Social and Economic Impact Assessment

Kamerunga to Woree Transmission Line Replacement Project and Barron Substation Development

On behalf of Powerlink Queensland

Ethos Urban

Prepared by Ethos Urban

5 August 2025 | 7240109

'Gura Bulga'

Liz Belanjee Cameron

'Gura Bulga' – translates to Warm Green Country. Representing New South Wales.

'Dagura Buumarri'

Liz Belanjee Cameron

'Dagura Buumarri' – translates to Cold Brown Country. Representing Victoria.

'Gadalung Djarri'

Liz Belanjee Cameron

'Gadalung Djarri' – translates to Hot Red Country. Representing Queensland.

Ethos Urban acknowledges the Traditional Custodians of Country throughout Australia and recognises their continuing connection to land, waters and culture.

We pay our respects to their Elders past, present and emerging.

In supporting the Uluru Statement from the Heart, we walk with Aboriginal and Torres Strait Islander people in a movement of the Australian people for a better future.

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Powerlink owns, operates and maintains Queensland's high voltage electricity transmission network, which extends 1,700 kilometres from Cairns to the New South Wales border, comprising of 15,345 circuit kilometres of transmission lines and 147 substations.

Powerlink's Kamerunga – Woree transmission line, between the existing Kamerunga and Woree Substations, provides a critical connection between the Barron Gorge power station and the transmission network, supplying power to northern Cairns.

Both the existing 132kV transmission line, and the Kamerunga Substation are reaching the end of their designed life and are scheduled for replacement. Powerlink is undertaking a transmission line replacement project for the 132kV transmission line between the existing Kamerunga and Woree Substations that will also include replacing the existing Kamerunga Substation.

Investigations into the existing easement alignment have identified that re-building within the existing easement is not a viable option, as there is insufficient easement width and a number of encroachments that impact the technical ability to rebuild on the same alignment. A new corridor is required for the purposes of replacing the 132kV transmission line.

This Social and Economic Impact Assessment (SEIA) has been prepared on behalf of JBS&G (c/o Powerlink) regarding a Ministerial Infrastructure Designations (MID) Proposal for the replacement of Kamerunga to Woree Transmission Line and development of a new substation facility (the Project). The SEIA provides an assessment of the potential social and economic benefits and impacts during construction and operation of the Project. The report also provides a set of recommended mitigation and enhancement measures in response to the potential social and economic impacts.

Social and Economic Benefits

The key positive social and economic impacts with the potential to occur during construction and operation are summarised below:

- Up to 144 direct and 385 indirect employment opportunities for local and regional workforces supporting livelihoods and wellbeing.
- Direct and indirect procurement opportunities for local, regional and Aboriginal businesses supporting livelihoods and wellbeing.
- Improvements in the visual amenity due to the relocation of the existing Kamerunga Substation and overhead transmission lines to underground transmission lines between Redlynch and Woree.

Social and Economic Impacts

Negative social and economic impacts are primarily contained within the construction phase of the Project. The key negative social and economic impacts with the potential to occur during construction and operation are summarised below:

- Potential traffic and access impacts which may disrupt daily routines.
- Reduced amenity due to dust, noise and vibration and changes to the visual landscape during construction.
- Potential flooding impacts which may lead to potential increases in mosquito activity in the surrounding area and potentially impact low lying infrastructure which may increase stress and anxiety for some nearby residents.
- Potential increased requirements from landholders to engage with the Project or changes to access due to the construction of a new easement.

Recommended Mitigation and Enhancement

The positive and negative social and economic impacts identified and assessed in this report would be managed and mitigated through a range of measures, including mitigation measures recommended in other technical reports.

The mitigation measures identified in response to potential social and economic impacts, and to enhance positive impacts are summarised below:

- Project Engagement Plan (PEP) – to guide engagement with key stakeholders and community members during construction of the Project. This will ensure community and stakeholders are kept aware, given accurate and up to date information and provide an opportunity for inputs.
- Workforce and Procurement Plan – to prioritise local, regional and First Nations employment and procurement opportunities and maximise involvement.

1.0 Introduction

This Social and Economic Impact Assessment (SEIA) has been prepared on behalf of JBS&G (c/o Powerlink) regarding a Ministerial Infrastructure Designations (MID) Proposal for the replacement of Kamerunga to Woree Transmission Line and development of a new substation facility (the Project). The SEIA seeks to determine if the construction and operation of the Project will generate any meaningful impacts to the social environment of the local community and provide recommendations on how to mitigate or enhance any relevant impacts or opportunities.

1.1 Study Aims and Objectives

The primary objective of this SEIA is to identify, investigate, inform, assess, mitigate and enhance any meaningful potential impacts on the social environment associated with the construction and operation of the proposed development. To achieve this objective, this SEIA must:

1. Develop a detailed understanding of the existing community and current social and economic environment;
2. Develop a detailed understanding of the future community and likely social and economic environment;
3. Assess and predict how the proposed development will impact the existing and likely social and economic environment during construction and operation of the Project;
4. Consider the cumulative impacts of other proposed and committed projects within the community and economy;
5. Assess the likelihood and severity of impact should an identified social and economic impact occur; and
6. Develop mitigation strategies for identified meaningful negative impacts for meaningful positive impacts of the Project.

1.2 Methodology

The following methodology has been applied to the assessment of the economic impacts of the Project:

- Identification of relevant study area for the assessment that reflects likely labour force, accommodation, and supply chain linkages available to support the Project.
- Baseline analysis of population, labour markets, occupational structure and business structure for the study area, with reference to latest available data (at the time of writing) relating to Australian Bureau of Statistics (ABS) Estimated Resident Population, State and Local Government Population Projections and ABS Census.
- Assessment of the capacity and opportunities of townships in the study area to participate and service the Project. This information has been compiled through a site visit, a desktop review of townships and accommodation data.

The assessment of the social impacts of the project was guided by the Coordinator General's SIA Guideline (DSDMIP, 2018). However, it should be noted that this assessment has not been prepared to align fully with the requirements of the Guideline, as it was not a requirement identified as part of MID pre-lodgement. It provides a more concise consideration of social impacts.

As defined in the SIA Guideline, social impacts are the issues that affect people and the potentially impacted communities in which they live, as a result of a project. Types of social impacts include:

- Changes to community values and/or the way the community functions
- Impacts on how people live, work, play and interact with one another on a day-to-day basis
- Impacts on culture, history, and ability to access cultural resources
- Impacts on communities' physical safety, exposure to hazards or risks, and access to and control over resources
- Impacts on communities' quality of life including liveability and aesthetics, as well as the condition of their environment (for example, air quality, noise levels, and access to water)
- Impacts on communities' access to, and quality of, infrastructure, services and facilities
- Impacts on communities' physical and mental health and well-being, as well as their social, cultural and economic well-being

- Changes to livelihoods, for example, whether peoples' jobs, properties or businesses are affected, or whether they experience advantage/disadvantage

A SIA must consider the level of impact across different geographic scales within the SIA study area, and be informed by consultation with stakeholders.

Additionally, the significance of each impact must be assessed by evaluating the potential positive and negative effects on communities and stakeholders. Factors such as the probability, scale, duration and intensity of the impact, as well as the characteristics of the community or stakeholders which may be affected, should also be considered when assessing social impacts.

The process by which economic and social impacts have been considered and addressed across this report can be summarised as:

- Defining the social study area/s
- Reviewing relevant local, regional and state plans, policies and strategies
- Establishing the social and economic baseline
- Reviewing consultation outcomes
- Identifying, describing and assessing potential social and economic impacts and benefits
- Identifying appropriate social and economic impact management and mitigation measures.

1.3 Study Area

To facilitate the review of the social environment and characteristics of the local community, a study area needs to be defined. A study area geographically represents the communities that are likely to experience varying impacts of the proposed development.

Factors that define the boundary of the catchment areas include:

- Construction activities and operational uses of the proposal
- The extent of the area in which the proposed transmission line will service
- Location of surrounding key community facilities and residential areas
- Proximity to major roadways, and accessibility of the transmission line from surrounding urban areas and centres
- The likely scale and extent of the potential direct and indirect impacts and benefits of the proposal
- Cumulative impacts that may impact affected communities and businesses as a result of infrastructure and development projects planned or underway in the area
- Community and stakeholder groups that would most likely be affected by the direct and indirect impacts from the Site
- The ABS statistical areas for collecting and reporting Census data.

For the purposes of this SEIA three study areas have been defined as the 'primary', 'secondary' and 'tertiary' study areas which are illustrated in **Figure 1**. The Study Areas are described as:

- The **Primary Study Area** (PSA) represents the immediate community within a 500m catchment of the Project alignment. It should be noted that the not all of the PSA is likely to experience any impacts associated with the construction and operation of the proposed development. It is anticipated that communities within this geographic area are likely to experience the greatest range and degree of impacts during the construction and operation of the Project. SA1s that fall within the 500m PSA catchment have been used to establish the Community Profile. A list of SA1s within the 500m catchment have been listed in Appendix D.
- The **Secondary Study Area** (SSA) – represents the broader local community. It is anticipated that these communities may experience some impacts and/or benefits of the proposed development. This area is defined using a number of SA2s that best align with the serviced area outlined by Powerlink.
- The **Tertiary Study Area** (TSA) is the regional community and economy and is defined as the Cairns Statistical Area 4 (SA4) boundary. Whilst most of the TSA will not be impacted negatively by the Project, the TSA will help to demonstrate the unique social and economic characteristics and issues at a regional level.

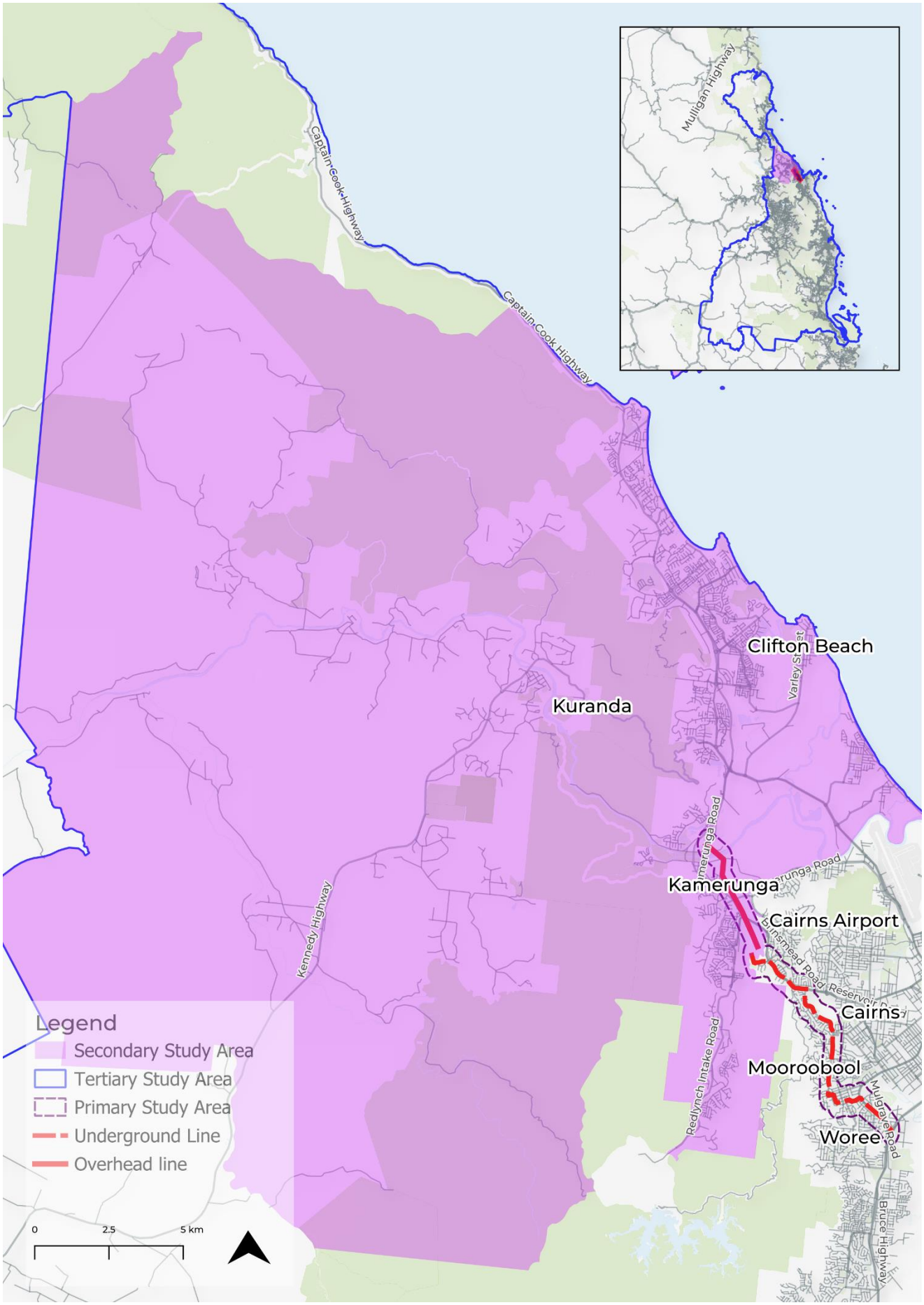

Figure 1 Study Area Map

Source: Ethos Urban, ABS

1.4 The Project

1.4.1 Project Background

Powerlink owns, operates and maintains Queensland's high voltage electricity transmission network, which extends 1,700 kilometres from Cairns to the New South Wales border, comprising of 15,345 circuit kilometres of transmission lines and 147 substations.

Powerlink's Kamerunga – Woree transmission line, between the existing Kamerunga and Woree Substations, provides a critical connection between the Barron Gorge power station and the transmission network, supplying power to northern Cairns.

Both the existing 132kV transmission line, and the Kamerunga Substation are reaching the end of their designed life and are scheduled for replacement. Powerlink is undertaking a transmission line replacement project for the 132kV transmission line between the existing Kamerunga and Woree Substations that will also include replacing the existing Kamerunga Substation.

Investigations into the existing easement alignment have identified that re-building within the existing easement is not a viable option, as there is insufficient easement width and a number of encroachments that impact the technical ability to rebuild on the same alignment. A new corridor is required for the purposes of replacing the 132kV transmission line.

The Corridor and Site Selection Report (CSSR) prepared by Powerlink considered an overhead transmission line for the full replacement of the existing transmission line (i.e. from Kamerunga Substation to Woree Substation) however, desktop spatial studies undertaken identified that due to extensive urban development, as well as the extensive urban footprint from the suburb of Redlynch through to Woree Substation, an overhead transmission line would not be viable for the full replacement. Subsequently, the corridor needs to be segmented into a combination of both overhead and underground transmission infrastructure.

1.4.2 Project Description

Powerlink is seeking to replace the transmission line connecting between Kamerunga Substation and Woree, located within the Cairns region. The Project also proposes the subsequent replacement of the existing substation at Kamerunga. Specifically, the Project proposes the following works:

- Four kilometres (2 lattice tower structures and 14 pole tower structures) of 132kV Overhead (OH) transmission line between the existing Kamerunga Substation to the new T274 Substation (located at 3-51 Stewarts Rd Barron, Qld within 1/RP716266, 3/SP173007, 4/SP119694, 2/RP716266, 1/RP720215, 47/SP273010 and 5/SP181502, and then on to a transition site in Redlynch on a Powerlink-owned greenfield site (1 & 2/SP279529, located at 1-5 Redlynch Connector Road, Redlynch, Qld within 1/SP279529).
- Underground to overhead (UGOH) transition structure located at a transition site in Redlynch at the Powerlink-owned greenfield site.
- 10.3 km of 132kV Underground (UG) cable between the Redlynch transition site and the existing Powerlink Woree Substation.

The Substation will be constructed on a Powerlink-owned greenfield site located at located at 3-51 Stewarts Rd Barron, Qld within (1/RP716266, 3/SP173007, 4/SP119694, 2/RP716266, 1/RP720215, 47/SP273010 and 5/SP181502 and, located at 3-51 Stewarts Rd Barron) that will use similar equipment to the existing Kamerunga Substation (air insulated switchgear, OH transmission lines, transformers, control, and amenities buildings). T274 will be within a fenced area approximately 300m by 300m.

The area to be serviced by the Project is shown in **Figure 2** while the proposed Project alignment is shown in **Figure 3**. A description of the recommended corridor and sites for the transmission replacement and substation facility are described in Section 2.1.

1.4.3 Easement Widening

The Kamerunga to Woree 132 kilovolt (kV) transmission line provides the critical service of connecting the Barron Gorge Hydroelectric Power Station to the transmission network and supplying power to northern Cairns. This line has been in operation since the 1960s, and a replacement line will need to be constructed.

Powerlink standards require an easement for an overhead 132kV transmission line to be around 40 metres wide. When the Kamerunga to Woree transmission line was built, industry standards at the time required the

easement to be 20m wide. As standards have evolve over time, Powerlink now require a wider easement to enable the continued safe, secure and reliable operation of the transmission line.

To ensure continuous electricity supply to the area, the existing line must be maintained while constructing a new replacement transmission line. Where possible, Powerlink have positioned the recommended corridor for the new infrastructure adjacent to the existing line.

There has been significant residential development adjacent to the line between Redlynch to Woree meaning that Powerlink are unable to widen the existing easement through this area. Therefore, the decision was made to underground this component of the line along a new corridor.

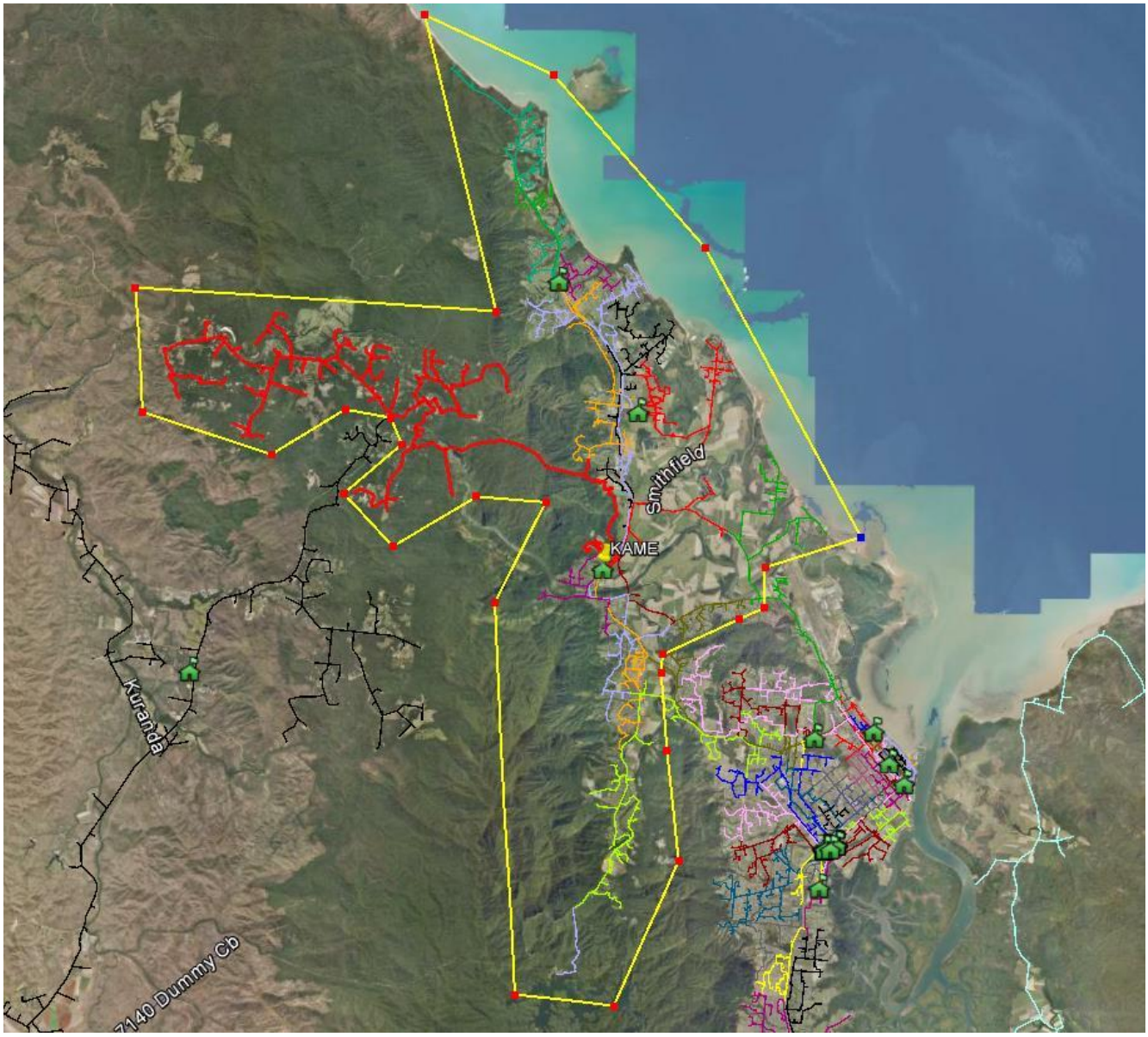

Figure 2 Serviceable Area from the Proposed Transmission Line and Substation Facility (Yellow Line)

Source: Powerlink Queensland

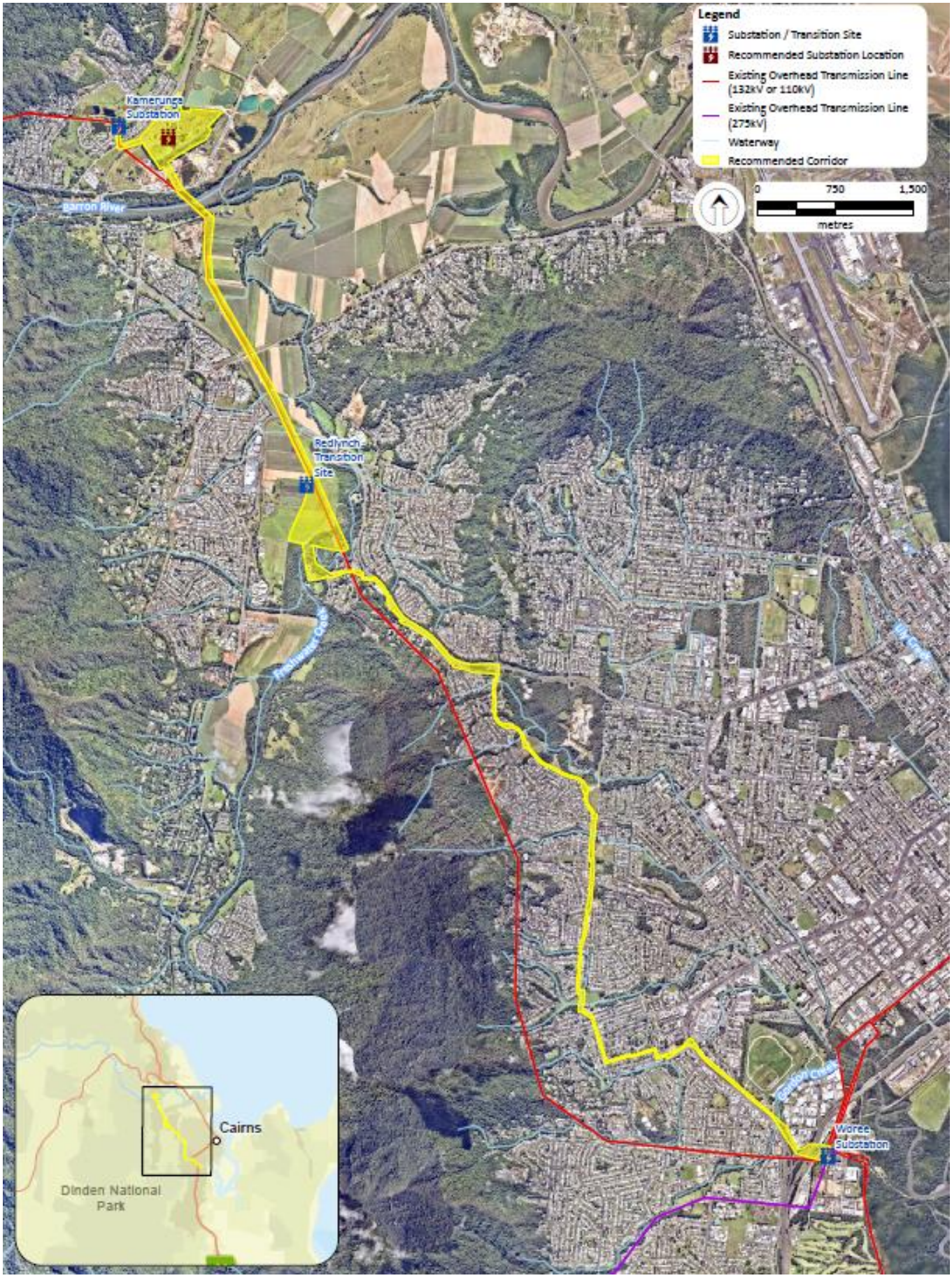

Figure 3 Proposed Project Alignment

Source: Powerlink Queensland

1.5 Information Sources

Following are the key data sources and policy documents used to prepare this SEIA.

- Australian Bureau of Statistics (ABS) 2021 and 2016 Census
- Economic and population data (e.g. ABS Estimated Resident Population, 2023 (April 2024 Release) and Queensland Government Statisticians Office, Population Projections 2023 Edition)
- Local, regional, State and Federal Government websites and publications.

Relevant technical reports and information (in alphabetical order) used to inform the SEIA include:

- Air Quality Impact Assessment, prepared by JBS&G
- Draft Corridor and Site Selection Report, prepared by Powerlink
- Evidence of Preliminary Stakeholder Engagement, prepared by Powerlink
- Flood Impact Assessment, prepared by WMS
- Noise and Vibration Assessment, prepared by Reasonate
- Traffic Impact Assessment, prepared by Point8.

1.6 Assumptions

The assumptions underpinning this report include:

- The methodology and contents of the social impact component have not been prepared to fully align with the Coordinator General's SIA Guideline (DSDMIP, 2018) as this was not a requirement identified as part of MID pre-lodgement. Therefore, it cannot be assumed at all potential social impacts and or impacted parties/individuals have been identified due to:
  - Analysis and findings presented throughout this report are based on a desktop review only
  - The assumption that community consultation undertaken by the Proponent accurately reflects the local community's attitudes and values.
- Socio-economic data for each study area accurately reflects the characteristics of the impacted communities
- Findings from other technical assessments are accurate
- Assumptions are made at the time of assessment and do not reflect an exhaustive study of the region's history in respect of the social environment.

2.0 Existing Socio-Economic Environment

2.1 Site Description and Immediate Surrounding Activity

Plans for the Project show that the proposed overhead transmission line between Kamerunga and Redlynch will be entirely constructed over freehold property lots comprising predominately rural land.

The Redlynch to Woree corridor is significantly constrained by residential land uses, and is the main justification for this section of the Project going underground.

The Corridor and Site Selection Report (CSSR) prepare by Powerlink outlines the considerations and process involving the corridor selection for the Project. The CSSR highlights that the recommended corridor (See previously presented **Figure 3**) was selected based on several factors including:

- It provides the shortest and most direct route between the existing substations at Kamerunga and Woree.
- The overhead transmission line is located away from urban areas resulting in fewer impacts on visual amenity and residential properties. The overhead line will intersect with 77 land parcels, comprising the following:
  - 39 Road Parcels
  - 27 Freehold Properties
  - 5 Unspecified
  - 3 River Parcels
  - 1 Land Lease
  - 1 National Park
  - 1 Reserve.
- The overhead transmission line is located away from areas of natural value (i.e. Freshwater Creek).
- The underground cable is located primarily in local-controlled roads, reducing impacts to state controlled roads.
- The underground cable is located primarily within road reserve as to reduce impacts to other land uses (such as residential land).
- The underground cable minimises impacts to MSF Sugar's cane rail line.

2.2 Regional context

The Project site is located within the Cairns Local Government Area in Far North Queensland (FNQ). The Project is located approximately 6.0km from Cairns city centre at Woree, and approximately 13km from Cairns city centre at Kamerunga. Cairns is a major centre within FNQ that services several segments of the community including residents, workers and visitors.

2.3 Stakeholder context

Table 1 identifies relevant stakeholders for consideration in the Social and Economic Impact Assessment. Stakeholders have been identified based on the potential to experience social and economic impacts and/or benefits as a result of construction and/or operation of the Project.

Table 1 Social Stakeholder Context

Area	Stakeholder groups	Potential impacts
PSA	• Landholders within the new easement (including 27 freehold properties, mostly rural land)	• Properties to be intersected by the overhead transmission line and are likely to experience impacts during construction and operation. • Remaining properties primarily include a mix of road parcels, river parcels and national parks and reserves etc.
	• Residents in the PSA, including those living close to the alignment in the suburbs of Kamerunga, Caravonica,	• Temporary construction impacts such as increases in noise, vibration, dust, visual impacts, and traffic.

Area	Stakeholder groups	Potential impacts
	Kanimbla, Brinsmead, Earlville, and Mooroobool. • Businesses in the PSA, including those who work or operate businesses close to the alignment in the suburbs of Kamerunga, Caravonica, Kanimbla, Brinsmead, Earlville, and Mooroobool.	• Potential permanent changes in operation, such as visual amenity and local character. • Local businesses may also benefit from workforce or procurement opportunities.
	• Users of recreational areas and community infrastructure within the PSA.	• Operators and users of these facilities may experience temporary impacts during construction.
SSA	• Residents of the SSA • Traditional Owners (Gimuy-walubarra yidi People) and Aboriginal communities • Community groups and organisations across the SSA, including those in Cairns, Kamerunga, Kuranda and Clifton Beach • Retail trade and hospitality businesses in the SSA	• Community members may experience some temporary construction impacts. • Construction industry workers may benefit from employment opportunities. • Businesses may benefit from local procurement and increased visitation due to the construction workforce.
TSA	• Construction and trade workers and businesses • Retail trade and hospitality businesses • Traditional Owners (Gimuy-walubarra yidi People) and Aboriginal communities	• Construction industry workers may benefit from employment opportunities. • Businesses may benefit from local procurement and increased visitation due to the construction workforce.

2.4 Community Infrastructure Context

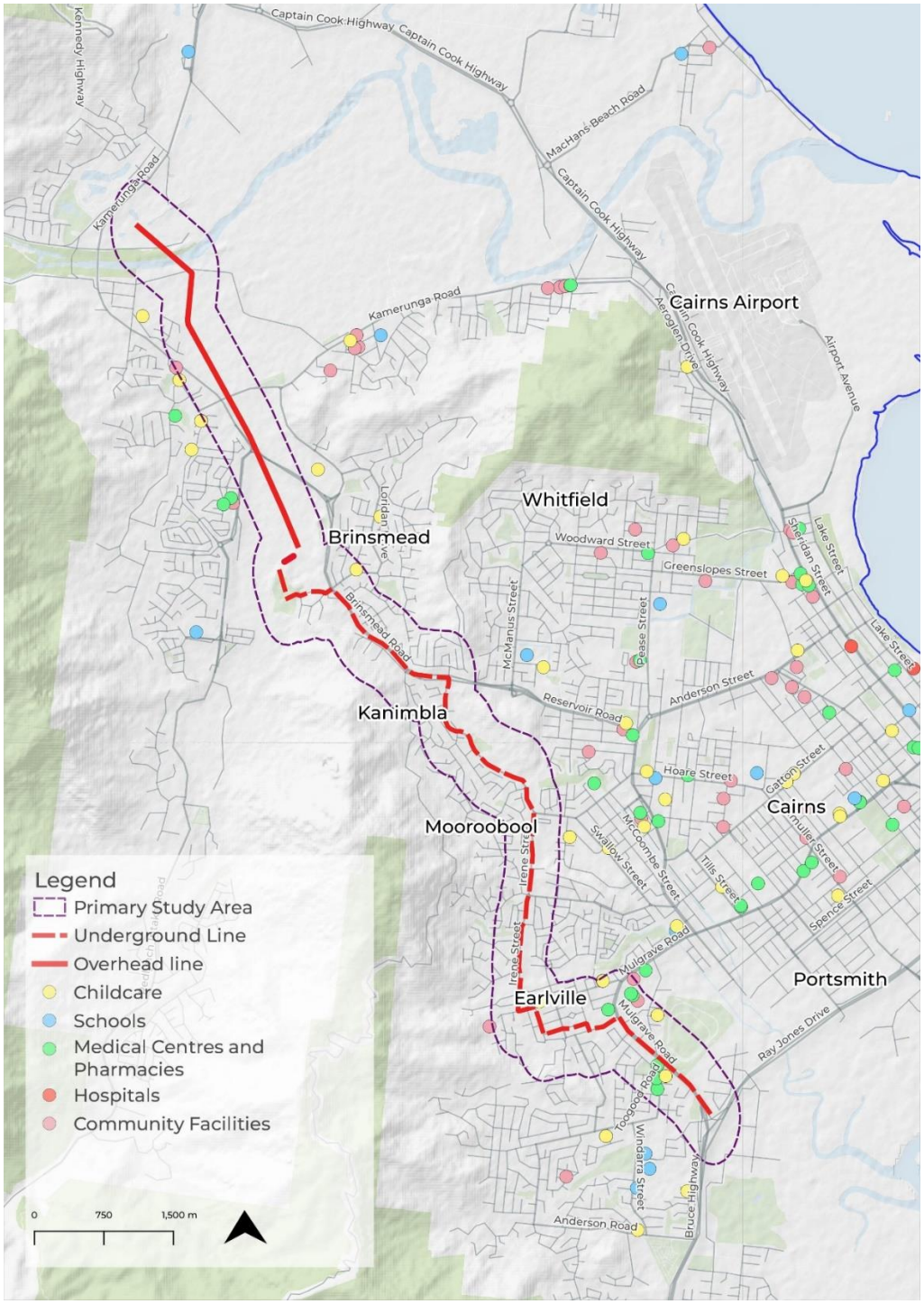

Figure 4 shows the community Infrastructure context within the PSA.

Cairns and its surrounding suburbs are supported by a substantial supply of community infrastructure, including medical centres, hospitals, state non-government schools, and community facilities. Most of the community infrastructure within the 500m PSA catchment is located at the south end of the Project Area in Earlville, clustered around the centre of Cairns.

Community infrastructure within the PSA is listed below:

Education

- Peace Lutheran College
- Freshwater Christian College
- Saint Andrews Catholic College
- Our Lady Help of Christians School
- Silver Lining School
- Goodstart Early Learning Brimsmead
- Busy Bees at Redlynch
- Goodstart Early Learning Kanimbla
- Balaclava Road Childrens Centre
- Earlville Early Education

Places of Worship

- Northern Hope Anglical Church Cairns
- Glenmead Uniting Church
- Cairns Korean Full Gospel Church

- St John the Baptists Greek Orthodox Parish
- Greek Orthodox Archdiocese

Retail and Other Public Uses

- Redlynch Central Shopping Centre
- Earlville Shopping Town
- Red Beret Hotel

Recreation and Open Space

- Kamerunga Regional Park
- Redlynch Skate Park
- Ryan Weare Park
- Goomboora Park
- Bassett Park
- Mountain View Park
- Vico Oval
- Silky Oak Court Park
- Summer Hill Park
- Robert Kerr Park
- Irene Street Dog Park

Civic Spaces

- Redlynch Railway Station
- Redlynch Connection Path
- Cairns Mens Shed
- Kangaroo Rugby League Club
- Seville Mercy Conference Centre
- Cannon Park Racecourse

Seniors Living

  - Heritage Gardens Lifestyle Village
  - Regis Redlynch
- Caravonica Waters

Healthcare Infrastructure

- Redlynch Medical Centre
- Southcare Medical Centre
- Toogood Road Family Medical Centre

Tourism and Accommodation

- Cool Waters Holiday Park
- Mindara Holiday Village

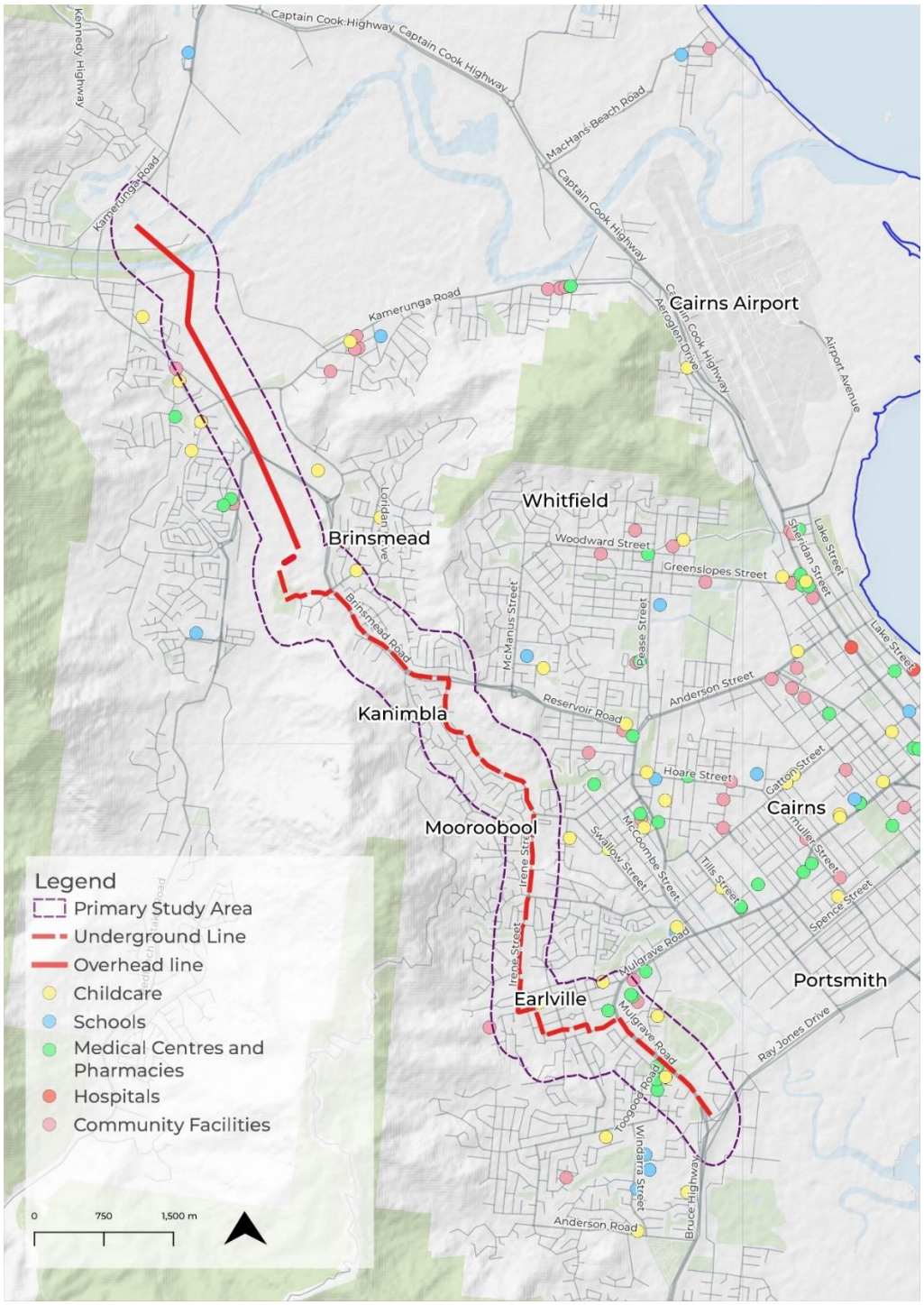

Figure 4 Community Infrastructure Context

Source: Ethos Urban, QLD POI Data Set 2024, Find Childs Education 2025

2.5 Strategic Planning and Policy Context

The following identifies the key social and economic policy drivers for this Project, based on a review of energy-related state, regional and local policies, plans and strategies. The following key documents have been reviewed:

- Queensland Energy and Jobs Plan – 2022
- Far North Queensland Infrastructure Plan – July 2024
- Cairns 2050: Sharing Vision
- Cairns Regional Council – Economic Development Strategy 2022-2026
- Cairns Regional Council – Your Community Plan 2011-2031.

Table 2 Summary of Key Strategic Themes and Strategies

Policy theme	Description	Relevant documents
Electricity and energy needs and commitments	• The *Far North Queensland Infrastructure Plan* (2022) notes that the Queensland Government has already invested $40 million in North and Far North Queensland to upgrade the transmission infrastructure between Cairns and Townsville. • The *Cairns 2050: Sharing Vision*, highlights key enablers for the Cairns region including the security of future affordable energy supply which will be critical in the region's sustained economic development and future population growth. • A key initiative for Cairns as outlined in the *Cairns Regional Council – Economic Development Strategy 2022-2026* is to position Cairns as a leader in the Smart Green Economy by leveraging the region's existing competitive advantages, natural assets, and the global growth of the 'Green Economy' and associated clean jobs.	• Far North Queensland Infrastructure Plan – July 2024 • Cairns 2050: Sharing Vision • Cairns Regional Council – Economic Development Strategy 2022-2026
Economic growth, jobs and businesses	• The *Queensland Energy and Jobs Plan*, highlights an infrastructure investment pathway to 2035 including major new transmission lines across the State which will form Queensland's SuperGrid. • One of the key regional priorities outlined in the *Far North Queensland Infrastructure Plan* (2022) is to pursue transmission infrastructure in order to activate the Cairns Regional Industrial Estate and facilitate private sector investment and broader economic development to diversify and decarbonise FNQ industries. • Another key initiative outlined in the *Cairns Regional Council – Economic Development Strategy 2022-2026* is to facilitate economic growth by creating the conditions that support reinvestment from local businesses and the attraction of new investment into priority industries/sectors as well as support Aboriginal businesses to access opportunities and grow capabilities.	• Queensland Energy and Jobs Plan – 2022 • Far North Queensland Infrastructure Plan – July 2024 • Cairns Regional Council – Economic Development Strategy 2022-2026
Social and economic challenges and aspirations	• Key community and economic challenges and aspirations identified in the *Cairns Regional Council – Your Community Plan 2011-2031* relevant to this assessment include: – Transitioning to a low-carbon economy. – Nurturing short, medium and long term strategies to build a diverse and robust economy. – Pursing an economically sustainable, renewable, and safe energy options and production for the region. – Mitigation of the significant impacts of the predicted increase in the population on the environment. Impacts include demand for more water sources; more built structures; more waste and wastewater to be managed; increased use of energy possibly from non-renewable sources; increased greenhouse gas emissions; and more traffic and potential road congestion particularly given the lineal shape of the region. – Planning for the region's strong energy and water infrastructure base, while exploring innovative and effective approaches to improved sustainability and reduced climate change impacts.	• Cairns Regional Council – Your Community Plan 2011-2031

2.6 Community Profile

The results of the ABS Census of Population and Housing have been used to identify key socio-economic and demographic characteristics of the community within each study area. The following section outlines and discusses the key characteristics of the community within the PSA, SSA and TSA. Refer to Appendix A for a detailed breakdown of the socio-economic characteristics of each study area.

For contextual purposes, at the time of the 2021 Census, each Study Area had the following population:

- **Primary (PSA) –** 12,191 residents
- **Secondary (SSA) –** 53,245 residents
- **Tertiary (TSA) –** 253,523 residents.

Key findings of the demographic analysis are as follows:

- **A higher proportion of Aboriginal and/or Torres Strait Islander residents**, accounting for 11.4% of the PSA population, and 11.6% of the TSA population compared to 5.8% in the SSA and 4.9% in Queensland.
- **A slightly higher median age** in the PSA of 40.2 years and SSA of 41.2 years, compared to the Queensland median of 38.6 years. This includes a slightly higher share of residents aged 5-19 years in the PSA at 21.7% of the population compared to Queensland at 19.1%.
- **A slightly lower income profile,** where PSA residents earn a median individual annual income of around $40,250 compared to the SSA median of $43,970, and Queensland median of $41,020.
- **High proportion of households that speak a language other than English at home** in the PSA (19.4%), compared to the SSA (11.6%) and Queensland (13.8%). Of those in the PSA who speak another language at home, 87.0% spoke English either very well or well, while 13.0% did not speak English well or at all. In the PSA the most common languages spoken other than English included Nepali (2.2%), Japanese (2.2%), Korean (1.1%), and Australian Indigenous languages (1.1%).
- **Households predominantly comprised of families**, with 66.0% of PSA dwellings occupied by family households compared to 71.0% in Queensland.
- **The PSA had a higher dwelling occupancy rate** of 93.8%, compared to 90.7% throughout Queensland. This implies that fewer dwellings are vacant within the local area.
- **Lower levels of educational attainment in the PSA** with 59.2% having completed Year 12 or equivalent compared to 64.0% in the SSA and 61.7% in Queensland.
- **Varying levels of socio-economic advantage/disadvantage across the PSA** with areas in the north and west around Kamerunga, Redlynch, Brinsmead and Kanimbla generally more advantaged compared to areas in the south and east around Mooroobol, Manunda and Woree generally more disadvantaged.
- **Key trends that have occurred between the 2016 and 2021 Census include:**
- **An increase in the proportion of Aboriginal and/or Torres Strait Islander residents** by +1.0 percentage points (ppt) in the PSA and +1.6ppt in the TSA, compared to a +0.9ppt increase in Queensland.
- **Fewer residents who spoke English at home**, declining by -2.3ppt in the PSA compared to -1.8ppt in Queensland.
- **Fewer residents are Australian born,** declining by 1-5ppt in the PSA compared to -0.7ppt in Queensland.
- **More residents requiring need for assistance**, increasing by +1.7ppt in the PSA and +0.8ppt in Queensland.
- **The population is getting older,** with the proportion of residents aged 65+ increasing in the PSA by +2.8ppt compared to +1.7ppt in Queensland. All other age groups in the PSA declined as a share of the population.

2.7 Business and Employment Trends

2.7.1 Business Structure

A tangible benefit of a major investment project is the extent to which local businesses can participate through project contracts and other service provision.

ABS Business Count data for September 2023 shows that Cairns LGA includes some 4,478 construction, manufacturing and transport/warehousing related businesses, representing 30.4% of all businesses located in Cairns LGA compared to 28.2% for Queensland (refer to **Table 3**). This data indicates a reasonable regional presence of the types of businesses that have potential to service aspects of the Project, particularly during its construction phase. This opportunity is discussed in more detail in the following chapter (see Section 4.0).

Table 3 Cairns LGA Business Structure

Industry	Cairns LGA		Queensland
	Total (no.)	Industry Share (%)	Industry Share (%)
Agriculture, Forestry and Fishing	684	4.6%	8.4%
Mining	57	0.4%	0.4%
Manufacturing	526	3.6%	3.7%
Electricity, Gas, Water and Waste Services	42	0.3%	0.3%
Construction	2,663	18.1%	17.2%
Wholesale Trade	345	2.3%	2.9%
Retail Trade	867	5.9%	5.9%
Accommodation and Food Services	811	5.5%	3.9%
Transport, Postal and Warehousing	1,289	8.8%	7.3%
Information Media and Telecommunications	109	0.7%	0.8%
Financial and Insurance Services	485	3.3%	4.1%
Rental, Hiring and Real Estate Services	1,817	12.3%	11.7%
Professional, Scientific and Technical Services	1,560	10.6%	12.4%
Administrative and Support Services	855	5.8%	4.6%
Public Administration and Safety	40	0.3%	0.3%
Education and Training	235	1.6%	1.6%
Health Care and Social Assistance	1,201	8.2%	7.5%
Arts and Recreation Services	209	1.4%	1.4%
Other Services	900	6.1%	5.6%
Currently Unknown	27	0.2%	0.1%
Total	**14,722**	**100.0%**	**100.0%**

Source: ABS, Counts of Australian Businesses, including Entries and Exists, September 2023

Although construction-related businesses (highlighted in yellow) will likely be the main beneficiaries), businesses in other sectors supporting the Project (directly and indirectly) as highlighted in blue are also likely to benefit, including:

- Retail trade
- Accommodation and food services
- Rental, hiring and real estate services
- Health care and social assistance.

These sectors make up approximately 31.9% of all businesses located in Cairns LGA compared to 29.0% for Queensland, and their services will likely play a role in supporting the needs of project workers, especially those relocating to the region to work on the Project.

2.7.2 Labour Force Participation

As of June 2024 (latest available), Cairns LGA had a labour force of 102,230 persons and an unemployment rate of 2.7%, based on information from the Australian Government Small Area Labour Markets data (see **Table 4**). This reflects some 2,750 residents who are unemployed, but also highlights a comparatively tight labour market, noting the Queensland unemployment rate is much higher at 4.1%.

The construction phase of the Project will require workers and provide new job opportunities in the region. There may be opportunities for unemployed job seekers (subject to appropriate skills match) or 'back filling' employment opportunities associated with jobs vacated by workers taking up project employment. Given the specialist nature of some aspects of the Project, some labour is likely to be sourced from outside the region.

Jobs supported by the Project are further discussed in Section 4.0.

Table 4 Labour Force – Cairns LGA

Area	Labour Force	Unemployed	Employed	Unemployment Rate
Cairns LGA	102,230	2,750	99,480	2.7%
Queensland	3,015,560	123,190	2,892,370	4.1%

Source: Australian Government National Skills Commission, *Small Area Labour Markets*, June Quarter 2024

2.8 Engagement Outcomes

2.8.1 Early Engagement

Powerlink commenced early engagement in 2019 with landholders, Traditional Owner groups, elected representatives, the wider community and other key stakeholders to inform development of a new transmission line corridor for the overhead line replacement component of the project. Engagement was paused in early 2020, due to additional investigations into associated projects in the Cairns region.

In September 2024 Powerlink commenced preliminary engagement on the revised project scope with the release of the Draft Corridor and Site Selection for comment. Engagement was undertaken to provide directly impacted and impacted landholders, Traditional Owner groups, elected representatives, the wider community and other key stakeholders with an opportunity to provide feedback on the Draft CSSR.

This engagement has involved:

- Establishing a project specific webpage and Community Hub to host information about the project, MID process, consultation opportunities and a map showing the proposed new transmission line and substation location. www.powerlink.com.au/projects/kamerunga-woree-replacement-project
- Interactive map highlighting the proposed substation site and transmission corridor Kamerunga to Woree Replacement Project - Draft Corridor and Site Selection | Social Pinpoint
- Correspondence with all project stakeholders including providing project information such as a community notice and project newsletter
- Correspondence with the wider community of Cairns providing project information such as a community notice and project newsletter
- Hosting a series of community information drop-in sessions across the project area
- Project briefings with Cairns Regional Council Mayor and relevant Divisional Councillors
- Project briefings with:
  - Michael Healy – Member for Cairns
  - Curtis Pitt – Member for Mulgrave
  - Craig Crawford – Member for Barron River
- Correspondence with project area Traditional Owner groups:
  - Gimuy Walubara Yidinji (GWY) Elders Aboriginal Corporation
  - Djabugay Aboriginal Corporation
- Correspondence and meetings with directly impacted landholders to discuss the project and property considerations.

2.8.2 Engagement Outcomes

The followings sub section explores the perspectives of key stakeholders and communities, which have a bearing on the proposed Project. It summarises aspects of the community and stakeholder engagement undertaken by Powerlink between the 9th of September and 30th October 2024. The responses and outcomes from engagement confirm the issues and opportunities identified by the community, and help inform the magnitude of social impacts with consideration to the levels of expressed concern about a particular aspect of the Project.

In additional to sourcing community feedback, community consultation sessions also gathered insights on how the community views the social environment within the local and regional area. This helps determine if the proposed development will generate meaningful social impacts.

Key findings from the consultation and engagements sessions relevant to this SEIA include:

- The local community is highly sensitive to the risk of flooding in the area, in part a result of the significant flooding in 2023/2024 from tropical cyclone Jasper which had detrimental impacts on local residential areas and community facilities. The community has expressed concern about the potential for increased flooding risk in the local area as a result of the new substation component of the Project.
- The community has expressed a need and desire for improved resilience to natural disasters. In this sense, the community typically had a positive perception of the Project in relation to undergrounding of the transmission line and extending the asset life, in that it will improve the community's preparedness and response to another natural disaster.

- Residents value the environment including surrounding green space. Residents are concerned about the possible loss of trees along the underground corridor between Redlynch and Woree, as well as a loss of green space at the location of the proposed new substation.
- Property amenity and values are important to local residents. Residents located along the current overhead section generally had a positive perception of the Project in relation to potential improvements in property values and improved residential amenity through the removal of the existing overhead line following the undergrounding of the transmission line from Redlynch to Woree.
- Surrounding visual amenity is important to local residents. There are perceived benefits and risks regarding the development of the new substation in relation to view impacts. Residents are generally positive about the long-term benefits of replacing the existing overhead transmission line, although there are some concerns regarding construction impacts to neighbouring residents and community groups.

Based on information from Powerlink, it is understood that the community overall had a largely *positive* perception of the Project; however, there were some identified issues of concern as highlighted above.

2.9 Implications for the Project

This section summarises the current social and economic environment of the project to understand its broader context and the implications for the social and economic assessment. Key findings include:

- The project is aligned with key strategic plans and policies, including to upgrade the transmission infrastructure between Cairns and Townsville to provide energy security into the future, and supports economic growth and development associated with investment in cleaner energy and associated infrastructure.
- Stakeholders most likely to experience impacts associated with the construction and operation of the project are the directly affected landholders and adjacent residents. These stakeholders are highly likely to experience social impacts due to their proximity to the project.
- Users of community infrastructure facilities, and their providers, may also experience social impacts during construction and operation. Some user groups, such as older residents, children, and people with medical conditions may be more vulnerable to changes in amenity, particularly during construction.
- The PSA has a higher proportion of culturally and linguistically diverse residents than the Queensland average. Residents speaking languages other than English at home may face additional barriers to accessing project information, participate in engagement activities, and understand communications materials. Residents in the south and east of the PSA are generally more socio-economically disadvantaged than those in the north and west, and residents across the PSA have lower educational attainment compared to the SSA and Queensland. Communities with lower educational attainment and/or greater socio-economic disadvantage may be more vulnerable and sensitive to changes.
- Feedback gathered through the community consultation to date has been generally positive. Key concerns raised included potential impacts to amenity, including visual amenity, loss of vegetation and greenspace, and noise, and increased flood risks.

3.0 Future Socio-Economic Environment

3.1 Major Projects and Developments

A review of major projects and developments in the SSA shows that there is around $247 million in investment activity either planned, approved or underway. These projects predominately include residential and mixed-use development projects, and will support an expansion of the resident population, and importantly Cairns as a gateway to growing tourism base in Far North Queensland.

Major projects identified in the Cordell Data base are listed and described in **Table 5** below.

Table 5 Major Projects identified in the PSA

Project Name	Description	Estimated Costs ($)	Status	Estimated Completion	Distance to Site
Botanica Cairns	Rezoning to allow for 1,288 new homes in a masterplanned community	$200 million	Early Planning	2025	<1km
Stage 2 – Kingsford Street Units	Construction of 42 new dwellings across a 4 storey development	$20 million	Deferred	2026	<1km
Mooroobool Townhouses	Construction of 24 units over 2 buildings	$16.8 million	DA submitted	2025	<1km
Mulgrave Road Mixed Use Development	Construction of mixed use project to comprise a service station, childcare centre and convenience retail	$10 million	DA approved	2027	<1km

Source: Cordell Connect

Note: Only includes projects with a value of $10 million or more

In addition to the above, there is an identified childcare centre project located on the corner of Lake Placid Road and Kamerunga Road, within close proximity to the proposed substation site and may be impacted by the Project. To facilitate the development of the overhead component of the Project, a widening of the existing Powerlink easement may be required and could encroach on the mixed use project, which proposes a 100 place childcare centre, service station and ancillary food and drink outlets. It is understood that Powerlink is working closely with authorities and the proponent for the project to reconsider design development in a way that minimises any future risks for the site once developed, particularly in relation to maximising the distance of the proposed childcare centre to the transmission line.

3.2 Future Socio-economic Profile

Population forecasts to 2036 for the study areas have been prepared using the Queensland Government's Statistician's Office and latest official Estimated Resident Population (2023) released by the ABS.

Analysis of these forecasts indicates that:

- In 2023, there were 12,020 persons residing within the PSA, 57,000 persons resident in the SSA, and 265,360 persons residing in the TSA.
- Moderate population growth of +1,220 persons is forecast in the PSA between 2023 and 2036.The SSA is forecast to grow by an additional +9,270 residents and the TSA is forecast to grow by an additional +41,730 persons by 2036.
- With consideration to the above, around 66,270 residents in total across the SSA will benefit from the proposed transmission line upgrade and substation replacement by 2036.
- Components of forecast population growth by age show that across all study areas, the population is ageing. This includes strong growth of residents aged 65 years and over, accounting for around 61% of growth forecast in the PSA between 2023 and 2036. This share of growth is lower in the SSA at around 44%, and 48% in the TSA.
- Other components of age growth show the following over the 2023-2036 period:
  - A decline in children aged below 20 years in the PSA.

  - Relatively strong growth of young adults aged 20-34 years forecast in the TSA of +8,817 persons.
  - Growth across all age cohorts is forecast in the SSA.
- Overall, while the total number of residents in both the PSA and SSA is forecast to increase, this growth is primarily focused on an expansion in elderly and young adult cohorts, with smaller shares or declining rates of growth forecast in children, teenagers and middle-aged cohorts (35-64 years).
- Population growth between 2023 and 2036 across each Study Area is shown in **Figure 5** below.

Figure 5 Population Growth by Age (2023-2036) – No. Additional Persons

Source: Australian Bureau of Statistics, Queensland Statistician's Office (June 2023 Population Projections)[1]

3.3 Likely Social Environment Change

In view of the forecast population growth and development in the region, the PSA is expected to undergo only moderate change – there will be a localised increase in the resident population including an older age profile. Based on intercensal trends presented in Section 2.6 previously, both the PSA and SSA could become more culturally and linguistically diverse, and more residents are likely to be living in lone person or smaller households – particularly as the population becomes older.

This level of change will not have a substantiated impact on power supply needs in the PSA. However, the +9,240 residents forecast across the SSA would imply an increase of +3,700 households by 2036 (based on the ABS 2021 average household size of 2.5). This level of change in the SSA will generate increased power supply needs, that are both secure and resilient as natural disasters and extreme weather events become more prevalent as a result of a warming climate. This is particularly prevalent in this part of Queensland, where Energy Networks Australia projects the intensity of storms, cyclones and wind speeds will likely increase and have a more prevalent impact on communities over time. Having a reliable and well-connected electricity grid is one of many solutions to improving resilience of a growing and ageing community in an area at risk from extreme weather.

This sentiment around environmental resilience is also evident through community feedback, where residents expressed concerns regarding flood risk, but also positive views on the improved energy resilience through the development of the Project, especially with regard to undergrounding of a large portion of the transmission line and increased asset life overall.

[1] Note: Population projections have been calculated using Estimated Resident Population (ERP) 2024 data, along with Queensland State Projections that have been rebased to align with this ERP. Since the specific boundary of the PSA does not align exactly with any Statistical Area boundaries, the population figures have been estimated by allocating shares based on mesh blocks Census 2021 data that fall within both the PSA and the SA2 boundaries. This approach provides a more accurate estimate of the likely population impacted within the PSA.

4.0 Social and Economic Impacts

This section presents an assessment of the potential social and economic impacts and benefits that may result during construction and operation of the Project, as well as potential cumulative impacts. Impact identification and description has been informed by various sources of information and have been assessed in accordance with the impact assessment methodology outlined in Section 1.2 and Appendix B.

4.1 Summary of impacts

This section assesses the social and economic impacts identified in the above sections. The likelihood and magnitude have been determined based on the following considerations:

- Baseline conditions were used as a basis against which the impacts were measured.
- The vulnerability and adaptability of stakeholders who would experience the impact
- The extent and severity of the impact meaning how far and how many would experience the impact and at what intensity.
- The duration of the impact, whether it would be a short term or long-term change in the baseline conditions. Short term changes are intermittent and temporary changes during the construction phase and long-term changes are considered to be continuous permanent changes.
- The subjective nature of social impacts, recognising that social impacts are often experienced and perceived differently by different people.

Criteria used to rank the likelihood and magnitude of identified social and economic impacts are outlined in Appendix B.

- A **low impact** is one which has an unlikely chance of occurring and has a minor or incidental consequence to the community should it happen.
- A **moderate impact** is one which has a possible chance of occurring and/or moderate to significant consequence to the community should it occur.
- A **major impact** is one which has a greater chance of occurring and has a significant consequence for the community if it occurred. Impacts are also outlined as being either positive or negative experiences/changes for the community.

A summary of impacts is outlined below in **Table 6**, with further discussion provided in Sections 4.2, 4.3 and 4.4.

Table 6 Social and Economic Impact Summary

Category	Potential impact	Likelihood	Magnitude	Unmitigated risk	Recommended mitigation measure	Residual risk (mitigated)
Construction						
Workforce management, local business and industry procurement	Direct and indirect procurement and employment opportunities during construction would contribute to the local and regional economy.	Almost Certain	Major	**High (positive)**	• Procurement Plan • Workforce Management Plan	**High (positive)**
Amenity impacts	**Noise and vibration** Increases in noise and vibration as a result of construction activities, particularly trenching work during the day and night may disturb day-to-day activities for nearby residents and community members which may affect their daily routines and quality of life.	Possible	Moderate	**Medium (negative)**	• Construction Noise and Vibration Management Plan (CNVMP) • Project Engagement Plan	**Low (negative)**
	Air quality Construction activities may generate dust for residences and businesses in close proximity to the proposed transmission line alignment. Increases in dust may lead some residents and businesses to alter their way of life, such as closing windows whilst indoors, spending less time outside, or spending additional time cleaning indoor and outdoor surfaces.	Unlikely	Minor	**Low (negative)**	• Project Engagement Plan	**Low (negative)**
	Changes to local character and visual amenity Temporary changes to the visual amenity during construction phases. The presence of construction machinery and infrastructure, trenching works, construction workers and views of construction vehicles would be visible to residents and visitors along the associated alignment. Changes to visual surroundings may impact residents' sense of pride in their local area and may reduce enjoyment of outdoor areas or views from some windows and yards.	Unlikely	Minor	**Low (negative)**	• Project Engagement Plan	**Low (negative)**
Traffic, transport and access	Increased light and heavy vehicle movements may result in disruptions and delays for people travelling along the roads associated with the alignment.	Possible	Moderate	**Medium (negative)**	• Appropriate construction traffic management planning • Project Engagement Plan	**Low (negative)**

Category	Potential impact	Likelihood	Magnitude	Unmitigated risk	Recommended mitigation measure	Residual risk (mitigated)
	Construction activities may temporarily affect access and on-street parking for some residents and businesses owners located along the new underground easement. This may lead to increased frustration or delays for people accessing properties or businesses. However, as construction of the new underground easement would move progressively along the alignment, these disruptions are expected to be temporary and relatively localised.	Likely	Moderate	**High (negative)**	• Appropriate construction traffic management planning • Project Engagement Plan	**Medium (negative)**
Property and land use	Temporary property impacts and land use changes due to the requirement for new transmission lines may lead to disruptions in daily activities and be an inconvenience for some landowners, residents and businesses.	Likely	Moderate	**High (negative)**	• Project Participation and Access Allowance (PPAA) • Land Access Protocol (LAP) • SuperGrid Landholder Payment Framework • Project Engagement Plan	**Medium (negative)**
Operation						
Amenity impacts	**Noise and vibration** Potential changes to local amenity resulting from operation of the Project are not expected to affect most community members. Residences located near to the existing Kamerunga substation may benefit from reduced noise exposure due to the relocation of the existing substation.	Unlikely	Minor	**Low (negative)**	• No additional mitigation	**Low (positive)**
	Changes to local character and visual amenity Replacement of OH cables with UG cables between Redlynch and Woree as well as the proposed relocation of the existing Kamerunga Substation would likely improve the overall visual amenity of the surrounding area. As the Project seeks to replace the existing transmission line between Kamerunga and Redlynch, visual impacts are considered to be minor during operation and consistent with the existing environment.	Likely	Minor	**Medium (positive)**	• No additional mitigation	**Medium (positive)**

Category	Potential impact	Likelihood	Magnitude	Unmitigated risk	Recommended mitigation measure	Residual risk (mitigated)
Traffic, transport and access	During operation, periodic inspections and maintenance may be required. This would involve vehicles assessing the easement and related infrastructure. This is not expected to result in any social impacts during operation.	Very Unlikely	Minimal	**Low (negative)**	• No additional mitigation	**Low (negative)**
Property and land use	Operation of the Project may restrict landholder activities within the new easement and increase property management.	Possible	Minor	**Medium (negative)**	• Project Engagement Plan	**Low (negative)**
Health and community wellbeing	Significant water flow is likely in areas immediately west and north of the fill pad in the event of flooding in the Barron River. This may lead to potential increases in mosquito activity in the surrounding area and potentially impact low lying infrastructure which may increase stress and anxiety for some nearby residents	Possible	Major	**High (negative)**	• Further analysis and modelling of flood mitigation options • Project Engagement Plan	**Medium (negative)**
	Replacement of the current transmission line to ensure a safe, secure and reliable electricity supply into the future, meaning residents and businesses in the PSA, SSA and TSA can continue to live their lives and operate their businesses as they wish, being able to draw on the electricity they need for their day to day.	Almost certain	Moderate	**High (Positive)**	• No additional mitigation	**High (Positive)**

4.2 Construction Phase

4.2.1 Workforce management, local business and industry procurement

The Project would contribute to the local and regional economy through procurement and employment opportunities for local and regional businesses and workforces.

The total capital investment value of the Project is estimated at $200 million. This level of output is estimated to support indicative employment of 144 direct FTE construction workers annually over the estimated 3-year construction period (commencing in early 2026). This represents a significant uplift in employment in the area over the period, which has the potential to generate a range of benefits to the local community and economy, including:

- The indicative 144 direct FTE construction jobs will result in an increase in indirect employment in the local Cairns economy of +383 indirect FTE workers. In total, an estimated 527 FTE construction jobs will be supported by the Project annually over the 3-year construction period within Cairns LGA.
- The estimated 144 direct FTE workers supported each year will benefit the significant proportion of construction related businesses (4,478 businesses) in the SSA.
- An increase in workers within the local area will result in flow on benefits to local businesses and the community through local wage spending stimulus, particularly in relation to housing/accommodation, retail food and beverage outlets, and recreation spending, as well as other personal services.
- The PSA currently contains 2,750 unemployed labour force participants, some of whom could work on the Project, subject to appropriate skills match.
- At an indicative 144 direct FTE construction workers supported, it is estimated that these workers will support a direct value add to the local Cairns LGA economy of an estimated $71.86 million annually. When considering total FTE construction workers (direct and indirect), value added of around $194.15 million will be supported each year of the construction period in Cairns LGA.
- Australia wide, the Project is estimated to support an estimated 752 FTE jobs (direct and indirect) annually over the three-year construction phase.

The proposal represents a significant construction project in the area, that has the potential to benefit local and regional construction related business, including Aboriginal businesses, and workers within the local economy and community. The increased number of workers within the local area that will be supported by the construction of the proposed development may result in a range of flow on effects to local businesses and the community overall. Furthermore, it is understood that Powerlink will ensure that capable and competitive local suppliers are given a fair and reasonable opportunity to supply and contribute to the Project, noting the 4,478 construction related businesses in the SSA.

A summary of jobs and economic activity supported by the Project is highlighted **Table 7.**

Table 7 Employment and Economic Activity – Construction Phase Impacts

Factor	Jobs (FTE) per annum	Value Added ($) per annum
Cairns LGA – Direct Jobs	144	$71.86 million
Cairns LGA – Indirect Jobs	383	$122.29 million
Cairns LGA – Total Jobs Supported	**527**	**$194.15 million**
Balance of Queensland	28	$10.96 million
Queensland – Total Jobs Supported	**555**	**$205.11 million**
Balance of Australia	196	$97.02 million
Australia – Jobs Supported	**752**	**$302.13 million**

Source: National Institute of Economic and Industry Research (NIEIR) 2024.Compiled and presented in economy.id by.id (informed decisions).
Note: All $ values are expressed in 2021/22 base year dollar terms.
Note: All values presented are indicative only

Overall, workforce management, local business and industry procurement impacts during construction may benefit people and businesses in the PSA, SSA and TSA. In order to ensure this impact is experienced positively, Powerlink should consider ensuring their contractor/s comply with a Workforce Management Plan, that guides the minimisation impacts on community, through consideration of standards of behaviour and minimising temporary impacts to local infrastructure.

4.2.2 Amenity impacts

Changes to local amenity such as noise and vibration, dust and air quality may result from construction activities including, vehicle movements, earthworks and excavations and establishment of construction zones. This may impact some people's wellbeing and ability to enjoy their home environments and local surroundings or ability to concentrate, especially if they work from home.

Noise and vibration impacts

The *Noise and Vibration Assessment* (Resonate, 2024), found that noise levels during standard work hours would have the potential to exceed criteria at residences located close to construction activities along the alignment in Brinsmead, Kanimbla and Mooroobool. Residents and businesses located along sections of the alignment which may involve trenching work are expected to be most impacted. The transmission line would be installed progressively, and it is noted that individual receivers would only be affected by construction noise for short periods of time (approximately 1-2 weeks). While most of the construction activities are expected to occur during standard work hours, there is potential for some construction activities to occur outside these hours.

During consultation, some residents raised concerns about potential temporary increases in noise and other amenity impacts during construction which may disturb neighbouring residents and community groups.

Increased construction noise during the day and night may disturb day-to-day activities for nearby residents and community members which may affect their daily routines and quality of life. This could include closing windows whilst indoors or spending less time outdoors engaging in recreational activities or relaxation. Increased noise could disturb activities such as conversations, watching television, or listening to music or the radio during the day, and sleep disturbance.

For non-residential receptors, increased noise may be disruptive to businesses and community facilities along the alignment such as those listed in Section 2.4. This may be a nuisance for employees and customers. However, this is not expected to deter most customers at businesses as the works would be temporary.

The *Noise and Vibration Assessment* (Resonate, 2024) found that vibration impacts due to construction activities is expected to be low.

A range of noise and vibration mitigation measures, strategies and work practices would be implemented to minimise the impacts. Potentially impacted residents along the pipeline alignments would be notified of the nature of the works, expected noise levels, duration of works and complaint management mechanisms will be in place to raise issues.

Overall, noise and vibration impacts during construction may be experienced by people in close proximity to the proposal in the PSA. People in the SSA and TSA are unlikely to be impacted by noise and vibration as a result of the proposal.

Air quality impacts

The *Air Quality Impact Assessment* (JBS&G, 2024) found that construction activities are unlikely to generate dust emissions for residences and businesses close to the proposed transmission line alignment.

Increases in dust may lead some residents and businesses to alter their way of life, such as closing windows whilst indoors, spending less time outside, or spending additional time cleaning indoor and outdoor surfaces. Some people may be more vulnerable to dust, such as people with asthma.

However, with the proposed management measures to reduce dust generation occurrences, impacts are expected to be minor.

Overall, air quality impacts during construction may be experienced by people in close proximity to the proposal in the PSA. People in the SSA and TSA are unlikely to be impacted by air quality impacts as a result of the proposal.

Changes to local character and visual amenity

Construction activities may temporarily alter the visual landscape in areas surrounding the site during construction phases. This would include the presence of construction machinery and infrastructure, trenching works, and construction traffic.

Consultation with residents found that natural environment and green spaces are highly valued. Some residents expressed concerns about the potential loss of trees and green space due to construction.

Changes to visual surroundings can impact residents' sense of pride in their local area and can reduce enjoyment of outdoor areas or views from some windows and yards. However, these impacts would be temporary, as construction progresses along the alignment and would not be visible after construction is completed.

Overall, changes to local character and visual amenity during construction may be experienced by people in the PSA and SSA due to their proximity to the proposal. People in the TSA are unlikely to be impacted by changes to the local character and visual amenity as a result of the proposal.

4.2.3 Traffic, transport and access

Construction of the proposal will be undertaken in stages. Overall construction is expected to take several years. It is expected that construction workers would access the site in the morning and exit in the afternoon to travel to their homes or accommodation in the evening.

As detailed in the *Traffic Impact Assessment* (Point8, 2024) construction of the Project is expected to generate up to 131 vehicle trips per day at its peak, expected during Stage 2 of the construction phase.

Increased light and heavy vehicle movements may result in disruptions and delays for people travelling along the roads associated with the alignment of the transmission line. This disruption may be experienced as inconvenient for some residents and other road users, and could cause frustration. However, as construction activities would move progressively along the alignment, disruptions are expected to be temporary and relatively localised.

Construction activities may also result in disruptions to pedestrian and cycle routes and may reduce safety for cyclists utilising the road shoulders as a cycle path.

The *Traffic Impact Assessment* (Point8, 2024) found that vehicle activity associated with construction would be negligible. Therefore, there is a low likelihood of significant transport, traffic, and access disruptions for community members.

Construction of the new underground easement may temporarily reduce or disrupt access to properties and on-street parking between Brinsmead and Woree . Construction is expected to be undertaken between 6am and 6pm. During this time there may be partial or full road closures or limited access for residents, businesses or community members. This may lead to increased frustration or delays for people accessing properties or businesses associated with the easement's alignment. However, as construction of the new underground easement would move progressively along the alignment, these disruptions are expected to be temporary and relatively localised. Potentially impacted residents and businesses along the alignments would be notified of the nature of the works, expected road closures and duration of works.

Overall, traffic, transport and access impacts may be experienced by people in the PSA and SSA due to their proximity to the proposal. People in the TSA may experience some traffic, transport and access impacts depending on the roads they use and the proposals transport routes.

4.2.4 Property and land use

Construction of the Project has the potential to result in changes to property access and management for landholders along the proposed easement. Construction of the new overhead easement alignment will directly affect 77 parcels of land, of which 27 parcels have been identified as freehold properties which are currently owned by five separate private landholders. The remaining parcels are a mix of road parcels, river parcels, land lease, national park, reserves and unspecified (see Section 2.1). The land surrounding the overhead transmission line between Kamerunga and Redlynch is predominately rural land, currently used for cropping.

Construction of the new underground easement may involve trenching work which will primarily be located within local controlled roads and road reserves to reduce impacts to state-controlled roads and residential land between Brinsmead and Woree (see Section 2.1). As mentioned above, access to properties and on-street parking located along the route may be temporarily impacted during construction of the underground easement, which may cause disruptions and lead to frustrations for some residents and businesses.

Changes to property and land use may result in increased requirements for landholders to engage with project staff and to provide access to their properties to manage project activities. This time, along with responding to other property management changes, may reduce the time available for regular agricultural or property maintenance activities. This additional investment of time and property maintenance may disrupt day-to-day activities and may result in flow on reduction in property productivity. The impact of construction on productivity of properties would largely depend on the existing activities undertaken in the area under the proposed new easement.

Where possible, Powerlink has positioned the recommended corridor for the new easement adjacent to the existing transmission line to minimise potential impacts.

Impacts to landholders and their properties will be managed by Powerlink through various measures including:

- Project Participation and Access Allowance (PPAA)
- Land Access Protocol (LAP)
- SuperGrid Landholder Payment Framework

Powerlink will continue to consult with affected landholders and residents during the pre-construction and construction phase. This is expected to assist in managing potential disruptions.

Overall, property and land use impacts are most likely to be experienced by people in the PSA who are in close proximity to the proposal, with particularly pronounced impact to the five separate private landholders discussed above. People in the SSA and TSA are unlikely to be impacted by property and land use impacts as a result of the proposal.

4.3 Operational Phase

4.3.1 Amenity impacts

Noise and vibration impacts

The *Noise and Vibration Assessment* (Resonate, 2024) found that operational noise levels are not predicted to exceed the relevant criteria at the closest residential receivers.

Residents located near to the existing Kamerunga substation (located at the western end of Yurongi Street) are also likely to benefit from reduced noise exposure due to the relocation of the existing substation.

Overall, noise and vibration impacts during operation are unlikely to be experienced by most people in the PSA, SSA and TSA. Reductions in noise impacts during operation are most likely to benefit people in close proximity to the existing Kamerunga substation in the PSA.

Changes to local character and visual amenity

The environment in and around the Project already features views of the existing transmission line and associated infrastructure, which will be replaced by the Project. Impacts on the visual amenity are therefore considered to be minor, with operation of the project consistent with the existing context.

Consultation with residents found that the natural environment and green spaces are highly valued, and that property amenity and property values are important.

Between Redlynch and Woree, replacement of overhead (OH) cables to underground (UG) cables would reduce the visual impacts and is likely to improve the overall visual amenity of the surrounding area.

The proposed relocation of the Kamerunga Substation is also likely to improve the visual amenity for nearby residences. These changes are likely to be viewed positively by surrounding residences.

Overall, changes to local character and visual amenity impacts are unlikely to be experienced by people in the PSA, SSA and TSA. Relocation of infrastructure during operation are most likely to benefit people in close proximity to the proposal in the PSA and SSA.

4.3.2 Property and land use

Most of the land disturbed during the Project's construction would be reinstated during the Project's operation. During operation, a new easement would be maintained for the life of the Project. Generally, landholders would be able to resume pre-construction activities within the easement. There may, however, be some restrictions on vegetation heights or the types of activities or infrastructure that can be undertaken within the new easement which is outlined in further detail in Powerlink's *Activities on an easement* brochure.

Overall, property and land use impacts during operation may be experienced by people in the PSA due to their proximity to the proposal. Relocation of infrastructure during operation are most likely to benefit people in close proximity to the proposal in the PSA. People in the SSA and TSA are unlikely to be impacted by property and land use impacts as a result of the proposal.

4.3.3 Health and community wellbeing

The Project may result in actual or perceived increase in water levels to the west and north of the subject site during flooding events due to the extent of filling proposed. Increased risks of flooding as a result of increased flows have the potential to increase mosquito activity in the surrounding area and potentially impact low lying infrastructure which may increase stress and anxiety for some nearby residents and businesses.

During community consultation, a small number of respondents expressed concern about the potential for increased flooding risk in the local area due to the Project.

The *Flood Impact Assessment* (WMS, 2025) found that significant water flow is likely to occur in areas immediately west and north of the fill pad in the event of flooding in the Barron River.

Flood mitigation works are recommended to offset the potential flood impacts. The *Flood Impact Assessment* (WMS, 2025) recommends further analysis and modelling of flood mitigation options should be undertaken in the next stage of the design to confirm the extent of compensatory earthworks required and potential re-location of the fill pad to the south/east of the site.

Overall, health and community wellbeing impacts during operation may be experienced by people in the PSA and SSA. People in the TSA are unlikely to be impacted by health and community wellbeing impacts as a result of the proposal.

4.4 Cumulative impacts

This section presents a summary of the potential cumulative social impacts that may result from the Project and other key projects in the study area. There is potential for the Project to overlap or occur concurrently with other projects in the SSA. As outlined in Section 3.1, projects identified predominately include residential and mixed-use development projects. While most of these are expected be completed prior to the replacement and upgrade of the substation facility and transmission line, there may be concurrent social impacts. These could include:

- Competition for skilled labour during construction of projects, which could result in more roles being filled by non-residents, leading to increased demand for housing and accommodation in the region.
- Increased traffic and changes in access to businesses, community facilities and residential areas in the potentially affected communities during construction which could increase disruptions and delays, particularly during construction of the alignment.
- Construction fatigue, particularly with amenity impacts, may be experienced by nearby residents and community members.
- Increased investment in the regional economy through procurement and employment opportunities.

4.5 Mitigation and management measures

The social and economic impacts and benefits identified and assessed in this report would be managed and mitigated through a range of measures, including those recommended in other technical studies (such as the noise and vibration impact assessment, traffic impact assessment and flood impact assessment). Other management plans that would influence the management of social impacts include:

- Construction Noise and Vibration Management Plan (CNVMP)
- Traffic Management Plan (TMP)
- Flood Mitigation Options

Table 8 identifies the mitigation measures in response to the potential social and economic impacts identified in Sections 4.2 to 4.4 relevant to the Project. Social and economic impacts experienced during the Project include both positive and negative, and may be experienced by stakeholders differently. Social and economic impacts would be monitored on an ongoing basis by implementation of a complaints mechanism and continued stakeholder and community engagement. The management strategies are therefore largely focussed on the Project period, but should be adaptive, and be reviewed and updated as required in response to community and stakeholder feedback.

While the overall responsibility for development, implementation and monitoring of the social and economic impact management plans will remain with Powerlink, some responsibilities will be devolved to the primary construction contractor and will become part of the contractor's terms and conditions of engagement.

Table 8 Mitigation and management measures

Mitigation/ management measure	Description
Project Engagement Plan (PEP)	• Preparation and implementation of a Project Engagement Plan that contains measures to effectively communicate and engage with the surrounding community to minimise disruption, including notification PEP should consider appropriate communication/engagement for individuals/households who are linguistically diverse and other groups which are difficult to engage with. • Powerlink to engage early with key affected residential and non-residential receivers that may be impacted by the easement changes, traffic or access impacts, and potential noise impacts, to enable them to review information and respond accordingly. • As the Project transitions from developed to construction, engagement activities and tools will be developed and implemented with the purpose of gathering information and seeking opinions from stakeholders on solutions and impacts. • The PEP should seek to: – Ensure all interested or affected parties are identified, and lay out how these people will be engaged with in an ongoing manner over the development and construction period. – Identify a dedicated community liaison officer for the Project that can provide the community with oversight on construction timeframes and activities, and also act as a direct contact for the community for project complaints or enquiries. – Establish trust and dialogue with the community to understand any community concerns, and ensure timely, useful and relevant information is provided to all parties. – Work collaboratively with impacted groups to minimise negative impacts of the project. • The PEP should also support providing early notice to nearby community infrastructure facilities so they can communicate with their clients, customers, and user groups. • The PEP should establish the protocol for a community complaints system, to ensure timeline response to issues arising in response to construction impacts. • During construction, the implementation of the PEP will interface with the implementation of the recommendations of the other technical assessments and the Construction Management Plan (referenced below).
Procurement Plan	• PQ is committed to support the intent of the Queensland Procurement Policy 2023 in applying a local benefits approach to procurement requirements. • In order to maximise the participation of local, regional and Aboriginal businesses in the Project it is recommended that: – Local/regional economic benefits be promoted and efforts should be made to procure local businesses and employees during the construction phase of the Project. – Consideration of social procurement principles to amplify positive social impact e.g. employ and train/upskill persons from underrepresented groups, such as women in construction and First Nations residents. • Where possible, consider social procurement as a tool for delivering positive social impact as part of construction delivery, with reference to the Queensland Government's *Social Procurement Guide* (2023).
Workforce Management Plan	• Develop a Workforce Management Plan to be employed by construction contractors, that works to minimise impacts on community, through consideration of: – Standards of behaviour for workers – How worker needs will be met without impacts local essential services and infrastructure – How the construction workforce purchasing power can be directed to deliver benefits to local businesses.
Project Participation and Access Allowance (PPAA) **Land Access Protocol (LAP)** **SuperGrid Landholder Payment Framework**	• Implementation of Powerlink's established policies and procedures in relation to land access and landholder compensation.
Implement technical assessment recommendations	• Implement the recommendations of technical assessments (e.g., noise, traffic, cultural heritage) and Construction Noise and Vibration Management Plan (CNVMP).

5.0 Project Benefits

The proposed Project will deliver a range of social and economic benefits to local and regional communities. These benefits are summarised as follows:

- **Support significant direct investment** into the local and regional economy and community. The Project will generate around $200 million in economic investment directly into the Cairns region.
- **Improve resilience to disasters** – The replacement of an asset that is reaching the end of its useful life will improve the provision of modern energy infrastructure for the community. Importantly, the redeveloped transmission line including undergrounding cabling and new substation will result in a more resilient asset in the face of natural disasters.
- **Support economic development** through job creation and economic output. The Project is estimated to support 752 direct and indirect FTE jobs annually during the construction period across Australia. Of these jobs, 527 will be supported locally in Cairns LGA, representing a significant benefit to the local economy. These 527 direct and indirect FTE jobs are estimated to support significant economic output of around $194 million in value added to the local Cairns economy annually.
- **Flow on economic benefits** - Additional workers supported by the Project's construction phase will support flow on benefits to surrounding businesses and communities.
- **Support the growing energy needs of the community** The SSA population is forecast to increase by +9,240 persons with an implied need for an additional +3,700 dwellings. This growth will result in increased demand for energy infrastructure that can be in part supported by the Project once operational
- **Improve the reliability of power supply in the community.** The Project will deliver a modern energy asset that will provide consistent and reliable energy connectivity to surrounding residential areas, as well as critical social infrastructure services such as schools, aged care communities, hospitals and businesses.

+$200 million in direct capital investment

+527 total FTE jobs supported annually over the construction period in Cairns LGA

This includes both direct and indirect jobs

+$194 million annually in total value added over the construction period generated in Cairns LGA

Support for 66,240 persons living within the Project's power grid extent.

6.0 Conclusion

An assessment of social and economic impacts has been undertaken with consideration to the issues identified through the baseline analysis. Each material impact has been appraised in terms of the significance of the impact, based on the likelihood and magnitude of the change experienced by the community

6.1 Summary of key social and economic benefits and impacts

Key benefits of the proposed development relate to:

- Ensuring a safe, secure and reliable electricity supply into the future, meaning residents and businesses can continue to live their lives and operate their businesses as they wish, being able to draw on the electricity they need for their day to day.
- Positive contribution to the local and regional economy through direct and indirect procurement and employment opportunities.
- Improved visual amenity during operation due to relocation of the existing Kamerunga Substation and overhead transmission lines to underground transmission lines between Redlynch and Woree.

Key negative impacts identified with the proposed development relate to:

- Construction impacts, including traffic and access changes that may disrupt daily routines, and amenity impacts, such as noise, dust, vibration, and visual amenity changes.
- Potential increased requirements from landholders to engage with the Project or changes to access due to the construction of new infrastructure and establishment of a new easement.
- Health and wellbeing impacts associated with actual or perceived increased flood risk, including stress and anxiety, increased mosquito activity, and impacts to low lying infrastructure.

6.2 Summary of mitigation and management of impacts

The social impacts and benefits identified and assessed in this report would be managed and mitigated through a range of measures proposed in this report, and by other relevant mitigation measures proposed in other technical reports such as:

- Air Quality Impact Assessment, prepared by JBS&G
- Flood Impact Assessment, prepared by WMS
- Noise and Vibration Assessment, prepared by Reasonate
- Traffic Impact Assessment, prepared by JBS&G.

The following identifies the enhancement and mitigation measures identified in response to the potential social and economic impacts and benefits that may result from construction and operation of the proposal:

- Project Engagement Plan (PEP) – to guide engagement with key stakeholders and community members during construction of the Project. This will ensure community and stakeholders are given accurate and up to date information and provided an opportunity to input on negotiables, and have a clear process to manage impacts and register issues during the construction process.
- Procurement Plan – to prioritise local, regional and First Nations employment and procurement opportunities and maximise involvement
- Workforce Management Plan - to be employed by construction contractors, that works to minimise impacts of the workforce on the community.
- Project Participation and Access Allowance (PPAA), Land Access Protocol (LAP) and SuperGrid Landholder Payment Framework - Implementation of Powerlink's established policies and procedures in relation to land access and landholder compensation
- Implement technical assessment recommendations and Construction Management Plan as required.

Appendix A Community Profile Summary

Table 9 Community Profile Summary

Category	Primary Study Area	Secondary Study Area	Tertiary Study Area	Queensland
Income				
Median individual income (annual)	$40,150	$43,970	$38,950	$41,020
Median household income (annual)	$75,830	$92,390	$75,940	$88,070
Household income				
No income	7.6%	8.2%	7.9%	8.6%
Low	35.2%	31.6%	36.3%	34.1%
Medium	47.7%	48.4%	47.0%	45.4%
High	9.5%	11.8%	8.8%	11.9%
Age Structure				
0 years	0.9%	0.9%	1.0%	1.1%
1-2 years	2.2%	2.0%	2.1%	2.3%
3-4 years	2.3%	2.2%	2.2%	2.3%
5-6 years	2.5%	2.7%	2.5%	2.5%
7-11 years	6.7%	6.9%	6.5%	6.6%
12-17 years	8.4%	8.3%	8.1%	7.8%
18-24 years	7.6%	6.6%	7.0%	8.6%
25-34 years	12.2%	10.9%	12.5%	13.7%
35-49 years	20.8%	21.6%	19.5%	20.1%
50-59 years	13.1%	15.0%	14.1%	12.7%
60-69 years	11.0%	12.8%	12.7%	10.9%
70-84 years	9.9%	9.0%	10.2%	9.7%
85 years and over	2.4%	1.2%	1.6%	1.8%
Males	48.2%	49.1%	49.7%	49.3%
Females	51.8%	50.9%	50.3%	50.7%
Median Age (years)	40.2	41.2	40.8	38.6
Country of Birth				
Australia	76.0%	74.7%	79.5%	77.3%
Aboriginal and Torres Strait Islanders	*11.4%*	*5.8%*	*11.6%*	*4.9%*
Other Major English Speaking Countries	7.1%	13.7%	8.7%	10.6%
Other Overseas Born	16.9%	11.6%	11.9%	12.1%
% speak English only at home	*79.8%*	*88.4%*	*85.0%*	*86.2%*
Household Composition				
Couple family with no children	24.1%	30.8%	29.0%	28.2%
Couple family with children	26.7%	29.8%	25.7%	29.9%
Couple family - Total	50.8%	60.6%	54.7%	58.1%
One parent family	13.8%	12.0%	12.7%	11.9%
Other families	1.4%	0.7%	1.0%	1.0%
Family Households - Total	66.0%	73.3%	68.4%	71.0%
Lone person household	30.0%	22.8%	27.6%	24.8%
Group Household	4.0%	4.0%	4.0%	4.3%
Dwelling Structure (Occupied Private Dwellings)				
Separate house	66.9%	81.4%	78.2%	75.0%

Category	Primary Study Area	Secondary Study Area	Tertiary Study Area	Queensland
Semi-detached, row or terrace house, townhouse etc.	17.1%	8.6%	8.4%	11.8%
Flat, unit or apartment	14.7%	9.4%	12.2%	12.5%
Other dwelling	1.2%	0.6%	1.2%	0.7%
Occupancy rate	*93.8%*	*89.9%*	*89.0%*	*90.7%*
Average household size	2.4	2.5	2.5	2.5
Tenure Type (Occupied Private Dwellings)				
Owned outright	27.2%	29.8%	32.1%	29.7%
Owned with a mortgage	34.8%	41.0%	33.4%	35.2%
Rented	35.5%	28.3%	33.0%	33.3%
Other tenure type	2.6%	0.9%	1.6%	1.7%
Attending Education (% of those attending)				
Pre-school	6.9%	6.5%	6.1%	6.8%
Infants/Primary Total	34.6%	34.1%	36.5%	34.2%
Secondary Total	30.5%	30.1%	31.4%	28.2%
Technical or Further Educational Institution	11.1%	8.8%	9.6%	8.9%
University or other Tertiary Institution	12.7%	17.1%	12.5%	18.2%
Other type of educational institution	4.2%	3.3%	3.9%	3.7%
Highest Level of Education Completed (% of population aged 15 years and over)				
Year 12 or equivalent	59.2%	64.0%	56.6%	61.7%
Year 9-11 or equivalent	35.0%	33.7%	38.0%	33.6%
Year 8 or below	4.4%	2.1%	4.6%	4.1%
Did not go to school	1.4%	0.2%	0.8%	0.6%
Employment Status				
Unemployed/ looking for work	5.5%	4.9%	5.7%	5.4%
Labour force participation rate	59.7%	64.9%	59.4%	61.6%
Need for Assistance				
With Need for Assistance	7.5%	5.3%	6.2%	6.4%
No Need for Assistance	92.5%	94.7%	93.8%	93.6%
Top 5 Languages Spoken at home (other than English)				
1	Nepali (2.2%)	Japanese (1.2%)	Australian Indigenous (1.7%)	Mandarin (1.7%)
2	Japanese (2.2%)	German (1.0%)	Japanese (1.1%)	Vietnamese (0.6%)
3	Korean (1.1%)	Mandarin (0.6%)	Punjabi (0.9%)	Punjabi (0.6%)
4	Australian Indigenous (1.1%)	Malayalam (0.6%)	Italian (0.8%)	Spanish (0.6%)
5	Mandarin (0.9%)	Spanish (0.5%)	German (0.6%)	Cantonese (0.5%)

Source: ABS Census of Population and Housing 2021

Appendix B Social Impact Rating Approach

This section summarises the approach to undertaking social risk ratings for this report, drawing on the QLD Coordinator General's SIA Guideline (DSDMIP, 2018) and the NSW SIA Guideline (February 2023).

Table 10 Magnitude Levels of Social impact

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

Table 11 Defining likelihood levels of Social Impacts

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

Table 12 Social Impact Significance Matrix

Likelihood	Magnitude				
	Minimal	Minor	Moderate	Major	Transformational
Very unlikely	Low	Low	Low	Medium	Medium
Unlikely	Low	Low	Medium	Medium	High
Possible	Low	Medium	Medium	High	High
Likely	Low	Medium	High	High	Very high
Almost certain	Low	Medium	High	Very high	Very high

Appendix C PSA - SA1 Codes

SA1 Codes	
30601113805	30602114906
30601113807	30602114910
30601113809	30602114911
30601113812	30602114913
30601114122	30602114916
30602114603	30602114917
30602114605	30602114923
30602114606	30602114925
30602114607	30602114926
30602114608	30602115107
30602114609	30602115701
30602114902	30602115706
30602114903	30602115707
30602114905	30602115712