$200k to less than \$2m	\$2m or more	No.
Goondiwindi LGA	21.8%	31.9%	38.7%	7.6%	1,896
Southern Downs LGA	22.8%	35.9%	38.7%	7.6%	32,439
Toowoomba LGA	26.8%	32.5%	34.3%	6.4%	16,109
Study area	24.1%	34.7%	35.4%	5.9%	50,444

Source: ABS, 2019, 8165.0—Counts of Australian Businesses, including Entries and Exits, June 2015 to June 2019.

Of the 22,192 registered businesses in the study area, 26.2% were in the agriculture, forestry and fishing industry (ABS 2019). The agriculture, forestry and fishing industry is most prevalent in Goondiwindi and Southern Downs LGAs (45.6% and 38.1% respectively), reflecting an industry that provides much of the economic viability in those local communities. The industry with the next highest proportion of registered businesses in the study area was construction (14.8%), followed by rental, hiring and real estate services (9.8%). This indicates a possible local availability of suppliers that could be utilised during the construction of the project. Registered businesses by industry are presented in Table 8.4.

Table 8.4 Registered businesses by industry, 2019

Industry	Goondiwindi LGA		Southern Downs LGA		Toowoomba LGA		Study area	
	No.	%	No.	%	No.	%	No.	%
Agriculture, forestry and fishing	864	45.6%	1,597	38.1%	3,359	20.9%	5,820	26.2%
Mining	12	0.6%	11	0.3%	44	0.3%	67	0.3%
Manufacturing	50	2.6%	158	3.8%	620	3.8%	828	3.7%
Electricity, gas, water and waste services	9	0.5%	6	0.1%	33	0.2%	48	0.2%
Construction	170	9.0%	542	12.9%	2,563	15.9%	3,275	14.8%
Wholesale trade	41	2.2%	106	2.5%	410	2.5%	557	2.5%
Retail trade	69	3.6%	215	5.1%	817	5.1%	1,101	5.0%
Accommodation and food services	48	2.5%	145	3.5%	493	3.1%	686	3.1%
Transport, postal and warehousing	88	4.6%	204	4.9%	1,030	6.4%	1,322	6.0%
Information media and telecommunications	5	0.3%	9	0.2%	74	0.5%	88	0.4%
Financial and insurance services	79	4.2%	179	4.3%	1,167	7.2%	1,425	6.4%
Rental, hiring and real estate services	208	11.0%	337	8.0%	1,631	10.1%	2,176	9.8%
Professional, scientific and technical services	68	3.6%	182	4.3%	1,195	7.4%	1,445	6.5%
Administrative and support services	30	1.6%	123	2.9%	531	3.3%	684	3.1%
Public administration and safety	0	0.0%	9	0.2%	36	0.2%	45	0.2%
Education and training	7	0.4%	21	0.5%	156	1.0%	184	0.8%
Health Care and Social Assistance	52	2.7%	109	2.6%	945	5.9%	1,106	5.0%

Table 8.4 Registered businesses by industry, 2019

Industry	Goondiwindi LGA		Southern Downs LGA		Toowoomba LGA		Study area	
	No.	%	No.	%	No.	%	No.	%
Arts and recreation services	6	0.3%	43	1.0%	179	1.1%	228	1.0%
Other services	83	4.4%	172	4.1%	787	4.9%	1,042	4.7%
Currently unknown	9	0.5%	12	0.3%	29	0.2%	50	0.2%
Total number	1,896	100.0%	4,187	100.0%	16,109	100.0%	22,192	100.0%

Source: ABS, 2018, 8165.0—Counts of Australian Businesses, including Entries and Exits, June 2015 to June 2019.

9 Health and community well-being

9.1 Health

There are three major physical health risk factors that can be used as an indicator of population health: excessive alcohol consumption, tobacco smoking, and obesity. These three indicators are some of the “...most important preventable causes of ill health and death in Australia”, with tobacco smoking being the single most (AIHW 2018). Excessive alcohol consumption can cause linked to excess body weight, some cancers, liver disease, oral health problems, and cardiovascular disease (AIHW 2018). Tobacco smoking has been linked to a range of conditions including various types of cancers, heart (cardiovascular) diseases, diabetes, and female reproductive issues (AIHW 2018). Excess weight, particularly obesity, can lead to cardiovascular disease, sleep apnoea, psychological problems, Type 2 diabetes, musculoskeletal conditions, some cancers, and high blood pressure (AIHW 2018). These three health risk factors have been analysed below to estimate the overall health of the population in the study area by each of the LGAs. *QLD Health 2019, Selected health characteristics for regional populations 2017-18*

Figure 9.1, Figure 9.2, and Figure 9.3 present the proportion of persons 18 years or over that consume excessive amounts of alcohol, smoke tobacco, or are overweight or obese.

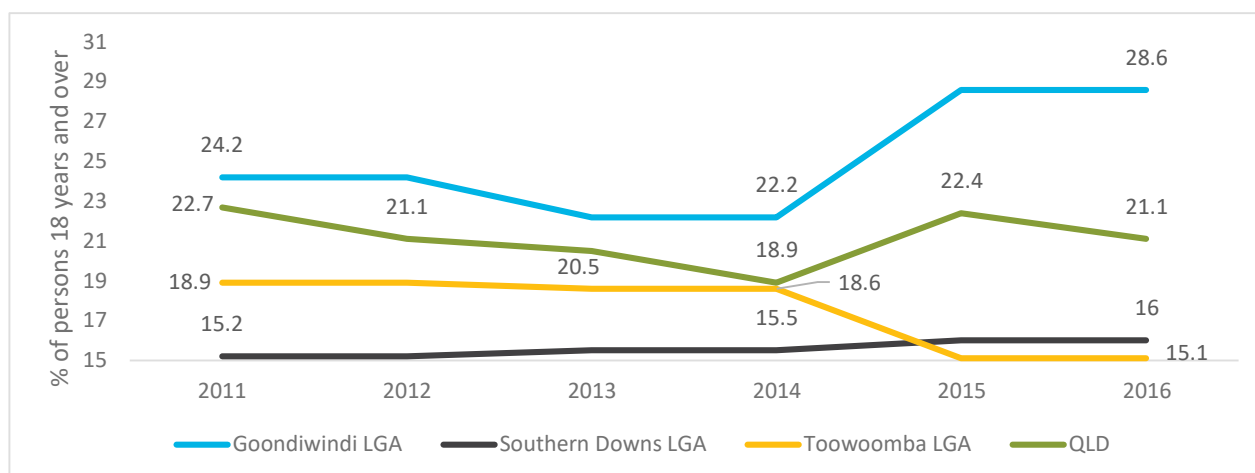
Another measure that can reflect the overall level of a population’s health is self-assessed health (PHN 2016). The levels of health that the population can self-assess themselves as are excellent/very good/good or fair/poor (QLD Health 2019). Trends for self-assessed health in the study area are presented in Figure 9.4 and Figure 9.5.

Mental health of a population can be determined by the number of hospitalisations for intentional self-harm (see Figure 9.6). Data is also collected by QLD Health (2019) regarding the level of psychological distress using the Kessler 10 (K10) approach. This approach uses a 10-item questionnaire that measures anxiety, depression, agitation, and psychological fatigue in the most recent 4-week period and has been adopted by QLD Health (2019) as an indicator of mental health.

9.1.1 Physical health

‘Lifetime risk’ is defined as the “accumulated risk from drinking either on many drinking occasions, or on a regular (for example, daily) basis over a lifetime” (AIHW, 2017), the data shows varying trends within the study area for the proportion of persons over 18 who engage in lifetime risky drinking habits (QLD Health 2019).

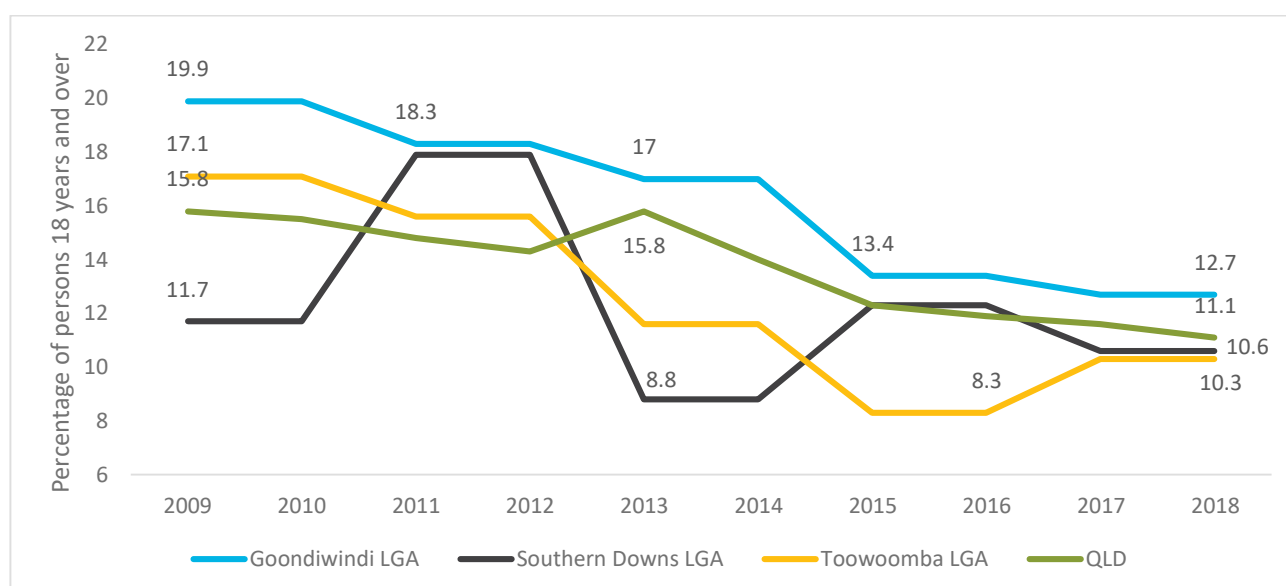
The QLD trend for population who engage in risky drinking habits has remained relatively stable between 2011 – 2016, while the trend in Southern Downs LGA showed a slight increase from 15.5% to 16.0% in 2011 – 2016, the overall percentage of risky drinkers was significantly lower than the State (QLD Health 2019). Toowoomba LGA trends show a sharp decrease in risky drinkers between 2014 – 2015 and an overall decreasing linear trend between 2011 – 2016. Goondiwindi LGA has consistently had the highest proportion of risky drinkers in the study area and compared to LD, with 28.6% of the population considered to engage in lifetime risky drinking habits in 2016. Goondiwindi experienced an increasing linear trend of risky drinkers between 2011 – 2016 with a sharp increase between 2014 – 2015. Alcohol consumption is associated with a range of health complications that may require specialist medical treatment. A higher percentage of persons engaging in lifetime risky drinking may have an effect on the demand of health services and hospitals in the region, especially amongst an aging population as present in the study area (see Section 3.1.2). Data trends for lifetime risky drinkers is illustrated in Figure 9.1.



Source: QLD Health 2019, *Selected health characteristics for regional populations 2017-18*

Figure 9.1 Lifetime risky drinking (proportion of persons by age) 2011 – 2016

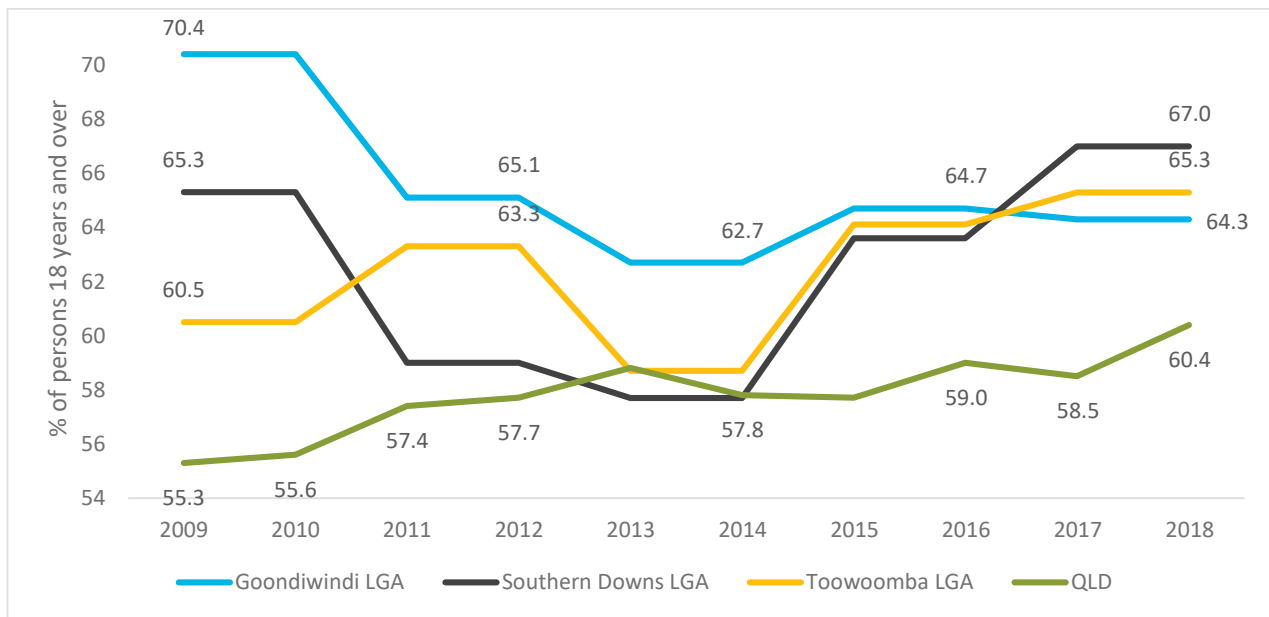
Data for the proportion of persons over 18 who smoke daily show similar decreasing linear trends throughout Goondiwindi LGA, Southern Downs LGA, Toowoomba LGA, and QLD between 2009 – 2018 (QLD Health 2019). A higher proportion of the population in Goondiwindi LGA smoke daily compared to QLD. The trend in Toowoomba LGA shows a sharper decrease of daily smokers than QLD between 2009 – 2018, while the trend in Southern Downs LGA shows greater fluctuations than other LGAs and QLD with a peak between 2011 – 2012 and a trough between 2013 – 2014. Like alcohol consumption, daily smoking has the potential to lead to a greater demand for health services within the study area and indicates a degree of general poor health amongst the population. As such, the higher proportion of daily smokers within the study, especially in Goondiwindi LGA, area may have an effect on the capacity and demand of local healthcare services. Data trends for percentage of population who are daily smokers are illustrated in Figure 9.2.



Source: QLD Health 2019, *Selected health characteristics for regional populations 2017-18*

Figure 9.2 Daily smoking in adults (proportion of persons by age), 2009 – 2018

The proportion of the population who are overweight or obese in Goondiwindi, Southern Downs, and Toowoomba LGAs is higher than the QLD (QLD Health 2019). The three LGAs in the study area all show a decrease in obesity trends between 2013 – 2014, while the QLD trend remained relatively linear with a slight increase between 2009 – 2018. Obesity and other weight problems can lead to a range of health complications, with the potential to exacerbate other health conditions. This high percentage of overweight or obese adults in the study area also suggests that health services may face a higher level of demand. Trends in overweight or obese adults in the study area are illustrated in Figure 9.3.



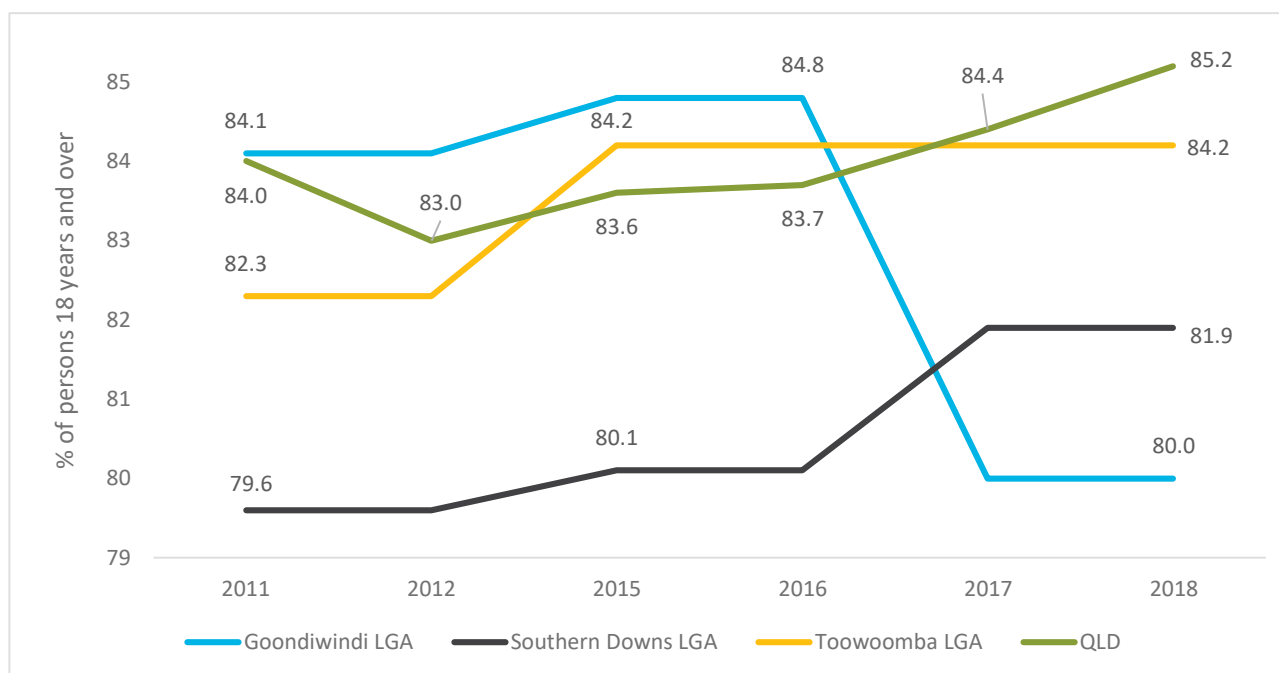
Source: QLD Health 2019, *Selected health characteristics for regional populations 2017-18*

Note: No data was available for obesity in Goondiwindi 2009-2010, these years have been assumed to be the same as data for 2012 regarding obesity.

Figure 9.3 Overweight or obese adults (proportion of persons by age), 2009 – 2018

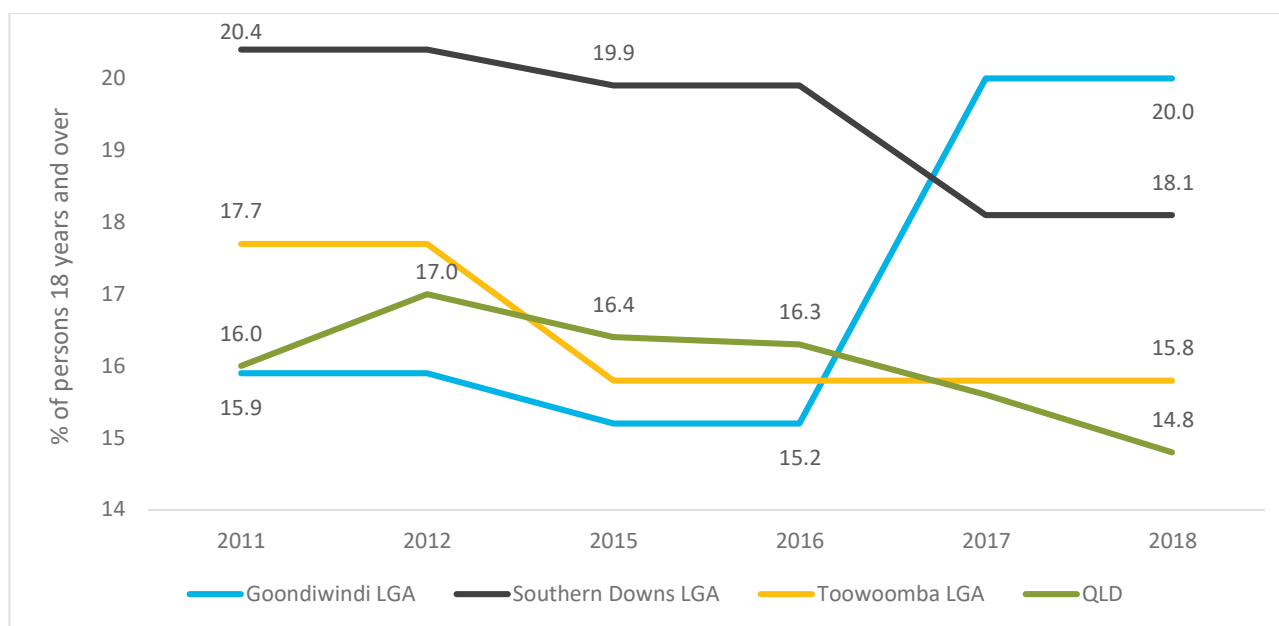
In Toowoomba LGA, 84.2% of the population self-assessed their health as excellent, very good or good, similar to the 85.2% of the population in QLD (QLD Health 2019). The proportion of the population that self-assessed their health as excellent, very good, or good is lower in Southern Downs LGA (81.9%), while Goondiwindi LGA showed a decrease between 2016 – 2017 from 84.8% to 80%. Accordingly, the percentage of the population of Goondiwindi LGA who self-assessed their health as fair or poor increased between 2016 – 2017 to 20% in 2018, which is a higher rate of fair/poor self-assessed health than in Southern Downs LGA, Toowoomba LGA, and QLD (18.1%, 15.8%, and 14.8% respectively).

Despite high levels of lifetime risky drinking, daily smoking, and obese and overweight persons in the study area, the overall self-assessed health of the population was high. This indicates that although there is a proportionally high percentage of adults engaging in these behaviours, the majority of the population feels as though they are in good health. This may also be reflective of the relatively good access to healthcare services in majority the study area, with most of the population receiving a high standard of care. Goondiwindi LGA having the lowest proportion of persons rating their health positively is likely reflective of poorer access to health services in that area (see Section 5.3.2 Data for positive self-assessed health is presented in Figure 9.4, negative self-assessed health is presented in Figure 9.5).



Source: QLD Health 2019, *Selected health characteristics for regional populations 2017-18*

Figure 9.4 Self-assessed health – excellent/very good/good, 2011 – 2018

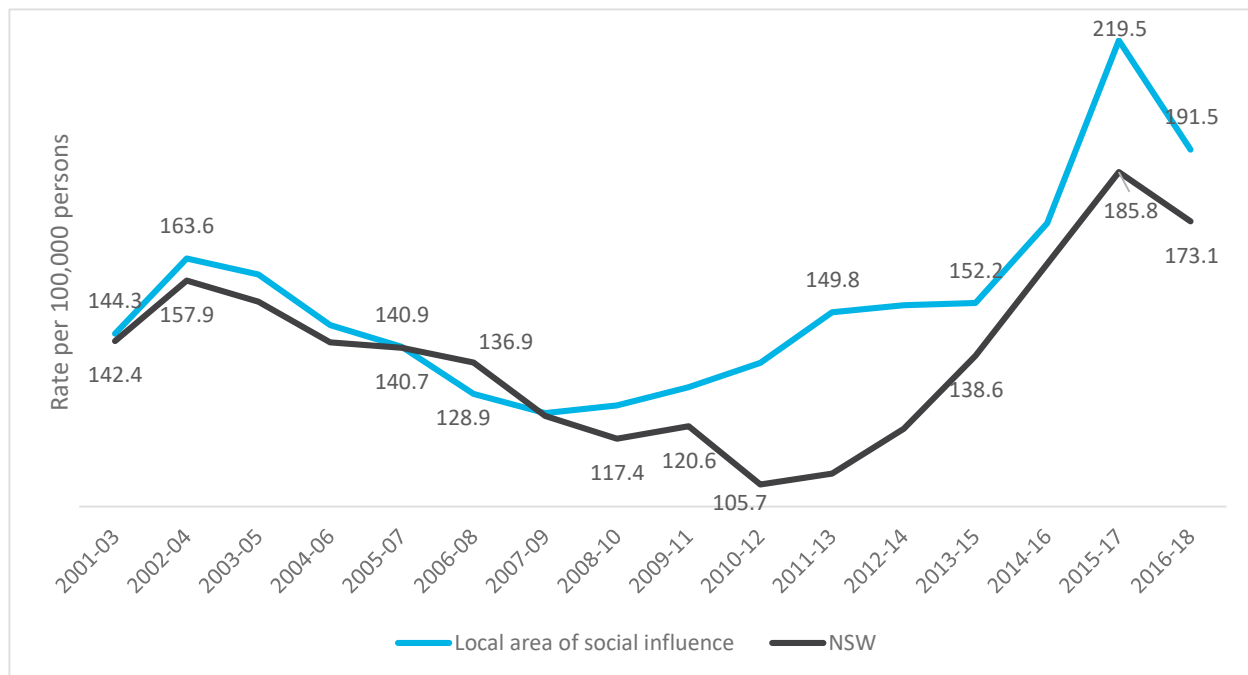


Source: QLD Health 2019, *Selected health characteristics for regional populations 2017-18*

Figure 9.5 Self-assessed health – fair/poor, 2011 – 2018

9.1.2 Mental health

The rate per 100,000 persons of all ages for intentional self-harm hospitalisations in the study area have remained above the rate in NSW for majority of the period analysed (2001 – 2018) (QLD Health 2019) suggesting that mental health in the study area may be worse in than elsewhere in QLD, or that mental health services in the study area are insufficient. This is identified in Section 5.3.2 which shows there are many mental health services in Toowoomba LGA whilst Goondiwindi and Southern Downs LGAs may lack sufficient mental health services. The rate of intentional self-harm hospitalisations in the study area is presented in Figure 9.6.



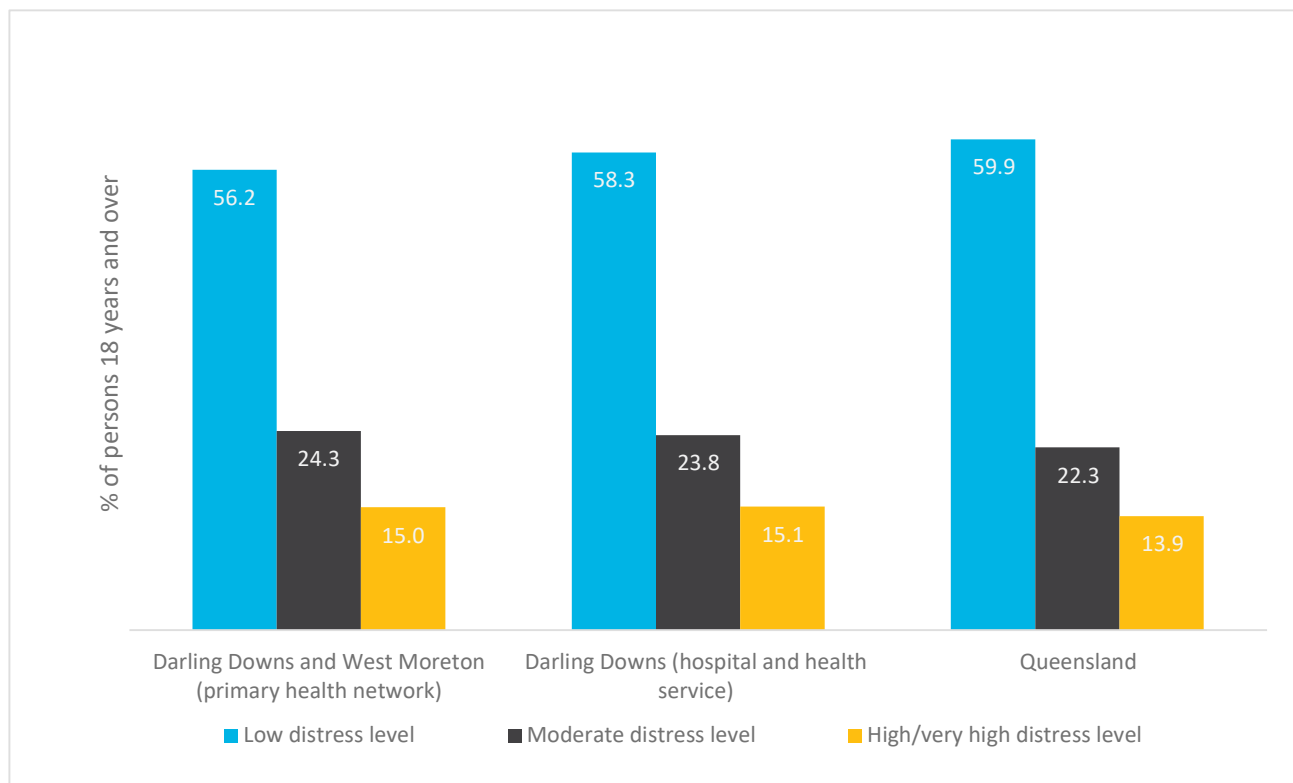
Source: QLD Health 2019, *Selected health characteristics for regional populations 2017-18*

Figure 9.6 Intentional self-harm hospitalisations (rate per 100,000 persons of all ages), 2001 – 2018

According to the QLD Mental Health Commission (QMHC 2017), the proportion of persons in QLD suffering from high or very high psychological distress increased from 10.8% in 2011 – 2012 to 12.0% in 2014 – 2015. In the same period, the age standardised suicide rate for QLD decreased slightly from 14.4 per 100,000 persons in 2013 to 13.7 in 2014. However, it increased from 2014 – 2015 to 15.7 per 100,000 persons. This rate is higher than the 2015 national average of 12.6 per 100,000 persons (QMHC 2017).

The levels of psychological distress in adults based on the K10 Scale were lower in the Darling Downs and West Moreton Primary Health Network (PHN) (56.2%) than in the Darling Downs Hospital and Health Service (58.3%), and QLD (59.9%). The level of high/very high psychological distress was slightly greater in the Darling Downs and West Moreton PHN (24.3%) and Darling Downs Hospital and Health Service (23.8%), compared to that of QLD (22.3%). This indicates psychological distress may be slightly more prevalent in the study area, and as such mental and general health services may face a greater demand for psychological care. However, many of the GP services in the study area offer mental health services, as do a range of social and community services (see Section 5.3.2). These trends are expected to be similar for the study area as no data is available at the SSC or LGA level.

Levels of low, moderate, and high/very high distress are consistent in the Darling Downs and West Moreton PHN, Darling Downs hospital and health service area, and QLD. In the Darling Downs and West Moreton PHN, 56.2% of persons aged 18 years and over experience low distress levels, similar but marginally lower to the hospital and health service (58.3%) and QLD (59.9%). The proportion of high/very high distress levels in the PHN and hospital and health service areas is greater than in QLD, with 15.0% and 15.1%, respectively, compared to 13.9% (QLD Health 2019). Levels of psychological distress for the study area are shown in Figure 9.7.



Source: QLD Health 2019, *Selected health characteristics for regional populations 2017-18*

Figure 9.7 Levels of psychological distress based on Kessler 10 scale (proportion of persons aged 18 years and older), 2017 – 2018

9.2 Community wellbeing

9.2.1 Voluntary work

Volunteering rates can give an indication of social cohesion in a community, and the willingness of people to help each other. Volunteering rates in the study and reference areas suggest that there is higher social cohesion in these areas than in QLD, with 22.4% and 23.0% in the study area and reference area respectively, compared to 18.0% in QLD (ABS 2016a). The proportion of persons who volunteered in the area of social influence is presented in Table 9.1.

Table 9.1 **Volunteering rates, 2016**

Did voluntary work through an organisation or group (last 12 months)	
Goondiwindi LGA	26.7%
Southern Downs LGA	24.7%
Toowoomba LGA	21.7%
Study area	22.4%
Darling Downs Maranoa SA4	25.3%
Toowoomba SA4	21.2%
Reference area	23.0%
QLD	18%

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

9.2.2 Safety and crime

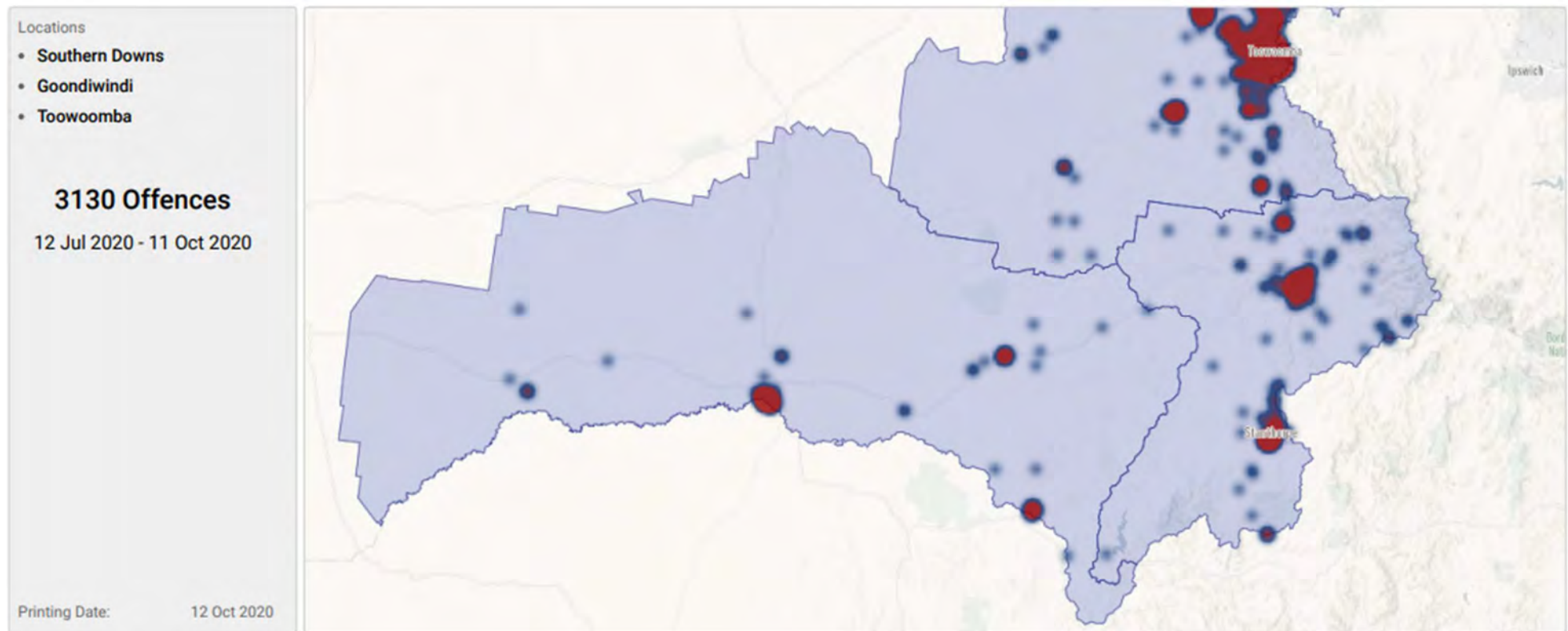
The following data has been sourced from the QLD Police Service (QPS) LGA Reported Offences (QPS 2020b) for the three LGAs in the study area.

The most common crime reported within the study area was unlawful theft (26.4%) followed by drug offenses (22.6%), which were both lower than QLD (34.9% and 24.2%). Toowoomba LGA recorded the highest number of reported crimes (22,840) followed by Southern Downs LGA (4,745) and then Goondiwindi LGA (1,859). This is likely due to higher crime rates occurring around urban centres and cities, hence why Toowoomba LGA has the largest number of reported crimes. Traffic and related offenses made up a greater proportion of reported crimes in the study area (16.6%) than QLD (11.5%), reflecting the high number of road incidents in the area (see Section 5.3.4). Good order offenses, weapons act offenses, trespassing and vagrancy, liquor (excluding drunkenness), and handling stolen goods were also more frequently reported in the study area compared to QLD. However, overall crime rates in the study area are considered to be relatively low, and as such crime and safety is not expected to be a significant risk to the population. Consultation with the Warwick Police indicated that crime was relatively uncommon in the area due to the nature of the small town, and the lack of anonymity within the community (pers. comms 2020). Crime trends reported from September 2018 – September 2020 for the study area are presented in Table 9.2. A heat map of reported offences is presented in Figure 9.8 and number of offences in Figure 9.9.

Table 9.2 Crimes reported within the study area

	Goondiwindi LGA		Southern Downs LGA		Toowoomba LGA		Study area		Darling Downs QPS District		QLD	
Crime	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Other theft (excl. unlawful entry)	278	15.0	738	15.6	6,751	29.6	7,767	26.4	8,806	26.0	265,007	34.9
Drug offenses	565	30.4	1,507	31.8	4,580	20.1	6,652	22.6	7,962	23.5	183,921	24.2
Traffic and related offenses	435	23.4	1,147	24.2	3,306	14.5	4,888	16.6	5,781	17.	87,053	11.5
Good order offenses	273	14.7	650	13.7	3,694	16.2	4,617	15.7	5,009	14.8	105,277	13.9
Unlawful entry	110	5.9	248	5.2	2,940	12.9	3,298	11.2	3731	11.0	84,057	11.1
Other property damage	174	9.4	320	6.7	2,256	9.9	2,750	9.3	3128	9.2	75,723	10.0
Assault	76	4.1	205	4.3	1,280	5.6	1,561	5.3	1,825	5.4	50,442	6.6
Unlawful use of a motor vehicle	33	1.8	84	1.8	901	3.9	1,018	3.5	1,172	3.5	31,967	4.2
Fraud	32	1.7	156	3.3	1,133	5.0	1,321	4.5	1,485	4.4	59,962	7.9
Weapons act offenses	52	2.8	148	3.1	609	2.7	809	2.7	935	2.8	17,262	2.3
Trespassing and vagrancy	48	2.6	82	1.7	505	2.2	635	2.2	724	2.1	12,854	1.7
Liquor (excl. drunkenness)	18	1.0	33	0.7	621	2.7	672	2.3	677	2.0	6,946	0.9
Handling stolen goods	11	0.6	65	1.4	463	2.0	539	1.8	612	1.8	14,542	1.9
Other offenses against the person	11	0.6	43	0.9	190	0.8	244	0.8	296	0.9	9,791	1.3
Miscellaneous offences	11	0.6	29	0.6	149	0.7	189	0.6	214	0.6	8,406	1.1
Robbery	4	0.2	7	0.1	116	0.5	127	0.4	140	0.4	4,977	0.7
Arson	6	0.3	18	0.4	87	0.4	111	0.4	126	0.4	2,820	0.4
Other homicide	--	0.0	1	0.02	5	0.02	6	0.02	7	0.02	2,820	0.4
Homicide (murder)	--	0.0	2	0.04	1	0.004	3	0.01	5	0.01	99	0.01
Prostitution offenses	--	0.0	--	0.0	3	0.01	3	0.01	3	0.01	182	0.02
Stock related offenses	--	0.0	--	0.0	1	0.004	1	0.003	3	0.01	71	0.01
Total	1,859	100.0	4,745	100.0	22,840	100.0	29,444	100.0	33,835	100.0	759,172	100.0

Source: QPS 2020b, LGA Reported Offences



Source: QPS 2020c, Online Crime Map

Figure 9.8 Heat map of reported offenses within the study area from 12 July 2020 – 11 October 2020

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Appendix A

All tourist accommodation providers

Table A.1 All tourist accommodation, Southern Downs LGA 2020

Suburb	Tourist accommodation	Type of accommodation
Allora	Railway Hotel Allora	Hotel
	Commercial Hotel Allora	Hotel
	Dalrymple Lodge Bed & Breakfast	B&B
	Roseneath Cottage B&B	B&B
	The Blue Cow Hotel	Pub-style accommodation
Amiens	Cobb'n'Co Cabins	Tourist
Ballandean	Fergies Hill Spa Cottage @ Granite Ridge Wines	Tourist
	Vineyard Cottages	Tourist
	Azjure Studio Retreat	Tourist
	Ballandean Tavern & Motel	Tourist
	Mason House Accommodation	Tourist
	Twisted Gum Vineyard Cottage	Tourist
	The Folly Ballandean	Tourist
	Fairbanks Guesthouse	Tourist
	Just Red Wines	Tourist
	James Farmhouse and Cottage Accommodation	Tourist
	Burn Brae Cottage	Tourist
	Sancerre Estate	Tourist
	Kurrajong Barn & Cottage	Tourist
	Accommodation Creek Cottages	Tourist
	Cypress Ridge Cottages	Tourist
	Sippers at Ballandean	Tourist
	Grovely House B&B Stanthorpe	Tourist
Broadwater	Ridgemill Estate	Tourist
	Seagoe Homestead	Tourist
	Hamlyn Farmhouse	Tourist
Cottonvale	Heritage Estate Winery Cottage	Tourist
Dalcouth	Stanthorpe Country Resort	Tourist
Diamondvale	The Olive Tree Cottage	Tourist
Elbow Valley	Cherrabah Resort	Motel
Eukey	Loughmore House	Tourist
	Windswept Country Retreat	Tourist
Forest Springs	Montrose Farm Bed & Breakfast	B&B
Glen Alpin	Harrington Glen Estate	Tourist
Glen Alpin	Rovers Rest	Tourist

Table A.1 All tourist accommodation, Southern Downs LGA 2020

Suburb	Tourist accommodation	Type of accommodation
	The Forgotten Grove	B&B
	MollyMac Cottages	Tourist
	Sabo's On Severn	Tourist
	Glen Aplin Gardens	B&B
Goomburra	Gordon Country	Cabins and camp site
	Lowies of Goomburra	Cabins
Karara	Karara Tavern and Motel	Motel
Killarney	Killarney Sundown Motel & Caravan Park	Motel
	Killarney Hotel-Motel	Hotel
Leslie Dam	Lake Leslie Tourist Park	Cabins and camp site
Leyburn	Leyburn Motel/Cabins	Motel
Maryvale	Maryvale Crown Hotel	Hotel
	Bestbrook Mountain Farmstay	Tourist
Mount Colliery	Arborlee Rainforest Retreat	B&B
Mount Tully	Rosie O'Brien's Country Cottages	Tourist
	Mt Tully Cottage and Nature Refuge	Tourist
Severnlea	R & R on the Ravine	Tourist
	Whiskey Gully Wines	Tourist
	Moonrise Estate	Tourist
	Casita de Campo Cottages	Tourist
Somme	Severendipity	Tourist
Stanthorpe	Granite Belt Retreat & Brewery	Tourist
	Backpackers of QLD	Hostel
	High Street Motor Inn	Tourist
	Granite Belt Motel	Tourist
	Boulevard Motel	Tourist
	Country Club Hotel Motel Stanthorpe	Tourist
	Diamondvale Cottages and Diamondvale Lodge	Tourist
	Eagles Nest Retreat Stanthorpe	Tourist
	Apple Blossom Cottage	Tourist
	Quart Pot Cottage	Tourist
	Honeysuckle Cottages	Tourist
	Stannum Lodge Motor Inn	Tourist
Stanthorpe	31 the Rocks	Tourist

Table A.1 All tourist accommodation, Southern Downs LGA 2020

Suburb	Tourist accommodation	Type of accommodation
	Dillons Cottage Stanthorpe	Tourist
	Logger's Rest	Tourist
	Connor House	Tourist
	ATRICOM Apartments	Tourist
	Alure Stanthorpe Accomodation	Tourist
	Logger's Rest Cottage	Tourist
	O'Mara's Hotel	Hostel
	Mallow Cottage	Tourist
	Maric Park Cottages	Tourist
	Central Hotel	Hotel
	Stanthorpe Hotel	Hotel
	Quaffers on Storm King	Tourist
	Stanthorpe Villa	Tourist
	Lynrose Place	Tourist
	The Radford Couples Cottage	Tourist
	Happy Pig Farm	B&B
	Brick Creek House	B&B
	Creekview Cottage	Tourist
	Froggies Holiday House	Tourist
	Calmlands Cottage	Tourist
	Folkestone House	Tourist
	The Vines Motel and Cottages	Tourist
	Cedar Lodge	Tourist
	Granite Gardens Cottages	Tourist
	The Apple & Grape Motel	Tourist
	Murray Gardens Cottages & Motel	Tourist
	Bonaways Homestead	Tourist
	Briar Rose Cottages	Tourist
	Abivilla - Stanthorpe	Tourist
Sugarloaf	Glen Robin Homestead	Tourist
	Lavender Lane Cottage	Tourist
The Falls	Adjinbilly Rainforest Retreat	Motel
The Head	Oaklea Cottages Bed and Breakfast Farmstay	Tourist
The Summit	Pinnacle Holiday Lodge	B&B

Table A.1 All tourist accommodation, Southern Downs LGA 2020

Suburb	Tourist accommodation	Type of accommodation
Thulimbah	Bella Rosa's Tea Rooms, Cottage and Garden Centre	Tourist
	Twinstar Guesthouse & Observatory	Tourist
	Serenity Cottage	Tourist
Tregony	Spicers Retreats (Spicers Canopy Luxury Tents)	Motel
	Stacey's At the Gap	Hotel
Warwick	Abbey Boutique Hotel	B&B
	Celtis Grove Cottage	Tourist
	Grafton Rose Bed and Breakfast	B&B
	McNevin's Warwick Motel	Motel
	Centre Point Mid City Motor Inn	Motel
	City View Motel Warwick	Hotel
	Comfort Inn Warwick	Motel
	Country Rose Motel	Motel
	Warwick Vines Motel	Motel
	Jackie Howe Motel	Motel
	Horse & Jockey Hotel Motel	Motel
	Buckaroo Motor Inn	Motel
	Alexander Motel Warwick	Motel
	Sovereign Hotel	Hotel
	Criterion Hotel Warwick	Hotel
	Amble Inn	Motel
	Coachman's Inn Warwick	Motel
	53 on Victoria	Motel
	Pitstop Lodge Guesthouse and B&B	B&B
	Glenrose Cottages	B&B
	Victoria's Cottage Warwick	B&B
	Warwick Motor Inn	Motel
	O'Mahony's Hotel	Hotel
	Albion Cottage	Tourist
	Horsepower Cabins	Tourist
	Birdhouse Cottage and B&B	B&B
	Rose City Caravan Park	Caravan park and camp site
	Lorac Bed & Breakfast	B&B
Warwick	Big 4 Warwick Holiday Park	Units, cabins, and camp site

Table A.1 All tourist accommodation, Southern Downs LGA 2020

Suburb	Tourist accommodation	Type of accommodation
Wybera	Girraween Environmental Lodge	Tourist
	Wisteria Cottage	Tourist
Yangan	R on the Downs Rural Retreat	B&B
	Yangan Hotel Motel	Motel

Source: booking.com.au; airbnb.com.au

Table A.2 All tourist accommodation, Goondiwindi LGA 2020

Suburb	Tourist accommodation	Type of accommodation
Coolmunda	Coolmunda Springs	Tourist
Goondiwindi	Binalong Motel	Motel
	Border Motel	Motel
	Pioneer Motel Goondiwindi	Motel
	Country Roads Motor Inn	Motel
	Goondiwindi Tourist Park	Tourist
	Goondiwindi Holiday Park	Tourist
	Goondiwindi Motel	Motel
	Gunsynd Motor Inn	Motel
	Jolly Swagman Motor Inn	Motel
	MacIntyre Motor Inn	Motel
	The Town House Motor Inn	Hotel
	QLD Hotel	Pub-style accommodation
	Railway Hotel & Motel	Motel
	O'Shea's Royal Hotel	Pub-style accommodation
	Victoria Hotel	Pub-style accommodation
	Bronte House BNB	B&B
	Retreat on Rivergums	B&B
	Best Western Ascot Lodge Motor Inn	Motel
Inglewood	Inglewood Motel	Motel
	The Olympic Motel (Motel Olympic Takeaway & Restaurant)	Motel
	Woodspring Farm Camping	Tourist
	Lake Coolmunda - Caravan, Cabin & Holiday Park	Tourist
Karara	Karara Tavern & Motel	Pub-style accommodation
Talwood	Talwood Hotel	Pub-style accommodation

Table A.2 All tourist accommodation, Goondiwindi LGA 2020

Suburb	Tourist accommodation	Type of accommodation
Texas	Texas Motel and Restaurant	Motel
	Southern Border Accommodation Park	Tourist
	Rachel's Cottage	B&B
	Stockman Hotel	Pub-style accommodation
	Yellow Rose Guesthouse Texas QLD	B&B
Toobeah	Toobeah Hotel/Motel	Motel
Yelarbon	Yelarbon Recreation Camping Area	Tourist
	Yelarbon Oasis Hotel/Motel	Motel

Source: booking.com.au; airbnb.com.au

Table A.3 All tourist accommodation, Toowoomba LGA 2020

Suburb	Tourist accommodation	Type of accommodation
Brookstead	Brookstead Hotel	Pub-style accommodation
Cambooya	Bull & Barley Inn	Pub-style accommodation
Cecil Plains	Victory Hotel	Pub-style accommodation
Charlton	Bronco Motor Inn	Motel
Clifton	Clifton Arms Hotel	Pub-style accommodation
	O'Shanley's Irish Hotel & Restaurant	Pub-style accommodation
Cotswold Hills	Cotswold Motor Inn	Motel
East Toowoomba	Eastgate Motel on the Range	Motel
	Great Divide Motor Inn	Motel
	Motel Glenworth	Motel
	Whiteoaks Motel & Lodges	Motel
	The Arbour Boutique Apartments	Hotel
	Blue Violet Motor Inn	Motel
	Jolly Swagman Accommodation Park	Motel
	Econo Lodge Toowoomba Motel & Events Centre	Motel
Greenmount	Greenmount Hotel	Pub-style accommodation
Harlaxton	Garden City Backpackers	Hostel
Harristown	Annand Mews Serviced Apartments	Motel
Harristown	BIG4 Toowoomba Garden City Holiday Park	Tourist
	Clifford Gardens Motor Inn	Motel
	Platinum International	Motel

Table A.3 All tourist accommodation, Toowoomba LGA 2020

Suburb	Tourist accommodation	Type of accommodation
Highfields	Homewood Cottages	B&B
	Highfields Motel Toowoomba	Motel
Jondaryan	The Woolshed at Jondaryan	Tourist
Kearneys Spring	Jeffery's Motel	Motel
	Comfort Inn Glenfield	Motel
Leyburn	Royal Hotel	Pub-style accommodation
Millmerran	Millmerran Motel	Motel
	Millmerran Village Caravan Park	Tourist
	Passchendale Bed & Breakfast	B&B
	Rams Head Hotel	Pub-style accommodation
Newtown	Clifford Park Holiday Motor Inn	Motel
Oakey	Oakridge Motel Tourist Park	Tourist
	Park House Motor Inn	Motel
Oakey	Oakey Motor Inn	Motel
	Kellys Motel Oakey	Motel
	Oakey Motel	Motel
Pittsworth	Pittsworth Shady Rest Caravan Park	Tourist
	Pittsworth Hotel Motel	Motel
	Golden Grain Motel	Motel
	Pittsworth Motor Inn	Motel
Preston	ecoRidge Hideaway	Tourist
Ramsey	Mountview Homestead	Tourist
South Toowoomba	Jacaranda Place Motor Inn	Motel
	Avenue Motel Apartments	Motel
	Ruthven Street Motor Inn	Motel
	City Golf Club Motel	Motel
	Villa Nova Motel	Motel
	Riviera on Ruthven Motel	Motel
	Downs Motel Toowoomba	Motel
	Highlander Motor Inn & Apartments Toowoomba	Motel
Spring Creek	Sprink Creek Caravan Park	Tourist
Toowoomba	Garden City Motor Inn	Motel
	Leichardt Motor Inn	Motel
	Apollo Lodge	Motel

Table A.3 All tourist accommodation, Toowoomba LGA 2020

Suburb	Tourist accommodation	Type of accommodation
	Bridge Street Motor Inn	Motel
	Middle Ridge Toowoomba	Motel
	Toowoomba Motor Village	Motel
	Allan Cunningham Motel	Motel
Toowoomba City	Coachman Motel	Motel
	Beccles On Margaret Bed & Breakfast	B&B
	Comfort Inn Grammar View	Motel
	Applegum Inn	Motel
	B & B Wanulla	B&B
	Park Motor Inn	Motel
	GlenEllen Bed & Breakfast	B&B
	James Street Motor Inn	Motel
	Country Gardens Motor Inn	Motel
	Federal Hotel + Nightcap at Federal Hotel	Motel
	Laguna Serviced Apartments	Motel
	Shamrock Hotel Motel	Motel
	Burke & Wills Hotel	Hotel
	Toowoomba Central Plaza Apartment Hotel	Hotel
	Quest Toowoomba	Hotel
	Best Western Plus Ambassador on Ruthven	Motel
	Northpoint Motel	Motel
	National Hotel Toowoomba	Pub-style accommodation
	Asters on James Motor Inn	Motel
	Athena Motel Apartments	Motel
	City Motor Inn Toowoomba	Motel
	Potters Boutique Hotel Toowoomba	Hotel
	Oaks Toowoomba Hotel	Hotel
	Pure Land Guest House	B&B
	Best Western Tuscany on Tor Motor Inn	Motel
	21 on Hursley Motel Apartments	Motel
	RaceView Motor Inn	Motel
Toowoomba City	Wilsonton Hotel	Motel
	Altitude Motel Apartments	Motel
Wilsonton	Flying Spur Motel	Motel

Table A.3 All tourist accommodation, Toowoomba LGA 2020

Suburb	Tourist accommodation	Type of accommodation
	Sunray Motor Inn	Motel

Source: booking.com.au; airbnb.com.au, August 2020.

Appendix B

Community and Stakeholder Engagement

B.1 SIA engagement activities

This section:

- details the community engagement activities outlined in the method to Section 6 of this SIA; and
- summarises the outcomes of those activities.

A list of the community engagement activities is provided in Table B.1. In summary, community engagement activities included:

- newsletters (see Section B.2.1);
- an online survey (see Section B.2.2);
- in-depth interviews (see Section B.2.3);
- service capacity interviews (see Section B.2.4); and
- community workshop (see Section B.2.5).

EMM also attended ACCIONA's supplier information sessions in Warwick and Stanthorpe between 20-21 October 2020 which facilitated engagement with potential suppliers who were in attendance to gain a preliminary understanding of local supplier capacity.

Copies of material generated by EMM for the SIA engagement activities include:

- Attachment A – Acciona MacIntyre Wind Farm Newsletter, October 2020; and
- Attachment B – MacIntyre Wind Farm Precinct Project community on-line survey.

Table B.1 Community engagement activities

Method	Event	Administered	Invited	Interviews conducted	Total participants
In-depth interviews	Key potentially impacted stakeholders including:				
	Landholders	Face-to-face	11	8	16
	Neighbouring landholders	Phone interviews	5	4	4
	Local government representatives from Toowoomba, Goondiwindi and Southern Downs Regional councils, and	Face-to-face	3	3	14
	LALCs and other representative indigenous groups	-	2	0	0
	CEC	Individual face-to-face sessions	6	5	6
	Chamber of Commerce	Face to face	3	2	2
	RDA – Darling Downs and South West Inc.	Face to Face	1	1	1
	Key service providers		2	0	0
	• health	-			
	• emergency services (police, ambulance, and fire)	Face-to-face	4	2	3

Table B.1 Community engagement activities

Method	Event	Administered	Invited	Interviews conducted	Total participants
	• real estate agents	Face-to-face/ phone interviews	4	3	3
	• education providers	Teleconference	8	2	2
	Other special interest stakeholders:	Face-to-face	7	4	6
	• Fraser's transport				
	• Traprock group				
	• Granite Belt Sustainable Action Group				
	• Toowoomba Surat Basin Enterprise				
Service capacity interviews	Local accommodation providers	Phone interviews	23	20	20
	Social service providers	Phone interviews or email questionnaire	14	6	6
	• Employment agencies • Social/community support providers				
Community workshops	Three Community workshops held at an accessible location within study area open to the public, non-governmental organizations (NGOs), and businesses for consultation	Face-to-face/ phone interviews	Wider community (4 to in-depth interviews)	3	3
Online Surveys	1 survey regarding community values, aspirations, perceptions, and identity	Online	Wider community	-	22
Site visit	Visit to the proposed site and area of social influence to contextualise and enhance the understanding of potential impacts from operations on the local community	In-person	-	-	3 team members
Total		In-depth interviews	60	32	55
		Service capacity interviews	37	26	26
		Online survey	-	-	22
		Total	97	58	103

Source: EMM 2021

Note: (*) indicates an in-depth interview and the participant have already been accounted for in another stakeholder category, due to some stakeholders representing multiple groups in one interview. Interviews conducted with representatives of the Granite Belt Sustainable Action Group, Toowoomba Chamber of Commerce, the Stanthorpe and Granite Belt Chamber of Commerce, and RDA took place during consultation activities with individuals in the CEC. One other CEC member was also a local landholder. Hence, the total number of interviews conducted accounts for those multi-faceted representatives which have not been duplicated.

B.2 Stakeholder consultation and field study

B.2.1 Newsletter

A newsletter was curated by EMM and was distributed by ACCIONA online in October 2020. The newsletter introduced the MacIntyre Wind Farm Project to the broader community and provided essential information to any stakeholders who engaged with the resource. The newsletter briefly addressed the key elements of the Project, including:

- project overview;
- introducing the ACCIONA team;
- early engagement with the community;
- indicative construction timeline;
- employment opportunities;
- local supply and contracting opportunities;
- USQ scholarship partnership;
- announcement of CEC members; and
- SIA and stakeholder engagement opportunities.

B.2.2 Online Community survey

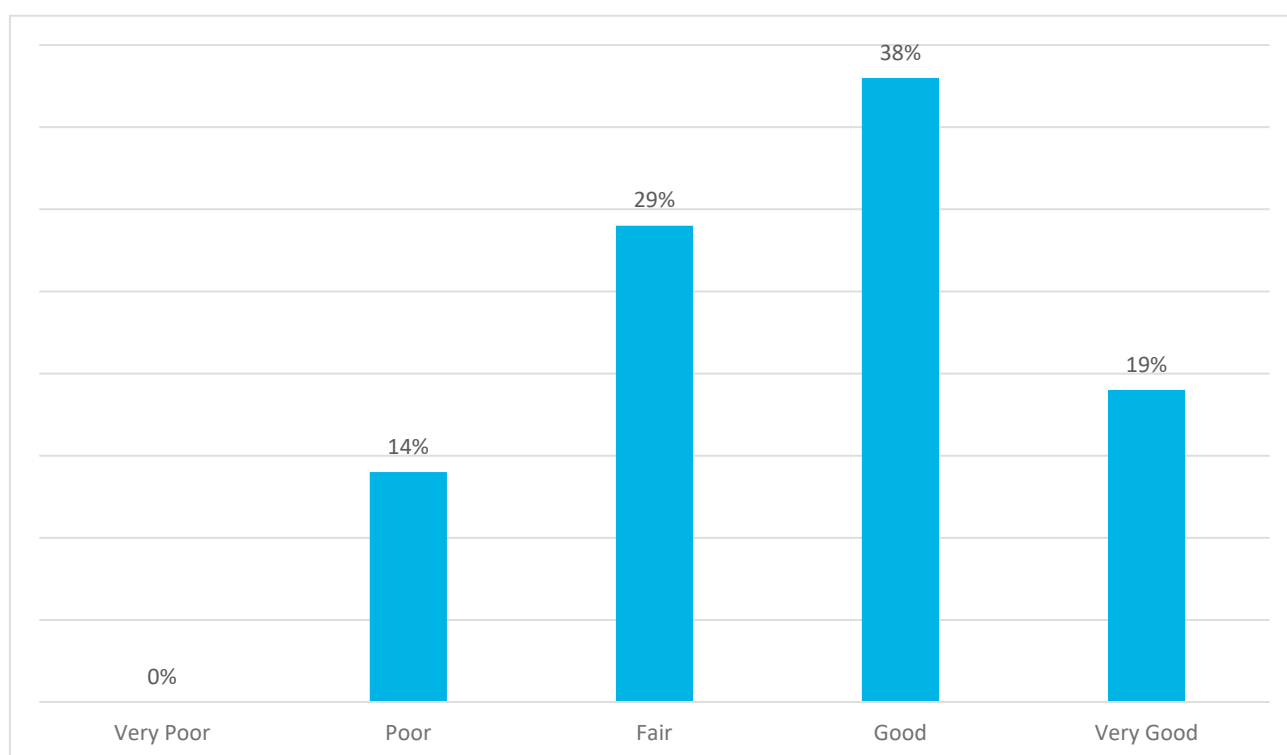
An online survey was open to the public between 21 September – 23 November 2020 and received a total of 22 responses. In total, 95% of respondents resided within the local area, with one respondent indicating they live outside of the project area. Out of the 22 responses, half of the participants indicated having previous interactions with ACCIONA Australia. The issues discussed were:

- lack of communication and landowner consultation;
- powerlines;
- community support programs and grants;
- land usage, rental payments/agreements, access contract negotiations;
- construction and operations workforce;
- local road infrastructure impacts;
- employment opportunities;
- financial gain from expansion of Windfarms in other areas;
- accommodation opportunities;

- disruptions to local community due to increased population and minimal local infrastructure;
- road safety, increased road traffic on narrow country roads gravel and single lane bitumen;
- project information; and
- education, scholarship and research opportunities.

When asked about the satisfaction of ACCIONA's response to such issues, 13% of respondents were somewhat unsatisfied, 47% of respondents indicated they were neutral and 40% of the respondents were very satisfied.

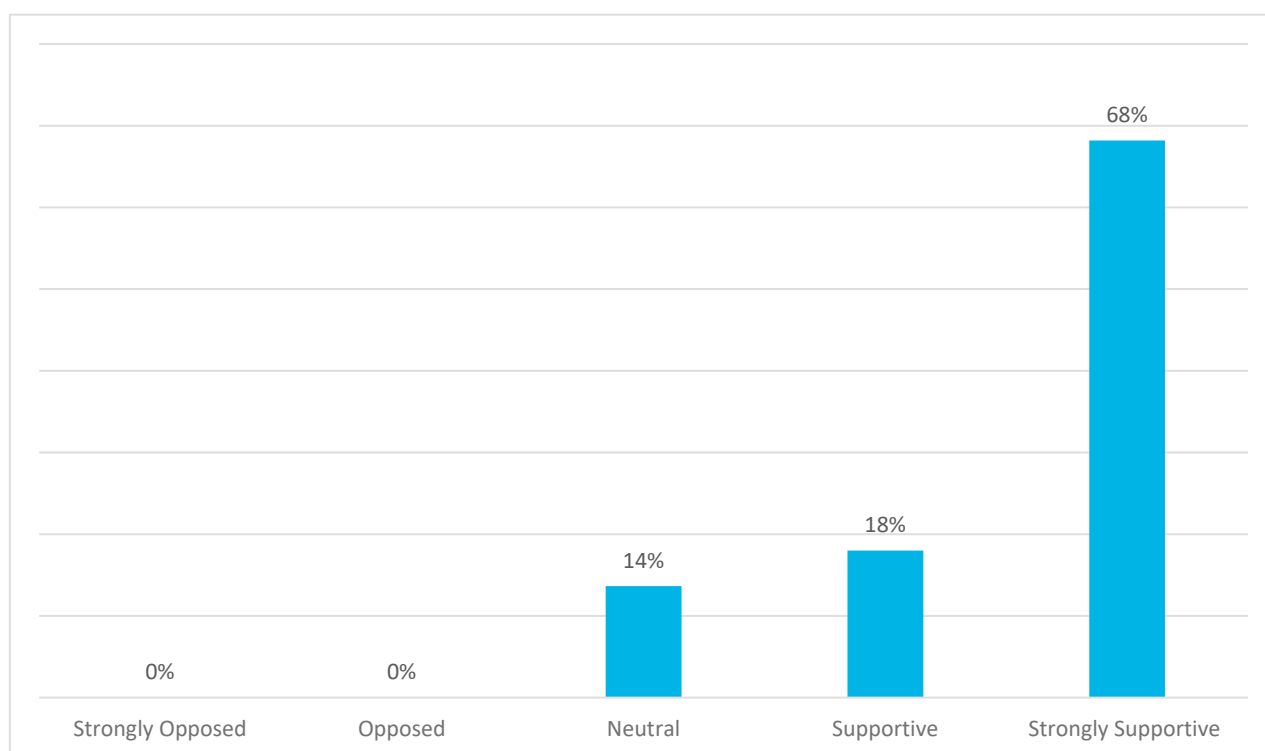
In relation to the project, awareness varied. More than half of the responses indicated that project awareness was good or very good (57%), whereas 29% indicated fair awareness and 14% felt they had poor awareness of the project (see Figure B.1).



Source: EMM 2021

Figure B.1 Project awareness

There was no opposition towards the project (ie. zero respondents indicating they were opposed to the project). A total of 14% of respondents indicated they felt neutral towards the project, whilst 86% indicated they were supportive or strongly supportive of the project (see Figure B.2).

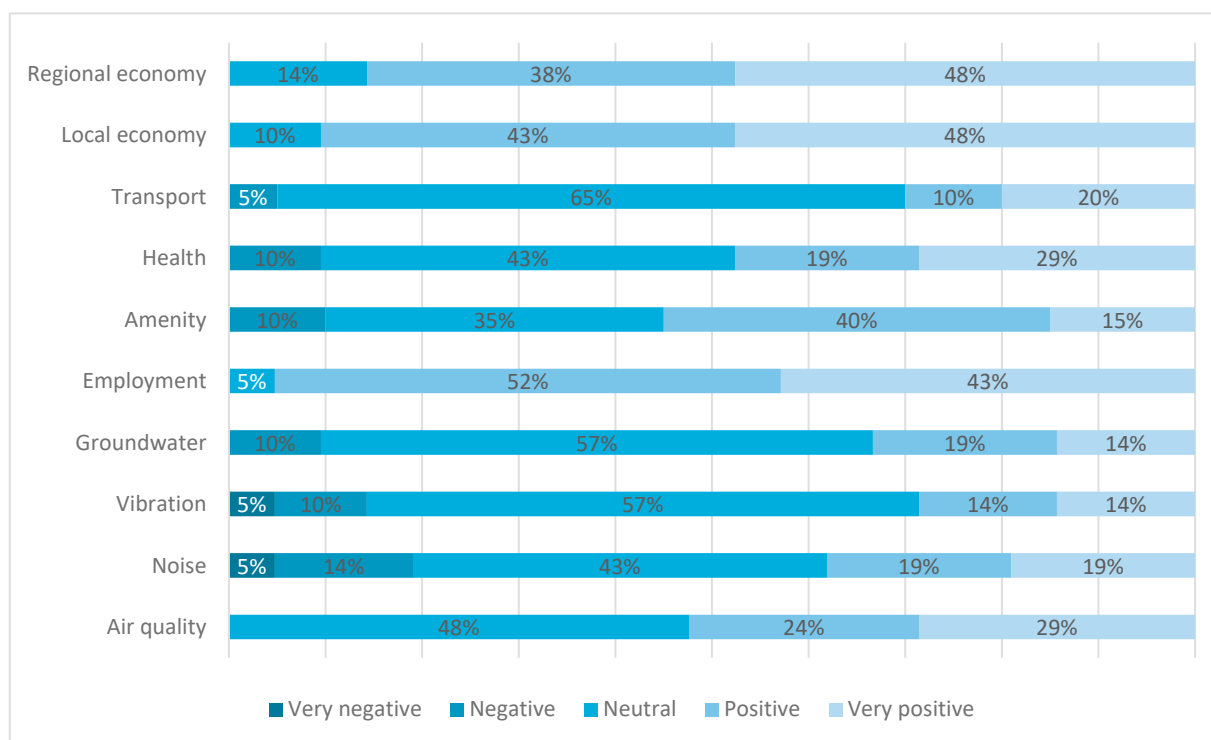


Source: EMM 2021

Figure B.2 Project support

The most positively rated impacts associated with the project was employment (52%), regional economy (86%) and local economy (90%) benefits. Whereas the most negatively rated impacts concerned noise (19%), vibration (14%) and amenity (10%). A breakdown of the ratings towards each potential impact is demonstrated in Figure B.3.

As reflected in project support, various participants felt that the project is ‘a brilliant plan and long overdue’ and believe the project is a ‘great thing for our region’. However, concerns were raised regard lack of updates and information provided to local stakeholders, particularly for landholders. One respondent raised concerns over site visitors and that some form of tracking and recording of site visitors (on properties) must be implemented. Additional concerns were raised regarding the potential increase of project related traffic, local animal welfare (namely birds) and the potential of construction impacting the land resulting in erosion.



Source: EMM 2021

Figure B.3 Potential impacts associated with the project

In addition to the potential impacts, respondents disclosed the various opportunities associated with the project. The most commonly identified opportunities associated with the project concerned the potential of increased local employment and training, particularly during construction, the transition towards renewable, clean energy sources and economic support and growth. Additional opportunities that were identified related to the economic benefits for local landholders and businesses from procurement.

The survey responses sought to understand the perceived and desired benefits from the Project within the region and local communities. Several responses discussed how the project should have sufficient employment opportunities and support the local economy. One respondent felt that it is important to engage with local community groups and contribute to the social and economic resilience of the local communities as well as encourage eco-tourism in the region by showcasing renewable energy and the windfarm. Another respondent felt that supporting local businesses and industry is important in order to provide local businesses with the experience of being involved in a significant infrastructure project and help better prepare such businesses interact with developments and infrastructure projects in the future.

Overall, results from the community survey demonstrate that majority of participants are in support of the project and recognize the benefits, specifically concerning local employment, economy and the introduction of sustainable, renewable energy sources. However, concerns were raised regarding the lack of communication and project updates as well as amenity impacts specifically noise and vibration.

B.2.3 In-depth interviews

Stakeholder consultation in the format of in-depth interviews took place between October – December 2020. To create a valid and equitable primary data pool a wide range of stakeholders were invited to participate in an interview with EMM regarding the Project, with the intention of providing relevant information and scoping out the impacts, benefits and desired opportunities perceived by the local community. To produce data that is reflective of the broader community, in-depth interviews were held with a variety of stakeholder groups including landholders, councils, the CEC, chamber's of commerce, emergency services, real estate agents, education providers and other special interest stakeholders. A total of **32 in-depth interviews** were conducted throughout the consultation period which engaged a total of **55 participants**. A record of the in-depth interview activities is shown in **Error! Reference source not found.**, followed by a qualitative description of the key consultation findings from each stakeholder category.

Section B.2.5 outlines the challenges faced through limited registration in the community workshop callouts. As a result, the 3 participants who registered for the workshop were invited to have their say through an in-depth interview consultation. Hence those participants have been included in the total number of in-depth interviews conducted.

Table B.2 In-depth interview schedule

Stakeholder type	Interview method	Date Interviewed
Landholders	Face to face	19/10/20
Neighbouring landholder and CEC member	Face to face	19/10/20
Landowners and sheep graziers	Face to face	19/10/20
Landholders and sheep graziers	Face to face	21/10/20
Landholders and sheep graziers	Face to face	21/10/20
Landholders, sheep graziers	Face to face	22/10/20
Landholders, sheep graziers	Face to face	22/10/20
Landholders	Face to face	22/10/20
Neighbouring landholder	Phone	26/11/20
Neighbouring landholder	Phone	26/11/20
Landholder	Phone	26/11/20
Neighbouring landholder	Phone	27/11/20
GRC	Face to face	27/10/20
TRC	Face to face	29/10/20
SDRC	Face to face	16/10/20
CEC member, Granite Belt Sustainable Action Group	Face to face	20/10/20
CEC member, Stanthorpe and Grate Belt Chamber of Commerce representative	Face to face	20/10/20
CEC members, Toowoomba Chamber of Commerce, RDA	Face to face	29/10/20
CEC member	Face to face	27/10/20
Darling Downs Local Ambulance Service Network (LASN)	Face to face	06/11/20
Warwick Police Department	Face to face	06/11/20
Real Estate Agent (Warwick)	Face to face	06/11/20

Table B.2 In-depth interview schedule

Stakeholder type	Interview method	Date Interviewed
Real Estate Agent (Warwick)	Face to face	06/11/20
Real Estate Agent (Stanthorpe)	Phone interview	09/12/20
Community member, local business owner (Fraser's Transport)	Face to face	04/11/20
Traprock Group representatives	Face to face	04/11/20
Toowoomba and Surat Basin Enterprise (TSBE)	Face to face	14/10/20
SSHS	Teleconference	05/11/20
TAFE QLD Darling Downs and South West Region	Teleconference	05/11/20
Business owner in Inglewood	Phone interview	03/12/20
Community member and SDRC officer	Phone interview	08/12/20
Local accommodation provider	Phone interview	08/12/20

Source: EMM 2021

i Landholders

In-depth interviews were conducted with landholders located within proximity of the project site. A total of 16 landholders and neighbouring landholders were invited to participate in an interview, with 12 interviews conducted face to face or over the phone between 19 October and 27 November 2020 (see Table X). In all interviews, participants were provided with a brief overview of the project and an explanation regarding the purpose of conducting an SIA. Additionally, stakeholders were asked to identify benefits, opportunities and potential impacts associated with the project as well as share any concerns.

A common view held by most landholders and neighbouring landholders was that the project would benefit the local economy and region. The project was recognised by most landholders as having several benefits, such as the guaranteed income from compensation (that would help improve their own properties), increased local employment and procurement opportunities as well as help the local economy through direct and indirect business. Most landholders discussed how job opportunities and infrastructure in Warwick are limited and that the project would help improve such limitations. One neighbouring landholder reflected on the capacity within the local workforce however, the skills shortages may be viewed as a limitation:

“There are people that want to work, locals can and should be engaged. [The project would be] beneficial if its local but also a challenge. Whether the skills are there locally... [there is a] potential skills shortage for the skills required for a wind farm. Construction skills are there but a limited level, could be an opportunity to incentivise local residents through training.”

As such, the neighbouring landholder identified an opportunity to provide training to local residents and upskill the workforce. Additional benefits identified related to the aspect of introducing clean and cheaper energy for the region and eco-tourism opportunities which would help the local economy. Few mentions were made regarding the potential of upgrading local infrastructure, particularly telephone service (which is an issue for the region) and roads.

Most landholders felt that the project would incentivise new residents to move into the region with concerns raised over the declining population, particularly young families and residents, due to the lack of employment opportunities in the local area. Multiple landholders reflected on the decreasing numbers in schools with landholder families having to transition their children to bigger schools:

“[Their children] were previously going to school in Karara but not enough students. Kept getting smaller. Parents leaving, so sent to Leyburn more stable friends.”

Issues with school services and infrastructure were further raised by another concerned landholder:

“...we used to have a school bus but not anymore. The school is struggling with students. So, for our grandkids to go to school, they’re going to have to drive 30km to get to the school. So yeah, the school has been really struggling.”

This was discussed in relation to the project potentially helping with this issue, by ensuring families stay within the region to pursue the local employment opportunities.

Landholders and neighbouring landholders shared concerns regarding water security, particularly where water for the project will be sourced. Water and drought were found to have impacted landholders in the local area, particularly for the graziers who experienced economic loss due to drought. Several landholders expressed how there is an opportunity for ACCIONA to build bore holes which would significantly help the local landholders and their water security:

“well if they are drilling bore holes, that would be a huge benefit...if these bores go in that’ll just give us so much security.”

A common concern raised by landholders and neighbouring landholders were amenity impacts due to the construction phase of the project. This was specifically in relation to the accumulation of dust from the increase of traffic along Carbean Rd and increased noise levels. A couple of stakeholders made comments regarding dust in the home, which can be an issue when cleaning. One neighbouring landholder shared concerns over the increase of dust exacerbating an already existing health issue. In regard to traffic, landholders felt that the increase of traffic has the potential to impact local road conditions and their own use of the road. However, some landholders felt that this would be an opportunity to improve the local roads. In addition to dust and noise impacts, landholders and neighbouring landholders felt that communication and engagement regarding the project has been minimal. Several stakeholders expressed that communication needs to be improved and that project updates need to be made more frequently, with one stakeholder recommending monthly updates.

Social conflict within the community was also raised as a concern, particular between landholders who will ‘have wind turbines’ and those who will not. Landholders, with leasing agreements arranged, felt that the agreements would create tension within their local community between themselves and neighbouring landholders. Despite neighbouring landholders not experiencing the financial benefits from hosting wind turbines, the majority of neighbouring landholders interviewed expressed that the project is a great opportunity for those farmers to help with the economic and farming struggles in the region (due to drought). However, one neighbouring landholder felt like that had ‘missed out’ and believed they were experience significant impacts relating to amenity (namely from dust due to increased traffic along Carbean Rd) which will disrupt their liveability.

Although there were some concerns raised in relation to amenity impacts during construction and the potential of social conflict amongst landholders overall the feedback was positive with several more benefits being identified than concerns. The benefits in relation to the project identified during interviews with both landholders and neighbouring landholders included the compensation from leasing arrangements, increased employment opportunities and support for the local region.

Table B.3 In-depth interview findings - Council

Stakeholder	Key impacts/ benefits/ opportunities raised
GRC	<ul style="list-style-type: none"> • Capability growth <ul style="list-style-type: none"> – “That’s probably an important social benefit, it would not only increase employment in towns like Inglewood but also the skill level” • Small town economic growth • Use of local content for suppliers and workforce <ul style="list-style-type: none"> – Desire for local procurement of workforce for civil works – Access and availability of local materials and services including Inglewood Quarry for materials – “We’ve got engineers, welding works, accommodation that can be utilised” • Absent land <ul style="list-style-type: none"> – Concern that the project would lead to local people selling their properties and creating absent land • Noise <ul style="list-style-type: none"> – “because with wind turbines, it’s not the noise you hear, it’s the noise you don’t. It’s like dog whistles, its infrasonic noise” • Legacy projects • Educational programs/ scholarships • Water security <ul style="list-style-type: none"> – Water is a major problem in Warwick and Stanthorpe – “If you were going to leave legacy in the area maybe more access to water would be something that the community would benefit from” • Equitable distribution of community benefit funds • Community halls
Toowoomba Regional Council	<ul style="list-style-type: none"> • Economic benefits <ul style="list-style-type: none"> – “if there’s a project in our area we very strongly advocate that the money is spent here” • Tourism <ul style="list-style-type: none"> – Workforce tourism and recreation – “You might get those people who want to stick around the area after they finish their work. They might want to participate in the recreational activities around the area, go to Inglewood and go fishing on the weekend” • Roads and traffic <ul style="list-style-type: none"> – Turbine transportation is the greatest impact in the Toowoomba region, particularly the blades up the range • Post-project uncertainty <ul style="list-style-type: none"> – Concerns for disposal of turbine parts after closure – “What do they do with them, I mean they’re not recyclable?”

Table B.3 **In-depth interview findings - Council**

Stakeholder	Key impacts/ benefits/ opportunities raised
SDRC	<ul style="list-style-type: none"> • Use of local content for suppliers and workforce: <ul style="list-style-type: none"> – Availability of local services including juggernaut cranes, earth-moving equipment, transport and logistics; – <i>“Plenty of skills and equipment here”</i>; and – Lots of available accommodation between Warwick and Stanthorpe. • Population growth: <ul style="list-style-type: none"> – Worker relocation would be a great social benefit; • Educational programs; • Capability growth; • Post-project uncertainty: <ul style="list-style-type: none"> – How will the turbines be disposed of? • Grants; • Community events and wellbeing; • Infrastructure improvements; • Water scarcity (impact)/ security (opportunity:): <ul style="list-style-type: none"> – RFB support; • Community halls; • Tourism: <ul style="list-style-type: none"> – People may stay in the area longer bringing flow-on economic benefits to the region; • Educational programs <ul style="list-style-type: none"> – Invasive pest species/ local ecology and environment initiatives; • Population growth: <ul style="list-style-type: none"> – Benefit to the region if the required skills are lacking locally as it will bring outside skills and residents to the region.

Source: EMM 2021

Table B.4 In-depth interview findings – CEC and other special interest stakeholders

Stakeholder	Key impacts/ benefits/ opportunities raised
CEC member and Granite Belt Sustainable Action Group representative	<ul style="list-style-type: none"> • Landholder compensation <ul style="list-style-type: none"> – Guaranteed income for landholders hosting turbines is a benefit – <i>“That’s a good thing for those guys because it’s been a really tough drought”</i> • Employment <ul style="list-style-type: none"> – Increased job opportunities and efforts in local procurement is appreciated – Increased consistency of employment opportunities • Use of local content for suppliers and workforce <ul style="list-style-type: none"> – Local bus services – Food and catering – Accommodation • Reusable infrastructure <ul style="list-style-type: none"> – Repurposing of the turbine towers after decommissioning if recycling is not feasible • Tourism <ul style="list-style-type: none"> – Workforce tourism and recreation, staying in the area and visiting wineries etc. • Beneficial land use <ul style="list-style-type: none"> – <i>“It’s not very productive land anyway, it’s just sheep around there”</i> • Misconceptions and lack of information <ul style="list-style-type: none"> – Myths and talk about ‘wind turbine sickness’ – Request for references and scientific information to share to debunk any similar myths • Environmental degradation and wildlife concerns (namely birds) • Legacy projects <ul style="list-style-type: none"> – <i>“Grants where you can substantially fund bigger more worthwhile projects. All the grants you see are quite small scale and nothing is ongoing”</i> • Educational programs <ul style="list-style-type: none"> – Environmental and sustainability-based programs in schools, expo’s, or community events • Water security • Equitable distribution of community benefit funds <ul style="list-style-type: none"> – <i>“Our group doesn’t have a physical building so there’s a lot we can’t access. Anyone with physical building get a lot of grants, groups without buildings get less grants”</i> • Sustainability programs <ul style="list-style-type: none"> – Community funding should be linked to sustainability – Tree planting and carbon offsetting schemes – <i>“Things that make a difference climate wise, that’s our biggest concern”</i> – Concerns for local waste management • Apprenticeships and training opportunities for local youth

Table B.4 In-depth interview findings – CEC and other special interest stakeholders

Stakeholder	Key impacts/ benefits/ opportunities raised
CEC members and Stanthorpe and Granite Belt Chamber of Commerce representative	<ul style="list-style-type: none"> • Economic benefits • Employment <ul style="list-style-type: none"> – Increased job opportunities – <i>“It’ll bring jobs and energy options, and that’s what this community really needs”</i> • Population growth <ul style="list-style-type: none"> – Possible student increase due to influx of workers is a benefit as student quotas are low – Need families in the area • Small town economic growth <ul style="list-style-type: none"> – Increased direct and indirect business • Use of local content for suppliers and workforce <ul style="list-style-type: none"> – Bus services – Local businesses, servicing the project, accommodation and housing – Electricians, earthworks, ground moving, a quarry, concrete truck company all available in the local area – Food and catering • Infrastructure upgrades <ul style="list-style-type: none"> – Telephone service • Better access to local, renewable electricity <ul style="list-style-type: none"> – <i>“We pay so much for electricity around here because there’s no competition”</i> • Tourism <ul style="list-style-type: none"> – <i>“The turbines can be visually quite impressive”</i> • Education <ul style="list-style-type: none"> – Engage with local schools to educate about the windfarm and renewables – Vision for an education centre • Water <ul style="list-style-type: none"> – Serious water shortages in Stanthorpe – <i>“We are out of water; we have no water left in the town... The impact would be if the project is using a significant amount of water, but Warwick has an ok water supply. Our main industry is agriculture (veg and produce). Water security is important”</i> – Influx of population using water might be a problem • Roads and traffic <ul style="list-style-type: none"> – Turbine transportation and tourism – Trucks will create dust – Traffic could be an issue if tourism increases • Lack of local content <ul style="list-style-type: none"> – Local businesses lacking confidence to lodge interest to tender the Project • Post-project uncertainty <ul style="list-style-type: none"> – Concerns for site rejuvenation plan once the turbines are redundant • Environmental degradation and wildlife concerns <ul style="list-style-type: none"> – <i>“They need to offset any loss of vegetation or endangered species”</i>

Table B.4 In-depth interview findings – CEC and other special interest stakeholders

Stakeholder	Key impacts/ benefits/ opportunities raised
CEC members, Toowoomba Chamber of Commerce Representative and Director of RDA	<ul style="list-style-type: none"> • Capability growth <ul style="list-style-type: none"> – Upskilling and training – Desire for support transitioning the region into a skilled renewables workforce – <i>“If we can use you guys to build their capability, they can use that for future projects, and that’s a long-term benefit. There’s an opportunity to make sure there really is a long-term opportunity for growth and traineeship opportunities for people down there”</i> • Small town economic growth <ul style="list-style-type: none"> – Opportunity in Inglewood, they just need technical and writing support to market themselves • Use of local content for suppliers and workforce <ul style="list-style-type: none"> – Construction workforce – Council could package works and engage local businesses – Flow-on effects will benefit all local areas – Bus services • Reusable infrastructure <ul style="list-style-type: none"> – Accommodation/ dongas something that can be reused for tourist accommodation after the project • Water scarcity a potential impact during construction • Quality of roads (specifically Carbean Rd) • Lack of community engagement and contribution <ul style="list-style-type: none"> – Onsite accommodation camps – <i>“If they are onsite, there’s no ‘oh well I don’t want to eat camp food tonight, so I’ll go to the local pub’ putting dollars into the community, there’s none of that”</i> • Job competition <ul style="list-style-type: none"> – Concern for local contractors that they’ll lose their staff to the windfarm • Post project uncertainty <ul style="list-style-type: none"> – Turbine abandonment after decommissioning • Legacy projects (grants) <ul style="list-style-type: none"> – <i>“It might be very well needed right now by that community group, but what we need is big long-term legacy projects. The bore and scholarship fund will be forever”</i> • Educational programs <ul style="list-style-type: none"> – Education is a need, maybe not a ‘want’ • Water • Infrastructure improvements <ul style="list-style-type: none"> – Roads and phone coverage • Tourism opportunities <ul style="list-style-type: none"> – Information centre and showcase of renewables – A trail through the solar farm and wind farm – Industry tours – Physical turbine/ blade viewing • Early fire detection technology <ul style="list-style-type: none"> – Fires are a big issue in the region – ACCIONA could incorporate in the wind farm – Good legacy project • Healthcare education programs

Table B.4 In-depth interview findings – CEC and other special interest stakeholders

Stakeholder	Key impacts/ benefits/ opportunities raised
CEC Member and local political candidate	<ul style="list-style-type: none"> • Economic benefits <ul style="list-style-type: none"> – From construction work • Employment <ul style="list-style-type: none"> – Increased job opportunities, will address the problem of people leaving small towns out of necessity to find work • Small town economic growth <ul style="list-style-type: none"> – Increased direct and indirect business – <i>“At some stage you’re going to have to open temporary accommodation, but the closest you can do that to one of the towns the better. Because you’re going to bring business, even if they’re just temporary businesses, for four years”</i> • Use of local content for suppliers and workforce <ul style="list-style-type: none"> – Local suppliers available (civil works, quarry, concrete) • Tourism <ul style="list-style-type: none"> – <i>“There is a tourism market for us to capture as far as benefits go, and with tourism comes all the economic flow on effects”</i> • Water access and availability • Roads and traffic <ul style="list-style-type: none"> – Turbine transportation • Aviation impacts • Water security <ul style="list-style-type: none"> – Bringing in water via train • Infrastructure improvements <ul style="list-style-type: none"> – Parks and outdoor spaces in Inglewood • Tourism opportunities/ education <ul style="list-style-type: none"> – Information centre – Turbine viewing/ tours – Established viewpoint over windfarm – Events – Model windfarm

Source: EMM 2021

Table B.5 In-depth interview findings – Emergency services

Stakeholder	Key impacts/ benefits/ opportunities raised
Warwick Police Department	<ul style="list-style-type: none"> • Economic benefits <ul style="list-style-type: none"> – Local procurement for police escorts in turbine transportation – <i>“Local benefits where local workers are employed where possible as their money goes back into the local economy”</i> • Population growth <ul style="list-style-type: none"> – Having a permanent operational workforce in town is a benefit to the community • Roads and traffic <ul style="list-style-type: none"> – Fatigue amongst DIDO workers, big issue. The more local contractors the less risk involved in long drives home after shifts • Lack of local content <ul style="list-style-type: none"> – Available accommodation • Safety <ul style="list-style-type: none"> – People climbing turbine infrastructure a big concern for police – Potential for protesters or suicidal people to become endangered – <i>“Suicidal people at heights are probably more of a risk, not that you’ll get many of them, but during construction that’s a high risk”</i> – Can have an early consultation with project manager onsite to gain situational perspective of construction site and activities (risk mitigation) • Privacy and security <ul style="list-style-type: none"> – Trespassing • Tourism opportunities <ul style="list-style-type: none"> – Physical turbine and blade viewing – <i>“Something as simple as a massive blade where someone can just come and touch it, it just increases that community participation... and that might mitigate trespassing”</i> – Viewpoint = engagement = less risk of protest • Communication with emergency services <ul style="list-style-type: none"> – Early consultation to mitigate risks a good idea – Site access points, helipads with windsock should be arranged in case of emergency during construction – Incident management plan

Table B.5 In-depth interview findings – Emergency services

Stakeholder	Key impacts/ benefits/ opportunities raised
Darling Downs Local Ambulance Service Network	<ul style="list-style-type: none"> • Education <ul style="list-style-type: none"> – Safety and medical training, onsite health and safety/ first aid training opportunity • CPR training and defibrillator funding <ul style="list-style-type: none"> – Support for local CPR awareness and defibrillators for safety and emergencies – <i>“Have the defibs on site in specific locations, so you can get access to that and oxygen until the emergency services arrive”</i> • Communication with emergency services <ul style="list-style-type: none"> – <i>“Could/should have regular meetings over the life of the project (monthly / quarterly) between transport, emergency services, and traffic personnel. Good communication channels to mitigate issues. Good to have a site contact for warning by emergency services (impact mitigation measure)”</i> – Potential for onsite personnel but need notice for staffing and vehicle sourcing – Potential to have nurse on site to deal with minor issues, relieving any additional stress on emergency medics – Site access – need an emergency plan for vehicle access and helicopter landing

Source: EMM 2021

v Local real estate agents

Three real estate agents participated in in-depth interviews, two of which were located in Warwick. The interviews were mainly focussed on the availability and capacity of the local rental markets within towns situated close to the project site. It became clear that the rental market in the region was extremely tight and there were few to no houses available for a potentially large influx of workers to the area.

“It’s not good. Right now, it’s probably been our tightest vacancy for a number of years (because of COVID). Usually, we have quite a transient tenancy, normally we would run between 3-5% vacancy rate but since mid-year we’ve been running at about 1%”

One housing opportunity noted by a local real estate agent was the potential to utilise upcoming new housing developments that are being contracted by ‘mum-and-dad investors’, who are increasingly investing in house and land packages in the area. The Warwick-based real estate agent manages the sales and rentals of those investment properties and because they are brand new, it was suggested that they could be a viable and suitable option for long-term accommodation for workers of the Project.

The Stanthorpe-based real estate agent expressed a similar challenge in a lack of capacity of local rental housing, much like the situation in Warwick. The rental shortage is a culmination of new renters in the area and old property owners returning to the area as a preferred place of residence. Some of the benefits noted by the real estate agents included an increase in job opportunities, new business activity and infrastructure development, and the potential for population growth in their communities.

Table B.6 In-depth interview findings – Special interest stakeholders

Stakeholder	Key impacts/ benefits/ opportunities raised
Community member and local business owner (Fraser's Transport)	<ul style="list-style-type: none"> • Use of local content for suppliers and workforce <ul style="list-style-type: none"> – Significantly greater benefits from local suppliers compared to outsourcing from Brisbane and beyond – <i>"So as long as it filters down into our local economy, in terms of food and gravel etc., I think you'll have a very strong story to tell in this region"</i> – <i>"I understand the workforce is difficult to source 100% locally, but the materials, why not 100%?"</i> – Locally based workers will reduce the demand for accommodation as they already have local housing – Plenty of local capability in terms of civil works – Sourcing materials locally will have flow-on effects and benefits including positive reinforcement • Education <ul style="list-style-type: none"> – Windfarm and renewable energy education in schools – Fun and a great way to spread the message through the children – <i>"I think you've got some really strong messaging there that could be rolled out through schools. I think so far, the message is very weak in Warwick"</i> • Roads and traffic <ul style="list-style-type: none"> – Turbine transportation is a major consideration as the Cunningham Hwy is already a really busy throughfare • Lack of local content <ul style="list-style-type: none"> – Local businesses lacking capability/ capacity – <i>"Our accommodation fluctuates, so our accommodation providers are very unwilling to block out long periods, because they know there will always be fluctuation"</i> • Lack of information <ul style="list-style-type: none"> – Awareness and communication regarding the project is weak – Negative perceptions from community assuming relationship with solar farm – Media can be savage, so engage with them when they come to you, aim to promote a positive message • Community events/ local sporting events <ul style="list-style-type: none"> – Collaboration with Polo Cross event as a large-scale marketing opportunity – <i>"It might be at the April event that families are invited, Acciona might do a 500-ticket bulk buy and given them to local families and say, 'come along and get some information about the project' and those types of things in terms of building that community space there"</i>

Traprock group
representatives

- Economic benefits
- Landholder compensation
 - More money to spend on fencing and restocking sheep, hiring local contractors
- Use of local content for suppliers and workforce
 - Materials sourcing
 - Civil works construction workforce
 - Limited benefit from construction to the farming communities in the Traprock region
 - *“There could be some scope for traprock landowners to provide ACCIONA with some really comprehensive materials, for the concrete etc.”*
- Infrastructure upgrades
 - Road upgrades
- Community and social conflict
 - Jealousy towards landholders compensated for hosting turbines
 - *“I’m probably a little jealous of them – I’m just joking... But that has happened in other areas, where it becomes a bit of an ‘us vs them’ situation”*
- Roads and traffic
 - Poor quality of roads
- Noise
 - Perceived humming/ grinding noise from turbines
- Visual
 - *“But the visual impact is unavoidable, it is what it is. It’s not really an issue though, I’m actually supportive”*
- Fire risks
- Legacy projects
 - Communication/ mobile phone infrastructure improvement
 - *“We don’t want to end up with a monument. We want something long term and sustainable. We’re not looking for annual feel-good events like a fun run or a sausage sizzle”*
- Infrastructure improvements
 - Mobile phone infrastructure would make a tremendous positive impact on the community’s ability to communicate socially, do internet banking, and conduct business. It would impact the health and safety of the construction site.
 - Tangible benefits
 - Wild dog control
- Community grants
- RFB support
 - Economic support desired as they aren’t properly funded
- Community events and wellbeing
 - Men’s shed good investment to cater to the ageing population
 - Agricultural shows and grounds
- Community halls
 - Funding for Cement Mills hall and maintenance of facilities
 - Karara hall too
 - *“I think there’s more focus on utilising them, particularly in the last few years of drought and COVID, just people trying to lean on the community for support. And just wellbeing, and I think it tells the story of people becoming more connected with their neighbours”*

Local equipment loans (machinery)

Table B.6 In-depth interview findings – Special interest stakeholders

Stakeholder	Key impacts/ benefits/ opportunities raised
Toowoomba and Surat Basin Enterprise (TSBE)	<ul style="list-style-type: none"> • Use of local content for suppliers and workforce <ul style="list-style-type: none"> – TSBE is well positioned to match services and goods providers with the needs of the project – Local procurement of services • Lack of local content capability and capacity <ul style="list-style-type: none"> – Southern Downs and Goondiwindi lack experience in servicing projects of this scale • TSBE can facilitate small town economic growth

Source: EMM 2021

vii Education providers

Table B.7 In-depth interview findings – Education providers

Stakeholder	Key impacts/ benefits/ opportunities raised
SSHS -Principal	<ul style="list-style-type: none"> • Tourism <ul style="list-style-type: none"> – Special interest in renewable energy • Education <ul style="list-style-type: none"> – Local school renewable energy focussed programs – Potential partnerships with College of Wine and Tourism – Could increase awareness surrounding energy production – Field trips for students • Infrastructure improvements <ul style="list-style-type: none"> – Multi-purpose community/ school facility – <i>“We don’t have a modern PCYC [Police Citizens Youth Club] within the community, but that is some fairly substantial money”</i> • Apprenticeships and training opportunities for local young people <ul style="list-style-type: none"> – Already run a strong apprenticeships and trades school – Very well suited to a 2- or 3-year construction project for students – Attractive industry from energy and sustainability perspectives – <i>“So, if this does become a more popular industry in South West QLD, that’s something they will then have the skills to go on and do”</i>

Table B.7 In-depth interview findings – Education providers

Stakeholder	Key impacts/ benefits/ opportunities raised
TAFE QLD South West Region – Industry engagement and partnership representative	<ul style="list-style-type: none"> • Capability growth <ul style="list-style-type: none"> – Upskilling and training – Campus in Warwick focus on Agriculture – specifically technical and mechanical aspects. – <i>“We did scope it out to potentially have a strong renewable focus. What would that campus look like if we developed a renewable centre out there?”</i> – Schools want to know where the next jobs will be, important in keeping young people in the region. – Capability that develops should be able to be used in the future in the region – <i>“We look at the region and say, what does the workforce plan look like? so that we can use the benefits of the economic opportunities to upskill all the industries that are imbedded in the region and develop some really good technical abilities so that they can innovate off the back in that region”</i> • Use of local content for suppliers and workforce <ul style="list-style-type: none"> – Local suppliers – Strong transportation capability, specifically driver operations – Potential for upskilling in the realm of turbine transportation • Apprenticeships and training opportunities for local youth <ul style="list-style-type: none"> – Look at the ‘Year 13’ space, potential traineeships – Apprenticeship program • COVID-safe training <ul style="list-style-type: none"> – Can offer training in the region to protect and support the community – TAFE have micro credentials around COVID-safe practices, can support project to have a strong COVID regime

Source: EMM 2021

B.2.4 Service capacity interviews

i Social service providers

A total of four employment agencies and two community/social support providers were interviewed to understand their service demand and operating capacity. Additionally, the social service provider interviews sought to gain insight into the most common issues faced by vulnerable peoples within the community and what kind of benefits from the Project would best serve them, with the intention of sharing benefits throughout the local community and mitigating pre-existing social issues.

The social services consulted with reported a high demand for their services, notably employment agencies and a homeless support service. A population influx of workers for the project was perceived to have a positive impact on employment agencies who would be able to place more of their clients in jobs directly or indirectly related to servicing the Project. The homeless support service noted that the influx of workers seeking accommodation could further strain the demand for rentals and negatively impact the vulnerable homeless population.

The desired community benefits and opportunities identified by the social service providers during consultation included:

- funding for bricks and mortar;
- funding for support, staff and facilities;

- cheaper electricity costs;
- better access to counselling, drug and alcohol support;
- better access to mental health services;
- sponsorship projects;
- grants (with less red tape);
- funding and support for domestic violence and emergency relief;
- rental support;
- food assistance;
- community grants to improve facilities;
- jobs and employment;
- community centres; and
- water security/ infrastructure.

ii Accommodation providers

A shortlist of accommodation providers was created to identify the most suitable providers for interviews via phone consultation. The shortlist was based on a selection criterion which determined the providers with the highest potential of offering accommodation to workers of the Project. A detailed list of accommodation providers who were engaged in phone consultations is displayed in Table B.8. The shortlist criterion included:

- travel time to the entrance point at Karara of under 1 hour, or located in Stanthorpe township;
- capacity of at least 10 rooms; and
- accommodation class and type.

Of all accommodation providers within an hour drive of the Project site, 23 were interviewed regarding their capacity and interest in providing accommodation for the Project's workforce. The data displayed in Table B.8 is intended to provide a snapshot of the local accommodation capacity, availability, and the willingness of providers to potentially rent rooms to workers of the Project on a long-term basis. Of the 23 accommodation providers who were interviewed, three expressed that they would not be interested in providing accommodation for the Project, as such the interview did not progress any further. Another two said 'maybe' and the remaining 18 stated that they would be interested in the opportunity. Occupancy ranged from 30% – 100% with the most common occupancy sitting around 60% – 75%. Detailed accommodation options from phone consultation with service providers is shown in Table B.8.

Table B.8 Accommodation provider capacity interviews, November 2020

Suburb	Name	Interested in providing rooms/ space	Current average occupancy	No. of suitable rooms with ensuite and AC	No. of rooms willing to be used on a long term basis	Months of the year willing to have rooms used on a long term basis	Would higher capacity put your staff / facilities under stress?	Other facilities?	Capacity to provide meals for workers	Additional catering capacity	Plans to expand your capacity	Star Rating
Coolmunda	Lake Coolmunda - Caravan, Cabin and Holiday Park	✓	approx. 50%	6 (3 family, 3 queen)	All if available	All but October long weekend	x	Laundry, camp kitchen, BBQ, fire pit, pool	x	x	x	3.5 /4
Inglewood	Inglewood Motel	✓	55%	13	8/ 9	All year	x	BBQ, pool, kitchen	x	x	x	Self-rated 3
	The Olympic Motel Inglewood	✓	60%	12	6	All year	x	BBQ, lawns, laundry, pool (under construction), off-street parking, truck parking onsite	yes - continental breakfast, packed lunch, restaurant onsite - 50 seat.	✓	x	4.5
Millmerran	Millmerran Motel	✓	usually 65%	11	11	All year	x	Kitchen, rooftop, outdoor area, BBQ	Kitchen + 10 seat restaurant + outdoor area, takeaway lunches	Maybe, not much.	Possibly 1 more room	3.5
	Millmerran Village Caravan Park	✓	75%	35	25	All year but March and May 2021	x	Central amenities, tavern, camp kitchen, workers kitchen,	Chargebacks on offer through the bakery (breakfast and lunch), dinner at tavern – chargeback	x	x	4.5
Stanthorpe	Granite Belt Cabins Stanthorpe	✓	--	14	>7	All year	x	Commercial kitchen, pool table, laundromat, off street parking, BBQ	✓	✓	x	Self-rated 4.5
	High Street Motor Inn Stanthorpe	✓	about 50%	20	>10	peak season is May – September. Flexible.	x	Restaurant, courtyard	✓	✓ (can cater up to 60 Tues – Sat nights)	x	3.5
Stanthorpe	Granite Belt Motel Stanthorpe	✓	85%	19	All if available	All year if permanent booking	x	BBQ, outside eating areas, laundry, free Wi-Fi, Foxtel (new rooms), new beds, undercover carparking, lots of green space, liquor licence.	✓	✓ (with notice)	Executive home available for rent as well. 4-bed house, creek front,	New rooms minimum 4 stars - old rooms minimum 3 stars.
	Boulevard Motel Stanthorpe	✓	approx. 80%	15	8	Booked out Snowflakes in July (2 - 4th July 2021) and Apple and Grape festivals (end of 25th - 28th Feb 2022)	x	--	Breakfast - room service, packed lunches, dining offsite/ takeaway with chargebacks	x	x	Self-rated 3
	The Apple and Grape Motel Stanthorpe	✓	approx. 70%	27	18/20	All year	x	BBQ	No - pub 1 minute away, chargebacks possible. Packed lunches.	x	x	3.5 some are 4
Stanthorpe	Stannum Lodge Motor Inn Stanthorpe	Maybe	approx. 80%/ higher	12	Few if available	Winter weekends busiest	x	Kitchenettes, restaurant next door.	x	x	x	Self-rated 4

Table B.8 Accommodation provider capacity interviews, November 2020

Suburb	Name	Interested in providing rooms/ space	Current average occupancy	No. of suitable rooms with ensuite and AC	No. of rooms willing to be used on a long term basis	Months of the year willing to have rooms used on a long term basis	Would higher capacity put your staff / facilities under stress?	Other facilities?	Capacity to provide meals for workers	Additional catering capacity	Plans to expand your capacity	Star Rating
Warwick	McNevin's Warwick Motel	✓	60%	22	--	Not available Oct – Rodeo/ Jazz and Jumpers - June	x	Laundry, restaurant, pool, BBQ.	Breakfast/ lunch easy, depend how many, depend if restaurant open.	Kitchen/ restaurant fits 80 – could meet demand	x	Self-rated 4
	Warwick Motor Inn	✓	generally 100% every night	21	12/more	All year	x	Pool, BBQ, café next door.	✓ (café next door)	✓ (café fits 50 and outdoor seating)	x	4
	Centre Point Mid City Motor Inn Warwick	✓	Weekends fully booked, quiet under 60% in the week	19	9/10	Not end of July/end of Oct.	x	Pool area, BBQ, lawn	x	x	x	3.5
Warwick	City View Motel Warwick	✓	approx. 75-80%	10	All if available, minimum 4 guaranteed	Not April, July, October	x	BBQ	✓	x	x	3.5/4
	Country Rose Motel Warwick	✓	approx. 50%	13	10	All year	x	No laundry, pool, BBQ	✓	x	x	3.5
	Warwick Vines Motel	✓	approx. 30-40%	16	Maybe 30%	Limited in peak periods.	x	--	x	x	x	3.5
	Buckaroo Motor Inn Warwick	Maybe	Up to 70%	19	8	Nov - Feb quiet. Depends how busy. Will take whatever currently.	x	Pool, BBQ	✓ (no dining)	x	x	3.5
	Alexander Motel Warwick	✓	60% - 76%	18	All if possible, minimum 10.	All year	x	Smoking area/ might turn into BBQ, restaurant.	✓	✓	x	3.5
Warwick	O'Mahony's Hotel Pty Ltd Warwick	✓	up to 75%	x	>25	All year	x	BBQ, outdoor beer garden, lounge room, piano.	✓	✓	✓ (would need more staff)	4

Source: EMM 2021

B.2.5 Community workshops

Invitations to three in-person community workshops were circulated via the ACCIONA newsletter, the Project's website, Facebook, the CEC, and to key stakeholders by special invitation, to be held in:

- Warwick on December 1, 2020 at 5:30pm;
- Inglewood on December 2, 2020 at 12:00pm; and
- Stanthorpe on December 2, 2020 at 5:30pm.

Across the three proposed workshop sessions, there were a total of only four registered participants. Due to the limited numbers of participants in the workshops, it was not feasible to conduct the anticipated community workshops face to face. The limited registration in the workshop callouts was indicative of consultation fatigue and/or a lack of concern for the Project and any potential negative impacts it may cause. An alternative means of consultation was proposed to those who registered for the workshops and took place via phone interview. 3 stakeholders accepted the invitation for a phone interview regarding the potential impacts and benefits of the project. Consultation information and methods are shown in Table B.9

Table B.9 In-depth interview responses from community workshop callout

Stakeholder	Key impacts/ benefits/ opportunities raised
Community member and officer in SDRC	<ul style="list-style-type: none">• Use of local content for suppliers and workforce;• Employment;• Small town economic growth;• Population growth; and• Apprenticeships and training opportunities for local youth.
Local accommodation provider	<ul style="list-style-type: none">• Use of local content for suppliers (accommodation);• Reusable infrastructure; and• Noise (traffic).
Local business owner	<ul style="list-style-type: none">• Lack of local content capability and capacity;• Roads and traffic;• Use of local content for suppliers and workforce;• Economic benefits;• Equitable distribution of community benefit funds;• Small town economic growth

Source: EMM 2021

B.3 Key themes i consultation findings

A variety of themes were identified from the in-depth interviews in relation to potential impacts, benefits and opportunities associated with the project. Key themes were determined based on the frequency themes were mentioned by stakeholders across all in-depth interviews. By determining the frequency of key themes in relation to the impacts, benefits and opportunities it provides an indication of what matters are of significance for the stakeholders who participated in the in-depth interviews.

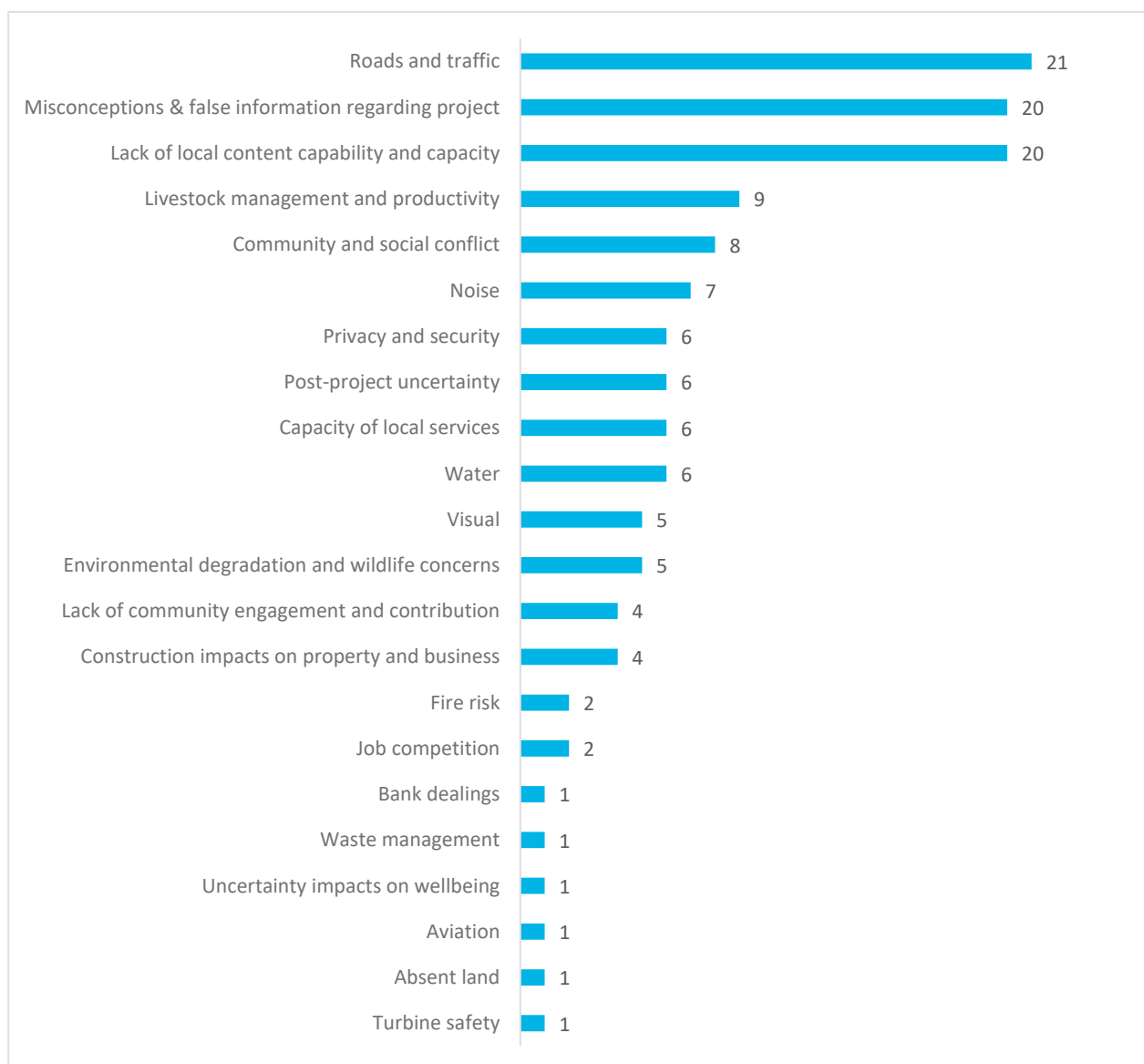
B.3.1 Impacts

Respondents during interviews were asked to identify potential impacts that may derive from the project. A total of 22 common themes were found throughout the interview notes (see **Error! Reference source not found.**). The key themes identified from the interviews, relating to potential project-related impacts (based on frequency rate) were:

- roads and traffic;
- misconceptions and false information regarding the project; and
- lack of local content capability and capacity.

The main concerns mentioned in relation to roads and traffic impacts specifically related to the transportation of the wind turbines and how the transportation will contribute to existing traffic conditions. The increased accumulation of dust, specifically on Carbean Rd, impacts to road quality and the increase of vehicle movements affecting road safety were also frequently raised concerns. Additional concerns raised relating to roads and traffic, but not as frequently raised, related to potential impacts project-related traffic may have on livestock safety, existing traffic conditions and worker driving fatigue.

As for misconceptions and information regarding the projects, impacts relating to the lack of communication and information received was frequently mentioned. Lastly, most frequently mentioned concern relating to local content capacity and capacity related to fears over local businesses and workforce lacking capability to accommodate for the project and how this may impact local procurement opportunities.



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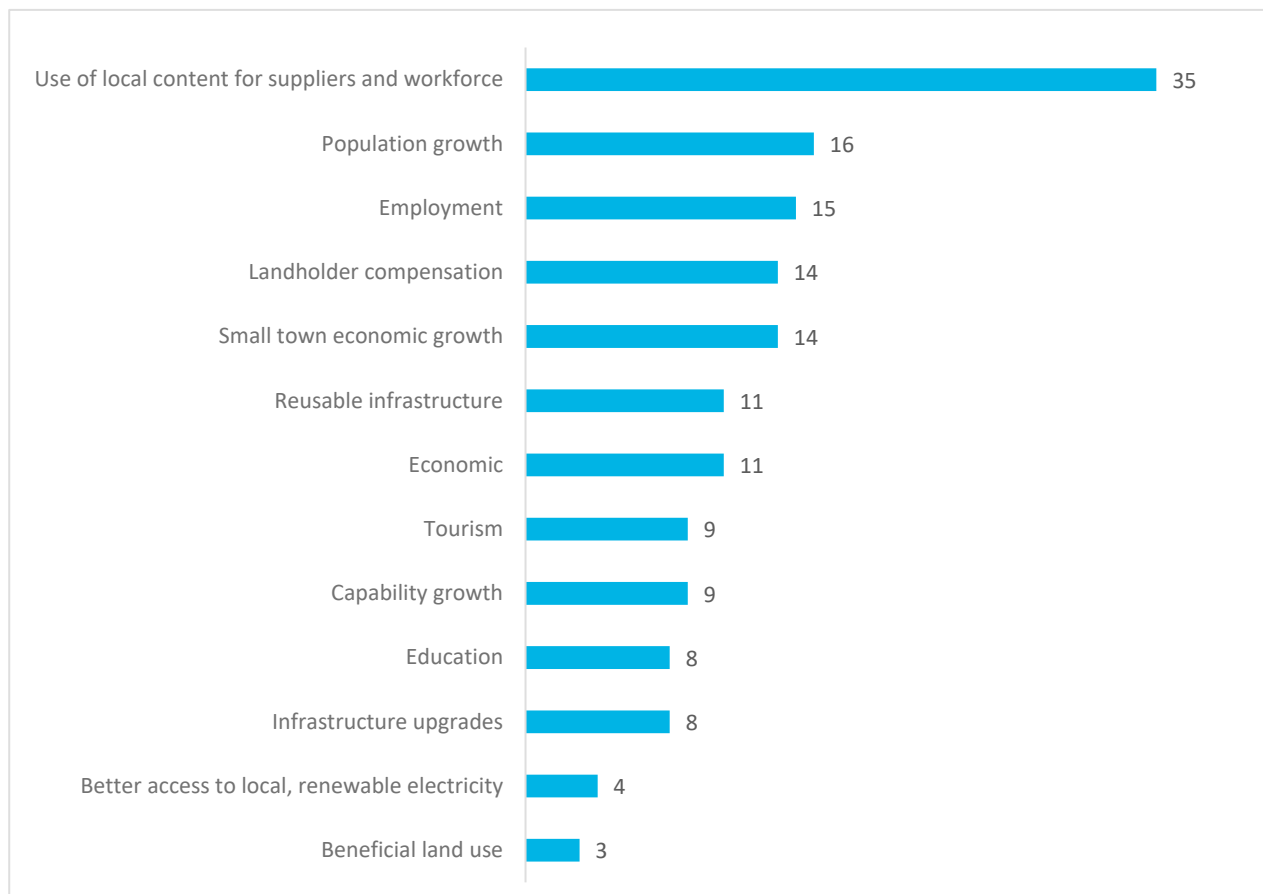
Figure B.4 Frequency of themes mentioned relating to potential project-related impacts

B.3.2 Benefits

From interviews, 13 themes were identified in relation to project-related benefits (see Figure B.5). The most frequently identified key themes associated with project-related benefits concerned:

- the use of local content from suppliers and workforce;
- population growth; and
- employment.

In relation to local procurement, interviews found that the use of local suppliers (namely bus services, accommodation and food and catering) for project-related work was a unanimous benefit and was mentioned twice as frequently as population growth and employment benefits. This was followed by the possible student population increase associated with the key theme of population growth benefits and increase of job opportunities associated with employment.



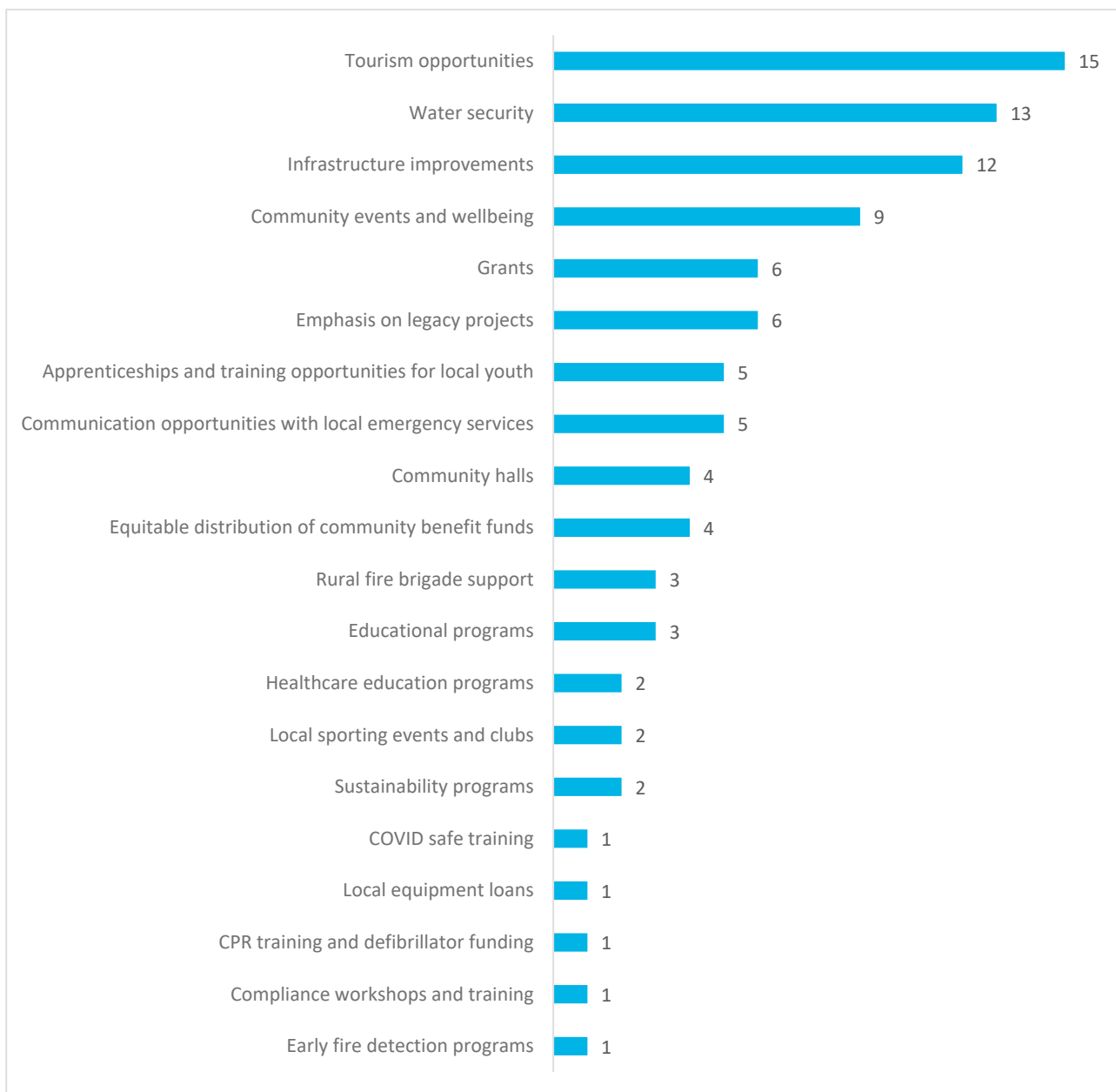
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Figure B.5 Frequency of themes mentioned relating to potential project-related benefits

B.3.3 Opportunities

Respondents throughout interviews were asked to identify any project-related opportunities. From this, 20 common themes were identified and are presented within Figure B.6.

Tourism opportunities was identified as a key theme from the interviews. This was followed by opportunities to improve water security and infrastructure. Specific opportunities mentioned regarding tourism related to the wind farm providing new viewing points of physical turbines and blades, which is unique to the local area and could increase eco-tourism within the region. The installation of bore holes as a result of the project guaranteeing water supply for the local area was the most commonly identified opportunity associated with the region's water security. In relation to infrastructure improvements, the most commonly identified opportunity concerned mobile phone coverage upgrades, followed by the opportunity to upgrade local roads and assisting locals with wild dog control.



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Figure B.6 Frequency of themes mentioned relating to project-related opportunities

MACINTYRE WIND FARM

Welcome to the MacIntyre Wind Farm Newsletter. ACCIONA is committed to open and honest dialogue with our host communities and key stakeholders and we would like to keep you informed of our latest project to be delivered in Queensland.

OCTOBER 2020

- 1 PROJECT OVERVIEW & MEET THE TEAM
- 2 ENGAGING WITH COMMUNITY & CONSTRUCTION TIMELINE
- 3 EMPLOYMENT & CONTRACTING SCHOLARSHIP & CEC ANNOUNCEMENT
- 4 SOCIAL IMPACT ASSESMENT

Located in Queensland approximately 50 km south-west of Warwick and 10 kms south of Karara, the MacIntyre Wind Farm Precinct will be located within 36,000 hectares of leased land. The proposed MacIntyre Wind Farm Precinct is expected to have an export capacity of approximately 1,026 MW and up to 180 turbines. The precinct will comprise two separate projects – the MacIntyre Wind Farm and the Karara Wind Farm. The wind farms will be constructed on land predominately used for sheep farming. Current farming practices will continue during the construction and operations phases of the wind farms. ACCIONA has reached an agreement with CleanCo, the Queensland Government's newest renewable energy generator, for it to become the independent owner and operator of a 100MW wind farm within the MacIntyre precinct – this will be known as the Karara Wind Farm. In addition, CleanCo will acquire the annual production of 400MW from ACCIONA's facilities for ten years through a Power Purchase Agreement (PPA). ACCIONA will build and operate the MacIntyre and Karara Wind Farms.

Meet the new members of the team

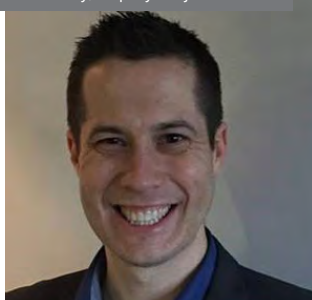
ACCIONA is pleased to announce the appointments of four senior team members on the MacIntyre Wind Farm project. The newly appointed leadership team will draw upon their extensive experience in the energy and infrastructure sectors to deliver a world-class project, drive local industry participation and keep the community updated regarding project developments.

Lars Hansen, Project Director



Lars Hansen is an accomplished leader committed to driving innovation and developing strong relationships with the community. He brings both domestic and international experience to the team from a variety of engineering and construction projects. Lars is highly respected by industry peers and has shared his extensive knowledge at reputable events such as the Australian Clean Energy Summit and the EU Climate Diplomacy Day.

David Bratby, Deputy Project Director



David Bratby has been appointed Deputy Project Director and will work closely with Lars. David has been integral in the MacIntyre process thus far and, in his new role, will maintain a high level of involvement in the project during the delivery phase. David's focus will be on the overall commercial strategy of the project.

Peter Gibson, Project Manager



Peter Gibson is a seasoned Project Manager with expertise in the energy industry. He has been integral in the delivery of several regional projects having most recently worked on the Coopers Gap Wind Farm, located near Cooranga North, between Dalby and Kingaroy. Peter is a highly motivated team player who is committed to achieving positive outcomes on the MacIntyre project for all stakeholders.

Praveen Vijayakumar, Senior Project Engineer

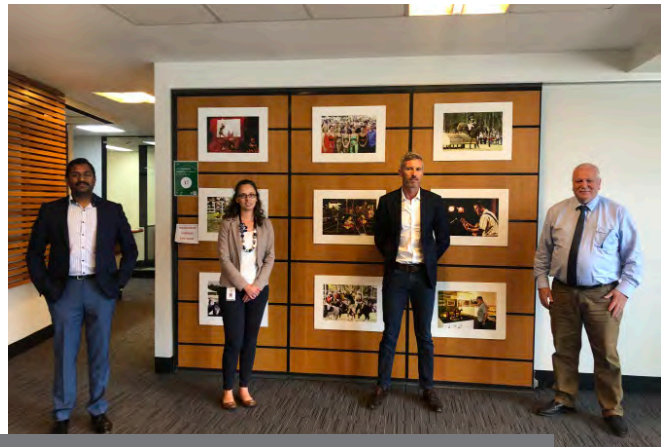


Praveen Vijayakumar has joined the MacIntyre Wind Farm leadership team as Senior Project Engineer. With an extensive background in renewable energy projects and over 13 years' experience in a wind and farm engineering, construction and project management, Praveen will bring invaluable insight as we transition to the delivery phase of the project.

Engaging with the community



Pictured – Senior Business Development Manager, John Sadler presenting at the TSBE Enterprise Breakfast event in Toowoomba

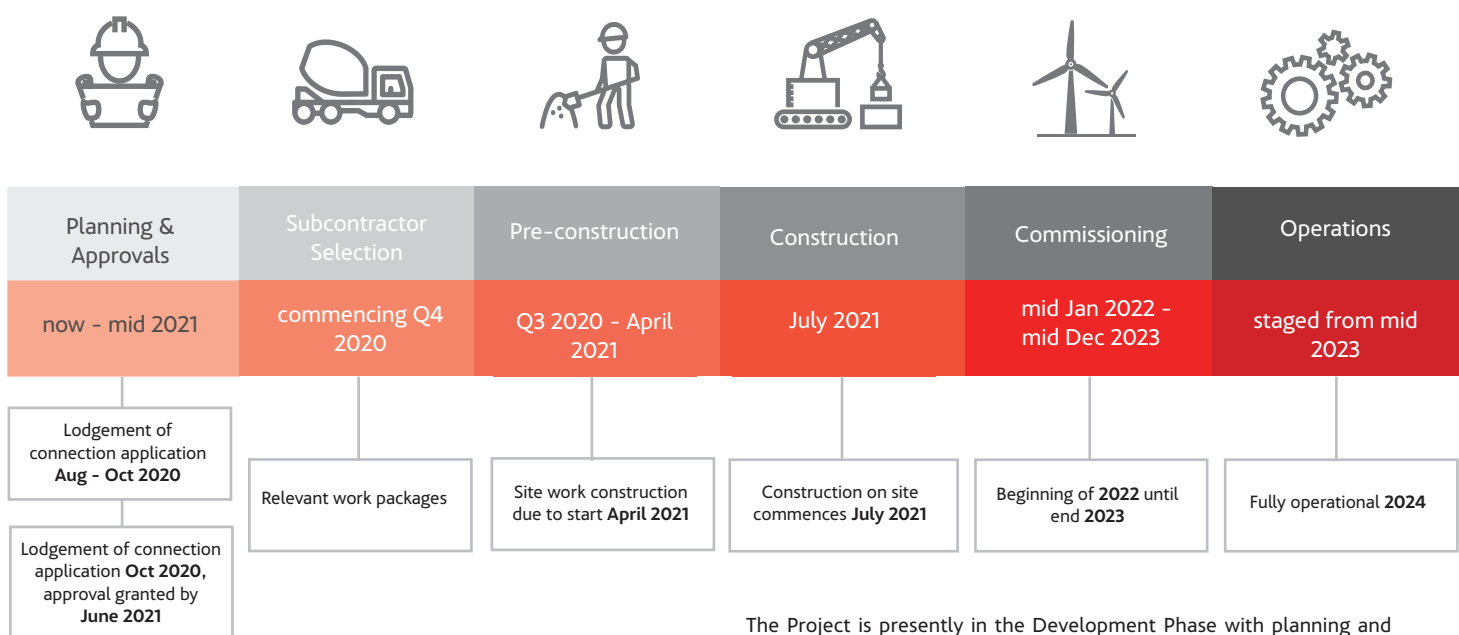


Pictured – Praveen Vijayakumar (ACCIONA); Angela O'Mara (SDRC); John Sadler (ACCIONA) and Mayor Penissi (SDRC)

ACCIONA's Senior Business Development Manager, John Sadler, provided an update on the MacIntyre project at the sold-out September TSBE Enterprise Breakfast Event in Toowoomba. John presented to 100 members of the local business community, discussing expected timelines, procurement opportunities and community benefits.

Members of the MacIntyre Project Team also met with Southern Downs Regional Council Mayor, Vic Penissi, during the month. The MacIntyre Precinct is expected to generate significant local business and investment across the Southern Downs, Goondiwindi and Toowoomba regional council areas throughout its lifetime. Roughly \$2.5 million in financial contributions to local community programs, events and initiatives over the first 10 years of the project is also planned.

Indicative construction timeline



The Project is presently in the Development Phase with planning and approvals currently in progress. Construction is anticipated to commence in mid-2021, with the project being fully operational in 2024.

Employment opportunities

We want to hear from experienced renewable energy professionals who are interested to be a part of this exciting project. There will be several roles upcoming to take the project through the planning stages, right through to construction and operations. Keep a watch out on our website for new project opportunities [here](#).

USQ scholarship partnership

ACCIONA, in partnership with the University of Southern Queensland, has established the MacIntyre Wind Farm Scholarship. The initiative, designed to provide financial support to local students, is now open for applications. Students undertaking their first year of study in 2021 are invited to apply.

A sum of \$2,000 will be made available to first year students each year. As the MacIntyre Wind Farm will be around for many years to

Local supply & contracting opportunities

ACCIONA is committed to supporting local industry participation and we have been working with the Southern Downs Regional Council (SDRC) Economic Development Team to offer Supplier Information Sessions that will take place in Stanthorpe and Warwick on 20th and 21st October, respectively at the Council premises. The information sessions will provide details on the project timeline and opportunities to become involved in upcoming work packages.

If you interested to attend one of the events, please go to the Eventbrite website via these links - [Stanthorpe Event](#) or [Warwick Event](#). Numbers are limited, therefore bookings are essential.

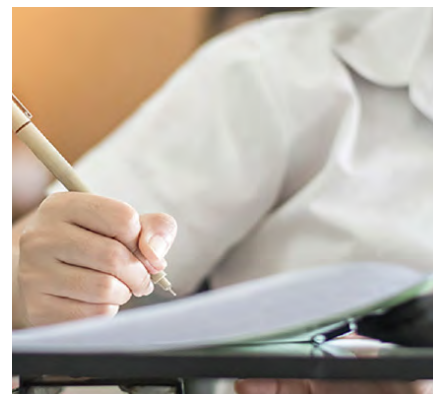
We are encouraging local suppliers and contractors that are interested in conducting business for the project to register through the ICN Gateway. A representative from ICN Queensland will also be present at the Information Sessions to demonstrate how to register your business on the ICN Gateway. The ICN MacIntyre Wind Farm Project page - can be accessed via this [link](#).

ACCIONA is very appreciative of the assistance provided by the team at SDRC for their support of this project and by keeping local businesses informed of the upcoming opportunities to be involved.

come, this partnership with USQ offers us a platform to provide ongoing support where it's needed most - in the local community.

The MacIntyre Wind Farm Scholarship is open to students residing within the local government areas covering Southern Downs Regional Council, Goondiwindi Regional Council, or Toowoomba Regional Council.

Information on how to apply for the scholarship is available [here](#).



Community Engagement Committee (CEC) announced

Continuous communication and dialogue serve as the foundation for ACCIONA's relationship with our stakeholders, and one such way we look to promote ongoing communication is through the establishment of project Community Engagement Committees. ACCIONA is pleased to announce the appointment of community members to the MacIntyre Wind Farm Precinct Community Engagement Committee (CEC).

Brett Wickham, Managing Director, thanked those who nominated for the CEC and said the committee members represented an excellent cross-section of the communities interested in the project.

"Community committees are designed to foster genuine discussion and collaboration and are always an invaluable source of advice on ways a project should be progressed within an existing local community," he said.

We were impressed with the calibre of nominations for the MacIntyre Wind Farm CEC and look forward to working with the committee members to achieve strong local outcomes from the project."

The local stakeholders appointed to the MacIntyre Wind Farm CEC, who are representative of the three local government areas with interest in the project, are:

- David Bartlett (Gore), Traprock Group
- Trudi Bartlett (Harlaxton), Regional Development Australia
- Michelle Conkas (Severnlea), Granite Belt Sustainable Action Network
- Lloyd Hilton (Karara), local community volunteer
- Susie Kelly (Goondiwindi), Goondiwindi Regional Council
- Graham Parker (Stanthorpe), Stanthorpe and Granite Belt Chamber of Commerce
- Joel Richters (Goondiwindi), Care Goondiwindi
- Jo Sheppard (Toowoomba), University Southern Queensland

The CEC term of membership for Community Representatives is two years. The CEC will hold its first meeting at the end of October 2020 at which the CEC's Independent Chairperson will be announced.

Social Impact Assessment - Understanding the impacts and opportunities

We have engaged EMM Consulting to conduct a Social Impact Assessment (SIA) as part of the planning process for the MacIntyre Wind Farm Precinct. Whilst an SIA is not required for the approval of the windfarms, we have chosen to engage EMM Consulting to conduct an in-depth assessment of the possible benefits and impacts of the project to the surrounding community during its construction and operational phases.

The assessment will provide a comprehensive overview of the local communities, their needs, and aspirations. These will inform a Social Impact Management Plan that will focus on minimising impacts while maximising the benefits of the project on local communities.

We have recognised the importance of engaging an independent body such as EMM, with experience and integrity in the field of SIA, to appropriately assess the various possible impacts and benefits of the project.

A Social Impact Assessment aims to:

- describe the existing social conditions and demographic profile of the local communities;
- identify and assess the extent and nature of potential social risks;
- evaluate the significance of the social impacts and benefits arising from the project;
- provide mitigation recommendations to reduce the negative social impacts and enhancement measures for significant positive impacts;
- develop a monitoring and management framework.

How can you get involved with the SIA?

We are dedicated to working with the community to understand your views, interests and what is important to you. From October to November 2020 EMM Consulting will conduct a range of engagement

activities with community groups, members, and interested stakeholders, to better inform the Social Impact Assessment. This will include a range of in-depth interviews, workshops and online surveys.

If you would like to access the on-line survey, click on the link [here](#). If you would like to be involved in an interview, please send an email to: sayala@emmconsulting.com.au

Stakeholder engagement during COVID-19

All community consultation will be undertaken in line with current government guidelines, which will include social distancing and increased hygiene practices. Wherever possible the project team will provide you with options for engagement that best suit your circumstances while keeping you and the project team safe.



CONTACT US

We welcome your contact for information or feedback about any of our activities. Please call the free-call number **1800 283 550** or email macintyre@acciona.com. Visit our website for more information about MacIntyre Wind Farm here - www.acciona.com.au/macintyre.

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MacIntyre Wind Farm Precinct Project Community Survey

The proposed MacIntyre Wind Farm Precinct is expected to have an export capacity of approximately 1,026 MW and up to 180 turbines.

The MacIntyre Wind Farm Precinct will be constructed on land predominately used for sheep farming. Current farming practices will continue during the construction and operations phases of the wind farm.

The site has been selected due to its exposure to consistent winds across this part of the country and provides a suitable resource for the development of a wind farm.

Location

Located in Queensland approximately 200 kms south-west of Brisbane, 50 km South-West of Warwick and 10 kms south of Karara the MacIntyre Wind Farm Precinct will be located within 36,000 hectares of leased land.

Construction and operation

ACCIONA Australia will build and operate the MacIntyre Wind Farm Precinct.

ACCIONA has reached an agreement with CleanCo, the Queensland Government's newest renewable energy generator, for it to become the independent owner and operator of a 100MW wind farm within the MacIntyre complex. In addition, CleanCo will acquire the annual production of 400MW from ACCIONA's facilities for ten years through a Power Purchase Agreement (PPA).

Purpose

EMM Consulting Pty Ltd has been engaged by the ACCIONA to prepare a Social Impact Assessment for the Project. The survey identifies the potential social impacts and community concerns about the Project for further investigation during the development of the Social Impact Assessment. The results will inform the identification and assessment of impacts and benefits as well as strategies to minimize impacts and enhance benefits.

More information

For more information visit ACCIONA's website at www.accionacom.au

1. Have you had any interaction with ACCIONA Australia?

☐ Yes

☐ No

2. During your interactions with ACCIONA what issues did you discuss?

3. How **satisfied** were you with ACCIONA's response to the issues you raised?

Not at all satisfied	Somewhat unsatisfied	Neutral	Somewhat satisfied	Very satisfied
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. How would you rate your **awareness** of the proposed MacIntyre Wind Farm Precinct?

Very poor	Poor	Fair	Good	Very good
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. How do you **feel about** the proposed MacIntyre Wind Farm Precinct?

Strongly Opposed	Opposed	Neutral	Supportive	Strongly supportive
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Rate the following **potential impacts** from the proposed MacIntyre Wind Farm Precinct:

	Very negative	Negative	Neutral	Positive	Very positive
Air quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Noise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vibration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Groundwater	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Employment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Amenity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transport	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Local economy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regional economy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Any other potential issues or impacts you wish to raise

7. Do you have any **issues or concerns** about the proposed MacIntyre Wind Farm Precinct?

8. What **benefits** would the MacIntyre Wind Farm Precinct bring to the region and local communities?

9. What **benefits** should the MacIntyre Wind Farm Precinct bring to the region and local communities?

10. What is your **postcode**?

11. What is the name of your **town/suburb**?

12. Which of the following **age brackets** do you fall into?

☐ Under 15

☐ 35-44

☐ 15-24

☐ 45-54

☐ 18-24

☐ 55-64

☐ 25-34

☐ 65+

13. Which of the following do you **identify** as?

Please select all that apply to you.

☐ Male

☐ I speak a language other than English at home

☐ Female

☐ I have a disability and/or special need

☐ Other gender

☐ Landholder

☐ Aboriginal

☐ Business owner

☐ Torres Strait Islander

☐ Resident

14. Would you like to be **contacted further** about this project? If so, please provide your **contact details** below.

☐ Yes

☐ No

Your contact information. Please provide your name, email, and telephone.

Appendix C

SIA Benefit and Impact Matrix

SIA definitions

Extent of the benefit (people & geography)

The local, regional and potentially the national economy will benefit significantly. Improvements on social services and/or social cohesion.

Positive Consequences (Benefits)

The local and regional economy will benefit. Improvements on social services.

The local economy will benefit. Improvements on social services.

Marginal improvements/contribution to local economy. Marginal improvements/contribution to social services and/or social cohesion.

Level of impact

Cumulative duration the benefit is experienced

Benefits will realise in the **short term** and will be permanent

Benefits will realise in the **short to medium term** and may or may not be permanent

Benefits will realise in the **medium to long term** and are not permanent

Benefits will realise in the **short term** and are not permanent

Cumulative duration the impact is experienced

* Sections shaded in grey need to be customised for each discipline, currently these are for SIA.

Likelihood

Has occurred in the past in this project (or operation) or in similar project OR circumstances could cause it to happen during the project (or operation).

Has occurred in the life of this project (or similar project*) or in the last few years of operations or circumstances could cause it to occur again in the short term.

Has occurred at least once in this project or a similar project (or in the history of this operation).

Has never occurred in this project (or operation) but has occurred at other similar projects (operations) with similar risk/benefit profile.

Is possible, but has not occurred to date in this project or similar projects.

		4	3	2	1
		Highly Desirable	Desirable	Minor	Minimal
5	Almost certain	Significant (15)	Significant (12)	Moderate (8)	Limited (5)
4	Likely	Significant (14)	Significant (11)	Moderate (7)	Limited (4)
3	Possible	Significant (13)	Significant (10)	Moderate (6)	Limited (3)
2	Unlikely	Significant (12)	Moderate (9)	Limited (5)	Limited (2)
1	Rare	Significant (11)	Moderate (8)	Limited (4)	Limited (1)

Aim to maximise benefits

Benefit assessment and enhancement plan

Promote actions and/or design that realises the benefit with limited inputs. Investigate whether changes in the implementation/design can make the benefit 'moderate' or 'significant'

Limited (1-5)

Actively promote actions and/or design that realises the benefit. Investigate whether changes in the implementation/design can make the benefit 'significant'

Moderate (6-9)

Actively promote and prioritise actions and or design that realises the residual benefit.

Significant (10-15)

Short term __ months/years

Medium term __ months/years

Long term __ month/years

SIA definitions

Extent of the benefit (people & geography)

No or negligible socioeconomic impact.

Socioeconomic impact that will take small effort to restore and does not threaten livelihood. No exogenous resources are required for recovery.

Socioeconomic impact will require minimal additional external resources to recover.

Socioeconomic impact will depend on reasonable amount of external resources to recover.

Socioeconomic impact will depend on significant external resources to recover and may not be back to how it was before the impact.

Level of impact

Cumulative duration the benefit is experienced

Short timeframe impact on livelihood or liveability.

Impacts on the livelihood or liveability are limited to the life of the project.

Impacts on livelihood and/or liveability will survive the life of the project.

Impacts on livelihood and liveability could survive long after the life of the project or can be permanent.

Impacts on livelihood and liveability survive long after the life of the project and are permanent.

Cumulative duration the impact is experienced

* Sections shaded in grey need to be customised for each discipline, currently these are for SIA.

Likelihood

Has occurred in the past in this project (or operation) or in similar project OR circumstances could cause it to happen during the project (or operation).

Has occurred in the life of this project (or similar project*) or in the last few years of operations or circumstances could cause it to occur again in the short term.

Has occurred at least once in this project or a similar project (or in the history of this operation).

Has never occurred in this project (or operation) but has occurred at other similar projects (operations) with similar risk/benefit profile.

Is possible, but has not occurred to date in this project or similar projects.

		1	2	3	4	5
		Negligible	Marginal	Moderate	Major	Intolerable
5	Almost certain	Low (6)	Medium (8)	High (12)	Unacceptable (16)	Unacceptable (16)
4	Likely	Negligible (4)	Low (7)	Medium (10)	High (14)	Unacceptable (16)
3	Possible	Negligible (3)	Low (6)	Medium (9)	High (13)	Unacceptable (16)
2	Unlikely	Negligible (2)	Low (6)	Medium (8)	Medium (11)	Unacceptable (16)
1	Rare	Negligible (1)	Negligible (5)	Low (7)	Medium (10)	High (15)

Aim to minimise impacts

Residual risk assessment and mitigations plan

No major concern - systems and processes managing risks are adequate

Negligible (1-5)

Low (6-7)

Periodic monitoring - improve controls or monitor risk to ensure residual rating does not increase

Medium (8-11)

Continuous review - confirm adequacy of controls and continued monitoring to maintain or reduce risk

High (12-15)

Active management - urgent treatment required to allow project to proceed

Unacceptable (16)

Short term __ months/years

Medium term __ months/years

Long term __ month/years

Appendix D

Accommodation Study

Accommodation Study

MacIntyre Wind Farm Precinct

Prepared for ACCIONA
January 2021

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Accommodation Study

MacIntyre Wind Farm Precinct

Report Number

B200456 RP#

Client

ACCIONA

Date

5 January 2021

Version

v1 Final

Prepared by

Caitlin Treacy & Santiago Ayala

Social Scientists

19 January 2021

Approved by

Santiago Ayala Associate

Social Scientists

19 January 2021

This report has been prepared in accordance with the brief provided by the client and has relied upon the information collected at the time and under the conditions specified in the report. All findings, conclusions or recommendations contained in the report are based on the aforementioned circumstances. The report is for the use of the client and no responsibility will be taken for its use by other parties. The client may, at its discretion, use the report to inform regulators and the public.

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1 Scope

This Accommodation Study has been prepared to determine possible options for workforce accommodation during the construction and operation of the MacIntyre Wind Farm Precinct (the Project). The study provides an overview of existing and potential accommodation types, and their availability, suitability and capacity to service the Project. Some key priorities were identified to assess the viability and suitability of accommodation for the Project, including potential for local social and economic contribution, workforce and community wellbeing, health and safety, and economic feasibility.

This Accommodation Study includes:

- An understanding of the context regarding ACCIONA's commitments and goals for the project, and the purpose of this Accommodation Study;
- workforce accommodation requirements based off the projected workforce numbers during the construction and operational phases of the project;
- a comprehensive overview of the availability, capacity and suitability of local short term and rental accommodation primarily informed by stakeholder engagement and community consultation; and
- an analysis of workforce accommodation options, including potential impacts, risks, strengths and benefits, that will inform the project's subsequent Accommodation Strategy.

This study presents and analyses data regarding possible approaches to workforce accommodation. Strategies for the implementation of these approaches is part of the Accommodation Strategy – which may become part of the Social Impact Management Plan (SIMP). As such, this Accommodation Study provides the basis for any accommodation strategies that are undertaken to make key decisions regarding ACCIONA's approach to workforce accommodation during the Project.

2 Background and context

ACCIONA have committed to providing significant economic activity and development across the Goondiwindi, Southern Downs and Toowoomba Regional Council areas, including directly supporting and investing in local business within the region during the life of the Project. Community and workforce wellbeing are significant priorities for the project, both economically and socially. Furthermore, ACCIONA aims to ensure that the project leaves a long-term positive legacy on the local area that will continue beyond the completion of the construction and operational phases of the project. Awarding accommodation contracts to local providers will ensure both direct and indirect benefits to the local economy, whilst also contributing to the social wellbeing and integration of workforce and the local community, in turn assisting in achieving these commitments over the life of the project and beyond.

ACCIONA also aims to engage and align with local and state government priorities and relevant guidelines throughout the life of the project. Economic Development QLD (EDQ) states in the non-Resident Worker Accommodation Guideline (2015) that workforce accommodation should be located within or as close as possible to local towns and communities. The Strong and Sustainable Communities (SSRC) Act also outlines the key object of ensuring “that residents of communities in the vicinity of large resource projects benefit from the construction and operation of the projects”. Hence, this Accommodation Study closely considers how each option will benefit local communities, economically and otherwise.

ACCIONA also aims to engage and align with local and state government priorities and relevant guidelines throughout the life of the project. Economic Development QLD (EDQ) states in the non-Resident Worker Accommodation Guideline (2015) that workforce accommodation should be located within or as close as possible to local towns and communities. The Strong and Sustainable Communities (SSRC) Act also outlines the key object of ensuring “that residents of communities in the vicinity of large resource projects benefit from the construction and operation of the projects”. Hence, this Accommodation Study closely considers how each option will benefit local communities, economically and otherwise.

2.1 Purpose of this Accommodation Study

EMM has considered these commitments and goals and prepared an Accommodation Study to determine the following;

- the project’s requirements for workforce accommodation during its construction and operational phases;
- types of accommodation available within the local area;
- the capacity, availability and suitability of local accommodation; and
- the impacts, risks and benefits of each accommodation option.

The purpose of this study is to provide a comprehensive overview of the possible options for the project’s workforce accommodation requirements and identify the feasibility and suitability of each approach from a social impact viewpoint. This study prioritises accommodation options that will contribute to achieving the commitments and goals identified by ACCIONA for the project, such as long-term economic activity and development within the local area. The data presented throughout this study will also assist to inform ACCIONA’s Accommodation Strategy, which will ultimately inform the project’s approach to workforce accommodation.

3 Workforce accommodation requirements

The number of units of workforce accommodation required during the construction and operational phases of the project are dependent on the projected onsite workforce. The project is anticipated to have a peak on-site workforce of 305 for approximately 3 months during the second year of works, and a minimum of 8 workers in early and final months of work, and an average monthly workforce of around 161 over the project's construction and operational periods. This workforce figure excludes the land transport workers who will not be accommodated locally, the PowerLink transmission line workers, and service personnel.

ACCIONA have also committed to ensuring 10% of the project's work hours are undertaken by workers within a 125 km radius of the site, indicating that a portion of the projected workforce will reside locally and not require temporary accommodation. Using the peak construction workforce of 305, and based on the low range estimate of 5%, approximately 15 workers would live within a 1-hour drive of the project site and not require temporary accommodation. This would result on a required 290 rooms of temporary accommodation to house those who live outside a 1-hour drive of the project site. Using the high-range estimate of 10%, approximately 30 workers would live within a 1-hour drive of the project site and not require temporary accommodation. Hence, this means that there are a required 275 rooms of temporary accommodation needed to house those who live outside a 1-hour drive of the project site (as demonstrated in Table 3.1). For the purpose of this workforce estimation, these numbers assume that 10% of working hours translates directly to 10% of jobs.

Table 3.1 **Housing and accommodation requirements for temporary workforce**

	Workforce	% of workforce
Scenario 1 estimate of workforce not requiring temporary accommodation (5%)		
Local workforce (within 1 hour)	15	5%
Temporary workforce (outside 1 hour)	290	95%
Scenario 1 estimate of workforce not requiring temporary accommodation (10%)		
Local workforce (within 1 hour)	30	10%
Temporary workforce (outside 1 hour)	275	90%
TOTAL WORKFORCE	305	100%

Other requirements for the project's workforce accommodation were established to identify the suitability of accommodation to temporarily house the project's workforce. These requirements were primarily informed by ACCIONA's accommodation policy and community commitments, as well as other logistical factors that influence the suitability and feasibility of accommodation. These were;

- proximity to the site - due to health and safety requirements onsite workforce are not permitted to travel more than 1 hour to and from the project site to prevent driver fatigue;
- willingness to rent or lease accommodation on a long-term basis (18 to 24 months);
- a standard of accommodation that complies with the worker accommodation minimum requirements;
- a minimum size that allows for multiple workers to be housed in one location (due to logistical requirements);

- private rooms with an ensuite including shower and toilet amenities; and
- air-conditioning (AC).

This study has also been limited to assessing temporary accommodation options within the study area, as the timeline for the project's construction phase is projected to be 18 – 24 months. However, purchasable dwellings may be an option for the operational phase of the project which only requires 14 ongoing full-time employees. The majority of workers who will require temporary accommodation will be employed during the construction phase of the project, which is estimated to require a peak workforce 275 - 290 (as outlined in Table 3.1).

4 Available accommodation

This accommodation study has assessed the available accommodation options within the local area including the tourist, rental, and private market considering the parameters outlined in Section 3. Through consultation and desktop research, the availability, capacity, and suitability of accommodation options were assessed within the study area. The following accommodation types were identified,

- permanent housing and rental accommodation;
- tourist accommodation;
- demountable buildings and cabins located on private property, and
- company owned accommodation camps.

4.1 Housing and Rental Accommodation

Consultation with real estate agents in Warwick and Stanthorpe and other local accommodation providers shed light on the extremely limited availability of rental properties in the area. Participants noted that the region has seen a great increase in demand for rental and purchase properties as a result of the COVID-19 pandemic, as well as the Warwick meat processing plant, which is a major source of local employment. As such, there is very limited capacity for long-term rental accommodation options that might be suitable for workers of the project.

A local community support service contacted recognised that an increased demand for local rental properties due to an influx of workers seeking accommodation in the area could have significant impacts on already vulnerable members of the community, such as homeless people and welfare recipients, as the increased demand may create an increase in rental prices and impact the affordability of local rental accommodation. This was confirmed by a local real estate agent who mentioned that rental prices have already increased slightly due to a spike in demand throughout COVID-19 and the meat processing plant. However, one real estate agent in Warwick mentioned the increase in housing developments that are currently being developed in the region but are not yet on the market. These developments will likely increase due to the lack of, and demand for rental accommodation, and could serve as possible worker accommodation options depending on the standard and location of properties. Another factor that was discussed by real estate agents was the planned 2023 closure of a large Woolworths distribution centre located in Warwick, which has been a major source of employment in the region. The centres closure may lead to increased rental properties on the market as previous employees relocate in search for alternate economic activity. It should also be noted that although the rental market has been significantly impacted by COVID-19 in Southern Downs, this has the potential to change by the time the project begins construction. Various individuals expressed the perspective that there is currently an uncharacteristically high demand for rental accommodation, and the market will likely return to its previous state in a matter of months. However, given the unprecedented nature of this issue, it is difficult to predict how the housing market will have changed in the study area by the time the project begins construction.

4.2 Short term tourist Accommodation

A total of 316 accommodation options were identified within the study area through the Southern Downs Regional council accommodation database and desktop searches of accommodation within the Goondiwindi and Toowoomba areas. The Southern Downs Regional Council database provided information regarding the number of rooms for each registered establishment, with a total of 1044 rooms listed across 193 locations, which was the largest supply of accommodation within the study area. This is likely due to Stanthorpe's large tourism industry that peaks during the colder months from May to August, and subsequent fruit picking season in the summer months, where workers are often temporarily housed in short term accommodation. Although there is a large number of accommodation options throughout Southern Downs, the popularity of Stanthorpe as a local tourist destination, as well as the various yearly events that are held in Warwick and Stanthorpe such as the Rodeo in October and the Jumpers and Jazz festival in July, means that these establishments fluctuate significantly in occupancy and are often completely booked out during busy periods of the year. Toowoomba LGA has 90 tourist accommodation locations within Toowoomba City. Whilst there are likely many more options outside the city, the distance between the project site and Toowoomba LGA is well over an hour drive and rules them out to be utilised for workforce accommodation. Goondiwindi LGA has 33 tourist accommodation options across Goondiwindi town, Texas, Inglewood, and Karara, some of which are in close proximity to the site. The Karara pub is the closest temporary accommodation to the project site and offers 4 motel style rooms.

A search of local accommodation found that 24 temporary accommodation establishments were identified within a one-hour drive to the Karara site entrance and a minimum of 10 rooms, throughout the towns of Warwick, Inglewood, Millmerran, Tregony, and Elbow Valley (see Table 4.1). Amongst these, over 60% of identified accommodation was located within Warwick, which is approximately 30 minutes to Karara by car. Of the 24 businesses contacted, 20 expressed their interest in supplying accommodation to the project and responded to questions relating to their capacity, occupancy, and facilities. Through these questions, we were able to identify an estimated total of approximately 183 private rooms of temporary accommodation that complied with the requirements and standards identified above. Regarding occupancy, the average was 62.8% ranging from a minimum of 6% and a maximum of 85%. Star ratings ranged from 3-4, however most accommodation providers expressed that these ratings were largely self-evaluated and should only be used as an indication of the accommodation quality.

Table 4.1 Available accommodation options in the study area

Location	Accommodation	Total rooms (en suite and AC)	suitable Total willing to be used on long-term basis	rooms Current occupancy (%)	average Star Rating
Warwick	McNevin's Motel	22	0	60	4.0
	Warwick Motor Inn	21	12	100	4.0
	Centre Point Mid City Motor Inn	19	9 – 10	6	3.5
	City View Motel	10	4	75 – 80	3.5
	Country Rose Motel	13	10	50	3.5
	Warwick Vines Motel	16	5	30 – 40	3.5
	Buckaroo Motor Inn	19	8	70	3.5
	Alexander Motel	18	10	60 – 76	3.5
	O'Mahony's Hotel Pty Ltd	0	0	75	4.0
Stanthorpe	Granite Belt Cabins	14	7	--	4.5

Table 4.1 Available accommodation options in the study area

Location	Accommodation	Total rooms (ensuite and AC)	suitable Total willing to be used on long-term basis	rooms Current occupancy (%)	average Star Rating
	High Street Motor Inn	20	10	50	3.5
	Granite Belt Motel	19	19	50 – 85	3.0
	Boulevard Motel	15	8	80	3.0
	The Apple and Grape Motel	27	18 – 20	70	3.5
	Stannum Lodge Motor Inn	12	3	80	4.0
Inglewood	Inglewood Motel	13	8 – 9	55	3.0
	The Olympic Motel	12	6	60	4.5
	Lake Coolmunda - Caravan, Cabin & Holiday Park	6	6	50	3.5
Milmeran	Milmeran Motel	11	11	65	3.5
	Milmeran Village Caravan Park	35	25	75	4.5
Total/Av.		322	179 - 183	62.8	3.7

Based off this assessment and assuming temporary accommodation is required for a low range-estimate of 275 workers and a high-range estimate of 290 workers, the local area does not have the capacity to suitably accommodate all of the workforce. Whilst a portion of the project's workforce will likely be able to stay in short term tourist accommodation establishments such as the motels, hotels and caravan parks identified above, there is still a need for additional accommodation supply.

4.3 Demountable buildings and cabins located on private property

Off-site demountable buildings and cabins are another potential option for workforce accommodation. Utilising properties with adequate space to construct single units of accommodation close to the project site was identified as a potential opportunity for business owners, landholders, and local towns during consultation. The main locations that were identified as being ideal for the construction of temporary worker accommodation were local caravan parks and campgrounds, and local landowner's properties.

Local caravan parks such as the Lake Coolmunda Caravan Park in Inglewood have various potential benefits such as on-site power and amenities, proximity to local towns and services, proximity to the project site, food and catering options, and various recreation and leisure activities such as water sports and fishing. This approach could further allow the design of a worker accommodation camp to contribute directly to local businesses and leave a lasting benefit for the local community. Another opportunity identified by local residents was the desire for any temporary worker accommodation buildings to be repurposed and reused following the completion of the project's construction phase. Locating the WAV within an existing tourism location such as a caravan park allows for future use of the structures if desired. Constructing temporary accommodation on residential properties surrounding the project could also be an opportunity for many of the neighbouring landowners, as well as those within the project site, providing a source of additional income and business.

A possible risk associated with this approach is constructing an oversupply of single unit dwellings that are not able to be adequately maintained by property owners following the completion of the project. A possible solution to this issue would be the utilisation of rental demountable that could be installed at the beginning of the project, rented out for workforce accommodation purposes, and then removed following the completion of the project.

4.4 Company owned workforce accommodation camps

The construction of a project specific workforce accommodation camp would likely be effective in providing adequate accommodation for workers, in line with the requirements for the quality and quality of housing needed. Camps could be established both onsite or offsite, with offsite being the preference due to the likely be a flow on economic benefit to small towns and local businesses such as food and drink establishments. Company owned accommodation camps are the least desirable approach to workforce accommodation, as they offer minimal economic benefits to local communities, and can be potentially detrimental to the wellbeing and cohesion of the community and workers. Furthermore, the presence of a traditional on-site accommodation camp is not in keeping with the local and state government guidelines, nor the commitments and aspirations of ACCIONA.

5 Options

The following accommodation options for non-local workforce have been identified:

1. on-site worker accommodation camps;
2. off-site worker accommodation camps located in, or close to, local towns and communities;
3. demountable buildings and cabins located on private property;
4. local tourist accommodation;
5. local rental accommodation; and
6. a combination of available tourist accommodation, rental properties, and an off-site camp or demountable buildings to house non-local workforce across different locations.

Through consultation with the local community and service providers and initial socio-economic impact assessment it was determined that Option 6 is the least impactful, and likely most beneficial approach to workforce accommodation. Furthermore, this option is most likely to contribute to the long term economic and social commitments and aspirations of ACCIONA in ensuring the project leaves a lasting legacy that continues even after its completion. During the construction phase of the project there will likely be enough suitable existing temporary accommodation through local tourist and rental options to house approximately two thirds of the workforce (275-290 workers) and only 20 to 25 will be required to stay within the workers overflow accommodation. This mitigates the potential negative impacts of camp by ensuring that the majority of workforce are housed in existing local accommodation, and the existing off-site camps allows workers to engage socially and economically with local communities.

Appendix E

Accommodation Strategy

Accommodation Strategy

MacIntyre Wind Farm Precinct

January 2021



PREPARED FOR
ACCIONA ENERGY AUSTRALIA GLOBAL PTY LTD



Accommodation Strategy

MacIntyre Wind Farm Precinct

Report Number

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Client

ACCIONA

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v2 Final

Prepared by



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20 January 2021

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20 January 2021

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Figure 4.1 Workforce estimates during the construction phase

1 Introduction

Acciona have engaged EMM Consulting Pty Limited (EMM) to produce an Accommodation Strategy to inform how workforce accommodation is approached and managed throughout the MacIntyre Wind Farm Precinct (the Project) to ensure maximum benefits and opportunities for the local community and stakeholders whilst ensuring any possible impacts are mitigated. This document responds to the research, extensive stakeholder and community consultation and analysis undertaken and presented within the Project's Social Impact Assessment (SIA) and makes up an initial component of the Social Impact Management Plan (SIMP).

The strategy has been primarily informed by the Project's Accommodation Study (Appendix C) which was completed using data gathered from the SIA's socio-economic baseline study, as well as extensive community, stakeholder, and service provider consultation.

The approach that was taken in developing this accommodation strategy prioritizes enabling long term positive benefits and opportunities within local communities both economically and socially and the commitments and aspirations of ACCIONA in achieving these goals (see Section 2 of the Accommodation Study). The suggestions made within this document have ensured that community and workforce are central to decisions regarding workforce accommodation, and the various factors that influence this have been closely considered, these include but are not limited to project logistical practical considerations, cost-benefit effectiveness and workplace health and safety considerations.

2 Purpose

The purpose of this Accommodation Strategy is to provide insight into a workforce accommodation plan that responds and implements the information presented within the SIA. This strategy is therefore a precursor to the SIMP, as it provides direction regarding how to manage the potential impacts associated with the workforce accommodation component of the Project, whilst also maximizing benefits and opportunities, and contributing to the successful outcome of ACCIONA's long-term Project commitments. By doing so, this document will assist ACCIONA and CleanCo in their strategic decision-making regarding workforce accommodation, as well as the implementation outcomes and suggestions made throughout the SIA.

3 Workforce accommodation requirements

The accommodation requirements for the Project are based predominantly on the peak construction workforce, the distance of accommodation to the Project site, and the standard and amenities of accommodation as informed by ACCIONA's workforce accommodation policy.

For the purposes of this Strategy, there are two types of workers, local and project housed. Their characteristics and accommodation requirements are described below.

3.1 Local workers

Workers that live within one-hour drive commute of the Project will live in their own accommodation as per ACCIONA's Human Resource Management Plan¹.

3.2 Project housed employees

Workers that have their own permanent accommodation **over an hour from the Project Site** will be housed in furnished accommodation provide by ACCIONA or the contractors working for ACCIONA and CleanCo. The accommodation options include local hotels, motels, hosted accommodation, caravan-holiday parks and self-catering properties.

The following accommodation standards are required to ensure a high degree of worker wellbeing, health and safety is maintained (see Section 3 of Accommodation Study). These include as a minimum

- double or queen beds with adequate wardrobe space;
- full kitchen and eating area;
- lounge area;
- laundry facilities;
- (access to) outside area;
- air-conditioning;
- facility to park a car in either driveway or garage; and
- rooms with an approximate 3.5 to 4-star rating.

Houses or units can be 2 or 3 bedrooms. Workers will not share rooms. Where there are 3 workers sharing a 3-bedroom accommodation, 2-bathrooms are required to sufficiently house 3 people.

¹ Acciona has not provided EMM with a Policy for MacIntyre, however provided a Human Resource Management Plan for the Mortlake Wind Project for reference.

Men will be located together to share, and women will be housed with other women or on their own if they are the only women.

It will be the responsibility of workers living in the accommodation to clean (ACCIONA to confirm) and maintain the accommodation to the standard as if they were rental tenants.

4 Selected accommodation

This section presents the identified potential opportunities accommodate the Project workforce ensuring that social impacts are minimised and that opportunities for the local communities and the Project are maximised. Following a description of the workforce accommodation requirements (Section 3) the selected options are described. Recommendations on the optimal accommodation mix and its implementation are presented in section 5 and 6.

4.1 Worker accommodation required

The peak workforce for the project is estimated to be around 305 onsite workers (see Figure 4.1) with a monthly average of around 151 and a minimum of 8 during the early and final stages of construction (see Section 3.2 of Accommodation Study).

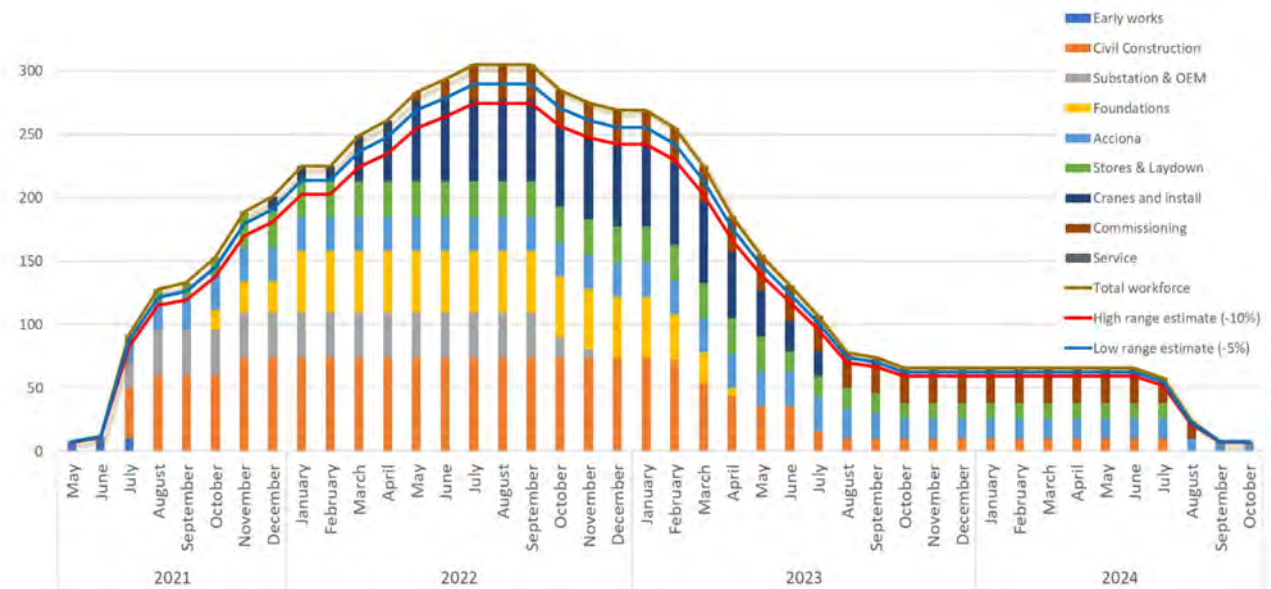


Figure 4.1 Workforce estimates during the construction phase

ACCIONA have committed to an estimated minimum of 10% working hours from workers within a 125 km radius of the Project site. To estimate the maximum number of workforce accommodation units required to service the Project, a high range estimate of 10% and a low range estimate of 5% of local workers who do not require temporary accommodation was determined.

ACCIONA have also expressed a preference to ideally avoid or at least minimize the number of workers staying in traditional onsite accommodation camps due to the limited potential contribution to the local economy, workforce wellbeing and community cohesion. As such, accommodation within, or close to, local towns and communities will be prioritized. However, a **worker overflow accommodation** has been identified as necessary to house a small number of workers who are required to work extended shifts and cannot travel to and from off-site accommodation due to associated health and safety risks relating primarily to fatigue. As described in the Accommodation Study, this worker overflow accommodation camp is proposed in Karara and expected to have only a 20 – 25-person capacity.

As such, it is expected that a maximum of approximately 275 – 290 workers will require temporary accommodation over the construction phase of the project (see Section 3 of Accommodation Study). These numbers represent the peak monthly workforce and have been used as a conservative high range figure to ensure there is not an undersupply of available accommodation. However, most months during the project's construction phase will require significantly less workers and accommodation, as low as 7 during ramp up and closure phases and an average of 134 rooms.

As described in the Accommodation Study, the identified local accommodation capacity sits between 179 and 183 rooms (refer to Table 5.2 in this report). According to workforce estimates provided by ACCIONA and considering a 20 – 25 worker overflow accommodation, the local capacity is expected to be insufficient for 15 months between January 2022 – March 2023. The required number of rooms beyond the local capacity is presented in Table 4.1. Consideration of options with smaller and larger camps are also provided below, these would not change the timeframe when the additional capacity is required.

Table 4.1 Additional accommodation capacity required

Year	Month	Additional rooms required	Additional rooms required assuming a 30 person workers camp	Additional rooms required assuming a 25 person workers camp	Additional rooms required assuming a 20 person workers camp
2021	December (1)	11	-	-	-
2022	January (2)	34	4	9	14
	February (3)	34	4	9	14
	March (4)	57	27	32	37
	April (5)	68	38	43	48
	May (6)	89	59	64	69
	June (7)	98	68	73	78
	July (8)	110	80	85	90
	August (9)	110	80	85	90
	September (10)	110	80	85	90
	October (11)	91	61	66	71
	November (12)	81	51	56	61
	December (13)	76	46	51	56
2023	January (14)	76	46	51	56
	February (15)	62	32	37	42
	March (16)	34	4	9	14
	April	(-4)	(-34)	(-29)	(-24)

Note: numbers in brackets represent surplus of rooms available locally.

4.2 Available accommodation options

As part of the Accommodation Study, all potential accommodation options were considered, including

- acquisition of houses and/or units in neighbouring communities;
- long term rental houses and units;
- short-term tourist accommodation (hotels, motels, serviced apartments, hosted accommodation, caravan-holiday parks and self-catering properties);
- temporary demountable buildings in caravan parks and private property; and
- worker overflow accommodation.

The following accommodation types have been identified as available options for the Project's workforce accommodation:

- local short-term tourist accommodation; and
- demountable buildings and cabins located on hotels and motels, private properties, and caravan/holiday parks.

Short-term accommodation includes hotels, motels, serviced units, hosted accommodation, caravan-holiday parks and self-catering properties that are furnished and that can be rented for a day or a couple of days to a few months.

Due to a possible lack of capacity within the two available options as standalone accommodation types, the potential socioeconomic impacts from implementing only one of them and the benefits from combining the two, this workforce accommodation strategy incorporates a blend of both tourist accommodation and demountable buildings and cabins (specifics are described in Section 5).

As described in the Accommodation Study, it is to be noted that long-term rental accommodation is not considered due to the existing housing market in the Study Area, particularly in Warwick, Stanthorpe and Inglewood where the stock has been severely impacted by COVID-19 and other sources of local employment such as the meat processing plant. Accessing such limited sources of accommodation would increase pressures in the already stressed market and likely affect prices and impacting those more disadvantaged in these communities. For more details refer to the Accommodation Study.

4.2.1 Short-term tourist accommodation

A total of 316 accommodation providers were identified within the study area through the Southern Downs Regional Council accommodation database and desktop searches of accommodation within the Goondiwindi and Toowoomba areas. To identify the local tourist accommodation establishments that could potentially service the project, accommodation was filtered to only include locations that were:

- within one-hour to site – for workplace health and safety reasons;
- have more than 10 rooms – for workers transport and logistical reasons; and
- meet the required accommodation standards described in Section 3.2.

Once a list of accommodation that met these requirements was determined, each establishment was interviewed regarding their ability, capacity and interest to service the project. The following questions were asked to establish how many existing rooms of tourist accommodation could be used for the Project's workforce accommodation:

- What is the total number of rooms?
- How many rooms include private bedrooms and ensuites?
- How many rooms include air conditioning?
- What is your accommodation star rating?
- How many rooms would be available to rent long term to the project over the likely 18 – 24 months project construction phase?

These questions resulted in identifying a potential 179 – 183 rooms available suitable workforce accommodation across 20 establishments within an hour of the project site. As such, it is estimated that local short-term tourist accommodation could likely house over two thirds of the anticipated peak construction workforce.

4.2.2 Demountable buildings and cabins

Although local tourist accommodation has the capacity to house a significant portion of the project's workforce, there is still a need for additional accommodation options, particularly near the project site. Given the project's rural location, a number of properties within the local area have been identified as potential sites with adequate space for demountable buildings and cabins to be constructed or brought in. Possible properties include:

- local caravan parks (such as the Lake Coolmunda Caravan Park near Inglewood and the Royal Leyburn Hotel and Motel);
- local camping and recreational grounds;
- local large residential and private properties owned by landowners; and
- local residential or vacant blocks in local towns such as Karara, Inglewood and Leyburn.

A potential method of mobilising demountable units for workforce accommodation is through utilising businesses that specialise in transportable accommodation that can be brought in and rented to the Project or accommodation providers during its construction phase, and then subsequently removed following the Project's completion. This mitigates the potential financial and maintenance burden of constructing permanent buildings, whilst still offering rent to own options for interested landowners to utilise the structures after the completion of the project.

Another potential impact of utilising local tourist accommodation to house the Project's workforce is the vulnerability of the availability and capacity to be affected by other large-scale projects in the study area. The Inland Rail and Emu Swamp Dam project are both anticipated to have a similar construction timeframe as the MacIntyre Wind Farm Precinct and pose potential cumulative impacts and additional competition for local accommodation. Furthermore, this accommodation strategy does not account for the workforce of the project's overhead transmission line component. Currently the transmission line's anticipated construction timeframe and workforce numbers are unknown. However, it is likely that the powerline's construction phase will coincide with that of the wind farm precinct. As such, there is a potential for additional competition and demand for local tourist accommodation establishments due to these projects that should be considered. Despite this, these concerns were not raised during consultation with local accommodation providers, suggesting that accommodation strategies for the powerline's workforce have not yet been established.

4.2.3 Workforce overflow camp

It is understood that a workforce camp will be required to meet construction operational and logistical needs and that such a camp will require a capacity of 20 – 25 rooms.

Karara has been identified as the preferred location for the camp as it provides workforce accommodation conveniently located close to the project site while providing opportunities for economic development in the locality. In order to ensure such economic opportunities are realised in Karara, other strategies to enable the location and its residents can be found in the MacIntyre Wind Farm Precinct Social Impact Assessment and the subsequent Social Impact Management Plan (to be developed).

5 Proposed accommodation strategy

This section provides recommendations for the accommodation strategy, including rationale, benefits and opportunities. Section 6 provides the implementation strategy including their required input/actions, partners timing, requirements and estimated associated investment.

5.1 Recommendations

Based on the estimated workforce requirements (Section 4.1) and the available accommodation in the local area (Section 4.2) and with the aim of maximising benefits for local and nearby communities (Section 1), a combination of short-term tourist and demountable accommodation is recommended for the Project. This would include a 20 – 25 persons workforce overflow accommodation camp required for construction operational requirements (Section 4.2.3).

The recommended combination of accommodation is presented in Table 5.1 and accounts for a workforce peaking at a minimum 275 and maximum 290 workers during the construction phase of the project. These numbers represent the peak monthly workforce using a conservative high range figure to ensure there is not an undersupply.

Table 5.1 Recommended accommodation provider combination

Accommodation provider	Rooms
Short term tourist	180
Demountable	4 – 90 – depending on construction month
Workforce overflow camp	25
Maximum capacity required at peak	275-290

5.2 Identified short term tourist accommodation providers

A total of 316 accommodation providers were identified, of them 20 were shortlisted based on accommodation requirements for the Project, including their distance to the Project entrance, accommodation standards and facilities and their capacity (refer to Section 3 for details). These providers have 322 rooms, however, in order to prevent long term impacts in their businesses operation they are willing to provide 180 rooms to the Project. Table 5.2 provides the list, location and individual capacity of those accommodation providers meeting the Project requirements. Owners and managers of the identified facilities were consulted in early November 2020, at the time they nominated the rooms willing to commit on a long-term basis to the Project. When the 20 accommodation providers in Table 5.1 were contacted again in January 2021, they confirmed their willingness to provide the 180 rooms to the Project on a long-term basis. Contact details of their owners/managers, address and phone numbers are available on Appendix A.

Table 5.2 Recommended available short-term tourist accommodation²

Location	Accommodation provider	Total suitable rooms (ensuite and AC)	Total suitable rooms willing to be used on long-term basis	Current average occupancy (%)	Star Rating
Warwick	McNevin's Motel	22	0	60	4.0
	Warwick Motor In	21	12	100	4.0
	Centre Point Mid City Motor Inn	19	9 – 10	6	3.5
	City View Motel	10	4	75 – 80	3.5
	Country Rose Motel	13	10	50	3.5
	Warwick Vines Motel	16	5	30 – 40	3.5
	Buckaroo Motor Inn	19	8	70	3.5
	Alexander Motel	18	10	60 – 76	3.5
	O'Mahony's Hotel Pty Ltd	0	0	75	4.0
Stanthorpe	Granite Belt Cabins	14	7	--	4.5
	High Street Motor Inn	20	10	50	3.5
	Granite Belt Motel	19	19	50 – 85	3.0
	Boulevard Motel	15	8	80	3.0
	The Apple and Grape Motel	27	18 – 20	70	3.5
	Stannum Lodge Motor Inn	12	3	80	4.0
Inglewood	Inglewood Motel	13	8 – 9	55	3.0
	The Olympic Motel	12	6	60	4.5
	Lake Coolmunda - Caravan, Cabin & Holiday Park	6	6	50	3.5
Milmerran	Milmerran Motel	11	11	65	3.5
	Milmerran Village Caravan Park	35	25	75	4.5
Total/Av.		322	179 - 183	62.8	3.7

² Short-term accommodation includes hotels, motels, serviced units, hosted accommodation, caravan-holiday parks and self-catering properties that are furnished and that can be rented for a day or a couple of days to a few months.

5.2.1 Benefits and opportunities (value added)

Considering the requirements of the project's workforce accommodation, as well as ACCIONA and Clean Co's project commitments and aspirations, local tourist accommodation has been identified as an accommodation option. The following potential benefits and opportunities of utilising local tourist accommodation have informed this recommendation:

- a high combined capacity across local establishments;
- economic activity and investment into smaller local businesses;
- increased social wellbeing and cohesion between workers and the community; and
- associated economic flow on effects within towns and communities.

Accommodating 100% of the workforce in on-site camps is not recommended as can negatively impact local communities, due to a lack of economic and social benefits and opportunities afforded to local towns and communities, as well as the perceived negative impacts on workforce social cohesion and wellbeing (OCG 2017).

Community and stakeholder engagement, particularly with local accommodation providers, identified the potential opportunity to accommodate workers on a long-term basis a highly beneficial opportunity that has the potential to generate significant economic activity. The recent effects of border closures due to COVID-19 has severely challenged the local tourism industry and particularly the accommodation providers that rely on tourism, hence the increased business and economic activity seemed to be gladly welcomed by local businesses and the community. The lack of stability and certainty in the accommodation industry has created a potential desire for long term accommodation contracts amongst providers.

Aiming to accommodate as many workers as possible in local temporary accommodation will likely also lead to significant flow on economic benefits for accommodation providers and other local businesses, such as food and drink establishments and local providers of goods and services, that can be used by workforce accommodated locally (OCG 2017). This has the potential to have a long-term positive effect on small towns that are struggling economically due to the impacts of the recent drought, bushfires, and the COVID-19 pandemic.

5.2.2 Potential impacts

Despite the potential benefits and opportunities outlined above, there are also potential impacts of utilising local tourist accommodation that should be appropriately considered and mitigated. One impact that was raised during consultation, particularly with local accommodation providers in Warwick and Stanthorpe, was the inability for many establishments to commit to long-term bookings over the 20 – 34-month construction period. This was largely due to the popularity of Stanthorpe as a local tourist destination, as well as the various yearly events that are held in the region in places such as Warwick. As such, some establishments mentioned having bookings up to a year in advance for regular customers to annual events. If existing local tourist accommodation is fully inundated with project related bookings, this may result in a lack of available accommodation for other visitors, resulting in associated economic and social impacts such as a decrease in local business, tourism and attendance to events and festivals. If long-term guaranteed annual or regular customers are unable to find accommodation during the Project's construction phase, they may not return to the same establishments after the project is completed. This may leave accommodation providers with long term negative impacts following the cessation of Project-related business.

To mitigate negative impacts to the capacity and availability of local tourist accommodation, it is suggested that workforce accommodation prioritises local businesses and locations in smaller towns surrounding the project site, such as Inglewood and Karara, that do not receive as much tourism. This may benefit these accommodation providers, as well as nearby towns, by introducing new economic activity into these areas. If further accommodation is required outside of these areas due to capacity and amenity constraints, comprehensive consultation with interested accommodation providers should be undertaken to ensure no long-term negative effects on business. This increased demand for local accommodation has the potential to result in positive economic activity and growth within the study area, if appropriately implemented and managed.

5.3 Identified locations for demountable buildings

As short-term tourist accommodation providers do not meet the peak workforce Project demand, it is recommended that the capacity of selected accommodation providers is temporarily increased with the use of demountable buildings. EMM has worked in collaboration with ACCIONA to identify providers of these type of accommodation. Afford a Home Group Pty Ltd has been identified as one of the potential providers of such temporary accommodation that can be used to expand the capacity of existing providers. It is recommended similar offerings are considered to secure a competitive provider.

Table 4.1 describes when and by how much the additional capacity is required. Table 5.3 lists the three recommended locations for the demountable buildings to be located.

Table 5.3 Recommended accommodation providers where demountables can be co-located

Location	Accommodation provider	Existing available capacity (rooms)	Proposed increased capacity
Inglewood	Lake Coolmunda Caravan, Cabin & Holiday Park	6	40 rooms (20 double units)
Leyburn	Leyburn Royal Leyburn Hotel and Motel	-	20 rooms (10 double units)
Stanthorpe	Top of Town Caravan Park	-	30 rooms (15 double units)
Total			90 rooms (45 double units)

5.3.1 Benefits and opportunities (Value added)

Utilising properties with adequate space to construct single units of accommodation close to the project site was identified as a potential opportunity for business owners, landholders, and local towns during consultation. Local caravan parks are ideal for this accommodation option, as they offer pre-existing features such as on-site power, water and sewerage connections, proximity to local towns and services, close to the project site, food and catering options, and various recreation and leisure activities such as water sports and fishing.

Like tourist accommodation, the use of local properties would likely contribute directly to local businesses and landowners and leave lasting benefits for the local community. Another opportunity identified by local residents was the desire for any temporary worker accommodation buildings to be repurposed and reused following the completion of the project's construction phase. Locating demountable buildings within existing tourist establishments such as a caravan parks, and in proximity to local towns, allows for future use of the structures if desired. Similarly, if other large projects in the area require workers accommodation, there is an opportunity for these to be kept on site as long as other project need them and extending the economic benefits to the owners and the local economy.

The benefits associated with using towable accommodation, such as that offered by Afford A Home Pty Ltd, is that they are deemed registrable and therefore require no planning approvals with local government. This will allow flexible housing installation (should demand change over the life of the Project) to increase capacity with no up-front cost to the accommodation provider or the Project. Giving property owners the choice to opt-in to locating units of accommodation on their own properties based on their capacity and interest allows for increased opportunities for economic activity within the community, without any long-term investment that may be unsustainable after the project has been completed. Increasing the local accommodation capacity during the construction phase when there is a demand for these facilities and maintaining only what is needed after the Project's completion is a more sustainable approach to temporary accommodation. As such, this approach ensures minimal to no financial burden is left with the community as an outcome of the project, and positive benefits are enhanced.

5.3.2 Potential impacts

A possible risk associated with this approach is constructing an oversupply of single unit dwellings that are not able to be adequately maintained by property owners following the completion of the Project. A possible solution to this issue would be the utilisation of rental demountable that could be installed at the beginning of the Project, rented out for workforce accommodation purposes, and then removed following the completion of the Project.

5.4 Identified workforce overflow camp

Karara has been identified as the most beneficial location of the proposed 20 – 25 persons capacity workforce overflow camp. With Karara located near the Project site, this location would meet the requirements of the camp been located on-site or close to site. This location is recommended as several potential local social benefits are associated.

Two potential locations have been identified in Karara, the Karara Tavern and Motel and the Karara Camping grounds. The former is the preferred option as it provides direct benefits to the only operating business in the locality, which in turn is likely to employ locally.

Once the construction phase is completed, the Karara Tavern and Motel would have a choice to continue renting or buying a desired number of units. It is assumed that other benefits identified in the Project Social Impact Assessment would drive an increase in tourism in the local area which is expected to drive an increase in the accommodation demand.

5.4.1 Benefits and opportunities (Value added)

Karara has been identified as an optimal location for the workforce overflow camp not only due to its proximity to the Project site, but also as an opportunity to provide economic benefits and stimulate the local economy. Combined with other strategies described in the Social Impact Assessment, the camp could trigger and aid long term economic benefits for the local economy in Karara.

5.4.2 Potential impacts

The Karara Hotel and Motel is highly regarded by the communities in and surrounding the Project site as the place where the community comes together and where the sense of community is built and maintained. There are not many other meeting places in the local area. The Project is generating tensions amongst landowners who will be receiving direct compensation from wind turbines and those that would not. There is a risk of further impacting the community cohesion when facilities at Karara would be used by a Project' workforce.

6 Implementation Strategy

This implementation strategy outlines the necessary inputs required to achieve the accommodation recommendations identified in section 5. Table 6.1 demonstrates the additional requirements, partners, outcomes, and associated investments for each recommended strategy. The partners listed for each requirement are identified potential service providers and may vary based on availability and requirements. The associated investment of each requirement is also an estimated cost based on early quotes and calculations and serves an indication of potential pricing. As such, costing may vary slightly in relation to service providers, availability and changes in the number of units required for the project

Table 6.1 Workforce accommodation implementation strategy

Strategies	Requirements (Activities?)	Partners	Outcomes	Timing	Associated investment
Use of local tourist accommodation for workforce accommodation for 180 workers	Confirm and notify intent to use identified accommodation providers	Local motels, hotels and caravan parks identified in Table 5.2	<ul style="list-style-type: none"> Accommodation service providers engaged. Intent of guiding contractors to use their facilities communicated. Proposed project rates discussed. 	Feb 2021	
	Prepare communication material to inform contractors of Project' registered accommodation providers	ACCIONA's MacIntyre project team	<ul style="list-style-type: none"> Information on purpose, intent and guidance on the use of registered accommodation providers is prepared to inform and influence MacIntyre WFP Project' contractors 	Feb – Mar 2021	
	Register accommodation service providers	Local motels, hotels and caravan parks identified in Table 5.2	<ul style="list-style-type: none"> Accommodation service providers registered. Registry provided to contractors. 	Feb – Mar 2021	
	Identify workforce transport providers to and from accommodation	Local bus companies (e.g Crips Coaches from Stanthorpe)	<ul style="list-style-type: none"> Number of buses, pick up destinations and timetables required for workforce transport identified 	Mar 2021	
	Register workforce transport service providers	Local bus companies (e.g Crips Coaches from Stanthorpe)	<ul style="list-style-type: none"> Transport service providers registered. Registry provided to contractors. 	Mar 2021	

Table 6.1 Workforce accommodation implementation strategy

Strategies	Requirements (Activities?)	Partners	Outcomes	Timing	Associated investment
Increased capacity in identified caravan parks and properties to 90 workers	Confirm and notify intent to use identified accommodation providers	Three caravan parks listed in Table 5.3. Alternative locations provided in Appendix B.	<ul style="list-style-type: none"> Accommodation service providers engaged. Intent of guiding contractors to use their facilities communicated. Proposed project rates discussed. Potential options discussed, including alternatives for continued use after the Project construction is completed. 	April – May 2021	
	Engage Councils and confirm intent to temporarily increase capacity of accommodation service providers	Southern Downs, Goondiwindi and Toowoomba local governments	<ul style="list-style-type: none"> Intent to increase local capacity communicated. 	Apr – May 2021	
	Discuss and agreed conditions of operation	Three caravan parks listed in Table 5.3. Alternative locations provided in Appendix B.	<ul style="list-style-type: none"> Conditions of operation agreed with accommodation providers. Alternatives for continued use of additional accommodation agreed 	Jun – Jul 2021	
	Register accommodation service providers	Three caravan parks listed in Table 5.3. Alternative locations provided in Appendix B.	<ul style="list-style-type: none"> Additional capacity at 3 locations confirmed. Accommodation service providers registered. Registry provided to contractors. 	Jul 2021	
	Identify catering, laundry and cleaning services required	To be identified	<ul style="list-style-type: none"> Services required at additional accommodation identified 	Jul 2021	
	Identify catering, laundry and cleaning service providers	Social Traders	<ul style="list-style-type: none"> Service providers identified. Service providers registry created. Service providers registry provided to contractors. 	Aug – Oct 2021	
	Identify workforce transport providers to and from accommodation	Local bus companies (e.g Crips Coaches from Stanthorpe)	<ul style="list-style-type: none"> Number of buses, pick up destinations and timetables required for workforce transport identified 	Aug – Oct 2021	
	Expansion works	Three caravan parks and selected demountable accommodation provider.	<ul style="list-style-type: none"> Works required for increase in local capacity commenced. 	Aug – Oct 2021	

Table 6.1 Workforce accommodation implementation strategy

Strategies	Requirements (Activities?)	Partners	Outcomes	Timing	Associated investment
Setup workforce overflow camp	Installation of additional capacity	Selected demountable accommodation provider.	<ul style="list-style-type: none"> Progressive installation of units of temporary accommodation such as per requirements described in Table 4.1. 	Dec 2021 – Jan 2022	
	Removal of additional capacity	Three caravan parks and selected demountable accommodation provider.	<ul style="list-style-type: none"> Decision of units to be kept on rent or acquisition confirmed. Progressive removal of units from caravan parks as they are no longer used. 	Oct 2022 – Mar 2023	
	Confirm and notify intent to use Karara as the location for the Camp.	Karara Tavern and Motel owners	<ul style="list-style-type: none"> Karara Tavern and Motel engaged. Proposed operation scheme discussed. Potential options discussed, including alternatives for continued use after the Project construction is completed. 	Feb – Mar 2021	
	Engage Southern Downs Regional Council to express intent to temporarily increase capacity of accommodation at Karara for workforce overflow	Southern Downs, Regional Council	<ul style="list-style-type: none"> Intent to increase local capacity communicated. 	Feb – Mar 2021	
	Discuss and agreed conditions of operation	Karara Tavern and Motel owners.	<ul style="list-style-type: none"> Conditions of operation agreed. Alternatives for continued use of additional accommodation agreed 	Mar 2021	
	Expansion works	To be identified	<ul style="list-style-type: none"> Works required for increase capacity commenced. 	Apr - May 2021	
	Installation of additional capacity	Selected demountable accommodation provider.	<ul style="list-style-type: none"> Units for camp accommodation installed. 	Jun 2021 – Aug 2022	

References

Queensland Office of the Coordinator General, *Strong and Sustainable Resources Act*, 2017

Queensland Office of the Coordinator General, *Social impact Assessment Guideline*, March 2018

ACCIONA Pty Ltd, *Human Resource Management Plan for the Mortlake Wind Project*, 20x

Appendix A

Available existing accommodation providers

A.1 Available existing accommodation providers

Available existing short-term accommodation that meets the MacIntyre Wind Farm Project requirements as described in Section 3.2.

Table A.1 Contact details of recommended accommodation providers

Location	Accommodation	Phone no.	Email address	Address	Website
Warwick	McNevin's Motel	(07) 4661 5588	warwick@mcnevins.com.au	1 Glen Rd, Warwick QLD 4370	https://warwick-motel.mcnevins.com.au/
	Warwick Motor Inn	(07) 4660 5600	warwickgardensgalore@gmail.com	17/19 Albion St, Warwick QLD 4370	https://www.warwickmotorinn.com/en-us
	Centre Point Mid City Motor Inn	(07) 4661 3488	midcity@bigpond.net.au	32 Albion St, Warwick QLD 4370	https://www.centrepoinmidcity.com.au/
	City View Motel	(07) 4661 5000	cityviewmotelwarwick@bigpond.com	2 Yangan Rd, Warwick QLD 4370	https://cityviewmotelwarwick.com.au/
	Country Rose Motel	(07) 4661 7700	booking@countryrosewarwick.com	2 Palmer Ave, Warwick QLD 4370	
	Warwick Vines Motel	(07) 4661 1810	office@warwickvinesmotel.com	71-73 Wood Street, Warwick QLD 4370	https://www.warwickvinesmotel.com/
	Buckaroo Motor Inn	(07) 4661 3755	reception@buckaroomotorinn.com.au	86 Wood St, Warwick QLD 4370	https://www.buckaroomotorinn.com.au/
	Alexander Motel	(07) 4661 3888	alexandermotel@bigpond.com.au (or) huntersmanagementservice@gmail.com	4 Wentworth St, Warwick QLD 4370	https://alexandermotelwarwick.com.au/
	O'Mahony's Hotel Pty Ltd	(07) 4661 1146	accommwarrwick@gmail.com	35 Grafton St, Warwick QLD 4370	https://omahonyshotel.com.au/
Stanthorpe	Granite Belt Cabins	0429 810 998	info@granitebeltcabins.com.au	80 High St, Stanthorpe QLD 4380	https://backpackersofqueensland.com.au/
	High Street Motor Inn	(07) 4681 1533	info@highstreetmotorinn.com.au	1 High St, Stanthorpe QLD 4380	http://highstreetmotorinn.com.au/
	Granite Belt Motel	(07) 4681 1811	info@granitebeltmotel.com.au	34 Wallangarra Rd, Stanthorpe QLD 4380	https://granitebeltmotel.com.au/
	Boulevard Motel	(07) 4681 1777	info@boulevardmotel.com.au	76 Maryland St, Stanthorpe QLD 4380	https://boulevardmotel.com.au/
	The Apple and Grape Motel	(07) 4681 1288	admin@appleandgrape.com.au	63 Maryland St, Stanthorpe QLD 4380	https://www.appleandgrape.com.au/
	Stannum Lodge Motor Inn	(07) 4681 2000	stay@stannumlodge.com.au	12 Wallangarra Rd, Stanthorpe QLD 4380	https://www.stannumlodge.com.au/
Inglewood	Inglewood Motel	(07) 4652 1377	-	115-117 Albert Street, Inglewood QLD 4387	https://inglewoodmotel.com.au/
	The Olympic Motel	(07) 4652 1333	olympicmotelandrestaurant65@gmail.com	83 Albert Street, Inglewood QLD 4387	https://www.theolympicmotel.com.au/

Table A.1 **Contact details of recommended accommodation providers**

Location	Accommodation	Phone no.	Email address	Address	Website
	Lake Coolmunda - Caravan, Cabin & Holiday Park	(07) 4652 4171	lakecoolmunda@yahoo.com.au	13km east of Inglewood off the Cunningham Highway, Inglewood QLD 4387	https://coolmundacaravan.com.au/
Millmerran	Millmerran Motel	(07) 4695 1155	millmerran.motel@bigpond.com	62 Campbell St, Millmerran QLD 4357	
Total/Av.	Millmerran Village Caravan Park	(07) 4695 2020	mvcaravanpark@bigpond.com	Bruce Rd, Millmerran QLD 4357	www.millmerranvillage.com.au

Appendix B

Locations for expanded accommodation

B.1 Locations for expanded accommodation

Complete list of identified locations and accommodation providers where the capacity can be expanded is presented in Table C.1.

Table B.1 Accommodations providers with possibility of capacity extension

Town/ suburb	Provider	Accommodation type	Status	Current capacity	Expansion capacity (sites)	Existing sites (powered & non- powered)	Expansion works	Current services	Site costs per week	Cabins per night	Site sizes	Special workers section
Glen Aplin	Country Style Caravan Park	Mixed use park	Open	Limited	10	27	Water tanks	Power water and sewerage	\$210 inc electricity	\$90-\$140	6m x 6 m	Yes
Severnlea	Blue Topaz Caravan Park	Mixed use park	Open	Limited due to seasonal bookings	10	41	Power to some new sites	Power water and sewerage	\$210 inc electricity	\$90-\$140	6m x 6 m	Yes
Stanthorpe	Top of Town Caravan Park	Mixed use park	Open	Limited	15-20	118	Power to some new sites	Power water and not sewerage	\$180 inc power	\$90-\$140	12m x 6m and smaller sites	Yes
Stanthorpe	Sommerville Valley Tourist Park	Tourist park	Open	-	-	-	-	Power water and no sewerage	\$210 inc electricity	\$70-\$100	-	Possible
Glen Aplin	Mount View Winery	Non- producing Cellar Door	Closed as a Winery	4 cabins	10+ cabins	-	Power to some new sites	Power water and sewerage	-	\$90-\$140	Flexible as required	Yes
Karara	Karara Tavern and Motel	Tavern/Pub and Motel	Open	4 rooms	10 -15 rooms	-	Power upgrade to new sites	Power water and sewerage	-	\$90-\$140	Flexible as required	-
Karara	Karara Camp Grounds	Camping grounds	Open	Sites only	10	-	Tbd	Power and water	Tbd	Unknown	Large	No
Glendon	Glendon Camping Ground	Camping grounds	Open	Limited	20	-	Power upgrade to new sites	Power and water	\$150 per week	\$70- \$120	Flexible as required	Yes can do

Town/ suburb	Provider	Accommodation type	Status	Current capacity	Expansion capacity (sites)	Existing sites (powered & non- powered)	Expansion works	Current services	Site costs per week	Cabins per night	Site sizes	Special workers section
Leyburn	Royal Leyburn Hotel and Motel	Historic Pub and separate Motel business across the road	Open	Limited	10	-	Power to some new sites	Power water and sewerage needed to adjacent block	-	\$90-\$140	Flexible	Yes
Leyburn	Country Woman's Association	Vacant land	Vacant	-	5	-	Power to some new sites	Power water and no sewerage	-	-	Flexible	Yes
Leyburn	Leyburn Showgrounds	Camping area	Open		10	-	Power to some new sites	Power water and no sewerage	-	N/a	Flexible	Yes
Millmerran	Millmerran Village Caravan Park	Mixed use park	Open	Limited	15-20	74	-	Power water and sewerage to all sites	\$210 inc electricity	\$90-\$140	12m x 6m and 6m x 6m	Yes
Millmerran	Rams Head Hotel	Pub	Open	Limited	10 using land owned at rear of pub	-	Power to some new sites	Power water and access to town sewerage	-	\$90-\$140 rooms above pub	6m x 6m	Yes
Millmerran	Millmerran Motel	Motel	Open	Limited	No rooms available	-	-	-	-	\$90-\$140	-	Yes
Inglewood	Lake Coolmunda Caravan Holiday park	Tourist Park and Camping Grounds	Open	Limited	20	30	Power to some new sites	Power water and no sewerage	\$210 inc electricity	\$90-\$140	Flexible	Yes
Inglewood	MA and SL Johnstone Pty Ltd	Caravan park	Closed	-	23	-	Power to some new sites	Power water and sewerage	-		Flexible	Yes

Appendix C

Accommodation Study



Appendix F

Transport and logistics study

30 January 2021

Emma Reiners
General Manager, Brand & Marketing
ACCIONA
E: emma.reiners@acciona.com

Re: Transport and Logistics

Dear Emma,

EMM has considered potential transport and logistics impacts associated with the Project. This included impacts of the haulage routes from Port of Brisbane to the Project site (via both the Warrego Highway and Toowoomba Bypass and the Cunningham Highway) along with the cumulative effects of workforce and supplier transportation within the Project area and surrounding road network. The focus of the assessment was to identify those impacts that pose the highest risk during the construction phase of the Project and to determine opportunities for risk reduction and provide ACCIONA the opportunity to influence their contractors. In addition, we took a broader look to identify any other key issues that may pose a high-risk during construction that require immediate attention.

Our assessment included:

- a review of the transport routes and traffic impact assessments undertaken by LCR and GHD;
- an assessment of potential impacts on communities and residents impacted by project traffic and infrastructure transport;
- an assessment under the headings of:
 - traffic congestion, disruption and safety impacts;
 - road quality and degradation; and
 - amenity.
- an assessment of all social impacts to determine critical issue, which identified water source for the Project;
- recommended mitigation and risk reduction measures.

Project trips from the Port of Brisbane to the Project site comprise many over size and over mass (OSOM) loads travelling through cities and towns. For most of the journey, vehicles utilise State-controlled roads that have been designed to accommodate heavy vehicles and are located purposefully to reduce potential impacts on communities and adjoining land uses. Further, except for the locations listed below, the additional traffic volumes from this project are unlikely to materially affect State-controlled road capacity and impact existing amenity. This holds true through both the larger cities and towns (Brisbane, Ipswich, Toowoomba, and parts of Warwick) as well as the smaller communities (Leyburn and Pittsworth).

Access into and through the Project area comprises predominantly Carbean Road (an unpaved road), Cement Mill Road (mostly paved) and access onto and potentially through private property (to be constructed in accordance with approved plans and conditions). It is assumed that the designated roads are council-controlled.

1 High risk locations and issues

Locations that may experience community pushback due to traffic and transport impacts include:

- Aratula, located on the eastern side of the Great Dividing Range, where OSOM vehicles travelling from the Port of Brisbane to site via the Cunningham Highway will need to stop (in the widened section of road in front of Shell services station) and be reconfigured with a second truck to assist the run up through Cunningham's Gap and for a rest break;
- the Cunningham's Gap section of the Cunningham Highway, where delays will be experienced by other road users due to the steep terrain, tight bends and limited opportunities to allow rear traffic to overtake oversized vehicles;
- Pratten Street, that is proposed to be used for the transport of OSOM through the southside of Warwick;
- Karara and the intersection of Toowoomba Karara Road and Carbean Road; and
- construction traffic impacts on Carbean Road generally.

1.1 Aratula and Cunningham's Gap

The first two of these five locations, being the stop at Aratula and the Cunningham's Gap section of highway, may result in delays to other road users when OSOM vehicles are utilising these sections of highway (during the hours of about 2:00 to 6:00am). While traffic use during these hours is at its lowest, Cunningham's Highway is part of the national highway system and experiences high volumes of heavy long-haul vehicle traffic, many of which do overnight runs to avoid day-time traffic peaks. Other traffic will include regular shift workers and emergency vehicles.

Potential impacts at Aratula and through Cunningham's Gap will be managed by regulation and through the implementation of traffic management plans that are well described in the LCR report and understood by the Police, other stakeholders, and general road users. However, regular, or frequent delays at these locations for other road users may result in complaints that will require appropriate management, including through community consultation and complaints response protocols.

Recommendations have been provided below for:

- the use of Pratten Street in Warwick; and
- measures to reduce potential impacts at Karara and on Carbean Road.

1.2 The use of Pratten Street, Warwick

The LCR report states a preference for directing oversized vehicles through Pratten Street over the section of the Cunningham Highway that runs east-west through Warwick south of the city centre. The justification for this preference is a reduction in the required works related to street furniture and traffic lights along the relevant section of the Cunningham Highway.

While it is important to note that Pratten Street is the current oversized route through Warwick, the large number of OSOM vehicles represents a very significant increase to the existing volume of traffic. This coupled with a 36-month construction phase translates to elevated and prolonged impacts to residents and other adjoining land uses.

Pratten Street is predominantly residential. The street, from 50 Pratten Street to 246 Wood Street, contains:

- 206 identified residential houses;
- two schools (one private primary and one state mixed);
- one kindergarten,
- one church;
- four private businesses including a hotel and bus charter company;
- four bus stops; and
- two community parks.

The alternative to Pratten Street is to use the existing section of Cunningham Highway that appears to contain more commercial and business premises and fewer residences.

EMM acknowledges that there may be sound (presumably engineering reasons) why Pratten Street is preferred to the Cunningham Highway and given that it has been designed for and designated the oversized route, neither the Department of Transport and Main Roads nor Council may be prepared to consider the alternative. However, the predominance of residences within Pratten Street means that more residences will be impacted by Project traffic than would be the case if the equivalent section of the Cunningham Highway were used.

Recommendation 1a:

Consider using the Cunningham Highway in lieu of Pratten Street for oversized-overmass vehicles through Warwick. Actions would include:

- consultation with Queensland Transport and Main Roads and the Southern Downs Council to determine whether this option is available from political and engineering, design, and safety perspectives; and
- an assessment of the extent and cost of alterations to existing road design and infrastructure (street furniture and traffic lights) that will be required to allow this to occur.

Recommendation 1b:

If Pratten Street is to remain the preferred route for oversized loads, then early engagement with the 206 residences along Pratten Street is recommended.

Develop a package of options to offer residents to manage amenity (noise, disturbed sleep, health and wellbeing, flashing lights from pilot vehicles etc) impacts. Doing so will empower residents to have some influence over their ability to manage and minimise the impacts to them during construction. The package of options could include:

- relocation in part or full during the construction phase for vulnerable residents such as those with pre-existing health conditions such as asthma or COPD;

- respite options (overnight, weekend, week) during peak periods;
- double glazing of windows;
- air conditioning;
- vouchers for movies and/or dinners in local venues;
- washing houses (to manage dust);
- noise cancelling headphones; and
- provide regular updates and access to complaints mechanisms.

1.3 Potential impacts at Karara and on Carbean Road

Karara and Carbean Road will likely experience the most significant and widespread transport and logistics related impacts, as they will receive traffic coming from both the Toowoomba Bypass route and the Cunningham Highway route, as well other workforce and supply related vehicles.

Karara is located at the intersection of Toowoomba Karara Road and the Cunningham Highway. Any existing issues associated with the highway (such as pedestrian, traffic and safety issues, as well as potential noise and dust) will be exacerbated by the increase in traffic due to the Project.

Located south of Karara on the Cunningham Highway is the intersection with Carbean Road is a 26km dirt road leading to the Project site. Approximately seven residential properties were identified close to the road (with the shortest distance between the road and a residential property being approximately 12m). Additional properties rely on Carbean Road to gain access to the Cunningham Highway.

At present, all project vehicles, including OSOM vehicles, buses, company and delivery vehicles, have no choice but to access the project area via Cunningham Highway and Carbean Road.

Estimates of the number of trips to site during the construction period have been provided in a report by GHD. The estimates included locally generated trips as well as the transportation of oversized loads from the Port of Brisbane. What is not included in these estimates, and presumably remains unknown, are the source locations of the large quantities of materials required for construction. These materials include water, road base and concrete materials for the construction of access roads and for the foundations for the wind turbines and construction cranes. The number of trips generated from dams or bores, quarries and industrial plant are likely to be substantial and will impact the relevant sections of state-controlled and local roads, with consequences for nearby communities and residences.

What we can assume is that, given the current low volumes of traffic using these roads, the low background noise levels, the unpaved condition of Carbean Road, and the influx of project vehicles, will have a dramatic impact on local residences, including to residential properties that are located close to Carbean Road that experience these impacts, will not benefit financially from the Project.

Under these circumstances, the strategy should be to encourage a more even distribution across the limited road network; in the first instance, reducing the number of vehicles that enter the Project site from the Cunningham Highway at Karara. It is our understanding that road access during construction of the Project is to comprise:

- a northern gateway at Karara, with vehicles to the site entering via the Cunningham Highway at the Carbean Road intersection, travelling along Carbean Road to the administration centre, laydown areas and rural properties; and

- a planned southern gateway, requiring approval from council to reopen (presumably for the duration of construction), a previously closed section of Inverary Road.

Other options link to the accommodation strategy, which encourage the use of buses to transport workers to and from site, thereby reducing the total number of private vehicles and Project vehicles.

Recommendation 2a:

Plan for and implement the southern gateway in a manner that maximises the attraction of using this gateway for a greater number of workers and suppliers. Actions would include:

- consultation with the Southern Downs Council to determine approvals, council requirements and location and design options;
- determine responsibility for the design and implementation of any road and associated structures;
- undertake pre-construction works as required; and
- signage that clearly indicates the alternate route.

Recommendation 2b:

Develop a bussing strategy, providing the transportation of workers to and from site. Consideration should be given to:

- the location of a limited number of common pick-up points; and
- the distribution of workers to individual wind turbine sites.

Refine the accommodation strategy (identifying accommodation with easy access to defined bus routes) to make for a more efficient bus service and reduce the need for cars between accommodation and pick-up points.

Private vehicles should be banned from accessing the Project area. Consideration should be given to:

- the need for secure and/or availability of all-day parking at bus pick up points; and
- a permit system that allows private vehicle access where bussing isn't an option (this should be minimal).

Recommendation 2c:

Develop a package of options to offer residents to manage amenity (noise, dust, disturbed sleep, flashing lights etc) impacts. Doing so will empower residents to have some influence over their ability to manage and minimise the impacts to them during construction. The package of options could include:

- relocation in part or full during the construction phase for vulnerable residents such as those with pre-existing health conditions such as asthma or COPD;
- respite options (overnight, weekend, week) during peak periods;
- double glazing of windows;
- air conditioning;
- noise cancelling headphones;

- demountable buildings and/or cabins placed on residents' properties as far away from the road as possible;
- washing houses (to manage dust);
- vouchers for movies and/or dinners in local venues; and
- provide regular updates and access to complaints mechanisms.

1.4 Water

The Project has yet to have a clear strategy for accessing water through the construction phase. Given the recent drought and that Southern Downs region are currently on water restrictions, there is much angst in all sectors of the community around the scarcity of water. In fact, Stanthorpe is still having to source water externally. The sensitivity surrounding water as a natural resource and a critical human need will exacerbate any existing tensions should the Project use existing sources such as dams and waterways. The risk of community outrage around water is very high if not managed correctly and this is evident in recent times with projects across New South Wales during a prolonged drought. This will be further compounded with the growing knowledge and experiences of global warming which will lead to more frequent extreme events such as the recent droughts experienced across the Southern Downs.

ACCIONA's recent provision of a borehole at Karara indicates that there is groundwater that can be accessed, and which could potentially provide a water source to the Project. However, it is our understanding a decision regarding water source for the Project remains undecided.

Recommendation 3:

Develop a water management strategy for the Project, which could consider:

- provision of boreholes to be located on nearby properties, with special consideration for neighbouring landholders that do not currently have turbines on their property;
- allow landholders to have access to project water supply and infrastructure;
- consider locations where other community can benefit from access to the water from bore holes eg cement mills hall, caravan and tourist parks; and
- early engagement, and where possible inclusion in identifying suitable bore hole locations, with landholders, local tourist, and accommodation providers.

3 Close

The above summarises the high-risk impacts and issues during the construction phase and our proposed recommendations. The full summary of impacts will be provided in the social impact assessment report.

Should you have any questions please feel free to contact me.

Yours sincerely

A handwritten signature in black ink, appearing to read 'A. Kanaris', with a stylized flourish at the end.

Andrea Kanaris

SIA National Technical Leader

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Appendix G

Inputs

Table G.1 Required inputs

Strategy	Project inputs and cost	Partners	Further input
Water and drought security			
Improvements to community water infrastructure and access	<ul style="list-style-type: none"> • identify water sources in the area to supply the Project and their mix to minimise impacts on local supply/access. • identify all possible options for water infrastructure in the Project area • codesign to determine suitable placements for water infrastructure with particular focus on providing direct benefits to neighbouring landowners • implement long term drought proofing strategies • cost of appropriate community water infrastructure • \$150 for a water licence (number of licenses needed will be dependent on availability of viable bore locations – if the bores are located in different aquifers, they will require different licenses) 	<ul style="list-style-type: none"> • SDRC, GRC • landowners • Murray Darling Basin authority • residents within the local area and beyond 	<ul style="list-style-type: none"> • engage with local governments to determine, understand, and coordinate projects relating to water infrastructure and access
Local water and drought awareness programs and research support	<ul style="list-style-type: none"> • engagement with local community and relevant partners • cost of Project-related water supply engagement • cost of one PHD tuition program (3 years full time at USQ) cost of educational programs • PhD fees at USQ may be up to \$29,200 per annum 	<ul style="list-style-type: none"> • as above • Government departments, Department of Innovation, One Basin CRC, International Water Centre, DES, IWC, Waterpreneurs, Business Models Inc, DAF • USQ, International Water Centre (Griffith University), Universities throughout QLD • local primary and secondary schools 	<ul style="list-style-type: none"> • engage with local organisation, government authorities and local councils to determine existing programs and initiatives in place

Table G.1 **Required inputs**

Strategy	Project inputs and cost	Partners	Further input
Bushfire preparedness			
Funding equipment and improving local water access for local RFBs	<ul style="list-style-type: none"> • assess suitable locations to leave bores for use by the RFB following Project construction. • organisation of licensing of bores for use by the RFB following Project construction. • liaise with the local RFB to identify which materials and resources are needed to improve fire preparedness and response. • costs associated with purchasing firefighting PPE. Cost varies depending on garment – from approximately \$200 for a jacket to \$400 for a helmet • costs associated with purchasing Slip on Fire Fight Equipment is approximately \$5,000 per unit with 15-year warranty. 	<ul style="list-style-type: none"> • local RFB (Karara and bush brigades). • SDRG and GSC. 	<ul style="list-style-type: none"> • additional consultation with the local RFB to identify the equipment that they currently require and the equipment that would provide the most significant, sustainable firefighting benefits to the local area.
Training and encouraging new volunteers	<ul style="list-style-type: none"> • liaison with the QLD RFS to facilitate and organise an annual firefighting training event for RFB volunteers across the study area. • costs associated with hosting yearly fire preparedness and response upskilling and training events for RFB volunteers across the study area. • advertising volunteering opportunities with the RFB using a variety of methods, including at the ACCIONA shopfront, using social media, and presentations. • establish workforce volunteer campaign which communicates volunteering opportunities within the local area (including RFB). 	<ul style="list-style-type: none"> • local RFB (Karara and bush brigades). • QLD RFS. • local Aboriginal and/or Torres Strait Islander communities. 	<ul style="list-style-type: none"> • additional consultation with QLD RFS to discuss the feasibility of an annual training event. • additional consultation with Aboriginal and/or Torres Strait Islander communities to offer funding and assess their interest in engaging with the RFB.
Local bushfire research support and awareness programs	<ul style="list-style-type: none"> • engagement with relevant partners to determine the requisites and implementation of bushfire awareness programs; • codesign the process to determine the procurement, funding and partnership opportunities for bushfire preparedness and response programs; and • cost of scholarship, research, and bushfire awareness programs (scholarship may be up to \$30,000 per annum for post graduate research positions) 	<ul style="list-style-type: none"> • SDRC, GRC • Government agencies, QRA • emergency services and local RFBs • local primary, secondary, tertiary education institute, and future anything organisation 	<ul style="list-style-type: none"> • consultation with local council and emergency services to identify e existing bushfire context as well as relevant programs in place

Table G.1 **Required inputs**

Strategy	Project inputs and cost	Partners	Further input
Tourism			
Funding and facilitating permanent tourist infrastructure	<ul style="list-style-type: none"> • codesign process to determine procurement, funding, and partnership opportunities • engagement with partners who will develop and construct infrastructure • engagement with local businesses and tourism providers who will operate and maintain infrastructure • cost of initial infrastructure development and enhancement – likely upwards of \$500,000. • consultation with community, local landowners, and councils to receive approval for any proposed development activities 	<ul style="list-style-type: none"> • SDRC, GRC • local tourism providers, Southern QLD Country Tourism, Tourism and Events QLD, Southern Downs, and Granite Belt Tourism, Destination QLD, The QLD Tourism Industry Council, and the Department of Tourism and Innovation. • QLD destination events program, • local arts organisations, Warwick Art Gallery, Stanthorpe Regional Art Gallery, • Aboriginal Traditional Owner groups and representatives • College of Wine and Tourism 	<ul style="list-style-type: none"> • consultation with local councils and tourism boards to determine beginning stages of codesign process – identify who the key partners are and where funding should go
Upskilling and training local business and tourism providers	<ul style="list-style-type: none"> • establish partnership with education and training providers • offer local training sessions to identify key stakeholders and local communities • cost associated with training and upskilling programs • training local tourist providers who will be directly involved in the project regarding project information and safety considerations (in the case of site access) • consult with training providers and establish which programs and skills are needed/wanted in the community and necessary to service tourism development and what partnerships can provide this training (co-design process) 	<ul style="list-style-type: none"> • As above • TAFE, USQ, upskilling, training, and business development institutions • Regional Skills Investment Strategy (RSIS), ASBAS, Small Business QLD • Canvas Coworking 	<ul style="list-style-type: none"> • as above – consultation with local training providers, services, and councils to determine the beginning stages of codesign process

Table G.1 **Required inputs**

Strategy	Project inputs and cost	Partners	Further input
Promoting local tourism	<ul style="list-style-type: none"> • print and distribution of physical materials • signage and advertisements (in local papers etc.) • engagement with local tourist providers to distribute materials (ie. brochures and maps – cost may vary ~ \$300-500 per 1000 brochures) • cost of advertising and distributing materials • cost of signage – TMR approved tourism signage costs range from \$900 for a small sign to \$37,000 for a sign on a motorway. • engagement with local towns and councils to establish tourism opportunities for smaller communities • engagement with other local tourism attractions and destinations along the route • Consultation with councils and tourism board to determine if an officially recognised tourist route is feasible and how it will be implemented (co-design process) 	<ul style="list-style-type: none"> • as above • local accommodation providers, tourism information centres and other attractions (to distribute brochures and maps) • Screen QLD 	<ul style="list-style-type: none"> • as above – consultation with local councils and tourism providers to determine the beginning stages of codesign process
Education and training			
Local training and upskilling	<ul style="list-style-type: none"> • establish partnerships with local employment and business organisations • engagement with partners to determine the capacity of local workforce and to design appropriate training programs • cost of program implementation, upskilling and traineeships – relevant TAFE courses range from approximately \$4,000 for a full fee position to \$700 subsidised, \$250 concession, and \$0 under the JobTrainer Scheme. • cost of advertising training opportunities 	<ul style="list-style-type: none"> • SDRC, GRC • local employment and training organisations/providers • RSIS, Australian Small Small Business QLD, Department of State Development, Infrastructure, Local Government and Planning, SIDF, Deadly Deals, DSB, NRA, ATO, ASBAS, Canvas Coworking • upskilling, training, and business development institutions 	<ul style="list-style-type: none"> • consultation with employment organisations, local council and community to identify gaps in local skills and workers.
USQ scholarship programs	<ul style="list-style-type: none"> • establish partnership and engage with USQ • codesign process to determine the appropriate aspects required for the scholarship • - Cost of 1 semester of study for Equivalent Fulltime Student Load ranges from \$3,950 to \$11,355 depending on the field of study 	<ul style="list-style-type: none"> • SDRC, GRC • relevant Government agencies • USQ 	<ul style="list-style-type: none"> • identify disciplines and courses that are lacking in the local community (consult further with local service providers)

Table G.1 Required inputs

Strategy	Project inputs and cost	Partners	Further input
Primary and secondary school programs	<ul style="list-style-type: none"> • identify disadvantaged schools within proximity of the Project site • develop relationships with relevant partners • codesign a community driven program • cost of program and implementation within primary and secondary schools 	<ul style="list-style-type: none"> • Department of children services • QLD department of Education 	<ul style="list-style-type: none"> • identify relevant local schools and consult with staff to determine what services are needed.
Aboriginal and/or Torres Strait Islander participation			
Support Aboriginal cultural heritage research projects, and community culture and arts programs	<ul style="list-style-type: none"> • codesign process to determine funding, resources, research potential, community needs and desires, and partnership opportunities • engagement with a range of local Traditional Owner groups, representatives, and organisations (in some cases compensation should be offered). • engagement with partners who will undertake research projects, including universities, schools, and research institutions • engagement with partners who will host/provide space and resources for any exhibitions or arts programs • Warwick Art Gallery offers rental exhibition spaces – three main galleries ranging from \$50 - \$200 to exhibit for a 4-to-6-week block. • engagement with potential publication partners • cost of initial codesign process and meetings (will vary depending on no. of participants and nature of codesign process). • cost of funding and supporting research, scholarships, arts and culture programs or publication outcomes 	<ul style="list-style-type: none"> • the Kambuwal People, the Githabul People – any other potential interested Aboriginal and/or Torres Strait Islander stakeholders (Bigambul People) • SDRC, GRC, TRC • Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS) • USQ Centre for Indigenous Studies, Education and Research (CISER) • local universities and education providers, local schools, the University of QLD (UQ), State Library of QLD (SLQ), QLD State Archives • Indigenous Regional Arts Development Fund (IRADF), Indigenous Art Centre Infrastructure Fund (IACIF) • Department of Aboriginal and Torres Strait Islander Partnerships (DATSIP) • local museums and heritage organisations, Stanthorpe Heritage Museum • local arts organisations, Warwick Art Gallery, Stanthorpe Regional Art Gallery • local tourism providers 	<ul style="list-style-type: none"> • consultation with local Traditional Owner groups and organisations, research bodies, education institutions to determine beginning stages of codesign process – identify who the key partners, key research areas, and where funding should go

Table G.1 **Required inputs**

Strategy	Project inputs and cost	Partners	Further input
Community cohesion and events			
Improving local community facilities and halls	<ul style="list-style-type: none"> • identification of relevant and community valued facilities and hall locations near project site • identification of current projects or fundraising opportunities • engagement with local communities and hall committees to identify potential needs and projects • engagement with local councils • cost of contributing improving facilities or halls • Pikedale community hall relocation cost is around \$10,000 – however, \$7,300 has already been raised by the community. • Cost of improvements may range from \$100 for a tin of paint to \$10-20,000 for a full renovation. 	<ul style="list-style-type: none"> • local hall committees or organisations • local councils – GRC, SDRC • local community representatives 	<ul style="list-style-type: none"> • consultation with local community, council, and hall committees to identify potential existing projects/needs and relevant hall locations
Facilitating and sponsoring community events	<ul style="list-style-type: none"> • identification of relevant and convenient locations to host events (community halls) to target community surrounding the project site • identification of any maintenance or resources needed to host and organise events • engagement with local communities and hall committees to identify best way to run events • engagement with local service providers to determine if it is possible to host outreach services during events • cost of contributing improving facilities or halls (as above) • cost of hosting events (invites, food, and drink etc.) • Approximate cost of sponsoring 3 years of fortnightly BBQs ~\$5000 (food and drinks), plus an additional ~\$250 to purchase BBQ 	<ul style="list-style-type: none"> • as above • local community and residents • local social and health service providers (outreach services) 	<ul style="list-style-type: none"> • consultation with local community, service providers, and hall committees to maximise event design and community benefits

Table G.1 **Required inputs**

Strategy	Project inputs and cost	Partners	Further input
Supporting a community run newspaper	<ul style="list-style-type: none"> • identification of potential community led newspaper committee or organisation • identification of newspaper printing and resourcing strategy • identification of newspaper distribution strategy and areas • engagement with local community and potential newspaper committee • engagement with existing local papers to identify demand and any logistical issues • cost of facilitating and supporting printing (either directly, through funding or through providing equipment and materials) • Cost of a commercial printing machine: ~\$5,000 - \$10,000 	<ul style="list-style-type: none"> • as above • local media outlets • local councils (SDRC and GRC) • community newspaper committee or organisation 	<ul style="list-style-type: none"> • consultation with local community members and groups to determine beginning stages of codesign process – identify who the key partners are and where funding should go to maximise the sustainability of the newspaper design and strategies
Mental health and wellbeing			
Outreach services	<ul style="list-style-type: none"> • establish partnership with Australian Men’s Shed Association and their local sheds within the community. • identify most effective ways to increase resources of local mental health providers to extend services through additional consultation. • cost associated with supporting Men’s Shed meetings and/or events. • cost associated with providing funding/sponsorship to mental health outreach programs. • cost associated with providing transportation to local community members and/or local Men’s Shed operations. Cost of a new van/small minibus around \$40,000. 	<ul style="list-style-type: none"> • Australian Men’s Shed Association, including Men’s Shed Warwick, Stanthorpe, Leyburn, and Inglewood (Mates Shed). • CWA. • hospitals at Warwick, Inglewood, and Stanthorpe. • Headspace Warwick. • Toowoomba Rural and Regional Mental Health Services. 	<ul style="list-style-type: none"> • additional consultation with local service providers to identify the resources that their current services are lacking. • additional consultation with local and regional mental health services to understand the additional resources required to extend their current services and support outreach into smaller rural communities around the Project area.

Table G.1 **Required inputs**

Strategy	Project inputs and cost	Partners	Further input
Community-led social enterprise and initiatives	<ul style="list-style-type: none"> • establish partnership with local schools. • establish partnership with Headspace Warwick and local community services. • fund and support arrangement for mental health initiatives and programs to be adopted in local schools. • cost associated with constructing a new community hall in Pikedale - ~\$80,000 • cost associated with improving facilities and providing additional resources to the community halls in Karara and Cement Mills. • cost associated with supporting creation of a mobile men's shed (ie a movable structure) and supporting a mobile men's shed activities and events – cost of towable/transportable building ~\$40,000. 	<ul style="list-style-type: none"> • SDRC. • local schools in Warwick, Stanthorpe, Leyburn, and Inglewood. • Headspace Warwick. • local community and mental health service providers, QLD Health Director of Nursing at Warwick Hospital.. • local community – residents within smaller towns with less access to mental health and community services. • Darling Downs and West Moreton PHN. 	<ul style="list-style-type: none"> • consultation with SDRC required regarding land required to establish a Pikedale community hall. • additional consultation with local service providers to identify the resources that their current services are lacking. • additional consultation with local and regional mental health services to understand the additional resources required to extend their current services and support outreach into smaller rural communities around the Project area.
Mental health awareness and education	<ul style="list-style-type: none"> • provision of mental health information pamphlets, lists of web resources, phone numbers, and local services available within the area. • identify and arrange speakers to present at community events or at community halls (cost will likely vary dependant on the distance travelled, length of presentation etc.) • liaise with Traprock Group to identify program and event opportunities. • liaise with Darling Downs and West Moreton PHN. • cost associated with supporting mental health education events. 	<ul style="list-style-type: none"> • Community Hall administrators. • hospitals at Warwick, Inglewood, and Stanthorpe. • Traprock Group. • Black Dog Institute. • MATES in Construction. • contractors. • Darling Downs and West Moreton PHN. 	<ul style="list-style-type: none"> • liaison with Traprock Group and Darling Downs and West Moreton PHN to identify opportunities to engage in existing mental health education programming and initiatives operating within the local area.

Table G.1 **Required inputs**

Strategy	Project inputs and cost	Partners	Further input
Indigenous employment, education, and support services	<ul style="list-style-type: none"> • codesign process to determine funding, resources, demand for upskilling and education courses, community needs and desires, and partnership opportunities • engagement with a range of local Traditional Owner groups, representatives, and organisations • engagement with local training providers, universities, schools, and health and social services • engagement with local council to identify opportunities and service gaps • engagement with cultural safety training providers • cost of initial codesign process and meetings • cost of funding and supporting upskilling and training, scholarships, and local social and health services • cost of facilitating and funding cultural safety/capability training, cost of a cultural safety course ranges from \$50 - \$200 per person depending on the course, length, and provider 	<ul style="list-style-type: none"> • the Kambuwal People, the Githabul People – any other potential or interested Indigenous stakeholders (Bigambul People) • SDRC, GRC, TRC • cultural safety training providers, Centre for Cultural Competence Australia (CCCA), DATSIP cultural capability training • DATSIP • local training and upskilling providers (see Section 10.4.4) • local education and university providers (see Section 10.4.4), USQ CISER. • local health and social service providers (particularly Indigenous), Carbal Medical Centre, Breakthrough for Families QLD (Drug.ARM), Aboriginal and Torres Strait Islander Legal Service (ATSILS) QLD – Goondiwindi, Indigenous Parenting Support Service (IPSS), The Goondiwindi Community Justice Groups (CJG), Goolburri Aboriginal Health Advancement Co. Ltd, ATSILS Toowoomba, Aboriginal and Torres Strait Islander Health Service - Toowoomba 	<ul style="list-style-type: none"> • consultation with local Traditional Owner groups and organisations, councils, service providers, and education institutions to determine beginning stages of codesign process – identify who the key partners, key upskilling, and education disciplines, and where funding should go

