PREPARED FOR

Social Impact Assessment

Rutherglen Battery Energy Storage System

DATE
19 December 2025

REFERENCE
0807735



DOCUMENT DETAILS

DOCUMENT TITLE	Social Impact Assessment
DOCUMENT SUBTITLE	Rutherglen Battery Energy Storage System
PROJECT NUMBER	0807735
DATE	19 December 2025
VERSION	Final
AUTHOR	N. Fitzgerald; E. Wong
CLIENT NAME	Red Hill Renewable Energy Pty Ltd and AMPYR Australia Pty Ltd

DOCUMENT HISTORY

				ERM APPROVAL TO ISSUE		
VERSION	REVISION	AUTHOR	REVIEWED BY	NAME	DATE	COMMENTS
Draft	01	N. Fitzgerald E. Wong	L. Penny	J. Herron	15 Dec 2025	Draft for Comment
Final	A	E. Wong	L. Penny	J. Herron	19 Dec 2025	Final for Issue

SIGNATURE PAGE

Social Impact Assessment

Rutherglen Battery Energy Storage System

0807735



Louis Penny
Principal Consultant (Social Performance) / Project Manager



John Herron
Partner in Charge



Elaine Wong
Managing Consultant (Social Performance)

Environmental Resources Management
Australia Pty Ltd

Level 14, 207 Kent Street
Sydney, NSW 2000

T +61 2 8584 8888

© Copyright 2025 by The ERM International Group Limited and/or its affiliates ('ERM'). All Rights Reserved.
No part of this work may be reproduced or transmitted in any form or by any means, without prior written permission of ERM.

CONTENTS

EXECUTIVE SUMMARY 1
SOCIAL STUDY AREA 1
IMPACT ASSESSMENT AND MANAGEMENT 1
PRELIMINARY SOCIAL IMPACT MANAGEMENT PLAN 2
COMMUNITY BENEFIT SYSTEM 3
1. INTRODUCTION 5
1.1 PROJECT PROPONENT 5
1.2 PURPOSE AND OBJECTIVE 5
1.3 AUTHORSHIP 6
1.4 QUALIFICATIONS 6
2. PROJECT DESCRIPTION 7
2.1 CONSTRUCTION PHASE 7
2.2 OPERATION PHASE 8
3. LEGISLATIVE REQUIREMENTS 11
3.1 PLANNING ACT 2016 11
3.2 PLANNING (SOCIAL IMPACT AND COMMUNITY BENEFIT) AND OTHER LEGISLATION AMENDMENT ACT 2025 11
3.3 PLANNING (BATTERY STORAGE FACILITIES) AND OTHER LEGISLATION AMENDMENT REGULATION 2025 12
3.4 SIA GUIDELINE 12
4. METHODOLOGY 13
4.1 TASK #1: SCOPING 13
4.2 TASK #2: BASELINE ANALYSIS 14
4.3 TASK #3: IMPACT ASSESSMENT 15
4.4 TASK #4: MANAGEMENT MEASURES 17
4.5 TASK #5: MONITORING FRAMEWORK 18
5. SCOPING 19
5.1 APPROACH TO IDENTIFYING THE SOCIAL STUDY AREA 19
5.2 DESCRIPTION OF THE SOCIAL STUDY AREA 20
5.2.1 Primary Social Study Area 20
5.2.2 Secondary Social Study Area 21
5.3 STAKEHOLDER IDENTIFICATION 24
5.4 VULNERABILITY 26
6. SOCIAL BASELINE 27
6.1 ABS DATASETS 27
6.2 POLICY AND STRATEGIC CONTEXT 28
6.2.1 Central Queensland Regional Plan 2013 28
6.2.2 Gladstone Regional Council Planning Scheme 2017 28
6.2.3 Renewable Energy Community Benefits Sharing Policy 29
6.2.4 Economic Transition Roadmap 30
6.2.5 Social Infrastructure Investment Priorities 32
6.2.6 Queensland’s 2035 Clean Economy Pathway 35
6.2.7 Queensland Energy Roadmap 35

6.3 LAND USE CONTEXT 36
6.4 DEMOGRAPHIC PROFILE 37
6.5 ECONOMIC PROFILE 41
6.5.1 Labour Force 41
6.5.2 Education 44
6.5.3 Income 46
6.5.4 Local Business Characteristics 48
6.6 COMMUNITY CHARACTERISTICS 48
6.6.1 Community History 48
6.6.2 Community Culture and Values 50
6.6.3 Cultural Heritage 52
6.7 HOUSING PROFILE 53
6.7.1 Key Housing Indicators 53
6.7.2 Housing and Accommodation Trends 57
6.7.3 Short-Term Accommodation 64
6.7.4 Social Housing 65
6.8 SOCIAL INFRASTRUCTURE 67
6.8.1 Community and Recreational Services 67
6.8.2 Health and Emergency Services 69
6.8.3 Educational Services 73
6.8.4 Digital Inclusion 74
6.9 ROOFTOP SOLAR AND BATTERY UPTAKE 75
6.10 ACCESS AND CONNECTIVITY 77
6.10.1 Road Network 77
6.10.2 Aerodromes 77
6.10.3 Public Transport 77
6.10.4 Vehicle Ownership and Travel to Work 78
6.11 CRIME 81
6.12 VULNERABLE GROUPS 82
6.12.1 Culturally and Linguistically Diverse 82
6.12.2 Youth and Elderly 83
6.12.3 First Nations 84
6.12.4 Socio-Economic Disadvantage 88
6.12.5 SIA Considerations 89
6.13 SURROUNDING PROJECTS 90

7. COMMUNITY AND STAKEHOLDER ENGAGEMENT 93

7.1 GLADSTONE REGIONAL COUNCIL 93
7.2 PRIOR ENGAGEMENT ACTIVITIES 93
7.2.1 Prior Engagement Outcomes 93
7.3 CURRENT ENGAGEMENT ACTIVITIES 95
7.3.1 Current Engagement Outcomes 96
7.4 COMMUNITY SENTIMENT 100

8. IMPACT ASSESSMENT 101

8.1 SUMMARY OF TECHNICAL ASSESSMENTS 102
8.1.1 Noise Impact Assessment 102
8.1.2 Hazard Analysis 102
8.1.3 Bushfire Mitigation Report 103
8.1.4 Flood Assessment and Stormwater Management Report 104
8.1.5 Traffic Impact Assessment 104

8.1.6 Ecological Constraints Letter 105
8.2 SOCIAL IMPACT ASSESSMENT AND MANAGEMENT MEASURES 106
8.2.1 Neighbour Reference Group 106
9. PRELIMINARY SOCIAL IMPACT MANAGEMENT PLAN 115
10. COMMUNITY BENEFIT SYSTEM 121
11. REFERENCES 125
APPENDIX A SHORT-TERM ACCOMMODATION (STA) PROVIDERS IN THE SOCIAL STUDY AREA
APPENDIX B HEALTH AND EMERGENCY SERVICES IN THE SOCIAL STUDY AREA
APPENDIX C EDUCATIONAL FACILITIES IN THE SOCIAL STUDY AREA

LIST OF TABLES

TABLE 3-1 STATE CODE 27: BATTERY STORAGE FACILITY DEVELOPMENT – PERFORMANCE OUTCOMES 11
TABLE 4-1 LIKELIHOOD LEVELS 16
TABLE 4-2 MAGNITUDE CHARACTERISTICS 16
TABLE 4-3 MAGNITUDE LEVELS 16
TABLE 4-4 IMPACT SIGNIFICANCE MATRIX 17
TABLE 5-1 APPROXIMATE TRAVEL DISTANCES AND TIMES 20
TABLE 5-2 KEY STAKEHOLDERS 24
TABLE 6-1 SUMMARY OF RELEVANT ABS DATASETS 27
TABLE 6-2 CBF MONETARY CONTRIBUTION THRESHOLDS 29
TABLE 6-3 PUBLIC BENEFIT CRITERIA 30
TABLE 6-4 ECONOMIC TRANSITION ROADMAP THEMES AND STAKEHOLDER ASPIRATIONS 30
TABLE 6-5 SOCIAL INFRASTRUCTURE INVESTMENT PRIORITIES 32
TABLE 6-6 KEY DEMOGRAPHIC INDICATORS 39
TABLE 6-7 GLADSTONE LGA POPULATION PROJECTIONS 41
TABLE 6-8 LABOUR FORCE STATUS 42
TABLE 6-9 RELEVANT OCCUPATIONS 43
TABLE 6-10 RELEVANT INDUSTRIES 44
TABLE 6-11 KEY EDUCATION INDICATORS 45
TABLE 6-12 INCOME INDICATORS 47
TABLE 6-13 LOCAL BUSINESSES IN THE GLADSTONE LGA 48
TABLE 6-14 SIGNIFICANT FESTIVALS AND EVENTS 51
TABLE 6-15 KEY HOUSING AND ACCOMMODATION INDICATORS 55
TABLE 6-16 HOUSING MARKET INSIGHTS – HOUSING, DECEMBER 2025 58
TABLE 6-17 HOUSING MARKET INSIGHTS – UNITS AND APARTMENTS, DECEMBER 2025 59
TABLE 6-18 RENTAL MARKET INSIGHTS – HOUSING, DECEMBER 2025 61
TABLE 6-19 RENTAL MARKET INSIGHTS - UNITS AND APARTMENTS, DECEMBER 2025 61
TABLE 6-20 RESIDENTIAL VACANCY RATES 63
TABLE 6-21 COMMERCIAL SHORT-TERM ACCOMMODATION OPTIONS 65
TABLE 6-22 COMMUNITY HOUSING DATA 66
TABLE 6-23 PUBLIC AND STATE OWNED HOUSING 67
TABLE 6-24 COMMUNITY AND RECREATIONAL SERVICES 68
TABLE 6-25 EXISTING LONG-TERM HEALTH CONDITIONS, 2021 69
TABLE 6-26 CORE ACTIVITY NEED FOR ASSISTANCE 70

TABLE 6-27 HEALTH AND EMERGENCY SERVICES 71
TABLE 6-28 HOSPITAL PERFORMANCE INDICATORS FOR EMERGENCY CARE, JULY-SEPTEMBER 2025 72
TABLE 6-29 EDUCATIONAL FACILITIES 74
TABLE 6-30 DIGITAL INCLUSION IN THE SOCIAL STUDY AREA 75
TABLE 6-31 2024 SOLAR AND BATTERY METRICS INDICATORS 76
TABLE 6-32 SMALL GENERATION UNIT (SGU) SOLAR AND BATTERY INSTALLATIONS BY POSTCODE, JULY TO OCTOBER 2025 76
TABLE 6-33 NUMBER OF MOTOR VEHICLES PER PRIVATE DWELLING 78
TABLE 6-34 METHOD OF TRAVEL TO WORK 80
TABLE 6-35 OFFENSES COMMITTED, NOVEMBER 2020 TO NOVEMBER 2025 81
TABLE 6-36 ABORIGINAL AND/OR TORRES STRAIT ISLANDER STATISTICS 85
TABLE 6-37 CLOSING THE GAP TARGET 5, GLADSTONE LGA 87
TABLE 6-38 CLOSING THE GAP TARGET 6, GLADSTONE LGA 87
TABLE 6-39 CLOSING THE GAP TARGET 7, GLADSTONE LGA 88
TABLE 6-40 CLOSING THE GAP TARGET 8, GLADSTONE LGA 88
TABLE 6-41 CLOSING THE GAP TARGET 9A, GLADSTONE LGA 88
TABLE 6-42 SEIFA INDICATORS, 2021 89
TABLE 6-43 SUMMARY OF KEY SURROUNDING PROJECTS 91
TABLE 7-1 PRIOR COMMUNITY AND STAKEHOLDER ENGAGEMENT OUTCOMES 93
TABLE 7-2 CURRENT COMMUNITY AND STAKEHOLDER ENGAGEMENT OUTCOMES 96
TABLE 8-1 CONSTRUCTION PHASE TRAFFIC GENERATION 105
TABLE 8-2 SOCIAL IMPACTS AND MANAGEMENT MEASURES 107
TABLE 9-1 PRELIMINARY SIMP 116
TABLE 10-1 COMMUNITY BENEFIT INITITIVIES AND/OR MEASURES IDENTIFIED 122

LIST OF FIGURES

FIGURE 2-1 SITE PLAN 9
FIGURE 2-2 PROJECT LAYTOUT 10
FIGURE 4-1 SIA PROCESS 13
FIGURE 4-2 IMPACT ASSESSMENT PROCESS 15
FIGURE 5-1 SOCIAL STUDY AREA 22
FIGURE 5-2 PRIMARY SOCIAL STUDY AREA 23
FIGURE 6-1 RENTAL AFFORDABILITY INDEX AND SEVERITY OF RENTAL UNAFFORDABILITY 64

ACRONYMS AND ABBREVIATIONS

Acronym	Description
ABS	Australian Bureau of Statistics
AHS	Australian Heritage Solutions
AIHW	Australian Institute of Health and Welfare
AMPYR	AMPYR Energy
BESS	Battery Energy Storage System
BRTP	Bachelor of Regional and Town Planning
CALD	Cultural and Linguistical Diversity
CBA	Community Benefit Agreement
CBF	Community Benefit Fund
CEMP	Construction Environmental Management Plan
CHMA	Cultural Heritage Management Agreement
CHMP	Cultural Heritage Management Plan
Council	Gladstone Regional Council
CSEP	Community and Stakeholder Engagement Plan
DSDIP	Department of State Development, Infrastructure and Planning
DSDIP	Department of State Development, Infrastructure and Planning
DTATSIPCA	Department of Treaty, Aboriginal and Torres Strait Islander Partnerships, Communities and the Arts
DTMR	Department of Transport and Main Roads
ERM	Environmental Resources Management Australia Pty Limited
FNBGGGTB	First Nations Bailai, Gurang, Gooreng Gooreng and Taribelang Bunda Peoples
FTE	Fulltime Equivalent
HV	High Voltage
LGA	Local Government Area
PCCC	Port Curtis Coral Coast Trust
SAL	Suburbs and Localities
SIA	Social Impact Assessment
SIMP	Social Impact Management Plan
SUA	Significant Urban Area
TAFE	Technical and Further Education
The Project	Rutherglen BESS

EXECUTIVE SUMMARY

Environmental Resources Management Australia Pty Ltd (ERM) has been appointed by Red Hill Renewable Energy Pty Ltd (Red Hill Renewable Energy) and AMPYR Australia Pty Ltd (AMPYR) to undertake a Social Impact Assessment (SIA) for the proposed Rutherglen Battery Energy Storage System (BESS) ('the Project').

The Project is located approximately 6 km east of the Bororen township, and approximately 47 km south of Gladstone, within the Gladstone Regional Council Local Government Area (LGA) (Gladstone LGA). The Project comprises a 400 megawatt (MW) / 1,600 megawatt hours (MWh) standalone BESS.

In accordance with the *Planning Act 2016* (Planning Act), this SIA has been developed in accordance with the Social Impact Assessment Guideline Version 2.0, July 2025 (SIA Guideline), and provides the necessary information to support the development and execution of a Community Benefit Agreement (CBA) with the Gladstone Regional Council (Council) to fulfil the requirements of the Development Application process.

SOCIAL STUDY AREA

The Social Study Area for the Project is divided into a Primary and Secondary Social Study Area. The Primary Social Study Area includes the locations in which the most substantive potential social impacts are likely to occur and can be summarised as comprising the following three components:

- The **Project Area and immediate surrounding areas**, inclusive of properties and dwellings located within 2 km (as informed by technical studies).
- The **surrounding towns** of Bororen and Miriam Vale which may provide goods and services or host Drive-in Drive-out workers to support the Construction Phase of the Project.
- The **likely transportation and haulage routes**, comprising part of the heavy vehicle route from the Port of Gladstone to the Project Area via the Bruce Highway, and potential light vehicle routes between the Project Area and the Primary Social Study Area (inclusive of Bororen and Miriam Vale), such as Red Hill Road.

The Secondary Social Study Area includes the City of Gladstone (inclusive of Boyne Island and Tannum Sands), along with the towns of Benaraby, Calliope and Agnes Water.

IMPACT ASSESSMENT AND MANAGEMENT

A total of **nine social impacts** were identified through a consideration of the characteristics of the Project, issues raised by stakeholders during the engagement process, and outcomes from technical studies undertaken by the Project. The significance of each impact was assessed based on its likelihood to occur, and the magnitude of the impact occurring (degree of change expected), inclusive of impacted receptor vulnerability.

The impact significance ratings derived in the assessment were then subsequently re-assessed after the application of mitigation and/or enhancement strategies have been applied to provide a residual impact significance rating for each impact. **The assessment did not identify any social impacts with a residual impact significance of 'Major'.**

Table E-1 provides an overview of the potential social impacts identified and assessed, including their post-mitigation/enhancement residual impact significance rating.

TABLE E-1 SUMMARY OF POTENTIAL SOCIAL IMPACTS

Potential Impact Descriptor	Project Phase	Residual Impact Significance
Social Impact #1: Reduced Community Cohesion	Construction	Moderate
	Operation	Minor
Social Impact #2: Reduced Trust and Confidence in Community Engagement	Construction	Minor
	Operation	Negligible
Social Impact #3: Creation of Direct Employment Opportunities	Construction	Positive
	Operation	Positive
Social Impact #4: Increased Economic Benefits	Construction	Positive
	Operation	Positive
Social Impact #5: Potential Impact on Social Infrastructure and Services	Construction	Moderate
	Operation	Negligible
Social Impact #6: Perceived Land Use Incompatibility	Construction	Minor
	Operation	Minor
Social Impact #7: Potential Impact on Social Amenity	Construction	Minor
	Operation	Negligible
Social Impact #8: Potential Impact on Community Health and Safety	Construction	Minor
	Operation	Moderate
Social Impact #9: Potential Impact on Cultural Heritage	Construction	Moderate
	Operation	Negligible

PRELIMINARY SOCIAL IMPACT MANAGEMENT PLAN

The Preliminary SIMP for the Project has been developed through an understanding of the baseline social environment, community and stakeholder engagement outcomes, and an assessment of potential social impacts.

The Preliminary SIMP outlines the social management measures to be implemented by Red Hill Renewable Energy/AMPYR and the EPC Contractor (and sub-contractors) to mitigate potential negative impacts and to enhance potential positive impacts. This also includes a monitoring protocol to ensure the ongoing effectiveness of the management measures.

The management measures identified in the Preliminary SIMP comprise:

- Community and Stakeholder Engagement Plan;
- Neighbour Reference Group;
- Complaints Management System;
- Worker Code of Conduct;

- Project Inductions;
- Local Employment Plan;
- First Nations Employment Targets;
- Workforce Upskilling and Training Opportunities;
- Local Content Initiatives;
- "Job Readiness" Assistance;
- Engagement with Accommodation Providers;
- Coordination with Other Proponents;
- Workforce Accommodation Management Plan;
- Technical Mitigation / Management Measures;
- Construction Environmental Management Plan; and
- Operational Environmental Management Plan.

COMMUNITY BENEFIT SYSTEM

The community benefit initiatives and/or measures that warrant further investigation by Red Hill Renewable Energy/AMPYR and the Council for the purpose of meeting community needs and achieving alignment with the Council's social infrastructure investment priorities, are outlined in **Table E-2**.

TABLE E-2 COMMUNITY BENEFIT INITIATIVES AND/OR MEASURES IDENTIFIED

Initiative and/or Measure Description	Council Public Benefit Category	Social Infrastructure Investment Priorities	Community Need
#1 Support for Emergency Services	Social	• Community resilience planning • Community health and wellbeing services	• Capturing community benefits • Limited staff for essential / emergency services
#2 Support for Educational Partnerships	Economic	• Inclusion (within education, employment and training) • Education and skills development • Technical and vocational education and training programs	• Diversifying the regional economy • Workforce development • Support for apprenticeships and traineeships
#3 Support for Upskilling/ Worker Transition	Economic	• Inclusion (within education, employment and training) • Education and skills development • Technical and vocational education and training programs • Job placement and transition support services	• Diversifying the regional economy • Workforce development • Increase employment opportunities for local community members

Initiative and/or Measure Description	Council Public Benefit Category	Social Infrastructure Investment Priorities	Community Need
#4 Support for Small Businesses to Participate in Renewable Energy Procurement Processes	Economic	• Community outreach and education	• Diversifying the regional economy • Workforce development • Providing an economic stimulus for local businesses • Educational programs to help local businesses become "tender ready".
#5 Community Grants/ Sponsorships	Social	• Community infrastructure for recreation and social interaction • Community facilities and services	• Capturing community benefits • Grants, careers days, and initiatives supporting youth and Indigenous groups. • High school partnerships.

1. INTRODUCTION

Environmental Resources Management Australia Pty Ltd (ERM) has been appointed by Red Hill Renewable Energy Pty Ltd (Red Hill Renewable Energy Energy) and AMPYR Australia Pty Ltd (AMPYR) to undertake a Social Impact Assessment (SIA) for the proposed Rutherglen Battery Energy Storage System (BESS) ('the Project'), located approximately 6 km east of the Bororen township, and approximately 47 km south of Gladstone, within the Gladstone Regional Council Local Government Area (LGA) (Gladstone LGA).

This SIA identifies, predicts, evaluates, and develops responses to the potential social impacts of the Project. A key outcome of the SIA is the development of management measures to enhance potential positive impacts and mitigate potential negative impacts, along with ongoing monitoring and reporting requirements.

In accordance with the *Planning Act 2016* (Planning Act), it is intended that this SIA provides the necessary information to support the development and execution of a Community Benefit Agreement (CBA) with the Gladstone Regional Council (Council) to fulfil the requirements of the Development Application process.

1.1 PROJECT PROPONENT

Red Hill Renewable Energy and AMPYR are in a development partnership to deliver the Project.

Red Hill Renewable Energy is a special purpose company established by Gryphon Energy Pty Ltd to deliver the project. Gryphon Energy is an Australian company focused on early to mid-stage development of renewable energy projects in Queensland.

AMPYR is part of AMPYR Global Energy Holdings Pty Ltd, the global renewable energy platform of AGP Sustainable Real Assets. AMPYR develop and operate renewable energy assets across Europe, Asia, North America and Australia, and have a global pipeline of 12 gigawatts (GW) of renewable energy assets. In Australia, AMPYR develops, constructs, owns and operates renewable energy and battery storage assets, with a target of 3 GW of battery storage assets by 2030.

The relevant Proponent details are:

- Red Hill Renewable Energy Pty Ltd ACN 675 077 291.
- Address: 29 Gilmore Street, Annerley, Brisbane, 4121

1.2 PURPOSE AND OBJECTIVE

The SIA has been prepared to support Red Hill Renewable Energy and AMPYR in identifying the potential social impacts of the Project, demonstrating industry good practice, and informing future decision-making in relation to community and stakeholder engagement and CBA development.

The SIA is guided by the requirements of the Queensland planning framework, in particular, the Social Impact Assessment Guideline Version 2.0, July 2025 (SIA Guideline) (Department of State Development, Infrastructure and Planning [DSDIP], 2025a), and the Social Impact Assessment Supplementary Material for Assessing and Managing the Social Impacts of Projects under the Social Impact Assessment Guideline (July 2025), Version 2.0, July 2025 (Supplementary Material) (DSDIP, 2025b).

This SIA:

- Establishes a baseline of the key aspects necessary to assess relevant Project impacts;
- Assesses the known and potential impacts of the Project (positive and negative; direct and indirect) on the communities surrounding the Social Study Area; and
- Identifies relevant and effective impact avoidance, mitigation and management options, and explore benefit enhancement measures.

1.3 AUTHORSHIP

This SIA Report was overseen and reviewed by Louis Penny, Principal Consultant at ERM. Louis has over 16 years' experience in Town Planning and Social Performance, inclusive of preparing numerous SIAs, socio-economic baselines, social management plans, Human Rights Impact Assessments, and development of benefit sharing initiatives. Louis holds a Bachelor of Regional and Town Planning from the University of Queensland and is a Full Member of the Planning Institute of Australia (MPIA).

The SIA Report was completed in good faith in accordance with the relevant ethical frameworks, and to the knowledge of the authors does not contain any false or misleading information.

1.4 QUALIFICATIONS

The SIA was undertaken based on the Project Description presented in **Section 2**. Changes to the Project Description may result in changes to the predicted social impacts, including their significance. If this occurs, the proposed management measures should be reviewed and amended to suit the new conditions.

ERM relied on information provided by Red Hill Renewable Energy for the purpose of the social baseline and impact assessment, including the Noise Impact Assessment (Matrix Acoustics, 2025); Hazard Analysis (Arriscar, 2025); Bushfire Mitigation Report (Eldon Bottcher Architect, 2024); Flood Assessment and Stormwater Management Report (WMS, 2025); Traffic Impact Assessment (PTT, 2025); and Ecological Constraints Letter (4 Elements Consulting, 2025).

Furthermore, while ERM did not undertake community and stakeholder engagement activities for the Project, the outcomes of SIA-Specific Stakeholder Engagement undertaken by Red Hill Renewable Energy and AMPYR in November and December 2025, as well as prior community and stakeholder engagement undertaken by Red Hill Renewable Energy were relied upon. Red Hill Renewable Energy has been conducting community and stakeholder engagement with stakeholders since early 2025, with the outcomes relevant to this SIA captured in **Section 7**.

2. PROJECT DESCRIPTION

The Project is located within Central Queensland, situated east of the Bororen township, and north of the Miriam Vale township, within the Central Queensland Regional Energy Hub (Queensland Treasury, 2025).

The Project is to be developed within a Project Area of 1,277 hectares (ha), located at 837 Red Hill Road, Bororen (formally described as Lot 132 on FD700). Whilst the Project Area comprises the whole of the allotment, the Project will only occupy part of the lot, comprising approximately 15 ha for the BESS and 7.8 ha for the substation (total of 22.8 ha), located centrally within the Project Area. This developable portion of the Project Area, within which the Project is situated, is hereon termed the 'Development Area'.

The Project involves the development of a BESS with a capacity of approximately 400 MW / 1,600 megawatt hours (MWh), a substation to convert or transform electrical energy from one voltage to another, and a high voltage (HV) switchyard that switches the electrical current between circuits and connects the substation to the power grid via a 'cut in' into the existing transmission lines.

Key components of the Project include:

- BESS and substation:
  - 33 'modules', each containing:
    - 12, 15.2 m x 33.4 m BESS containers of lithium-iron phosphate batteries;
    - Four inverter/transformer stations.
  - 10 m gravel paths separating the battery 'sections';
  - Underground cabling to connect the batteries to the substation and switchyard;
  - BESS operational and maintenance facility;
  - Substation;
- HV Switchyard:
  - 33 kilovolt (kV) / 275 kV power transformers; and
  - HV switchyard operational and maintenance facility.

The Project Site Plan is depicted in **Figure 2-1**, with the proposed Project Layout provided in **Figure 2-2**.

2.1 CONSTRUCTION PHASE

Construction of the Project will occur over a nine-to-12-month period and is expected to commence in 2027. Construction activities likely to be undertaken for the Project include:

- Site mobilisation and preparation – includes undertaking initial earthworks, clearing vegetation for the purpose of establishing all infrastructure, and the erection of temporary site facilities.
- Civil works – establishment of hardstand areas, creation of stormwater management systems, and trenching to support underground cabling.
- Installation of BESS, substation and HV switchyard – arrival of components to the Project Area and subsequent installation.
- Testing and commissioning – conducting various tests to verify installation.

- Rehabilitation – removal of temporary site facilities, and rehabilitation of areas that have been disturbed during construction.

Construction activities for the Project will typically be limited to standard construction hours (i.e. 7am to 6pm), however there may be temporary periods of work outside of these hours to accommodate specific construction activities.

During the Construction Phase, it is anticipated that the Project will generate up to 150 Full-Time Equivalent (FTE) jobs. The peak construction workforce will involve up to 100 workers on site at one time.

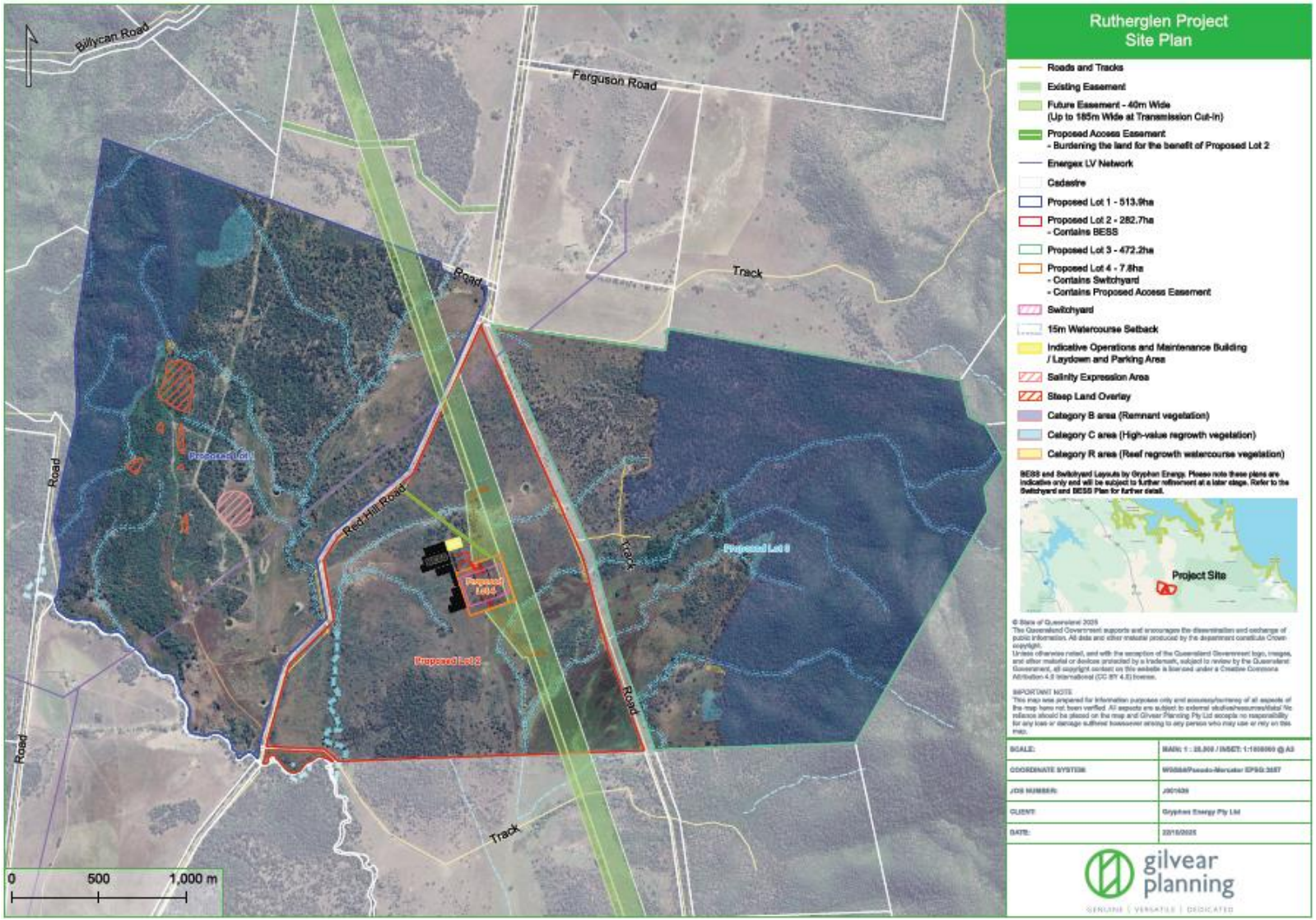
While workers may be employed from the nearby towns and/or cities, Red Hill Renewable Energy and AMPYR are currently in discussions with relevant stakeholders regarding accommodation options within Bororen and Miriam Vale, in the first instance. Accommodation options in Benaraby, Calliope, Boyne Island, Tannum Sands, Gladstone, and to a lesser extent, Agnes Water, will also be considered.

2.2 OPERATION PHASE

The BESS will have an operational lifespan of 30 years, following which time the Project may be decommissioned or refurbished, dependent upon regulatory requirements and market conditions.

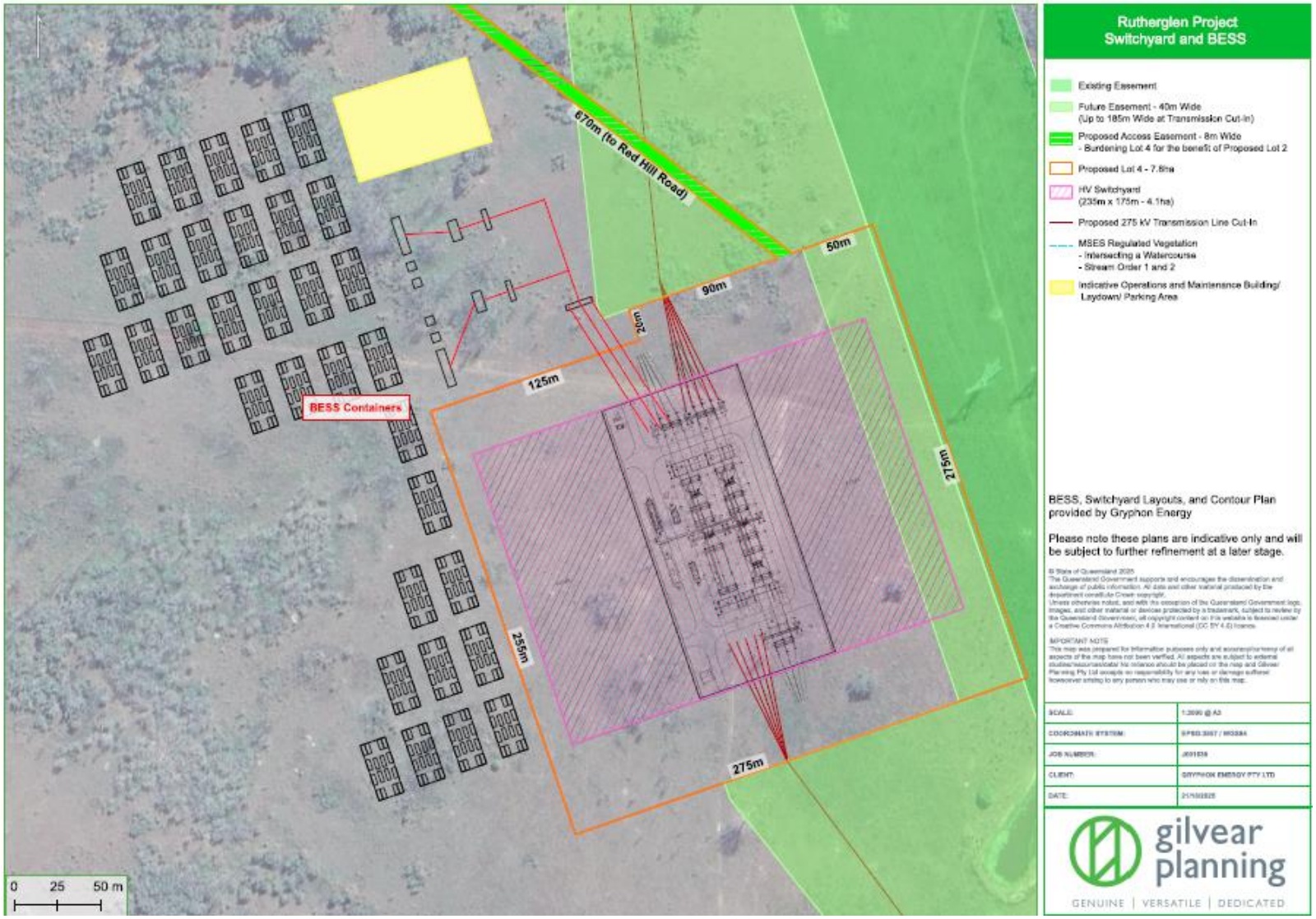
During operations, the Project will be operated and monitored remotely on a 24/7 basis. A permanent workforce will be required to undertake routine maintenance and administrative services throughout the lifespan of the Project. It is therefore expected that up to 10 FTE direct and indirect jobs will be created during the Operation Phase.

Additionally, there may be the potential for specialist contractors to be engaged to conduct on-site activities such as civil works maintenance, weed and pest control, and general land management activities expected of a rural landowner.



Source: Gilvear Planning, 2025

FIGURE 2-1 SITE PLAN



Source: Gilvear Planning, 2025

FIGURE 2-2 PROJECT LAYTOUT

3. LEGISLATIVE REQUIREMENTS

This section provides an overview of the legislative drivers and requirements relating to the Project as relevant to the preparation and development of this SIA.

3.1 PLANNING ACT 2016

The Planning Act and its subordinate Planning Regulation 2017, provide the overarching statutory framework for planning and development assessment in Queensland.

Schedule 10, Part 2, Division 2 of the Planning Regulation 2017 specifies that the assessment benchmark for a battery storage facility is the State Development Assessment Provisions (SDAP). SDAP Version 3.5 includes State Code 27: Battery Storage Facility Development (DSDIP, 2025c), which has been prepared to ensure risks to individuals, communities and the environment from standalone BESS projects are adequately identified, assessed, and where appropriate, mitigated and/or managed.

The relevant Performance Outcomes of State Code 27: Battery Storage Facility Development are outlined in **Table 3-1**.

TABLE 3-1 STATE CODE 27: BATTERY STORAGE FACILITY DEVELOPMENT – PERFORMANCE OUTCOMES

Performance Outcome	Relevance to SIA
PO8 Development demonstrates that either: • a community benefit agreement has been entered into for development requiring social impact assessment; or • where a community benefit agreement has not been entered into, social impacts of the development, including workforce accommodation, local business and industry impacts, community health and well-being, are identified, managed, mitigated, counterbalanced and monitored	This SIA has been prepared for the Project to support Red Hill Renewable Energy and AMPYR in identifying the potential social impacts of the Project (relevant to the key matters specified in the SIA Guideline) and facilitate the subsequent development and execution of a CBA with the Council.

The Development Application for the Project also includes a component of subdivision (Reconfiguring a Lot). As the subdivision will not influence the assessment of social impacts within this SIA, it will not be explored in detail.

3.2 PLANNING (SOCIAL IMPACT AND COMMUNITY BENEFIT) AND OTHER LEGISLATION AMENDMENT ACT 2025

On 30 June 2025, the Planning (Social Impact and Community Benefit) and Other Legislation Amendment Act 2025 (PSICBOLA Act) was assented by State Parliament. The PSICBOLA Act introduced significant reforms to the Planning Act, establishing a formal Community Benefit System for large-scale renewable energy developments.

Prior to lodging a development application, proponents must prepare a SIA and negotiate a CBA with the relevant local government, ensuring that social risks are identified and managed, and that host communities receive benefits commensurate with the scale of impact.

Standalone BESS development was not included in the PSICBOLA Act, however the framework was established for the future inclusion of larger-scale standalone BESS developments under the Planning (Battery Storage Facilities) and Other Legislation Amendment Regulation 2025 (refer to **Section 3.3**).

3.3 PLANNING (BATTERY STORAGE FACILITIES) AND OTHER LEGISLATION AMENDMENT REGULATION 2025

On 12 December 2025, the Planning (Battery Storage Facilities) and Other Legislation Amendment Regulation 2025 was commenced. The regulation amends the Planning Regulation 2017 to:

- Apply the Community Benefit System to a material change of use of premises for a Battery Storage Facility (50 MW or more);
- Make standalone BESS development impact assessable, other than small scale battery storage facilities;
- Make the State Assessment and Referral Agency the Assessment Manager for assessable Standalone BESS Developments;
- Introduce State Code 27: Battery Storage Facilities into the SDAP; and
- Establish transitional arrangements consistent with the prior transitional framework for solar farms, requiring all existing standalone BESS applications over 50 MW to complete a SIA and CBA prior to lodgement of a Development Application.

As stated in **Section 1**, this SIA has been prepared to provide the necessary information to support the development and execution of a CBA with Council and meet the requirements of the Development Application process.

3.4 SIA GUIDELINE

As part of the Planning Regulation 2017, the SIA Guideline is now a statutory guideline for renewable energy projects. The SIA Guideline details the information that is to be included in a SIA, and provides guidance as to the identification, assessment, management, and monitoring of potential social impacts in Queensland.

The SIA Guideline requires assessments of the Project against five key matters:

1. Community and stakeholder engagement;
2. Workforce management;
3. Housing and accommodation;
4. Local business and industry procurement; and
5. Health and community well-being.

Accompanying the SIA Guideline, is the Supplementary Material. The Supplementary Material provides non-statutory guidance to support the SIA Guideline and provides further detail and direction as to the specifics of the SIA, addressing the five key matters and their integration within the SIA, and carrying out an SIA that respects First Nations peoples (DSDIP, 2025b).

As stated in **Section 1.2**, this SIA has been prepared in accordance with the SIA Guideline, and in consideration of the Supplementary Material, as appropriate.

4. METHODOLOGY

This SIA has been prepared in accordance with the SIA Guideline with a view to minimise social impacts and enhance benefits, in-line with international industry good practice. Additionally, this SIA has been prepared to support the development and execution of a CBA with Council to fulfil the requirements of the Planning Act Community Benefit System and enable lodgement of a 'properly made' Development Application.

The SIA was completed sequentially, through five tasks, as depicted in **Figure 5-1**, and described in the following sections.

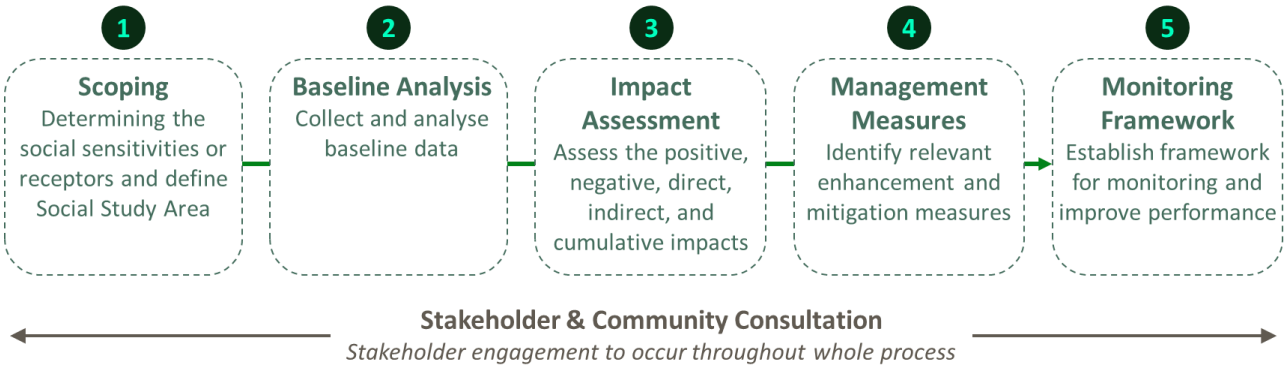


FIGURE 4-1 SIA PROCESS

4.1 TASK #1: SCOPING

Task #1 establishes the scope of the SIA, ensuring it is appropriately scaled and consistent with the SIA Guideline. The scoping process helps to confirm the impacts that are likely to occur and should be considered further in the SIA, as well as identify the impacts that are not likely to occur and should not be considered further in the SIA (or are scoped out).

The first step of this task is to agree on the Project Description (refer to **Section 2**) and define the Social Study Area, as this will provide the appropriate grounding and content from which the direct and indirect potential impacts of the Project can be readily identified.

As per the requirements of the SIA Guideline (DSDIP, 2025a, p.6), the Social Study Area considers the following:

- The nature and scale of the proposed Project, including associated infrastructure;
- The scope of the potential social impacts (throughout the Project lifecycle);
- The location and characteristics of potentially affected communities (refer to **Box 4-1**) and receptors (refer to **Box 4-2**) – including urban/rural centres and land use patterns;
- Key built and natural features, such as infrastructure;
- Native Title rights and other interests held by Aboriginal and Torres Strait Islanders; and
- The location of other projects in the region which may contribute to cumulative social impacts over time.

BOX 4-1 POTENTIALLY AFFECTED COMMUNITY DEFINITION

Potentially affected communities are defined in the SIA Guideline (DSDIP, 2025a, p.7) as, *"…those local and/or regional communities that may be affected by a proposed project, whether negatively or positively."*

BOX 4-2 RECEPTOR AND STAKEHOLDER DEFINITIONS

The term **stakeholder** is used to define individuals or groups who may be affected by or have an interest in a project or operation. Not all stakeholders will experience social impacts from a project and/or operation. Those stakeholders who are affected by a project and/or operation are termed as **receptors**.

4.2 TASK #2: BASELINE ANALYSIS

The social baseline describes the local social context of the Social Study Area. It documents the existing social environment, conditions and trends relevant to the impacts identified. The social baseline is a benchmark against which potential social impacts can be predicted and analysed. The social baseline also seeks to capture community values, and how people and the things they value may be impacted by a project.

As per the SIA Guideline (DSDIP, 2025a, p.7), the following has been considered, where relevant, as part of the baseline analysis:

- The demographic profile of potentially affected communities;
- Community characteristics, such as community culture and values;
- The capacity of those potentially affected to participate in community and stakeholder engagement;
- An overview of land use and key industries in the region;
- The capacity and accessibility of infrastructure, facilities and services, including education, health and emergency services;
- The existing housing and accommodation market, including availability, capacity and affordability;
- Local travel behaviour, such as methods of travel and key transport infrastructure and services;
- The local and regional labour market, including an assessment of the likely availability of personnel with skills relevant to the Project; and
- Other renewable, resource, and infrastructure projects in the area, both planned and currently operating, based on publicly accessible information.

The data used in the baseline analysis is drawn from a range of reports and assessments commissioned by Red Hill Renewable Energy. In addition to the data provided by Red Hill Renewable Energy, data collected and presented in this SIA is based on a review of available data from a range of primary and secondary sources.

This includes, but is not limited to:

- The Australian Bureau of Statistics (ABS);
- Queensland Government Department data;
- Community and Stakeholder engagement outcomes – community insights, including issues and concerns, gathered through the stakeholder consultation process;
- Local and State government planning, policy, and strategy documentation; and
- Plans, policies and other documents provided by Red Hill Renewable Energy and AMPYR.

4.3 TASK #3: IMPACT ASSESSMENT

Following the completion of the prior phases, the social impacts were predicted and evaluated in accordance with the impact assessment process (refer to **Figure 4-2**). This impact assessment process took into consideration:

- The characteristics of the Project, including the timing, duration and intensity of the proposed construction and operational activities;
- Relevant issues raised by stakeholders as part of community and stakeholder engagement conducted for the Project; and
- The outcomes of the technical studies undertaken for the Project.

The impact assessment process involved the assessment of potential positive and negative direct, indirect and cumulative impacts, in line with international good practice.

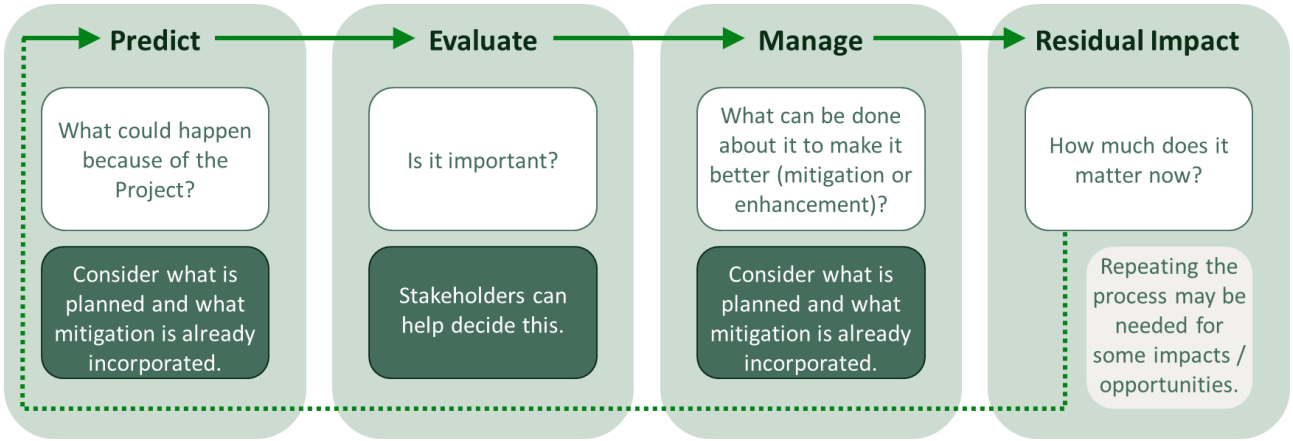


FIGURE 4-2 IMPACT ASSESSMENT PROCESS

The predicted social impacts were assessed to determine their significance, based on the likelihood (defined in **Table 4-1**) of the social impact occurring, and the potential magnitude of the social impact, should it occur. Magnitude is a reflection of the 'size' or degree of change caused by the impact; it is a function of one or more characteristics including the extent, duration, scale and frequency of the impact (refer to **Table 4-2** and **Table 4-3**).

TABLE 4-1 LIKELIHOOD LEVELS

Likelihood Level	Meaning
Low	The event is unlikely but may occur at some time during normal construction and/or operational conditions.
Medium	The event is possible or likely to occur at some time during normal operating construction and/or operational conditions.
High	The event will or is almost certain to occur during normal construction and/or operational conditions.

TABLE 4-2 MAGNITUDE CHARACTERISTICS

Magnitude Level	Extent	Duration	Scale	Frequency
Negligible	Household	Temporary	Minor change	Rare
Small	Local Communities/ Businesses	Short-term	Perceptible change	Occasional
Medium	Regional	Medium-term	Evident change	Often
Large	Queensland	Long-term	Substantial change	Constant

TABLE 4-3 MAGNITUDE LEVELS

Magnitude Level	Meaning
Negligible	The change that occurs remains within the range commonly experienced by receptors.
Small	There is a perceptible difference or change from the baseline conditions. The impact is local (i.e. affects local communities and local businesses), occurs over a short period of time, and/or is rare.
Medium	The difference or change from the baseline conditions is evident. The impact is experienced by the receptors in the Social Study Area over a long period of time.
Large	There is a substantive change from the baseline conditions. The impact is experienced throughout the Social Study Area (or beyond) and is persistent.

The likelihood of an impact occurring along with its magnitude combine to yield a rating of its significance, as described in **Table 4-4**. Where a positive social impact is identified, it is designated as 'positive'.

When assessing the potential social impacts, ERM has employed the precautionary principle. Accordingly, where there is uncertainty in relation to the magnitude or vulnerability criteria, the higher criteria was assigned to ensure sufficient management measures are put in place. As the operations evolve, this uncertainty may change; when this occurs, the impacts should be reviewed and the significance amended accordingly.

TABLE 4-4 IMPACT SIGNIFICANCE MATRIX

		Likelihood		
		Low	**Medium**	**High**
Magnitude	**Negligible**	Negligible	Negligible	Negligible
	Small	Negligible	Minor	Moderate
	Medium	Minor	Moderate	Major
	Large	Moderate	Major	Major
	Positive	Positive		

4.4 TASK #4: MANAGEMENT MEASURES

Once the significance of the potential social impacts has been identified, where avoidance or minimisation is not possible, management strategies are identified. Where an impact is predicted to be positive, measures to enhance positive impacts are identified to ensure the maximum benefit to the community across all impact significance ratings.

The following factors were considered in developing the management measures:

- Ensuring a clear connection between the mitigation measure and the negative social impact being mitigated;
- Whether there is an applicable standard that defines what is acceptable;
- Whether the Project is the sole or primary cause of the negative social impact, and the scale of its relative contribution to the overall or cumulative impact;
- Whether the mitigation measure requires action by another party separate to the proponent;
- Whether the mitigation measure itself is likely to cause secondary social impacts;
- Whether the mitigation measure is reasonable or practicable;
- Whether and in what ways the mitigation measure is acceptable to affected people;
- Whether the mitigation measure will address all reasonably foreseeable scenarios; and
- Whether the mitigation approach is prescribed in a government policy, or if alternative formalised arrangements are required.

Social impact significance, as outlined in **Table 4-4** is used to determine the level of management required with a proportional focus on impacts with a higher impact significance (i.e. moderate and major). The impact assessment and impact significance ratings derived in the assessment are revised after the application of management and mitigation strategies have been applied to provide a residual impact significance rating for each impact.

These management and mitigation strategies are captured in a Preliminary Social Impact Management Plan (SIMP) and arranged according to Project phase (e.g. construction and operation) and into the key matters contemplated by the SIA Guideline: Community and stakeholder engagement; Workforce management; Housing and accommodation; Local business and industry procurement; and Health and community well-being.

The Preliminary SIMP focuses on management and mitigation measures that are effective, adaptive, and actionable, and include consideration of the likelihood of their implementation and sustainability from the community's perspective.

4.5 TASK #5: MONITORING FRAMEWORK

The accuracy of the impact assessment, progress towards implementation of the Preliminary SIMP through the CBA, and the effectiveness of management measures recommended, needs to be verified via ongoing monitoring. Accordingly, a monitoring framework is proposed in the Preliminary SIMP which includes a program for monitoring the predicted social impacts against actual impacts and describes the:

- Activities to be undertaken to monitor the effectiveness of the management measure;
- Indicator(s) that will be used to monitor change; and
- Frequency of monitoring.

The Preliminary SIMP included in **Section 9** of the SIA is to be used to inform the CBA with Council for the purposes of the Project.

5. SCOPING

This section details the Social Study Area for the Project. Establishing a Social Study Area as the first task of the SIA helps ensure that the assessment is appropriately scaled to the nature of the anticipated impacts as well as consistent with respective regulatory requirements.

5.1 APPROACH TO IDENTIFYING THE SOCIAL STUDY AREA

Determining the Social Study Area for the Project involves understanding the nature of the Project, the characteristics of the surrounding communities, and how potential positive and/or negative impacts will be experienced by stakeholders and/or receptors.

In determining the Project's Social Study Area, the following aspects were taken into consideration:

- The Project layout, including the battery modules and ancillary infrastructure such as the internal access tracks, the electrical reticulation, the substation, the laydown areas, the HV switchyard and the operations and maintenance facilities. The current layout for the Project has been informed by existing land use/s, so as to minimise the potential impact.
- The location of Project components within the Project Area relative to surrounding sensitive land uses. This includes consideration of the:
  - Tenure;
  - Proximity to neighbouring dwellings;
  - Nature and character of towns/townships and communities;
  - Environmental values; and
  - Key topographical features.
- Construction, Operation and Decommissioning Phase activities, such as:
  - Land clearing;
  - Maintenance of Project Area access tracks;
  - Workforce requirements, including skills required and associated accommodation arrangements;
  - Goods and services required by the Project; and
  - Haulage and light vehicle routes that will be utilised by the Project.
- The outcomes of relevant technical studies undertaken by the Project, including the:
  - Noise Impact Assessment (Matrix Acoustics, 2025);
  - Hazard Analysis (Arriscar, 2025);
  - Bushfire Mitigation Report (Eldon Bottcher Architect, 2024);
  - Flood Assessment and Stormwater Management Report (WMS, 2025);
  - Traffic Impact Assessment (PTT, 2025); and
  - Ecological Constraints Letter (4 Elements Consulting, 2025).

When considering these aspects, it was determined that the Project's Social Study Area should comprise both a Primary and Secondary Social Study Area. The Primary Social Study Area is to include the locations in which the most substantive social impacts are likely to occur. This includes the Project Area, transport routes where amenity impacts may be experienced, and

the communities of Bororen and Miriam Vale that may provide workers, goods and services, and/or accommodation opportunities for the Project. The Secondary Social Study Area comprises the towns of Agnes Water, Benaraby, Calliope, Boyne Island, Tannum Sands, and Gladstone, which is unlikely to experience substantive negative impact, and may provide workers and/or goods and services for the Project. A description of the Social Study Area is provided in **Section 5.2**.

5.2 DESCRIPTION OF THE SOCIAL STUDY AREA

The Social Study Area for the Project comprises a Primary Social Study Area (refer to **Section 5.2.1**) and a Secondary Social Study Area (refer to **Section 5.2.2**), depicted in **Figure 5-1**.

5.2.1 PRIMARY SOCIAL STUDY AREA

The Project is located approximately 6 km east of the Bororen township, and approximately 47 km south of Gladstone, in Central Queensland. The Project Area is entirely contained within the Gladstone LGA on land that is currently used for grazing.

The Project Area extends across 1,277 ha, with the Development Area comprising a total of 22.8 ha (15 ha for the BESS and 7.8 ha for the substation). There is one Host Landowner within the Project Area. A Powerlink easement (high voltage transmission line) intersects the Project Area as well as the Development Area. Additionally, a 33 kV Ergon Energy power line also traverses the Project Area, which is not contained within an easement.

The area immediately surrounding the Project Area is predominantly rural in character and comprises forested areas (Eurimbula National Park to the east and plantation forest to the west) and grazing land. The nearest non-host dwelling is located approximately 2 km south-west of the Project Area.

While the current strategy for accommodation of the non-local workforce has not been finalised, Red Hill Renewable Energy and AMPYR are considering potential options within the immediate surrounds of the Project Area, being Bororen and Miriam Vale (as well as others located in the Secondary Social Study Area, refer to **Section 5.2.2**). Approximate travel distances and times to/from the Project Area are summarised in **Table 5-1**.

TABLE 5-1 APPROXIMATE TRAVEL DISTANCES AND TIMES

Location	Travel Distance	Travel Time
Bororen	8 km	9 min
Miriam Vale	22 km	19 min

Accordingly, the Primary Social Study Area is depicted in **Figure 5-2**, and can be summarised as comprising the following components:

- The **Project Area and immediate surrounding areas**, inclusive of properties and dwellings located within 2 km. The 2 km extent has been informed by technical studies (refer to **Section 8.1**).
- The **surrounding towns**, which may provide goods and services or host Drive-in Drive-out (DIDO) workers to support the Construction Phase of the Project.

- The **likely transportation and haulage routes**, comprising part of the heavy vehicle route from the Port of Gladstone to the Project Area via the Bruce Highway (State Route A1), and potential light vehicle routes between the Project Area and the Primary Social Study Area (inclusive of Bororen and Miriam Vale) such as Red Hill Road.

5.2.2 SECONDARY SOCIAL STUDY AREA

It is anticipated that goods and services to support the Construction Phase of the Project will be sourced, where possible, from Gladstone. The proposed transport and haulage routes to/from the Project Area will primarily utilise the Bruce Highway, a designated heavy vehicle route.

Gladstone is also identified as a location where workers accommodation may be located, and to a lesser extent Benaraby, Calliope Boyne Island, Tannum Sands, and Agnes Water. As stated in **Section 2.1**, the current strategy for accommodation of the non-local workforce has not been finalised therefore accommodation opportunities within all locations of the Secondary Social Study Area will be considered in this SIA. As indicated in **Section 5.2.1**, the use of workers accommodation in the Primary Social Study Area will be considered in first instance.

The road network (primarily the Bruce Highway) associated with likely Project workforce travel, has also been included as part of the defined Secondary Social Study Area.

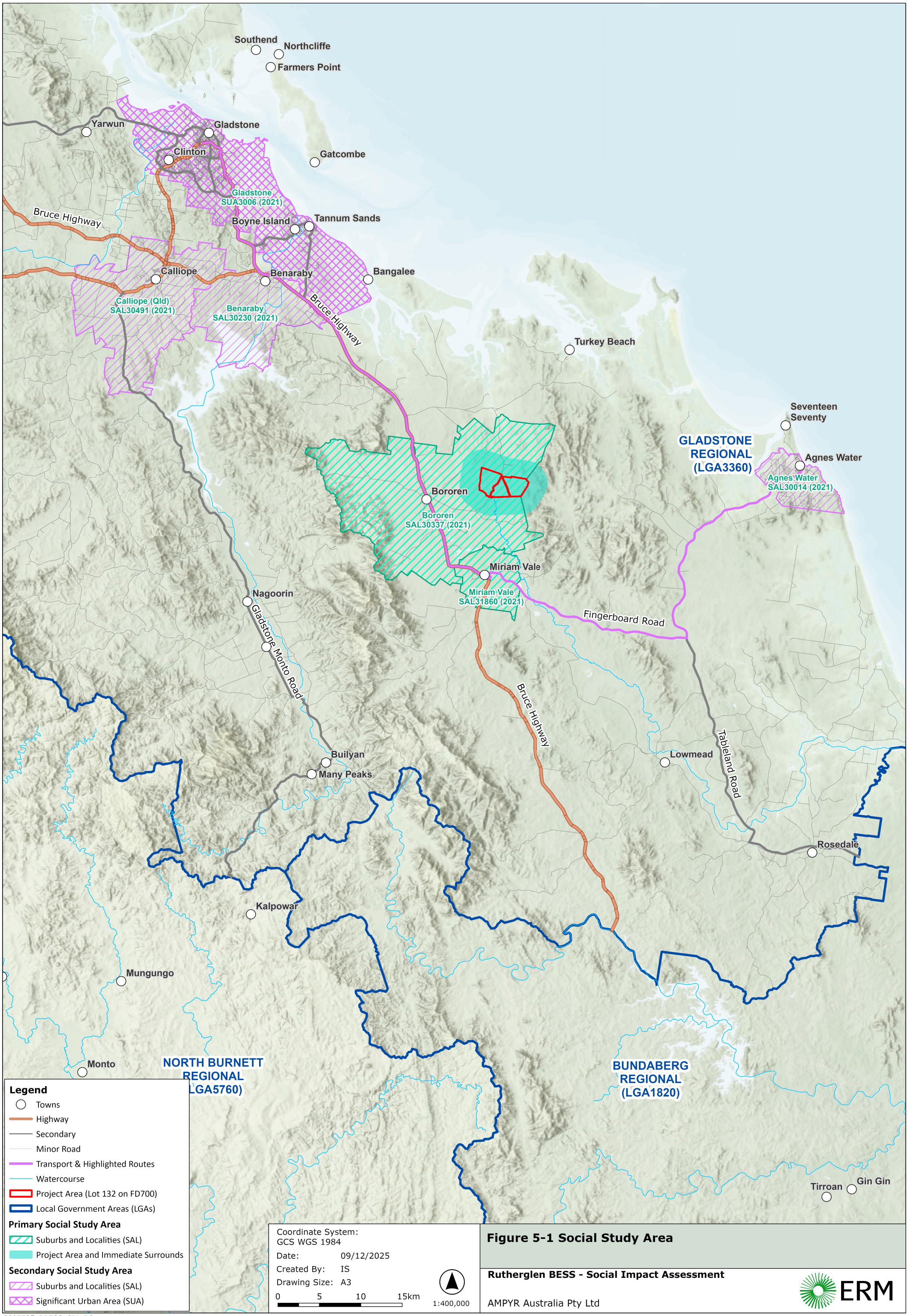


Figure 5-1 Social Study Area

Rutherglen BESS - Social Impact Assessment

AMPYR Australia Pty Ltd

ERM

0807735_BBESS_SIA_R0.aprx

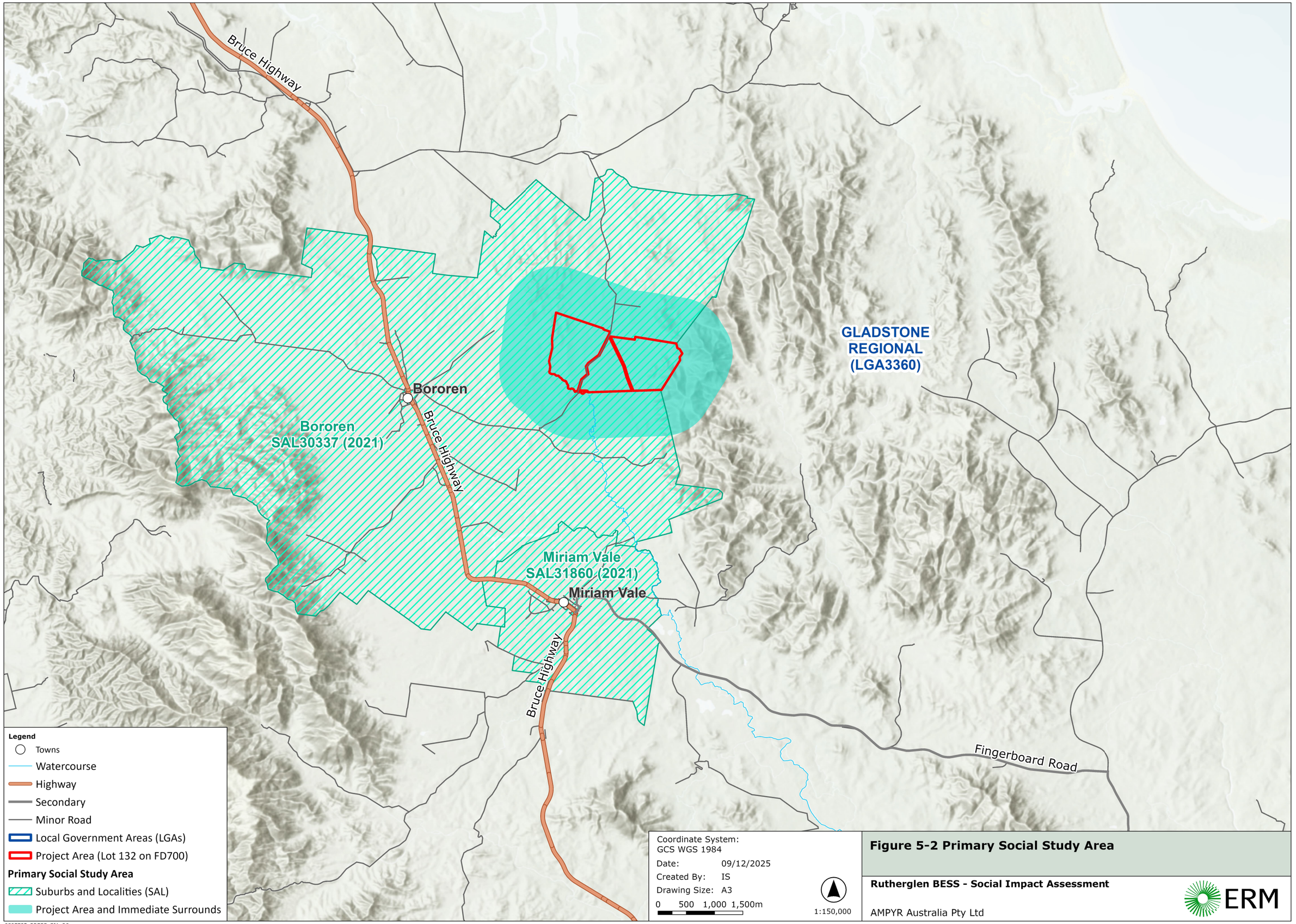


Figure 5-2 Primary Social Study Area

Rutherglen BESS - Social Impact Assessment

AMPYR Australia Pty Ltd

ERM

0807735_BBESS_SIA_R0.aprx

5.3 STAKEHOLDER IDENTIFICATION

Based on the Project's Social Study Area (refer to **Section 5.2**), the key stakeholder groups identified as potentially affected by and/or interested in the Project are outlined in **Table 5-2**. Those stakeholders who are likely to be affected by the Project are identified as receptors. Specific vulnerable groups within these key stakeholder groups have been identified in the social baseline (refer to **Section 6**).

TABLE 5-2 KEY STAKEHOLDERS

Stakeholder Group	Stakeholder	Receptor (Y/N)
Host Landowner	There is one Host Landowner for the Project. The Host Landowner has been engaged and agreed to host infrastructure.	Yes
Immediate Neighbours	Properties or dwellings located up to 2 km from the Project Area.	Yes
Surrounding Community Members	Community members who live within localities surrounding the Project: • Bororen • Miriam Vale • Agnes Water • Benaraby • Calliope • Boyne Island • Tannum Sands • Gladstone	Yes
First Nations / Aboriginal Groups	The First Nations Bailai, Gurang, Gooreng Gooreng and Taribelang Bunda Peoples (FNBGGGTB) are the First Nations Group relevant to the Project. The Port Curtis Coral Coast Trust (PCCC) represents the FNBGGGTB and provides administrative and operational support for the Registered Native Title Prescribed Body Corporate.	Yes
Local Community Groups	Community groups located within the Social Study Area, including but not limited to: • Bororen Pony Club • Queensland Country Women's Association (CWA) Miriam Vale, Bororen & District • Miriam Vale Lions Club • Miriam Vale Rural Science and Landcare Society • Miriam Vale Shire Historical Society • Miriam Vale Men's Shed • Agnes Water Marlins Rugby League Club • Gladstone Conservation Council	Yes
Business and Industry	Local and regional businesses and/or industries located within the Social Study Area, including but not limited to: • Miriam Vale Hotel • Miriam Vale Motel • Bororen Hotel Motel • Bororen Motel • Bororen Caravan Park • Bushchooks Travellers Village • Koorawatha Homestead Motel • Koorawatha Homestead • Gladstone Area Promotion & Development Ltd • Gladstone Chamber of Commerce and Industry	Yes

Stakeholder Group	Stakeholder	Receptor (Y/N)
	• First Nations Chamber of Commerce and Industry • Qld Farmers Federation • Gladstone Industry Leadership Group • Gladstone Engineering Alliance • Connecting Industry (Gladstone) • Roseberry Queensland (Gladstone)	
Infrastructure Owners / Operators	Owners/Operators of surrounding infrastructure: • Gladstone Ports Corporation • Powerlink • Ergon Energy	Yes
Emergency Services	Local branches of emergency services located within the Social Study Area: • Queensland Fire and Emergency Services Central Region • Miriam Vale Police Station • Agnes Water Police Station • Calliope Police Station • Tannum Sands Police Station • Gladstone Police Station • Bororen Rural Fire Brigade • Miriam Vale Fire Station • Agnes Water Fire Station • Benaraby Rural Fire Brigade • Calliope Fire Station • Boyne Island Fire Station • Gladstone Hospital	Yes
Educational Organisations	Educational Organisations, including but not limited to: • Bororen State School • Miriam Vale State School • Agnes Water State School • Tannum Sands State high School • Calliope State School • Calliope State High School • Energy Skills Queensland • Apprentice Training Queensland • Central Qld Innovation Research Precinct • Central Queensland University (CQ University) • Technical and Further Education (TAFE) Gladstone	No
Local Council	Gladstone Regional Council representatives and executives, including but not limited to: • Councillor (Cr) Matt Burnett, Mayor • Cr Natalia Muszkat, Deputy Mayor • Leisa Dowling, Chief Executive Officer • Kristy Marks, Economic Development Manager • Kylie Lee, General Manager Community and Lifestyle • Mark Francis, General Manager Assets and Environment • Carly Quinn, General Manager People and Strategy • Cr Karen Davis, Gladstone Area Promotion and Development Ltd representative • Cr Leanne Patrick • Cr Mellissa Holzheimer • Cr Michelle Wagner • Cr Simon McClintock • Cr Glenn Churchill • Cr Chris Cameron	No

Stakeholder Group	Stakeholder	Receptor (Y/N)
State / Federal Government	Federal/State Departments, including but not limited to: • Department of Climate Change, Energy, the Environment and Water (Cth) • Department of State Development, Infrastructure and Planning • Department of Trade, Employment and Training • Queensland Health • Department of Transport and Main Roads • Department of Environment, Tourism, Science and Innovation Members of Parliament: • Stephen Bennett MP, State Member for Burnett • Glenn Butcher, State Member for Gladstone • Colin Boyce, Federal Member for Flynn	No
Local, State and National Media	Various media entities distributed within the Social Study Area, including but not limited to: • Gladstone Today • CQ Today • CQ News • The Morning Bulletin • Gladstone Observer • 4RO • Hit CQ • Triple M CQ • ABC Capricornia • 4US Community radio • 4CC • Courier Mail • Resource Industry Media • Renew Economy • ABC TV and radio • Commercial TV 7/9/10	No

5.4 VULNERABILITY

Vulnerability refers to an individual or groups capacity to adapt to, or cope with changes in their environment and is influenced by a range of different socio-economic factors. Some individuals or groups may be more vulnerable than others due to certain existing socio-economic characteristics including (but not limited to) age, livelihood, language proficiency and health status. Regional towns throughout Queensland are often prone to social, cultural, environmental and economic changes over time.

On this basis, the following stakeholders have been identified to be potentially vulnerable within the Social Study Area:

- Youth;
- Elderly; and
- First Nations peoples.

Vulnerability is explored further in **Section 6.12** of the Social Baseline.

6. SOCIAL BASELINE

This section provides an overview of the social baseline for the Project's Social Study Area (refer to **Section 5.2**). In line with the SIA Guideline, the social baseline describes the Social Study Area without the Project and aims to present a clear overview of the current conditions, providing a reference point against which the impacts of the Project can be assessed and measured in **Section 8**.

While the social baseline has been principally informed by publicly available information (as described in **Section 4.2**) the outcomes of the community and stakeholder engagement undertaken (refer to **Section 7**) has helped to validate the information contained therein, and inform the development of the following sections of this report.

6.1 ABS DATASETS

While not all data in this SIA has been sourced from the ABS, 2016 and 2021 Census data has been used to provide a basis for key components of the Social Baseline.

The ABS Suburbs and Localities (SAL) data for Bororen, Miriam Vale, Agnes Water, Benaraby, Calliope, has been used, along with the Significant Urban Area (SUA) data for Gladstone. Additionally, LGA level data for the Gladstone LGA and State level data for Queensland are used to provide an understanding of the broader and comparative social context within which the Project is located.

Table 6-1 outlines the ABS datasets used in the Social Baseline.

TABLE 6-1 SUMMARY OF RELEVANT ABS DATASETS

Location	Area (sq kms)	ABS Data Reference
Primary Social Study Area		
Bororen SAL	330.3	SAL30337 (2021)
		SSC30339 (2016)
Miriam Vale SAL	43.6	SAL31860 (2021)
		SSC31876 (2016)
Secondary Social Study Area		
Agnes Water SAL	40.3	SAL30014 (2021)
		SSC30014 (2016)
Benaraby SAL	105.7	SAL30230 (2021)
		SSC30232 (2016)
Calliope SAL	183.4	SAL30491 (2021)
		SSC30494 (2016)
Gladstone SUA (inclusive of Boyne Island and Tannum Sands)	246.1	3006 (2021)
		3005 (2016)

Location	Area (sq kms)	ABS Data Reference
Social Context		
Gladstone LGA	10,484.3	LGA33360 (2021)
		LGA33360 (2016)
Queensland STE	1,730,171.1	3 (2021)
		3 (2016)

6.2 POLICY AND STRATEGIC CONTEXT

This section provides the policy and strategic context relevant to the Project and the Social Study Area to contextualise the Social Baseline.

6.2.1 CENTRAL QUEENSLAND REGIONAL PLAN 2013

The Project is located within the Gladstone LGA, which is subject to the provisions of the Central Queensland Regional Plan 2013 (Regional Plan). The Regional Plan aims to manage change and shape the prospects of the communities in the Central Queensland Region by:

- supporting the long-term viability and growth of the agricultural sector;
- maximising the productive use of key mining resources; and
- providing for liveable communities.

The objectives are supported by two specific regional outcomes and policies that aim to:

1. Protect Priority Agricultural Land Uses while supporting co-existence opportunities for the resources sector; and
2. Provide certainty for the future growth of towns.

In addition to the regional outcomes, the Regional Plan also identifies electricity as a key consideration within the region. The Regional Plan identifies that the priority outcome for electricity infrastructure is for the region to, *"…grow its energy generation capabilities through public and private sector investment."* (DSDIP, 2013, p.22). The Project will help to achieve this priority outcome by enhancing the energy generation output of the region by approximately 400 MW.

6.2.2 GLADSTONE REGIONAL COUNCIL PLANNING SCHEME 2017

The Gladstone Regional Council Planning Scheme 2017 (Planning Scheme) sets out how development can be managed to advance the Planning Act and meet the needs of the local communities within the Gladstone Region. The strategic framework within the Planning Scheme sets the policy direction and forms the basis of ensuring that appropriate development occurs within the Gladstone LGA.

The Planning Scheme notes that the Gladstone region has a diverse and growing economy and sees opportunities to leverage the mining and energy sectors.

The Planning Scheme also identifies urban growth areas being Gladstone, Boyne Island, Tannum Sands, and Calliope. Residential development is to occur where it can be demonstrated that there is both overwhelming community and economic need. Council

anticipates that most residential housing will be in Gladstone's urban area and surrounding communities of Boyne Island, Tannum Sands, and Calliope. Short term accommodation is encouraged to be in the Gladstone central business district and mixed-use centres.

Council prefers large-scale non-resident workforce accommodation to be dedicated workers accommodation facilities that are integrated into the urban fabric of urban areas and is not a camp or compound. Where non-resident workforce accommodation cannot be located as part of an existing town or urban area, it must be self-sufficient in all forms of servicing and infrastructure and not adversely impact on the existing services and infrastructure of the nearest town or urban area.

6.2.3 RENEWABLE ENERGY COMMUNITY BENEFITS SHARING POLICY

Gladstone Regional Council has established the Renewable Energy Community Benefits Sharing Policy (CBS Policy) that sets out the expectations and requirements for negotiating and establishing a CBA. The CBS Policy applies to large-scale renewable energy generation and storage development located within the Gladstone LGA, or within neighbouring LGAs where the development has been determined to have social impact within the Gladstone Region.

As part of the CBS Policy, Council requires developers of large-scale renewable energy generation and storage development to make a monetary contribution into a Council-managed Community Benefit Fund (CBF) in accordance with the minimum thresholds in **Table 6-2**. The CBF will be used for Council identified priorities and informed by a project's SIA. A negotiated portion of the CBF contribution can be directed to support the communities most impacted by the Project. The monetary contribution is subject to annual indexation in accordance with the Consumer Price Index, and an operating contribution of a minimum of 5% in addition to the annual monetary contribution **Table 6-2**.

TABLE 6-2 CBF MONETARY CONTRIBUTION THRESHOLDS

Development Type	Minimum Thresholds
Solar	$850 per megawatt per annum
Wind	$1,050 per megawatt per annum
Standalone BESS	$150 per megawatt hour per annum
Pumped hydro energy storage	$850 per megawatt per annum

Note1: Subject to annual indexation to the Consumer Price Index
Note2: Does not include operating contribution, which is a minimum of 5% of the annual money contribution, per year

Source: Gladstone Regional Council, 2025a

Additionally, the Gladstone Regional Council requires proponents to deliver a Community Benefit Sharing Program, which must:

- Be funded entirely by the proponent, separate to the CBF.
- Align with the CBS Policy objectives and complement Council's CBF priorities.
- Include Council participation in governance to avoid duplication.
- Provide transparent reporting to Council and the community.

It is policy that Council will not enter a CBA unless it is satisfied that the agreement delivers a public benefit. A public benefit is taking to mean the overall social, economic, cultural and environmental benefits of a development, including negotiated community benefits, outweigh the negative impacts experienced by the community over the life of the project. The public benefit criteria are provided in **Table 6-3**.

TABLE 6-3 PUBLIC BENEFIT CRITERIA

Category	Criteria
Social	Adverse social impacts identified in the Social Impact Assessment are addressed or mitigated.
	Community wellbeing is enhanced through improved access to services, safety, cultural recognition, and social cohesion.
	Equity measures ensure benefits reach the most impacted local and neighbouring communities, whilst also benefiting the broader region.
Economic	Tangible economic opportunities are provided through local jobs, training, and supply chain participation.
	Contributions support long-term economic diversification and resilience beyond construction.
	CBF investments are leveraged to maximise additional funding and multiplier effects.
Environmental	Initiatives align with Queensland and Australian Government net zero objectives.
	Contributions support environmental restoration, sustainability, or climate resilience programs.
	Developments demonstrate avoidance of environmental harm beyond statutory conditions.
Governance and Transparency	Allocation decisions are transparent, inclusive and accountable.
	Meaningful community engagement informs priorities.
	Outcomes are monitored and publicly reported.

Source: Gladstone Regional Council, 2025a

6.2.4 ECONOMIC TRANSITION ROADMAP

The Economic Transition Roadmap for the Gladstone LGA was prepared to manage the shift away from fossil fuels and manage impacts associated with new energy industries (Gladstone Regional Council, 2022). In preparing the roadmap, stakeholder aspirations were collated under six themes. The themes, aspirations, and key actions for Council that are relevant to the Project are summarised in **Table 6-4**.

TABLE 6-4 ECONOMIC TRANSITION ROADMAP THEMES AND STAKEHOLDER ASPIRATIONS

Theme	Stakeholder Aspiration	Gladstone Regional Council Actions
Energy Security, Reliability and Affordability	• By 2032, the Gladstone Region will have transitioned its source of energy generation to renewable energy while intensifying its position as an energy superpower	• Building enough renewable energy, firming, storage, transmission and distribution to reliably and affordably meet current and future needs

Theme	Stakeholder Aspiration	Gladstone Regional Council Actions
	• Build out of new energy infrastructure and the supporting industries would leave a positive economic legacy, if managed well • Rapid expansion includes generating ongoing jobs and boosting local procurement opportunities. • Support the then State Government's target of 50% renewable energy generation by 2030 • Expressed strong support for decentralised energy generation through increased household and community ownership of renewable energy generation.	• Constructing and upgrading infrastructure needed to support the renewable energy sector • Reducing the impacts of renewable energy developments on land-use by ensuring that planning and development assessment avoids competing interests and generates stakeholder support by consulting, mitigating and compensating for infrastructure impacts
Diversifying the Regional Economy	• Stakeholders want to see the region continue to be 'a place where things are made and exported to the world' as the economy decarbonises over time • Stakeholders wanted to see greater investment in sectors including construction	• Expanding the local manufacturing base by building on existing infrastructure, skills and inputs and taking advantage of lower energy costs • Building the capacity of local businesses to meet the needs of these new industries (e.g. hydrogen, renewable energy generation) • Developing local infrastructure to meet the needs of emerging industries • Exploring innovation in areas like the circular economy, or in creating an eco-industrial centre, such as the Renewable Energy Industry Precinct concept proposed by Beyond Zero Emissions • Engaging people currently marginalised from the workforce and attracting workers to live in the region long-term
Workforce Development	• The expansion of the renewable energy, hydrogen and manufacturing sectors will ideally result in long-term career opportunities with secure, well-paid positions that offer a range of benefits for existing and future workers • By 2032, the impacts on the local economy have been well managed as the population expands to meet the needs of industry, creating positive outcomes such as improved local services, and increased cultural diversity and equity • People who have been historically marginalised from the workforce have been properly supported to participate in new industries, seeing record numbers of women, First Nations, young people, people living with disabilities and older workers participating in the workforce	• Identify current and future skills shortages and undertake a thorough skills audit • Develop a place-based approach to local workforce training and development, including the development of new structures to support efficient coordination over time (e.g. a Regional Transition Authority). • Develop a strategy and practical support to enable historically marginalised groups to join the local workforce. This includes increasing the number of apprenticeships and traineeships in the region that target women, First Nations people, young people and older workers • Improve services and facilities across the region to attract workers to migrate to the region and

Theme	Stakeholder Aspiration	Gladstone Regional Council Actions
	• A place-based approach to training has created multiple world-class facilities with Gladstone positioned as a "centre of excellence for training"	minimise reliance on Fly-In Fly-Out workers. • Invest heavily education and training support in the region to address skills shortages (including investment in the regional university and developing micro-credentialling), develop local workers, and meet the training needs of small and medium sized enterprises
Capturing Community Benefits	• By 2032, participants expect that economic changes brought about by the energy transition should extend beyond just increasing employment opportunities to also improve the region's liveability. This includes reductions in the cost of living, improvements to health and wellbeing services and access to affordable housing for all • Participants emphasised that the benefits from changes extend to everyone, emphasising that First Nations people, fossil fuel workers and traditionally marginalised communities should share more equitably in the opportunities generated by new energy industries. This includes new employment and procurement opportunities, as well as participating in new models such as community owned energy projects	• Reinvesting economic windfalls (whether through taxation, royalties or community funds) to improve infrastructure such as roads, as well as augment access to essential services in areas such as health, aged care and childcare • Finding ways to develop affordable and accessible housing that can meet the long-term needs of residents • Ensuring social inclusion in employment and procurement opportunities by building the capacity of local enterprises and coordinating regional access to large project contracts • Capturing financial benefits for the region in a strategic, transparent, and equitable way. For example, through social infrastructure planning and industry-based community benefit funds

Source: Gladstone Regional Council, 2022

6.2.5 SOCIAL INFRASTRUCTURE INVESTMENT PRIORITIES

The Social Infrastructure Investment Priorities (Gladstone Regional Council, n.d.a) enables the prioritisation of the Gladstone region's needs and social investment opportunities. The key focus areas and associated priorities are summarised in **Table 6-5**. The identified social infrastructure investment priorities will be used to inform the CBA for the Project (refer to **Section 10**).

TABLE 6-5 SOCIAL INFRASTRUCTURE INVESTMENT PRIORITIES

Key Focus Areas	Priorities	Example Actions
Health and wellbeing	Healthcare accessibility	• Expanding healthcare facilities • Recruiting and retaining additional medical professionals and specialists
	Mental health support	• Establishing counselling services and community support groups • Mental health awareness campaigns • Reduce barriers for people of all ages seeking mental health support

Key Focus Areas	Priorities	Example Actions
	Community recreation facilities	• Developing parks and sports facilities • Recreational programs
	Environmental health measures	• Monitoring air and water quality • Promoting sustainable practices • Addressing potential adverse impacts on health arising from construction and operation
Education, employment and training	Inclusion	• Sustainable education and employment opportunities for First Nations students and workers
	Education and skills development	• Exploring alternative routes of connecting with the future workforce, specifically disengaged or disadvantaged youth
	Technical and vocational education and training programs	• Expanding technical and vocational education and training programs that cater to the specific skills needed in the renewable energy industry
	Higher education partnerships	• Creating research centres focused on renewable energy innovation and offering scholarships or incentives to students pursuing studies in related fields
	Community outreach and education	• Organising workshops, seminars and educational campaigns targeting students and broader community to foster understanding and support for the new industry
	Job placement and transition support services	• Career counselling • Skills assessment • Retraining programs • Assistance with job placement and entrepreneurship opportunities in the emerging renewable energy market
Early childhood	Accessible and quality early childhood education and care	• Develop partnerships between industry stakeholders, not-for-profit organisations and childcare providers to enhance affordability and availability of early childhood education and care services
	Healthcare services and family support programs	• Collaborative effort with local healthcare providers and community organisations to ensure comprehensive support for families with young children
	Early intervention and support services	• Providing access to speech therapy, occupational therapy and other specialised services • Collaboration between early childhood educators, healthcare professionals and social service providers to create a coordinated system of support
Safety and security	Community safety programs	• Safety education campaigns to mitigate antisocial behaviours that may come with an influx of transient workforce engaging in the general community
	Community resilience planning	• Developing community resilience plans that address potential risks and vulnerabilities associated with the transition process

Key Focus Areas	Priorities	Example Actions
Ageing in place	Community centres and senior facilities	• Establishing community centres and senior facilities that offer a range of services and activities tailored to seniors' needs
	Affordable housing and home modification programs	• Ensuring suitable supply of appropriate and affordable housing options • Implementing home modification programs
	Transportation services and mobility support	• Improving public transport accessibility • Implementing senior-friendly transportation (e.g. shuttle services, door to door transport, etc.) • Promoting alternative transportation modes (e.g. cycling and walking)
Housing	Affordable housing development	• Developing new housing units • Refurbishing existing housing units • Ensure affordable social-housing options are available to accommodate the growing population, diverse workforce and residents of lower socioeconomic status
	Environmental sustainability initiatives	• Implementing green building practices • Promoting energy-efficient housing designs • Incorporating renewable energy technologies (e.g. solar panels, energy-efficient appliances, etc.)
Community facilities and services	Education and training centres	• Investing in education and training facilities tailored to renewable energy technologies (e.g. vocational training centres, technical schools, partnerships with universities, etc.)
	Community health and wellbeing services	• Establish or enhance healthcare facilities, mental health services and recreational spaces
	Infrastructure for sustainable living	• Development of cycling and walking paths • Development of public transportation systems • Development of eco-friendly housing options • Investing in renewable energy infrastructure
	Community infrastructure for recreation and social interaction	• Develop accessible community infrastructure (e.g. parks, playgrounds, recreational facilities) • Explore partnerships with local businesses and industry stakeholders to invest in community infrastructure
	Community facilities and services	• Building or expanding schools, healthcare centres, youth centres, recreational facilities and transport infrastructure
Enabling infrastructure	Gladstone heavy vehicle and oversize overmass transport corridor	• Road infrastructure and asset integrity
	Public transport expansion	• Investing in the expansion of public transport services • Engagement with the Department of Transport and Main Roads to increase the frequency of bus services, establishing new routes and integrating alternative transport modes (e.g. cycling and walking paths)

Key Focus Areas	Priorities	Example Actions
	Investment in alternative transportation	• Installing electric vehicle charging stations • Incentivising the purchase of electric vehicles through subsidies or tax incentives • Promoting the development of hydrogen refuelling infrastructure

Source: Gladstone Regional Council, n.d.a

6.2.6 QUEENSLAND'S 2035 CLEAN ECONOMY PATHWAY

On 26 April 2024, the Queensland Government assented the *Clean Economy Jobs Act 2024* and the *Energy (Renewable Transformation and Jobs) Act 2024*. These Acts work in tandem to legislate Queensland's key emissions reduction and generation targets, respectively.

The *Clean Economy Jobs Act 2024* aims to drive clean economy investment and jobs with a new emissions reduction target of 30% below 2005 levels by 2030, 75% below 2005 levels by 2035, and Net Zero emissions by 2050. The *Energy (Renewable Transformation and Jobs) Act 2024* supports the transition to renewable energy by establishing Renewable Energy Zones, upgrading transmission infrastructure, protecting workers and communities affected by the shift away from the fossil fuel industry, and establishing renewable energy generation targets – 50% by 2030, 70% by 2032, and 80% by 2035.

While these Acts were Bills set before the State Parliament, in February 2024, the Queensland Government published 'Queensland's 2035 Clean Economy Pathway: 75% by 2025' which sought to contextualise the emissions reduction and generation targets, and link these to job creation within the State economy.

On 16 October 2025, the Queensland Government introduced the Energy Roadmap Amendment Bill 2025. The intent of the Bill is to amend Queensland's energy legislation to reflect a change in policy direction under the Crisafulli Government. Upon passage of the Bill (expected in December 2025), the renewable energy targets established under the aforementioned Acts will be repealed.

Regardless, the Project will contribute to the previously defined emissions reduction and generation targets outlined in both Acts through increasing the supply and production of renewable energy within Queensland by providing up to 400 MW / 1,600 MWh of storage capacity and creating up to 150 FTE jobs during the Construction Phase and up to 10 FTE jobs during the Operation Phase. The development of greater renewable energy capacity will also assist non-renewable sectors in their transition into a renewable economy, through Power Purchase Agreements or verified carbon offsetting of greenhouse gas emissions.

6.2.7 QUEENSLAND ENERGY ROADMAP

On 10 October 2025, the Queensland Government released the Queensland Energy Roadmap 2025 (Energy Roadmap) to provide a strategic framework for delivering affordable, reliable and sustainable energy across Queensland. It reinforces the Queensland Government's commitment to expanding renewable energy assets, with key initiatives including the establishment of Regional Energy Hubs to replace the previously identified Renewable Energy Zones, and the introduction of a new Code of Conduct. A core component of the Energy

Roadmap focuses on private sector investment into new energy generation, including renewables developments.

Regional Energy Hubs will facilitate cost-efficient, shared transmission connections for new energy generation projects. Additionally, the Eastern Link of CopperString will be delivered with major construction commencing in 2028. Meanwhile, the Code of Conduct will help streamline approvals processes by outlining best industry practice and set expectations for renewables developments.

Although renewable energy targets are no longer an inclusion in the Queensland Government's energy planning, there is recognition that up to 6.8 GW of new wind and large-scale solar capacity will be required by 2030, with the potential capacity of wind energy up to around 7.8 GW by 2035. Batteries will continue to play an important part in energy transition within the Queensland as they will store cheap daytime solar and release it in the evening. This reduces price spikes and stabilises the grid.

6.3 LAND USE CONTEXT

Land use and character provide essential context for understanding how communities interact with their environment and how proposed developments may influence local identity, amenity, and land-based livelihoods.

The Gladstone LGA spans approximately 10,484.3 km², encompassing a mix of coastal, riverine, and rural landscapes. The City of Gladstone is the principal urban centre, located on the Curtis Coast adjacent to the Port of Gladstone, one of Australia's largest multi-commodity ports. The region is a major industrial hub, hosting LNG processing facilities, alumina refineries, and power generation infrastructure, alongside rural land uses such as beef cattle grazing, horticulture, and forestry (Gladstone Regional Council, 2025d).

The Project Area is 1,277 ha in size and comprises a single freehold land parcel, with the topography of the Project Area reflects a gently undulating flat landscape that rises to low hills ranging between 50 m and 120 m Australian Height Datum. The site features a generally undulating topography, with the Westwood Range forming its eastern boundary and smaller hills along the western edge. Vegetation is concentrated within these ranges, while the central section consists of scattered vegetation interspersed with large clearings. Killarney Creek defines the south-western boundary, complemented by smaller streams and drainage features throughout (Gilvear Planning, 2025).

Red Hill Road and an unformed, unnamed road divide the site into three sections, with primary access via Red Hill Road in the southern portion and informal entry points elsewhere. A homestead with outbuildings and several dams occupies the south-western area (Gilvear Planning, 2025).

Much of the land within the Project Area has been cleared for pastoral use, primarily cattle grazing, consistent with surrounding properties. Due to its rural setting, the Project Area lacks reticulated water and sewer infrastructure, though electricity and telecommunications are available (Gilvear Planning, 2025).

6.4 DEMOGRAPHIC PROFILE

Table 6-6 draws on the ABS datasets listed in **Table 6-1** to provide a current demographic overview of the Social Study Area.

Analysis of the data presented in **Table 6-6** identifies:

- Between 2016 and 2021, the two SALs comprising the Primary Social Study Area saw contrasting population trends, with the population of the Bororen SAL remaining relatively stable with a slight increase of 0.3%, while the population Miriam Vale SAL experienced a decline of 3.7%.
- Within the Secondary Social Study Area, the Agnes Water SAL recorded the highest population growth, increasing by 23.5%, with the population of the Calliope SAL grew by 3.2%, and Gladstone SUA by 3.0%. In contrast, the population of the Benaraby SAL declined by 4.3%. At a broader level, the Gladstone LGA population increased by 3.0%, and the Queensland STE population increased by 9.6%.
- Median age increased across most locations within the Social Study Area, indicating an ageing population. The Bororen SAL increased from 46 to 51 years, the Miriam Vale SAL from 48 to 52 years, the Agnes Water SAL from 49 to 52 years, and the Gladstone SUA from 34 to 36 years. In contrast, the Benaraby SAL decreased from 43 to 41 years, and the Calliope SAL remained stable at 32 years. At the regional level, the median age of the Gladstone LGA increased from 35 to 38 years, and the Queensland STE from 37 to 39 years.
- Population sex distribution in 2021 shows a slight skew toward males within the Social Study Area. The proportion of males is highest in Agnes Water and Benaraby, at 52.1% and 52.3%, respectively. This skew towards males is also evident across the wider Gladstone LGA, but differs from the Queensland STE, which shows a slight skew toward females.
- Representation of Aboriginal and/or Torres Strait Islander people increased across all areas in the Social Study Area. The largest increase was in the Calliope SAL and the Gladstone SUA, where the population increased by 2.2% and 2.4% respectively. The Benaraby and the Miriam Vale SALs also saw notable increases, while the Agnes Water and Bororen SALs experienced smaller but steady increases. At a broader level, this was reflective of trends in the Gladstone LGA which experienced an increase of 2.1%. Queensland also saw an increase of 0.6%. While this is a smaller percentage rise, it's significant given the size of the State's overall First Nations population. Additional statistics relevant to the Aboriginal and/or Torres Strait Islander population are provided in **Section 6.12.3**.
- The percentage of the population aged over 65 years has increased across the Social Study Area, contributing to the increase in the median age. The largest increases were experienced in the Agnes Water SAL (increased by 5.8%), the Bororen SAL (increased by 4.2%), the Benaraby SAL (increased by 4.0%), and the Miriam Vale SAL (increased by 3.0%).
- The population aged under 14 years also experienced decline in most locations of the Social Study Area, with the Agnes Water and Miriam Vale SALs saw the largest decreases (3.0% and 2.4%, respectively). In contrast, the Benaraby and Calliope SALs saw increases of 0.8% and 2.3% respectively. At the broader context level, Gladstone LGA decreased by 1.2%, while Queensland declined by 0.7%.

- Households where a non-English language is used increased in most locations within the Social Study Area between 2016 and 2021. The Bororen SAL increased by 1.9%, the Agnes Water SAL by 0.7%, the Calliope SAL by 1.2%, and the Benaraby SAL by 0.2%. The Miriam Vale SAL was the only SAL to see a decline, with the percentage of households declining by 1.1%, however the Gladstone SUA also decreased by 0.3%. At a broader level, the Gladstone LGA remained stable, and the Queensland STE increased by 2.1%.

TABLE 6-6 KEY DEMOGRAPHIC INDICATORS

ABS Statistical Area	Census Year	Population	Population Change (%)	Median Age	Population Sex		Aboriginal and/or Torres Strait Islander Pop. (%)	Pop. Over 65 Years of Age (%)	Pop. Under 14 Years of Age (%)	Households where a non-English language is used (%)
					Male (%)	Female (%)				
Primary Social Study Area										
Bororen SAL	2021	399	↑ 0.3	51	50.1	49.9	2.8	20.9	18.9	5.7
	2016	398		46	50.6	49.4	2.7	16.7	19.4	3.8
Miriam Vale SAL	2021	493	↓ -3.7	52	50.1	49.9	4.3	26.0	14.3	1.5
	2016	512		48	51.2	48.8	2.9	22.0	17.2	2.6
Secondary Social Study Area										
Agnes Water SAL	2021	2,729	↑ 23.5	49	52.1	47.9	3.3	20.9	15.7	5.7
	2016	2,210		45	52.2	47.8	3.0	15.1	18.7	5.0
Benaraby SAL	2021	1,166	↓ -4.3	41	52.3	47.7	4.6	13.3	21.9	4.6
	2016	1,219		39	54.0	46.0	2.6	9.9	24.9	4.4
Calliope SAL	2021	5,263	↑ 3.2	32	50.3	49.7	6.8	10.7	28.7	4.7
	2016	5,101		31	49.7	50.3	4.6	7.9	26.4	3.5
Gladstone SUA	2021	45,185	↑ 3.0	36	50.1	49.9	6.7	12.5	21.9	8.8
	2016	43,871		34	50.7	49.3	4.3	9.2	23	9.1

ABS Statistical Area	Census Year	Population	Population Change (%)	Median Age	Population Sex		Aboriginal and/or Torres Strait Islander Pop. (%)	Pop. Over 65 Years of Age (%)	Pop. Under 14 Years of Age (%)	Households where a non-English language is used (%)
					Male (%)	Female (%)				
Social Context										
Gladstone LGA	2021	63,515	↑ 3.0	38	50.7	49.3	6.2	13.9	21.5	7.5
	2016	61,640		35	51.3	48.7	4.1	10.3	22.7	7.5
Queensland STE	2021	5,156,138	↑ 9.6	38	49.3	50.7	4.6	17	18.7	15.6
	2016	4,703,193		37	49.4	50.6	4.0	17.2	19.4	13.5

Note1. Further information relating to youth and the elderly, linguistical diversity, and First Nations is provided in **Section 6.12**.

Source: Australian Bureau of Statistics [ABS], n.d.

Population projections relevant to the Gladstone LGA were investigated to understand how the population is expected to change over the coming years. Populations typically increase and decrease based on a range of factors, including employment opportunities, income, housing availability, and accessibility to services.

The ABS (2024) estimates that the resident population of the LGA was 68,065 persons in 2024. Between 2021 and 2046, the medium projection scenario for the Gladstone LGA indicates a reasonable extent of population growth. The population is expected to increase by 8.6% from 2026 to 2036, followed by a 7.2% rise between 2036 and 2046. These projections suggest an upward trend, with the largest growth anticipated between 2026 and 2036. This pattern may reflect anticipated regional development, and migration trends that support population growth over time.

Table 6-7 denotes the population projections of the Gladstone LGA in 2026, 2036, and 2046, based on three potential scenarios.

TABLE 6-7 GLADSTONE LGA POPULATION PROJECTIONS

Projection Scenario	2026	2036	2046	Change 2026-2036	Change 2036-2046
Low	67,063	71,226	74,122	↑ 4,163	↑ 2,896
Medium	67,236	73,021	78,285	↑ 5,785	↑ 5,264
High	67,386	74,758	82,459	↑ 7,372	↑ 7,701

Source: Queensland Government Statistician's Office, 2023.

6.5 ECONOMIC PROFILE

The key economic indicators as within the Social Study Area are outlined within the economic profile. These include data relevant to the labour force (refer to **Section 6.5.1**), education (refer to **Section 6.5.2**), income (refer to **Section 6.5.3**), and local business characteristics (refer to **Section 6.5.4**).

6.5.1 LABOUR FORCE

In 2021, the total labour force within the Social Study Area was approximately 27,229 workers, an increase of 578 workers from 2016.

Table 6-8 provides an overview of the employment status of residents within the Social Study Area, which identified that between 2016 and 2021, the total labour force remained relatively stable, with moderate growth in the Secondary Social Study Area and Gladstone LGA, while the Primary Social Study Area recorded slight declines.

Unemployment generally improved across the region, reflecting Queensland trends, although some localities continued to experience higher unemployment rates. For example, the Miriam Vale SAL reduced its unemployment rate from 13.7% in 2016 to 7.8% in 2021, while the Agnes Water SAL also improved from 10.9% to 7.7%. The Benaraby SAL recorded the largest improvement, falling from 10.3% to 2.8%. In contrast, the Gladstone SUA (7.6%), the Calliope SAL (6.8%), the Miriam Vale SAL (7.8%), the Agnes Water SAL (7.7%), and the Gladstone LGA (7.4%) all remained above the Queensland average of 5.4% in 2021. Despite this however, the Gladstone LGA showed a notable improvement, with the percentage of unemployed persons decreasing from 11.1% in 2016 to 7.4%, which is consistent with the overall downward trend in unemployment across Queensland.

TABLE 6-8 LABOUR FORCE STATUS

ABS Statistical Area	Census Year	In the Labour Force (#)	Unemployed (#)	Unemployed (%)
Primary Social Study Area				
Bororen SAL	2021	193	0	0
	2016	195	12	6.1
Miriam Vale SAL	2021	217	17	7.8
	2016	232	32	13.7
Secondary Social Study Area				
Agnes Water SAL	2021	1,086	88	7.7
	2016	945	103	10.9
Benaraby SAL	2021	617	26	2.8
	2016	612	63	10.3
Calliope SAL	2021	2,444	165	6.8
	2016	2,386	234	9.8
Gladstone SUA	2021	22,672	1,722	7.6
	2016	22,281	2,544	11.4
Social Context				
Gladstone LGA	2021	30,840	2,274	7.4
	2016	30,451	3,368	11.1
Queensland STE	2021	2,582,802	138,714	5.4
	2016	2,312,118	175,665	7.6

Source: ABS, n.d.

Table 6-9 characterises the economic profile of the Social Study Area through the key occupations of employment. The three top occupations that represent the Social Study Area and are likely to have transferable skills to work on the Project are Technicians and Trades, Machinery Operators and Drivers, and Labourers.

As identified in **Table 6-9**, in 2021 the Gladstone LGA had an approximate workforce of 30,840 workers. Of these workers, 12,876 had relevant occupations and skill sets to the Project. This translates to 41.8% of the labour force with relevant occupations, comprising Technicians and Trades (5,876 workers), Machinery Operators and Drivers (3,472 workers), and Labourers (3,528 workers).

These occupations represent a large proportion of the labour force and indicate strong alignment with the Project's requirements for skilled and semi-skilled roles. Between 2016 and 2021, Technicians and Trades Workers generally increased in parts of the Social Study Area and across the Queensland STE, while some localities experienced declines. Machinery Operators and Drivers followed a similar trend, with growth in a few areas and statewide, but reductions in several smaller communities. Labourers saw overall growth at the LGA and state level, alongside decreases in certain localities.

TABLE 6-9 RELEVANT OCCUPATIONS

ABS Statistical Area	Census Year	Technicians and Trades Workers (#)	Machinery Operators and Drivers (#)	Labourers (#)
Primary Social Study Area				
Bororen SAL	2021	37	17	43
	2016	33	31	40
Miriam Vale SAL	2021	26	31	27
	2016	37	31	35
Secondary Social Study Area				
Agnes Water SAL	2021	201	68	136
	2016	156	68	133
Benaraby SAL	2021	159	70	58
	2016	120	74	66
Calliope SAL	2021	526	359	287
	2016	515	333	292
Gladstone SUA	2021	4,265	2,445	2,528
	2016	4,257	2,354	2,396
Social Context				
Gladstone LGA	2021	5,876	3,472	3,528
	2016	5,789	3,366	3,498
Queensland STE	2021	333,915	166,739	246,394
	2016	305,441	147,636	225,268

Source: ABS, n.d.

Table 6-10 provides a categorisation of the top five industries of employment within the Social Study Area, which comprises:

1. Manufacturing;
2. Construction;
3. Health Care and Social Assistance;
4. Transport, Postal and Warehouse; and
5. Retail Trade.

Based on the data provided in **Table 6-10**, it was identified that between 2016 and 2021, employment in Manufacturing declined in most parts of the Social Study Area, including the Bororen and Miriam Vale SALs, as well as several localities in the Secondary Social Study Area. However, there were increases in the Agnes Water and Benaraby SALs, and strong growth was recorded at both the LGA and State levels.

Construction followed a similar pattern, with growth concentrated in the Agnes Water, Benaraby, and Calliope SALs, and the Gladstone LGA, while declines were evident in the Bororen and Miriam Vale SALs. Health Care and Social Assistance increased across most locations and at the LGA level, with only a minor decline in the Miriam Vale SAL. Transport, Postal and Warehousing employment increased in the Miriam Vale and Benaraby SALs, and in the Queensland STE, though decreases were recorded in the Bororen, Agnes Water, and Calliope SALs, and a slight decline occurred at the LGA level. Retail Trade also expanded in parts of the Social Study Area, particularly the Miriam Vale, Agnes Water, and Benaraby SALs, and across the Queensland STE overall, while the Bororen SAL and the Gladstone LGA experienced a minor decline.

TABLE 6-10 RELEVANT INDUSTRIES

ABS Statistical Area	Census Year	Manufacturing (#)	Construction (#)	Health Care and Social Assistance (#)	Transport, Postal and Warehouse (#)	Retail Trade (#)
Primary Social Study Area						
Bororen SAL	2021	13	19	9	9	18
	2016	21	28	3	14	17
Miriam Vale SAL	2021	17	17	16	22	36
	2016	25	13	17	16	28
Secondary Social Study Area						
Agnes Water SAL	2021	40	131	67	34	88
	2016	29	126	49	39	84
Benaraby SAL	2021	116	88	59	32	38
	2016	85	74	44	37	55
Calliope SAL	2021	293	277	207	202	210
	2016	293	252	156	206	211
Gladstone SUA	2021	3,072	2,162	2,233	1,675	1,979
	2016	2,866	2,108	1,635	1,647	1,986
Social Context						
Gladstone LGA	2021	3,933	2,720	2,632	2,194	2,535
	2016	3,724	2,666	2,046	2,239	2,588
Queensland STE	2021	139,736	221,409	374,629	114,978	225,421
	2016	128,666	189,766	277,396	107,676	211,506

Source: ABS, n.d.

6.5.2 EDUCATION

Table 6-11 provides an overview of the education indicators for the Social Study Area, with the following identified:

- Educational outcomes in the Bororen and Miriam Vale SALs show contrasting trends. Between 2016 and 2021, the Bororen SAL experienced a small decline in Year 12 completion but slight increases in vocational training and university qualifications. The Miriam Vale SAL on the other hand, saw an improvement in Year 12 completions, but vocational training and university qualifications declined. In 2021, 11.5% of Bororen SAL residents and 15.4% of Miriam Vale SAL residents had completed Year 12, while university qualifications were held by 12.7% and 9.3% respectively. Vocational training was higher in both areas (25.1% in the Bororen SAL and 22.0% in the Miriam Vale SAL), suggesting a strong trade skills base compared to the wider region.
- Across the Secondary Social Study Area in 2021, vocational training is prevalent, particularly in the Calliope SAL and the Gladstone SUA at 36.1% and 33.5%, respectively. Year 12 completion varies, with the Benaraby SAL being the highest at 15.0%, and the Agnes Water SAL the lowest at 10.7%, however both are below the Queensland STE average of 15.5%.
- Except for the Agnes Water SAL (22%), levels of University qualifications in other parts of the Social Study Area remain below the Queensland STE average of 21.9%, with the Calliope SAL having the lowest tertiary attainment at 8.2%.
- Between 2016 and 2021, vocational attainment increased across most areas, with the largest rise in the Calliope SAL and the Gladstone SUA (both at 2.4%). University attainment also increased, mostly in the Agnes Water and Benaraby SALs, while Year 12 completion increased in the Miriam Vale, Benaraby, and Calliope SALs.
- Based on the above, the Social Study Area reflects a skills profile focused on trade and vocational qualifications, with comparatively lower Year 12 and university level attainment.

TABLE 6-11 KEY EDUCATION INDICATORS

ABS Statistical Area	Census Year	Educational Attainment Year 12 or Equiv. (%)	Educational Attainment, Vocational Training (%)	Educational Attainment, University (%)
Primary Social Study Area				
Bororen SAL	2021	11.5	25.1	12.7
	2016	12.6	24.5	11.4
Miriam Vale SAL	2021	15.4	22.0	9.3
	2016	12.4	23.7	11.7
Secondary Social Study Area				
Agnes Water SAL	2021	10.7	24.8	22.0
	2016	10.7	25.2	18.0
Benaraby SAL	2021	15.0	31.8	17.0
	2016	12.3	29.4	14.9
Calliope SAL	2021	15	36.1	8.2
	2016	13.9	33.7	7.5
Gladstone SUA	2021	14.4	33.5	13.2

ABS Statistical Area	Census Year	Educational Attainment Year 12 or Equiv. (%)	Educational Attainment, Vocational Training (%)	Educational Attainment, University (%)
	2016	15.4	32.1	12.6
Social Context				
Gladstone LGA	2021	13.8	33.5	12
	2016	14.5	32	11.2
Queensland STE	2021	15.5	28.4	21.9
	2016	16.5	27	18.3

Source: ABS, n.d.

6.5.3 INCOME

Table 6-12 provides an overview of the key income indicators within the Social Study Area. Based on the data presented, the following was identified as relevant to characterising the Social Study Area:

- Across all locations of the Social Study Area, weekly personal income increased between 2016 and 2021. In the Primary Social Study Area, weekly personal income in the Bororen SAL increased by $28 (from $514 to $542), while the Miriam Vale SAL saw an increase of $76 (from $502 to $578). In the Secondary Social Study Area, the Benaraby SAL recorded the highest rise of $143 (from $732 to $875), followed by the Agnes Water SAL with an increase of $86 (from $493 to $579). The Queensland STE experienced the strongest growth overall, increasing by $127 (from $660 to $787). This indicates that while incomes in the Social Study Area improved, growth was generally less pronounced than at the State level, which is typical of rural regions.
- Weekly household income also rose across the Social Study Area, with the Bororen SAL recording the largest increase in the Primary Social Study Area, rising by $213 (from $1,148 to $1,361), while the Miriam Vale SAL grew by $75 (from $1,039 to $1,114). In the Secondary Social Study Area, the Benaraby SAL experienced a significant increase of $352 (from $2,083 to $2,435), and the Agnes Water SAL rose by $132 (from $980 to $1,112). The Calliope SAL saw a smaller increase of $81 (from $1,803 to $1,884), while the Gladstone SUA remained almost unchanged, increasing by $1 (from $1,690 to $1,691). The Queensland STE once again recorded the highest income, with household income in 2021 at $1,675, representing an increase of $273, and again reflecting stronger State-level growth comparative to the Social Study Area.
- The strongest percentage increase of median weekly household income within the Social Study Area occurred in the Bororen SAL (18.6%), followed by the Benaraby SAL (16.9%) and the Agnes Water SAL (13.5%). The Miriam Vale SAL recorded a smaller increase of 7.2%, while the Calliope SAL and the Gladstone SUA saw limited growth at 4.5% and 0.1%, respectively.
- Despite overall income growth, some locations within the Social Study Area have relatively high proportions of households who have less than $650 total household weekly income. In 2021, the Miriam Vale SAL had the highest proportion of households earning less than

$650 per week (26.8%), followed by the Agnes Water SAL (26.4%) and the Bororen SAL (22.0%). The Benaraby SAL had the lowest proportion of its population that have household weekly incomes of less $650 per week (11.1%). At the regional level, the Gladstone LGA recorded 18.8%, while the Queensland STE was lower at 16.4%, indicating an income disparity between rural areas and the overall Queensland STE average.

An updated region summary for the Gladstone LGA estimated that in 2022, the median total annual income (excl. Government pensions and allowances) was $59,093, which represents a 3.9% increase from 2021 (ABS, 2024).

TABLE 6-12 INCOME INDICATORS

ABS Statistical Area	Census Year	Median Weekly Total Personal Income ($)	Median Weekly Household Income ($)	Change in Median Weekly Household Income 2016-2021 (%)	Less than $650 Total Household Weekly Income (%)
Primary Social Study Area					
Bororen SAL	2021	542	1,361	↑ 18.6	22.0
	2016	514	1,148		19.2
Miriam Vale SAL	2021	578	1,114	↑ 7.2	26.8
	2016	502	1,039		30.2
Secondary Social Study Area					
Agnes Water SAL	2021	579	1,112	↑ 13.5	26.4
	2016	493	980		27.9
Benaraby SAL	2021	875	2,435	↑ 16.9	11.1
	2016	732	2,083		14.3
Calliope SAL	2021	800	1,884	↑ 4.5	15.7
	2016	736	1,803		14.4
Gladstone SUA	2021	794	1,691	↑ 0.1	17.9
	2016	722	1,690		18.7
Social Context					
Gladstone LGA	2021	758	1,639	↑ 3.3	18.8
	2016	678	1,586		19.8
Queensland STE	2021	787	1,675	↑ 19.5	16.4
	2016	660	1,402		19.5

Source: ABS, n.d.

6.5.4 LOCAL BUSINESS CHARACTERISTICS

Data relating to the 'Counts of Australian Businesses' was used to provide insight in the characteristics of local businesses within the Social Study Area for the period between June 2020 and June 2024. While this data is not available at an SAL level, it is available for the Gladstone LGA and is presented in **Table 6-13**.

Table 6-13 identifies the following business characteristics:

- The Gladstone LGA hosts a total of 4,132 businesses, the majority of which employ more than 19 employees.
- The top industry is Construction, employing a total of 728 workers, with Agriculture, Forestry and Fishing a close second, employing 623 workers.

Counts are heavily influenced by entry and exits within Australia's small business sector, and the scope of business counts is limited to businesses actively remitting in a Goods and Services Tax role only.

TABLE 6-13 LOCAL BUSINESSES IN THE GLADSTONE LGA

Industry		Business Type		
		Total	Non-Employing[1]	Small Business[2]
Industry #1	Construction	728	402	310
Industry #2	Agriculture, Forestry and Fishing	623	536	85
Industry #3	Rental, Hiring and Real Estate Services	433	343	82
Total businesses in the Gladstone LGA				**4,132**

Note1 Non-employing businesses are sole traders/partnerships
Note2 Businesses that have fewer than 20 employees

Source: ABS, 2024

6.6 COMMUNITY CHARACTERISTICS

This section provides a profile of the communities within the Social Study Area. The analysis draws on current data and local knowledge from desktop research and stakeholder engagement to identify community strengths, vulnerabilities, and diversity.

6.6.1 COMMUNITY HISTORY

A snapshot of each community's history is provided in the following sections.

Bororen

Bororen emerged as a rural township in the late 19th century, following European settlement in the 1880s. The construction of the North Coast Railway in 1897 was pivotal, transforming Bororen into a station town (Gladstone Regional Council, n.d.b). This development spurred closer settlement, with dairy farming becoming the dominant industry and sawmilling also played an important role (Gladstone Regional Council, n.d.b).

Miriam Vale

Miriam Vale's origins trace back to large pastoral runs established in the 1850s, notably Miriam Vale Station (Gladstone Regional Council, n.d.c). The extension of the North Coast Railway in 1897 marked a turning point, encouraging closer settlement and the growth of industries such as timber, tobacco, dairy, and sugar cane (Gladstone Regional Council, n.d.c).

Agnes Water

Agnes Water is a coastal town known as Queensland's northernmost surf beach (State Library of Queensland, 2012). Its name is believed to honour the schooner, Agnes, that was lost at sea in 1873 (State Library of Queensland, 2012). Early European activity focused on grazing and sawmilling (State Library of Queensland, 2012). Residential growth began in the 1930s, and the 1970s, Agnes Water evolved into a tourism destination, supported by national parks and cultural festivals, while retaining its natural beauty (State Library of Queensland, 2012).

Benaraby

The Benaraby township, formerly known as Annandale, developed following the opening of the Boyne River school in 1886 (Queensland Places, 2018a). Today, Benaraby is known as a gateway to Lake Awoonga and the Boyne River, popular for fishing and is home to the community-led Central Queensland Motor Sports Precinct (Gladstone Regional Council, n.d.d).

Calliope

Calliope was part of the Port Curtis survey area. Subsequently, gold was discovered in the town in the early 1860s which led to a mining boom (Calliope Chase, n.d.). Most of the gold was mined out of the Calliope district by the mid-1970s, leading to an exodus of miners, however beef production continued, and Calliope remained a centre for the beef industry (Calliope Chase, n.d.). Rail development in 1910 connected Calliope to other localities, leading to a population increase (Calliope Chase, n.d.). Today, Calliope is home to a number of community-led events, including the Calliope Rodeo and the Calliope Historical Village markets (Gladstone Regional Council, n.d.e).

Tannum Sands

Tannum Sands, originally known as Wild Cattle Beach, was a popular picnic spot (Queensland Places 2018b). Its development accelerated in the late 20th century, driven by Gladstone's industrial expansion and the appeal of its beaches.

Gladstone

Gladstone began as a modest settlement in the mid-19th century and grew slowly due to limited water and farmland (Queensland Places 2018c). Originally known as Port Curtis, it became a municipality in 1863 but only transformed into a major industrial hub in the late 20th century (Queensland Places 2018c). Its growth was driven by coal exports, alumina refining, aluminium smelting, and other heavy industries, making it one of Queensland's fastest-growing cities (Queensland Places 2018c). Today, Gladstone is a key port for coal and mineral exports, supported by significant infrastructure like power stations and rail links.

6.6.2 COMMUNITY CULTURE AND VALUES

Whilst there are differences between the urban and rural communities within the Gladstone region, the collective community values within the Gladstone LGA are described by the Gladstone Regional Council as reflecting, *"…a great sense of community, with a 'can-do' attitude"* (Gladstone Regional Council, 2024a, p.4).

Outside of the larger urban areas, the smaller rural communities within the Primary Social Study Area (Bororen and Miriam Vale) share a strong agricultural identity, a preference for low-density living, and a commitment to preserving natural and scenic landscapes. These communities value self-reliance and resilience, supported by neighbourly attitudes and shared infrastructure. While sharing similar characteristics, each locality has its own distinct identity. Bororen is known for its farming heritage and quiet rural lifestyle, with community life centred around local halls and volunteer organisations. Miriam Vale combines a strong agricultural base with a small-town atmosphere, offering basic services that reinforce its role as a smaller service point for surrounding rural properties.

There are a number of significant festivals and events occurring within the Social Study Area. These festivals and events are identified in **Table 6-14**, and are generally reflective of the core community values, with events such as rodeos, local arts and craft shows, livestock exhibitions occurring within the rural localities, and live music and entertainment dominating the more urbanised areas.

In addition to the formalised festivals and events outlined in **Table 6-14**, the Social Study Area also hosts several informal and one-off events throughout the year. These typically involve local markets, workshops and cultural activities organised by the Gladstone Regional Council and/or Local Community Groups.

According to Gladstone Regional Council (2019), over 200 festivals and events are staged throughout the Gladstone region on an annual basis. The number of community events occurring within the region is set to be increased over the coming years, with Gladstone Regional Council implementing an Events Strategy (for the period of 2019 to 2024), with the aim to, *"…increase overnight visitor expenditure, bolster the economy and celebrate community and culture"* (Gladstone Regional Council, 2019, p.3).

The strategies and plans above highlight values deeply embedded in the community's identity. Residents maintain a strong connection to land and environment, valuing agricultural productivity, biodiversity, and scenic amenity through sustainable land use practices. Community and belonging are central to social life, with mutual support and intergenerational ties evident in rural townships. Cultural heritage and creativity are celebrated through festivals, museums, and public art, reflecting the region's rich history and growing recognition of First Nations culture. Wellbeing and resilience underpin local initiatives aimed at addressing ageing, social isolation, and disaster preparedness, with a focus on empowering community groups and volunteers to strengthen social cohesion and adaptability.

TABLE 6-14 SIGNIFICANT FESTIVALS AND EVENTS

Location	Event/Festival	Description	Indicative Date
Bororen	Bororen Country Carnival	A large-scale event celebrating the 125th anniversary of Bororen State School, with a variety of attractions for families and the community. The events includes carnival rides, market stalls featuring local crafts and produce, vintage car displays, and live entertainment.	Once off, October 2025
Agnes Water	Discovery Coast Markets	Community market featuring food stalls, live entertainment, and arts and creation stalls held on the 2nd and 4th Sunday of the month.	Monthly
Benaraby	Makers Market	Hand made goods by locals, hosted by the Benaraby Progress Association	April, August and November
Tannum Sands	Beach Arts Music Markets	Community event held on the first Saturday of the month from March to December that features food stalls, live entertainment, and arts and creation stalls.	Monthly (March-December)
Calliope	Calliope Rodeo and Specialty Events	Rodeo events, live music, food and drinks, and camping	January (Australia Day Long Weekend) September (Subject to Change)
	Strong Communities - Community and Family Fun Day	Kids friendly activities, food and drinks.	September (happens once as a morning event on a weekend)
	Calliope Youth Fest	Youth-led community event coordinated by Gladstone Regional Council	September
	Calliope Historical Village Markets	Local crafts and produce	Monthly
	Rotary Club Christmas Carols	Christmas carols, food and drinks, community stalls.	December (happens once as an evening event)
Gladstone	Festival of Summer	Youth-focused weeks of activities, including workshops and outdoor activities.	January
	Yaralla Gladstone Harbour Festival	Major annual celebration with amusement rides, sideshow alley, nightly entertainment, dazzling fireworks, food trucks, markets.	April (Easter)

Location	Event/Festival	Description	Indicative Date
	Mt Larcom Show (Regional Show)	A well-recognised and respected family-friendly signature regional event within the Gladstone region, including entertainment, fireworks, arts and crafts, agricultural events, and live music.	June
	Ecofest	Environmental festival that promotes sustainability initiatives. Includes stalls and workshops.	June
	GPC's Port to Park Fun Run	Fun Run supporting local schools and community groups.	August
	Gladstone BBQ Festival	BBQ competitions, food trucks, live music, and family-friendly activities.	September
	PopCon	Pop culture convention at the Gladstone Entertainment Convention Centre and Gladstone Library with cosplay, gaming, and panels.	September
	Under the Trees Festival (Boyne Island)	Music and arts festival showcasing local and national talent, organized by the Boyne Tannum Arts Business & Community Association.	September
	Christmas Carols	Christmas events including carols and charity toy drives.	December
	CQ Beer + Cider Festival	Social event featuring food and drink stalls, and live music.	TBD
	Gladstone Curtis Markets	Local crafts, produce, and entertainment in Gladstone.	Monthly
	Beach Arts Music Markets (Tannum Sands)	Over 100 market stalls, live music, food vendors, arts and crafts, and family-friendly entertainment	Monthly

6.6.3 CULTURAL HERITAGE

The Social Study Area is rich in both Aboriginal and European cultural heritage. The traditional custodians of the Gladstone region are the FNBGGGTB.

The region also has European historical heritage, with the discovery of Gold in the Calliope River in 1861 bolstering the total number of settlers to the Gladstone Region. The area was subsequently developed for its potential for Port infrastructure and has since been developed for its proximity to natural resources and useability for exporting minerals and fossil fuels. The Central Queensland region has a history in terms of its expansive mining industry and has become known as the greatest producer and exporter of black coal, whilst the region is also renowned for its thriving beef industry.

6.7 HOUSING PROFILE

Access to good quality, affordable housing is fundamental to the wellbeing of the community (Australian Institute of Health and Welfare, 2025a) and housing costs are often a major component of total living costs (ABS, 2022).

Section 6.7.1 provides an overview of the key housing indicators, with trends across the property market within the Primary Social Study Area outlined in **Section 6.7.2**. An understanding of the extent of short-term accommodation is available within the Social Study Area is provided in **Section 6.7.3**. Further, **Section 6.7.4** provides an overview of the social housing provided for within the Social Study Area.

6.7.1 KEY HOUSING INDICATORS

Key housing and accommodation indicators across the Social Study Area are summarised in **Table 6-15**, with the data indicating:

- The average household size remained relatively stable between 2016 and 2021, ranging from 2.2 in the Miriam Vale SAL (an increase of 0.1) to 3.0 in the Benaraby SAL (no change). Larger household sizes, such as those in the Benaraby and Calliope SALs, suggest family-oriented communities, while smaller sizes, like the Miriam Vale SAL's 2.2 average, point to a higher proportion of single-person households.
- Dwelling occupancy rates are generally high across the Social Study Area, but unoccupied dwellings also increased in some locations between 2016 and 2021. For example, the Miriam Vale SAL saw the percentage of unoccupied dwellings rise from 14.8% in 2016 to 27.9% in 2021. Similarly, the percentage of unoccupied dwellings in Agnes Water remained high between 2016 and 2021, 33.7% in 2016 and 31.8% in 2021. This trend may indicate potential economic and population shift, however it may also indicate (in Anges Water) a high number of seasonal homes and/or private holiday accommodation.
- Housing tenure patterns varied across the Social Study Area. The Bororen and Miriam Val SALs show high outright home ownership (42.6% and 40.0% in 2021, respectively), while the Gladstone SUA has higher rental proportions at 39.2%. However, the Benaraby SAL (56.1%), the Calliope SAL (43.6%) and the Gladstone LGA (36.5%) indicate a larger percentage of dwellings owned with a mortgage, reflective of the overall Queensland STE (34.4%) trend. These percentages indicate the potential for varying levels of housing security across within the Social Study Area.
- Housing stress is evident in several locations within the Social Study Area. In 2021, mortgage stress (where repayments >30% of household income) was highest in the Agnes Water SAL at 17.4%. All other localities reported mortgage stress below the Queensland STE average of 11.9%. Rental stress (where rent >30% of household income) was more common within the Social Study Area, with the highest rates experienced in the Agnes Water (39.6%), Miriam Vale (28.9%), and Bororen SALs (28.6%). While most localities (with the exception of the Agnes Water SAL) are below the state average of 32.3%, all localities show rental stress levels higher than mortgage stress.

- Household composition is predominantly family-based across most areas, with 2021 data the Benaraby SAL at 89.1% and Calliope SAL at 81.1%, in 2021. Single-person households are more prevalent in the Miriam Vale SAL (30.3%), the Gladstone SUA (27.1%) and the Agnes Water SAL (26.3%), which may indicate ageing populations or lifestyle preferences common in rural and coastal communities.
- Compared to Queensland STE, which has 90.7% occupied dwellings and a balanced tenure mix (29.1% owned outright, 34.4% mortgage, 33.1% rented), the Social Study Area shows higher outright ownership in rural areas and higher vacancy rates in coastal localities. This reinforces the region's rural character and potential vulnerability to housing market fluctuations.

TABLE 6-15 KEY HOUSING AND ACCOMMODATION INDICATORS

ABS Statistical Area	**Census Year**	**Average number of people per household** (#)	**Dwelling Count** Occupied / Unoccupied % (#)	**Housing Tenure** Owned Outright / Mortgage / Rented % (#)	**Monthly Repayments >30% Household Income** Weekly Rent / Mortgage % (#)	**Household Composition** Families / Single / Group % (#)
Primary Social Study Area						
Bororen SAL[1]	2021	2.6	141 (80.6) / 32 (18.3)	42.6 (60) / 36.2 (51) / 14.9 (21)	28.6 (6) / 0.0 (0)	79.0 (109) / 15.9 (22) / 5.1 (7)
	2016	2.4	86.6 (155) / 13.4 (24)	36.8 (57) / 38.7 (60) / 20.6 (32)	4.9 (-) / 5.9 (-)	78.4 (116) / 19.6 (29) / 2.0 (3)
Miriam Vale SAL[1]	2021	2.2	72.5 (200) / 2.9 (77)	40.0 (80) / 34.0 (68) / 19.0 (38)	28.9 (11) / 5.9 (4)	66.7 (134) / 30.3 (61) / 3.0 (6)
	2016	2.1	85.2 (224) / 14.8 (39)	32.2 (73) / 36.7 (83) / 25.2 (57)	6.5 (-) / 10.0 (-)	65.6 (145) / 33.0 (73) / 1.4 (3)
Secondary Social Study Area						
Agnes Water SAL[1]	2021	2.3	68.0 (986) / 31.8 (461)	41.8 (412) / 30.2 (298) / 23.0 (227)	39.6 (90) / 17.4 (52)	69.0 (682) / 26.3 (260) / 4.7 (46)
	2016	2.3	66.3 (780) / 33.7 (396)	33.0 (259) / 35.0 (275) / 28.5 (224)	13.7 (-) / 10.3 (-)	69.6 (546) / 26.9 (211) / 3.4 (27)
Benaraby SAL[1]	2021	3.0	85.5 (367) / 14.2 (61)	33.2 (122) / 56.1 (206) / 8.2 (30)	13.3 (4) / 5.3 (11)	89.1 (328) / 10.1 (37) / 0.8 (3)
	2016	3.0	93.7 (369) / 6.3 (25)	32.7 (122) / 57.6 (215) / 7.8 (29)	1.4 (-) / 13.6 (-)	86.1 (322) / 12.0 (45) / 1.9 (7)
Calliope SAL[1]	2021	2.9	92.4 (1,706) / 7.8 (144)	22.8 (389) / 43.6 (744) / 29.2 (499)	24.5 (123) / 8.5 (63)	81.1 (1,387) / 16.6 (284) / 2.3 (40)
	2016	2.9	90.2 (1,589) / 9.8 (172)	18.9 (302) / 45.9 (733) / 32.7 (523)	6.6 (-) / 9.7 (-)	78.9 (86) / 15.6 (17) / 5.5 (6)

ABS Statistical Area	**Census Year**	**Average number of people per household** (#)	**Dwelling Count** Occupied / Unoccupied % (#)	**Housing Tenure** Owned Outright / Mortgage / Rented % (#)	**Monthly Repayments >30% Household Income** Weekly Rent / Mortgage % (#)	**Household Composition** Families / Single / Group % (#)
Gladstone SUA[1]	2021	2.5	87.4 (16,869) / 12.6 (2,425)	23.3 (3,924) / 35.5 (5,988) / 39.2 (6,613)	26.3 (1,740) / 8.8 (529)	69.5 (11,725) / 27.1 (4,579) / 3.3 (559)
	2016	2.6	81.5 (15,414) / 18.5 (3,493)	20.7 (3,188) / 36.6 (5,629) / 40.5 (6,230)	9.8 / 6.9 (- / -)	73.4 (11,307) / 23.2 (3,577) / 3.4 (517)
Social Context						
Gladstone LGA[1]	2021	2.5	85.0 (23,181) / 15.0 (4,081)	27.3 (6,330) / 36.5 (8,455) / 33.4 (7,731)	26.5 (2,047) / 9.6 (808)	71.3 (16,535) / 25.6 (5,923) / 3.1 (723)
	2016	2.6	80.8 (21,369) / 19.2 (5,087)	24.2 (5,180) / 38.1 (8,137) / 35.1 (7,497)	8.7 (-) / 7.9 (-)	74.3 (15,882 / 22.6 (4,836) / 3.1 (662)
Queensland[1]	2021	2.5	90.7 (1,869,462) / 9.3 (192,393)	29.1 (543,285) / 34.4 (643,459) / 33.1 (618,442)	32.3 (199,511) / 11.9 (76,615)	71.0 (1,327,873) / 24.7 (461,009) / 4.3 (80,576)
	2016	2.6	89.4 (1,656,828) / 10.6 (195,570)	28.5 (471,407) / 33.7 (558,439) / 34.2 (566,478)	12.8 (-) / 6.4 (-)	71.8 (1,189,859) / 23.5 (389,076) / 4.7 (77,898)

Note1 Some data unavailable.

Note2 To protect confidentiality some data values may be adjusted, suppressed or unavailable, and totals may not match or add up to 100%.

Source: ABS, n.d.

6.7.2 HOUSING AND ACCOMMODATION TRENDS

The housing market is complex and changes in property values are due to many factors and considerations. Gladstone Regional Council's 2024/25 Strategic Priorities (Gladstone Regional Council, 2024a) has identified that the Gladstone region is facing housing availability, affordability, and accessibility challenges, including:

- Extremely limited access to temporary, emergency or crisis accommodation;
- Limited options of housing product;
- Lack of affordable housing options; and
- An increase in cost-of-living pressures.

To address these issues, Gladstone Regional Council (2024a) has committed to advocate to State and Federal Governments to:

- Reinstate or replace the National Rental Affordability Scheme funding;
- Unlock empty, unused, or abandoned properties to increase supply;
- Ensure rental subsidy programs are accessible and meeting needs; and
- Adequately incentivise critical workers to live in regional areas by supporting housing.

6.7.2.1 HOUSING MARKET

Table 6-16 and **Table 6-17** provide an overview of the housing market and the unit and apartment market in the Primary Social Study Area. Data is unavailable for some localities. The data indicates:

- Housing prices have increased across the Secondary Social Study Area. In December 2025, Benaraby recorded the highest median price at $960,000 with a growth of 16.0% over the past 12 months, while Agnes Water followed at $845,000 with growth of 4.0%. Gladstone Central had the lowest median house price at $550,000 but a strong growth rate of 31.0%, and Calliope recorded $599,277 with the highest growth rate of 30.3%, indicating strong demand. West Gladstone also shows indicates growth, with a median price of $500,000 and an increase of 20.5%, reflecting increasing pressure on affordability in the broader Gladstone region.
- Housing availability and sales activity vary across locations. Calliope recorded the highest sales volume with 150 transactions in the past 12 months and 26 listings in the previous month, suggesting an active market. Agnes Water followed with 66 listings and 66 sales, while Gladstone Central had 12 listings and 19 sales, indicating moderate activity. Benaraby had nine listings and 22 sales, reflecting a smaller market size. Properties in Calliope sell the fastest, at a median time on market of 16 days, compared to Gladstone Central (79 days) and Agnes Water (103 days). Benaraby stands out for units and apartments, recording the longest median time on market in the Social Study Area at 127 days. Agnes Water also shows slower turnover for houses, with a median of 103 days, despite high prices.

- Housing rental yields vary across locations, with Bororen offering the highest yield at 7.0%, followed by Miriam Vale at 6.6%. Among the locations within the Secondary Social Study Area, Calliope and West Gladstone have the highest rental yields with 5.0%, followed by Gladstone Central 4.9%, Agnes Water and Benaraby, both at 4.7%. The higher yields in Bororen and Miriam Vale may reflect lower property values and stronger rental demand.
- The absence of housing price data for Gladstone Harbour and limited availability in Bororen and Miriam Vale suggests restricted housing diversity in some areas, which may limit accommodation options for smaller households or Project workforce. Combined with increasing prices and varying availability, this could create pressure on affordability and housing choice in the Social Study Area.
- Units and apartments are the most expensive in Agnes Water with a median price of $499,500, though prices declined by 4.7% over the past year. It recorded 32 listings and 56 sales, indicating strong activity despite the price decline. Gladstone Central shows market growth, with a median price of $333,000 and an increase of 9.2%, alongside 37 listings and 99 sales, suggesting a demand for more affordable units. West Gladstone recorded the highest unit and apartment growth rate at 32.7%, with a median price of $345,000, 17 listings, and 72 sales No unit/apartment transactions were reported in Bororen, Benaraby, or Gladstone Harbour, indicating limited housing diversity in these areas.
- Rental yields for units/apartments are generally higher than houses, with West Gladstone offering 6.6%, Gladstone Central 6.3%, and Calliope 5.9%. These figures suggest strong rental demand for smaller dwellings in the Social Study Area.

TABLE 6-16 HOUSING MARKET INSIGHTS – HOUSING, DECEMBER 2025

Location (Postcode)	Median Housing Price ($)	Median Housing Price Growth in Past 12 Months (%)	House Availability Previous Month (#)	Housing Sales in Past 12 Months (#)	Median Time on Market (days)	Rental Yield (%)
Primary Social Study Area						
Bororen[1] (4678)	-	-	2	2	55	7.0
Miriam Vale[1] (4677)	-	-	4	5	39	6.6
Secondary Social Study Area						
Agnes Water (4677)	845,000	↑ 4.0	66	66	103	4.7
Benaraby (4680)	960,000	↑ 16.0	9	22	28	4.7
Calliope (4680)	599,277	↑ 30.3	26	150	16	5.0
Gladstone Central (4680)	550,000	↑ 31.0	12	19	79	4.9

Location (Postcode)	Median Housing Price ($)	Median Housing Price Growth in Past 12 Months (%)	House Availability Previous Month (#)	Housing Sales in Past 12 Months (#)	Median Time on Market (days)	Rental Yield (%)
Gladstone Harbour[1] (4680)	-	-	2	0	-	5.1
West Gladstone (4680)	500,000	↑ 20.5	42	144	30	5.0

Note1 Some data unavailable for location.

Note2 Data accurate as of 4 December 2025.

Source: REA Group Ltd, 2025.

TABLE 6-17 HOUSING MARKET INSIGHTS – UNITS AND APARTMENTS, DECEMBER 2025

Location (Postcode)	Median Unit and Apartment Price ($)	Median Unit and Apartment Price Growth in Past 12 Months (%)	Unit and Apartment Availability Previous Month (#)	Unit and Apartment Sales in Past 12 Months (#)	Median Time on Market (days)	Rental Yield (%)
Primary Social Study Area						
Bororen[1] (4678)	-	-	0	0	-	5.3
Miriam Vale[1] (4677)	-	-	0	1	-	5.9
Secondary Social Study Area						
Agnes Water (4677)	499,500	↓ 4.7	32	56	84	5.8
Benaraby[1] (4680)	-	-	0	0	127	-
Calliope[1] (4680)	-	-	2	3	56	5.9
Gladstone Central (4680)	333,000	↑ 9.2	37	99	65	6.3
Gladstone Harbour[1] (4680)	-	-	0	0	-	5.4
West Gladstone (4680)	345,000	↑ 32.7	17	72	51	6.6

Note1 Some data unavailable for location.

Note2 Data accurate as of 4 December 2025.

Source: REA Group Ltd, 2025.

6.7.2.2 RENTAL MARKET

There are two primary components of the private rental housing market that can indicate both existing pressures and socio-economic vulnerability: rental availability and affordability. These aspects are explored in the following section.

Rental Availability

Table 6-18 and **Table 6-19** provide an overview of the housing market and the unit and apartment market in the Social Study Area. Data is unavailable for some localities. The data, indicates:

- Median weekly rents for houses are highest in Agnes Water at $660, followed by Calliope at $500 and West Gladstone at $480. Gladstone Central recorded the lowest rent at $432. Rental price growth has varied, with increases in Agnes Water and West Gladstone, while Calliope and Gladstone Central indicate a decline of -8.3% and -13.5% respectively. For units, Agnes Water leads at $550, followed by Gladstone Central at $400 and Calliope at $360. Prices for units declined in Gladstone Central (-4.8%), Calliope (-3.3%) and West Gladstone (-1.4%), however remained stable in Agnes Water.
- House availability in November 2025 was highest in West Gladstone with 35 listings, followed by Calliope (14) and Gladstone Central. Agnes Water recorded nine listings, while Bororen, Miriam Vale, Benaraby, and Gladstone Harbour had none. Unit availability was concentrated in Gladstone Central (34 listings) and West Gladstone (28), with smaller stock in Agnes Water (six). Other locations recorded no unit availability.
- Leasing activity over the past 12 months was strongest for houses in West Gladstone with 211 leases, followed by Calliope with 172 and Gladstone Central with 46. Agnes Water recorded 43 leases, while Bororen, Miriam Vale, and Gladstone Harbour had none. For units, Gladstone Central dominated with 225 leases, followed by West Gladstone with 183 and Agnes Water with 43. Calliope recorded 23 leases, while other areas had no activity.
- Median time on market for houses is shortest in Agnes Water at 21 days, followed by Calliope with 22 and Gladstone Central with 24, indicating strong demand. West Gladstone shows slightly longer turnover at 29 days, while Miriam Vale records the longest at 112 days. For units, Agnes Water (26), Gladstone Central (26) and West Gladstone (23) indicate moderate wait times, while Calliope indicates shorter wait times at 14 days.
- Rental demand for houses is concentrated in West Gladstone and Calliope, with 444 and 169 inquiries received, respectively. Gladstone Central also indicates strong interest for units with 216 inquiries. In contrast, Bororen, Miriam Vale, Benaraby, and Gladstone Harbour record no renter interest across both dwelling types, highlighting uneven demand across the Social Study Area.

TABLE 6-18 RENTAL MARKET INSIGHTS – HOUSING, DECEMBER 2025

Location (Postcode)	Median Rental Price per week ($)	Median Rental Price Growth in Past 12 Months (%)	House Availability Previous Month (#)	Houses Leased in Past 12 Months (#)	Median Time on Market (days)	Renter Interest (#)
Primary Social Study Area						
Bororen[1] (4678)	-	-	0	0	37	0
Miriam Vale[1] (4677)	-	-	0	0	112	0
Secondary Social Study Area						
Agnes Water (4677)	660	↑ 10.0	9	43	21	140
Benaraby[1] (4680)	-	-	0	1	-	0
Calliope (4680)	500	↓ 8.3	14	172	22	169
Gladstone Central (4680)	432	↓ 13.5	10	46	24	80
Gladstone Harbour[1] (4680)	-	-	0	0	-	0
West Gladstone (4680)	480	↑ 4.3	35	211	29	444

Note1 Some data unavailable for location.

Note2 Data accurate as of 4 December 2025.

Source: REA Group Ltd, 2025.

TABLE 6-19 RENTAL MARKET INSIGHTS - UNITS AND APARTMENTS, DECEMBER 2025

Location	Median Rental Price per week ($)	Median Rental Price Growth in Past 12 Months (%)	Rental Availability Previous Month (#)	Rentals Leased in Past 12 Months (#)	Median Time on Market (days)	Renter Interest (#)
Primary Social Study Area						
Bororen[1] (4678)	-	-	0	0	-	0
Miriam Vale[1] (4677)	-	-	0	0	-	0
Secondary Social Study Area						
Agnes Water (4677)	550	0.0	6	43	26	48

Location	Median Rental Price per week ($)	Median Rental Price Growth in Past 12 Months (%)	Rental Availability Previous Month (#)	Rentals Leased in Past 12 Months (#)	Median Time on Market (days)	Renter Interest (#)
Benaraby[1] (4680)	-	-	0	0	-	0
Calliope (4680)	360	↓ 13.3	0	23	14	0
Gladstone Central (4680)	400	↓ 4.8	34	225	26	216
Gladstone Harbour[1] (4680)	-	-	0	0	-	0
West Gladstone (4680)	350	↓ 1.4	28	183	23	291

Note1 Some data unavailable for location.

Note2 Data accurate as of 4 December 2025.

Source: REA Group Ltd, 2025.

Table 6-20 provides insights into historical and current vacancy data across the Social Study Area using the SQM Residential Vacancy Rates (SQM Research, 2025). The SQM Residential Vacancy Rate draws on a combination of ABS data and online data from monitoring major property listing sites to provide a time-series analysis on a monthly and postcode scale.

Table 6-20 provides an overview of the most recent residential vacancy data, and over a five year period from October 2020 to October 2025, which indicates:

- Bororen recorded its highest vacancy in April 2023 with five vacancies, corresponding to a peak vacancy rate of 8.0%. Miriam Vale and Agnes Water reached a peak of 15 vacancies in January 2025, with a vacancy rate of 3.0%.
- Benaraby, Calliope, Gladstone Central, Gladstone Harbour West, and Gladstone had the largest peak, with 250 vacancies in October 2025 and a vacancy rate of 2.8%. As of October 2025, vacancies remain relatively low in Bororen, and Miriam Vale and Agnes Water, with three vacancies (4.2%) and five vacancies (0.2%), respectively. In contrast, the Gladstone recorded 250 vacancies at a 2.8% vacancy rate.
- Current vacancy rates are below or near previous peaks for most areas, except Bororen, where the October 2025 rate of 4.2% is still lower than its peak of 8.0% in April 2023. Miriam Vale and Agnes Water declined from 3.0% in January 2025 to 0.2% in October 2025, indicating very tight rental conditions. Gladstone remains at its peak rate of 2.8%, suggesting ongoing rental availability pressures.
- Data trends indicate that smaller localities like Bororen, Miriam Vale and Agnes Water tend to experience a higher level of fluctuation compared to larger centres such as Gladstone.

TABLE 6-20 RESIDENTIAL VACANCY RATES

Location (Postcode)	Highest Number of Vacancies Over a 5 Year Period (~no.)	Highest Vacancy Rate Over a 5 Year Period (~%)	Number of Vacancies in October 2025 (~no.)	Vacancy Rate in October 2025 (~%)
Bororen (4678)	5 (April 2023)	8.0 (April 2023)	3	4.2
Miriam Vale Agnes Water (4677)	15 (January 2025)	3.0 (January 2025)	5	0.2
Benaraby Calliope Gladstone Central, Gladstone Harbour West Gladstone (4680)	250 (October 2025)	2.8 (October 2025)	250	2.8

Note1 The 5-year period refers to the timeframe from October 2020 to October 2025.

Source: SQM Research, 2025

Rental Affordability

Rental affordability is a key portion of the housing market that is likely to respond to worker influx prompted by large projects and is a key component for sustaining the economic vitality of communities and the wellbeing of individuals (Lawrie, et al., 2011).

The extent of households experiencing rental stress in the Primary Social Study Area has previously been considered in **Section 6.7.1**.

SGS Economics & Planning in partnership with National Shelter, Beyond Bank, and Brotherhood of St Laurence have published the Rental Affordability Index (RAI) since 2015 (SGS Economics & Planning, 2024). The RAI index is calculated via considering a household's income against its qualifying income[1], with the results identified through the affordability categories shown in **Figure 6-1**.

Index score	Share of income spent on rent	Relative unaffordability
<50	60% or more	Extremely unaffordable rents
51-80	38-60%	Severely unaffordable rents
81-100	30-38%	Unaffordable rents
101-120	25-30%	Moderately unaffordable rents
121-150	20-25%	Acceptable rents
151-200	15% or less	Affordable rents
>200		Very Affordable rents

Source: SGS Economics & Planning, 2024

FIGURE 6-1 RENTAL AFFORDABILITY INDEX AND SEVERITY OF RENTAL AFFORDABILITY

[1] Qualifying income refers to the income required to pay rent, where rent is 30 per cent of income.

The findings identify that in Quarter 2, 2025, Bororen (postcode 4678) had a null RAI Score, meaning the extent of rental affordability in the area is unknown. However, Miriam Vale and Agnes Water, postcode 4677, was scored as follows:

- Average rental household income: RAI Score of 93 – Unaffordable Rents
- Dual income couple with children: RAI Score of 200 – Affordable Rents
- Minimum wage couple: RAI Score of null – unknown
- Single pensioner: RAI Score of null – Unknown
- Pensioner couple: RAI Score of null – Unknown
- Single income couple with children: RAI Score of 102 – Moderately Unaffordable Rents
- Single working parent: RAI Score of null – Unknown
- Single person on benefits: RAI Score of null – Unknown
- Student sharehouse: RAI Score of 93 – Unaffordable Rents

The locations of the Secondary Social Study Area (Benaraby, Calliope, Gladstone Central, Gladstone Harbour and West Gladstone), postcode 4680, revealed:

- Average rental household income: RAI Score of 126 – Acceptable Rents
- Dual income couple with children: RAI Score of 267 – Very Affordable Rents
- Minimum wage couple: RAI Score of 152 – Affordable Rents
- Single pensioner: RAI Score of 82 – Unaffordable Rents
- Pensioner couple: RAI Score of 99 – Unaffordable Rents
- Single income couple with children: RAI Score of 137 – Acceptable Rents
- Single working parent: RAI Score of 175 – Affordable Rents
- Single person on benefits: RAI Score of 52 – Severely Unaffordable Rents
- Student sharehouse: RAI Score of 125 – Acceptable Rents

These findings align with the ABS data as presented in **Section 6.7.1** to provide further nuance to the rental stress numbers.

6.7.3 SHORT-TERM ACCOMMODATION

Short-term accommodation such as hotels, motels, cabins and caravan parks are important in regional areas to provide accommodation for visitors and to support regional tourism and economic activity (Gurran, et al., 2018). A review of the commercial and private short-term accommodation located within the local communities, towns and cities within the Social Study Area was undertaken to provide an understanding of the accommodation currently offered, and Appendix A.

Table 6-21 provides an overview of the commercial short-term accommodation options within the Social Study Area. Accommodation options are concentrated in the Secondary Social Study Area, with Gladstone SUA offering the largest capacity and diversity, including hotels, motels, apartments, cabins, and villas, making it the primary hub for short-term stays and workforce accommodation. Calliope also provides capacity through a mix of rooms, cabins, and powered sites, positioning it as another key location for accommodation needs.

Agnes Water offers moderate options with hotels and motels supported by units and villas, while Benaraby has more limited choices, relying on a small number of rooms, cabins, and powered sites. In comparison, the Primary Social Study Area has minimal commercial accommodation, with Bororen providing a modest mix of rooms and powered sites and Miriam Vale offering only a small number of rooms. Overall, while the Secondary Social Study Area has a reasonable spread of accommodation types and capacity, availability is uneven, and smaller towns like Benaraby and Miriam Vale have very limited options, creating potential pressure on Gladstone and Calliope during peak demand periods.

TABLE 6-21 COMMERCIAL SHORT-TERM ACCOMMODATION OPTIONS

Location	Establishments		Total Capacity (#)
	Hotels, Motels, Inns, Lodges, and Retreat Centres (#)	Cabins, Caravan/ Holiday Parks, and Accommodation Villages (#)	
Primary Social Study Area			
Bororen	3	2	48 rooms, 15 powered sites
Miriam Vale	2	0	20 rooms
Secondary Social Study Area			
Agnes Water	4	0	86 rooms, 15 units, 54 villas
Benaraby	2	2	18 rooms, 23 cabins, 7 vans, 70 powered sites
Calliope	3	2	1,467 rooms, 14 cabins, 75 powered sites, 20 unpowered sites
Gladstone	33	5	639 rooms, 297 apartments, 26 units, 30 cabins
Total	**47**	**11**	**2,278 rooms, 160 powered sites, 20 unpowered sites, 41 units, 54 villas, 67 cabins, 7 vans, 297 apartments**

6.7.4 SOCIAL HOUSING

Social housing in Queensland provides affordable, secure housing for people unable to access the private rental market. It includes public housing managed by the State and community housing managed by non-government organisations, with rent generally based on income rather than market rates. Allocations are made according to need, supporting vulnerable groups such as low-income households (Queensland Government, 2025). Social housing is an important safety net and may be sensitive to increased housing demand from major projects.

Table 6-22 provides an overview of community housing data in the Social Study Area. Based on the data provided in **Table 6-22**, it appears that community housing within the Social Study Area is concentrated in the Secondary Social Study Area, predominantly within Gladstone and the immediate surrounding localities (i.e. Benaraby, Calliope, Gladstone Central,

Gladstone Harbour, and West Gladstone). Together, these locations account for 788 properties, including 521 separate houses, 112 semi-detached dwellings, 151 flats or apartments, and four boarding house units.

In comparison, Agnes Water and Miriam Vale offer limited community housing options, with only 11 properties combined, comprising 10 flats or apartments and one separate house. Bororen has no community housing, meaning vulnerable households in this area may need to rely on surrounding towns for accommodation support.

Overall, while the Social Study Area provides community housing of varied capacity and diversity within the Secondary Social Study Area, smaller townships like Agnes Water and Miriam Vale have minimal provision, creating potential reliance on Gladstone during periods of high demand.

TABLE 6-22 COMMUNITY HOUSING DATA

Location (Postcode)	Separate House (#)	Semi-detached, Row or Terrace House, Townhouse etc. (#)	Flat, Unit or Apartment (#)	Boarding / Rooming House Unit (#)	Other (#)	Total (#)
Bororen[1] (4678)	0	0	0	0	0	0
Miriam Vale Agnes Water (4677)	1	0	10	0	0	11
Benaraby Calliope Gladstone Central Gladstone Harbour West Gladstone (4680)	521	112	151	4	0	788
Total	**522**	**112**	**161**	**4**	**0**	**799**

Source: Queensland Government, 2025.

Table 6-23 provides an overview of public and State owned housing within the Social Study Area. The data indicates that similarly to community housing, public and State-owned housing is concentrated in the Gladstone area. The largest supply is in Benaraby, Calliope, Gladstone Central, Gladstone Harbour, and West Gladstone, which collectively provide 752 public rental properties and 36 State Owned and Managed Indigenous Housing properties. These properties have an occupancy rate of 98.9%. Miriam Vale and Agnes Water offer 11 public rental properties, all of which are occupied. Bororen has no public or Indigenous Housing.

Overall, public and State-owned housing is concentrated in the Gladstone urban area, with smaller towns offering minimal or no supply, which may limit options for vulnerable households. The mean occupancy rate across all locations is 99.45%, indicating there is limited vacancies available.

TABLE 6-23 PUBLIC AND STATE OWNED HOUSING

Location (Postcode)	Public Rental Housing (#)	State Owned and Managed Indigenous Housing (#)	Occupied (%)
Bororen (4678)	0	0	0
Miriam Vale Agnes Water (4677)	11	0	100.0
Benaraby Calliope Gladstone Central Gladstone Harbour West Gladstone (4680)	752	36	98.9
Total	**763**	**36**	**99.45 (*mean*)**

Source: Queensland Government, 2025.

6.8 SOCIAL INFRASTRUCTURE

This section provides an overview of the social infrastructure present in the Social Study Area, which contributes to the well-being of the local community. Social infrastructure includes community and recreational services (refer to **Section 6.8.1**), health and emergency services (refer to **Section 6.8.2**), education services (refer to **Section 6.8.3**), and digital inclusion (refer to **Section 6.8.4**).

The local/regional centres that are likely to provide social infrastructure for the Project, and/or be impacted by the Project, are those within the Primary Social Study Area – primarily the town of Bororen and Miriam Vale. This is due to their size, proximity, and ease of connectivity to the Project. There is the potential that accommodation, health and/or emergency services may be drawn from Agnes Water, Benaraby, Calliope and Gladstone in the event of an emergency on-site and/or where local workers and/or local goods and services suppliers are engaged. These aspects are discussed in the relevant sections.

6.8.1 COMMUNITY AND RECREATIONAL SERVICES

Table 6-24 identifies the community and recreational services available to residents of the Social Study Area, including the various sporting, religious, cultural, and hospitality related services, as well as general amenities like parks, cafes and community halls. These services play a crucial role in supporting the well-being of residents and accommodating workforce needs during the Construction and Operation Phases of the Project.

Table 6-24 indicates the availability of community and recreational services within the Social Study Area. Services are heavily concentrated in Gladstone, which accounts for the majority of amenities, including the highest number of parks, sporting fields, fitness centres, libraries, and community groups.

Gladstone also offers the largest number of cafes, pubs, and restaurants making it the primary hub for both community and recreational activities. Calliope and Agnes Water provide a moderate level of services, while the smaller towns such as Miriam Vale, Bororen, and Benaraby have limited services/amenities.

TABLE 6-24 COMMUNITY AND RECREATIONAL SERVICES

Service	Location					
	Bororen	Miriam Vale	Agnes Water	Benaraby	Calliope	Gladstone
Parks	2	3	3	3	2	98
Sporting Fields	1	1	1	1	2	42
Swimming Pools	0	0	0	0	1	3
Fitness Centres	0	0	0	0	1	10
Golf Courses	0	0	0	0	1	2
Shopping Centres	0	0	0	0	1	3
Libraries	0	1	1	0	1	6
Community Halls	1	1	1	1	2	7
Cafes / Pubs / Restaurants	3	8	14	2	2	37
Religious Buildings or Groups	1	1	2	0	1	7
Community Groups (e.g. Lions, Rotary, CWA, Men's Shed, etc.)	0	2	2	2	2	17
Youth Organisations (e.g. Scouts, PCYC, etc.)	0	0	0	0	1	1
Sporting Clubs	1	1	2	0	2	199
Chamber of Commerce (or similar)	0	0	1	0	1	1
Cultural Clubs or Groups	0	0	0	0	0	10
Total	**9**	**18**	**27**	**9**	**20**	**443**

As part of their Community Satisfaction Survey, Gladstone Regional Council has identified the following levels of satisfaction amongst resident respondents from Agnes Water, Benaraby, Calliope and the Gladstone Region (Gladstone Regional Council 2025a; Gladstone Regional Council 2025b) as relevant to community and recreational services:

- Libraries – 74.6% satisfaction in Agnes Water and Calliope and 79.7% in the Gladstone Region;
- Halls and Community Centres – 63.4% satisfaction in Agnes Water and Calliope, and 70.7% in the Gladstone Region;
- Parks and Open Space – 65.4% satisfaction in Agnes Water, Benaraby and Calliope, and 72.3% in the Gladstone Region;

- Sport and Recreation Facilities – 61.3% satisfaction in Agnes Water, Benaraby and Calliope, and 69.1% in the Gladstone Region;
- Swimming Pools and Aquatic Centres – 52.5% satisfaction in Agnes Water, Benaraby and Calliope, and 62.0% in the Gladstone Region;
- Community Services – 55.5% satisfaction in Agnes Water and Calliope, and 64.4% in the Gladstone Region;
- Opportunities for People of all Abilities to Participate in Community Life (Initiatives) – 40.4% satisfaction in Agnes Water, Benaraby and Calliope, and 52.3% in the Gladstone Region; and
- Grants and Support for Sports Clubs and Community Organisations (Initiatives) – 45.0% satisfaction in Agnes Water, Benaraby and Calliope, and 56.0% in the Gladstone Region.

6.8.2 HEALTH AND EMERGENCY SERVICES

Public health and emergency services in the Social Study Area have the potential to support the Project workforce, particularly during the Construction Phase. Accordingly, this section explores two components of community health – the existing long-term community health indicators within the Primary Social Study Area, and the health and emergency services that are currently available within the Social Study Area.

Existing long-term health conditions across the Primary Social Study Area in 2021 are reported in **Table 6-25**. This data is useful in establishing an understanding of the sensitivity of the communities within the Social Study area to Project related changes.

Table 6-25 indicates the prevalence of existing long-term health conditions within the Social Study Area. Neurocognitive conditions are most common in the Miriam Vale SAL and the Gladstone SUA both at 10.5%, similar to the Queensland average of 10.3%, while the Bororen SAL has the lowest prevalence (9.4%, 8.8%, 7.5% and 6.6%, respectively). Respiratory conditions are highest in the Bororen SAL at 14.3% and the Miriam Vale SAL at 12.0%, both exceeding the Queensland average of 10.6%, while the Agnes Water SAL and Benaraby SAL report the lowest rates. Overall, the Social Study Area shows elevated respiratory health concerns, while neurocognitive conditions are consistent with State levels, with the exception of the Miriam Vale SAL and the Gladstone SUA being key areas of higher prevalence.

TABLE 6-25 EXISTING LONG-TERM HEALTH CONDITIONS, 2021

ABS Statistical Area	Neurocognitive[1] (%)	Respiratory Conditions[2] (%)
Primary Social Study Area		
Bororen SAL	6.6	14.3
Miriam Vale SAL	10.5	12.0
Secondary Social Study Area		
Agnes Water SAL	9.4	8.7
Benaraby SAL	7.5	7.3
Calliope SAL	8.8	10.0
Gladstone SUA	10.5	10.3

ABS Statistical Area	Neurocognitive[1] (%)	Respiratory Conditions[2] (%)
Social Context		
Gladstone LGA	10.0	10.3
Queensland	10.3	10.6

Note1 Neurocognitive combines the following ABS categories: 'Mental health condition (including depression or anxiety)' and 'Dementia (including Alzheimer's)'

Note2 Respiratory combines the following ABS categories: 'Lung Conditions (including COPD or emphysema)' and 'Asthma'.

Source: ABS, n.d.

The ABS measure 'Core Activity Need for Assistance' identifies people who require help with basic daily activities such as self-care, mobility, or communication due to disability, long-term health conditions, or age. A higher proportion of people needing assistance indicates greater vulnerability and reliance on support services, which can increase pressure on local health, aged care, and community resources during the project.

Table 6-26 indicates that there was an increase in the number of people needing assistance with core daily activities across the Social Study Area between 2016 and 2021. The largest increases were experienced in the Agnes Water and Calliope SALs, with increases of 66.7% and 60.7%, respectively. In all locations, the percentage increase was larger than that of the Queensland STE (27.2%), indicating that the Social Study Area may present a higher level of vulnerability, whereby residents may be more susceptible to pressures on health, aged care, and community services, particularly where service capacity is limited.

TABLE 6-26 CORE ACTIVITY NEED FOR ASSISTANCE

ABS Statistical Area	Census Year	Has need for assistance # (%)	Change in population needing assistance (%)	Does not have need for assistance # (%)	Need for assistance not stated # (%)
Primary Social Study Area					
Bororen SAL	2021	26 (6.5)	↑ 30.0	357 (89.5)	20 (5.0)
	2016	20 (5.0)		355 (89.2)	22 (5.5)
Miriam Vale SAL	2021	50 (10.1)	↑ 47.1	411 (83.4)	33 (6.7)
	2016	34 (6.6)		447 (87.3)	35 (6.8)
Secondary Social Study Area					
Agnes Water SAL	2021	150 (5.5)	↑ 66.7	2,203 (80.7)	381 (14.0)
	2016	90 (4.1)		1,851 (83.8)	267 (12.1)
Benaraby SAL	2021	48 (4.1)	↑ 54.8	1,076 (92.3)	46 (3.9)
	2016	31 (2.5)		1,090 (89.4)	96 (7.9)
Calliope SAL	2021	241 (4.6)	↑ 60.7	4,722 (89.7)	300 (5.9)
	2016	150 (5.9)		4,412 (86.5)	536 (10.5)

ABS Statistical Area	Census Year	Has need for assistance # (%)	Change in population needing assistance (%)	Does not have need for assistance # (%)	Need for assistance not stated # (%)
Gladstone SUA	2021	2,630 (5.8)	↑ 56.4	39,645 (87.7)	2,905 (6.4)
	2016	1,682 (3.8)		38,891 (88.6)	3,299 (7.5)
Social Context					
Gladstone LGA	2021	3,663 (5.8)	↑ 48.1	55,233 (87.0)	4,624 (7.3)
	2016	2,474 (4.0)		54,147 (87.8)	5,023 (8.1)
Queensland STE	2021	309,366 (6.0)	↑ 27.2	4,513,222 (87.5)	333,538 (0.1)
	2016	243,267 (5.2)		4,103,669 (87.3)	356,261 (7.6)

Source: ABS, n.d.

The relevant health and emergency services located within the Social Study Area are outlined in **Table 6-27**, and detailed in Appendix B.

As per **Table 6-27**, the Social Study Area provides essential health and emergency services, including medical centres, mental health services, and a large hospital which includes an inpatient facility, emergency department, and an outpatient department. Most of these health services are located within the Gladstone and Agnes Water, with the local communities outside of the Gladstone hosting only a limited number of services.

In the event of a medical emergency on-site, it is likely that Project workers would be treated at Gladstone Hospital. The Gladstone Hospital is the second largest hospital in Central Queensland, providing 79 beds for low to moderate-risk inpatients and is rated for Level 3 Services[2] under the Clinical Services Capability Framework (Gladstone Regional Council, n.d.f).

Outside of the Gladstone SUA, emergency services, such as police, ambulance, SES, and fire and rescue services, are located within Borren, Calliope, Miriam Vale, and Agnes Water.

TABLE 6-27 HEALTH AND EMERGENCY SERVICES

Service	Location					
	Bororen	Miriam Vale	Agnes Water	Benaraby	Calliope	Gladstone
Police	0	1	1	0	1	1
Ambulance	0	1	1	0	1	1
State Emergency Service	0	1	1	1	0	1

[2] The Clinical Service Capability Framework for Public and Licensed Private Health Facilities outlines the minimum requirements required in both public and private health facilities to ensure safe and appropriately supported clinical services. A Level 3 Service provides low to moderate-risk inpatient and ambulatory care clinical services; manages emergency care and transfers to higher levels if required; does not have an intensive care unit but may have access to a monitored area; and has services predominantly delivered by General Practitioners and Registered Nurses (Queensland Health, 2024).

Service	Location					
	Bororen	Miriam Vale	Agnes Water	Benaraby	Calliope	Gladstone
Fire and Rescue	0	1	1	0	1	1
Rural Fire Service	1	1	1	1	1	1
24-hour Emergency Room	0	0	0	0	0	1
General Medical	0	1	4	0	2	9
Palliative Care	0	0	0	0	0	2
Mental Health	0	0	4	0	1	6
Maternity	0	0	0	0	0	3
Aged Care	0	1	0	0	0	5
Pathology	0	0	2	0	1	4
Dental	0	0	3	0	0	10
Disability Support	0	0	3	0	1	10
Total	**1**	**7**	**21**	**2**	**9**	**55**

Key hospital performance indicators within the Social Study Area for 2023/24 are presented in **Table 6-28**, which indicates that Gladstone Hospital is out performing its peers in relation to emergency department waiting times and is generally on par with emergency department departure periods (from arrival to departure).

TABLE 6-28 HOSPITAL PERFORMANCE INDICATORS FOR EMERGENCY CARE, JULY-SEPTEMBER 2025

Performance Indicator	Month (2025)	Gladstone Hospital
Number of arrivals at the emergency department (#)	July	2,780
	August	3,025
	September	2,961
Percentage of patients seen within the clinically recommended time (%)	July	79.6
	August	79.4
	September	80.0
Median waiting time to be seen at the Emergency departments (minutes)	July	15
	August	17
	September	15
Percentage of patients whose care was completed within four hours (%)	July	58.4
	August	63.0
	September	58.3

Performance Indicator	Month (2025)	Gladstone Hospital
Percentage of patients admitted into hospital (%)	July	20.3
	August	19.5
	September	19.5

Source: Queensland Health, 2025.

As part of their Community Satisfaction Survey, Gladstone Regional Council has identified the following levels of satisfaction amongst resident respondents from Agnes Water, Benaraby, Calliope and the Gladstone Region (Gladstone Regional Council 2025a; Gladstone Regional Council 2025b), with respect to health and emergency services:

- Emergency and Disaster Management – 63.8% satisfaction in Agnes Water and Calliope and 71.0% in the Gladstone Region;
- Public Health Services – 54.8% satisfaction in Agnes Water, Benaraby and Calliope, and 63.8% in the Gladstone Region;
- Community Safety and Crime Prevention (Initiatives) – 34.8% satisfaction in Agnes Water, Benaraby and Calliope, and 47.9% in the Gladstone Region; and
- Health Promotion (Initiatives) – 40.3% satisfaction in Agnes Water, Benaraby and Calliope, and 52.3% in the Gladstone Region.

In addition, in Gladstone Regional Council's 2024/25 Strategic Priorities (Gladstone Regional Council, 2024b), Council acknowledges that there are challenges facing the Gladstone region with respect to health. These challenges include, but are not limited to:

- Workforce shortages across health professions;
- High wait times and costs;
- Imposed travel outside of the region;
- Lack of availability to General Practitioners, specialists, mental health services, and allied health clinicians;
- Lack of health infrastructure;
- Lack of bulk-billed providers; and
- Prevalence of disease.

To address these issues, Gladstone Regional Council (2024b) has committed to advocate State and Federal Governments to:

- Increase student placements to develop pathways to grow the local workforce;
- Facilitate skills development opportunities for health professionals; and
- Adopt innovative and sustainability quality improvement measures in healthcare settings to deliver greater, accessible care to the community.

6.8.3 EDUCATIONAL SERVICES

Educational facilities located within the Social Study Area have the potential to service the needs of the Construction and Operation Phase workforces are outlined in **Table 6-29** with additional detail as to these facilities provided in Appendix C.

Educational facilities are concentrated in Gladstone, which provides the only TAFE and university in the Social Study Area, as well as the highest number of schools. Smaller towns offer limited options, with Bororen, Miriam Vale, and Benaraby each hosting pre-primary and primary schools. Agnes Water and Calliope provide a full pathway up to secondary school but no tertiary facilities or institutions. Accordingly, the data suggests that students in smaller localities likely travel to Gladstone for higher education and, in some cases, for secondary schooling, indicating a reliance on the broader region for education access.

TABLE 6-29 EDUCATIONAL FACILITIES

Service	Location					
	Bororen	Miriam Vale	Agnes Water	Benaraby	Calliope	Gladstone
Pre-Primary	1	1	3	0	5	20
Primary	1	1	3	1	1	8
Secondary	0	0	1	0	1	5
TAFE	0	0	0	0	0	1
University	0	0	0	0	0	1
Other	0	1	0	0	0	2
Total	**2**	**3**	**7**	**1**	**7**	**37**

6.8.4 DIGITAL INCLUSION

The Australian Digital Inclusion Index (ADII) score measures how well people in Australia can access, afford, and use digital technologies effectively. Digital inclusion is an important consideration for developments in rural areas because limited access to affordable, reliable internet and low digital literacy can affect how communities receive information, engage in consultation, and access Project related opportunities. Low digital inclusion may create barriers to transparent communication, participation in planning processes, and uptake of employment or training programs linked to the Project.

Table 6-30 provides an overview of relevant ADII scores, comparative to Queensland and Australia, which indicates digital inclusion in Gladstone LGA is below the national average. While data for the First Nations communities in the Gladstone LGA is unavailable, the data for Queensland suggests that these communities have a lower ADII score, with an 8.9-point gap compared to the First Nations national average. At a national level, First Nations people score 63.4, which is 10.2 points below the overall national average. These gaps highlight limitations digital accessibility, which may impact community engagement and access to Project related information, especially for First Nations communities and regional residents.

TABLE 6-30 DIGITAL INCLUSION IN THE SOCIAL STUDY AREA

Location	ADII Score (#)[1]	Digital Gap compared to National Average (#)	First Nations ADII Score (#)	Digital Gap compared to First Nations National Average (#)
Gladstone LGA[2]	71.0	↓ 2.6	-	-
Queensland	72.9	↓ 0.7	65.0	↓ 8.9
National Average[2]	73.6	-	63.4	↓ 10.2

Note1 ADII score range from 0-100. The higher the score, the greater the level of digital inclusion.
Note2 Some data is unavailable.

Source: Australian Digital Inclusion Index, 2025

6.9 ROOFTOP SOLAR AND BATTERY UPTAKE

Australia is experiencing growth in renewable energy update, led principally by rooftop solar systems. Residential rooftop solar systems comprise the majority of the installed capacity, accounting for around 75-80%, while commercial and industrial installations continue to grow steadily.

Across Australia, more than 3.7 million households now have solar PV systems (Clean Energy Council, 2024). Battery storage adoption has also increased by approximately 14.4% since 2021, with attachment rates rising to 28.4% of new solar installations by late 2024. During 2023–24, the commercial sector contributed approximately 23% of new solar capacity, driven by businesses seeking to reduce energy costs. Battery installations surged as well, with 74,600 units installed in 2024, an increased from approximately 46,000 in 2023 (Clean Energy Council, 2024).

By 2030, rooftop PV capacity is projected to reach approximately 9.5 GW to 10 GW in Queensland and around 37 GW nationally, while BESS systems are expected to total 120,000 to 150,000 units in Queensland and about 500,000 units (equivalent to 2.5 GW to 3 GW) across Australia, based on AEMO Integrated System Plan and CEC projections.

Key drivers for rooftop solar and battery uptake include the reduction of technology costs, high retail electricity prices, and supportive government programs such as rebates, loans, and virtual power plant initiatives. Growing demand for blackout resilience and improving battery economics are also accelerating adoption. To manage high solar penetration, integration measures such as dynamic export limits, tariff reforms, and virtual power plant enrolment are being implemented (Clean Energy Council, 2025).

Table 6-31 Table provides an overview of solar and battery metrics at a State and National level in 2024, which indicates:

- Queensland has 6.9 GW of rooftop solar capacity, with 5.5 GW (80%) of residential and 1.4 GW (20%) of commercial/industrial.
- Battery storage uptake in Queensland includes 40,000 to 50,000 small BESS units and 200MW to 250 MW of total capacity.
- In 2024, Queensland was forecast to add 800 MW of Photovoltaic installations and 15,000 battery units.
- Australia has 25.5 GW of rooftop solar and 900,000 to 950,000 battery units.

TABLE 6-31 2024 SOLAR AND BATTERY METRICS INDICATORS

Indicator		Queensland	Australia
Current Installed Capacity	Rooftop Photovoltaic Capacity	6.9 GW	25.5 GW
	Residential Share	5.5 GW (80%)	-
	Commercial and Industrial	1.4 GW (20%)	-
Battery Storage Uptake	Small BESS Installed	40,000 to 50,000 units	900,000 to 950,000 units
	Battery Capacity	200 to 250 MW	-
Annual Installation Trends	2024 Photovoltaic Additions	800 MW (*720 MW in 2023*)	3.0 GW (*3.1 GW in 2023*)
	2024 Battery Additions	15,000 units	185,798 units

Source: Clean Energy Council (CEC), 2024; Australian Energy Market Operator (AEMO), 2024

Table 6-32 provides an overview of small-scale solar installations by postcodes relevant to the Social Study Area, which indicates:

- Bororen has three solar installations with an output of 30.8 kW and one battery with a capacity of 31.2 kWh.
- Miriam Vale and Agnes Water have a total of 40 solar installations with an output of 439 kW and 21 batteries with a total capacity of 431.3 kWh.
- Benaraby, Calliope, and Gladstone areas have 288 solar installations with a total output of 3,181.9 kW and 148 batteries with a total capacity of 3,143.5 kWh.
- In total, there are 331 solar installations with a total output of 3,651.7 kW and 170 batteries with a total capacity of 3,605.9 kWh, with most capacity concentrated in the Gladstone region.

TABLE 6-32 SMALL GENERATION UNIT (SGU) SOLAR AND BATTERY INSTALLATIONS BY POSTCODE, JULY TO OCTOBER 2025

Location (Postcode)	SGU Solar		SGU Battery	
	Installation Quantity (#)	Solar Panel Rated Power Output (kW)	Installation Quantity (#)	Battery Total Usable Capacity (kWh)
Bororen (4678)	3	30.8	1	31.2
Miriam Vale Agnes Water (4677)	40	439.0	21	431.3
Benaraby Calliope Gladstone Central Gladstone Harbour West Gladstone (4680)	288	3,181.9	148	3,143.5
Total	**331**	**3,651.7**	**170**	**3,605.9**

Source: Clean Energy Regulatory (CER), 2025

6.10 ACCESS AND CONNECTIVITY

This section outlines the existing transport infrastructure and networks within the Social Study Area, including road networks and public transport services, and how these are currently used by local/regional communities.

6.10.1 ROAD NETWORK

The Project Area is located in a rural setting near Bororen and is primarily accessed via Red Hill Road, which runs north south through the property. This road provides the main link between the Project Area and surrounding communities, connecting to the Bruce Highway (A1) approximately 8 km to the east. The Bruce Highway is a major transport corridor in Queensland, facilitating regional connectivity between Bororen, Gladstone, and other centres along the east coast. This highway is critical for movement of goods and services and will likely serve as the primary route for construction and operational traffic.

Red Hill Road is a rural collector road under Council management. It is sealed for the first 3 km from the Bruce Highway before transitioning to an unsealed surface, which reflects the low traffic volumes and rural character of the area. While the road network provides adequate physical access, its condition and limited width may influence travel times and vehicle safety, particularly for heavy vehicles expected to transport materials from the Port of Gladstone. There are no regular public transport services in the immediate vicinity of the Project.

6.10.2 AERODROMES

Fly-In Fly-Out (FIFO) arrangements for workers are common within the Gladstone LGA, with resource-related projects often using nearby transport and airport options throughout the construction and/or operation phases of their development/operations. This method is commonly used to relocate short-term workers on rotating rosters and can reduce the need for extensive accommodation development.

The Social Study Area contains several airstrips and aerodromes primarily servicing agricultural aviation and private charter flights. The closest major airport is Gladstone Airport (GLT), located approximately 60 km north of the Project. Gladstone Airport provides regular passenger services to Brisbane and supports charter flights, making it a key transport hub for the region. In 2023, the airport handled over 200,000 passengers, and demand is expected to grow steadily in coming years (Bureau of Infrastructure and Transport Research Economics, 2023).

6.10.3 PUBLIC TRANSPORT

Public transport options across the Social Study Area are limited, particularly outside Gladstone. Local access in rural localities such as Bororen and Miriam Vale primarily relies on the Bruce Highway and connecting rural roads, with regional connectivity provided by major routes linking these towns to Gladstone and surrounding areas. Residents and visitors generally depend on private vehicles for transportation.

Within Gladstone, a public transport system operated by CDC Gladstone provides urban bus services and school transport routes. However, there are no regular public bus routes servicing the Project Area directly or rural localities such as Bororen, Miriam Vale, Agnes Water, Benaraby, and Calliope.

School transport services are available in the Primary Social Study Area via CDC Queensland, operating routes 542, 544, 545, 546, 547, and 548. These services typically run once in the morning and once in the afternoon on school days, transporting students to and from Calliope State School and Calliope State High School (except Route 548 which connects Gladstone City to Calliope along the Dawson Highway). There are no school bus services to Gladstone from either Bororen or Miriam Vale.

Private hire options, including local taxi and charter services, may be available on request for travel between rural areas and larger centres such as Gladstone. Community transport providers operating in the Gladstone LGA may offer pre-booked services for eligible residents, typically for medical appointments, essential health services, grocery shopping or other personal needs. These services are limited and require advance booking.

Rail access in the Social Study Area is also limited. The nearest active passenger rail station is located in Gladstone, serviced by Queensland Rail's long-distance routes. There are no active train stations in Bororen, Miriam Vale, Agnes Water, Benaraby, or Calliope.

6.10.4 VEHICLE OWNERSHIP AND TRAVEL TO WORK

Table 6-33 summarises the number of motor vehicles per occupied private dwelling, and **Table** identifies the method of travel to work across the Social Study Area.

Households with two motor vehicles remain the most common across the Social Study Area in 2021, with ownership of three or more vehicles also evident, particularly in smaller localities within the Social Study Area. There are few households without vehicles, and these households have continued to decline since 2016. Multi-vehicle ownership has increased across both the Primary and Secondary Social Study Areas, as well as in Gladstone and Queensland, reflecting a common trend toward higher vehicle ownership per dwelling.

Method of travel to work patterns indicate that driving a car is the most common mode of transport across all areas in both 2016 and 2021. Walking remains more common in smaller towns, although it declined slightly over the period. Bus use increased in some local areas, while taxi and ride-share services increased across Queensland. Overall, total commuter numbers increased moderately in most local areas but declined across Queensland, reflecting changes in work patterns such as increased working from home during the 2021 Census period.

TABLE 6-33 NUMBER OF MOTOR VEHICLES PER PRIVATE DWELLING

ABS Statistical Area	Census Year	No motor vehicles	1 motor vehicle	2 motor vehicles	3 or more motor vehicles
Primary Social Study Area					
Bororen SAL	2021	5	29	54	53
	2016	0	38	61	41
Miriam Vale SAL	2021	8	66	69	44
	2016	11	77	90	40

ABS Statistical Area	Census Year	No motor vehicles	1 motor vehicle	2 motor vehicles	3 or more motor vehicles
Secondary Social Study Area					
Agnes Water SAL	2021	28	346	399	182
	2016	21	297	305	125
Benaraby SAL	2021	0	61	148	161
	2016	3	41	167	150
Calliope SAL	2021	28	404	753	318
	2016	21	363	742	270
Gladstone SUA	2021	966	7,545	9,092	3,424
	2016	736	4,940	6,375	2,098
Social Context					
Gladstone LGA	2021	966	7,545	9,092	3,424
	2016	845	6,498	8,834	3,119
Queensland STE	2021	106,309	658,705	701,752	239,394
	2016	99,133	566,233	620,096	207,335

Source: ABS, n.d.

TABLE 6-34 METHOD OF TRAVEL TO WORK

ABS Statistical Area	Census Year	Bus	Taxi/ Share Service	Car (driver)	Car (passenger)	Truck	Motorbike	Bicycle	Other	Walked	Total
Primary Social Study Area											
Bororen SAL	2021	0	0	113	12	0	0	0	0	10	135
	2016	7	0	124	13	3	0	0	3	10	160
Miriam Vale SAL	2021	0	0	111	9	0	0	0	0	20	140
	2016	3	0	134	3	0	0	3	0	25	168
Secondary Social Study Area											
Agnes Water SAL	2021	8	0	545	49	3	4	13	8	79	709
	2016	16	3	490	41	9	3	10	25	57	654
Benaraby SAL	2021	0	0	404	25	7	0	0	0	5	441
	2016	7	0	370	27	4	3	0	0	4	415
Calliope SAL	2021	3	0	1,626	95	18	14	9	3	34	1,802
	2016	33	3	1,501	93	20	26	4	12	28	1,720
Gladstone SUA	2021	91	51	14,750	1,090	86	199	115	92	425	16,956
	2016	306	48	13,255	1,060	76	332	140	99	459	15,907
Social Context											
Gladstone LGA	2021	141	56	19,584	1,400	154	234	138	147	690	22,544
	2016	585	52	17,803	1,367	148	394	155	198	735	21,575
Queensland STE	2021	41,281	6,429	1,455,104	110,004	18,693	15,951	17,121	15,174	63,580	1,644,337
	2016	63,829	3,554	1,368,965	112,508	19,948	19,630	21,679	15,689	70,471	1,743,364

Source: ABS, n.d.

6.11 CRIME

Communities can be vulnerable to crime-related impacts, particularly in rural and regional areas where limited policing resources and social disadvantage may influence crime patterns. **Table 6-35** provides Queensland Police Service (QPS) data on reported offences over a 5-year period between 20 November 2020 to 20 November 2025, and identifies the following:

- Across the six suburbs, crime levels vary widely. Gladstone Central has the highest number of reported offences, followed by Calliope and Miriam Vale, while Bororen and Gladstone Harbour have lower counts. This pattern suggests that larger centres like Gladstone Central and Calliope experience a broader mix and higher volume of crime compared to smaller towns.
- Drug-related and traffic offences are consistently among the most common crimes across most suburbs, pointing to ongoing challenges with substance use and road safety. There are also many property-related crimes, particularly in Calliope and Benaraby, where they make up a large share of offences. Gladstone Central stands out for its high number of public order offences, which may reflect active policing of antisocial behaviour.
- Assault is the most frequent offence against people, with Calliope recording a relatively high number compared to its overall crime volume. Serious crimes like homicide and robbery are rare, with only isolated cases reported over the five-year period.
- Overall, more populated areas such as Gladstone Central and Calliope show a more diverse crime profile, including higher levels of drug, traffic, and public order offences. Smaller towns like Bororen and Miriam Vale have fewer offences overall but still experience property crime and assault, showing these issues are widespread regardless of community size. The prominence of drug and traffic offences across all areas suggests these are challenges for the region, potentially connected to broader social and economic factors.

TABLE 6-35 OFFENSES COMMITTED, NOVEMBER 2020 TO NOVEMBER 2025

Offence Type	Suburb						
	Bororen	Miriam Vale	Agnes Water	Benaraby	Calliope	Gladstone Central	Gladstone Harbour
Other Theft (excl. Unlawful Entry)	27	48	169	144	145	930	2
Drug Offences	55	196	156	63	170	880	1
Unlawful Entry	7	12	42	38	64	364	1
Traffic & Related Offences	137	266	226	252	364	596	0
Other Property Damage	7	19	73	23	129	452	0
Weapons Act Offences	2	19	6	4	21	113	0
Assault	4	14	48	24	139	500	0
Unlawful Use of Motor Vehicle	4	7	7	12	15	62	1

Offence Type	Suburb						
	Bororen	Miriam Vale	Agnes Water	Benaraby	Calliope	Gladstone Central	Gladstone Harbour
Other Offences Against the Person	1	6	14	7	37	79	0
Good Order Offences	14	40	93	26	163	1,805	0
Handling Stolen Goods	3	4	7	6	11	68	0
Fraud	7	10	19	14	31	252	0
Arson	0	2	1	7	10	10	0
Robbery	0	1	0	6	2	17	0
Other Homicide	0	0	0	1	1	0	0
Trespassing & Vagrancy	2	4	28	4	17	90	0
Miscellaneous Offences	1	3	3	2	16	17	0
Liquor (excl. Drunkenness)	1	1	16	0	14	69	0
Total	**272**	**652**	**908**	**633**	**1,349**	**6,304**	**5**

Note1 Data is for the period of 20 November 2020 to 20 November 2025.

Source: QPS Online Crime Map, 2025.

6.12 VULNERABLE GROUPS

Vulnerability refers to an individual or group's capacity to adapt to, or cope with changes in their environment and is influenced by a range of different socio-economic factors. Some individuals or groups may be more vulnerable than others due to certain existing socio-economic characteristics including (but not limited to) age, livelihood, language proficiency and health status. Regional towns throughout Queensland are often prone to social, cultural, environmental and economic changes over time.

This section considers four groups across the Primary Social Study Area with potential social vulnerabilities related to cultural and linguistical diversity (CALD) (refer to **Section 6.12.1**), age (refer to **Section 6.12.2**), First Nations communities (refer to **Section 6.12.3**), and socio-economic disadvantage (refer to **Section 6.12.4**).

6.12.1 CULTURALLY AND LINGUISTICALLY DIVERSE

CALD is a broad term used to describe communities with diverse languages, ethnic backgrounds, nationalities, traditions, societal structures, and religions (Ethnic Communities Council of Victoria Inc., 2012). Because of this, CALD groups are often considered vulnerable people. As per the SIA Guideline special attention is required to ensure culturally appropriate and inclusive engagement.

In 2021, 79.6% of people in the Gladstone LGA were born in Australia, 8.2% higher than Queensland a whole. The next highest was New Zealand (3.1%), followed by England (2.3%). Most persons within the Gladstone LGA have Australian ancestry, followed by English (39.9%) and Scottish (10.1%).

Based on 2021 Census data, the majority of the population within the Gladstone LGA spoke English at home, followed by Afrikaans (0.7%), and Tagalog and Filipino (1.1%) which despite the small percentages, is all higher than Queensland as a whole. The Australian Government Department of Home Affairs provides a free interpreting service, which is accessible to any non-English speaking household living in Australia (Department of Home Affairs, 2024).

Of the 63,515 residents in the Gladstone LGA, 295 people stated their proficiency of spoken English to be "Not well or not at all" in 2021, which represents approximately 0.45% of the total population. In Queensland, there were a total of 90,855 people who stated their proficiency of spoken English to be "Not well or not at all", which represents 1.76% of the total population. Additionally, the percentage of households where a non-English language is used in 2021 (refer to **Table 6-6**) in the Gladstone LGA is 7.5%. Overall, the Gladstone LGA shows significantly lower percentages than those in the State, with the Queensland percentage at 15.6%.

Christianity is the dominant religion with 43.9% of people identifying as Christian in Gladstone LGA. Despite this however, 45.4% of the Gladstone LGA's population recorded "no religion" in the 2021 Census, a 15.9% increase since 2016.

Based on the above considerations of the languages, ethnic backgrounds, nationalities, and religions of the, the likelihood of CALD groups being excluded from engagement activities for the Project due to language barriers is deemed to be low.

6.12.2 YOUTH AND ELDERLY

Youth and elderly populations are particularly vulnerable to the impacts of large development projects due to their specific mobility, health, safety, and social needs. During the Construction, Operation and Decommissioning Phases, the Project impacts that have potential to exacerbate the needs of youth and elderly groups are typically concentrated to the immediate surroundings of the Project Area.

As per **Table 6-6**, between 2016 and 2021, the Social Study Area experienced mixed demographic changes, with some localities showing strong ageing trends and others maintaining younger profiles.

The Miriam Vale SAL shows the strongest ageing trend, with residents over 65 increasing by 4.0%, while the population under 14 declined by 2.9% between 2016 and 2021 census periods. The Agnes Water and Bororen SALs also indicate significant ageing within their communities, with older residents increasing by 5.8% and 4.2% respectively, alongside a decline in youth populations. Comparatively, the Benaraby SAL has a relatively youthful population, with the population under 14 remaining at 21.9%, though over 65 residents have increased by 3.4%. The Calliope SAL continues to have the highest youth proportion at 28.7%, despite a slight increase in people over 65 years. Collectively across the Gladstone LGA, it appears that ageing is evident, with the percentage of older residents reaching 13.9% in 2021, up from 10.3% in 2016.

Accordingly, this data suggests that there may be increased pressure on aged care and health services in coastal and rural areas such as the Miriam Vale and Agnes Water SALs, while other areas such as the Calliope and Benaraby SALs may require more targeted youth investments.

6.12.3 FIRST NATIONS

First Nations populations and communities are culturally vulnerable to the Project impacts particularly given past practices and government policies that may have created detachment from traditional lands. **Table 6-36** provides ABS data on Aboriginal and/or Torres Strait Islander population statistics, additional to **Table 6-6** and identifies the following:

- Across both the Gladstone LGA and Queensland, the percentage of the population who identify as Aboriginal and/or Torres Strait Islander has increased. As of 2021, the Gladstone LGA has a higher percentage of total population who identifies as Aboriginal and/or Torres Strait Islander with 6.2% when compared to the State percentage of 4.6%.
- Population growth among Aboriginal and/or Torres Strait Islander peoples has varied across Social Study Areas between 2016 and 2021. The Bororen SAL declined by 50.0% (7 people), while the Miriam Vale SAL increased by 50.0% (6 people). In the Secondary Social Study Area, the largest increase in population was experienced in the Benaraby SAL (96.2%), however this translated to only an additional 25 persons. The highest increase in the number of persons was in the Gladstone SUA which increased by 1,135 people (59.5%).
- Median age remains relatively young compared to the overall population, which is consistent with broader Aboriginal and/or Torres Strait Islander population trends. Median age of the Aboriginal and/or Torres Strait Islander population differs in the Social Study Area. Within the Primary Social Study Area, the median age was 27 years old in Bororen SAL, while in Miriam Vale SAL, the median age was 32 years. Within the Secondary Social Study Area, Calliope SAL had a median age of 15 years, and Water had the oldest median age of 32 years.
- Median weekly household incomes have improved across all areas between 2016 and 2021. Increases are most evident in the Agnes Water and Benaraby SALs, which have increased to $1,550 (30% increase) and $2,812 (50% increase), respectively, in 2021. The Bororen SAL remains low compared to the other areas within the Social Study Area with a median weekly household income of $900 (25% increase).
- Aboriginal and/or Torres Strait Islander unemployment rates vary within the Social Study Area. At the LGA and State level, unemployment rates have improved, declining by 10.1% in Gladstone LGA and by 6.8% in Queensland. Unemployment remains high in some SALs, such as Benaraby (25.0%) and Agnes Water (15.6%), however it is zero percent in the Miriam Vale and Agnes Waters SALs.
- Overall, the data indicates an increasing and relatively young Aboriginal and/or Torres Strait Islander population with improving income levels but socio-economic vulnerability in some localities. These trends highlight the importance of culturally appropriate engagement and targeted mitigation strategies to address employment and income disparities.

TABLE 6-36 ABORIGINAL AND/OR TORRES STRAIT ISLANDER STATISTICS

ABS Statistical Area	Census Year	Total Population (#)	Total Population Change (%)	Median Age (#)	Median Weekly Household Income ($)	In the Labour Force (#)	Unemployment Rate (%)	Household Composition Families / Single / Group % (#)	Homelessness # (%)
Primary Social Study Area									
Bororen SAL[1]	2021	7	↓ -50.0	27	900	-	-	-	-
	2016	14		6	725	-	-	-	-
Miriam Vale SAL[1]	2021	18	↑ 50.0	31	1,375	-	0.0	-	-
	2016	12		46	962	-	-	-	-
Secondary Social Study Area									
Agnes Water SAL[1]	2021	90	↑ 32.4	32	1,550	-	0.0	-	-
	2016	68		22	1,186	-	-	-	-
Benaraby SAL[1]	2021	51	↑ 96.2	22	2,812	-	25.0	-	-
	2016	26		30	1,875	-	-	-	-
Calliope SAL[1]	2021	360	↑ 53.8	15	1,724	-	15.5	-	-
	2016	234		15	1,916	-	-	-	-
Gladstone SUA[1]	2021	3,043	↑ 59.5	20	1,409	-	-	-	-
	2016	1,908		21	1,345	-	-	-	-

ABS Statistical Area	Census Year	Total Population (#)	Total Population Change (%)	Median Age (#)	Median Weekly Household Income ($)	In the Labour Force (#)	Unemployment Rate (%)	Household Composition Families / Single / Group % (#)	Homelessness # (%)
Social Context									
Gladstone LGA	2021	3,946	↑ 57.8	20	1,448	1,440	18.7	76.7 (1,369) / 3.7 (66) / 19.6 (349)	65 (22)
	2016	2,501		20	1,331	994	24.9	79.8 (897) / 2.8 (31) / 17.4 (196)	17 (8)
Queensland STE	2021	237,303	↑ 27.3	23	1,517	88,971	13.3	74.3 (75,527) / 5.3 (5,398) / 20.3 (20,562)	-
	2016	186,483		22	1,222	65,897	20.1	75.5 (56,358) / 5.1 (3,776) / 19.5 (14,572)	-

Note1 To protect confidentiality in small populations, some data values may be adjusted, suppressed or unavailable, and totals may not match.

Note2 A dash (-) denotes that data is not available for the locality.

Source: ABS, 2025 & n.d.

In March 2019, a formal Partnership Agreement on Closing the Gap was established between the Australian Government, State and Territory Governments, the Coalition of Aboriginal and Torres Strait Islander Peak Organisations, and the Australia Local Government Association. As part of this Partnership Agreement, the National Agreement on Closing the Gap was established (Department of the Prime Minister and Cabinet, n.d.).

The National Agreement on Closing the Gap contains 19 national socio-economic targets across 17 socio-economic outcomes areas that relate to aspects that have an impact on the life outcomes of Aboriginal and/or Torres Strait Islander peoples. Those targets available through ABS Census Data collection for 2016 and 2021 are outlined in **Table 6-37** to **Table 6-41**, and comprise:

- Target 5: By 2031, increase the proportion of Aboriginal and Torres Strait Islander people (age 20-24) attaining year 12 or equivalent qualification to 96 per cent.
- Target 6: By 2031, increase the proportion of Aboriginal and Torres Strait Islander people aged 25-34 years who have completed a tertiary qualification (Certificate III and above) to 70 per cent.
- Target 7: By 2031, increase the proportion of Aboriginal and Torres Strait Islander youth (15-24 years) who are in employment, education or training to 67 percent.
- Target 8: By 2031, increase the proportion of Aboriginal and Torres Strait Islander people aged 25-64 who are employed to 62 per cent.
- Target 9A: By 2031, increase the proportion of Aboriginal and Torres Strait Islander people living in appropriately sized (not overcrowded) housing to 88 per cent.

TABLE 6-37 CLOSING THE GAP TARGET 5, GLADSTONE LGA

Target Dataset	Census Year	
	2016	2021
Attained Year 12 or equivalent or Certificate III or above % (#)	68.2 (137)	67.9 (190)
Total applicable population aged 20-24 years (#)	201	280

Source: ABS, 2025

TABLE 6-38 CLOSING THE GAP TARGET 6, GLADSTONE LGA

Target Dataset	Census Year	
	2016	2021
Completed tertiary qualification of Certificate III or above % (#)	41.6 (128)	45.8 (234)
Total applicable population aged 25-34 years (#)	308	511

Source: ABS, 2025

TABLE 6-39 CLOSING THE GAP TARGET 7, GLADSTONE LGA

Target Dataset	Census Year	
	2016	2021
Fully engaged in employment, education or training % (#)	53.9 (260)	58.3 (360)
Total applicable population aged 15-24 years (#)	482	617

Source: ABS, 2025

TABLE 6-40 CLOSING THE GAP TARGET 8, GLADSTONE LGA

Target Dataset	Census Year	
	2016	2021
Employed % (#)	54.7 (542)	55.9 (865)
Total applicable population aged 25-64 years (#)	990	1,548

Source: ABS, 2025

TABLE 6-41 CLOSING THE GAP TARGET 9A, GLADSTONE LGA

Target Dataset	Census Year	
	2016	2021
Living in a dwelling with no additional bedrooms required (appropriately sized) % (#)	92.9 (2,029)	86.3 (3,020)
Living in a dwelling requiring one additional bedroom % (#)	5.2 (114)	9.7 (339)
Living in a dwelling requiring two additional bedrooms % (#)	1.3 (28)	2.8 (99)
Living in a dwelling requiring three additional bedrooms % (#)	0.7 (16)	0.5 (19)
Living in a dwelling requiring four or more additional bedrooms % (#)	0.0 (0)	0.5 (18)
Total people living in applicable dwellings (#)	2,185	3,501

Source: ABS, 2025

6.12.4 SOCIO-ECONOMIC DISADVANTAGE

Socio-Economic Indexes for Areas (SEIFA) is developed by the ABS that ranks areas in Australia according to relative socio-economic advantage and disadvantage. The indexes are based on information from the Census, with SEIFA 2021 based on Census 2021 data (ABS, 2023).

The concept of relative socio-economic advantage and disadvantage used in SEIFA 2021 is consistent with previous censuses. The ABS broadly defines relative socio-economic advantage in terms of people's access to material and social resources, and their ability to participate in society. This is broadly defined in recognition of the many concepts that have emerged in the literature to describe advantage and disadvantage (ABS, 2018b).

The latest SEIFA indicators for 2021 across the Social Study Area are reported in **Table 6-42**. Each ABS Statistical Area receives a SEIFA score, referred to as the Index of Relative Socio-economic Advantage and Disadvantage (IRSAD) score, indicating how relatively advantaged or disadvantaged that area is compared with other areas. A lower score indicates that an area is relatively disadvantaged compared to an area with a higher score. It is important to note that SEIFA IRSAD scores can't be compared over time because each set of scores is calculated using new ABS Census data and updated methods.

The SEIFA IRSAD scores below indicate that in 2021, within the Primary Social Study Area, the Miriam Vale SAL recorded a score of 823, indicating relative disadvantage compared to the Bororen SAL with a score of 900. Across the Secondary Social Study Area, Benaraby SAL is the most advantaged locality, followed by the Agnes Water SAL and Calliope SAL at 983, 929 and 924, respectively. The Gladstone LGA overall records a score of 926, aligning closely with the Calliope SAL and slightly below the Agnes Water SAL. These results highlight variability in socio-economic conditions across the Social Study Area, with the Miriam Vale SAL experiencing the highest level of socio-economic disadvantage.

TABLE 6-42 SEIFA INDICATORS, 2021

ABS Statistical Area	IRSAD Score
Primary Social Study Area	
Bororen SAL	900
Miriam Vale SAL	823
Secondary Social Study Area	
Agnes Water SAL	929
Benaraby SAL	983
Calliope SAL	924
Social Context	
Gladstone LGA	926

Note1: SEIFA is not provided for STE Statistical Areas.

Source: ABS, 2023.

6.12.5 SIA CONSIDERATIONS

In consideration of the above, the vulnerable groups to be considered as part of this SIA are:

- Unemployed individuals, particularly within the First Nations population as unemployment remains higher than State averages, creating difficulty in economic participation and overall wellbeing. Engagement may require targeted information sessions on job readiness and Project-related roles, including practical support such as workshops and transport assistance for attending sessions.

- Youth, particularly within the First Nations population due to the young median age which highlights reliance on education, childcare, and family support services. This group may require tailored engagement for accessibility. Engagement may require the use of youth-friendly formats such as visuals, social media, and interactive workshops, engage through schools, youth centres, and sports/community programs, and provide information on education and training pathways.
- Low-income households, particularly households that have median household incomes below the Queensland average which are at an increasing risk of housing stress, limited access to health and social infrastructure. Engagement may require scheduled sessions at accessible locations and times, provide free transport or virtual options to reduce cost barriers, and share clear, easily understandable language materials about the Project benefits and support services.
- Residents of Miriam Vale due to high SEIFA disadvantage scores which indicate socio-economic vulnerability, which may limit access to health, education, and social services. Engagement may require the use of multiple channels such as local radio, community newsletters, and social media to reach households with limited digital access, offer drop-in sessions and mobile engagement units in neighbourhoods, and include information on health, education, and social service linkages.

6.13 SURROUNDING PROJECTS

There are several projects within the Social Study Area, and in the nearby region, which have the potential to cause cumulative impacts for stakeholders/receptors, principally during the Construction Phase of the Project.

A review of the Queensland Treasury's Electricity Generation Map and the DSDIP Coordinated Projects Map and Gladstone Regional Council's Renewable Energy Projects Map (n.d.), has identified one project within the Primary Social Study Area of the Project:

- Eurimbula Solar Farm/BESS.

A summary of the available information of relevance to the consideration of potential cumulative impacts (refer to **Section 8**) is provided in **Table 6-43**.

TABLE 6-43 SUMMARY OF KEY SURROUNDING PROJECTS

Project	Developer	Scale	Proximity	Status	Timeframe	Workforce	Potential Construction Phase Overlap	Link
Eurimbula Solar Farm/BESS	Elements Green	560 MW solar 666 MW BESS	Adjacent to the north	Approved	Unknown	Construction: 450-550 Operation: Unknown	Unknown	Link
Euleilah Solar Farm/BESS	Ox2	119 MW solar 100 MW BESS	~30 km south-east	Proposed	Unknown	Unknown	Unknown	N/A
Agnes Water BESS	EQL	4 MW	~30 km east	Under construction	2025	Unknown	No	N/A
Wurdong (Hughes Road) BESS	BayWa r.e.	200 MW	~40 km north-west	Proposed	Construction to Commence: late 2025 Operation: 2027	Unknown	No	Link
Byellee BESS	Eku	300 MW	~50 km north-west	Proposed	Construction to Commence: Unknown Operation: 2028	Unknown	Unknown	Link
East End BESS	TE H2	500 MW	>50 km north-west	Development	Construction to Commence: Early 2027	Construction: 150-200 Operation: 6-10	Yes	Link
Aldoga Solar Farm	Acciona	380 MW	>50 km north-west	Operational	Construction: Completed Operation: Late 2025	Construction: 350 Operation: 14	No	Link
Raglan BESS	Ace Power	500 MW / 2,000 MWh	>50 km north-west	Approved	Unknown	Construction: 150 Operation: 5-7	Unknown	Link
Wooderson Solar Farm and BESS	CQP	450 MW solar 450 MW BESS	>50 km west	Proposed	Unknown	Construction: Up to 680 Operation: Up to 10	Unknown	Link

Project	Developer	Scale	Proximity	Status	Timeframe	Workforce	Potential Construction Phase Overlap	Link
Upper Calliope Solar Farm	European Energy	1,100 MW	>50 km west	Approved	Unknown	Unknown	Unknown	Link
Clinton Battery	EQL	4 MW	>50 km west	Under construction	Unknown	Unknown	No	N/A

Note1: The Project is proposed to commence construction in 2027, with operation anticipated from 2028.

Source: Acciona Energia, n.d.; Ace Power, n.d.; CQP, n.d.; Elements Green, 2025; Eku, n.d.; European Energy, n.d.; Gladstone Regional Council, n.d.g; Total Energies H2, 2025; Queensland Treasury, 2024

7. COMMUNITY AND STAKEHOLDER ENGAGEMENT

This section summarises the community and stakeholder engagement activities and outcomes as relevant to the SIA that have been undertaken during ongoing community and stakeholder engagement for the Project, and during targeted engagement for the SIA.

Accordingly, this section provides an overview of the key themes, including potential Project benefits, issues and concerns raised throughout the community and stakeholder engagement activities conducted for the Project. Furthermore, the outcomes included in this section have informed the scoping of social issues and potential impacts to ensure that these concerns are adequately captured in the impact assessment contained in **Section 8**.

7.1 GLADSTONE REGIONAL COUNCIL

A Notice of Intent to Commence SIA and Community and Stakeholder Engagement was submitted to Council and formally acknowledged by Council on 10 September 2025. Subsequently, a Scoping Meeting was held with Council on 27 November 2025 to discuss the outcomes of the scoping process, including:

- Development of the Social Study Area; and
- Identification of stakeholders; and
- Identification of potential social impacts to be explored further as part of the SIA.

7.2 PRIOR ENGAGEMENT ACTIVITIES

Community and stakeholder engagement activities in respect of the proposed development of the Project Area have been occurring with the Bororen and Miriam Vale communities since early 2025. Early community and stakeholder engagement activities were associated with the previously proposed Rutherglen Solar and Storage project (DA/48/2024), and included:

- Provision of Project updates to the Host Landowner and Immediate Neighbours;
- Meetings with the Gladstone Regional Council to provide Project updates, and discuss technical matters; and
- Community Information Session on 8 May 205.

7.2.1 PRIOR ENGAGEMENT OUTCOMES

The key outcomes of prior engagement activities, including submissions received during the public notification period in respect of DA/48/2024, relevant to the current Project are summarised in **Table 7-1**.

TABLE 7-1 PRIOR COMMUNITY AND STAKEHOLDER ENGAGEMENT OUTCOMES

Topic	Outcomes / Comments / Concerns
Community and Stakeholder Engagement	• Community members felt that they had not been sufficiently engaged. • There was a lack of notification/publication of the Community Information Session.
Ecology	• Concern about the impact to endangered species and proximity to ecologically sensitive areas. • Concern about vegetation removal/deforestation required to facilitate the Project.

Topic	Outcomes / Comments / Concerns
Flood and Water	• Concern about taking water from existing waterways for the Project and impacting on local household / stock water use. • Concern about flood risk at the Project Area. • Concern about impact to the Baffle Creek hydrological system and its ecological significance. • Concern about the lack of a comprehensive stormwater management plan. • Concern about the decline in water quality caused by increased sedimentation, chemical runoff, or pollution, which could impact livestock health, pasture productivity, and operational costs.
Contamination	• Concern that the Project may introduce multiple potential contaminants (e.g. sediment, hydrocarbons, herbicides, heavy metals, electrolytes, etc.) • Concern about stormwater runoff and groundwater contamination occurring from construction activities, operational cleaning chemicals, and/or leaching from Project components. • Concern that pollutants from the construction process can enter waterways and contribute to pollutant load carried to the Great Barrier Reef. • Concern that hazardous materials associated with the BESS (e.g. heavy metals) may be released into the surrounding environment in the event of malfunction, fire, or containment failure. In particular, this may have implications for water quality. • Concern about the lack of a detailed erosion and sediment control plan.
Fire and Bushfire	• Concern about fire and/or explosion risk from the Project. ° BESS fires are difficult to extinguish and often result in the release of toxic gases and chemical residues. ° Concern that poor communications signals (e.g. bad internet) will mean that community members may not be notified in the event of a fire or other emergency. • Concern that a fire at the Project Area will spread to adjoining grazing properties. ° Combustion of battery components can release hazardous substances into the surrounding soil, air and water which may render surrounding properties temporarily or permanently unsuitable for agricultural use. • Concern about lack of resources in the Bororen Community to fight a fire/bushfire, as there is only a small Rural Fire Brigade.
Noise	• Concern about noise impact from construction, traffic and operations to dwellings on an elevated site, and grazing land. • Concern that the noise monitoring was not representative of residential receptors, particularly in relation to the topography of the Project Area. • Concern about noise generated from construction and operation of the Project.
Visual Impact, Character and Amenity	• Concern that the Project undermines the rural character and amenity valued by local residents. • Concern about impact to community members' country views. • Concern about dust management (dust impact from vehicles accessing the Project Area). • Concern that the battery/inverter structures (particularly the concentration of the structures) is inconsistent with the character and built form expectations of the Rural Zone.
Land Use	• Concern that the Project is incompatible with the Rural Zone. • Concern that the Project is displacing agricultural activities, thereby increasing food insecurity. • Concern that the Project poses a risk to the long-term viability of nearby grazing operations by altering land use.

Topic	Outcomes / Comments / Concerns
Traffic and Roads	• Concern regarding safety for individuals, vehicles, livestock and wildlife with respect to traffic. ° Will there be renumeration of land owners' livestock if damaged or killed as a result of the Project? • Interest in understanding if speed restrictions will be implemented during the Construction Phase. • Concern about the use of vehicle horns as this will create noise pollution and is not courteous to local landowners. • Concern about increased traffic and heavy vehicle movements on rural roads. • Interest in upgrading of Red Hill Road as a legacy benefit of the Project.
Biosecurity	• Concern about biosecurity management to ensure control invasive plants from area, and ongoing control of the Project Area to assist the local area in maintaining weed control (e.g. designated wash down station accessible for the Project as well as free access to locals in the area but maintained by the proponent).
Waste	• Interest in understanding waste management so as to prevent waste from blowing offsite or along public accessways.
Community Benefit	• Concern that community benefits are disproportionate to the long-term operational profits.
Other	• Concern that the Project will increase the cost of power for community members. • Concern that the use of Project components from China will present a national security risk. • Interest in understanding the hours of construction activities and during the Operation Phase.

7.3 CURRENT ENGAGEMENT ACTIVITIES

In response to stakeholder feedback, Red Hill Renewable Energy have decided to remove the solar farm component of the project, focussing only on the BESS. Further, given previous feedback regarding the lack of community and stakeholder engagement (refer to **Table 7-1**), Red Hill Renewable Energy and AMPYR have continued to undertake community and stakeholder engagement on the Project. Community and stakeholder engagement activities relevant to the current Project include:

- Provision of Project updates to the Host Landowner and Immediate Neighbours;
- Regular meetings with the Gladstone Regional Council to provide Project updates, and discuss technical matters;
- Ongoing engagement with First Nations Peoples, including project briefing to the directors of FNBGGGTB on 18 September 2025;
- Holding a Community Town Hall Briefing on 27 November 2025, that was attended by 26 stakeholders at the Rutherglen Hall;
- One-on-one meetings with Immediate Neighbours on 3 and 4 December 2025; and
- In-person meetings with over 17 community members in Bororen and Miriam Vale in December 2025.

7.3.1 CURRENT ENGAGEMENT OUTCOMES

This section provides insights into the outcomes of engagement with stakeholders and receptors as relevant to the SIA. In-line with participatory research methods, the SIA recognises all stakeholders as potential knowledge holders who can provide valuable information about the local community, economy, infrastructure, and environment (Vanclay, 2003).

Accordingly, **Table 7-2** provides a summary of the key outcomes from the community and stakeholder engagement conducted by Red Hill Renewable Energy and AMPYR, and have been organised by ERM into topics. The sections where community outcomes, comments, and concerns are addressed, are also provided in **Table 7-2**.

TABLE 7-2 CURRENT COMMUNITY AND STAKEHOLDER ENGAGEMENT OUTCOMES

Topic	Outcomes / Comments / Concerns	Where Addressed
Visual Impact, Character and Amenity	• General concern about impacts of renewable energy projects on rural lifestyle and amenity (e.g. quiet, limited traffic, the environment). • The approval of the Rutherglen BESS Project would result in a proliferation of renewable energy projects that will change the landscape and materially impact on communities' way of life. (Community members have moved to the country to get away from industry and the 'rat race'; renewable energy projects should be located elsewhere).	Social Impact #7: Potential Impact on Social Amenity
Fire	• Concern about fire risk from the BESS. ° Concern about lightning strikes and transmission towers coming down onto the BESS as a result of weather (e.g. cyclone event), causing the batteries to catch fire. ° Concern about potential for batteries to ignite or worsen fires. ° Concern about a weed (rats tail grass) increasing fire danger. • Concern about how an emergency would be handled, including communications to neighbours, given poor mobile coverage in the area. • Concern about emergency response readiness to respond to a fire/bushfire involving the Project. ° Lack of accessible training, protocols, or technical information. ° Rural Fire Service identified that they do not respond to industrial / battery fires as they are not trained to, and do not have breathing apparatus. ° Rural Fire Service coordinates with the Queensland Fire and Emergency Service in responding to fires. ° Rural Fire Service limits involvement to stopping the spread of fire in grass/bush, and keeping adjoining landowners and public safe. • Interest in whether the site be manned 24/7.	Social Impact #8: Potential Impact on Community Health and Safety

Topic	Outcomes / Comments / Concerns	Where Addressed
Water and Contamination	• Concern about water use to cool battery containers and potential for contaminated water to enter into the Baffle Creek catchment. • Concern about contamination from fire and other leakage into Killarney Creek, impacting on neighbouring properties, livestock and subsequently the Baffle Creek Basin. • Interest in whether the batteries will be bunded. • Interest in measures to ensure the water table will not be contaminated. • Stakeholders indicated that double-lining dams with plastic could fail because of kangaroos digging it up	Social Impact #8: Potential Impact on Community Health and Safety
Erosion and Land Management	• Concern that there is erosion around the Development Area. • Interest in land management and rehabilitation measures. • Concern about poor weed management at the Project Area and along road sides that may impact on surrounding properties. ° Stakeholders indicated they would like measures including a wash bay, weed clearing and weed management plan • Stakeholders noted the value of slashing foliage on either side of the road that would assist in weed management and safety ° Stakeholders suggested that Red Hill Renewable Energy and AMPYR may be able to take responsibility for this as a construction and operational commitment.	Social Impact #8: Potential Impact on Community Health and Safety
Land Use	• Interest in understanding the use of the balance of the Project Area. ° Concern that a solar farm will be established at the Project Area in the future. ° Stakeholders are seeking guarantees that there will not be future development of a solar farm nor additional batteries at the Project Area.	Social Impact #6: Perceived Land Use Incompatibility
Noise	• Concern noise will impact on human health, animal health, and amenity. ° Concern that low-level soundwaves may have detrimental effects on native wildlife, which may impact the whole ecosystem. ° Concern that the infrasound (low level noise vibration) may cause significant health issues including stress, sleep disturbances, and cognitive impairments. ° Concern that infrasound (of more than 100dBz) negatively interferes with cardiac function. • Skepticism about noise modelling. ° Community members wanted noise simulations to be undertaken and for noise measurements to be taken at property boundaries closest to the BESS. ° Community members wanted receptors to include people walking along Killarney Creek, in addition to dwellings. • Interest in understanding if a reputable, independent organization has undertaken modelling to confirm the negative impacts of the Project on health? ° Will Red Hill Renewable Energy and AMPYR guarantee that individuals' health will not be adversely impacted by the Project? • Concern that noise will disrupt the area's quiet; some stakeholders indicated that they will not tolerate any noise (including down to 30 decibels) on any parts of their properties.	Social Impact #7: Potential Impact on Social Amenity

Topic	Outcomes / Comments / Concerns	Where Addressed
Traffic and Roads	• Concern that construction traffic will result in noise, delays, dust and safety (noting that Red Hill Road is a single lane, largely unsealed, and crosses watercourses through culverts). ° Stakeholders would prefer a fully sealed and upgraded road to be a legacy benefit of the Project. • Interest in understanding how traffic movements will be managed on Red Hill Road. ° Will Red Hill Road be upgraded? How will it be maintained? ° Community members raised that the sealed section of Red Hill Road was built by veterans and the Project will need to respect them by not destroying the road they built. • Interest in understanding if there will be dust suppression. • Interest in understanding if there is an approved route for the passage of heavy vehicles from the Gladstone Port to the Project Area, given there are a number of bridges that have weight restrictions. • Concern about trucks being involved in a traffic accident, which could close the Brice Highway for extensive periods. • Interest in understanding infrastructure upgrades to Red Hill Road. • Interest in understanding if there will be measures relating to the protection of possible escaped livestock (to Red Hill Road and surrounds).	Social Impact #8: Potential Impact on Community Health and Safety
Community Benefits	• Interest in the community benefits being provided by the Project. • Concern that payments to the Gladstone Regional Council controlled CBF will not benefit the Bororen and Miriam Vale communities. ° Community members expressed distrust at all levels of government. • Suggestion that community benefit or sponsorship funding could be directed toward the Bororen and/or Miriam Vale State School. ° Miriam Vale State School frequently struggles with resourcing needs. • The CWA, Miriam Vale Men's Shed, Heritage Society, and Pony Club, rugby league club should be considered as potential recipients for funding. ° Many graziers use horses, and their kids learn to ride at the Pony Club; improvements to the grounds would be welcomed. • Miriam Vale Rodeo Society should be considered as a recipient for funding, noting that the organisation holds firm views against renewable energy developers and may refuse contributions. ° Improvements to the grounds rodeo grounds would be welcomed. • Suggestion that swimming pool access and/or swimming lessons for children be considered as a community benefit/sponsorship project. • Suggestion for UHF repeater stations, given limited range • Suggestion for improving mobile reception, given patchy signals in the area. • Suggestion for contribution towards weed control, given that Giant Rats Tail grass is endemic to the area.	**Section 10**

Topic	Outcomes / Comments / Concerns	Where Addressed
First Nations	• The Port Curtis Coral Coast Trust indicated interest in an equity arrangement in the Project.	Social Impact #3: Creation of Direct Employment Opportunities Social Impact #4: Increased Economic Benefits
Community Cohesion	• Some stakeholders indicated that concerns about the Project are heavily influenced by opposition to the previously proposed Miriam Vale Solar Farm project. • Concern that there is a growing division within the community with respect to disagreement over energy projects, which is affecting local relationships and day-to-day interactions. • Miriam Vale police noted that community has awareness of the Project, but it is not the talk of the town in a noticeable way. ° There are some Facebook posts about the Project. ° There is a small petition at the local Star Caltex petrol station about the Project.	Social Impact #1: Reduced Community Cohesion Social Impact #2: Reduced Trust and Confidence in Community Engagement
Employment	• Interest in understanding the contribution of the Project to significant sustainable employment.	Social Impact #3: Creation of Direct Employment Opportunities
End of Life	• Interest in the life expectancy of the BESS. • Interest in the disposable process of the BESS, including responsibility for disposal.	**Section 8**
Accommodation	• Homeground Villages (located in Calliope) indicated that there is total capacity of 1,392 rooms. Availability fluctuates throughout the year, with busy periods being between March and October. ° Unable to provide certainty about availability for the Project, given that the intended construction period is over a year away.	Social Impact #5: Potential Impact on Social Infrastructure and Services
Other	• Concern about BESS technology standards (particularly for imported components), and whether they meet Australian Standards. • Concern about construction standards in the renewable energy industry. • Concern that the approval of the Project would allow future expansion of the Project to occur without Council approval or community involvement. • Concern about foreign ownership of the Project, leading to profits being moved offshore and Australian taxes not paid. • Concern about the BESS business model and the potential for retail electricity prices to be pushed up by grid scale batteries (instead of prices going down as claimed by the Government), thereby increasing power bills for community members. The Project will make money at the expense of community members.	N/A

7.4 COMMUNITY SENTIMENT

The Bororen and Miriam Vale communities are wary of renewable energy developments. Notably, the Miriam Vale community actively campaigned against the Miriam Vale Solar Farm BESS project being developed by Private Energy Partners, which was proposed to be located at 292 Cawthrays Road, Colosseum, south of the Miriam Vale township. A petition (Queensland Parliament, 2025) was sent the Queensland Parliament as part of the community activism, which cited concerns including:

- Traffic management;
- Emergency response, including in response to a BESS fire;
- Toxicity of batteries;
- Environmental impacts;
- Lack of social licence to operate from the Miriam Vale community;
- Erosion and sediment control;
- Contamination of Miriam Vale township's drinking water;
- BESS setback from a township.

The petition gathered a total of 1,472 signatures.

In response to stakeholder feedback on the project, and as a result of legislative changes in Queensland (refer to **Section 3.2**), Private Energy Partners decided to withdraw the Development Application on 13 June 2025, with a view to resubmit an updated proposal to the relevant assessment manager (Private Energy Partners, n.d.). The Miriam Vale community has heralded the withdrawal of the Development Application as a victory, and have stated that they intent to oppose future renewable energy developments (GladstoneToday, 2025; Queensland Country Life, 2025).

Through community and stakeholder engagement for the Project (refer to **Table 7-2**), stakeholders noted that a lot of animosity towards renewable energy projects was due to the Miriam Vale Solar Farm and BESS project. Similar negative sentiment was experienced during community and stakeholder engagement for Red Hill Renewable Energy's previous

8. IMPACT ASSESSMENT

As outlined in **Section 3**, the impact assessment methodology follows the approach reflected in the SIA Guideline (DSDIP, 2025a) and with consideration of the Supplementary Material (DSDIP, 2025b). Accordingly, the assessment has been undertaken against the key matters identified in the SIA Guideline, comprising:

- Community and Stakeholder Engagement;
- Workforce Management;
- Local Business and Industry Procurement;
- Housing and Accommodation; and
- Health and Community Well-being.

Impacts have been assessed based on the magnitude of the social impact (i.e. the degree of change caused by the impact), and the vulnerability of the impacted receptors. Positive and negative, direct and indirect, and cumulative impacts associated with the Construction and Operation Phases of the Project have been assessed.

In assessing the potential impacts, consideration has been given to:

- The characteristics of the Project, including the timing, duration and intensity of the activities (where known);
- The needs of the community as identified through the Social Baseline and/or stakeholder engagement process;
- Issues/concerns or prospective benefits raised by stakeholders during the engagement process; and
- Outcomes from technical studies undertaken by the Project.

The operational life of the Project is anticipated to be 30 years, after which time the Project may be decommissioned or re-powered, dependent on Development Permit condition requirements. Given the extensive timeframe involved, the Decommissioning Phase has not been specifically addressed in this SIA, however it is anticipated that the potential social impacts will be similar to those of the Construction Phase. It is therefore recommended that the impacts associated with decommissioning be assessed closer to the anticipated time of decommissioning, to ensure that the potential impacts (and management measures) are accurate and relevant.

Cumulative impacts have the potential to occur, in large part due to overlaps in construction and/or operational timeframes with surrounding projects. Given the static nature of the Project during the Operation Phase, and the size of workforce, it is anticipated that the potential for cumulative impacts to arise is limited. For this reason, the cumulative impact assessment primarily focused on the surrounding projects that have overlapping construction phases (refer to **Table 6-43**). However, the identified projects may not receive approval from the Assessment Manager, gain access to the grid, or may not come to fruition due to other circumstances.

8.1 SUMMARY OF TECHNICAL ASSESSMENTS

A number of technical assessments have been undertaken to support the Project. These technical assessments are summarised in the following sections and have been considered in assessing the potential social impacts.

8.1.1 NOISE IMPACT ASSESSMENT

The Noise Impact Assessment (Matrix Acoustics, 2025) assessed the potential noise impacts of the Project on 15 sensitive receptors, located between 1.3 km and 5.8 km from the Development Area.

The Noise Impact Assessment found that the predicted noise levels for the reasonable worst case construction activity was not exceeded during the standard daytime hours between 7am and 6pm. Operational noise modelling assumed that all battery units were running at 100% and DC inverters were operating at 80% capacity. Receptor R1 is predicted to experience an exceedance during the most stringent night time criterion (predicted operational noise level of 39 dB $L_{Aeq, 15min}$; noise limit of 37 dB(A)). However, with the installation of a 1.8 m high noise barrier along the western side of the Development Area, the predicted noise level at Receptor R1 is expected to comply with the noise limit. Noise receptors at all other assessed sensitive receptors are predicted to comply with the night time noise criteria.

Good environmental practice is recommended, that includes:

- Development of an environmental management plan with noise criteria for the time periods of day, evening and night;
- Procedures for addressing noise complaints;
- A noise monitoring program (e.g. spot noise monitoring, monitoring in response to complaints, periodic noise monitoring, and/or long-term permanent noise monitoring); and
- Taking noise measurements of the power equipment on site (including the localised inverters and batteries, and the HV switchyard to confirm the noise modelling results.

8.1.2 HAZARD ANALYSIS

The Hazard Analysis (Arriscar, 2025) was prepared to assess the potential hazards associated with the Project, including:

- BESS Hazards:
  - Overheating with toxic gas generation and emission to the atmosphere, and potential exposure to toxic gases.
  - Overheating with flammable gas generation with tin the container, ignition and explosion within the container, and potential for escalation to adjacent BESS containers.
  - Fire in Lithium-ion battery, escalating to the packs in the BESS container, with potential for escalation to adjacent BESS containers.
- Electrical Hazards:
  - Power converter fire and explosion;
  - Transformer oil fire and potential for escalation;
  - Transformer fire/explosion in sub-station from arcing, etc.
  - Human contact with electricity.

- Other hazards:
  - Vehicle interaction with infrastructure.
  - Electromagnetic radiation from high-voltage sources.
  - Natural hazards (earth tremor, adverse weather, bush fires).

The Hazard Analysis identified the following:

- Thermal radiation does not reach beyond the Project Area.
- The ventilation of BESS containers can maintain the flammable gas concentration of off-gases from the thermal runway to 2% of the Lower Explosive Limit (also referred to as Lower Flammability Limit), therefore an explosion is prevented.
- The maximum distance from the BESS containers to the Acute Exposure Guideline Level 2 concentration of any of the toxic or corrosive gases is less than 15 m, which are entirely within the site boundary.
- Fire detection and suppression system is provided for the BESS battery packs, which is appropriate management for fire risk hazardous chemicals. No other fire risk hazardous materials will form part of the Project.
- The Project Area is in a low seismic activity area and extreme weather event potential is low for the Gladstone region. The likelihood of these activities affecting the Project is therefore low.

Recommendations provided within the Hazard Analysis include:

- The use of firewalls for transformers in separate bunds, if a separation distance of 10 m from each cannot be achieved;
- Calibration and half-yearly testing of the combustible gas detector and exhaust fan start on gas detection;
- Installation of an alarm that indicates failure of exhaust fan in BESS containers, when operational;
- Development of an Emergency Response Plan that should address the specific hazards identified in the Hazard Analysis and ensure emergency response personnel take appropriate precautions to protect themselves;
- Design the transformer bund to contain 110% of the oil volume in the transformer tank and firewater applied as per NFPA 855-2020; and
- Development of a schedule for function testing of electrical protection and fire protection safeguards.

8.1.3 BUSHFIRE MITIGATION REPORT

The Bushfire Mitigation Report (Eldon Bottcher Architect, 2024) included radiant heat calculations, based on an advised State requirement for a 100 m wide buffer around the Development Footprint. The radiant heat impact calculated is less than 1 kW/m^2, indicating no adverse impact from bushfires.

A Risk Management Plan was included as part of the Bushfire Mitigation Report that has the objective to minimise potential risk to life and property. Various measures are included, such as the provision of dedicated firefighting water reserve tanks, fire trail / emergency access track, and vegetation management, and specific requirements for BESS installations being:

- Batteries are to be installed in a fire and explosion rated shelter;
- The installation of heat active sprinkler systems are recommended; and
- A buffer area is to be provided that separates the battery installation and adjoining infrastructure.

8.1.4 FLOOD ASSESSMENT AND STORMWATER MANAGEMENT REPORT

The Flood Assessment and Stormwater Management Report (WMS, 2025) was prepared to assess whether the Project meets Council requirements for electrical infrastructure to be located above or designed to mitigate floodwater infiltration up to and including the 0.5% Annual Exceedance Probability (AEP) and 0.2% AEP storm events, respectively.

The assessment involved:

- Hydrologic modelling to determine the rainfall depths at 50%, 10%, 2%, 1%, 0.5%, 0.2% and 0.1% AEP events;
- Hydraulic modelling to represent watercourses impacting the Development Area in riverine flood events; and
- Rain-on-grid modelling to determine flood behaviour of finer-scale overland flow paths not represented in the hydrologic model.

The assessment found that flows from the watercourse traversing the Project Area do not encroach any of the BESS modules for the 0.5% AEP storm event (defined flood event).

The HV switchyard and key electrical components are immune to stormwater and riverine flooding up to and including the 0.1% AEP storm event. Modelled wet cells within the defined extent containing the switchyard are from the local catchment, not external flow.

A Stormwater Management Plan was prepared to manage stormwater quality throughout the Project.

8.1.5 TRAFFIC IMPACT ASSESSMENT

The Traffic Impact Assessment (PTT, 2025) predicts construction and operational traffic associated with the Project. The Construction Phase traffic generation anticipated is summarised in **Table 8-1**.

TABLE 8-1 CONSTRUCTION PHASE TRAFFIC GENERATION

Type	Total		Daily	
	Vehicles	Trips	Vehicles	Trips (Vehicles Per Day)
Heavy Vehicles (deliveries)	283	566	3	6
Shuttle Buses (worker transport)	560	1,120	2	4
Light Vehicles	4,200	8,400	20	40
Total	**5,043**	**10,086**	**25**	**50**

Note: It is assumed that the construction workforce will travel to the Project Area via a 50/50 mix of shuttle buses and private transport.

The Traffic Impact Assessment noted that while workforce traffic movements will occur during the commuter peak hours, deliveries would be expected to occur outside of working hours. On this basis, it is estimated that the peak hour construction traffic generation would be approximately 20 vehicles per hour during the morning and evening peak periods.

Operational Phase traffic generation is expected to generate significantly less traffic per day compared to the Construction Phase.

Traffic generation is anticipated to be sufficiently accommodated in the existing road network. Upgrades to Red Hill Road will be required, with a number of options provided in the Traffic Impact Assessment.

A Pavement Impact Assessment is not considered to be required, instead the Traffic Impact Assessment recommends:

- A Dilapidation Report be prepared for the relevant sections of Red Hill Road, prior to the commencement of construction;
- A Condition Assessment be undertaken for the relevant sections of Red Hill Road following the completion of the Construction Phase; and
- The two floodways and one cattle grid on Red Hill Road as it passes through the Development Area to be replaced, with other existing drainage structures reviewed as part of the Dilapidation Report / Condition Assessment.

8.1.6 ECOLOGICAL CONSTRAINTS LETTER

An Ecological Constraints Letter (4 Elements Consulting, 2025) noted that on-ground field assessment recorded two conservation significant fauna species: the White-throated needletail, and the Squatter Pigeon (southern). An additional four threatened fauna species including the Latham's snipe, Koala, Grey-headed flying fox, and Tusked frog are considered to have a moderate potential of occurring at the Project Area. As the impact of the Project is restricted to Category X non-remnant vegetation, it is unlikely that any confirmed or potentially occurring threatened species will be significantly impacted, and it highlighted that there is a distinct lack of woody vegetation required to support foraging, roosting and denning habitat.

A single Threatened Ecological Community (TEC), the Subtropical Eucalypt Floodplain and Woodland of NSW North Coast and South East Queensland Bioregions. However, the TEC is absent from the BESS layout design and adequately buffered by >400 m, therefore the TEC will not be impacted.

An assessment of the proposed clearing of Matters of State Environmental Significance (MSES) endangered koala habitat, required to establish a new easement, found that the area is not considered ecologically significant, and the impact is minor, hence a significant residual impact is not expected.

8.2 SOCIAL IMPACT ASSESSMENT AND MANAGEMENT MEASURES

Several key social impacts were identified through the assessment process, which are presented in **Table 8-2**. These impacts were also reflected during community and stakeholder engagement, as well as understood based on experience with standalone BESS development in Queensland (refer to **Section 7** for additional information related to community and stakeholder engagement).

8.2.1 NEIGHBOUR REFERENCE GROUP

Red Hill Renewable Energy and AMPYR intend to establish a Neighbour Reference Group that will involve Immediate Neighbours and relevant Surrounding Community Members. The purpose of the Neighbour Reference Group is to provide a forum to inform stakeholders about Project progress and engage them on next steps. In particular, the Neighbour Reference Group will discuss topics that are relevant in the post-Development Approval phase such as environmental management, traffic, risk management plans, noise impact, etc.).

TABLE 8-2 SOCIAL IMPACTS AND MANAGEMENT MEASURES

Impact Description	Key Matter	Receptors	Project Phase	Pre-Mitigation / Enhancement			Management Measures	Post-Mitigation/Enhancement		
				Magnitude	Likelihood	Significance		Magnitude	Likelihood	Significance
Social Impact #1: Reduced Community Cohesion • Reduced community cohesion, which can increase negative sentiment, may occur as a result of: ° Divergent opinions about the desirability of the Project; ° Population influx linked to workers moving to the local area; and/or ° Local disruptions caused by the Construction Phase. • The erosion of community cohesion can affect the social fabric and lead to negative mental health and well-being outcomes. • This potential impact is mostly likely to occur in the Primary Social Study Area, due to the close proximity of these localities to the Project. • **Section 7** shows that there is a tight-knit community in Bororen and Miriam Vale, who values the rural character of the local area and see this as a fundamental aspect of their identify. • The Bororen and Miriam Vale community are wary that the Project may be a catalyst for other renewable energy development that may result in an impact to the rural character, therefore affecting the community's sense of identity. • Research indicates that disruptions to an individual's environment, such as those caused by new development, can lead to a loss of place attachment and identity (Jozwik, 2024; Manzo, et al., 2023). The changes introduced by the Project, may alter how individuals perceive and experience their locality, but these effects are subjective, and vary according to personal attachment, sense of belonging, and resilience to change. • There is a potential for cumulative impact to occur given the increase in renewable energy developments across the Gladstone LGA; rapid transformation within a short period can intensify existing social tensions and mental health challenges, especially among residents who feel that their community character and way of life are being reshaped without sufficient consultation or control.	• Community and Stakeholder Engagement • Workforce Management • Health and Community Wellbeing	• Host Landowner • Immediate Neighbours • Surrounding Community Members • First Nations / Aboriginal Groups • Local Community Groups • Business and Industry Groups	C	Large	High	**Major**	• **Community and Stakeholder Engagement Plan** to be developed and implemented for the life of the Project. • **Neighbour Reference Group** to be established and implemented for the Construction Phase. • **Complaints Management System** to be developed and implemented throughout the life of the Project to receive concerns and/or feedback from stakeholders. • **Worker Code of Conduct** to be developed and implemented, that establishes clear behavioural standards for non-local workers to help support community cohesion. • **Project Inductions** to be undertaken by relevant Project workers, that includes an aspect on promoting understanding and respect for the local community.	Medium	Medium	**Moderate**
			O	Medium	Medium	**Moderate**		Small	Medium	**Minor**

Impact Description	Key Matter	Receptors	Project Phase	Pre-Mitigation / Enhancement			Management Measures	Post-Mitigation/Enhancement		
				Magnitude	Likelihood	Significance		Magnitude	Likelihood	Significance
Social Impact #2: Reduced Trust and Confidence in Community Engagement • Meaningful engagement is critical for managing social impacts and building long-term, genuine relationships with stakeholders. • Ineffective or insufficient engagement can leave stakeholders feeling unheard or unable to influence Project decision-making, which may negatively affect community mental and physical health and well-being. • Surrounding community members indicated that there was a lack of community and stakeholder engagement during prior engagement activities (refer to **Section 7.17.2**), however this was not raised as part of current community and stakeholder engagement efforts (refer to **Section 7.3 7.1**). • As shown in **Section 7.17**, it was identified that the surrounding community members in Bororen and Miriam Vale have a lack of trust with all levels of government (local, State and Federal). This distrust is linked to the concern that the Project's CBA funds into the CBF controlled by the Council will yield little to no benefit to the Bororen and Miriam Vale communities who will be most impacted by the Project. • The erosion of trust between local communities and the Project proponent has the potential to exacerbate impacts on community cohesion. • Additionally, there is a risk of misinformation or negative sentiment developing. Trust may be built and reinforced by implementing measures to mitigate or manage Project impacts in collaboration with stakeholders and receptors, and by ensuring stakeholders continue to influence decisions that affect their lives.	• Community and Stakeholder Engagement • Health and Community Well-being	• Host Landowner • Immediate Neighbours • Surrounding Community Members • First Nations / Aboriginal Groups • Local Community Groups • Business and Industry Groups	C	Large	High	**Major**	• **Community and Stakeholder Engagement Plan** to be developed and implemented for the life of the Project. • **Neighbour Reference Group** to be established and implemented for the Construction Phase. • **Complaints Management System** to be developed and implemented throughout the life of the Project to receive concerns and/or feedback from stakeholders.	Medium	Low	**Minor**
			O	Medium	Medium	**Moderate**		Small	Low	**Negligible**
Social Impact #3: Creation of Direct Employment Opportunities • The Project will create direct employment opportunities. ° Construction Phase: 150 FTE ° Operation Phase: up to 10 FTEs, in addition to specialist contractors responsible for civil works maintenance, weed and pest control, and other environmental management tasks. • **Section 6.5.1** explores the labour force within the Social Study Area, and there appears to be workers in relevant occupations who may be able to support the Project. • **Section 6.12.3** indicates that there may be capacity within the First Nations / Aboriginal Groups to participate in the Project. • Red Hill Renewable Energy and AMPYR will require the Engineering, Procurement, and	• Workforce Management • Local Business and Industry Procurement	• Host Landowner • Immediate Neighbours • Surrounding Community Members • First Nations / Aboriginal Groups	C	Positive	High	**Positive**	• **Local Employment Plan** to be developed and implemented and include, amongst other things, targets for local employment. • **First Nations Employment Targets** should be included as part of the Local Employment Plan. • **Community and Stakeholder Engagement Plan** to be developed and implemented for the life of the Project, and should include community awareness of local employment opportunities.	Positive	High	**Positive**
			O	Positive	High	**Positive**		Positive	High	**Positive**

Impact Description	Key Matter	Receptors	Project Phase	Pre-Mitigation / Enhancement			Management Measures	Post-Mitigation/Enhancement		
				Magnitude	Likelihood	Significance		Magnitude	Likelihood	Significance
Construction (EPC) Contractor to prioritise the recruitment of residents from nearby towns. Vulnerable groups will also be appropriately considered (e.g. exploring partnerships with local organisations to facilitate First Nations / Aboriginal participation). • The overall demand for suitably qualified construction workers driven by the Project, and other concurrent developments, is expected to result in cumulative positive economic impacts within the Social Study Area. Based on **Table 6-6**, surrounding projects with overlapping construction phases may collectively require approximately 1,430 FTEs. ° This demand is anticipated to be met through a combination of the existing unemployment pool, increased workforce participation, and transitions from other industries. ° It is unlikely that all labour requirements can be filled solely by local residents. Some positions are expected to be met through DIDO or FIFO workers and individuals relocating temporarily to the region.							• **Neighbour Reference Group** to be established and implemented for the Construction Phase. • • **Workforce Upskilling and Training Opportunities** should be supported in partnership with the Council, State Government and/or training institutions.			
Social Impact #4: Increased Economic Benefits • The Project has the potential to provide opportunities for local procurement of goods and services, such as employment opportunities for local contractors and other increased business opportunities like flow-on effects in nearby townships. • During the Construction Phase, the Project will increase demand for goods and services such as accommodation, warehousing and storage, transport and logistics, and administrative support. ° Where possible, Red Hill Renewable Energy and AMPYR intend to meet these needs through local and regional business and industry groups. • The Operation Phase will also require specialist contractors. Subject to business availability and suitability, suppliers from within the Social Study Area will be prioritised, and Red Hill Renewable Energy and AMPYR will work with the EPC Contractor to maximise local procurement. • **Section 6.5.1** indicates that relevant skillsets exist within the Social Study Area. • **Section 6.5.4** shows that construction is the top industry of business types within the Gladstone LGA. ° Approximately 98% of construction businesses are non-employing and small businesses.	• Local Business and Industry Procurement	• Surrounding Community Members • Business and Industry Groups	C	Positive	High	**Positive**	• **Local Content Initiatives** should be developed and implemented by the EPC Contractor and should include aspirational targets for local procurement. • **First Nations Employment Targets** should be included as part of the Local Content Initiatives. • **Community and Stakeholder Engagement Plan** to be developed and implemented for the life of the Project, and should include community awareness of local procurement opportunities. • **Neighbour Reference Group** to be established and implemented for the Construction Phase. • **"Job Readiness" Assistance** should be provided to assist local business and industry in being ready for the Project's procurement opportunities by prioritising a local workforce and having relevant skills required for the Project.	Positive	High	**Positive**
			O	Positive	High	**Positive**		Positive	High	**Positive**

Impact Description	Key Matter	Receptors	Project Phase	Pre-Mitigation / Enhancement			Management Measures	Post-Mitigation/Enhancement		
				Magnitude	Likelihood	Significance		Magnitude	Likelihood	Significance
◦ Non-employing and small businesses may experience challenges in undergoing procurement processes to participate in the Project, given their limited administrative capacity. ◦ Red Hill Renewable Energy and AMPYR should consider the provision of additional support in applying for procurement opportunities. • Other surrounding projects that require similar goods and services will also influence the availability of opportunities for local businesses and industry groups. ◦ The ongoing pipeline of renewable energy developments may encourage regional businesses to adapt to growing demand for project components, creating further value for local communities. ◦ In the short term, however, local businesses and industry groups may face pressure in meeting the cumulative demand generated by multiple projects.										
Social Impact #5: Potential Impact on Social Infrastructure and Services • The Project has the potential to increase demand on infrastructure and services within the Social Study Area. This may be associated with an influx of non-local workers, affecting accommodation availability, and increasing demand for goods and services, and social infrastructure. *The accommodation of the non-local workforce.* • Accommodation needs for the Project may: ◦ Exacerbate existing accommodation shortages; ◦ Exacerbate cost of living pressures (e.g. increased rents in areas of low vacancy); and/or ◦ Impact tourism operations (e.g. accommodation to support festivals/events will be reduced and tourists will be unable to visit, leading to a loss of revenue for tourism operators). • **Section 6.6** shows there is a tight rental market, and limited social housing availability across the Social Study Area. • The vulnerable population are particularly at risk if this impact occurs, given that they may not have the socio-economic resources to secure alternative or long-term accommodation options. • There is the potential for cumulative impact to occur with surrounding projects (refer **Table 6-6**) that may exacerbate the lack of	• Workforce Management • Housing and Accommodation • Local Business and Industry Procurement • Health and Community Well-being	• Host Landowner • Immediate Neighbours • Surrounding Community Members • First Nations / Aboriginal Groups • Local Community Groups • Business and Industry Groups • Emergency Services	C	Medium	High	**Major**	• **Local Employment Plan** to be developed and implemented that seeks to maximise local employment (minimising the Project's need for accommodation). • **Community and Stakeholder Engagement Plan** to be developed and implemented for the life of the Project. • **Neighbour Reference Group** to be established and implemented for the Construction Phase. • **Engagement with Accommodation Providers** to understand availability and establish long-term workforce accommodation agreements. • **Coordination with Other Proponents**, particularly Elements Green, to manage influx and accommodation use (e.g. staging construction). • **Workforce Accommodation Management Plan** to be developed and implemented, that will:	Medium	Medium	**Moderate**
			O	Small	Medium	**Minor**		Small	Low	**Negligible**

Impact Description	Key Matter	Receptors	Project Phase	Pre-Mitigation / Enhancement			Management Measures	Post-Mitigation/Enhancement		
				Magnitude	Likelihood	Significance		Magnitude	Likelihood	Significance
accommodation availability and result in increased costs. • Red Hill Renewable Energy and AMPYR will consider the development of workforce accommodation, if considered appropriate by the Council (Gilvear Planning, 2025). *Increased demand for goods and services.* • The Project may increase the demand for goods and services (e.g. groceries, tradespersons, etc.). • There is also the potential for the price of goods and services to increase in response to market factors, which may impact vulnerable populations who have limited socio-economic resources. • There may be cumulative impacts associated with worker influx from surrounding projects (refer to **Table 6-6**). *Increased demand for social infrastructure.* • The non-local workforce may pressure on social infrastructure (e.g. community / recreation, health and emergency, education, etc.), as the increased demand can strain resources and restrict access for local communities. • This demand may lead to overcrowding, extended wait times, and impact on their quality and functionality, which may lead to a sense of frustration and dissatisfaction among community members. • In particular, the local community members have indicated that the Bororen Rural Fire Brigade has limited resources (refer to **Section 7**). • The cumulative impact (refer to **Table 6-6**) may exacerbate shortages and/or delays in accessing social infrastructure, which may ultimately impact on the health and well-being of local community members.							◦ Monitor the available accommodation options in the Social Study Area; ◦ Consult with the Gladstone Regional Council and other proponents regarding options to share accommodation; ◦ Prioritise local accommodation options, where available and practical; ◦ Investigate media options to disseminate information to local accommodation operators and rental property owners, such as construction timing, workforce estimates and accommodation requirements; ◦ Provide a register of local accommodation options and contact details to subcontractors; and ◦ Include a requirement to review workforce predictions during construction to ensure that accommodation requirements are met. • **Complaints Management System** to be developed and implemented throughout the life of the Project to receive concerns and/or feedback from stakeholders.			
Social Impact #6: Perceived Land Use Incompatibility • There is a perception that the Project is incompatible with the existing rural and agricultural land use and/or prevent future agricultural land uses (refer to **Section 7**). • The Project is not mapped as containing Strategic Cropping Land or Priority Agricultural Land (Gilvear Planning, 2025). • Site selection for the Development Area has sought to avoid significant impact on matters of environmental significance (refer to **Section 8.1.6**). • As the Project will only occur over the Development Area, portions of the Project Area will continue to be used for agricultural	• Health and Community Well-being	• Host Landowner • Immediate Neighbours • Surrounding Community Members • First Nations / Aboriginal Groups	C	Small	High	**Moderate**	• **Technical Mitigation / Management Measures** proposed within each technical assessment (refer to **Section 8.1**) should be implemented. • **Construction Environmental Management Plan** to be developed and implemented. • **Operational Environmental Management Plan** to be developed and implemented. • **Community and Stakeholder Engagement**	Small	Medium	**Minor**
			O	Small	High	**Moderate**		Small	Medium	**Minor**

Impact Description	Key Matter	Receptors	Project Phase	Pre-Mitigation / Enhancement			Management Measures	Post-Mitigation/Enhancement		
				Magnitude	Likelihood	Significance		Magnitude	Likelihood	Significance
purposes, in keeping with the current land use (Gilvear Planning, 2025). • Potential environmental impacts have been assessed independently (refer to **Section 8.1**) and can be appropriately managed or mitigated. • The effect of the Project on surrounding land use is expected to be limited, however it is acknowledged that the perception remains and should be the focus of management measures.							**Plan** to be developed and implemented for the life of the Project. • **Neighbour Reference Group** to be established and implemented for the Construction Phase. • **Complaints Management System** to be developed and implemented throughout the life of the Project to receive concerns and/or feedback from stakeholders.			
Social Impact #7: Potential Impact on Social Amenity • Social amenity refers to the tangible and intangible aspects of the surrounds within which receptors live and undertake daily activities. Aspects of the Project that may affect social amenity include noise emissions, air emissions (e.g. dust), visual impact, or impacts to the surrounding environment / biodiversity. • Changes to social amenity may impact on receptors' health and well-being (e.g. sleep disruption, stress, etc.). • Impact on social amenity was raised during community and stakeholder engagement (refer to **Section 7.17**). • Potential environmental impacts, including noise, hazards, bushfire, flood, stormwater, traffic and biodiversity, have been assessed independently (refer to **Section 8.1**) and can be appropriately managed or mitigated. • On this basis, the Project is likely to have environmental impact that may alter social amenity. • There is the potential for cumulative impact to occur with the Eurimbula Solar Farm and BESS located adjacent to the Project Area to the north. A concerted effort between Elements Green, Red Hill Renewable Energy and AMPYR will be necessary to minimise impacts to Bororen and Miriam Vale if construction timeframes overlap.	• Health and Community Well-being	• Host Landowner • Immediate Neighbours • Surrounding Community Members • First Nations / Aboriginal Groups	C	Small	High	**Moderate**	• **Technical mitigation / management measures** proposed within each technical assessment (refer to **Section 8.1**) should be implemented. • **Construction Environmental Management Plan** to be developed and implemented. • **Operational Environmental Management Plan** to be developed and implemented. • **Community and Stakeholder Engagement Plan** to be developed and implemented for the life of the Project. • **Complaints management system** to be developed and implemented throughout the life of the Project to receive concerns and/or feedback from stakeholders.	Small	Medium	**Minor**
			O	Small	Medium	**Minor**		Negligible	Low	**Negligible**
Social Impact #8: Potential Impact on Community Health and Safety • Community health and safety have the potential to be impacted as a result of both construction and operational activities, including increased traffic movements and Project components causing or contributing to a fire. • There is the potential for injuries, or in the worst-case scenario, death to occur as a result of this impact.	• Health and Community Well-being	• Host Landowner • Immediate Neighbours • Surrounding Community Members • First Nations / Aboriginal Groups • Local Community Groups	C	Medium	Medium	**Moderate**	• **Technical mitigation / management measures** proposed within each technical assessment (refer to **Section 8.1**) should be implemented. • **Construction Environmental Management Plan** to be developed and implemented. • **Operational Environmental**	Small	Medium	**Minor**
			O	Large	Medium	**Major**		Medium	Medium	**Moderate**

Impact Description	Key Matter	Receptors	Project Phase	Pre-Mitigation / Enhancement			Management Measures	Post-Mitigation/Enhancement		
				Magnitude	Likelihood	Significance		Magnitude	Likelihood	Significance
• Perceived impacts may also occur, causing stress and other mental health issues to receptors. • **Section 7.17** shows that stakeholders are concerned about the potential health and safety impacts that may occur to community members. *Construction and Operational Activities* • In general, construction and operational activities may result in health and safety impacts if not properly managed, and can stem from the use of heavy machinery and/or poor site management practices. • During the Operation Phase, the impact may arise if the facility is not appropriately managed (e.g. interaction or tampering with infrastructure). • A suite of management measures will be implemented to minimise health and safety impact, including the establishment of perimeter fencing, and adherence with Commonwealth and State legislation relating to health and safety. *Increased Traffic Movements* • Project-related traffic, such as transport of construction materials and components, and movement of workers will increase vehicle volumes on the road network. The increased traffic may: ◦ Cause or contribute to congestions or delays/interruptions for other road users, causing frustration to receptors and/or contribute to stress and reduced wellbeing. ◦ Accelerate damage to roads, causing unsafe driving conditions that may increase the likelihood of accidents occurring. • The Traffic Impact Assessment (refer to **Section 8.1.5**) indicates that Project-related traffic (construction and operation) can be sufficiently accommodated in the existing road network, noting that upgrades to Red Hill Road will be required. While a Pavement Impact Assessment is not required, the Traffic Impact Assessment suggests a dilapidation report be undertaken and condition assessment be undertaken, so as to confirm damage to Red Hill Road and enable remediation work to occur. *Project Components Causing or Contributing to a Fire* • Stakeholders are concerned about the Project's potential to cause or contribute to a fire / bushfire, and the limited capacity of the Bororen Rural Fire Brigade to attend to a BESS fire.							**Management Plan** to be developed and implemented. • **Community and Stakeholder Engagement Plan** to be developed and implemented for the life of the Project. • **Neighbour Reference Group** to be established and implemented for the Construction Phase. • **Complaints management system** to be developed and implemented throughout the life of the Project to receive concerns and/or feedback from stakeholders.			

Impact Description	Key Matter	Receptors	Project Phase	Pre-Mitigation / Enhancement			Management Measures	Post-Mitigation/Enhancement		
				Magnitude	Likelihood	Significance		Magnitude	Likelihood	Significance
• The Hazard Analysis (refer to **Section 8.1.2**) found that sufficient measures are proposed to minimise the risk of a fire starting, as well as the containment/suppression of a fire. • The Bushfire Mitigation Report (refer to **Section 8.1.3**), identifies that the Project will not experience adverse impact from bushfire. • The Development Area is immune to stormwater and riverine flooding (up to 0.1% AEP storm event), and watercourses do not encroach the BESS modules (for the 0.5% AEP storm event). A stormwater management plan will manage stormwater quality, which addresses stakeholder concerns about leaching of chemicals from the Project, particularly where relating to a fire. • The measures included in the Hazard Analysis and Bushfire Mitigation Report will be implemented to minimise the likelihood of this impact occurring. • Although a fire is unlikely to occur, the perception remains and should be addressed accordingly.										
Social Impact #9: Potential Impact on Cultural Heritage • Altered landscapes can impact both tangible and intangible Aboriginal cultural heritage, as well as historical heritage. • Physical changes can impact sacred and archaeological sites, while disrupting traditional practices and cultural connections. Impacts have the potential to cause emotional stress and anguish to First Nations Peoples, as well as result in a mutual shared loss of values and/or artefacts of importance across the wider community. • Although community and stakeholder engagement did not identify community concerns relating to potential impacts on non-Aboriginal cultural heritage, there remains the potential for this impact to occur. Ongoing community and stakeholder engagement should occur to minimise the potential for impact on cultural heritage.	• Health and Community Well-being	• Host Landowner • Immediate Neighbours • Surrounding Community Members • First Nations / Aboriginal Groups	C	Large	Medium	**Major**	• **Engagement with First Nations / Aboriginal Stakeholders** should continue, to understand if a Cultural Heritage Management Plan will be required for the Project. Outcomes should be implemented accordingly. • **Construction Environmental Management Plan** to be developed and implemented. • **Operational Environmental Management Plan** to be developed and implemented. • **Community and Stakeholder Engagement Plan** to be developed and implemented for the life of the Project. • **Neighbour Reference Group** to be established and implemented for the Construction Phase. • **Complaints Management System** to be developed and implemented throughout the life of the Project to receive concerns and/or feedback from stakeholders.	Large	Low	**Moderate**
			O	Small	Low	**Negligible**		Negligible	Low	**Negligible**

9. PRELIMINARY SOCIAL IMPACT MANAGEMENT PLAN

This section presents the Preliminary SIMP for the Project, designed to align with the key matters specified by the SIA Guideline. The Preliminary SIMP has been developed through an understanding of the baseline social environment, community and stakeholder engagement outcomes, and an assessment of potential social impacts.

For the post-mitigation impact significant levels to be achieved, as outlined in **Section 8**, the social impact mitigations and benefit enhancement measures will need to be monitored in accordance with the framework plan outlined in Table 9-1, and integrated into a finalised SIMP.

The objectives of monitoring are to:

- Verify the predicted impacts and identify any other impacts that may arise;
- Verify that management measures are being implemented as planned;
- Assess the effectiveness of the management measures; and
- Provide data for any necessary regulatory reporting to the State Government or other internal compliance reporting.

Accordingly, **Table 9-1** identifies the following:

- **Social Impact Descriptor:** The social impact identified and assessed in **Section 8**.
- **SIA Guideline Key Matter:** The relevant key matter/s from the SIA Guideline associated with the management measure.
- **Management Objective:** The overarching goal is to minimise the negative social impacts associated with the Project and enhance the positive impacts/benefits. As such, specific objectives corresponding to each impact have been provided. These can be used to determine whether the management measures have been effectively implemented.
- **Management Measures:** The management measures identified as relevant to each social impact identified in **Section 8**.
- **Responsibility:** Assigns the relevant person and/or entity to take charge of the proposed management to achieve the management objective.
- **Timing for Implementation:** Specifies the timeframe (aligns with the Project phases) that the management measure will be implemented.
- **Monitoring Activities:** The monitoring activities proposed will ensure that relevant data is collected (e.g. the performance indicators) to ensure the effectiveness of the management measures.
- **Performance Indicator(s):** The indicators selected to provide a mechanism to determine whether the goals have been met.
- **Monitoring Frequency:** Outlines the period for data collection.

TABLE 9-1 PRELIMINARY SIMP

Social Impact Descriptor	SIA Guideline Key Matter	Impact Mitigation and Benefit Enhancement				Monitoring Protocol		
		Objective	Management Measure	Responsibility	Timing for Implementation	Monitoring Activities	Performance Indicator(s)	Monitoring Frequency
#1: Reduced Community Cohesion	• Community and Stakeholder Engagement • Workforce Management • Health and Community Wellbeing	Minimise community complaints	Community and Stakeholder Engagement Plan	• Red Hill Renewable Energy / AMPYR	• Prior to the commencement of construction	• Record engagement activities undertaken and outcomes	• Number of stakeholder engagement activities • Number of stakeholders engaged	Ongoing
			Complaints Management System	• Red Hill Renewable Energy / AMPYR • EPC Contractor	• Prior to the commencement of construction	• Record queries and complaints received from stakeholders	• Number of complaints • Percentage of complaints satisfactorily resolved in accordance with the Complaints Management System	Ongoing
			Worker Code of Conduct	• EPC Contractor	• Prior to the commencement of construction	• Record acknowledgement of Worker Code of Conduct • Record number of breaches of Worker Code of Conduct	• Percentage of workers who have read the Worker Code of Conduct • Number of non-compliances with Worker Code of Conduct	Monthly for the first three months, then quarterly
			Project Inductions	• EPC Contractor	• Prior to the commencement of construction	• Record number of workers who have completed Project inductions	• Percentage of workers who have completed Project inductions	Monthly for the first three months, then quarterly
#2: Reduced Trust and Confidence in Community Engagement	• Community and Stakeholder Engagement • Health and Community Well-being	Maximise community engagement	Community and Stakeholder Engagement Plan	• Red Hill Renewable Energy / AMPYR	• Prior to the commencement of construction	• Record engagement activities undertaken and outcomes	• Number of stakeholder engagement activities • Number of stakeholders engaged	Ongoing
			Complaints Management System	• Red Hill Renewable Energy / AMPYR • EPC Contractor	• Prior to the commencement of construction	• Record queries and complaints received from stakeholders	• Number of complaints • Percentage of complaints satisfactorily resolved in accordance with the Complaints Management System	Ongoing
#3: Creation of Direct Employment Opportunities	• Workforce Management • Local Business and Industry Procurement	Maximise local employment	Local Employment Plan	• Red Hill Renewable Energy / AMPYR • EPC Contractor	• Prior to the commencement of construction • Prior to the commencement of operation	• Record local employment • Record employee retention rate • Record number of apprenticeships • Ensure Construction Contractor/s (and subcontractors) report on local employment • Record the number of training programs undertaken	• Percentage of people from the Region employed by the Project (including contractors) • Number of training programs offered • Number of apprenticeships offered	Monthly during construction, then as required
			First Nations Employment Targets	• Red Hill Renewable Energy / AMPYR • EPC Contractor	• Prior to the commencement of construction • Prior to the commencement of operation	• Record employment of First Nations peoples • Record First Nations retention rate	• Percentage of First Nations peoples employed by the Project (including contractors)	Monthly during construction, then as required

Social Impact Descriptor	SIA Guideline Key Matter	Impact Mitigation and Benefit Enhancement				Monitoring Protocol		
		Objective	Management Measure	Responsibility	Timing for Implementation	Monitoring Activities	Performance Indicator(s)	Monitoring Frequency
			Community and Stakeholder Engagement Plan	• Red Hill Renewable Energy / AMPYR	• Prior to the commencement of construction	• Record engagement activities undertaken and outcomes	• Number of stakeholder engagement activities • Number of stakeholders engaged	Ongoing
			Workforce Upskilling and Training Opportunities	• Red Hill Renewable Energy / AMPYR • EPC Contractor	• Prior to the commencement of construction	• Record engagement activities with stakeholders about workforce upskilling/training opportunities	• Number of engagements about workforce upskilling/training opportunities	Quarterly
#4: Increased Economic Benefits	• Local Business and Industry Procurement	Maximise local procurement	Local Content Initiatives	• Red Hill Renewable Energy / AMPYR • EPC Contractor	• Prior to the commencement of construction • Prior to the commencement of operation	• Record number and value of contracts with local and regional businesses	• Percentage of people from the Region employed by the Project (including contractors) • Number of training programs offered • Number of apprenticeships offered	Monthly during construction, then as required
			First Nations Employment Targets	• Red Hill Renewable Energy / AMPYR • EPC Contractor	• Prior to the commencement of construction • Prior to the commencement of operation	• Record employment of First Nations peoples • Record First Nations retention rate	• Percentage of First Nations peoples employed by the Project (including contractors)	Monthly during construction, then as required
			Community and Stakeholder Engagement Plan	• Red Hill Renewable Energy / AMPYR	• Prior to the commencement of construction	• Record engagement activities undertaken and outcomes	• Number of stakeholder engagement activities • Number of stakeholders engaged	Ongoing
			"Job Readiness" Assistance	• Red Hill Renewable Energy / AMPYR • EPC Contractor	• Prior to the commencement of construction	• Ensure Construction Contractor/s report on local employment • Record engagement activities with stakeholders about the Project's procurement opportunities	• Number of engagements about the Project's procurement opportunities	Monthly during construction, then as required
#5: Potential Impact on Social Infrastructure and Services	• Workforce Management • Housing and Accommodation • Local Business and Industry Procurement • Health and Community Well-being	Maximise local employment and minimise potential impacts on accommodation availability, community access to goods, services and social infrastructure	Local Employment Plan	• Red Hill Renewable Energy / AMPYR • EPC Contractor	• Prior to the commencement of construction • Prior to the commencement of operation	• Record local employment • Record employee retention rate • Record number of apprenticeships • Ensure Construction Contractor/s (and subcontractors) report on local employment • Record the number of training programs undertaken	• Percentage of people from the Region employed by the Project (including contractors) • Number of training programs offered • Number of apprenticeships offered	Monthly during construction, then as required
			Community and Stakeholder Engagement Plan	• Red Hill Renewable Energy / AMPYR	• Prior to the commencement of construction	• Record engagement activities undertaken and outcomes	• Number of stakeholder engagement activities • Number of stakeholders engaged	Ongoing

Social Impact Descriptor	SIA Guideline Key Matter	Impact Mitigation and Benefit Enhancement				Monitoring Protocol		
		Objective	Management Measure	Responsibility	Timing for Implementation	Monitoring Activities	Performance Indicator(s)	Monitoring Frequency
			Engagement with Accommodation Providers	• Red Hill Renewable Energy / AMPYR	• Prior to the commencement of construction	• Record engagement activities with accommodation providers about the availability of accommodation	• Number of engagements about the accommodation availability	Monthly during construction
			Coordination with Other Proponents	• Red Hill Renewable Energy / AMPYR	• Prior to the commencement of construction	• Record engagement activities undertaken and outcomes	• Number of stakeholder engagement activities • Number of stakeholders engaged	Ongoing
			Workforce Accommodation Management Plan	• Red Hill Renewable Energy / AMPYR • EPC Contractor	• Prior to the commencement of construction	• Record number of breaches of the Workforce Accommodation Management Plan • Record number of Workforce Accommodation Management Plan specific engagement activities undertaken	• Number of non-compliances with the Workforce Accommodation Management Plan • Number of Workforce Accommodation Management Plan specific engagements	Ongoing
			Complaints Management System	• Red Hill Renewable Energy / AMPYR • EPC Contractor	• Prior to the commencement of construction	• Record queries and complaints received from stakeholders	• Number of complaints • Percentage of complaints satisfactorily resolved in accordance with the Complaints Management System	Ongoing
#6: Perceived Land Use Incompatibility	• Health and Community Well-being	Minimise impacts to amenity and rural character	Technical Mitigation / Management Measures	• Red Hill Renewable Energy / AMPYR • EPC Contractor	• Prior to the commencement of construction • Prior to the commencement of operation	• Record number of non-compliances of mitigation and/or management measures in the Development Permit • Record number of non-compliance remediation activities undertaken	• Number of non-compliances with the mitigation and/or management measures specified in the Development Permit • Number of satisfactory non-compliance remediation activities	Monthly during construction, and quarterly during operation
			Construction Environmental Management Plan	• Red Hill Renewable Energy / AMPYR • EPC Contractor	• Prior to the commencement of construction	• Record number of breaches of the Construction Environmental Management Plan	• Number of non-compliances with the Construction Environmental Management Plan	Monthly during construction
			Operational Environmental Management Plan	• Red Hill Renewable Energy / AMPYR • EPC Contractor	• Prior to the commencement of operation	• Record number of breaches of the Operational Environmental Management Plan	• Number of non-compliances with the Operational Environmental Management Plan	Ongoing
			Community and Stakeholder Engagement Plan	• Red Hill Renewable Energy / AMPYR	• Prior to the commencement of construction	• Record engagement activities undertaken and outcomes	• Number of stakeholder engagement activities • Number of stakeholders engaged	Ongoing

Social Impact Descriptor	SIA Guideline Key Matter	Impact Mitigation and Benefit Enhancement				Monitoring Protocol		
		Objective	Management Measure	Responsibility	Timing for Implementation	Monitoring Activities	Performance Indicator(s)	Monitoring Frequency
			Complaints Management System	• Red Hill Renewable Energy / AMPYR • EPC Contractor	• Prior to the commencement of construction	• Record queries and complaints received from stakeholders	• Number of complaints • Percentage of complaints satisfactorily resolved in accordance with the Complaints Management System	Ongoing
#7: Potential Impact on Social Amenity	• Health and Community Well-being	Minimise potential environmental and amenity impacts (i.e. noise, vibration, dust) on receptors	Technical Mitigation / Management Measures	• Red Hill Renewable Energy / AMPYR • EPC Contractor	• Prior to the commencement of construction • Prior to the commencement of operation	• Record number of non-compliances of mitigation and/or management measures in the Development Permit • Record number of non-compliance remediation activities undertaken	• Number of non-compliances with the mitigation and/or management measures specified in the Development Permit • Number of satisfactory non-compliance remediation activities	Monthly during construction, and quarterly during operation
			Construction Environmental Management Plan	• Red Hill Renewable Energy / AMPYR • EPC Contractor	• Prior to the commencement of construction	• Record number of breaches of the Construction Environmental Management Plan	• Number of non-compliances with the Construction Environmental Management Plan	Monthly during construction
			Operational Environmental Management Plan	• Red Hill Renewable Energy / AMPYR • EPC Contractor	• Prior to the commencement of operation	• Record number of breaches of the Operational Environmental Management Plan	• Number of non-compliances with the Operational Environmental Management Plan	Ongoing
			Community and Stakeholder Engagement Plan	• Red Hill Renewable Energy / AMPYR	• Prior to the commencement of construction	• Record engagement activities undertaken and outcomes	• Number of stakeholder engagement activities • Number of stakeholders engaged	Ongoing
			Complaints Management System	• Red Hill Renewable Energy / AMPYR • EPC Contractor	• Prior to the commencement of construction	• Record queries and complaints received from stakeholders	• Number of complaints • Percentage of complaints satisfactorily resolved in accordance with the Complaints Management System	Ongoing
#8: Potential Impact on Community Health and Safety	• Health and Community Well-being	Minimise community health and safety incidents	Technical Mitigation / Management Measures	• Red Hill Renewable Energy / AMPYR • EPC Contractor	• Prior to the commencement of construction • Prior to the commencement of operation	• Record number of non-compliances of mitigation and/or management measures in the Development Permit • Record number of non-compliance remediation activities undertaken	• Number of non-compliances with the mitigation and/or management measures specified in the Development Permit • Number of satisfactory non-compliance remediation activities	Monthly during construction, and quarterly during operation
			Construction Environmental Management Plan	• Red Hill Renewable Energy / AMPYR • EPC Contractor	• Prior to the commencement of construction	• Record number of breaches of the Construction Environmental Management Plan	• Number of non-compliances with the Construction Environmental Management Plan	Monthly during construction

Social Impact Descriptor	SIA Guideline Key Matter	Impact Mitigation and Benefit Enhancement				Monitoring Protocol		
		Objective	Management Measure	Responsibility	Timing for Implementation	Monitoring Activities	Performance Indicator(s)	Monitoring Frequency
			Operational Environmental Management Plan	• Red Hill Renewable Energy / AMPYR • EPC Contractor	• Prior to the commencement of operation	• Record number of breaches of the Operational Environmental Management Plan	• Number of non-compliances with the Operational Environmental Management Plan	Ongoing
			Community and Stakeholder Engagement Plan	• Red Hill Renewable Energy / AMPYR	• Prior to the commencement of construction	• Record engagement activities undertaken and outcomes	• Number of stakeholder engagement activities • Number of stakeholders engaged	Ongoing
			Complaints Management System	• Red Hill Renewable Energy / AMPYR • EPC Contractor	• Prior to the commencement of construction	• Record queries and complaints received from stakeholders	• Number of complaints • Percentage of complaints satisfactorily resolved in accordance with the Complaints Management System	Ongoing
#9: Potential Impact on Cultural Heritage	• Health and Community Well-being	Minimise the chance to damage, disturb or interfere with Historic or Aboriginal cultural heritage and local culture	Engagement with First Nations / Aboriginal Stakeholders	• Red Hill Renewable Energy / AMPYR	• Prior to the commencement of construction	• Record engagement activities with First Nations / Aboriginal Stakeholders	• Number of engagements with First Nations / Aboriginal Stakeholders	Monthly during construction
			Construction Environmental Management Plan	• Red Hill Renewable Energy / AMPYR • EPC Contractor	• Prior to the commencement of construction	• Record number of breaches of the Construction Environmental Management Plan	• Number of non-compliances with the Construction Environmental Management Plan	Monthly during construction
			Operational Environmental Management Plan	• Red Hill Renewable Energy / AMPYR • EPC Contractor	• Prior to the commencement of operation	• Record number of breaches of the Operational Environmental Management Plan	• Number of non-compliances with the Operational Environmental Management Plan	Ongoing
			Community and Stakeholder Engagement Plan	• Red Hill Renewable Energy / AMPYR	• Prior to the commencement of construction	• Record engagement activities undertaken and outcomes	• Number of stakeholder engagement activities • Number of stakeholders engaged	Ongoing
			Complaints Management System	• Red Hill Renewable Energy / AMPYR • EPC Contractor	• Prior to the commencement of construction	• Record queries and complaints received from stakeholders	• Number of complaints • Percentage of complaints satisfactorily resolved in accordance with the Complaints Management System	Ongoing

10. COMMUNITY BENEFIT SYSTEM

Under the Community Benefit System, Proponents for renewable energy developments, where required to enter into a CBA, are to identify initiatives and/or measures that have the potential to enhance community outcomes and contribute towards a positive legacy.

These community benefit initiatives and/or measures are separate to the social impact mitigation and benefit enhancement measures identified in **Section 8** and the Preliminary SIMP (refer to **Table 9-1**).

As outlined in **Section 6.2.3**, the Council will utilise contributions made into the CBF for Council identified priorities and outcomes of a SIA. The criteria set out in **Table 6-3** will be used to inform whether a CBA will deliver public benefits.

The community benefit initiatives and/or measures that warrant further investigation by Red Hill Energy, AMPYR and the Council for the purpose of meeting community benefit needs and alignment with the Council's social infrastructure investment priorities (refer to **Section 6.2.5**), are outlined in **Table 10-1**.

TABLE 10-1 COMMUNITY BENEFIT INITITIVIES AND/OR MEASURES IDENTIFIED

Initiative and/or Measure Description	SIA Guideline Key Matter	Public Benefit Criteria Category	Social Infrastructure Investment Priorities	Community Need	Benefiting Stakeholders	Potential Partners	Timeframe for Implementation
Support for Emergency Services Funding could be provided to support emergency services in the Primary Social Study Area, such as the Bororen Rual Fire Brigade, in order to strengthen fire prevention and management. Red Hill Renewable Energy and AMPYR may also lobby the State Government to support recruitment for emergency services.	• Housing and Accommodation • Health and Community Well-being	Social	• Community resilience planning • Community health and wellbeing services	• Capturing community benefits • Limited staff for essential / emergency services	• Host Landowners • Immediate Neighbours • Surrounding Community	• Local Council • State Government • Emergency Services	Prior to and during construction
Support for Educational Partnerships Partnership opportunities could be established to support educational and vocational programs, including scholarships, within the Primary Social Study Area. These initiatives could be delivered in collaboration with tertiary education providers such as TAFE or CQ University. There is also potential to develop research partnerships with these institutions on topics relevant to the Project - for example, opportunities for agricultural co-existence or environmentally focused land management and/or rehabilitation practices in and around Baffle Creek. High School partnerships could also be explored with Tannum Sands State High School (noting that children from Bororen typically attend the Tannum Sands State High School). Additionally, consideration can be given to development of a partnership with established, well-governed, local not-for-profits (e.g. Apprentice Training Queensland, etc.) to build capacity, rather than relying on for-profit entities with less community focus.	• Workforce Management	Economic	• Inclusion (within education, employment and training) • Education and skills development • Technical and vocational education and training programs	• Diversifying the regional economy • Workforce development • Support for apprenticeships and traineeships	• Immediate Neighbours • Surrounding Community Members • First Nations / Aboriginal Groups • Business and Industry	• State Government • Business and Industry • Educational Organisations	Prior to and during construction, and ongoing for the life of the project
Support for Upskilling/Worker Transition Joint and/or partial funding to support the retraining and/or upskilling of workers within the Primary Social Study Area to transition to occupations likely to be required by future renewable energy developments in the region. This could include contributions to TAFE and/or CQ University courses, or alternatively, support provided through other mechanisms open to residents within the Primary Social Study Area.	• Workforce Management	Economic	• Inclusion (within education, employment and training) • Education and skills development • Technical and vocational education and training programs • Job placement and transition support services	• Diversifying the regional economy • Workforce development • Increase employment opportunities for local community members	• Immediate Neighbours • Surrounding Community Members • First Nations / Aboriginal Groups • Business and Industry	• State Government • Business and Industry • Educational Organisations	Prior to and during construction, and ongoing for the life of the project

Initiative and/or Measure Description	SIA Guideline Key Matter	Public Benefit Criteria Category	Social Infrastructure Investment Priorities	Community Need	Benefiting Stakeholders	Potential Partners	Timeframe for Implementation
Support for Small Businesses to Participate in Renewable Energy Procurement Processes Provide support for small businesses to participate in the procurement processes (e.g. information and training, assistance with forms) via funding and/or partnership with an organisation to provide a business development manager or administrative assistance. This may be orchestrated through partnerships with key Business and Industry groups relevant to the Primary Social Study Area (e.g. GEA). Iimportance should be placed on providing the right information to enable ease of tendering, capacity building (if required), business development support, and supply chain development and diversification.	• Local Business and Industry Procurement	Economic	• Community outreach and education	• Diversifying the regional economy • Workforce development • Providing an economic stimulus for local businesses • Educational programs to help local businesses become "tender ready".	• Immediate Neighbours • First Nations / Aboriginal Groups • Business and Industry	• Business and Industry	Prior to and during construction
Community Grants/Sponsorships Sponsorship of various local community groups and/or organisations that bring value to the communities within the Social Study Area. This includes various sporting and/or cultural clubs and organisations such as the CWA, Miriam Vale Men's Shed, Heritage Society, and Pony Club. Stakeholders indicated that the Miriam Vale State School could be a potential recipient, as it frequently struggles with resourcing needs. Sponsorship should also be considered for the various festivals and events held within the Social Study Area, including those that are large drawcards for tourists. It is noted that throughout the life of the Project, sponsorship should evolve to provide resources to support long-term financial sustainability and avoid reliance upon funding provided by Red Hill Renewable Energy and AMPYR.	• Health and Community Well-being	Social	• Community infrastructure for recreation and social interaction • Community facilities and services	• Capturing community benefits • Grants, careers days, and initiatives supporting youth and Indigenous groups. • High school partnerships.	• Host Landowners • Immediate Neighbours • Surrounding Community	• Local Council • Local Community Groups • Business and Industry	Ongoing for the life of the project

Initiative and/or Measure Description	SIA Guideline Key Matter	Public Benefit Criteria Category	Social Infrastructure Investment Priorities	Community Need	Benefiting Stakeholders	Potential Partners	Timeframe for Implementation
Good Neighbour Policy The intent of the Good Neighbour Policy is to respond promptly and appropriately to the requests made by surrounding landowners similar to, or better than, what would be the case between two neighbours on rural properties. Examples of the outcomes of such a policy may include: • **Maintenance:** Implementing a maintenance regime to avoid issues with surrounding landowners particularly as It relates to boundary fencing or access track maintenance. • **Biosecurity and weed maintenance:** Implementing a biosecurity and weed maintenance regime during construction and operation of the Project.	• Health and Community Well-being	Social Environmental	• N/A	• Weed control in the area immediately surrounding the Project Area	• Host Landowners • Immediate Neighbours	• Local Community Groups • Business and Industry	Ongoing for the life of the project

11. REFERENCES

4 Elements Consulting. 2025. Ecological Constraints Letter. Dated 17 September 2025.

Australian Bureau of Statistics [ABS]. 2025. Region summary: Gladstone. Australian Government. Accessed 15 December 2025. Retrieved from: https://dbr.abs.gov.au/region.html?lyr=lga&rgn=33360

ABS. 2024. Counts of Australian Businesses, including Entries and Exit. Australian Government. Accessed 10 November 2025. Retrieved from: https://www.abs.gov.au/statistics/economy/business-indicators/counts-australian-businesses-including-entries-and-exits/jul2020-jun2024

ABS. 2022. Housing. Australian Government. Accessed 10 November 2025. Retrieved from: https://www.abs.gov.au/statistics/detailed-methodology-information/concepts-sources-methods/survey-income-and-housing-user-guide-australia/2019-20/housing

ABS. 2023. Socio-Economic Indexes for Areas (SEIFA), Australia, 2021. Australian Government. Accessed 10 November 2025. Retrieved from: https://www.abs.gov.au/statistics/people/people-and-communities/socio-economic-indexes-areas-seifa-australia/latest-release

ABS. n.d. Search Census Data. Australian Government. Accessed 12 December 2025. Retrieved from: https://www.abs.gov.au/census/find-census-data/search-by-area

Acciona Energia. n.d. Aldoga Solar Farm. Accessed 8 December 2025. Retrieved from: https://community.acciona.com.au/aldoga

Ace Power. n.d. Raglan Battery. Accessed 8 December 2025. Retrieved from: https://acepower.com.au/raglan/

Australian Institute of Health and Welfare [AIHW]. 2025a. Housing affordability. Australian Government. Accessed 10 November 2025. Retrieved from: https://www.aihw.gov.au/reports/australias-welfare/housing-affordability

AIHW. 2025b. MyHospitals Hospital: Gladstone Hospital. Australian Government. Accessed 11 November 2025. Retrieved from: https://www.aihw.gov.au/hospitals/my-local-area-hospital/h0457

AIHW. 2025c. MyHospitals Hospital: Biloela Hospital. Australian Government. Accessed 11 November 2025. Retrieved from: https://www.aihw.gov.au/hospitals/my-local-area-hospital/h0454

Arriscar Pty Limited. Hazard Analysis of Rutherglen BESS and Substation Project. Revision 1, Dated 20 October 2025.

Bureau of Infrastructure and Transport Research Economics. 2023. Domestic Aviation Activity. Accessed November 23 2025. Retrieved from https://www.bitre.gov.au/sites/default/files/documents/domestic-aviation-activity-2023.pdf

Calliope Chase. n.d. History. Accessed 13 November 2025. Retrieved from: https://calliopechase.com.au/history/#:~:text=Calliope's%20History,1970s%2C%20the%20gold%20was%20gone

CEC. 2024. Rooftop solar and storage biannual report. Accessed 28 November 2025. Retrieved from: https://cleanenergycouncil.org.au/news-resources/rooftop-solar-and-storage-report-july-to-december-2024

CEC. 2025. Rooftop solar and storage biannual report. Accessed 28 November 2025. Retrieved from: https://cleanenergycouncil.org.au/news-resources/rooftop-solar-and-storage-report-january-to-june-2025

CQP. n.d. Wooderson Solar Farm. Accessed 15 November 2025. Retrieved from: https://woodersonsolar.com.au/

Department of State Development, Infrastructure and Planning [DSDIP]. 2025a. Social Impact Assessment Guideline, July 2025. State of Queensland. Accessed 4 November 2025. Retrieved from: https://www.statedevelopment.qld.gov.au/__data/assets/pdf_file/0017/17405/socialimpact-assessment-guideline-july-2025.pdf

DSDIP. 2025b. Social Impact Assessment Supplementary material for assessing and managing the social impacts of projects under the Social Impact Assessment Guideline (July 2025), July 2025. State of Queensland. Accessed 4 November 2025. Retrieved from: https://www.statedevelopment.qld.gov.au/__data/assets/pdf_file/0019/102367/socialimpact-assessment-supplementary-material.pdf

DSDIP. 2025c. State Code 27: Battery Storage Facility Development. State of Queensland. Accessed 15 December 2025. Retrieved from: https://www.planning.qld.gov.au/__data/assets/pdf_file/0020/110594/sdap-v3.5-state-code-27-battery-storage-facility-development.pdf

Department of the Prime Minister and Cabinet. n.d. Closing the Gap. Commonwealth of Australia. Accessed 15 December 2025. Retrieved from: https://www.closingthegap.gov.au/

Eku. n.d. Byellee BESS. Accessed 15 November 2025. Retrieved from: https://www.ekuenergy.com/projects/byellee-bess#

Eldon Bottcher Architect Pty Ltd. 2024. Bushfire Mitigation Report. Dated 19 December 2024.

Elements Green. 2025. Elements Green – Eurimbula. Accessed 15 November 2025. Retrieved from: https://www.gladstone.qld.gov.au/files/assets/public/v/1/council/meetings/agendas-and-minutes/documents/special-budget-meeting-2025-07-03/item_31__attach_01__elements_green_presentation.pdf

European Energy. n.d. Upper Calliope Solar Farm. Accessed 8 December 2025. Retrieved from: https://au.europeanenergy.com/solar/upper-calliope-solar-farm/

Gilvear Planning. 2025. Planning Report: Rutherglen Battery Project – Material Change of Use (Battery Storage Facility and Substation) and Reconfiguring a Lot (1 into 4 lots and access easement) located at 837 Red Hill Road, Bororen (lot 132 on FD700). V1.4 23 October 2025.

Gladstone Regional Council. 2019. Gladstone Regional Events Strategy 2019-2024. Accessed 10 November 2025. Retrieved from: https://www.gladstone.qld.gov.au/Things-To-Do/Events

Gladstone Regional Council. 2022. Economic Transition Roadmap 2022-32 Summary Report. Accessed 4 November 2025. Retrieved from: https://www.gladstone.qld.gov.au/files/assets/public/v/1/business/economy/economic-development/documents/gretr_report_summary.pdf

Gladstone Regional Council. 2024a. Social Infrastructure Investment Priorities. Accessed 10 November 2025. Retrieved from: https://www.gladstone.qld.gov.au/Business/Economy/Economic-Development#section-7

Gladstone Regional Council. 2025a. Renewable Energy Community Benefits Sharing Policy. Accessed 4 November 2025. Retrieved from: https://www.gladstone.qld.gov.au/files/assets/public/v/2/council/reports-and-publications/policies/documents/renewable-energy-community-benefits-sharing-policy.pdf

Gladstone Regional Council. 2025b. Gladstone. Accessed 11 November 2025. Retrieved from: https://www.gladstone.qld.gov.au/Business/Economy/Demographics/Gladstone

Gladstone Regional Council. 2025c. Calliope. Accessed 11 November 2025. Retrieved from: https://www.gladstone.qld.gov.au/Business/Economy/Demographics/Calliope

Gladstone Regional Council. 2025d. Gladstone. Accessed 8 December 2025. Retrieved from: https://www.gladstoneregion.info/plan/industry/

Gladstone Regional Council. n.d.a. Social Infrastructure Investment Priorities. Accessed 4 November 2025. Retrieved from: https://www.gladstone.qld.gov.au/files/assets/public/v/1/business/economy/economic-development/documents/grc_social_infrastructure_and_investment_priorities.pdf

Gladstone Regional Council. n.d.b. Local Heritage Register – Miriam Vale-Bororen Cemetery. Accessed 13 November 2025. Retrieved from: https://www.gladstone.qld.gov.au/files/assets/public/v/1/build-and-develop/local-heritage-register/documents/grc_local_heritage_register_miriamvaleborорencemetery.pdf

Gladstone Regional Council. n.d.c. Local Heritage Register – Miriam Vale Heritage Cemetery. Accessed 13 November 2025. Retrieved from: https://www.gladstone.qld.gov.au/files/assets/public/v/1/build-and-develop/local-heritage-register/documents/grc_local_heritage_register_miriamvaleheritagecemetery.pdf

Gladstone Regional Council. n.d.d. Benaraby. Accessed 13 November 2025. Retrieved from: https://www.gladstone.qld.gov.au/Business/Economy/Demographics/Benaraby#section-1

Gladstone Regional Council. n.d.e. Calliope. Accessed 13 November 2025. Retrieved from: https://www.gladstone.qld.gov.au/Business/Economy/Demographics/Calliope#section-1

Gladstone Regional Council. n.d.f. Gladstone Region Investment Prospectus. Accessed 11 November 2025. Retrieved from: https://www.gladstone.qld.gov.au/Business/Economy/Investment-and-Liveability

Gladstone Regional Council. n.d.g. Renewable Energy Projects – Gladstone Region. Accessed 15 November 2025. Retrieved from: https://arcgisonpremise.gladstone.qld.gov.au/portal/apps/webappviewer/index.html?id=cf71afbe54ad4fb6a2b9765fec4669e1

GladstoneToday. 2025. PEP puts brakes on Miriam Vale solar farm, BESS plans. Accessed 18 December 2025. Retrieved from: https://gladstonetoday.com.au/news/2025/06/19/pep-puts-brakes-on-miriam-vale-solar-farm-bess-plans/

Gurran, N., Zhang, Y., Shrestha, P., Gilbert, C. 2018. Planning responses to online short term holiday rental platforms. (pp. 1 - 76). Melbourne, Australia, Australia: Australian Coastal Councils Association Inc.

Homeground Villages. 2025. Homeground Villages. Accessed 10 November 2025. Retrieved from: https://www.homegroundvillages.com.au/

Jozwik, R. 2024. Architectural and Urban Changes in a Residential Environment—Implications for Design Science. Sustainability 2024, 16, 3987.

Lawrie, M., Tonts, M., and Plummer, P. 2011. "Boomtowns, Resource Dependence and Socioeconomic Well-being", Australian Geographer: 42(2), 139–164.

Manzo, L.C., Williams, D.R., Di Masso, A., Raymond, C.M. and Gulsrud, N. 2023. Using Senses of Place to Help Communities Navigate Place Disruption and Uncertainty. Landscape Journal, 42:1.

Matrix Acoustics. 2025. Rutherglen BESS Noise Impact Assessment. Revision 2.0, dated 20 October 2025.

Owen, D., Wagner, J., Dowse, S., Jones, M. and Orenstein, M. 2018. Managing Social Impacts of Labour Influx. IAIA 18 Conference Proceedings. Accessed 19 November 2025. Retrieved from: https://conferences.iaia.org/2018/final-papers/Owen,%20Daniel%20-%20Managing%20Social%20Impacts%20of%20Labour%20Influx.pdf

PTT. 2025. Rutherglen Battery Energy Storage System – Traffic Impact Assessment. Final, Rev B, dated 20 October 2025.

Queensland Country Life. 2025. CQ community vows to fight on against any new solar farm and battery proposal. Accessed 18 December 2025. Retrieved from: https://www.queenslandcountrylife.com.au/story/8998541/developer-withdraws-miriam-vale-solar-project-but-plans-to-lodge-another-da/

Queensland Government Statistician's Office. 2023. Projected population, by local government area, Queensland, 2021 to 2046. State of Queensland. Accessed 10 November 2025. Retrieved from: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.qgso.qld.gov.au%2Fissues%2F5281%2Fqld-population-projections-regions-tables-local-government-areas-qld-low-med-high-series-2021-2046.xlsx&wdOrigin=BROWSELINK

Queensland Government. 2025. Delivering for Queensland: Public and community housing. State of Queensland. Accessed 11 December 2025. Retrieved from: https://www.qld.gov.au/housing/public-community-housing

Queensland Health. 2024. CSCF Fact sheet 2 – Explanation of service levels. State of Queensland. Accessed 11 November 2025. Retrieved from: https://www.health.qld.gov.au/__data/assets/pdf_file/0021/444423/cscf-fs-2-service-levels.pdf

Queensland Parliament, 2025. E-Petition: 4250-25 Reject DA for renewable energy BESS proposed for the Miriam Vale area. State of Queensland. Accessed 18 December 2025.

Queensland Places. 2018a. Gladstone Localities. The University of Queensland. Accessed 13 November 2025. Retrieved from: https://queenslandplaces.com.au/gladstone-localities

Queensland Places. 2018b. Gladstone. The University of Queensland. Accessed 13 November 2025. Retrieved from: https://www.queenslandplaces.com.au/gladstone

Queensland Places. 2018b. Tannum Sands. The University of Queensland. Accessed 13 November 2025. Retrieved from: https://www.queenslandplaces.com.au/tannum-sands

Queensland Treasury. 2024. Electricity Generation Map. State of Queensland. Accessed 15 November 2025. Retrieved from: https://www.business.qld.gov.au/running-business/support-services/mapping-data-imagery/maps/electricity-generation

Queensland Treasury. 2025. Energy Roadmap. State of Queensland. Accessed 15 December 2025. Retrieved from: https://www.treasury.qld.gov.au/files/Queensland-Energy-Roadmap-2025-25-043.pdf

REA Group Ltd. 2025. Explore QLD Suburbs. Accessed 10 November 2025. Retrieved from: https://www.realestate.com.au/qld/

SGS Economics & Planning. 2024. Rental Affordability Index November 2024. Accessed 10 November 2025. Retrieved from: https://sgsep.com.au/projects/rental-affordability-index

SQM Research. 2025. Residential Vacancy Rates. Accessed 10 November 2025. Retrieved from: https://sqmresearch.com.au/graph_vacancy.php?t=1

State Library of Queensland. 2012. Queensland Place Histories: Agnes Water. Accessed 13 November 2025. Retrieved from: https://www.slq.qld.gov.au/blog/queensland-place-histories-agnes-water

Total Energies H2. 2025. East End BESS. Accessed 15 November 2025. Retrieved from: https://eastendbess.com.au/

Vanclay, F. 2003. SIA Principles: International Principles for Social Impact Assessment. Accessed 8 December 2025. Retrieved from: https://iaia.org/wp-content/uploads/2025/02/BEST-PRACTICE-SIA-Principles.pdf

WMS. 2025. Rutherglen, Bororen - Flood Assessment and Stormwater Management Plan. Dated 11 August 2025.

APPENDIX A SHORT-TERM ACCOMMODATION (STA) PROVIDERS IN THE SOCIAL STUDY AREA

TABLE A-1 STA PROVIDERS

Location	Name	Accommodation Type	Address	Contact Details	Capacity
Primary Social Study Area					
Bororen	Bororen Motel	Motel	1 Bruce Highway, Bororen QLD 4678	(07) 4974 4144	11 rooms
	Koorawatha Homestead Motel	Motel	4 Reedbed Road, Bororen QLD 4678	(07) 4974 4039 stay@koorawathahomestead.com.au	10 rooms
	Bororen Hotel Motel	Motel	Corner Marshall & Dougall Street, Bororen QLD 4678	N/A	12 rooms
	Bushchooks Travelers Village	Tourist Park	Bruce Highway, Bororen QLD 4678	N/A	15 rooms
	Bororen Caravan Park	Tourist Park	Exact address not listed	N/A	15 powered sites
Miriam Vale	Miriam Vale Motel	Motel	16 Roe Street, Bruce Highway, Miriam Vale QLD 4677	(07) 4974 5233 reception@motelmiriamvale.com.au	20 rooms
	Miriam Vale Hotel	Hotel	9 Bloomfield Street, Miriam Vale QLD 4677	(07) 4974 5209	N/A
Secondary Social Study Area					
Agnes Water	Mango Tree Motel	Motel	7 Agnes Street, Agnes Water QLD 4677	(07) 4974 9132	14 rooms
	Agnes Palms Beachside Apartments	Apartment	52 Captain Cook Drive, Agnes Water QLD 4677	0409 233 941	15 units

Location	Name	Accommodation Type	Address	Contact Details	Capacity
	The Edge on Beaches 1770 Resort	Resort	Corner Captain Cook Drive & Beaches Village Circuit, Agnes Water QLD 4677	(07) 4974 9599	54 villas
	Sandcastles 1770 Motel & Resort	Resort	40 Captain Cook Drive, Agnes Water QLD 4677	(07) 4974 9144	72 rooms
Benaraby	Benaraby Hilltop Motor Inn	Motel	48902 Bruce Highway, Benaraby QLD 4680	(07) 4975 0211 info@benarabyhilltopmotorinn.com.au	11 rooms
	Greenacres Motel & Van Park	Motel	Exact address not listed	N/A	7 rooms
	Discovery Holiday Parks – Benaraby	Tourist Park	Exact address not listed	N/A	23 cabins, 7 vans, 70 powered sites
Calliope	Comfort Hotel Parklands Calliope	Hotel	1906 Dawson Highway, Calliope QLD, 4680, Australia	(07) 4975 8933	65 rooms
	Calliope Caravan Park	Tourist Park	65 Stowe Rd, Calliope QLD 4680	(07) 4975 7472	14 cabins, 75 powered sites, 20 unpowered sites
	The Mac Calliope	Hotel	149 Stowe Rd, Calliope QLD 4680	(07) 4975 9000	N/A
	Railway Hotel Motel	Motel	41 Stirrat St, Calliope QLD 4680	(07) 4975 7411	10 rooms
	Homeground Gladstone	Workforce Accommodation Village	101 Calliope River Rd, Calliope QLD 4680	(07) 4975 8000	1,392 rooms

Location	Name	Accommodation Type	Address	Contact Details	Capacity
Gladstone	Apartments G60 Gladstone	Apartment	55 Central Ln, Gladstone Central QLD 4680	(07) 4972 3000	20 apartments
	Harbour Sails	Motel	23 Goondoon St, Gladstone Central QLD 4680, Australia	(07) 4972 3456	28 rooms
	Gladstone Reef Hotel	Hotel	38 Goondoon St, Gladstone Central QLD 4680	(07) 4972 1000	52 rooms
	Gladstone Central Plaza	Apartment	52 Oaka Ln, Gladstone Central QLD 4680	(07) 4970 9900	83 apartments
	Mid City Motor Inn	Motel	26 Goondoon St, Gladstone Central QLD 4680, Australia	(07) 4972 3000	25 rooms
	Harbour Lodge Motel	Motel	16 Roseberry St, Gladstone Central QLD 4680	(07) 4972 6463	23 rooms
	Oaks Gladstone Grand Hotel	Hotel	79 Goondoon St, Gladstone Central QLD 4680	(07) 4972 2422	144 rooms
	Curtis Central Apartments	Apartment	30 Goondoon St, Gladstone Central QLD 4680, Australia	(07) 4843 7800	44 apartments
	Park View Motel Gladstone	Motel	42 Roseberry St, Gladstone Central QLD 4680, Australia	(07) 4972 3344	15 rooms
	Highpoint International Hotel	Hotel	22-24 Roseberry St, Gladstone Central QLD 4680, Australia	(07) 4972 4711	48 apartments
	CQ Motel Gladstone	Motel	22-24 William St, Gladstone Central QLD 4680, Australia	(07) 4904 1871	28 rooms
	The Queens Hotel Gladstone	Hotel	125 Goondoon St, Gladstone Central QLD 4680, Australia	(07) 4972 6615	21 rooms

Location	Name	Accommodation Type	Address	Contact Details	Capacity
	Gladstone Heights Harbour View Executive Apartments	Apartment	92/96 Central Ln, Gladstone Central QLD 4680, Australia	(07) 4972 2446	10 apartments
	Gladstone CBD Motel	Motel	167 Goondoon St, Gladstone Central QLD 4680, Australia	(07) 4843 7900	23 rooms
	Aaron Motel	Motel	6 Scenery St, Gladstone Central QLD 4680, Australia	(07) 4972 1411 amanda@aaronmotel.com.au	30 rooms
	Como Apartments Gladstone QLD	Apartment	2 Railway St, Gladstone Central QLD 4680, Australia	1300 684 499	10 apartments
	Gladstone Downtown Central	Hotel	39-43 Bramston St, Gladstone Central QLD 4680, Australia	(07) 4971 0088	82 apartments
	Glenlyon Lodge	Lodge	104 Glenlyon St, Gladstone Central QLD 4680, Australia	N/A	6 rooms
	Central Studio Accommodation Gladstone	Motel	Central Studio Accommodation, 166 Auckland St, Gladstone Central QLD 4680, Australia	(07) 4976 9900	11 units
	The Club Hotel Gladstone	Hotel	1 Tank St, Gladstone Central QLD 4680, Australia	(07) 4972 2744 info@theclubhotelgladstone.com.au	11 rooms
	South Gladstone Motel	Motel	83 Toolooa St, South Gladstone QLD 4680, Australia	0431 547 122	19 rooms
	Gladstone Accommodation Centre	Workers Accommodation	7 Sutton St, Barney Point QLD 4680, Australia	(07) 4972 1366	N/A

Location	Name	Accommodation Type	Address	Contact Details	Capacity
	Barney Beach Accommodation	Tourist Park	10 Friend St, Gladstone Central QLD 4680, Australia	(07) 4972 1366	N/A
	Mantra Gladstone	Hotel	Cnr Bell And, O'Connel St, Gladstone Central QLD 4680, Australia	(07) 4979 8200	60 rooms
	Peppers Gladstone	Hotel	Cnr Bell And, O'Connel St, Gladstone Central QLD 4680, Australia	(07) 4979 8200	32 rooms
	Camelot Motel Australia	Motel	19 Agnes St, South Gladstone QLD 4680, Australia	(07) 4979 1222	24 rooms
	Gladstone City Caravan Park	Tourist Park	183-185 Toolooa St, South Gladstone QLD 4680, Australia	(07) 4979 1305	N/A
	Kin Kora Village Caravan and Residential	Tourist Park	3 Olsen Ave, Kin Kora QLD 4680, Australia	(07) 4978 5461	N/A
	Rocky Glen Hotel	Hotel	7 Dawson Hwy, West Gladstone QLD 4680, Australia	(07) 4972 2977	18 rooms
	Gladstone Palms Motor Inn	Motel	30 Far Street Corner Far St & Dawson H'way, Gladstone Central QLD 4680, Australia	(07) 4972 1702 info@gladstonepalmsmotorinn.com.au	20 rooms
	Suncourt Motor Inn	Motel	Dwelling, Corner Far St and Moore Ln, 18 Far St, West Gladstone QLD 4680, Australia	(07) 4972 2377	N/A
	Affordable Accommodation	Tourist Park	84 Toolooa St, South Gladstone QLD 4680, Australia	0480 458 230 wanda@affordableaccommodation gladstone.com.au	16 rooms

Location	Name	Accommodation Type	Address	Contact Details	Capacity
	Gladstone Motel	Motel	Motel, 88 Toolooa St, South Gladstone QLD 4680, Australia	(07) 4972 2144 bookings@gladstonemotel.com.au	N/A
	Boyne Island Motel and Villas	Motel	3 Orana Ave, Boyne Island QLD 4680	(07) 4973 7444	15 units
	Reef Adventureland Motel	Motel	64 Hampton Dr, Tannum Sands QLD 4680	(07) 4973 8522 admin@reefadventureland.com.au	30 rooms
	Tannum on the Beach Motel	Motel	22 Ocean St, Tannum Sands QLD 4680	(07) 4973 8911 tannumonthebeachmotel@hotmail.com	10 rooms
	Tannum Sands Hotel	Hotel	34 Pacific Ave, Tannum Sands QLD 4680	(07) 4973 7439	15 rooms
	Discovery Parks – Tannum Sands	Tourist Park	Millenium Esplanade, Tannum Sands QLD 4680	(07) 4973 7201	30 cabins

APPENDIX B HEALTH AND EMERGENCY SERVICES IN THE SOCIAL STUDY AREA

TABLE B-1 HEALTH AND EMERGENCY SERVICES

Name	Location	Address	Contact Details
Police			
Miriam Vale Station	Miriam Vale	31 Roe St, Miriam Vale, Qld 4677	(07) 4974 6000
Agnes Water Station	Agnes Water	10 Springs Road, Agnes Water, Qld 4678	(07) 4899 4000
Calliope Station	Calliope	17 Bloomfield St, Calliope, Qld 4680	(07) 4975 4000
Tannum Sands Station	Tannum Sands	3 Steel St, Tannum Sands, Qld 4680	(07) 4979 9444
Gladstone Station	Gladstone	10-12 Yarroon St, Gladstone, Qld 4680	(07) 4971 3222
Fire			
Bororen Rural Fire Brigade	Bororen	N/A	(07) 4974 4067
Miriam Vale Fire Station	Miriam Vale	65 Roe St, Miriam, Vale, Qld 4677	(07) 4899 2210 0413 129 057
Agnes Water Fire Station	Agnes Water	2863 Round Hill Rd, Agnes Water, Qld 4677	(07) 4899 2210
Benaraby Rural Fire Brigade	Benaraby	15 O'Connor Road, Benaraby QLD 4680	(07) 4975 0773
Calliope Fire Station	Calliope	2 Menzies Street, Calliope, Qld 4680	(07) 4899 2210
Boyne Island Fire Station	Boyne Island	6 Gilbert Court, Boyne Island, Qld 4680	(07) 4899 2210
Hospital			
Gladstone Hospital	Gladstone	Park Street, West Gladstone QLD 4680	(07) 4976 3200

APPENDIX C EDUCATIONAL FACILITIES IN THE SOCIAL STUDY AREA

TABLE C-1 EDUCATIONAL FACILITIES

Name	Location	Address	Contact Details
Pre-Primary			
Bororen State School Delivered Kindergarten Program	Bororen	1 Kent Street, Bororen QLD 4678	(07) 4974 4124 principal@bororenss.eq.edu.au
Miriam Vale State School Kindergarten	Miriam Vale	15 Roe Street, Miriam Vale QLD 4677	(07) 4974 6333 principal@miriamvaless.eq.edu.au
First Steps Early Learning Centre – Agnes Water	Agnes Water	2873–2875 Round Hill Road, Agnes Water QLD 4677	(07) 4859 1231 agnesinfo@firststepselc.net.au
Agnes Water Child Care Centre		The Community Centre, 71 Springs Road, Agnes Water QLD 4677	0403 977 673 awchildcare@outlook.com
Discovery Coast Family Day Care Scheme		71 Springs Road, Agnes Water QLD 4677	(07) 4974 9419
Goodstart Early Learning Calliope	Calliope	7 Don Cameron Dr, Calliope QLD 4680	(07) 4975 7955 gsc@goodstart.org.au
Cottage Academy Early Learning & Childcare Centre Calliope		2 Muirhead St, Calliope QLD 4680	0419 484 977 calliope@cottageacademy.com.au
Calliope Kindy		Calliope QLD 4680	(07) 4975 7093 calliopekindy@y7mail.com
Cottage Academy Calliope		7 Stirrat Street, Calliope QLD 4680	calliope@cottageacademy.com.au
Helping Hands Calliope		14 Stirrat St, Gladstone Central QLD 4680	0409 267 755 jagqld@junioradventuresgroup.com.au
Goodstart Early Learning Gladstone - Beak Street	Gladstone	1 Beak St, New Auckland QLD 4680	(07) 4978 4811 gla@goodstart.org.au

Name	Location	Address	Contact Details
Goodstart Early Learning Gladstone - Toolooa Street		123 Toolooa St, Gladstone Central QLD 4680	(07) 4972 8028 gse@goodstart.org.au
Port City Kids		26 Bramston St, Gladstone Central QLD 4680	(07) 4972 2344 portcity.kids05@gmail.com
Stepping Stones Child Care Centre		26 Bramston St, Gladstone Central QLD 4680	(07) 4972 3144 admin@stepping-stones.org.au
Green Leaves Early Learning Forest Springs		3 Starling Drive, Kirkwood QLD 4680	(07) 4979 0580 forestsprings@greenleaveselc.com.au
Rainbow Valley Early Learning		12 Uniting Pl, Telina QLD 4680	(07) 4979 3544 admin.rainbowvalley@bigpond.com
C&K Gladstone Community Kindergarten		4 Harvey Rd, Clinton QLD 4680	(07) 4972 1049 gladstone@candk.asn.au
Birralee Kindergarten & Community Preschool		25 Higgins St, West Gladstone QLD 4680	(07) 4972 2211 admin@birraleekindy.net.au
C&K Clinton Community Childcare Centre		4 Harvey Rd, Clinton QLD 4680	(07) 4978 6294 clinton@candk.asn.au
Community Kids Clinton Park Early Education Centre		18 Ballantine St, Gladstone Central QLD 4680	(07) 4978 4200 clintonpark@communitykids.com.au
Goodstart Early Learning Kin Kora		79 Sun Valley Rd, Kin Kora QLD 4680	1800 222 543
Stevie's Day Care		5 Sunnyridge Rd, West Gladstone QLD 4680	N/A
Koolyangarra Kindergarten		29 Boyne Cres, West Gladstone QLD 4680	(07) 4972 1370
Kath Dickson Education and Care Centre - Gladstone Street		44 Gladstone St, Newtown QLD 4350	(07) 4972 2484

Name	Location	Address	Contact Details
St Stephens Lutheran Kindergarten		803 Glenlyon Rd, Gladstone Central QLD 4680	(07) 4972 1830
Gladstone Central Preschool		99 Auckland St, Gladstone Central QLD 4680	(07) 4972 1790
Milestones Early Learning Boyne Island		8 Beltana Dr, Boyne Island QLD 4680	(07) 4973 7000
Goodstart Early Learning Tannum Sands		Child Care Centre, 2 Parkside St, Tannum Sands QLD 4680	1800 222 543
C&K Waratah Crescent Community Kindergarten		12 Waratah Cres, Tannum Sands QLD 4680	(07) 4973 7030
Tannum Sands Kindergarten		Cnr Zephyr &, Neptune St, Tannum Sands QLD 4680	(07) 4973 7030
Primary			
Bororen State School	Bororen	1 Kent Street, Bororen QLD 4678	(07) 4974 4124 principal@bororenss.eq.edu.au
Miriam Vale State School	Miriam Vale	15 Roe Street, Miriam Vale QLD 4677	(07) 4974 6333 admin@miriamvaless.eq.edu.au
Agnes Water State School	Agnes Water	1 Donohue Drive, Agnes Water QLD 4677	(07) 4902 1333 admin@agneswaterss.eq.edu.au
Goora Gan Steiner School		1 Surf Club Avenue, Agnes Water QLD 4677	(07) 4974 7734 info@gooraganssteiner.qld.edu.au
Discovery Christian College (Prep-12)		2873 Round Hill Road, Agnes Water QLD 4677	(07) 4974 7336
Benaraby State School	Benaraby	17 O'Connor Road, Benaraby QLD 4680	(07) 4970 4333 principal@benarabyss.eq.edu.au
Calliope State School	Calliope	14 Stirrat St, Calliope QLD 4680	(07) 4975 8333 admin@calliopess.eq.edu.au

Name	Location	Address	Contact Details
Gladstone Central State School	Gladstone	74 Auckland St, Gladstone Central QLD 4680	(07) 4979 7222 admin@gladstonecentralss.eq.edu.au
Gladstone South State School		153 Toolooa St, South Gladstone QLD 4680	(07) 4899 4333 principal@gladstonesouthss.eq.edu.au
Gladstone West State School		Boles St, Gladstone W QLD 4680	(07) 4979 7333 principal@gladstonewestss.eq.edu.au
St John the Baptist Catholic Primary School		15 J Hickey Ave, Clinton QLD 4680	(07) 4978 1799 sjgoffice@rok.catholic.edu.au
Star of the Sea Catholic Primary School		181 Goondoon St, Gladstone Central QLD 4680	(07) 4972 1305 sosg@rok.catholic.edu.au
Kin Kora State School		41-43 Hibiscus Ave, Gladstone Central QLD 4680	(07) 4971 5111 admin@kinkorass.eq.edu.au
Boyne Island Primary School		151 Malpas St, Boyne Island QLD 4680	(07) 4979 9333 admin@boyneislandss.eq.edu.au
Tannum Sands State School		22 Waratah Cres, Tannum Sands QLD 4680	(07) 4979 9111 principal@tannumsandsss.eq.edu.au
Secondary			
Discovery Christian College	Agnes Water	2873 Round Hill Road, Agnes Water QLD 4677	(07) 4974 7336 info@discovery.qld.edu.au
Calliope State High School	Calliope	55 Don Cameron Dr, Calliope QLD 4680	(07) 4975 9777 admin@calliopeshs.eq.edu.au
Chanel College	Gladstone	11 Paterson St, West Gladstone QLD 4680	(07) 4994 8900 admin@chanelcollege.qld.edu.au

Name	Location	Address	Contact Details
Toolooa State High School		2 Philip St, Gladstone Central QLD 4680	(07) 4971 4333 principal@toolooashs.eq.edu.au
Gladstone State High School		30 Dawson Hwy, Gladstone Central QLD 4680	(07) 4976 6111 principal@gladstonshs.eq.edu.au
Trinity College		4 Archer St, Sun Valley QLD 4680	(07) 4839 0500 admin@trinitygladstone.qld.edu.au
Clearview Christian College		1 Francis Way, Tannum Sands QLD 4680	(07) 4910 8822 admin@clearview.qld.edu.au
TAFE			
TAFE Queensland Gladstone	Gladstone	Suite 3/72 Goondoon St, Gladstone Central QLD 4680	(07) 3244 5488
University			
CQ University Gladstone	Gladstone	43 Bryan Jordan Dr, Callemondah QLD 4680	(07) 4970 7277
Other			
Miriam Vale State School Special Education Program	Miriam Vale	15 Roe Street, Miriam Vale QLD 4677	(07) 4974 6333
Rosella Park School (Special Education)	Gladstone	20 Park St, West Gladstone QLD 4680	(07) 4976 8333 admin@rosellaparkspecs.eq.edu.au
Carinity Education Gladstone		803 Glenlyon Rd, Gladstone Central QLD 4680	(07) 4970 9701 gladstone@carinity.qld.edu.au

ERM HAS OVER 140 OFFICES ACROSS THE FOLLOWING COUNTRIES AND TERRITORIES WORLDWIDE

Argentina
Australia
Belgium
Brazil
Canada
China
Colombia
Denmark
France
Germany
Hong Kong
India
Indonesia
Ireland
Italy
Japan
Kazakhstan
Kenya
Malaysia
Mexico
Mozambique
The Netherlands
Peru
Poland
Portugal
Romania
Singapore
South Africa
South Korea
Spain
Switzerland
Taiwan
Thailand
UAE
UK
US
Vietnam

ERM's Brisbane Office

Level 9, 260 Queen Street
Brisbane, Qld, 4000

T +61 7 3839 8393

www.erm.com