Social Impact Assessment

Apsley Battery Storage System

Client: ACEnergy
SSD: 35160796

Updated 20 July 2022

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Creating vibrant communities through powerful conversations

ACKNOWLEDGEMENT OF COUNTY

We are in the Country of the Awabakal and Worimi peoples. We recognise their connection to the land and water of this beautiful and vibrant place. We pay our respects to the Traditional Owners of the land on which we work and pay our respects to Elders past, present and emerging.

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COMMONLY USED ACRONYMS AND TERMS

ACRONYMS/TERMS	DESCRIPTION
ABS	Australian Bureau of Statistics
ASGS	Australian Statistical Geography Standard
ASR	Age-standardised rate
DA	Development application
DPE	NSW Department of Planning and Environment
EIS	Environmental Impact Statement
EP&A Act	Environmental Planning and Assessment Act 1979
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
FTE	Full-time equivalent
IAIA	International Association for Impact Assessment
Ha	Hectares
Km	Kilometres
LEP	Local Environment Plan
LGA	Local Government Area
NSW	New South Wales
Regional community	Residents of the Dubbo Regional Council Local Government Area
SEARs	Secretary's Environmental Assessment Requirements
SEIFA	Social-Economic Indexes for Areas
SIA	Social impact assessment
SIA Guideline	The Department of Planning, Industry and Environment's *Social Impact Assessment Guideline for State Significant Development* (2021)
SIMP	Social Impact Management Plan
SSC	State Suburb Code
SSD	State Significant Development
UCL	Urban Centre/Locality (ABS ASGS)

EXECUTIVE SUMMARY

Mara Consulting (Mara) was engaged by Premise Consulting on behalf of AEnergy Pty Ltd to conduct a Social Impact Assessment (SIA) for the Apsley Battery Energy Storage System (BESS). The project is considered a State Significant Development (SSD) and an Environmental Impact Statement (EIS) has been prepared.

The proposal is for an approximately 160-Megawatt AC (MW_{AC}), 640 Megawatt Hours (MWh) BESS and associated works. This report presents an assessment of potential social impacts associated with the proposed BESS.

The SIA includes the methods and results, the initiatives built into the project design to avoid and minimise social impacts, and the additional mitigation and management measures proposed to address any residual impacts not able to be avoided.

The Social Impact Assessment Guideline for State Significant Projects published by the NSW Department of Planning and Environment (July 2021) outlines the requirements for undertaking the SIA component of the EIS. This SIA has been revised in line with the latest SIA Guideline.

This SIA examines the potential impacts, issues raised through the consultation and identifies mitigation and management. In total there were:

- 2 high positive impacts
    - Construction will provide direct and indirect jobs and benefit a range of individuals and businesses
    - The operations of the development will increase opportunities for employment and business
- 3 medium negative impacts, including:
    - Impacts during construction
    - The proposed facility will negatively impact on the visual amenity
    - Potential decline in the social amenity and how the community experiences the surrounding area
- 6 low negative impacts and 1 low positive impact

This SIA concludes that while potential impacts have been raised, with mitigation and management, ongoing residual impacts are manageable. This is discussed in detail in Section Table 9: Summary of identified impacts.

1. Introduction

Project overview

ACEnergy specialises in Renewable Energy project development throughout Australia. They are proposing to develop a Battery Energy Storage System (BESS), located at 9010 Mitchell Highway, Apsley, within the Dubbo Regional Council local government area. The project is known as the Apsley BESS.

If approved, the battery storage facility and associated infrastructure will have a capacity of up to 160-Megawatt AC. The Apsley BESS is designed to provide efficient network services by charging from the grid during periods of low demand and discharging back to the grid during periods of higher demand.

Power would transition to and from the BESS switching station via a new 132 kV line connection to the existing power lines to the east.

If the project is approved, it will include:

- New driveway from Mitchell Highway leading to a gated entry to the BESS
- Security fencing around the BESS
- Permanent carpark and temporary loading zone for use during construction
- Containerised lithium-ion phosphate batteries, containerised MPVS
- 132kV switching station
- 132 kV sub-transmission lines to connect the BESS to the existing powerlines.

If approved, construction is expected to take five months. The batteries will be manufactured offsite and delivered ready for installation following completion of site preparation, including levelling the site and constructing a bench on which to install the BESS.

It is anticipated the BESS will:

- have around 30-year operational life
- be decommissioned at the end of the operational life, including the removal of all above ground infrastructure and the remediation of the site.
- operate 24 hours a day, seven days a week
- generate up to 50 Full time Equivalent (FTE) jobs during construction and up to five FTE jobs during operation.

The Apsley BESS project will be assessed as a State Significant Development. Currently an Environmental Impact Statement (EIS) is being developed to meet the planning requirements and relevant guidelines. The Department of Planning and Environment (DPE) will assess the application.

The site is currently used for grazing and cropping. An associated dwelling is in the northern portion of Lot 2 DP 1012686 and a farm building in the eastern portion of Lot 3 DP 1012686. The surrounding properties are zoned RU1 Primary Production. The adjacent highway corridor is zoned SP2 – Infrastructure pursuant to the *Dubbo Regional Local Environmental Plan 2022* (LEP).

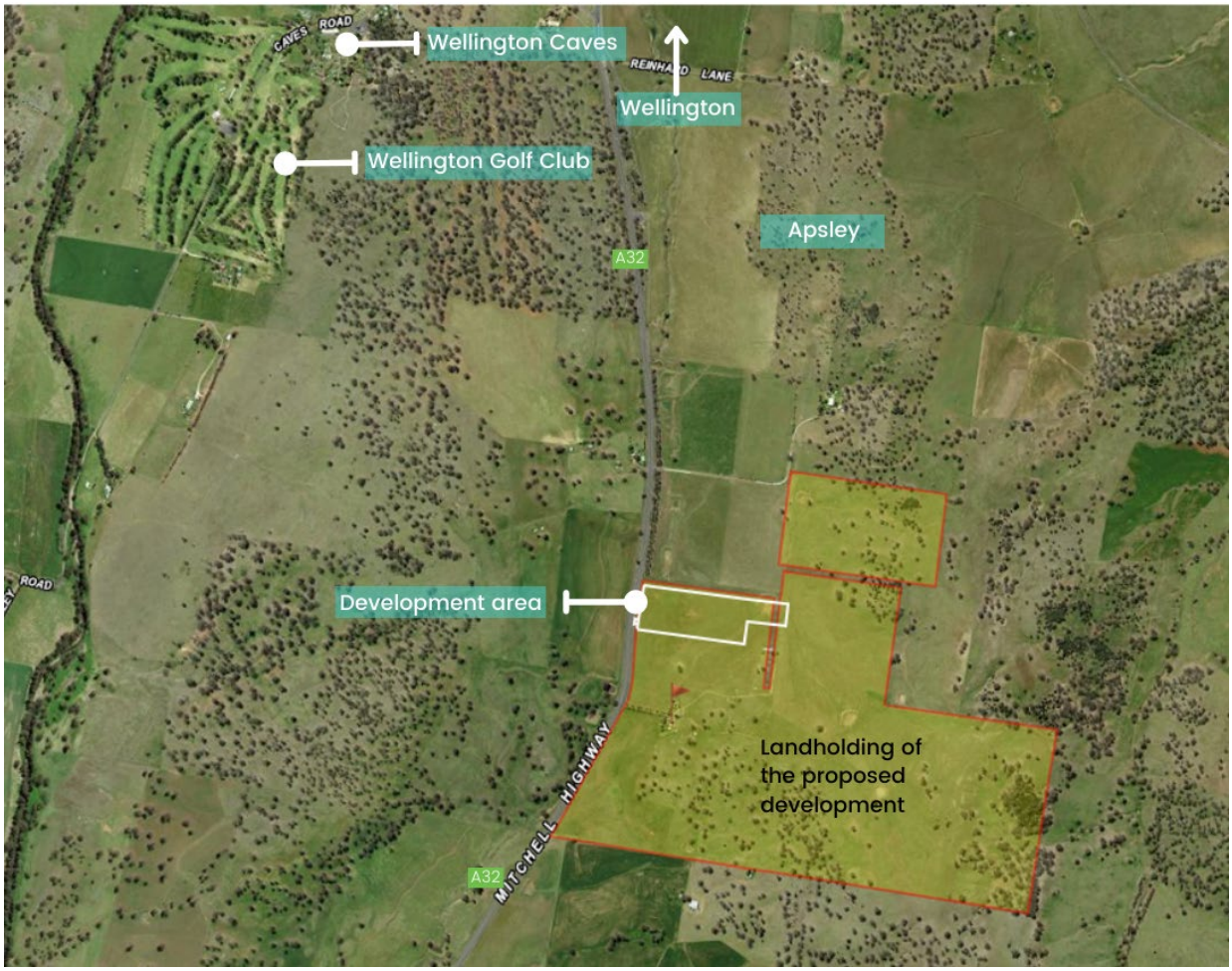
This section of the report sets out the geographical and policy context for the Project.

Location

The site is known as 9010 Mitchell Highway, Apsley (Lot 3 DP1012686 and Lot 107 DP756920, as well as the Crown Road reserve between the two lots). The site has an area of approximately 18.34 hectares (ha) and the proposed project has a development area of approximately 6 ha. The site is currently part of a larger holding of approximately 140.8 ha formed of seven (7) individual lots (see Figure 2).

The site is the Mitchell Highway and is approximately 3km from the Wellington Caves and 10km to the township of Wellington. The site is located within the Central-West Orana Renewable Energy Zone (REZ) and surrounded primarily by agricultural land.

Figure 1: Existing aerial view of the site (Base map: Sixmaps 2021)



Purpose of the social impact assessment

Mara Consulting Pty Ltd (Mara) has been engaged to prepare and submit a social impact assessment to support the State Significant Development Application and the Environmental Impact Statement (EIS) for the Apsley BESS.

The social impact assessment has been prepared using the framework set out in the NSW Department of Planning and Environment's *Social Impact Assessment Guideline* (Guideline, 2021) and the supporting *Technical Supplement*.

The social impact assessment undertakes a process of understanding the project impacts on people and finding ways to manage, mitigate negative impact and enhance positive impacts. The social impact assessment has been prepared by a suitably qualified and experienced author. A signed declaration is provided as Appendix A – Certification page.

Secretary's Environmental Assessment Requirements

The proposal is declared State Significant Development (SSD) and as such, has been developed in accordance with the Secretary's Environmental Assessment Requirements (SEARs) for the project, which were issued on 3 March 2022. In particular, SEAR 10. Social Impacts, which states:

> The EIS must address the following specific matters:

– including an assessment of the social impacts in accordance with Social Impact Assessment Guideline (DPIE, Nov 2021)

- Relevant Policies and Guidelines

Structure of this report

The structure of the social impact assessment is based on the Guideline and set out in Table 1.

Table 1: Structure of the social impact assessment

Chapter	Description
Chapter 1	Introduces the project and gives context to the report
Chapter 2	Provides relevant legislative and social policy context which informs the assessment
Chapter 3	Describes the social locality
Chapter 4	Describes the methodology for the social impact assessment
Chapter 5	Describes the stakeholder engagement activities completed to inform the social impact assessment
Chapter 6	Describes the social baseline
Chapter 7	Examines the expected and perceived social impacts of the proposal through the project lifecycle – construction, operation, decommissioning
Chapter 8	Describes the social impact enhancement and mitigation measures as well as any residual impacts. Monitoring and management are covered here.
Chapter 9	Includes monitoring and reporting.

2. Legislative and social policy context

The social impact assessment considers several strategic planning documents. The following review summarises key relevant state and local policy and strategic documents to illustrate the current policy context and the preferred direction for future use and development in the area.

NSW legislation, policies and guidelines

The legislative context for the Apsley EIS is set out by the *Environmental Planning and Assessment Act 1979* (EP&A Act). The Secretary's environmental assessment requirements are issued under the provisions of the EP&A Act. Additionally, the social impact assessment has been prepared to the form and content requirements set out in the Guideline (2021) and supporting technical guideline. This outlines the legislative guidelines for the assessment.

NSW strategies and plans

Central West and Orana Regional Plan 2041 (draft)

The Central West and Orana region consists of 19 local government areas including Dubbo Regional Council. The Regional Plan 2041 (draft), prepared by the NSW Department of Planning and Environment, provides a 20-year blueprint to guide economic development, planning and land use decisions for the region. Large scale solar, wind generation, bioenergy generation and pumped hydro are a key focus of the plan to generate investment and jobs, as well as moving to low carbon infrastructure development.

The plan raises community concerns resulting from large-scale solar and wind energy generation. It suggests there are potential conflicts between renewable energy development and agricultural and residential uses, particularly impacting on the rural landscape and visual catchment values.

Relevant objectives and strategies in the plan include:

- Objective 20 - Leverage the Central–West Orana Renewable Energy Zone to provide economic benefit to communities
- Strategy 12.3 - To facilitate a renewable energy industry, use strategic planning and local planning for community benefit, address cumulative impacts of major projects and encourage diversification of local industries into renewable energy generation and supply.
- Strategy 12.3 - Encourage renewable energy proponents to develop projects that are appropriately located and compatible with surrounding land use practices to minimise land use conflict and environmental and social impacts. Key landuse conflict issues to be considered are the impacts on Important Agricultural Land, coexistence with agricultural activities and visual impacts on centres.

Central–West Orana Renewable Energy Zone (REZ)

The Apsley BESS is within the Central-West Orana Renewable Energy Zone, which includes Dubbo and Wellington.

The Central-West Orana REZ will be the first REZ to be rolled out under the *Electricity Infrastructure Investment Act 2020* (NSW) which builds on the NSW Government's *Electricity Strategy and Electricity Infrastructure Roadmap*. Included in the plan, is the construction of new transmission infrastructure, which will enable new energy generation and storage projects to be exported into the electricity network. It is one of five regions prioritised for connecting transmission infrastructure upgrades to multiple renewable energy and storage projects. The Central-West Orana REZ is said to produce at least 3,000 megawatt (MW), powering up to 1.4 million homes[1].

Local policies and plans

The project is located in the Dubbo Regional Council local government area. Council and the communities it represents are key stakeholders for the project. The plans and strategies supported by local government are representative of local communities and identify strategies and opportunities to further improve the liveability and resilience of these communities. Furthermore, they are based on extensive community engagement and provide insights into the priorities and issues important to the community.

Local Strategic Planning Statement

The Local Strategic Planning Statement (LSPS) 2020, outlines the Dubbo Regional Council's planning priorities and informs any decisions on changes to its planning rules. Based on the community's vision, it identifies the characteristics and values to be enhanced and uses these to manage growth and change. The LSPS includes opportunities, such as the State Government's Renewable Energy Zone Pilot as a catalyst for construction jobs, investment in infrastructure and the region. The growth in renewable energy supply is identified as a transformative for a range of industries and communities. It goes on to say, "Dubbo Regional LGA has one of the highest take up rates for solar energy development in Australia." and will play a key role in the Council's sustainability future[2].

The LSPS outlines the promotion of renewable energy generation as a key planning priority. Additionally, land identified for employment and industrial uses available for projects is a priority. A key action is developing renewable energy storage and supply facility for the region. However, outlines impacts need to be managed to minimise impacts and temporary sterilisation of agricultural land.

[1] Central West Orana REZ Transmission – Wollar Substation Upgrade - https://www.planningportal.nsw.gov.au/major-projects/projects/central-west-orana-rez-transmission-wollar-substation-upgrade
[2] Dubbo Regional Council, 2020, Local Strategic Planning Statement

Central Orana Regional Economic Development Strategy 2018-2022

The Central Orana Regional Economic Development Strategy 2018-2022 sets out a framework for identifying and delivering high value projects. The strategy discusses the multiple renewable energy projects throughout Central Orana, including solar farm opportunities near Dubbo and Narromine and wind farm developments near Wellington. Supporting renewable energy projects will provide a broad economic base for the construction and manufacturing industry to continue to grow. Strategy four seeks to capitalize on the growth potential of mining and construction sectors to boost clusters in energy, manufacturing and transportation.

Community Strategic Plan –2040

The Dubbo Community Strategic Plan 2040 is a visioning document based on consultation with the community. It sets out the long-term aspirations for the LGA. The document includes five visions from the community strategic directions, each supported by specific strategies. Those relevant to this social impact assessment are:

- Theme: Infrastructure
    - 2.1 Opportunities for use of renewable energy are increased
    - 2.1.1 Investment in renewable energy opportunities are encouraged and supported
- Theme: Economy
    - 3.2 Employment opportunities are available in all sectors of our economy
    - 3.2.1 Employment opportunities for all sectors of the community that support economic growth are fostered
    - 3.2.3 Industry is supported in the attraction of skilled professionals
    - 3.4 A strong agricultural sector with a continuing capacity to be a significant contributor to the local, regional and national economy is encouraged
    - 3.5 The long-term economic growth of the Local Government Area is realised
    - 3.5.1 Opportunity for long term growth and investment across sectors and industry is leveraged
    - 3.5.4 New business and industry are established in the Local Government Area
    - 3.5.5 Business and industry are encouraged to grow, diversify and upskill workers
    - 3.5.6 Investment in the Local Government Area as a driver of growth in the region is a key priority for government, industry and the local community

3. Social locality

The social locality for the Apsley BESS is confined and has been based on the consideration of:

- scale and nature of the proposed development and associated infrastructure from construction through to operation and decommissioning
- who may be affected by the project. this takes into consideration the social, cultural and demographic characteristics and values
- the characteristics of the surrounding community and how impacts (positive and negative) may be reasonably experienced or perceived by different people including vulnerable or marginalised people
- built and natural features surrounding the proposal and if these features are affected, including rural character
- any relevant social, cultural, demographic trends or social change processes occurring now or in the past near this proposal
- the history and land use of the area.

The social locality is restricted to the areas proximal to the Apsley BESS site. Figure 3 provides an indicative social locality, showing the area of social influence and project location.

The project is located within the suburb of Apsley and may directly impact landowners, residents, and businesses within the vicinity of the project site. Even though the project is contained within a defined area, impacts (direct and indirect) may be farther reaching. The preliminary review considers two scales of study areas: proximal area and regional study area.

Based on the above criteria, the social locality is defined as:

- **proximal area**: This is the area around the project site in which people are most likely to experience construction, operational and decommissioning impacts from the proposed development. Geographically it is defined as the area covered by the ABS state suburb (SSC) of Apsley. This is the area most likely face impacts to local social infrastructure and services, local workforce, local business, local housing and accommodation, and community health and wellbeing.
- **region**: Broader impacts due to use of infrastructure, supply chains, haulage routes, transportation of materials and equipment and workforce may affect a larger regional area. The regional study area is thus extended to include the Wellington statistical area (SA2).

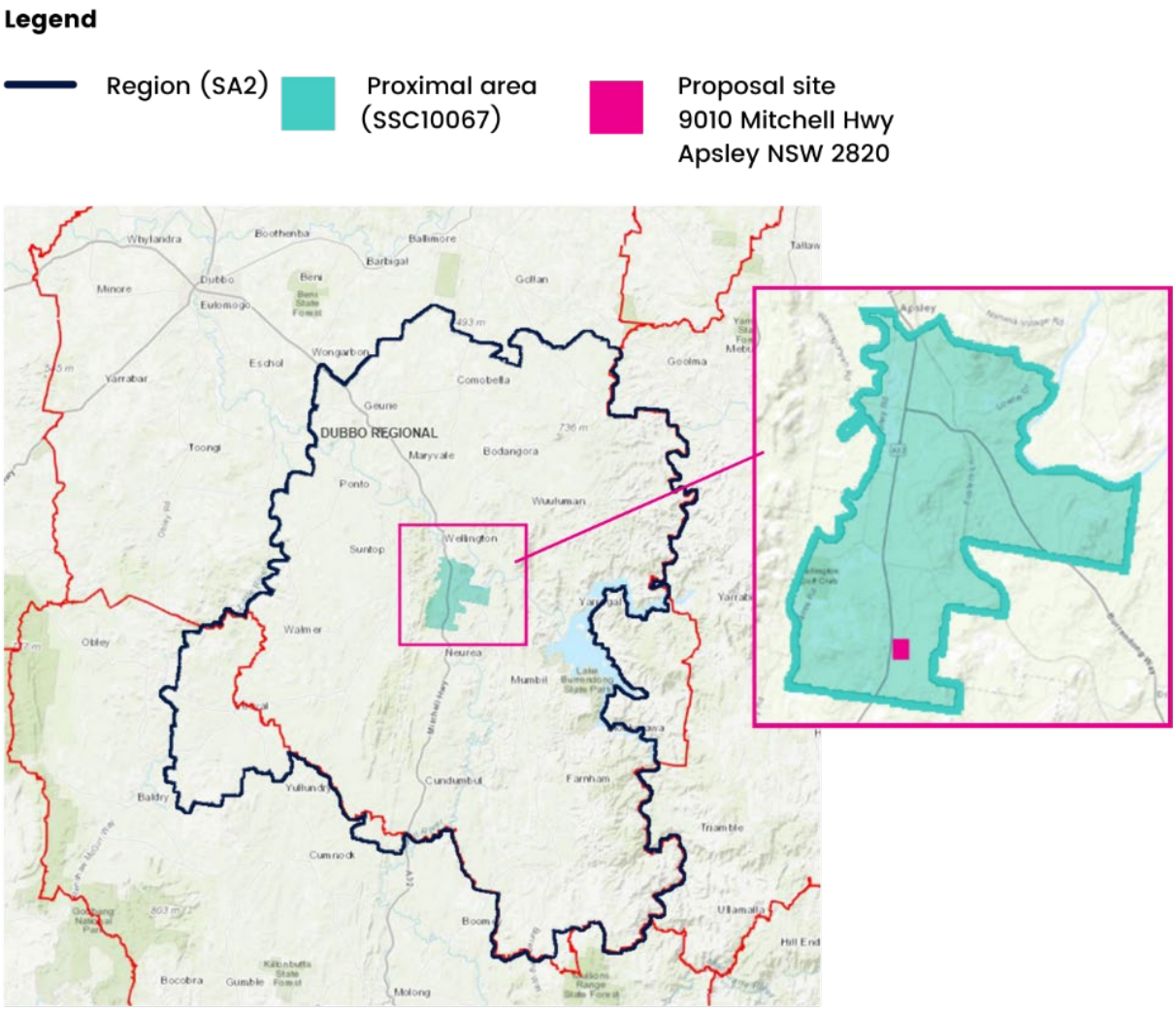
These areas will be mapped to the Australian Bureau of Statistics (ABS) categories used for data collection. The study areas are identified in Table 2 and Figure 3.

The area of social influence of the project is limited to the communities of Wellington and Apsley in the Dubbo LGA. This area of social influence was based on an assessment of the communities likely to be impacted by the proposal and of the geographic proximity of residents and businesses to the project site.

Table 2: Study areas

Study Area	Geographic area	ABS data category	Referred to as:
Proximal area – study area	Apsley Suburb (ABS Code SSC10067) (ABS 2016)	SSC	Local area
Regional study area	Wellington Statistical Area 2 (ABS Code 105031106) (ABS 2016)	Statistical Area Level 2	Regional area
State of New South Wales	NSW state	NSW STE	NSW

Figure 2: Apsley BESS social locality



4. Methodology

The methods described in this chapter enabled the collection of data to address the social impact categories defined in the Guideline (2021) and are described in greater detail in chapter five and chapter six. These include:

- way of life
- community
- accessibility
- culture
- health and wellbeing
- surroundings
- livelihoods
- decision-making systems.

The first phase of the social impact assessment included identifying and initial evaluation of the social impacts to inform the scoping report and determine, inform the engagement and consider the social locality.

The second phase of the social impact assessment considered the engagement to finalise the social baseline and analysis of the unmitigated social impacts (positive and negative), and assessment of social impacts with mitigation, enhancement or management.

The general approach used for the research and preparation of this SIA is listed below.

Project setting and context

The project context sets out the preliminary information available about the project to determine the potential impacts. The approach included a review of available information, understanding the area of influence, potential impacts on stakeholders and local and state policies that may influence the project or should otherwise be taken into consideration.

Consultation

The consultation was designed to meet the requirements of the SEARs. Community and stakeholder feedback was invited on the proposed development between December 2021 and May 2022. All feasible channels were used to reach as many people as possible to inform them of the project. The consultation plan was developed with COVID-19 measures in place.

Social baseline development

The social baseline sets the current environment of the community within the social locality prior to the project being introduced. It uses publicly available data to create a community profile for which the impact identification and assessment can be completed.

The social baseline study was prepared using:

- existing demographic, health, housing, and socio-economic data from the ABS, government agencies, and local government
- published literature and social research
- government policies and plans
- documents relating to similar projects.

The social baseline provides the benchmark against which potential social impacts have been identified and assessed and informs subsequent stages. This is detailed in Appendix C: Social baseline. The areas of primary interest are defined using the latest ABS figures (2016), using Suburb of Apsley and Statistical Level Area 2 (SA2). Refer to Table 2: Study areas.

5. Consultation

Consultation for the SIA was focused on the targeted engagement with key stakeholders to understand perceived impacts and benefits. There are approximately 9 unrelated residential receivers within 2 km of the project, or around 25 people.

Consultation has provided opportunity for stakeholders and members of the community to learn about the project and for the proponent to capture and respond to the matters being raised.

Scoping Stage Consultation

To inform preparation of the scoping report, ACEnergy has carried out preliminary engagement with surrounding landowners, community groups and regulatory bodies. Engagement included:

- letters and notification issued to landowners surrounding the development, community groups and regulatory bodies
- set up of a project Infoline and mailbox
- development of a project website
- doorknocking of nearby residents and businesses.

Pre-scoping engagement feedback is included in the scoping report (Premise, 2021) and outlines items that were considered as part of the development of the EIS.

Survey

A survey was open to the community between 11 April and 22 May 2022 and was advertised by a letterbox drop, email to stakeholders and on the project website. Only 1 response was received during this time. The respondent

- was not supportive of the project and was neutral in terms of how important the proposal was to the local economy
- indicated the project would have a negative impact on noise, dust, visual impact, transport and traffic
- indicated there would be positive benefits for jobs and business through construction and operation
- concerns were raised about lowering the value of their property and water runoff from the site.

Stakeholder interviews

Contact was made with residents, businesses, tourism facilities and Council to invite stakeholders to participate in an in-depth interview. Letters, emails and phone calls were made to:

- Wellington Caves
- Dubbo Regional Council
- Wellington Golf Club

- 3 residential properties close to the BESS
- Colossus Metals
- Silver City Minerals.

No stakeholder accepted the invitation to participate in an interview. Stakeholders were also given the option to provide written or verbal feedback. No feedback had been received during the development of the SIA (11 April to 22 May 2022).

Online community information sessions

Two online community information sessions were held on Tuesday 12 April 2022 and Wednesday 13 April 2022. A mid-day session between 12:30am and 1:30pm, and an evening session from 6:30pm – 7:30pm. The event was structured to provide opportunities to asks questions and gather detailed information about the proposal. Despite a range of targeted advertising methods, there were no registered participants to the sessions. The presentation prepared for the sessions has since been made available via the project website.

Resident meetings

Two sessions were held with the two nearest receivers to the project. Offers were made to the two closet landowners to discuss the projects and understand any concerns or questions. Discussions with these neighbours were initially held by phone with representatives of ACEnergy and then either face to face or online, at the request of the neighbour.

Overall, neighbours did not raise objections to the project but identified a range of matters that were of importance to them and sought clarification on matters that may impact them. These discussions will continue throughout the life of the project. ACEnergy is committed to building a strong relationship with the local community and ensuring engagement is of value to both parties.

Keys issues raised by neighbours are discussed as follows:

- Contamination/biosecurity – concerns were identified with respect to potential for leakage and contamination associated with the battery units. Explanations were provided about the self-bunded nature of the battery units with details of the specific LFP technology explained.
- Fire risk and impact to adjacent land – concerns were identified about the risk of fire from the facility and impacts to adjacent land. Explanations were provided about the range of studies being completed with respect to risk and future studies that were recommended as design progresses to ensure that fire risks were mitigated, and control strategies were implemented to address residual impacts.
- Noise impacts – concerns about the potential for night time noise and how this would be managed. Explanations were provided about the nature of the noise and vibration study prepared to support the project and the future studies that are recommended as design progresses. The project preference is to provide mitigation on site in the form of noise walls to ensure that receiver locations achieve compliance with the adopted criteria.

- Vibration impacts – the operator of the Wellington Caves contacted the project with a question about vibration impacts to the caves. Explanation was provided that any impacts would be limited to the construction period, and that the carrying out of appropriate vibration assessment was underway to ensure that the likelihood of impacts is understood, and appropriate controls implemented via a Construction Environmental Management Plan (CEMP) to ensure that impacts are limited.
- Visual impacts – concerns about visual impacts associated with the project and any noise attenuation walls that may be required. Explanation provided of the detailed landscape plan that would be provided and the range of measures, including timing of landscaping, painting of walls, materials to be used, etc that would be adopted in delivering the project.
- Traffic impacts – concerns about the potential for traffic conflict during the construction stage. Explanations were provided about the level of assessment being completed and the low level of movements predicted during the construction phase, and the very low level of movements during the operational phase.

Feedback from stakeholders

Transport for NSW (TfNSW)

Consultation with TfNSW occurred early in the development of the EIS to inform the traffic assessment. Key issues raised include:

- Ensure the proposed access achieves appropriate safe sight distance
- Ensure the proposed access location takes account of curve alignments in either direction, the fall of the road, pavement of the road, the design vehicle (largest vehicle accessing the site during construction), vegetation, signage and opposing accesses etc.
- A strategic design considering the warrants as per Figure 3.25 of Part 6 of Austroads Guide to Traffic Management
- Be accompanied by a Traffic Impact Assessment.

The above matters will be addressed by the TIA supporting the EIS.

Fire and Rescue Service

The site is not mapped as being located within a bushfire prone area, however engagement with RFS during the scoping phase of the project identified the expectation of an appropriate bushfire assessment to consider the site having a grassland hazard.

Dubbo Regional Council

Several topics were discussed with Council including:

- Access to the property would be via the Mitchell Highway, a classified road. Envisaged there would be significant heavy vehicle movements into the site during construction phase. Transport for New South Wales would be the jurisdiction here with regards to road treatments into the property. This area is controlled by the Western Region office in Parkes. I suggest consultation be undertaken with them with regards to their requirements

- The land is mapped as groundwater vulnerability according to the Wellington LEP 2012. Application to consider impacts on the groundwater below the site in terms of impacts on water table level and pollution of groundwater
- Impacts on native fauna and flora to be considered, in particular native flora and the Biodiversity Conservation Act 2016. Impacts on native flora include native grasses
- Consider impacts of bushfire protection (grassland risk) and matters of consideration or this type of development under the Planning for Bush Fire Guidelines 2019
- Consider any EME impacts on nearest residential development
- Consider Aboriginal Archaeology impacts
- Visual impacts of the development need to be considered. Plans should demonstrate screening of the development such as landscaping around the site's perimeter.

ACEnergy also briefed Councillor via an online session on the 12 May 2022. The presentation provided an overview of the project, actions to date and timing moving forward.

The following matters were raised by Councillors:

- The extent of community consultation
- Site justification
- Whether any form of planning agreement was proposed with Council.

Heritage NSW

No response was received from Heritage NSW.

Wellington Local Aboriginal Land Council

No response was received from the Wellington Local Aboriginal Land Council.

NSW Department of Agriculture

During the development of the SEARs, agency feedback to be considered in the EIS. A follow up call and email provided an update on how that had been done.

5.5 Key themes that emerged

Throughout the project consultation the following themes were raised.

Table 3: Key themes from consultation

Theme	Summary	Approach to address
Community benefits	Generally, persons spoken to about the project during letter box drops and property visits ahead of the EIS lodgement were comfortable with what ACEnergy is proposing for the Apsley BESS. Many recognise the positive	The EIS will provide an assessment of all impacts together with the outcomes of a range of specialist studies to consider these areas.

	impacts that the renewable energy project will have in the region. Main areas of feedback and concern focused on aspects such as visual amenity, noise, safety and site access.	
Visual amenity	Some local residents raised questions regarding the impact of the BESS on visual amenity. Local landowners sought a greater understanding of where the proposed infrastructure will be situated on site, how the visual amenity assessment will be carried out and how this would impact views from their property.	A detailed Landscape and Visual Impact Assessment will be provided with the EIS to consider the potential for all forms of visual amenity impact, and recommend appropriate mitigation measures.
Noise impacts	Residents questioned operating hours and the potential for noise impacts as a result of BESS operation.	A detailed Noise and Vibration Impact Assessment will be provided with the EIS and will consider the impacts of the construction and operation of the project against the relevant criteria.
Safety	Due to recent media about BESS operations, queries about site safety and the potential for risk to neighbouring properties was raised by a number of respondents.	The EIS will be accompanied by a detailed Preliminary Hazard Analysis to consider risk associated with the BESS and any required mitigation measures.
Site access	Like other properties in the area, access will be directly from the highway. Some residents sought to clarify that access during construction can be managed safely for all road users.	A detailed traffic impact assessment is provided to support the EIS to consider issues around site access and construction traffic.

6. Social baseline

A social baseline study is a requirement of the New South Wales (NSW) Department of Planning, Industry, and Environment's (DPIE 2021) Social Impact Assessment Guideline, 2021. The baseline study describes the existing population and social conditions of potentially affected communities within the social impact assessment (SIA) area of social influence which form the benchmark against which the social impacts are assessed.

The Guideline states that a social baseline is crucial to understand the relevant pre-existing social pressures (DPIE 2020). A social baseline analysis provides a background into the existing environment, associated cultural and social values of the study area and Newcastle LGA. It also provides a benchmark against which direct, indirect, and cumulative impacts can be analysed and change can be measured.

Community

Demographics

According to the 2016 Census of Population and Housing, the proximal area had a total population of 107 people (ABS 2016). The regional area had a 2016 population of 8,831 (ABS). For projection purposes, Remplan lists the 2016 population as 8,361 with an estimated 2021 population of 8,791 (Remplan). This data shows that the population of the regional area has been slightly increasing and will continue this trend at an increase of 3.8% through 2041. The NSW population has been increasing at an overall rate of 36.7%. The proximal area population projections are not available for comparison. The lower growth rate in the regional area is likely due to the dominance of agricultural lands, which limit opportunities for expansion of urbanised areas.

In the proximal area, the largest age group is persons aged 60-64 years (17.1%), followed by 55-59 years (12.6%) and 5-9 years (10.8%). This indicates a large portion of the population is aged between 55-64 years, with a cluster of a young population between 5-9 years. This differs from the major age groups in NSW, which are 30-34 years (7.2%) and 25-29 years (7.0%). The regional area has its largest age groups between 50-69 years, which is consistent with the proximal area. Overall, the study area has an older population than NSW with much larger proportions of persons aged 55-64 years (29.7%) in the proximal area and 13.5% in the regional area, compared to 11.9% in NSW. This is also reflected in the median ages of the proximal area (49) and regional area (42), which are higher than the median age across NSW (38).

The distribution of males and females in the proximal area is 49.5% male and 50.5% female (ABS 2016). This contrasts slightly with the regional area which has a distribution of 52.1% males and 47.9% females. The proximal area is aligned with the NSW distribution of 49.3% males and 50.7% females.

The largest demographic in the proximal area is females aged 55-64. This is followed by males of the same age. The ratio of males to females varies through the age group due to the low population where a few individuals can shift the ratio. In the regional area, there is a similar ratio of males to females through all age groups.

6.3 Social baseline and impact categories

Way of life

Household composition

Household compositions in 2016 were mostly family households in the proximal area at 93.7%. The regional area (66.4%) and NSW (72%) had lower rates of family households. In the proximal area, the proportion of lone person households (22.2%) was comparable to the regional area (31.1%) and NSW (23.8%). There were no group households in the proximal area.

Housing

Housing types within the proximal area differed substantially from the regional area and NSW in 2016. The most common type of house in the proximal area was 'other dwelling' (73.2%), which includes a house or flat attached to a shop or office. The only other type of housing was separate house at the low rate of 7.3%. In the regional area and NSW, separate house was the most common type at 87.4% and 66.4%.

At the time of the 2016 census, 30.6% of the dwellings in the proximal area were owned outright compared to 40.9% in regional area and NSW (32.2%). The proportion of rented houses in the proximal area was much lower (8.3%) than the regional area (27.2%) and NSW (31.8%).

In 2016, mortgage payments in the proximal area were the same as the regional area and lower than NSW. The proximal area median rental payments is recorded as $0, while the regional area had a median rent of $180.

Travel

The predominant mode of travel to work within the proximal area is by car. Rates of persons driving to work in the proximal area (73.5%) are higher than the regional area (63.0%) and much higher than NSW rates (57.8%). Rates of travelling to work as a driver or as a passenger (79.6%) are also substantially higher than rates for the regional area (69.3%) and that of NSW (64.6%).

Culture

The Traditional Owners of the land on which the proposed project is located are the Wiradjuri People. There is a long history of rich culture with indications of people living around the Macquarie River in the Wellington area.

In 2016, 11.2% of the proximal area population and 21.5% of the regional area population identified as Aboriginal and/or Torres Strait Islander (ABS 2016). The proportion is greater than the proportion of the population who identify as Aboriginal and/or Torres Strait Islander in NSW (2.9%). Table 18 presents the proportion of persons who identify as Aboriginal and/or Torres Strait Islander in the study area.

Cultural diversity

Cultural diversity in the local and regional areas is lower than across NSW. In NSW, the proportion of the population born in Australia is 65.5%, as compared to the proximal area (90.7%). The population of the regional area, with 81.3% born in Australia. The proximal area and regional area also have a larger proportion of intergenerational Australians, with 79.4% and 69.8% persons, respectively, with both parents born in Australia.

A significantly smaller proportion of households in the proximal area (0%) speak a non-English language compared to NSW (26.5%). The regional area (3.4%) has a slightly higher proportion of households who speak a non-English language. This may indicate a lower number of migrants in the local and regional area, which is consistent with the preference of migrants in Australia to settle in major cities and urban areas.

Accessibility

Public transport

Public transport as a mode of travel is negligible in the proximal area with 0% persons travelling to work by public transport. This compares to 0.6% in the regional area and 16.0% in NSW.

There are bus services that connect Wellington to Dubbo to the north and Molong to the south. The service to Molong travels along the Mitchell Highway with a stop at Apsley. There is also rail service between Dubbo and Orange with a station at Apsley and at Wellington.

Road network

The Mitchell Highway (A32) is the only road that runs near the proposed development near Apsley. It is the main artery that runs north and south through Wellington. At Apsley, Burrendong Way, which travels southeast toward Dripstone, connects to the highway. The proposed site is accessible by a private driveway off the highway.

Health and wellbeing

Health statistics are not provided for the proximal area due to the small number of people in the proximal area. However, the regional area has similar environmental and social characteristics and is relied upon to represent the proximal area.

According to PHIDU (2022) 18.0% of persons aged 15 years and over within the regional area self-assessed their health as fair or poor. This compares to 14.1% for persons in NSW. This is reflected in the smoking, alcohol, obesity and asthma indicators show that the regional area generally has worse health than NSW.

Key health and wellbeing indicators for the local area include:

- There are higher rates of obesity in the region than NSW
- The rate of smoking is higher in the region than NSW

- Alcohol rates are higher in the region than NSW
- Asthma rates are higher in the region than NSW
- Psychological stress is slightly higher in the region than NSW

The need for assistance relates to one or more of three core activity areas of self-care, mobility, and communication due to a disability, long-term health condition (lasting six months or more) or old age (ABS 2016). The proximal area has a lower proportion of persons who require assistance (5.6%) when compared to the regional area (7.6%) and NSW (11.6%).

Surroundings

Local environment and built form

Apsley sits along a valley floor between the Macquarie River and Bell River, which runs along the base of Mount Arthur. Mount Arthur is included in a 2,123-hectare reserve and offers recreation in the form of bush walking and mountain biking. At the base of Mount Arther are the Wellington Caves that offer additional tourism for the area.

Most of the land surrounding the project site is used for agriculture that includes cropping and grazing. This is punctuated by roadside trees and agricultural structures (dwellings and farm sheds).

Public safety

The top crime in the regional area during 2021 was theft, with a rate of 9,395.2 incidents per 100,000 persons (BOCSAR). Against justice procedures (3,554.9 per 100,000) and Assault (3,162.5 per 100,000) were the next highest crime in the region.

Livelihoods

Income

The median weekly income of all residents over 15 years of age was lower in the proximal area than in the reginal area and NSW. Within the proximal area, median incomes were $415 and the regional area was $491. These medians were substantially lower than the NSW median of $664.

Median household incomes differed with the proximal area median ($1,166) being higher than the regional median of $1,209. Both of these were lower than NSW ($1,486).

Employment

At the time of the 2016 census, the unemployment rate in the proximal area (0%) was lower than the regional area (9.2%) and NSW rates (6.3%). The rate of full-time work in the proximal area (60.4%) was higher than the regional area (55.0%) and on par with NSW (59.2%) rates. The rate of part time work was similar across all areas with the proximal area at 31.7% to the regional area at 32.7% and NSW with 29.7%.

The top three occupations in the proximal area were labourers (22.4%), managers (20.4%) and community and personal service workers (18.4%). The regional area lists managers as the top occupation with community and personal service workers second. NSW list professionals as the top occupation, with clerical and administrative workers as the second occupation.

Socioeconomic advantage and disadvantage

The level of disadvantage or advantage in the population is indicated in the ABS (2016) Socio-Economic Indexes for Areas (SEIFA) which assesses the economic and social conditions of households. Variables considered in the assessment of SEIFA include household income, number of dependents, occupation, housing costs and overcrowding/under-occupancy (ABS 2018). Areas have been considered by state ranking on a scale of 1 to 10, with the lowest 10% of areas deemed most disadvantaged and highest 10% least disadvantaged.

According to the 2016 SEIFA, the proximal area ranked in the fourth decile for the IRSD (low disadvantage), and third decile for the IRSAD (most advantaged). The regional area ranked in the first decile for IRSD and second decile for IRSAD. This indicates that compared to other suburbs across NSW there may be more households with low incomes and fewer households with high incomes, or many people in unskilled occupations and few people in skilled occupations.

Ranking in low for IER indicates a relatively low access to economic resources in the proximal area. Ranking in the fifth decile for IER suggest that compared to other suburbs across NSW, the proximal area is neither advantaged nor disadvantaged when looking at access to economic resources. The regional area ranked in the second decile, meaning a relative lack of access to economic resources.

The IEO index reflects the general level of education and occupation-related skills of the people within the study area. Ranking in the second decile indicates a relatively lower education and occupation status of people in the proximal area. It indicates that there are many people without qualifications or in low skilled occupations and few people with high level qualifications or in highly skilled occupations. The regional area ranked slightly higher in the third decile.

Education

Education levels within the proximal area is comparable to the regional area with similar tertiary education completion rates. The proximal area has a slightly higher completion rate at the advanced diploma and Certificate level IV, with the regional area having a higher Certificate III completion rate. The regional statistics may be skewed due to the high number of individuals (25.7%) who did not state their education levels.

Both local and regional areas have a substantially lower completion than NSW. This may be because there is a lower demand for higher education levels in the regional agricultural communities. There is also a tendency for young adults and higher educated adults to move to cities and urban environments for better employment, lifestyle and leisure opportunities.

Decision making systems

The applicant engaged with stakeholders to understand issues, concerns and opportunities, which informed the assessment of impacts from the project. The level of engagement was low despite the range of activities including door knocking, letterbox drops, emails, survey and community information sessions. It is difficult to determine the reason for low engagement.

Community members will have the opportunity to engage in the decision-making process via submissions during public exhibition of the EIS after submission to DPE.

7. Impact identification and assessment

The impact identification was determined as a result of the previous steps including review of technical studies, feedback provided during the consultation process and from the social baseline. This included:

- environmental constraints – review of specialist studies and similar projects in the area to identify potential impacts
- existing social environment – demographic and social analysis from the baseline study
- data analysis and consultation findings –to identify potential impacts and benefits
- local plans and policies –to understand local priorities and values.

The assessment of social impacts was conducted using the SIA Guidelines, which uses categories to identify social impacts. The categories are listed below.

Table 4: Social impact categories

IMPACT CATEGORIES	DESCRIPTION
Way of life	How people live, get around, work, play, and interact
Community	Its composition, cohesion, character, how it operates and sense of place. Access and use infrastructure, services, and facilities, whether provided by a public, private or not-for-profit organisation.
Accessibility	Access and use infrastructure, services, and facilities, whether provided by a public, private or not-for-profit organisation.
Culture	Both Aboriginal and non-Aboriginal, shared beliefs, customs, values and stories, and connections to Country, land, waterways, places, and buildings.
Health and Wellbeing	Physical and mental health especially for people vulnerable to social exclusion or substantial change, psychological stress resulting from financial or other pressures, and changes to public health overall.
Surroundings	Ecosystem services such as shade, pollution control, and erosion control, public safety and security, access to and use of the natural and built environment, and aesthetic value and amenity.
Livelihoods	people's capacity to sustain themselves through employment or business, whether they experience personal breach or disadvantage, and the distributive equity of impacts and benefits.
Decision-making systems	Particularly whether people experience procedural fairness, can make informed decisions, can meaningfully influence decisions, and can access complaint, remedy, and grievance mechanisms.

The social risk assessment considers each of the social impacts identified and predicts the nature and scale of potential social impacts during the life and closure of the project. A social risk approach is used to assess the consequences and likelihood of potential positive and negative social impacts with and

without mitigation. The social risk assessment matrix used for the assessment was adapted from the SIA Guideline and the SIA Guideline Technical Supplement.

Social impact tables

The following tables are sourced from the DPIE SIA Guideline Technical Supplement (2021) and used to evaluate the likely impacts (positive and negative) of the project.

Table 5:Defining likelihood levels of social impacts

Likelihood Level	Meaning
Almost certain	Definite or definitely expected (e.g., has happened on similar projects)
Likely	High probability
Possible	Medium probability
Unlikely	Low probability
Very unlikely	Improbable or remote possibility

Table 6: Characteristics of social impact magnitude

		Meaning
Magnitude	**Extent**	Who specifically is expected to be affected (directly, indirectly, and/or cumulatively), including any potential vulnerable people? Which location(s) and people are affected? (e.g., near neighbours, local, regional).
	Duration	When is the social impact expected to occur? Will it be time-limited (e.g., over particular project phases) or permanent?
	Severity or scale	What is the likely scale or degree of change? (e.g., mild, moderate, severe)
	Sensitivity or importance	How sensitive/vulnerable (or how adaptable/resilient) are affected people to the impact, or (for positive impacts) how important is it to them? This might depend on the value they attach to the matter; whether it is rare/unique or replaceable; the extent to which it is tied to their identity; and their capacity to cope with or adapt to change.
	Level of concern / interest	How concerned/interested are people? Sometimes, concerns may be disproportionate to findings from technical assessments of likelihood, duration and/or intensity.

Table 7:Defining magnitude levels for social impacts

Magnitude Level	Meaning and Examples
Transformational	Substantial change experienced in community wellbeing, livelihood, infrastructure, services, health, and/or heritage values; permanent displacement or addition of at least 20% of a community.
Major	Substantial deterioration/improvement to something that people value highly, either lasting for an indefinite time, or affecting many people in a widespread area.
Moderate	Noticeable deterioration/improvement to something that people value highly, either lasting for an extensive time, or affecting a group of people.
Minor	Mild deterioration/improvement, for a reasonably short time, for a small number of people who are generally adaptable and not vulnerable.
Minimal	Little noticeable change experienced by people in the locality.

Table 8:Social impact significance matrix

		Magnitude Level				
		1	**2**	**3**	**4**	**5**
Likelihood level		**Minimal**	**Minor**	**Moderate**	**Major**	**Transformational**
A	Almost certain	Low	Medium	High	Very High	Very High
B	Likely	Low	Medium	High	High	Very High
C	Possible	Low	Medium	Medium	High	High
D	Unlikely	Low	Low	Medium	Medium	High
E	Very unlikely	Low	Low	Low	Medium	Medium

Impact management and monitoring

After identifying potential social impacts and their risks, a mitigation and management framework is developed to manage each risk. The framework identifies:

- impact mitigation measures for construction and operations
- measures to maximise the potential benefits from the project during construction and operations
- partnership opportunities.

Assumptions and limitations

The following assumptions are applied to the social impact assessment:

- the assessment of impacts assumes technical reports supplied are accurate
- engagement activities with the community and stakeholders were undertaken by the applicant ACEnergy and Premise Consulting. The assessment assumes views of stakeholders have been accurately reflected in the report.

8. Social impact assessment

Social impacts are the way people experience change. The aim of this SIA is therefore to assess changes to the current social conditions within the community that may be caused by the proposed development.

This section of the SIA identifies and assesses the magnitude and likelihood of potential impacts (positive and negative) relating to the construction and operation of the project. Impacts have been identified using data collected for the social baseline, stakeholder engagement findings, academic research, previous school upgrade SIAs and relevant government and agency reports.

Summary of project technical reports

Noise impact assessment

The Apsley Noise and Vibration Impact Assessment (NIA) (Assured Environmental, 2022) details potential emissions through construction, road traffic and operations and vibrations through construction.

It notes that noise emissions overall are not considered to carry significant post-mitigation impact, in that:

standard construction hours should apply through the five (5) month construction period

adverse amenity impacts during construction are considered unlikely

for the operational phase of the project, adverse amenity impacts are considered unlikely and compliance with applicable criteria is expected to be achieved.

There are three single existing dwellings located between 300m to 710m away of the proposed BESS. The NIA notes during construction, under all scenarios, the maximum predicted noise complies with the relevant requirements. Similarly, during operations, under the worst-case meteorological conditions, for all periods (day, evening and night), the BESS complies with the intrusive noise criteria.

In relation to road traffic noise, a review of the predicted noise level confirms that compliance is achieved at the closest receptors to each potential route

Management of noise during construction and operation are included in the NIA, and particular effort should be directed towards the implementation of all feasible and reasonable noise mitigation and management strategies. This includes providing periods of respite to reduce disruption to nearby neighbours and the construction of a noise wall to act as an acoustic barrier further reducing potential impacts.

The report states, based on the results of the assessment, the risk of residual adverse impacts as a result of the proposed BESS is considered to be low with noise and vibration emissions complying with the applicable criteria.

Traffic and transport

The Traffic Impact Assessment (TPA) (Traffic Works, 2021) concludes that the proposal can be supported from a traffic impact perspective, in that it does not adversely impact on the local road network and complies with all relevant requirements of Council, Australian Standards and Transport for NSW (TfNSW).

The following conclusions were made in the assessment.

- no trends in crashes were observed within the vicinity of the subject site in the last five-year period, hence there are no traffic safety problems that require urgent remedial action
- the peak traffic generation is likely to occur during the construction phase of the development where eight light vehicles and five heavy vehicles are estimated to access the site on a peak construction day
- Safe Intersection Sight Distance requirements would be satisfied for the proposed subject site access location
- no turn lane treatments are required at the Mitchell Highway / site access intersection for the construction phase of the development
- the setback of the security fencing for the subject site will provide the minimum 20 m required to allow storage of a 19 m semi-trailer clear of the traffic lane on the Mitchell Highway
- the car parking demand for the site during the construction phase of the development is likely to be eight spaces and the car parking demand for the site during the operational phase of the development is likely to be one space
- the car parking demand can be accommodated within the subject site using the designated formal off-street car parking area.

The proposed development would not adversely impact on the safety or operation of the surrounding road network, provided the recommended mitigations works are undertaken.

Aboriginal cultural heritage assessment

The Aboriginal Cultural Heritage Assessment (ACHA) (Premise Consulting, 2022) notes that:

- No previously recorded Aboriginal Heritage Information Management System (AHIMS) sites were identified within the study area.
- Two new Aboriginal sites characterised as isolated finds were recorded during the archaeological survey, however are outside of the impact area.
    - The remainder of the study area is considered to have been subject to moderate levels of disturbance. Associated with cropping and grazing. All sections of the study area including the two isolated finds recorded during site survey were found to demonstrate low archaeological potential.

Accordingly, the ACHA report recommends that:

- No further archaeological investigation is recommended.
- The study area demonstrates low archaeological potential.
- A buffer area is proposed around the two isolated finds recorded during site survey at a distance of 10m.
- If suspected human remains are located during any stage of the proposed works, work must stop immediately, and the NSW Police notified. An Archaeologist or Physical Anthropologist should be contacted in the first instance where there is uncertainty whether the remains are human.
- An unexpected finds procedure must be in place throughout the proposed works, with procedures in place for notification of Heritage NSW, a heritage consultant and RAPs or the Local Aboriginal Land Council (LALC) where unexpected finds are identified.
- If changes are made to the proposed works further archaeological assessment may be required.

As part of the proposed works no recorded AHIMS sites will be impacted and there will be no loss of value.

Aboriginal Heritage management and mitigation measures for the proposed works include:

- Any significant changes made to the proposed disturbance area outside of the surveyed area and the focus of this report, should be assessed by an archaeologist in consultation with the registered Aboriginal stakeholder groups.

Biodiversity Development Assessment Report

The Biodiversity Development Assessment Report (Premise Consulting, 2022) concludes the BESS construction will result in impacts to derived grassland which contains 27% native cover as a result of the development of the site access from the highway. The BESS development site consists of non-native vegetation.

The native vegetation does not provide habitat for any threatened flora or fauna and does not require offsetting under the Biodiversity Offsets Scheme. Additionally, no trees or shrubs will be removed for construction or operation of the proposed BESS. Connectivity will not be affected by the proposal. No Ongoing site management (weed and feral pest control) will improve foraging habitat opportunities.

Hazard Analysis

The hazard assessment conducted by Riskcon Engineering considers a range of hazards that may be present at the site because of operations or storage of materials.

Based on the analysis conducted, it is concluded that the risks at the site boundary are not considered to exceed the acceptable risk criteria; hence, the project would only be classified as potentially hazardous and would be permitted within the current land zoning for the site.

Bushfire report

The Apsley BESS Bushfire Assessment (Premise Consulting, 2022) outlines the potential bushfire threat and mitigation measures needed. The project site is not mapped as bushfire prone land. There is however, category 2 bushfire prone land approximately 140m from the site, and category 1 bushfire prone land 900m from the site. The NSW Rural Fire Service has indicated that the site may be considered as having a grassland hazard and should be assessed accordingly.

The Bushfire Assessment recommends mitigation measures including a 10m Asset Protection Zone that must be kept free of any fuel. There are also recommendations for construction standards, water supply, electricity, gas and access for firefighting equipment.

During the construction of the BESS, the assessment recommends practices to prevent fires and monitor the site for any fire dangers. There are also requirements for firefighting equipment on site during this stage.

The report concludes that by implementing the measures outlined in the assessment, the proposed development is capable of complying with bushfire protection provisions required by the Rural Fire Service.

Economic Assessment

The EIS identified that during peak construction approximately 50 jobs would be generated. Where possible, local workers and businesses would be engaged. Given the small population, it is anticipated workers from outside the region (including Dubbo and Orange) may be required and would use local accommodation businesses.

During operation the project will provide up to 5 full time jobs, with the potential for up to 50 casual opportunities, during maintenance operations.

The EIS describes mitigation and enhancement measures to cover both construction and operational phases of the project including:

- Develop an Accommodation and Employment Strategy (AES), working with local industry and businesses to maximise local contractors, facilities and materials
- Liaise with local representatives in relation to accommodation options to maximise business opportunities and minimise any potential for adverse impacts including tourism events and conflicts
- Consider training and apprenticeship opportunities.

Cumulative Impacts Assessment

The EIS identified six projects within 30km of the Apsley BESS proposal and states that cumulative impacts through construction are unlikely given there is no shared access, constructure is limited and will be appropriately managed, and there are no other major projects close to the project site. Similarly

through operations, it is unlikely to generate cumulative impacts (visual, noise or land use) given there are no close developments to the site.

Mitigation measures have been considered and include consultation with TfNSW to identify potential overlapping projects through construction, address noise impacts in the Noise Management Plan and consider alternative accommodation options should multiple projects occur during construction.

Air Quality Assess

Air quality impacts associated with the construction and decommissioning phases of the BESS, and would include dust generation resulting from excavation, earthworks and vehicle movements. Appropriate management and mitigation measures will be put in place to reduce impacts on the community. Measures include, wetting down surfaces, stockpiles and roads to minimise dust, and use of stablising techniques if wetting down is not effective.

It is not anticipated that any negative air quality impacts will result from the operational phase of the BESS. Additionally, any area disturbed by construction should be restored and revegetated with native plants.

Agricultural Impacts Assessment

The Agricultural Land Utility Assessment (Cadeema - Soil, Water & Environmental Consulting. 2022) concluded that only red Friable Soil is considered Biophysical Strategic Agricultural Land (BSAL) and the loss of BSLA is acceptable given:

- the land can be returned to agricultural activities after cessation of the BESS
- the site (on separate title) is 18 hectares and is not viable for agricultural production
- the development footprint is limited to 6 hectares and will not fragment other land in the holding
- the site is located within the REZ and aligned with the strategic purpose of providing electricity generation infrastructure.

Additionally, the following measures would be implemented to minimise or mitigate impacts to agricultural land use and productivity:

- prepare and effectively implement construction, operation and decommissioning management plans that incorporate all mitigation measures in this EIS.
- undertake consultation with the landowner of the project area to:
- ensure agricultural considerations are incorporated into the final design
- negotiate arrangements for safe passage and access for their surrounding agricultural land uses and resources
- determine appropriate offsets for loss of income from impacts to agricultural productivity
- inform preparation of the Pasture Management Plan.

Historic Heritage Assessment

The site is not identified as being or adjoining an item of heritage significance or within a heritage conservation area under the WLEP or State Heritage Register. The nearest locally listed heritage items are not likely to be impacted given the distance to each. These include Wellinton Caves (approximately 880m north of the site), Camelford Park (approximately 570m south of the site, with the house, more than 2.6km away), and the Mountain View homestead (approximately 2.3km south-west of the site).

Visual Impact

The Visual Impact Assessment (VIA, IRIS 2022) examined the visibility of the development from the Mitchell Highway and nearby dwellings. Visual impacts from the highway were found to be negligible in the medium to long term. In the short-term, views from the highway at its closest point to the BESS would be impacted moderately.

Visual impacts from surrounding residences were found to be negligible with the exception of one residence located 650m north of the site. The visual impact from this residence would be moderate without any mitigation. Implementing the mitigation measures would reduce the impact to negligible.

The recommended mitigation includes the following:

- 20m wide vegetative screening along the northern side of the BESS
- 5m wide vegetative screening along the western and southern sides of the BESS
- 20m wide tree planting along the western boundary (150m long) along the Mitchell Highway.

The VIA also concluded there would be a negligible visual impact from the night lighting during construction and operations.

Categorisation of impacts

Potential impacts, both positive and negative have been categorised using the themes outlined by the DPIE Social Impact Assessment Guideline and discussed below. The impacts indicated in PINK are assessed in Table 7: Summary of identified impacts. The categorisations are *way of life, community, accessibility, culture, health and wellbeing, surroundings, livelihoods,* and *decision-making systems*.

Impacts related to construction

Way of life

WL-1: Construction activities will produce noise that disrupts nearby residents.

One of the most noticeable forms of amenity impacts through construction, relates to noise and vibration. Noise can interfere with daily life and cause a nuisance. The noise from construction has the potential to impact amenity for nearby residents.

The *Apsley BESS Noise and Vibration Impact Assessment* by Assured Environmental (2022) found that no construction noise is expected to exceed noise standards. The report does recommend mitigation measures to reduce noise impacts at the closest residence.

The noise impacts on local amenity are expected to continue for the duration of the construction phases of the project. Even though these impacts are temporary, they will occur daily until construction is completed.

Pre-mitigation rating WL-1: The likelihood of impacts from noise during the construction period is likely. The magnitude of the impacts would be minor with some deterioration to a valued amenity. The unmitigated risk of impacts on amenity related construction noise has been assessed as **Low B2.**

Construction management anticipated to mitigate noise impacts, overall reducing the potential impact of noise impacts on social amenity in surrounding areas. Additionally, there is only one residence close to the work who is the owner of the subject land for the proposed BESS, the **residual impact** is assessed at **Low C1.**

Accessibility

ACC-1: Increased traffic on the local road network during construction will impact residents and commuters.

The development has direct access to the Mitchell Highway, which is a main road corridor with 2,180 light and heavy vehicles per day travelling near the site. An increase in traffic and delivery of components for the BESS may cause short temporary delays and inconveniences to local business and residents.

Any additional traffic caused by the project would most likely occur during the construction stage. Given the maximum number of light vehicles (8 per day and heavy vehicles (5 rigid or semi-trailers per day) at peak construction, there is likely to be minimal nuisance caused by the increase in traffic. The traffic

impact assessment conducted by Traffic Works (2021) concluded that the proposed development would not adversely impact on the safety or operation of the surrounding road network.

Pre-mitigation rating ACC-1: The likelihood of impacts on traffic from construction is likely. The magnitude of impacts is minor. The risk of impacts on traffic from construction is rated as **Medium B2**.

A traffic control plan and construction management are expected to mitigate the traffic impacts, reducing the overall likelihood of impacting residents and commuters. The **residual impact** is assessed at **Low-C2.**

Surroundings

SUR-1: Dust and emissions from construction activity will negatively impact the surrounding residents.

Air pollution made up of particles can impact respiratory and cardiovascular health. Dust and emissions from internal combustion engines contribute to the airborne particulate. During construction phases, there is the possibility of increased dust and emissions levels from construction activities and vehicles.

The population at most risk to particulate pollution include children, older adults and those who suffer from asthma, heart, or lung disease. Asthma is also used as an indicator of a community's respiratory health. In the region, there is a higher proportion of people who suffer from asthma than in NSW. Given there is only one resident in the vicinity of the project, there could be a mild deterioration for a short period of time.

Pre-mitigation rating SUR-1: Health impacts from air quality caused by construction activities are possible. The magnitude of the impact would be minor because of construction management practices. The impact of construction dust and emissions is assessed at **Medium C2**.

The construction management measures are anticipated to mitigate the potential for dust and emissions reducing the likelihood there will be impact on the surrounding residents. The **residual rating** is **Low D2.**

Livelihood

LIV-1: Construction will provide 50 (FTE) direct jobs with potential indirect jobs that will benefit a range of individuals and businesses.

The construction of the BESS has the potential to support jobs directly (involvement with the construction) or indirectly (manufacturers, suppliers, consultants, and other vendors). Approximately 50 full-time jobs are expected to be generated directly from the construction of the proposed BESS.

Within the local area 8.2% of the population work in the construction industry and 22.4% as labourers. This would imply that workers could be drawn from the region. The community has the potential to benefit from job opportunities

Pre-mitigation rating LIV-1: The likelihood of economic benefit would be almost certain. The magnitude of the impact would be moderate. As such, the economic outcome related to construction is assessed as **High A3** benefit.

Contractors should be encouraged to provide local opportunities for skilled and semi-skilled workers through the construction, this could include using local logistics companies, suppliers of materials, and hospitality (food and beverage). Post enhancement, the **residual rating** remains **High A3** benefit.

Decision-making systems

DEC-1: Ineffective engagement with surrounding community increasing complaints

Construction and change can cause disruption to the community. Without effective engagement and communication, neighbours and impacted stakeholders can feel alienated from decisions that impact on them. Temporary changes to the way of life can impact on daily routines and cause a nuisance. This can lead to an increase in complaints through construction.

Developing a proactive engagement strategy that includes opportunities for neighbouring properties and other key stakeholders to participate in decisions that impact on them and providing feedback mechanisms, should be considered.

Pre-mitigation rating DEC-1: Stakeholders are interested in the project and are currently removed from decisions that impact on them; therefore the likelihood is almost certain. The magnitude of the impact would be moderate. As such, the impact is assessed as **Medium C2**.

Given the construction management anticipated for the project, impacts can be reduced by proactively managing relationships with neighbours and the surrounding community, therefore the **residual impact** is rated at **Low D2**.

Operations

Community

COM-1: The Apsley BESS could affect how the community relate to the character of the area.

The character of an area is made up of the physical features and elements of the places as well has the relationship to the area. The subject site is predominantly open grass land, used for agricultural purposes. There are three residential properties in the vicinity of the BESS. The lifecycle of the BESS is expected to be 30 years, changing the character of the location. However, through the consultation, no issues or concerns were raised in relation to character to the local area.

Pre-mitigation rating COM-1: The likelihood of the BESS affecting the community is unlikely. The magnitude of the impact would be minimal. As such, the impact is assessed as **Low D1**.

Developing a proactive engagement strategy that includes information about the project and the lifecycle, particularly what will happen to the land post decommissioning should be considered. The **residual impact** is rated as **Low D1**.

Surroundings

SUR-2: Potential decline in the social amenity and how the community experiences the surroundings due to operational noise.

The noise assessment found that noise compliance can be achieved during the operation of the BESS. However, mitigation measures including an acoustic barrier, were needed to shield the closest residence from noise.

Prolonged exposure to noise can also disturb sleep rhythms and cause irritation, cognitive impairment and decreased mental wellbeing. This is especially true for those who are vulnerable to health impacts, such as the younger and older demographic. The local area population is made up of approximately 6.3% of people 75 years and older. This indicates that a portion of the population are susceptible to noise impacts.

The combination of design and operational management is anticipated to mitigate noise impacts, overall reducing the potential impact of noise impacts on social amenity in surrounding areas. While it is expected that post management, operational noise impact would be low, impacting very few sensitive receivers, ongoing consultation with specific sensitive user groups would help inform the effectiveness of mitigation measures, with adaptive management measures implemented as required.

Pre-mitigation rating SUR-2: The likelihood of ongoing noise impacts is likely and the magnitude would be minor. Therefore, the decline in social amenity from operational noise are assessed as **Medium B2.**

The combination of design and operational management is anticipated to mitigate noise impacts, overall reducing the potential impact of noise impacts on social amenity in surrounding areas. While it is expected that post management, operational noise impact would be low, impacting very few sensitive receivers, ongoing consultation would help inform the effectiveness of mitigation measures, with adaptive management measures implemented as required. The **residual impact Medium C2.**

SUR-3: The proposed BESS will impact visual amenity of the local area.

Anticipated visual impacts were assessed from key representative public viewpoints surrounding the project. It was found that during construction, there might be temporary visual impacts associated with construction activities (such as removal of vegetation) including machinery and temporary structures on the project. Changes to visual amenity during the construction phase might result in diminished enjoyment of rural views for nearby and passing local residents.

Once operational, potential impacts to surrounding sensitive receptors may include changes to existing rural views from the BESS. Changes to visual characteristics might result in reduced enjoyment of the natural and rural landscape. The three neighbouring properties are between 300 and 710m from the site and will have minor potential impacts from the viewpoints.

Pre-mitigation rating SUR-3: The likelihood of impacts to visual amenity would be likely. The magnitude of the impact would be minor. The impact of the project on visual amenity is assessed at **Medium B2**.

Given the mitigation measures including vegetative screening, landscaping and a noise wall between the location of the proposed BESS and the neighbouring properties and the road, there will be minimal residual impact on the impact to the local area for residents and road users. The **residual impact** is assessed as **Medium C2**.

Livelihood

LIV-2: Increased access to jobs and business opportunities.

Once operational, the project would generate employment opportunities in the local and regional area. Income derived from employment can directly shape life experiences and opportunities, enhancing socio-economic wellbeing and prosperity for individuals and communities. The proponent is committed to prioritising employment opportunities for people who reside local to the project and to ensuring that potentially marginalised groups, such as Aboriginal and Torres Strait Islander people, are provided equitable access to employment opportunities. Locally sourced labour is defined as those employees who reside within a one-hour commute from the project site.

Additional contractors would be required to undertake incremental maintenance and repairs and provide support services on site (e.g. – cleaning, landscaping / vegetation management, waste removal, etc). This would further support increased long-term economic investment for the locality with wage expenditure benefiting the region.

Pre-mitigation rating LIV-2: The likelihood of increased opportunities for employment would be almost certain. The magnitude of the impact would be minimal. As such, the economic outcome related to operation is assessed as a **Low A1** benefit. The residual impact is assessed as the same.

LIV-3: The installation of the BESS will change the agricultural use of the land/loss of regional productive agricultural land and negatively impact on livelihoods

The compatibility of the proposed project with the surrounding land uses, including consideration of the surrounding land uses zones and existing uses has been completed, including a Land Use Conflict Risk Assessment in accordance with the Department of Industry's Land Use Conflict Risk Assessment Guide.

Additionally, ACEnergy will consider the ongoing use of the surrounding land for primary production purposes during the operational phase, minimising any change to agricultural land use.

The development footprint is limited to 6 hectares, representing a small portion (4%) of the 140.8-hectare landholding and 0.002% of the 290,534 hectares of land mapped as Class 3 within the Dubbo Regional Council LGA. The proposed BESS footprint will be located in the north-western corner of the landholding, ensuring that it will not result in fragmentation of agricultural lands within the landholding.

The site is located within the Central West- Orana REZ and is strategically identified for the purposes of providing electricity generating infrastructure.

Pre-mitigation rating LIV-3: The likelihood of a change in agricultural use of the land would be possible. The magnitude of the impact would be minimal. As such, the loss of agricultural land negatively impacting livelihoods is assessed as a **Medium C1.**

The property has a long history of agricultural production, including grazing and cropping. ACEnergy will consider ongoing primary production of the remaining land during operation. Post-decommissioning of the BESS the land will be returned to agricultural production. As such the residual assessment is **Low D1**.

LIV-4: The BESS provides an economic investment in the region improving access to jobs and business opportunities

The project would involve total estimated capital expenditure of more than $30 million, generating 300 jobs during peak construction and approximately 5 full-time jobs through operations.

This would be expended on a broad array of equipment, products and services, some of which may be procured from within the local and regional area. Such an injection of wealth would serve to further sustain and stimulate local economic growth within the region.

Pre-mitigation rating LIV-2: The likelihood of economic investment improving the livelihood and opportunities in the region would be likely. The magnitude of the impact would be moderate with a positive impact on livelihoods and as such is assessed as a **High B3.**

Consulting with local businesses and tourism operators and providing opportunities for local procurement will help to enhance the positive impact from increased economic investment. The **residual impact** is assessed at **High B3**.

Decommissioning

Surroundings

SUR-4: Potential decline in social amenity through decommissioning activities disrupting the way people experience the surrounding community.

It is anticipated the BESS would be operational for a period of approximately 30 years. Once the project reaches the end of its operational life, a decision will be made to decommission. This includes removing all above-ground infrastructure, and the sites rehabilitated generally to its pre-existing land use. The disposal and recycling of project infrastructure will be done in accordance with current waste management legislation at the time of decommissioning. Wherever possible, efforts will be made to reduce the amount going to landfill in line with best practice sustainability principles. It is anticipated noise impacts will be compliant with applicable criteria.

Pre-mitigation rating SUR-4: The likelihood of decline in social amenity as a result of decommissioning is possible. The magnitude of the impact would be minor. The potential exists to support local training and support services organisations during the construction and operation phase, and these opportunities would be explored through an Accommodation and Employment Strategy (AES). As such, the impact on culture is rated as **Medium B2**.

The decommissioning management is anticipated to mitigate noise impacts, overall reducing the potential impact of noise impacts on social amenity in surrounding areas. While it is expected that decommissioning noise impact would be minimal, impacting very few sensitive receivers, ongoing consultation will be required to inform any approvals and permits. The **residual impact** is assessed at **Medium C2**.

SUR-5: The decommissioning of the BESS will return the land to pre-construction state, potentially improving the amenity of the local area.

The development footprint is limited to 6 hectares, representing a small portion (4%) of the 140.8-hectare landholding. The proposed BESS footprint will be located in the north-western corner of the landholding, making sure that it will not result in fragmentation of agricultural lands within the landholding through operations.

The operational life is anticipated to be 30 years and will be maintained for weeds as well as providing potential foraging habitat for visiting fauna. Following decommissioned, all above-ground infrastructure will be removed, and the sites rehabilitated generally to its pre-existing land use, as far as practicable and utilising best practice contemporary site rehabilitation techniques available at that stage.

While the project would have a distinct change in the landscape, the project site has the potential to improve the local amenity through the rehabilitation of the land.

Pre-mitigation rating SUR-5: The likelihood of improving the amenity of the local area post decommissioning is possible. The magnitude of the impact would be minor. As such, the impact on culture is rated as **Medium C2**.

Maintaining plants and the landscape through operations as well as rehabilitating the land to at least the pre-construction state could improve the overall amenity leaving a residual impact of **Medium C2**.

9. Monitoring and management

This section proposes a range of mitigation, management and enhancement measures based on the impacts associated with the project. These are intended to reduce the negative impacts and enhance the positive ones.

Table 9: Summary of identified impacts provides an assessment of residual impact post mitigation and monitoring mechanisms to support the successful delivery of the project.

Through construction, social impacts would be managed through a construction management plan for the project. This would include mitigation impacts to minimise the potential to disrupt neighbours and the broader community.

The Aspley BESS Community Engagement Strategy would outline the approach to communicating and engaging through all project stages – approvals, construction, commissioning, operations, decommissioning, and rehabilitation. This document would link to an operational management plan.

Pre-construction

- Proactive communication and engagement with the community prior to site establishment. Measures could include newsletter and construction update on the scope of the project, likely high impact activities (noise, vibration, traffic, and pedestrian changes), and contact details for inquiries and complaints. Meetings/presentations with neighbouring properties and parents prior to construction should also be considered
- Develop an inquiry and complaint process for the construction
- Engage with the local community and neighbours to develop a working relationship to disseminate information during and after construction.

Construction phase

- A Construction Management Plan (CMP) should be prepared that incorporates the findings of the various project technical studies.
- A Traffic Management Plan (TMP) should be prepared to control traffic and minimise disruptions
- Implement a Heritage management including unexpected finds procedure
- Management of complaints
- Ongoing communications with the community to keep residents updated on construction scheduling. This may include signage, notifications, and other appropriate communication channels.
- Investigate opportunities to use local contractors, suppliers, and service providers.

Operational phase

- Ongoing communication and engagement with the community which includes complaints management.
- Maintain the plants installed along the project boundaries to ensure full growth and longevity
- Develop a landscape maintenance plan to include replacement of any plants that fail during the lifespan of the project
- Consult with businesses, peak bodies (Chamber of Commerce), industry groups and tourism operators to provide opportunities for local procurement
- Create an Accommodation and Employment Strategy.

Residual impact and monitoring

Monitoring and measuring outcomes of the social impact assessment will be important through the lifecycle of the proposal. This will assist in managing the impacts and responding to any unanticipated consequences of the project.

Table 9 outlines the suggested management and monitoring strategies relevant to this proposal.

Table 9: Summary of identified impacts

Magnitude Level						
		1	2	3	4	5
Likelihood level		**Minimal**	**Minor**	**Moderate**	**Major**	**Transformational**
A	Almost certain	Low	Medium	High	Very High	Very High
B	Likely	Low	Medium	High	High	Very High
C	Possible	Low	Medium	Medium	High	High
D	Unlikely	Low	Low	Medium	Medium	High
E	Very unlikely	Low	Low	Low	Medium	Medium

Potential impact on people	**Significance rating** Positive or negative (+/-) Likelihood level A-E; Magnitude level 1-5	**Mitigation and management measures**	**Responsibility for mitigation measure and management**	**Residual impact significance rating** Positive or negative (+/-) Likelihood level A-E; Magnitude level 1-5	**Monitoring**
Stage - Construction					

WL-1: Noise during construction. Construction activities will produce noise that disrupts nearby residents.	**(-) Low B1**	• Implement Construction Management Plan (CMP) and Communications and Engagement Plan (CEP) prior to the start of construction
		• Work within standard construction hours and perform high impact noise after 9:00am wherever possible and provide periods of respite
		• Use quietest machines where possible, turn off equipment when not in use and regularly inspect/maintain equipment to make sure is working efficiently, including checking mufflers
		• Use non-tonal beepers where practical
		• When piling is expected to be high impact on neighbours, limit activities to no more than three hours with at least one hour respite between each block of work
		• Proactively communicate with residents, community, and nearby tourism operators about construction and noisy works in particular
		  ○ Prior to site establishment
		  ○ Prior to high impact works
		• Use toolbox talks and similar tool to communicate and educate contractors what expectations are when managing noise and vibration on the project site
		• Notify directly impacted stakeholders that there is a potential for noise and vibration from construction activities
		• Limit concurrent noise work close to neighbours
		• Proactively manage issues, with nearby residents to avoid escalation to complaints
		• Maintain a complaint process during construction
		• Should a noise wall be required for the project, construct the noise wall closest to the neighbour early in the project to minimise high impact noise activities.
			Construction contractors	**(-) Low C1**	• Measures to be included in CMP and CEP including complaints and issues management
					• Monitor noise levels
					• Monitor and respond to complaints.

ACC-1: Increased traffic on the local road network during construction will impact residents and commuters.	**(-) Medium B1**	• Develop a traffic control plan in consultation with relevant authorities, to minimise road and traffic disruptions for residents and business • Provide advance communication (i.e. signage, notification materials) about changes to local access, potential road hazards (if required) • Proactively communicate with residents, community, and nearby tourism operators about traffic control measures and likely impacts through construction • Maintain a complaint process during construction.	Construction contractor	**(-) Low C2**	• Measures to be included in CMP and CEP including complaints and issues management • Follow the traffic control plans.
SUR-1: Dust and emissions from construction activity will negatively impact surrounding residents.	**(-) Medium C2**	• Implement CMP • Notify directly impacted stakeholders when there is a potential for emissions from construction activities	Construction contractor	**(-) Low D2**	• Measures to be included in CMP and CEP including complaints and issues management

		• Should a noise wall be required for the project, construct it early in the project to minimise the impact from emissions on the directly impacted neighbour • Turn off equipment when not in use and regularly inspect/maintain equipment to make sure is working efficiently, including checking mufflers • Complaint line during construction.			• Follow CMP recommendations • Monitor particulate and emissions levels • Monitor and record complaints line.
LIV-1: Construction will provide 50 (FTE) direct jobs, with potential for indirect jobs that will benefit a range of individuals and businesses improving social livelihoods.	**(+) High A3**	• Investigate opportunities to use local contractors and suppliers of material and services.	Construction contractor	**(+) High A3**	• Monitor the number of local contractors / businesses engaged in the construction process.
DEC-1: Ineffective engagement with surrounding community through construction could result in complaints and alienating the community	**(-) Medium C2**	• Implement CMP and CEP prior to the start of construction • Implement a Proactive and ongoing engagement and communication strategy to build positive relationships with surrounding stakeholders • Ongoing communication with neighbouring community to advise of construction impacts prior to site establishment and regularly through construction • Proactively manage issues, with nearby residents to avoid escalation to complaints.	Construction contractor	**(-) Low D2**	• Implement CEP • Monitor and record complaints line.
Stage - Operations					
COM-1: The Apsley BESS could affect how the community relate to the character of the area.	**(-) Low D1**	• Ongoing communication with neighbouring community • Establish a complaints procedure for community interactions	ACEnergy or operator	**(-) Low D1**	• Implement CEP • Ongoing conflict resolution via complaints procedure
SUR-2: Potential decline in the social amenity and how the community experiences the surroundings due to operational noise.	**(-) Medium B2**	• Install noise reduction infrastructure (acoustic walls) • Maintain a complaint process during construction • Noise monitoring and reporting	ACEnergy or operator	**(-) Medium C2**	• Monitor noise levels • Monitor and record complaints line
SUR-3: The proposed BESS will impact visual amenity of the local area.	**(-) Medium B2**	• Maintain the plants installed along the project boundaries to ensure full growth and longevity • Develop a landscape maintenance plan to include replacement of any plants that fail during the lifespan of the project.	ACEnergy or operator	**(-) Medium C2**	• Monitor the plants for health and vigour throughout the life of the project.
LIV-2: Increased access to jobs and business opportunities.	**(+) Low A1**	• Use local companies and workers to fill staff and support positions	ACEnergy or operator	**(+) Low A1**	• Monitor the number of local contractors / businesses engaged in the operations.
LIV-3: The installation of the BESS will change the agricultural use of the land/loss of regional productive agricultural land and negatively impact on livelihoods.	**(-) Medium C2**	• Consult with neighbours and provide regular updates • Return land to agricultural use post decommissioning.	ACEnergy or operator	**(-) Low D1**	• Consultation with stakeholders ongoing • Monitor and report progress.
LIV-4: The BESS provides an economic investment in the region improving access to jobs and business opportunities.	**(+) High B3**	• Consult with businesses, peak bodies (Chamber of Commerce), industry groups and tourism operators to provide opportunities for local procurement • Create an Accommodation and Employment Strategy	ACEnergy or operator	**(+) High B3**	• Monitor the number of local contractors / businesses engaged in the operations.
Stage - Decommissioning					
SUR-4: Potential decline in social amenity through decommissioning activities disrupting the way people experience the surrounding community.	**(-) Medium B2**	• Implement CMP • Notify directly impacted stakeholders that there is a potential for noise and vibration from construction activities • Proactively communicate with residents and community about construction and noisy works • Use toolbox talks and similar tool to communicate and educate contractors what expectations are when managing noise and vibration on the project site • Notify directly impacted stakeholders that there is a potential for noise and vibration from construction activities • Maintain a complaint process during decommissioning • Noise monitoring and reporting.	Contractor	**(-) Medium C2**	• Measures to be included in CMP including complaints and issues management • Follow CMP recommendations • Monitor noise levels • Monitor and record complaints line
SUR-5: The decommissioning of the BESS will return the land to pre-construction state, potentially improving the amenity of the local area.	**(+) Medium C2**	• Maintain the plants installed along the project boundaries to ensure full growth and longevity • Rehabilitate the land to pre-construction state, returning to agricultural land	Contractor	**(+) Medium C2**	• Monitor the plants for health and vigour to return to productive agricultural land.

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Appendices

Appendix A – Certification page

Appendix B – Assessment review questions

Appendix C – Social baseline

Appendix A: Certification page

Authorship

This report has been prepared by a suitably qualified and experienced lead author who holds appropriate qualifications and has relevant experience to carry out the SIA for this project.

Co-author	Co-author
Tadd Andersen - Certificate of completion, Social Impact Assessment Course, University of Strathclyde, Glasgow - Master of Science in Architecture (research), University of California, Berkeley - Master of Environmental Planning, Arizona State University - Bachelor of Science in Landscape Architecture, California State Polytechnic University, Pomona - Member Australian Institute of Landscape Architects - Member International Association of Impact Assessment	**Kelly Lofberg** - Justice of the Peace (NSW) - 2018- Current Diploma Professional Communication, University of New England 2016 - Diploma Marketing Public Relations, North Coast Institute Certificate in Engagement, IAP2 Certificate IV Business Marketing Management, Hunter TAFE Certificate IV Finance and Banking, Institute of Financial Services - Member Australian Institute of Company Directors - Member International Association of Impact Assessment - Member IAP2
Tadd is an environmental planner with experience conducting a range of research and impact assessment projects.	Kelly has more than 10 years' experience in managing and conducting social impact assessments. She has more than 19 years' experience conducting consultation and research for projects.

The authors declare that this SIA report:

- Was completed on 25 May 2022
- has been prepared in accordance with the EIA process under the EP&A Act
- has been prepared in alignment with the DPE's SIA Guideline
- contains all reasonably available project information relevant to the SIA
- as far as Mara Consulting is aware, contains information that is neither false nor misleading.

Tadd Andersen

25 May 2022

Kelly Lofberg

25 May 2022

Appendix B: Assessment review questions

The following table has been extracted from Appendix C of the Guideline (2021). These review questions are used to confirm that the requirements of the Guideline (2021) have been fulfilled when considering the scale of social impacts of this proposal. For ease of reference, the relevant chapter of this social impact assessment that addresses these questions is also provided.

Review questions		Where found in this document
General		
1	Does the lead author meet the qualification and experience requirements?	Yes. Authorship – Appendix A
2	Has the lead author provided a signed declaration?	Yes. Authorship – Appendix A
3	Would a reasonable person judge the social impact assessment report to be impartial, transparent, and suitably rigorous given the nature of the project?	Yes. Chapter 1
Project's social locality and social baseline		
4	Does the social impact assessment report identify and describe all the different social groups that may be affected by the project?	Chapter 4
5	Does the SIA Report identify and describe all the built or natural features that have value or importance for people, and explain why people value those features?	Chapter 5
6	Does the SIA Report identify and describe historical, current, and expected social trends or social changes for people in the locality, including their experiences with this project and other major development projects?	Chapter 5
7	Does the social baseline study include appropriate justification for each element, and provide evidence that the elements reflect both relevant literature and the full diversity of views and potential experiences?	Chapter 5 and Chapter 6
8	Does the social baseline study demonstrate social-science research methods and explain any significant methodological or data limitations?	Chapter 6
Identification and description of social impacts		
9	Does the SIA Report adequately describe potential social impacts (whether negative, positive, tangible, intangible, perceived, and/or cumulative) from the perspectives of how people may experience them, and explain the research used to identify them? Where the assessment is partially complete, and expected to be completed in Phase 2 SIA, has this been explained?	Chapter 8
10	Does the SIA Report apply the precautionary principle to social impacts, and consider how they may be experienced differently by different people and groups (i.e. distributive equity)?	Chapter 6 and Chapter 8
11	Does the SIA Report describe how the preliminary analysis influenced both the project design and EIS Engagement Strategy?	Chapter 5
Community engagement		

Review questions		Where found in this document
12	Were the extent and nature of engagement activities appropriate and sufficient to canvass all relevant views, including those of vulnerable or marginalised groups?	Chapter 5
13	How have the views, concerns, and insights of affected and interested people influenced both the project design and each element of the SIA Report (e.g. the social baseline, predicting impacts, and mitigation/enhancement measures)?	Chapter 5
Predicting and analysing social impacts		
14	Does the SIA Report impartially focus on the most material social impacts at all stages of the project life cycle, without any omissions or misrepresentations?	Chapter 8
15	Does the SIA Report identify the matters to which the precautionary principle could or should be reasonably applied?	Chapter 8
16	Does the SIA Report analyse the distribution of both positive and negative social impacts, and the equity of this distribution?	Chapter 6 and Chapter 8
	Does the SIA Report identify its assumptions, and include sensitivity analysis and alternative scenarios (including 'worst-case' and 'no project' scenarios where relevant)?	Chapter 4, Chapter 6 and Chapter 8
Evaluating significance		
18	Do the evaluations of significance of social impacts impartially represent how people in each identified social group can expect to experience the project, including any cumulative effects?	Chapter 8
19	Are the evaluations of significance disaggregated to consider the potentially different experiences for different people or groups, especially vulnerable groups?	Chapter 8
Responses, monitoring and management		
20	Does the SIA Report propose responses (i.e. mitigations and enhancements) that are tangible, deliverable by the proponent, likely to be durably effective, and directly related to the respective impact(s)?	Chapter 8
21	How can people be confident that social impacts will be monitored and reported in ways that are reliable, effective, and trustworthy?	Chapter 8
22	How will the proponent adaptively manage social impacts and respond to unanticipated events, breaches, grievances, and non-compliance?	Chapter 8 and Chapter 9

Appendix C: Social baseline

The site of the proposed battery energy storage system (BESS) is 9010 Mitchell Highway, Wellington NSW. This is 7.5km south of Wellington and 4km south of Apsley, although it does sit within the suburb of Apsley.

A social baseline study is a requirement of the New South Wales (NSW) Department of Planning, Industry, and Environment's (DPIE 2021) Social Impact Assessment Guideline, 2021. The baseline study describes the existing population and social conditions of potentially affected communities within the social impact assessment (SIA) area of social influence which form the benchmark against which the social impacts are assessed.

The Guideline states that a social baseline is crucial to understand the relevant pre-existing social pressures (DPIE 2020). A social baseline analysis provides a background into the existing environment, associated cultural and social values of the study area and Dubbo LGA. It also provides a benchmark against which direct, indirect, and cumulative impacts can be analysed and change can be measured.

Social locality (Study area)

The area of social influence of the project is limited to the communities of Wellington and Apsley in the Dubbo LGA. This area of social influence was based on an assessment of the communities likely to be impacted by the proposal and of the geographic proximity of residents and businesses to the project site.

The project is located within the suburb of Apsley and may directly impact landowners, residents, and businesses within the vicinity of the project site. Even though the project is contained within a defined area, impacts (direct and indirect) may be farther reaching. The preliminary review considers two scales of study areas: a local study area and a regional study area.

The local study area is defined as the area covered by the ABS state suburb (SSC) of Apsley. This is the area most likely face impacts to local social infrastructure and services, local workforce, local business, local housing and accommodation, and community health and wellbeing.

Broader impacts due to use of infrastructure, supply chains, haulage routes, transportation of materials and equipment and workforce may affect a larger regional area. The regional study area is thus extended to include the Wellington statistical area (SA2). These areas will be mapped to the Australian Bureau of Statistics (ABS) categories used for data collection.

Table1: Study areas

Study Area	Geographic area	ABS data category	Referred to as:
Local study area	Apsley (ABS Code SSC10067) (ABS 2016)	SSC	Local area
Regional study area	Wellington Statistical Area 2 (ABS Code 105031106) (ABS 2016)	Statistical Area Level 2	Regional area
State of New South Wales	NSW state	NSW STE	NSW

Demographics

According to the 2016 Census of Population and Housing, the local area had a total population of 107 people (ABS 2016). The regional area had a 2016 population of 8,831 (ABS). For projection purposes, Remplan lists the 2016 population as 8,361 with an estimated 2021 population of 8,791 (Remplan). This data shows that the population of the regional area has been slightly increasing and will continue this trend at an increase of 3.8% through 2041. The NSW population has been increasing at an overall rate of 36.7%. The local area population projections are not available for comparison. The lower growth rate in the regional area is likely due to the dominance of agricultural lands, which limit opportunities for expansion of urbanised areas. The population trends are presented in Table 1 below.

Table 10: Projected population, 2016-2041

Location	2016	2021	2026	2041	Total % change 2016-2026	Total % change 2026-2041
Local area	107					
Regional area	8,361	8,791	8,656	8,676	5.1%	0.2%
NSW	7,732,850	8,300,820	8,868,790	10,572,700	12.8%	16.1%

Source: app.remplan.com.au/ & planning.nsw.gov.au/population
Note: The 2016 Regional area population shown in Table 1 is taken from Remplan and differs from the ABS census data. This has been used for projection purposes in this table.

Population by age and sex

In the local area, the largest age group is persons aged 60-64 years (17.1%), followed by 55-59 years (12.6%) and 5-9 years (10.8%). This indicates a large portion of the population is aged between 55-64 years, with a cluster of a young population between 5-9 years. This differs from the major age groups in NSW, which are 30-34 years (7.2%) and 25-29 years (7.0%). The regional area has its largest age groups between 50-69 years, which is consistent with the local area. Overall, the study area has an older population than NSW with much larger proportions of persons aged 55-64 years (29.7%) in the local area and 13.5% in the regional area, compared to 11.9% in NSW. This is also reflected in the median ages of the local area (49) and regional area (42), which are higher than the median age across NSW (38). The age group distribution and median age for the study area is presented in Table 2.

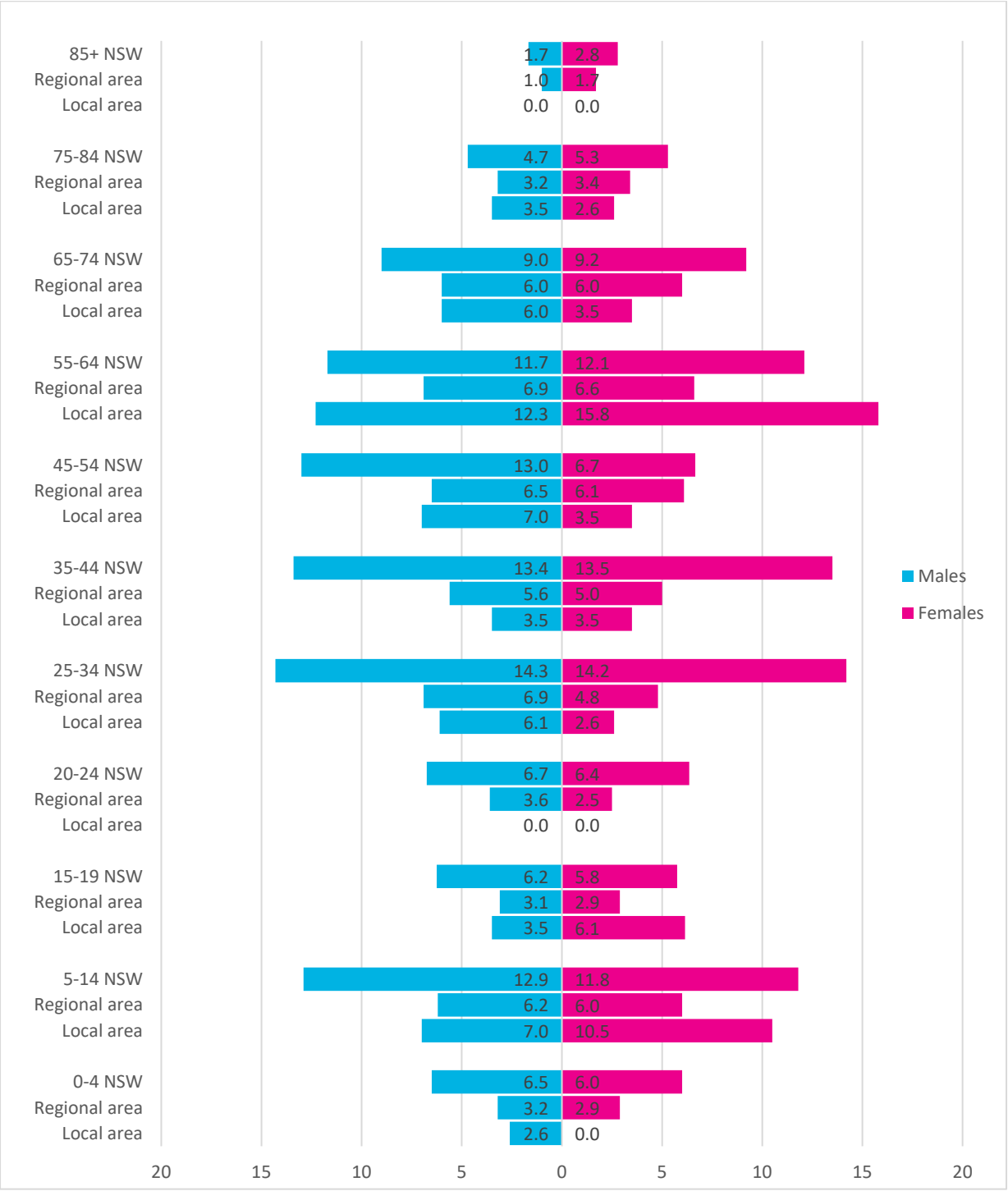
Table 11: Population by age, 2016

Age groups	Local area (%)	Regional area (%)	NSW (%)
0-4	2.7	6.0	6.2
5-9	10.8	6.3	6.4
10-14	5.4	6.0	5.9
15-19	9.9	6.0	6.0
20-24	0	6.0	6.5
25-29	0	5.9	7.0
30-34	7.2	5.8	7.2
35-39	3.6	5.0	6.7
40-44	2.7	5.5	6.7
45-49	9.9	6.0	6.6
50-54	2.7	6.7	6.5
55-59	12.6	7.2	6.3
60-64	17.0	6.3	5.6
65-69	4.5	6.7	5.1
70-74	4.5	5.2	3.9
75-79	2.7	4.0	2.9
80-84	3.6	2.7	2.1
85+	0	2.7	2.2
Median age	49	42	38

The distribution of males and females in the local area is 49.5% male and 50.5% female (ABS 2016). This contrasts slightly with the regional area which has a distribution of 52.1% males and 47.9% females. The local area is aligned with the NSW distribution of 49.3% males and 50.7% females.

The largest demographic in the local area is females aged 55-64. This is followed by males of the same age. As illustrated in the distribution pyramid in Figure 1, the ratio of males to females varies through the age group due to the low population where a few individuals can shift the ratio. In the regional area, there is a similar ratio of males to females through all age groups.

Figure 3: Population distribution by age and gender, 2016



Health and wellbeing

Health indicators for the study area generally indicate better health in the local area when compared to the LGA and NSW.

Community health

Health statistics are not provided for the local area due to the small number of people in the local area. However, the regional area has similar environmental and social characteristics and is relied upon to represent the local area.

According to PHIDU (2022) 18.0% of persons aged 15 years and over within the regional area self-assessed their health as fair or poor. This compares to 14.1% for persons in NSW. This is reflected in the smoking, alcohol, obesity and asthma indicators show that the regional area generally has worse health than NSW.

Table 12: Health indicators

Health indicators	Source Date	Local area	Regional area	NSW
Barrier to accessing health care (ASR per 100)	2014		5.0	2.5
Smoking (ASR per 100)	2016-2018		24.9	14.4
Alcohol (ASR per 100)	2017-2018		25.2	15.5
Obesity (ASR per 100)	2017-2018		48.6	30.7
Asthma (ASR per 100)	2017-2018		13.5	10.6
Admissions to all hospitals – respiratory disease (ASR per 100,000)	2018-2019		2238.6	1,938.5
Fair to poor self-assessed health (ASR per 100)	2017-2018		18.0	14.1
Psychological stress (ASR per 100)	2017-2018		14.9	12.4
Children developmentally vulnerable in one or more domains (%)	2018		40.6	19.9
Proportion of the population over 65 years receiving a pension (%)	2020		61.8	63.2
Persons with a profound or severe disability and living in the community, all ages (%)	2016		4.0	4.9

Source: PHIDU 2020.
Note: The health statistics have not been broken down to the local area, and any analysis must rely on the regional area health indicators.

Respiratory health

Asthma is used as an indicator of respiratory health of the community and people's vulnerability to dust and other air impacts. A person suffering from asthma in the local area may be more vulnerable to impacts resulting from increased traffic and construction related dust and emissions. Table 3 indicates

that in 2018, the incidence of asthma in the region was higher than NSW. Admissions to hospital for respiratory disease was also significantly higher than NSW.

Social infrastructure

Education

In 2016, of the people attending an educational institution in the study area, 26.7% in local area were in primary school. This compares to 20.0% attending primary school in the regional area and 26.2% in NSW. Secondary school attendance was 30% in the local area, compared to 15.5% in the regional are and 20.1% in NSW.

Table 13: Educational institution attendance, 2016

Type of institution	Local area (%)	Regional area (%)	NSW (%)
Preschool	10.0	4.3	5.7
Primary - Government	26.7	15.0	18.0
Primary – Catholic	0	3.9	5.3
Primary – other non-Government	0	1.1	2.9
Secondary – Government	10.0	11.1	11.6
Secondary – Catholic	10.0	2.2	5.1
Secondary – other non-Government	10.0	2.2	3.4
Technical or further education institution	0	4.1	6.2
University or tertiary institution	0	3.2	16.2
Other	0	0.9	2.7

Education levels within the local area is comparable to the regional area with similar tertiary education completion rates. The local area has a slightly higher completion rate at the advanced diploma and Certificate level IV, with the regional area having a higher Certificate III completion rate. The regional statistics may be skewed due to the high number of individuals (25.7%) who did not state their education levels.

Both local and regional areas have a substantially lower completion than NSW. This may be because there is a lower demand for higher education levels in the regional agricultural communities. There is also a tendency for young adults and higher educated adults to move to cities and urban environments for better employment, lifestyle and leisure opportunities.

Table 14: Highest levels of education

Level of highest educational attainment	Local area (%)	Regional area (%)	NSW (%)
Bachelor degree level and above	7.0	7.2	23.4
Advanced diploma and diploma level	8.6	6.0	8.9
Certificate level IV	7.0	2.6	2.8
Certificate level III	Included in above	13.8	12.0

Level of highest educational attainment	Local area (%)	Regional area (%)	NSW (%)
Year 12	28.9	9.5	15.3
Year 11	3.1	3.3	3.3
Year 10	18.0	15.9	11.5
Certificate level II	3.9	0.2	0.1
Certificate level I	Included in above	0.1	0.0
Year 9 or below	14.1	13.1	8.4
No educational attainment	0.0	0.3	0.9
Not stated	9.4	25.7	10.3

Transport infrastructure

Modes of travel.

The predominant mode of travel to work within the local area is by car. Rates of persons driving to work in the local area (73.5%) are higher than the regional area (63.0%) and much higher than NSW rates (57.8%). Rates of travelling to work as a driver or as a passenger (79.6%) are also substantially higher than rates for the regional area (69.3%) and that of NSW (64.6%).

Public transport as a mode of travel is negligible in the local area with 0% persons travelling to work by public transport. This compares to 0.6% in the regional area and 16.0% in NSW.

Table 15: Travel to work, top responses

Top responses	Local area (%)	Regional area (%)	NSW (%)
Car, as driver	73.5	63.0	57.8
Worked at home	6.1	8.9	4.3
Car, as passenger	6.1	5.6	3.9
Walked only	6.1	5.8	4.8
Truck	0	2.1	4.0
Travelled to work by public transport	0	0.6	16.0
Travelled to work by car as driver or passenger	79.6	69.3	64.6

Public transport

There are bus services that connect Wellington to Dubbo to the north and Molong to the south. The service to Molong travels along the Mitchell Highway with a stop at Apsley. There is also rail service between Dubbo and Orange with a station at Apsley and at Wellington.

Road network

The Mitchell Highway (A32) is the only road that runs near the proposed development near Apsley. It is the main artery that runs north and south through Wellington. At Apsley, Burrendong Way, which

travels southeast toward Dripstone, connects to the highway. The proposed site is accessible by a private driveway off the highway.

Local workforce skill and capacity

At the time of the 2016 census, the unemployment rate in the local area (0%) was lower than the regional area (9.2%) and NSW rates (6.3%). The rate of full-time work in the local area (60.4%) was higher than the regional area (55.0%) and on par with NSW (59.2%) rates. The rate of part time work was similar across all areas with the local area at 31.7% to the regional area at 32.7% and NSW with 29.7%.

Table 16: Employment

Employment (15 years and older)	Local area (%)	Regional area (%)	NSW (%)
Worked full-time	60.4	55.7	59.2
Worked part-time	22.9	29.3	29.7
Away from work	0.0	5.9	4.8
Unemployed	0.0	9.2	6.3

The top three occupations in the local area were labourers (22.4%), managers (20.4%) and community and personal service workers (18.4%). The regional area lists managers as the top occupation with community and personal service workers second. NSW list professionals as the top occupation, with clerical and administrative workers as the second occupation.

Table 17: Occupation

Occupation	Local area (%)	Regional area (%)	NSW (%)
Labourers	22.4	13.4	8.8
Managers	20.4	18.1	13.5
Community and personal service workers	18.4	15.2	10.4
Sales workers	14.3	8.1	9.2
Clerical and administrative workers	10.2	9.8	13.8
Technicians and trades workers	8.2	13.0	12.7
Professionals	8.2	14.0	23.0

Income

The median income of all residents over 15 years of age was lower in the local area than in the regional area. Both areas were substantially lower than the NSW median.

Median household incomes differed from personal income with the local area having a higher income ($1,224) than the regional median of $939 and lower than NSW ($1,486).

Table 18: Median weekly incomes

Median weekly incomes	Local area (%)	Regional area (%)	NSW (%)
Personal	415	491	664
Family	1,166	1,209	1,780
Household	1,224	939	1,486

Housing

Housing type

Housing types within the local area differed substantially from the regional area and NSW in 2016. The most common type of house in the local area was 'other dwelling' (73.2%), which includes a house or flat attached to a shop or office. The only other type of housing was separate house at the low rate of 7.3%. In the regional area and NSW, separate house was the most common type at 87.4% and 66.4%.

Table 19: Housing types and structure

Housing type and structure	Local area (%)	Regional area (%)	NSW (%)
Separate house	7.3	87.4	66.4
Semi-detached, row, terrace or townhouse	0	2.8	12.2
Flat or apartment	0	1.2	19.9
Other dwelling	73.2	8.0	0.9
Total private dwellings **(N)**	41	3,448	2,889,061
Total occupied dwellings	36	2,945	90.1

Household compositions in 2016 were mostly family households in the local area at 93.7%. The regional area (66.4%) and NSW (72%) had lower rates of family households. In the local area, the proportion of lone person households (22.2%) was comparable to the regional area (31.1%) and NSW (23.8%). There were no group households in the local area.

Table 20: Household composition

Household type	Local area (%)	Regional area (%)	NSW (%)
Family households	93.7	66.4	72.0
Lone person households	22.2	31.1	23.8
Group household	0	2.5	4.2

Tenure

At the time of the 2016 census, 30.6% of the dwellings in the local area were owned outright compared to 40.9% in regional area and NSW (32.2%). The proportion of rented houses in the local area was much lower (8.3%) than the regional area (27.2%) and NSW (31.8%).

Table 21: Home ownership and tenure

	Local area (%)	Regional area (%)	NSW (%)
Owned outright	30.6	40.9	32.2
Owned with a mortgage	44.4	27.5	32.3
Rented	8.3	27.2	31.8
Other tenure type	0.0	0.8	0.9

In 2016, mortgage payments in the local area were the same as the regional area and lower than NSW. The local area median rental payments is recorded as $0, while the regional area had a median rent of $180.

Table 22: Mortgage repayments, 2016

	Local area	Regional area	NSW
Mortgage repayments – median mortgage repayments $ monthly	1,083	1,083	1,986
Rent payments – median rent $ weekly	0	180	380

Housing stress

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). This can mean local people who are not employed in high paying jobs may be unable to afford rents and mortgages. The data available for a housing stress analysis is only available at a Primary Health Area (PHA) level, which includes the regional area, but does not break down the data to the local area.

The regional area has a slightly lower proportion of households where mortgage payments are greater than or equal to 30% of household income (8.9%) when compared to NSW (9.6%). This is also true of rent payments that are greater than or equal to 30% of household income, with the regional area at 28.2% and NSW with 29.3%. There are higher rates of households receiving assistance in the regional area (23.8%) when compared to NSW (20.7%). Rates of people in social housing is also slightly higher in the regional area.

Table 23: Housing affordability, 2016

	Local area	Regional area	NSW
Households where mortgage payments are greater than or equal to 30% of household income (%)		8.9	9.6
Households where rent payments are greater than or equal to 30% of household income (%)		28.2	29.3
Households in dwellings receiving rent assistance from the Australian Government (%)		23.8	20.7
Social housing (rented dwellings) (%)		5.5	4.7
Social housing (persons in rented dwellings) (%)		5.9	3.7

Source: PHIDU

Socioeconomic advantage and disadvantage

The level of disadvantage or advantage in the population is indicated in the ABS (2016) Socio-Economic Indexes for Areas (SEIFA) which focuses on low-income earners, relatively lower education attainment, high unemployment, and dwellings without motor vehicles. SEIFA is a suite of four summary measures 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 Economic Resources (IER)
- the Index of Education and Occupation (IEO).

Each index is a summary of a different subset of Census variables and focuses on a different aspect of socioeconomic 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.

According to the 2016 SEIFA, the local area ranked in the fourth decile for the IRSD (low disadvantage), and third decile for the IRSAD (most advantaged). The regional area ranked in the first decile for IRSD and second decile for IRSAD. This indicates that compared to other suburbs across NSW there may be more households with low incomes and fewer households with high incomes, or many people in unskilled occupations and few people in skilled occupations.

Ranking in low for IER indicates a relatively low access to economic resources in the local area. Ranking in the fifth decile for IER suggest that compared to other suburbs across NSW, the local area is neither advantaged nor disadvantaged when looking at access to economic resources. The regional area ranked in the second decile, meaning a relative lack of access to economic resources.

The IEO index reflects the general level of education and occupation-related skills of the people within the study area. Ranking in the second decile indicates a relatively lower education and occupation status of people in the local area. It indicates that there are many people without qualifications or in low skilled occupations and few people with high level qualifications or in highly skilled occupations. The regional area ranked slightly higher in the third decile.

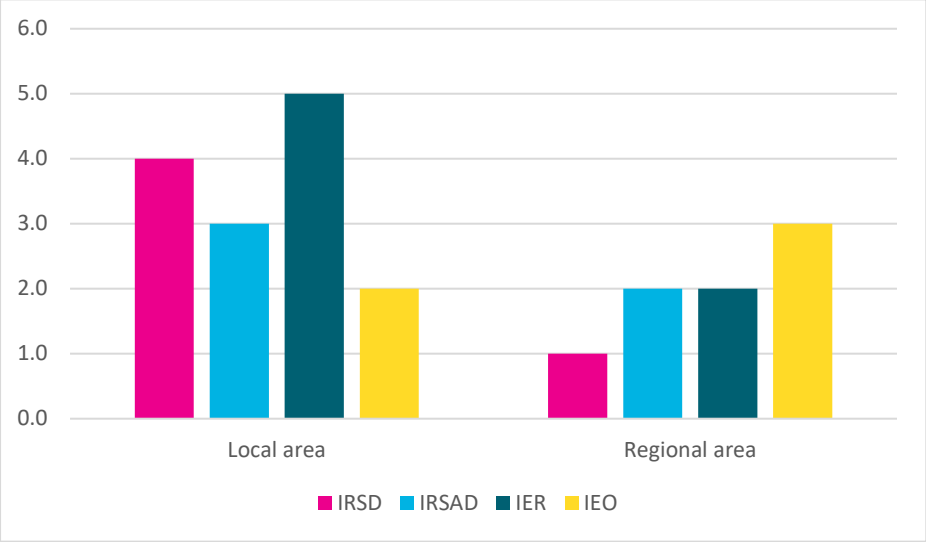


Figure 4: SEIFA deciles in the study area, 2016

Cultural diversity

Cultural diversity in the local and regional areas is lower than across NSW. In NSW, the proportion of the population born in Australia is 65.5%, as compared to the local area (90.7%). The population of the regional area, with 81.3% born in Australia. The local area and regional area also have a larger proportion of intergenerational Australians, with 79.4% and 69.8% persons, respectively, with both parents born in Australia.

A significantly smaller proportion of households in the local area (0%) speak a non-English language compared to NSW (26.5%). The regional area (3.4%) has a slightly higher proportion of households who speak a non-English language. This may indicate a lower number of migrants in the local and regional area, which is consistent with the preference of migrants in Australia to settle in major cities and urban areas.

Table 24: Country of birth, 2016

	Local area	Regional area	NSW
Born in Australia (%)	90.7	82.4	65.5
Both parents born in Australia (%)	79.4	69.8	45.4
English only spoken at home (%)	99.0	80.5	68.5
Non-English language spoken (%)	0.0	3.4	26.5

Vulnerable groups

Disability

The need for assistance relates to one or more of three core activity areas of self-care, mobility, and communication due to a disability, long-term health condition (lasting six months or more) or old age (ABS 2016). The local area has a lower proportion of persons who require assistance (5.6%) when compared to the regional area (7.6%) and NSW (11.6%).

Table 25: Core activity need for assistance, 2016

	Local Area	Regional area	NSW
Has need for assistance (%)	5.6	7.6	11.6
Does not need assistance (%)	86.9	81.4	88.4

Aboriginal and Torres Strait Islander population

In 2016, 11.2% of the local area population and 21.5% of the regional area population identified as Aboriginal and/or Torres Strait Islander (ABS 2016). The proportion is greater than the proportion of the population who identify as Aboriginal and/or Torres Strait Islander in NSW (2.9%). Table 18 presents the proportion of persons who identify as Aboriginal and/or Torres Strait Islander in the study area.

Table 26: Aboriginal and / or Torres Strait Islander persons as a percentage of population, 2016

	Local Area (%)	LGA (%)	NSW (%)
Indigenous population (%)	11.2	21.5	2.9

Community culture and values

The vision statements and documents from Dubbo Regional Council identify the community values which include:

- Progressive – curious, courageous and committed
- Sustainable – balanced approach to growth and opportunity
- One team – working together
- Integrity – accountable for our actions.

Figure 5: Dubbo Regional Council vision, purpose and values (dubbo.nsw.gov.au).

Community strengths and vulnerabilities

Voluntary work

Volunteering rates can give an indication of social cohesion, and the community members willingness to help each other. In the local area, rates of volunteering during the six-month period prior to the census were higher (46.2%) than the regional area (18.7%) and NSW (18.1%). This would indicate a fairly strong social cohesion within the local community.

Table 27: Community strength indicators

	Local area	Regional area	NSW
Voluntary work through an organisation or group (%)	46.2	18.7	18.1
Estimated number of people who were able to get support in times of crisis from persons outside the household (ASR per 100)		94.0	93.4

	Local area	Regional area	NSW
Estimated number of people who provided support to other relatives outside the household (ASR per 100)		28.8	32.5
Estimated number of people who disagree/strongly disagree with acceptance of other cultures		5.1	4.1

Safety and crime

Table 25 below shows crime rates in the regional area compared to NSW. For the crimes shown, the regional area had higher instances in all crimes than NSW. The largest difference was disorderly conduct with rates almost five times those of NSW. Following that, theft and malicious damage to property were the next highest difference. The number of crime occurrences within local area were too low, or the population is too low to establish a rate that was meaningful.

Table 28: Crime statistics summary July 2020 – June 2021

Crime	Local area	Regional area	NSW	Higher/ lower than state average
Assault		3162.5	787.4	↑
Robbery		92.3	23.7	↑
Sexual offenses		715.6	188.7	↑
Theft		9395.2	2136.6	↑
Malicious damage to property		2631.6	624.6	↑
Against justice procedures		3554.9	984.2	↑
Disorderly conduct		1061.9	216.5	↑
Drug offences		1569.7	577.2	↑

“ Creating vibrant communities through powerful conversations