October 2025

Bouldercombe to Larcom Creek Transmission Line Reinforcement Project

Bouldercombe Substation to the proposed Gladstone West Substation

Corridor Validation Report

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Acknowledgement of Country

Powerlink acknowledges the Traditional Owners and their custodianship of the lands and waters of Queensland and in particular the lands on which we operate. We pay our respect to their Ancestors, Elders and knowledge holders and recognise their deep history and ongoing connection to Country.

How to provide feedback on the Corridor Validation Report

This Corridor Validation Report assesses the existing easement and a portion of potential widening between Bouldercombe Substation and the proposed Gladstone West Substation.

We welcome feedback from landholders, Traditional Owner groups, the community and other stakeholders on the Corridor Validation Report.

Feedback can be provided in the following ways:

Phone: 1800 635 369 (Monday to Friday, 8 am – 5 pm)

Email: cqprojects@powerlink.com.au

Website: Bouldercombe to Larcom Creek Reinforcement Project

Executive Summary

This Corridor Validation Report has been prepared by Queensland Electricity Transmission Corporation Limited, trading as Powerlink Queensland (Powerlink), for the Bouldercombe to Larcom Creek Transmission Line Reinforcement Project (Reinforcement Project). Two reports have been prepared for the Reinforcement Project. This report focuses on the section between Powerlink's existing Bouldercombe Substation and Powerlink's proposed Gladstone West Substation (Sections A-C) and is shown in **Figure 1**. Sections A-B utilise an existing easement corridor and requires no new corridor investigations, Section C requires widening, with the corridor co-located alongside existing easement and transmission lines, a Corridor Validation Report has been prepared to assess the suitability of the easement corridor.

A separate corridor report has been prepared for the section between Powerlink's proposed Gladstone West Substation and Powerlink's existing Larcom Creek Substation (Section D) as this looks to utilise an existing vacant easement corridor and also requires new easements. A Draft Corridor Selection Report (CSR) has been prepared to provide further insights and details into the investigations carried out identifying the location of the new easements required for Section D. Details of this report are available of the Project website here.

To support the development of this Corridor Report, Powerlink engaged CQ Environmental Pty Ltd (trading as CQG Consulting) to undertake technical, spatial, and mapping analysis.

1. Project background

Powerlink is planning a new high-voltage transmission line between Powerlink's existing Bouldercombe and Larcom Creek Substations, via Gladstone West, largely using an existing easement corridor, as part of reinforcing the Gladstone network.

This transmission line is required to enable more flexible operation of existing generation in the region, ensure the secure and reliable supply of electricity during high demand periods in the Gladstone region, and to support potential increase in electrical power transfer requirements into the Gladstone area due to industrial demand growth and electrification.

The proposed project involves building a 275 kilovolt (kV) double-circuit transmission line approximately 95 kilometres (km) in length. This transmission line will improve network capacity and reliability as coal-fired generation reduces and industrial electrification increases. Connecting the new transmission line to our electricity network will also involve a minor extension to the existing substation platform to accommodate the proposed transmission line at both existing Bouldercombe and Larcom Creek substations.

In addition, a new substation at Gladstone West is proposed to be constructed on Powerlink owned land. The new substation will help reinforce the network ahead of the eventual closure of the Gladstone Power Station. The proposed Gladstone West substation will form part of the planning and environment approvals required for the Bouldercombe to Larcom Creek Transmission Line project.

The section between Powerlink's existing Bouldercombe Substation and Powerlink's proposed Gladstone West Substation (Sections A-C) forms part of the overall Bouldercombe to Larcom Creek Transmission Reinforcement Project and is approximately 80km in length and accounts for 84% of the total Reinforcement Project length. Sections A & B are contained within an existing vacant easement corridor, while Section C requires widening, with the corridor co-located alongside the existing easement and transmission lines, as shown in **Figure 1**.

The report outlines the social, environmental and economic factors for consideration within the existing easement corridor and assesses the suitability of using the existing vacant easement to accommodate a new double-circuit 275kV transmission line.

The remaining 15km of the Reinforcement Project, between the proposed Gladstone West Substation and Powerlink's existing Larcom Creek Substation, requires both existing and new easement corridors and is investigated using corridor selection principles to identify a recommended corridor for this section.

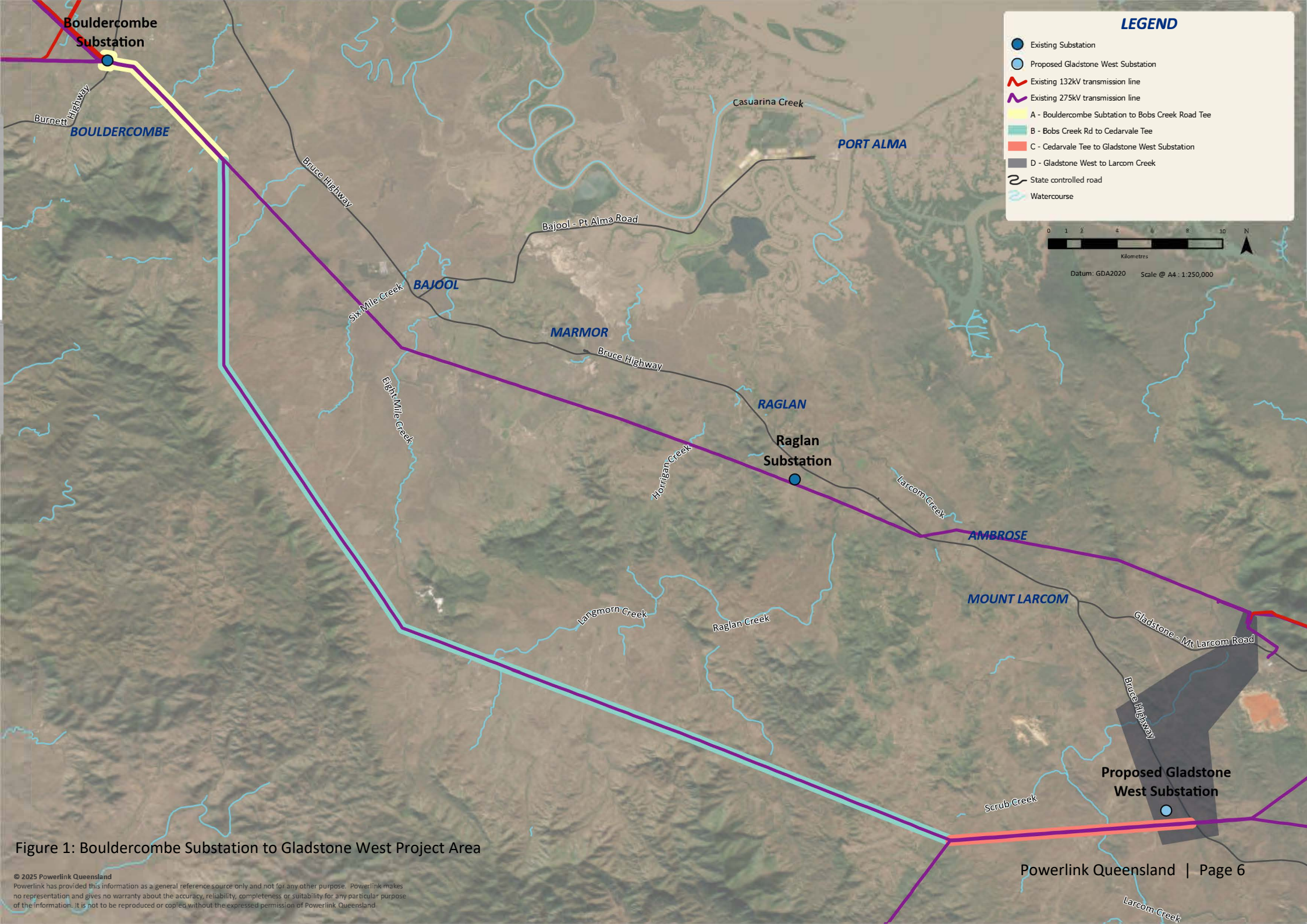

Figure 1: Bouldercombe Substation to Gladstone West Project Area

2. Approach to Corridor Assessment

As part of preliminary investigations, Powerlink reviewed existing Powerlink easements, Powerlink-owned land, and potential infrastructure needs between the existing Bouldercombe Substation and proposed Gladstone West Substation. A key focus of these preliminary investigations was to validate that the characteristics of the existing easement would accommodate the proposed transmission line and future network needs.

The assessment of the corridor aims to identify the environmental, social and economic factors for consideration within and adjoining the existing easement corridor, and to assess whether the existing easement corridor has sufficient width to accommodate the proposed transmission line. The following principles have guided this corridor assessment:

- consideration of design for line crossings and substation connections;
- consideration of social and environmental impacts;
- terrain considerations to support construction and maintenance; and
- co-location with existing transmission infrastructure or using existing easements.

The methodology for the corridor assessment incorporated:

- publicly available spatial data and technical information to assess environmental, social, planning, and heritage constraints;
- review of existing easements and land titles to identify current rights, access constraints, ownership considerations, and any encumbrances or restrictions that may impact the project; and
- input from technical specialists to ensure constructability, network reliability, and compliance with regulatory and legislative frameworks.

Stakeholders identified during the preliminary investigation stage of the project included directly impacted and adjacent landholders, Traditional Owner groups, and other stakeholders, such as elected representatives and local councils. Engagement with these groups began in March 2025, followed by the wider community in July 2025.

Subsequent phases of the project will include further engagement with landholders, Traditional Owner groups, Council, the wider community and other stakeholders. Detailed environmental, heritage and social impact assessment including targeted investigations, and further planning, design and construction considerations will also be undertaken.

3. Corridor overview

To support a detailed and accurate assessment, the corridor has been divided into three sections. This reflects the differing characteristics and existing infrastructure along the easement, a summary of each section is provided in **Table 1**.

Table 1: Bouldercombe Substation to Gladstone West Project Sections

Section	Overview
Section A: Bouldercombe Substation to Bob's Creek Road	Section A extends between Bouldercombe Substation and Bob's Creek Road, traversing private freehold land. Powerlink holds rights to an existing easement approximately 9km in length and 180m in width. A small section (180m in length) near Aremby and Mogilno Roads has a narrower width of 160m, constrained by the Aremby Road reserve. The northern portion of easement currently accommodates two existing 275kV transmission lines, supported by established tracks that Powerlink uses for maintenance. The project is assessing the feasibility of utilising this easement to accommodate an additional 275kV overhead transmission line, noting that a total width of 140m is required to support three 275kV transmission lines. This section of the corridor is located within the Rockhampton Regional Council Local Government Area and on the land of the Darumbal People. The land impacted by the corridor is zoned Rural under the planning scheme, with an adjoining area of Rural Residential near Childs Avenue, Bouldercombe. Onsite investigations confirm the land within and surrounding the easement is predominantly rural, comprising cleared grazing land with patches of vegetation, transitioning to smaller lifestyle lots. The topography is characterised by lower slopes and foothills with moderately undulating terrain. A desktop assessment identified three dams within the existing easement, no farming structures (such as cattle yards and sheds) or dwellings are located within the easement. Refer to **Figure 2**, which illustrates the existing easement within this section and **Figure 5** which illustrates the key economic, environmental and social considerations for the entire corridor.
Section B: Bob's Creek Road to Cedarvale Tee (between Kaluda Road and Back Road, Cedarvale)	Section B extends between Bobs Creek Road to Cedarvale Tee traversing predominantly private freehold land. The easement briefly intersects (25m) of a Reserve being Upper Ulum Recreational Grounds and a second reserve is that is currently leased for grazing. Powerlink's transmission corridor in this area is approximately 60km in length and 100m in width.

Section	Overview
	One narrower section of easement avoids a dwelling that onsite investigations confirm is currently vacant. The northern portion of easement accommodates one existing 275kV transmission line, supported by established tracks that Powerlink uses for maintenance. The project is assessing the feasibility of utilising this easement to accommodate an additional 275kV overhead transmission line, noting that a total width of 100m is required for two 275kV transmission lines. This section of the corridor is located within the Rockhampton Regional Council and Gladstone Regional Council Local Government Areas and on the land of the Darumbal People and First Nations Bailai, Gurang, Gooreng Gooreng, and Taribelang Bunda (FNBGGGTB) People. A small portion (2.6km in length) falls within an unclaimed area. The land impacted by the corridor is zoned Rural under both planning schemes. Onsite investigations confirm the land within and surrounding the easement is predominantly rural, comprising cleared grazing land with patches of vegetation, and some smaller lifestyle lots. The topography is generally characterised by lower slopes and gently undulating land. In the vicinity of Cedar Vale Tee the corridor briefly intersects with the eastern extent of Dee Range, where the landform transitions to steeper slopes. A desktop assessment and onsite investigations identified a number of dams and farming structures (including cattle yards and sheds) within the easement. No dwellings are located directly within the easement however several are situated within close proximity (ranging from 40m – 1km). Refer to **Figure 3**, which illustrates the existing easement within this section and **Figure 5** which illustrates the key economic, environmental and social considerations for the entire corridor.
Section C: Cedarvale Tee (between Kaluda Road and Back Road, Cedarvale) to the proposed Gladstone West Substation	Section C extends from Cedarvale Tee to the proposed Gladstone West Substation, traversing private freehold land. Powerlink holds rights to an existing easement approximately 11km in length and 100m in width. The easement includes two existing 275kV transmission lines, supported by established tracks that Powerlink uses for maintenance. This section of the corridor briefly intersects with the Callide Corridor Infrastructure State Development Area (approximately 240m). This easement will be widened by an additional 40m to the north for the Calvale to Calliope River Transmission Line Reinforcement (C2C) project, which will comprise the construction of one 275kV transmission line. An additional 135m wide corridor to the north of the C2C project has been identified for

Section	Overview
	investigation for this project. If approved, this will include the construction of another 275kV transmission line and provide flexibility to secure additional space for future transmission network reinforcement to the Gladstone region. This section of the corridor is located within the Gladstone Regional Council Local Government Area and on the land of the FNBGGGTB People. The land impacted by the corridor is zoned Rural under the planning scheme. Onsite investigations confirm the land within and surrounding the easement is predominantly rural, comprising cleared grazing land with patches of vegetation. The topography is characterised as flat coastal planes. A desktop assessment and onsite investigations identified one set of cattle yards within the proposed corridor. No dwellings or other infrastructure is located within or surrounding the corridor. Refer to **Figure 4** which illustrates the existing easement and proposed corridor within this section and **Figure 5** which illustrates the key economic, environmental and social considerations for the entire corridor.

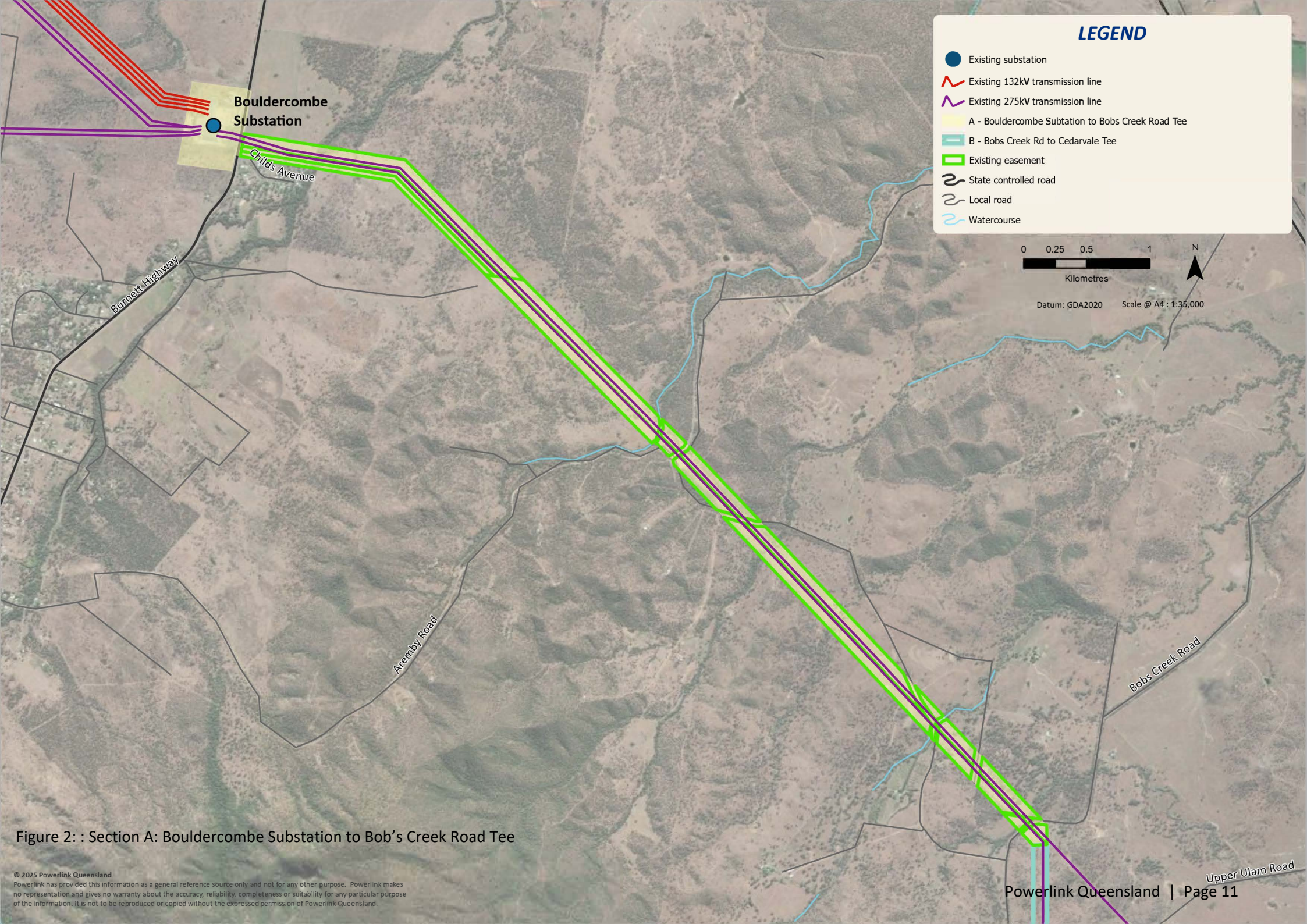

Figure 2: : Section A: Bouldercombe Substation to Bob's Creek Road Tee

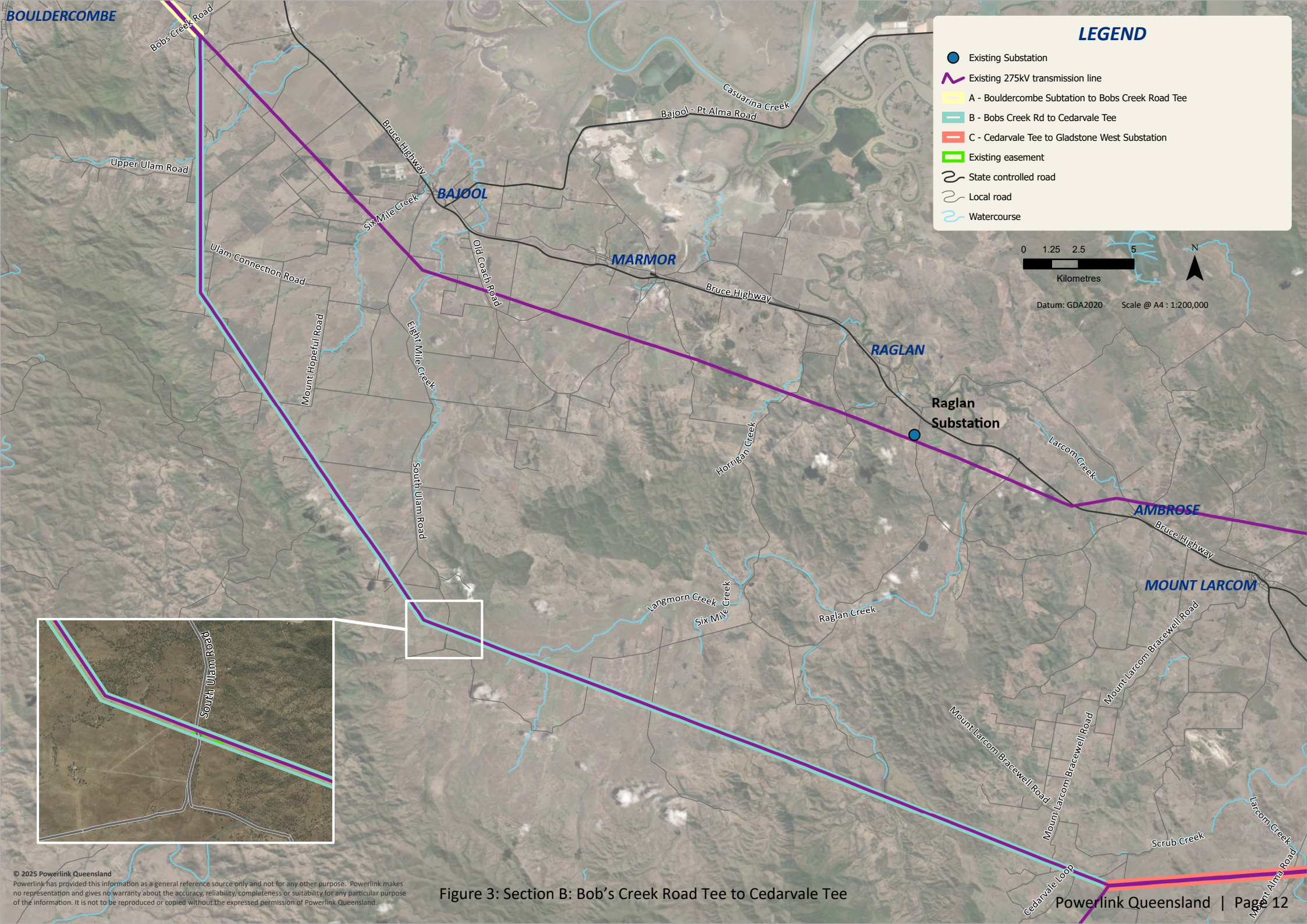

Figure 3: Section B: Bob's Creek Road Tee to Cedarvale Tee

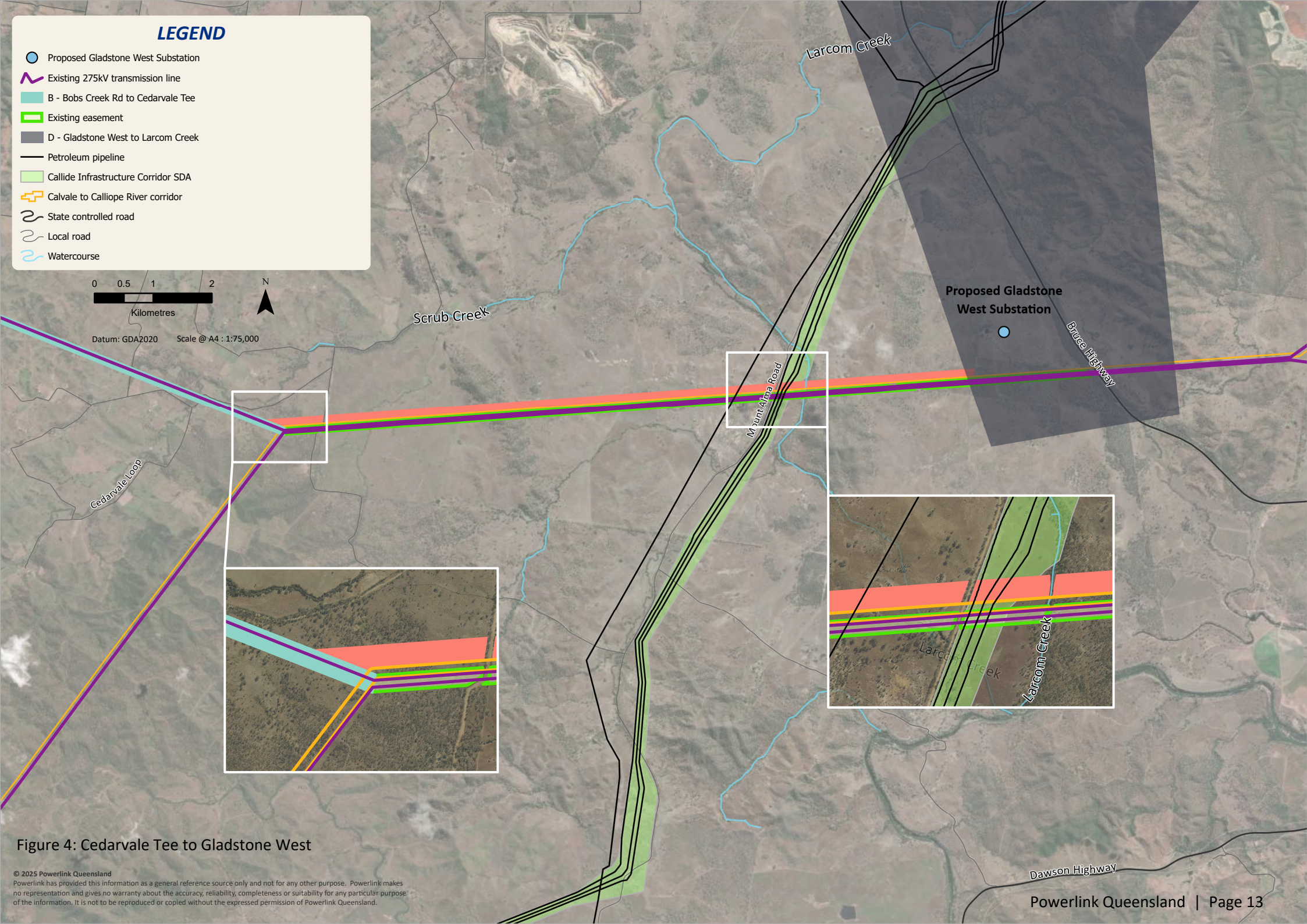

Figure 4: Cedarvale Tee to Gladstone West

4. Summary of corridor considerations

Key considerations for each section are outlined in **Table 2.** The assessment considered a range of social, environmental, and economic factors such as landholder and community impacts, vegetation and habitat areas, terrain, and infrastructure crossings to help ensure a balanced and informed approach to corridor planning. Section C considerations were based on the 135m wide corridor identified north of the existing easement and C2C project.

Table 2: Key Considerations

Measure	Section A	Section B	Section C	Project Total
Social To consider the use of land and community livelihood within and adjacent to corridor				
Number of land parcels intersected by the corridor[1]	10	54	7	71
Number of landholders directly impacted by the corridor	9	36	3	48
Number of residential dwellings within 1km of the existing easement[2]	29	58	0	87
Number of structures within existing easement (e.g. sheds, cattle yards etc.)	0	7	1	8
Area of strategic cropping land	0	28.7 ha	0	28.7 ha
Environment To consider a balanced approach with the least practicable impact on environmental values.				
Area of Category B - remnant vegetation	6.43 ha	27.89 ha	4.31 ha	38.63 ha
Area of Category C - regrowth vegetation	3.52 ha	18.53 ha	0 ha	23.77 ha
Area of Category R - reef-regrowth vegetation	12.30 ha	29.92 ha	0 ha	42.22 ha
Area of essential habitat	0.33 ha	0 ha	2.57 ha	2.90 ha

[1] Each land parcel was counted once. In cases of overlap between sections, the parcel was attributed to the section with the largest area.
[2] Dwellings along the corridor were identified through desktop mapping. For each land parcel, one dwelling was assumed, while other structures shown, were considered to be, sheds, cattle yards, or similar buildings.

Measure	Section A	Section B	Section C	Project Total
Area of protected flora trigger mapping	0 ha	6.82 ha	0 ha	6.82 ha
Heritage Values - Number of sites on Cultural Heritage register[3]	0	0	0	0
Economic To consider construction and operational factors such as cost at a preliminary level, given the scale of the Project.				
Existing transmission lines within easement	2	1	2	-
New Easement Required	No	No	Yes	-
Approximate length of corridor	9 km	60 km	11 km	80 km
Area of corridor with slope 10-20%	0 ha	72 ha	9 ha	81 ha
Area of corridor with slope >20%	0 ha	20 ha	0 ha	20 ha
Number of electricity distribution transmission line (i.e. Ergon Energy) crossings	2	11	0	13
Callide Infrastructure Corridor State Development Area	No	No	Yes	-
Number of gas / other pipeline crossings	0	0	4	4

4.1 Technical Considerations

Table 3 outlines the preliminary technical considerations across Sections A, B, and C of the proposed corridor. These considerations provide an early understanding of constructability and design requirements, including watercourse intersections, road crossings, and estimated bend points. The information is intended to guide further detailed assessments.

[3] Searches of the Queensland Cultural Heritage register do not identify any registered site points within the corridor. This does not mean that there are no values present bur rather indicates that there have been no values registered.

Table 3: Technical Considerations

Measure	Section A	Section B	Section C	Project Total
Technical To consider constructability, engineering design, safety, and operational reliability at a preliminary level, ensuring the Project can be delivered efficiently and maintained effectively				
Number of watercourse intersections	12	65	14	91
Number of formed road crossings	1 State 5 Local	23 Local	3 Local	32
Number of bend points (estimate only)	2	2	0	4

4.2 Summary of Considerations

The assessment found that the southern portion of the easement is the most suitable location for the proposed line in Sections A and B. This location generally provides the required width, allows for a straighter alignment, and avoids the need to cross existing transmission lines.

To enable connection at Bouldercombe Substation, a minor extension is required. This extension will be located south of the existing substation, on Powerlink-owned land. The location of this extension supports the need for utilising the southern portion of the easement by avoiding the crossing of existing transmission lines.

Some areas of easement are impacted by tenures that are not suitable for registering an easement such as road reserves and water courses. Where the easement is affected by road reserves or water courses, Powerlink will work with the relevant authorities to find solutions. Additionally, further design work is required to confirm whether widening may be required on select properties in Sections A and B due to the location of existing towers.

In Section C, additional easement width will be required north of the existing easement and proposed C2C project. This alignment will involve crossing one existing transmission line at the interface of Section B and C. A northern alignment, as opposed to a southern alignment reduces the level of interactions with existing and proposed transmission lines (3 in total) at the proposed Gladstone West Substation, minimising the risk of complex outages on Powerlink's transmission network.

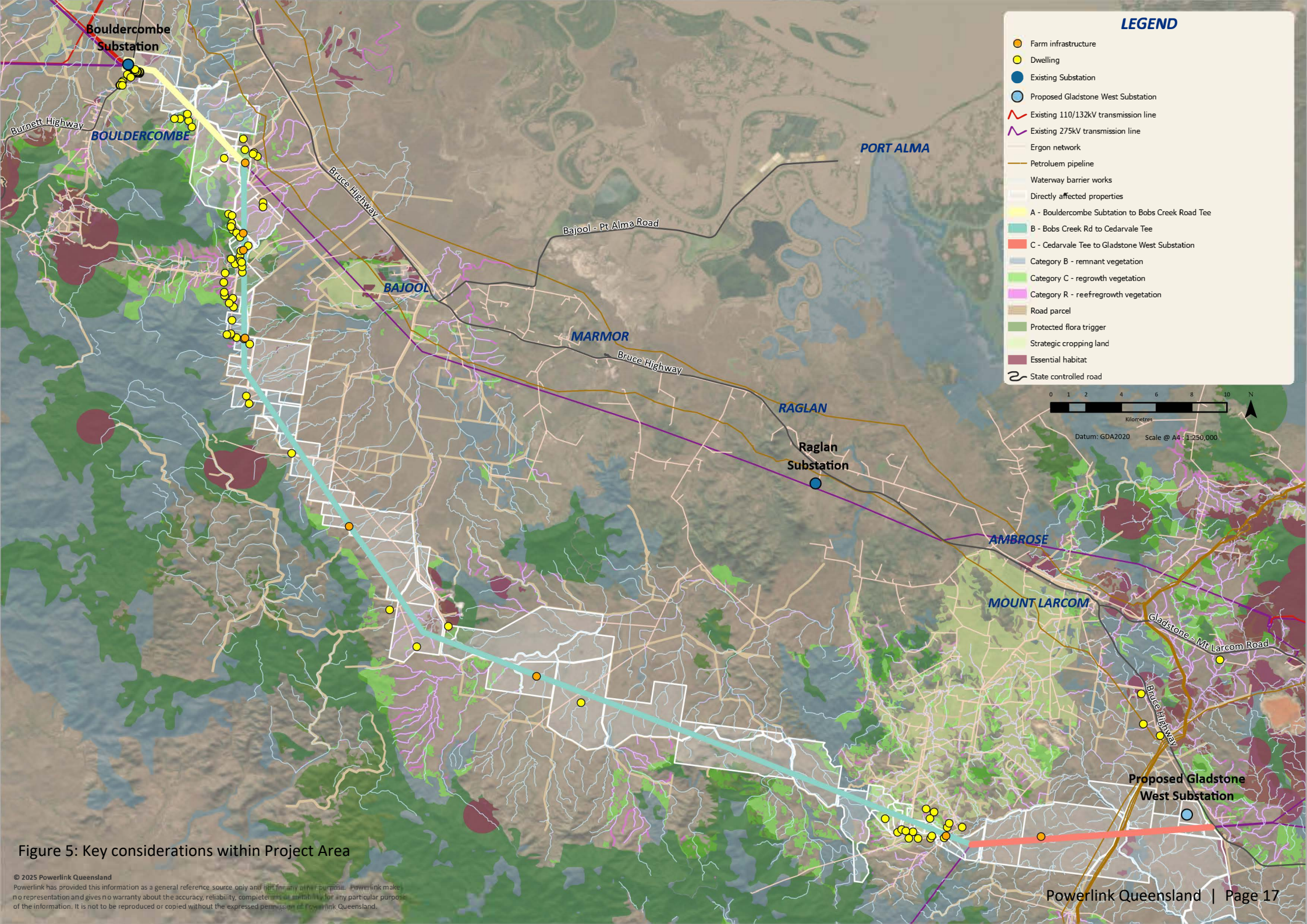

Figure 5: Key considerations within Project Area

5. Key findings

The assessment of the proposed corridor between Bouldercombe and the proposed Gladstone West Substation validated that the social, environmental, economic and technical considerations are appropriate to support the project across Sections A, B, and C. It was determined that the proposed new transmission line is mostly able to be delivered within the existing vacant transmission easements in Sections A & B, subject to further detailed design, stakeholder engagement and approvals. In Section C, additional easement width will be required north of the existing easement and the proposed C2C project.

Co-location of transmission lines within existing easements or alongside transmission lines reduces time, cost and community disruption compared to developing a new greenfield corridor.

While the use of the existing easement and proposed easement widening will result in some environmental, social and economic impacts, these are considered manageable through further design refinement and a high level of engagement with impacted stakeholders.

6. Legislative overview

There are a number of potential legislative triggers and associated considerations, including the need to secure federal and state government approvals in order to progress the Project. Approval requirements may include, but are not limited to, the following:

- *Environment Protection and Biodiversity Conservation Act (EPBC) 1999* (Cth) referral and potential approval for significant impacts on Matters of National Environmental Significance (MNES);
- Relevant State Planning approvals such as Ministerial Infrastructure Designation (MID) under the *Planning Act 2016* (Qld);
- Compliance with the duty of care provisions and other relevant provisions under the *Aboriginal Cultural Heritage Act 2003* (Qld);
- Compliance with the general biosecurity obligations under the *Biosecurity Act 2014* (Qld);
- General environmental duty under the *Environmental Protection Act 1994* (Qld);
- Clearing of protected plants listed under the *Nature Conservation Act 1992* (Qld);
- and
- Species Management Program (SMP) under the *Nature Conservation (Animals) Regulation 2020* (QLD).

To counterbalance the project's impact to MNES and Matters of State Environmental Significance (MSES), land-based and or financial-based offsets are likely to be required. To ascertain offset liabilities under the *EPBC Act* (Cth) and *Environmental Offsets Act 2014* (Qld), further field surveys and a Significant Impact Assessment will need to be undertaken.

7. Next steps

Further desktop and field studies are required to identify potential impacts during the construction and operational phases of the project. These investigations will also build upon Powerlink's understanding of the key considerations addressed in this report and required approvals for the final easement alignment. As the final corridor is refined, the project will continue to seek to avoid and/or minimise impacts on landholders and the community, as well as on environment, cultural, agricultural, and cropping land values through further design. This includes strategic tower siting, construction management and operational practices aimed at avoiding, minimising and mitigating impacts, and securing the necessary approvals followed by compliance with their conditions.

7.1 Social

Ongoing Engagement: Continue working closely with landholders, Traditional Owners, community members and other key stakeholders throughout the detailed design, construction and operational phases of the project. This will achieve a shared understanding of constraints and opportunities, and open dialogue regarding their management.

Social Impact Assessment: A Social Impact Assessment (SIA) is underway for Powerlink's Banana Range Wind Farm Connection Project, Theodore Wind Farm Connection Project, and the Gladstone Project in Central Queensland. The SIA will help to identify how the projects might affect nearby communities, both positively and negatively. The SIA will consider five key areas:

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

Visual amenity: Assess visual impacts and identify opportunities for screening or mitigation where feasible.

7.2 Environment, heritage and planning

Ecology: Undertake further desktop studies and targeted field surveys to better understand the ecological values, inform mitigation strategies, and determine potential offset requirements.

Biosecurity matters: Undertake further field investigations to identify existing biosecurity risks and define mitigation measures, informing planning approvals and the establishment of biosecurity zones prior to construction.

Unclaimed Area Engagement: Develop a Cultural Heritage Management Plan (CHMP) under the *Aboriginal Cultural Heritage Act 2003*, including statutory notification, consultation, and agreement on measures to protect and manage cultural heritage values that may be present.

Heritage Assessments: Work with Traditional Owner groups, including the Darumbal People and FNBGGGTB Peoples to secure a Cultural Heritage Management Agreement, complete heritage assessments and manage any risks to indigenous and non-indigenous heritage values.

Planning: Continue discussions with regulatory bodies to ensure all necessary environmental and planning approvals are identified and obtained.

7.3 Economic

Land, soil, geology: Undertake geotechnical studies to inform design and construction, especially in areas with dispersive soils or hard rock. A baseline contaminated land assessment will be undertaken prior to construction.

Flooding: Investigate potential flood risks along the corridor and consider tailored design solutions at waterway crossings to protect both natural environments and infrastructure.

Easements: Cadastral surveys and identification surveys are required to verify the easement alignment and identify any areas where future widening and acquisition may be required.

Infrastructure Crossings: Identify and assess all potential crossings with existing infrastructure (e.g. roads, pipelines, transmission lines) and confirm requirements and approvals with relevant stakeholders and asset owners.

8. Have your say

As part of our commitment to working closely with landholders, a dedicated Landholder Relations Advisor will continue to engage directly with landholders to understand land use, property and biosecurity management plans, and to maintain ongoing relationships. Engagement will be guided by the following goals:

- communicate clearly and regularly;
- facilitate informed input; and
- build two-way trust.

In-person community engagement sessions will be hosted following the release of the Gladstone West to Larcom Creek Corridor Selection Report.

Throughout the project, Powerlink welcomes feedback from all stakeholders through the following channels.

Feedback form (available on the project webpage): Bouldercombe to Larcom Creek Reinforcement Project

cqprojects@powerlink.com.au

1800 635 369 (Monday to Friday, 7.30 am – 5 pm)

Appendix A

Acronyms

Acronym	Meaning
C2C	Calvale to Calliope River
CQG	CQ Environmental Pty Ltd T/A CQG Consulting
CVR	Corridor Validation Report
Cwth	Commonwealth
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Cth)
FNBGGGTBP	First Nations Bailai, Gurang, Gooreng Gooreng, and Taribelang Bunda Peoples
ha	Hectare
km	Kilometre
kV	Kilovolts
m	metres
MID	Ministerial Infrastructure Designation
MNES	Matters of National Environmental Significance
MSES	Matters of State Environmental Significance
Powerlink	Powerlink Queensland
Project	Area nominated by Powerlink to be investigated for transmission line capacity and easements
Qld	Queensland
SIA	Social Impact Assessment
SMP	Species Management Program

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