



# Bouldercombe to Larcom Creek Transmission Line Reinforcement Project

Proposed Gladstone West Substation to Larcom  
Creek Substation

Draft Corridor Selection Report

## Table of Contents

Executive Summary .....	5
1.1 Project background .....	5
1.2 Approach to corridor selection .....	8
1.3 Recommended corridor .....	8
2.0 Introduction .....	11
2.1 Project Background .....	11
2.2 Purpose of this report .....	12
2.3 Engagement .....	12
3.0 Corridor Selection Process .....	13
3.1 Methodology .....	13
3.2 Objectives .....	13
4.0 Characteristics of the Study Area .....	14
4.1 Land Use .....	14
4.1.1 Gladstone State Development Area .....	14
4.1.2 Priority Ports Master Planned Area – Gladstone Ports Corporation .....	14
4.1.3 Local Government Area .....	14
4.1.4 Contamination and Unexploded Ordinances .....	14
4.1.5 Resource interests .....	15
4.2 Land Tenure .....	15
4.2.1 Land Tenure .....	15
4.2.2 Strategic Cropping Land and Stock Routes .....	15
4.2.3 Powerlink Easements .....	15
4.2.4 Other Infrastructure .....	15
4.2.5 Flood Mapping .....	16
4.3 Natural Areas .....	16
4.3.1 Protected Areas .....	16
4.3.2 Topography .....	16
4.3.3 Geological and Soil Factors .....	17
4.3.4 Hydrology .....	17
4.3.5 Vegetation Communities .....	18
4.3.5 Connectivity areas .....	20



4.3.6 Flora .....	20
4.3.7 Fauna .....	21
4.3.8 Fish Passage .....	23
4.3.9 Biosecurity .....	23
4.4 Visual amenity .....	24
4.5 Heritage .....	24
4.5.1 Local, State and Commonwealth Heritage .....	24
4.5.2 Cultural Heritage .....	24
4.6 Transport and Traffic .....	24
4.6.1 State-controlled roads .....	24
4.6.2 Local government roads .....	24
4.6.3 Rail lines .....	25
4.6.4 Airport .....	25
4.6.5 Bushfire Hazard .....	25
5.0 Recommended Corridor .....	25
5.1 Key Findings .....	25
6.0 Legislative and Approval Requirements .....	29
7.0 Next Steps .....	29
7.1 Social .....	29
7.2 Environment, heritage and planning .....	30
7.3 Economic .....	30
8.0 Have your say .....	31
APPENDIX A .....	32
Acronyms .....	32
APPENDIX B .....	34
Constraints Maps .....	34

## ***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](mailto:cqprojects@powerlink.com.au)

Website: [Bouldercombe to Larcom Creek Reinforcement Project](#)

## Executive Summary

This Draft Corridor Selection Report (CSR) 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 the proposed Gladstone West Substation (Gladstone West) and Powerlink's existing Larcom Creek Substation (Section D) and is shown in **Figure 1**. The Draft CSR report 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.

A separate corridor report has been prepared for the section between Powerlink's existing Bouldercombe Substation and Powerlink's proposed Gladstone West Substation (Sections A-C). Sections A-B will be utilising an existing easement corridor and require no new corridor selection 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 corridor. Details of this report are available on the Project website [here](#).

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

### 1.1 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 support a 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.

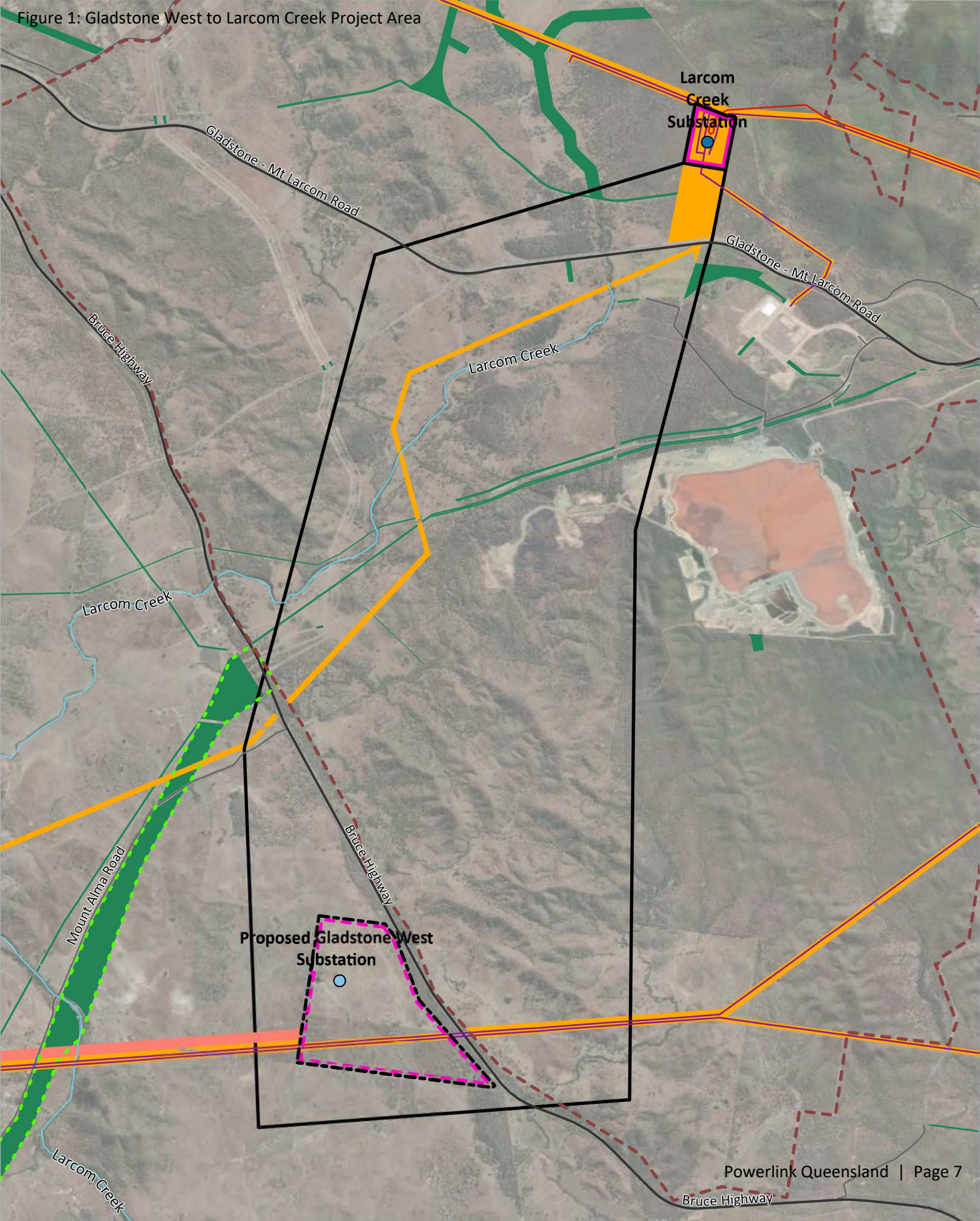
In addition, a new substation at Gladstone West is proposed to be constructed on Powerlink-owned land. The new substation will help reinforce the network ahead of the eventual closure of the Gladstone Power Station. The proposed Gladstone West substation will form part of the planning and environment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

The section between the proposed Gladstone West Substation and Powerlink's existing Larcom Creek Substation (Section D) forms part of the overall Bouldercombe to Larcom Creek Transmission Reinforcement Project and is approximately 15km in length, and accounts for 16% of the total Reinforcement Project length. Powerlink holds rights to an existing vacant easement corridor, beginning near Mount Alma Road and the Bruce Highway and extending towards the Larcom Creek Substation. Approximately 10km of this vacant easement corridor is within the Study Area and is approximately 60-70m wide, which is sufficient to accommodate the proposed transmission line. To connect at Gladstone West, an additional 5km of new easements is required to connect to the existing vacant easement corridor. This report assesses the suitability of using the existing vacant easement corridor within the Study Area and provides further analysis for identifying the location of new easements required for this section.

The remaining 80km of the Reinforcement Project (Section A-C), between Powerlink's existing Bouldercombe Substation and Powerlink's proposed Gladstone West Substation, will utilise an existing easement corridor in Section A and B. In Section C, however, the easement will require widening to accommodate the proposed transmission line, while maintaining co-location alongside the existing easement and transmission lines.



Figure 1: Gladstone West to Larcom Creek Project Area



Legend

Existing Substation

Proposed Gladstone West Substation

Existing 132kV transmission line

Existing 275kV transmission line

Study area

Larcom Creek Substation property boundary

Proposed Gladstone West Substation property boundary

Section C - Cedarvale Tee to Gladstone West substation

Gladstone State Development Area

Callide Infrastructure Corridor SDA

Powerlink-owned easement

Other easement

State controlled road

Local road

Watercourse

0 0.5 1  
Kilometres

N  
Scale @ A4 : 1:60,000  
Datum: GDA2020

© 2025 Powerlink Queensland  
Powerlink has provided this information as a general reference source only and not for any other purpose. Powerlink makes no representation and gives no warranty about the accuracy, reliability, completeness or suitability for any particular purpose of the information. It is not to be reproduced or copied without the expressed permission of Powerlink Queensland.

## 1.2 Approach to corridor selection

As part of preliminary investigations, Powerlink reviewed existing Powerlink easements, Powerlink-owned land, potential infrastructure needs, and land characteristics in the Gladstone State Development Area (GSDA) between the proposed Gladstone West and the existing Larcom Creek Substations. A key component of this project is to assess whether the existing easement corridor has sufficient width to accommodate the proposed transmission line, validate the location of existing easements as the least impact, and identify the location for new easements where required.

The assessment aims to identify a recommended corridor that applies corridor selection principles to consider environmental, social and economic factors across both new and existing vacant easement corridors. The following principles have guided this corridor selection process:

- consideration of social, environmental and land use constraints and opportunities;
- consideration of design for line crossings and substation connections;
- terrain considerations to support construction and maintenance; and
- co-location with existing transmission infrastructure or within existing easements.

The methodology for corridor selection incorporated:

- a desktop review of publicly available spatial data and technical information to assess environmental, economic, 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 engagement with the wider community in July 2025.

As a significant portion of the project is located within the Gladstone State Development Area (GSDA), early stakeholder engagement was essential to align with the GSDA's objectives of driving economic growth, supporting emerging industries, and protecting environmental, cultural heritage and community values. Recognising the GSDA's state and regional significance, the project considered existing and future land use and infrastructure needs to minimise potential impacts, with Powerlink's existing vacant easement being a key factor in determining the recommended corridor alignment.

## 1.3 Recommended corridor

Following desktop research, preliminary field studies, early engagement with landholders and stakeholders, and consideration of Powerlink's existing vacant easement, the corridor shown in **Figure 2** has been identified as the most suitable option.

The area east of the proposed Gladstone West Substation site and Bruce Highway was excluded due to challenging terrain, planned future developments, environmental value and constraints, and the Moura Link Aldoga Rail Project.



The recommended corridor is preferred as it seeks to:

- maximise use of the largest section of existing vacant easement, helping reduce time, costs, and community disruption compared to a new greenfield corridor;
- meet Powerlink's immediate needs and can accommodate the proposed 275kV double circuit transmission line;
- avoid unnecessary crossings of major infrastructure and sensitive areas;
- avoid conflict with future development plans within the GSDA;
- present the lowest overall social, environmental and economic impacts on balance; and
- avoid steep terrain, reducing construction costs.

In the next stage of the project, Powerlink will continue working closely with landholders, Traditional Owner groups, the broader community, and stakeholders to identify a final corridor. These outcomes will be detailed in the Final Corridor Report.

Figure 2: Recommended Corridor

The map displays an aerial view of a region with various roads and water bodies. A black line outlines a large area, and a pink/purple shaded region indicates the recommended corridor. This corridor follows the path of Larcom Creek and Bruce Highway. Key features include:

- Larcom Creek Substation:** Located at the top right of the map, marked with a blue dot.
- Proposed Gladstone West Substation:** Located in the lower left, marked with a blue dot.
- Roads:** Bruce Highway, Gladstone - Mt Larcom Road, Mount Alma Road, and Larcom Creek Road.
- Water Bodies:** Larcom Creek and a large orange-colored area (possibly a reservoir or lake) on the right.

Powerlink Queensland | Page 10

- 0 0.5 1  
Kilometres
- Scale @ A4 : 1:60,000  
Datum: GDA2020
- © 2025 Powerlink Queensland
- Powerlink has provided this information as a general reference source only and not for any other purpose. Powerlink makes no representation and gives no warranty about the accuracy, reliability, completeness or suitability for any particular purpose of the information. It is not to be reproduced or copied without the expressed permission of Powerlink Queensland.



## 2.0 Introduction

### 2.1 Project Background

The Gladstone transmission network supports some of Queensland's most important industries, including alumina refineries, an aluminium smelter, chemical manufacturing, and the state's largest multi-commodity port. Many of these businesses plan to electrify their operations in the coming years, which will significantly increase demand on the electricity network, especially as coal generation winds down.

Strengthening the transmission network through this project is essential to support Queensland's energy transition, ensure continued reliability for communities and industries in the Gladstone region, and enable future economic growth.

This project involves a proposed 275 kV double-circuit transmission line approximately 95km in length between Powerlink's existing Bouldercombe and Larcom Creek Substations, as well as a new substation at Gladstone West. 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 support a potential increase in electrical power transfer requirements into the Gladstone area due to industrial demand growth and electrification.

The transmission lines around Gladstone were mostly built in the 1970s and are now reaching the end of their asset life. Wider easements were obtained at the time of construction to secure an easement corridor to host an additional transmission line in the future. With the ageing assets and the growing demand for electricity in the Gladstone region, this project will seek to use existing vacant easements where possible. Using existing easements offers significant benefits by reducing time, cost, and community disruption compared to developing a new greenfield easement corridor.

Powerlink has previously acquired a parcel of land in Gladstone West based on an assessment of future network needs and opportunities in the property market. This site has been identified as a potentially suitable location for the new proposed substation as part of the Project.

As the Bouldercombe to Larcom Creek project consists predominantly of existing vacant easements, the Project is divided into smaller sections for planning and assessment purposes to address the differing characteristics and complexities of each section. Sections A to C form the portion from Bouldercombe to Gladstone West, primarily following an existing transmission corridor with existing vacant easements in Section A and B, wide enough to accommodate this project. In Section C, however, the easement will require widening to accommodate the proposed transmission line, while maintaining co-location alongside the existing easement and transmission infrastructure. A separate report with further details on these sections is available on our website [here](#).

This report addresses Section D, which includes the portion connecting Gladstone West to Larcom Creek, completing the overall corridor from Bouldercombe to Larcom Creek (Sections A-D).

## 2.2 Purpose of this report

Powerlink has prepared this Draft CSR to identify a recommended transmission corridor between the proposed Gladstone West Substation and Powerlink's existing Larcom Creek Substation. The report assesses a 400-600m wide study area that identifies environmental, social and economic considerations.

To support this work, Powerlink engaged CQ Environmental Pty Ltd (trading as CQG Consulting) to carry out technical assessments, mapping, and spatial analysis. This work builds on earlier desktop studies completed by Powerlink.

The purpose of this report is to:

- identify the social, environmental and economic considerations within the Study Area;
- assess the suitability of the existing vacant easements to accommodate a new double-circuit 275kV transmission line;
- provide an overview of the relevant planning and legislative frameworks applicable to this project; and
- outline the next steps to advance the Project.

A final corridor will be published in the Final CSR. Subsequent phases of the Project will include further engagement, detailed environmental and social impact assessments, including targeted investigations, impact assessments, and the development of planning, design and construction considerations.

## 2.3 Engagement

Powerlink began engaging with key stakeholders in March 2025, including directly impacted and adjacent landholders, Traditional Owner groups, local councils, and elected representatives. Most landholders in Section D are industrial or government entities, and engagement was tailored to these stakeholders. All stakeholders were offered the opportunity to meet and discuss the Project. Feedback from this early engagement has helped shape the recommended corridor.

Following the release of this Draft CSR, Powerlink will hold community engagement sessions to invite feedback on the Project. Powerlink continues to seek feedback throughout the Project and as studies and approvals progress.

Engagement will be guided by the following goals:

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

Engagement will continue through ongoing interactions with landholders, Traditional Owner groups and broader stakeholders, as well as through planned engagement activities, to explain and gain feedback on the Project.

Powerlink will also comply with the engagement requirements of formal planning and approval processes undertaken, which may include supporting formal submission periods undertaken by government.

## 3.0 Corridor Selection Process

### 3.1 Methodology

Early investigations involved a desktop assessment of relevant legislation, spatial data, land characteristics, environmental values, heritage sites, and potential social impacts. These investigations also reviewed existing easements and Powerlink-owned land, infrastructure requirements, and key environmental and planning constraints. A key focus was assessing the existing vacant easements between the proposed Gladstone West and the existing Larcom Creek Substations for suitability to accommodate a new 275 kV transmission line. The investigations sought to identify a route between the current and proposed substation sites to minimise social, environmental, and economic impacts while balancing the needs of the GSDA and the project.

The corridor selection methodology included:

1. Defining a Study Area incorporating publicly available and Powerlink data.
2. Identifying constraints and opportunities within the Study Area through a desktop review (using the geographical information system (GIS) database, topographic maps, satellite imagery, local government planning schemes, government mapping, database searches and Powerlink operational matters) and overlaying the Project objectives to identify further constraints and opportunities.
3. Undertaking a desktop ecological assessment by a qualified ecology consultant to identify environmental values and constraints within the Study Area.
4. 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.
5. Evaluating the suitability of the existing easements for the proposed 275kV transmission line.
6. Engaging with GSDA stakeholders to identify current and future development plans within the GSDA.

### 3.2 Objectives

The objective of this corridor selection process is to identify a corridor that maximises the use of vacant existing land and easements, reducing further impacts to the area (when compared to a greenfield corridor) and balancing the Project objectives, network considerations, broader land use developments and feedback.

Three project objectives were used to inform the approach to corridor selection:



#### Social

To consider the use of land and the community livelihood within and adjacent to corridor options.



#### Environment

To consider a balanced approach to corridor selection with the least practicable impact on environment and heritage values.



#### Economic

To consider construction and operational factors such as cost at a preliminary level, given the scale of the project.

## 4.0 Characteristics of the Study Area

This section reviews the characteristics of the Study Area and identifies constraints and opportunities relevant to the Project. Maps showing the constraints covered in this section are provided in **APPENDIX B**.

### 4.1 Land Use

#### 4.1.1 Gladstone State Development Area

A large portion of the Study Area is located within the GSDA, which is managed by the Office of the Coordinator General (OCG). The purpose of the GSDA is to establish Central Queensland as an economic powerhouse by concentrating large-scale industries of national, state, and regional importance, leveraging its strategic location near the Port of Gladstone and major transport networks. The GSDA is divided into industry precincts and is designated for existing and proposed development aligned with their intended purposes as shown in **APPENDIX B**.

Development within the GSDA is regulated by the GSDA Development Scheme, which contains a development assessment framework for making, assessing and deciding applications. Considerations have been given to existing land uses and potential future development within the GSDA that may be affected by the recommended corridor alignment.

The existing vacant easement corridor within the GSDA area that begins near Mount Alma Road and the Bruce Highway and heads towards Larcom Creek Substation was secured in the early 2000s.

#### 4.1.2 Priority Ports Master Planned Area – Gladstone Ports Corporation

The Study Area is located within the priority ports master planned area regulated by Gladstone Ports Corporation (GPC). The *Sustainable Ports Development Act 2015* (Qld) (Ports Development Act) was established to sustainably manage port-related development in and adjoining the Great Barrier Reef World Heritage Area. The Ports Development Act declared the Port of Gladstone as a priority port to optimise the use of existing infrastructure and address operational, economic, and environmental relationships, as well as surrounding land uses, through port master plans and port overlays.

The Master Plan and associated Port Overlay recognises the purpose of the GSDA and refers to the GSDA Development Scheme. Subsequent development proposals will need to consider requirements under the Port Overlay.

#### 4.1.3 Local Government Area

The Study Area is located within the Gladstone Regional Council Local Government Area (LGA).

The recommended corridor is largely located within the Special Purpose Zone under *the Our Place Our Plan: Gladstone Regional Council Planning Scheme 2017* (GRC Planning Scheme), which corresponds to the GSDA as discussed above. Outside the GSDA, the land is zoned Rural under the GRC Planning Scheme.

#### 4.1.4 Contamination and Unexploded Ordinances

The Study Area includes historical and current land uses such as railways potentially contaminated by chemicals like creosote and agricultural zones, which may include cattle dip sites, landfills, fuel storage areas, and herbicide use. A review of the Australian Government Department of Defence Unexploded Ordinance (UXO) mapping system indicates no mapped UXOs within the area.

#### 4.1.5 Resource interests

There are no mining and exploration tenures or key resource areas mapped within the Study Area.

## 4.2 Land Tenure

### 4.2.1 Land Tenure

Land Tenure across the Study Area is predominantly freehold tenure. Other tenures identified are road reserve and land leases.

### 4.2.2 Strategic Cropping Land and Stock Routes

There are no areas of strategic cropping land or stock routes mapped within the Study Area.

### 4.2.3 Powerlink Easements

The Study Area includes a section of vacant Powerlink easement corridor approximately 10km long and 60–70m wide, located between Larcom Creek Substation and the Bruce Highway near Mount Alma Road. Other easements that intersect with the corridor relate to transport and pipeline infrastructure.

### 4.2.4 Other Infrastructure

The corridor intersects with other infrastructure, including underground and overhead infrastructure that intersect or occur in proximity to the Study Area, as shown in **APPENDIX B**.

Powerlink also notes that there are known and planned developments within the Study Area. Infrastructure developers with interests in this area are encouraged to contact the Project team to discuss opportunities for co-existence and to further understand each parties development.

Table 1: Other infrastructure within the Study Area

Infrastructure Type	Owner
Cement Pipeline	Cement Australia
Water Pipeline	Gladstone Area Water Board
Gas Pipeline	Jemena Queensland Gas Pipeline
	Origin APLNG
	Shell QCLNG
	Santos GLNG
Transmission Lines	Ergon
Network services	Nextgen NCC QLD
Water Treatment Facility	Gladstone Regional Council

#### 4.2.5 Flood Mapping

The Study Area falls within the Larcom Creek subcatchment of the Calliope River catchment. Whilst there is no flood hazard area mapped in the GRC Planning Scheme mapping<sup>1</sup> and Queensland government floodplain assessment overlay mapping<sup>2</sup>, Larcom Creek is subject to seasonal inundation along the floodplains during significant rainfall events<sup>3</sup>.

### 4.3 Natural Areas

#### 4.3.1 Protected Areas

There are no mapped protected areas within the Study Area.

#### 4.3.2 Topography

The Study Area includes flat to gently sloping plains, as well as steep hills and ranges. **APPENDIX** shows the topography, with flatter areas in purple and steeper terrain in green. The hills and ranges are mapped as steep land under the GRC Planning Scheme. These steep areas are concentrated in the central and eastern part of the

<sup>1</sup> Gladstone Regional Council, 2017, <https://maps.gladstone.qld.gov.au/html/?viewer=planningscheme>

<sup>2</sup> Queensland Government State Planning Policy IMS: <https://sppims-dams.dsdlgp.qld.gov.au/spp/?tab=layers&accordions=SAFETY+AND+RESILIENCE+TO+HAZARDS%2CNATURAL+HAZARDS+RISK+AND+RESILIENCE>

<sup>3</sup> Kellogg Brown & Root Pty Ltd, 2015, Flood Mapping for the Calliope River Basin prepared for the Department of Natural Resources and Mines. ([https://floodcheck.information.qld.gov.au/content/FloodplainMaps/Docs/GRC-Basin-753/Report/DNRM\\_Calliope\\_River\\_Basin\\_Flood\\_Report.pdf](https://floodcheck.information.qld.gov.au/content/FloodplainMaps/Docs/GRC-Basin-753/Report/DNRM_Calliope_River_Basin_Flood_Report.pdf))

Study Area. The steep rocky areas associated with the hills and ranges can present a challenge to project costs and constructability.

#### 4.3.3 Geological and Soil Factors

The Australian Soil Classification is the classification system used to describe and classify soils in Australia. A description of the soil type considered is provided below:

- Sodosols: are texture-contrast soils with extremely low permeable subsoils due to the concentration of sodium. This soil type often has a low-nutrient status and is highly vulnerable to erosion and dryland salinity when vegetation is removed.
- Vertosols: are the most common soil in Queensland. These soils display shrink-swell features and are known as cracking clay soils.

The Study Area is outside of the acid sulphate soils mapping zones, mapped as a low probability of occurrence<sup>4</sup> (refer to **APPENDIX B**).

#### 4.3.4 Hydrology

The Study Area falls within the Calliope River catchment, which encompasses an area of approximately 2,236 km<sup>2</sup> and is a mapped catchment for the Great Barrier Reef Marine Park. The southern portion of the Study Area intersects Farmers Creek, a watercourse defined under the *Water Act 2000* (Qld).

No other defined watercourses are mapped within the Study Area; however, numerous drainage features and unmapped watercourses (including Larcom Creek) are present.

Larcom Creek, encompassing an area of approximately 340km<sup>2</sup>, is a major tributary of Calliope River. It flows south-west and joins the Calliope River at Castlehope, approximately 4.8km south of the Study Area. Larcom Creek within the Study Area is characterised by a series of large waterholes connected by a series of smaller creeks.

Police Creek flows from the ranges east of the Study Area into Larcom Creek.

Farmer Creek is a minor tributary of the Calliope River with a catchment of approximately 50km<sup>2</sup>. It is characterised as an ephemeral creek with small unconnected freshwater pools.

Where waterways cannot be avoided, the proposed transmission line will aim to traverse areas that would result in the least possible impact, depending on span distance, access requirements, vegetation clearing, and water flow rates. The proposed transmission line is not otherwise expected to impact upon hydrology or the water quality of existing watercourses, as the infrastructure can be designed to span over constraints without the need to clear or disturb beds or banks. During the detailed design phase of works, the new transmission line should be sited through careful consideration of topography.

Qualified ecology consultant, E2M<sup>5</sup>, undertook a desktop ecological assessment to better inform about the environmental values and constraints within the study area. This information is summarised in the sections

---

<sup>4</sup> Department of Resources, 2023, Acid sulfate soil series, <https://www.qld.gov.au/environment/land/soil/>

<sup>5</sup> E2M, 2024, Preliminary Ecological Desktop Assessment Report: Scopes 1a and 1b. Milton QLD

below, along with relevant data from Commonwealth Protected Matters Searches, State and Local database searches.

#### 4.3.5 Vegetation Communities

The Study Area is located along the boundary of two bioregion areas, being the Brigalow Belt South and the South East Queensland Bioregion. The landscape is predominantly characterised by open woodlands of Eucalyptus species, interspersed with isolated patches of semi-evergreen vine thicket and extensive areas of non-native pasture grassland, historically cleared for grazing. Linear clearings are evident throughout the landscape, marking the development of gas pipelines and other infrastructure.

There are eight (8) Threatened Ecological Communities (TEC) listed as potentially present within the Study Area and the search buffer from the *Environment Protection and Biodiversity Act 1999* (Cwth) (EPBC Act) Protected Matters Search Tool (PMST) results.

The Queensland regional ecosystems (RE, mapped vegetation communities) identified in **Table 2** are known to align with the identified potential TEC. A regional ecosystem aligning with the Coolibah-Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions TEC is mapped within the PMST search area, however, the mapped RE is outside of the proposed corridor and it is considered unlikely that the TEC would be present within the corridor.

**Table 2: EPBC Act Listed threatened ecological communities<sup>6</sup>**

Common Name	Associated RE	Likelihood – Presence
Coolibah - Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions (Endangered)	11.3.3, 11.3.15, 11.3.16, 11.3.28, 11.3.27	Potential, 11.3.27f is mapped within the Study Area, north of the Gladstone Mount Larcom Rd on Larcom Creek.
Weeping Myall Woodlands (Endangered)	11.3.2	Unlikely, not mapped within the Study Area
Brigalow ( <i>Acacia harpophylla</i> dominant and co-dominant) (Endangered)	11.12.21, 11.3.1, 11.9.1, 11.9.5	Unlikely, not mapped within the Study Area
Poplar Box Grassy Woodland on Alluvial Plains (Endangered)	11.3.2	Unlikely, not mapped within the Study Area

<sup>6</sup> Department of Climate Change, Energy, the Environment and Water, 2025, Protected Matters Search Tool, <https://www.dcceew.gov.au/environment/epbc/protected-matters-search-tool>



Common Name	Associated RE	Likelihood – Presence
Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions (Endangered)	12.3.3, 12.3.3a, 12.3.3d, 12.3.19, 12.3.20, 12.3.10, 12.3.18	Unlikely, not mapped within the Study Area
Coastal Swamp Oak ( <i>Casuarina glauca</i> ) Forest of New South Wales and South East Queensland ecological community (Endangered)	12.1.1, 12.3.20	Unlikely, not mapped within the Study Area
Semi-evergreen vine thickets of the Brigalow Belt (North and South) and Nandewar Bioregions (Endangered)	11.3.11, 11.9.4a	Unlikely, not mapped within the Study Area
Lowland Rainforest of Subtropical Australia (Critically Endangered)	12.3.1, 12.5.13, 12.8.3, 12.8.4, 12.11.1, 12.11.10, 12.12.1, 12.12.16	Unlikely, not mapped within the Study Area

Regional Ecosystems (RE's) mapped under the *Vegetation Management Act 1999* (VM Act) for the study area are provided in **Table 3**. Further analysis is required via field survey to determine the extent of the RE's within the recommended corridor.

**Table 3 QLD Mapped Regional Ecosystems within the Study Area<sup>7</sup>**

Regional Ecosystem	VM Act Class	Short Description
<b>Category B (Remnant)</b>		
11.3.4	Of concern	<i>Eucalyptus tereticornis</i> and/or <i>Eucalyptus</i> spp. woodland on alluvial plains
11.3.26	Least concern	<i>Eucalyptus moluccana</i> or <i>E. microcarpa</i> woodland to open forest on margins of alluvial plains

<sup>7</sup> Queensland Biodiversity status of pre-clearing and 2021 remnant regional ecosystems - Queensland series.  
<https://www.qld.gov.au/environment/plants-animals/plants/ecosystems/about/>

Regional Ecosystem	VM Act Class	Short Description
11.7.6	Least concern	<i>Corymbia citriodora</i> or <i>Eucalyptus crebra</i> woodland on Cainozoic lateritic duricrust
11.11.4	Least concern	<i>Eucalyptus crebra</i> woodland on old sedimentary rocks with varying degrees of metamorphism and folding. Coastal ranges
Category C (high value regrowth) and Category R (reef-regrowth watercourse)		
11.3.4	Of concern	<i>Eucalyptus tereticornis</i> and/or <i>Eucalyptus</i> spp. woodland on alluvial plains
11.3.25	Least concern	<i>Eucalyptus tereticornis</i> or <i>E. camaldulensis</i> woodland fringing drainage lines
11.3.26	Least concern	<i>Eucalyptus moluccana</i> or <i>E. microcarpa</i> woodland to open forest on margins of alluvial plains
11.7.6	Least concern	<i>Corymbia citriodora</i> or <i>Eucalyptus crebra</i> woodland on Cainozoic lateritic duricrust
11.11.15	Least concern	<i>Eucalyptus crebra</i> woodland to open woodland on deformed and metamorphosed sediments and interbedded volcanics
11.12.1	Least concern	<i>Eucalyptus crebra</i> woodland on igneous rocks
Category X (non-remnant)		
Non-Remnant	N/A	Non-remnant

#### 4.3.5 Connectivity areas

MSES Connectivity Areas are defined under the Queensland *Environmental Offsets Regulation 2014* as areas of remnant vegetation required for ecosystem functioning. Within the Study Area, Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development (DNRMMRRD) mapping identifies approximately 94.65 ha of vegetation (remnant REs) considered to comprise the MSES Connectivity Area. The Study Area intersects a portion of the regional biodiversity riparian connectivity corridor associated with Larcom Creek<sup>8</sup>

#### 4.3.6 Flora

The flora and vegetation values known or likely to occur are provided in **Table 4**.

<sup>8</sup>E2M, 2024, Preliminary Ecological Desktop Assessment Report: Scopes 1a and 1b. Milton QLD

Table 4 Flora and vegetation values ‘known’ and ‘likely to occur’<sup>9</sup>

Value	Likelihood
<b>MSES Regulated Vegetation</b>	
<b>Category B (Remnant)</b>	Known
<b>Category C (high value regrowth)</b>	Known
<b>Category R (reef-regrowth watercourse)</b>	Known
<b>MSES / MNES Conservation significant species</b>	
<i>Cycas megacarpa</i>	Likely

There is one known protected plant (*Cycas megacarpa*) that is likely to occur within the Study Area. There are areas of protected plant trigger mapping in the northern section of the Study Area near Larcom Creek Substation and isolated patches associated with the hilly areas. Plants listed as special least concern under the *Nature Conservation Act 1992* (Qld) are also considered likely to occur, including Grass trees (*Xanthorrhoea* spp.) and Macrozamia (*Macrozamia* spp.). Special least concern is a category for species that are not currently threatened but are vulnerable to increasing pressure due to commercial or recreational demand.

There is Category B vegetation mapped in the northeast portion of the Study Area.

#### 4.3.7 Fauna

There are thirteen (13) conservation-significant fauna species that have been identified as likely to occur within the Study Area. These are provided in **Table 5**.

Table 5 Fauna Values ‘known’ and ‘likely to occur’

Fauna Value	EPBC Act Conservation Status	NCA Conservation Status	Likelihood
<b>Greater glider (south-eastern and southern)</b> <i>Petauroides armillatus</i> / <i>Petauroides volans</i>	Endangered	Endangered	Almost certain
<b>Koala</b> ( <i>Phascolarctos cinereus</i> )	Endangered	Endangered	Almost certain
<b>Yellow-bellied glider</b> ( <i>Petaurus australis australis</i> )	Vulnerable	Vulnerable	Almost certain
<b>Echidna</b>	-	Special least concern	Almost certain

<sup>9</sup> Adapted from Table 5 and Table 6 in E2M, 2024, Preliminary Ecological Desktop Assessment Report: Scopes 1a and 1b. Milton QLD

Fauna Value	EPBC Act Conservation Status	NCA Conservation Status	Likelihood
<i>Tachyglossus aculeatus</i>			
<b>Fork-tailed swift</b> <i>Apus pacificus</i>	Migratory	Special least concern	Almost certain
<b>Grey-headed flying-fox</b> <i>Pteropus poliocephalus</i>	Vulnerable	-	Almost certain
<b>Powerful owl</b> <i>Ninox strenua</i>	-	Vulnerable	Almost certain
<b>Satin flycatcher</b> <i>Myiagra cyanoleuca</i>	Migratory	Special least concern	Almost certain
<b>Squatter pigeon (southern)</b> <i>Geophaps scripta scripta</i>	Vulnerable	Vulnerable	Almost certain
<b>Tusked frog</b> <i>Adeotus bervis</i>	-	Vulnerable	Possible
<b>White-throated needletail</b> <i>Hirundapus caduceus</i>	Vulnerable, migratory	Vulnerable	Almost certain
<b>Latham's snipe</b> <i>Gallinago hardwickii</i>	Vulnerable	Vulnerable	Known
<b>Quoll</b> <i>Dasyurus hallucatus</i>	Endangered	Least concern	Likely

There is a high likelihood of habitat suitable for 3 of the 13 species being located within the Study Area:

- Greater glider (south-eastern and southern) (*Petauroides armillatus* / *Petauroides volans*);
- Koala (*Phascolarctos cinereus*); and
- Yellow-bellied glider (*Petaurus australis australis*).

The Northern Quoll (*Dasyurus hallucatus*) has been identified from community engagement as a species which has been sighted in the vicinity of the study area.

There are areas mapped as essential habitat under the VMA and MSES within the Study Area, particularly in the section north of the Bruce Highway. Where possible the corridor avoids mapped essential habitat that was mapped over remnant vegetation. There are some areas of essential habitat over Category C regrowth vegetation that were unable to be avoided.

- Essential habitat was mapped for the following species:
- Greater glider (south-eastern and southern) (*Petauroides armillatus* / *Petauroides volans*);
- Koala (*Phascolarctos cinereus*);
- Yellow-bellied glider (*Petaurus australis australis*); and
- Squatter pigeon (*Geophaps scripta scripta*).

#### 4.3.8 Fish Passage

Under the *Fisheries Act 1994* (QLD), a waterway barrier includes any structure, temporary or permanent, that restricts fish passage.

To manage impacts, all mapped Queensland waterways are assigned a fish passage attribute (1–5), shown by colours:

- Green (1) and Amber (2): Low to moderate risk, usually in upper catchments with smaller, stronger-swimming fish; and
- Red (3), Purple (4), and Grey (5): High to major risk, with larger, more diverse fish populations, including weaker swimmers.

The Study Area includes Larcom Creek, which is mapped as a purple (major risk) waterway, with one unnamed waterway mapped as red (high risk) to the north-west of Larcom Creek and another red waterway at the Bruce Highway intersection. Numerous low-risk (green) and moderate-risk (amber) creeks are mapped within the Study Area.

#### 4.3.9 Biosecurity

Biosecurity Zones are defined areas with specific movement restrictions to manage the spread of pests and diseases. The *Biosecurity Act 2014* (Qld) provides the framework for establishing and managing these zones. The Study Area is mapped as being within the following biosecurity zones:

- Sugar cane biosecurity zone 4;
- Cattle tick infestation; and
- State grape phylloxera risk zone.

There are a number of weed species that are prevalent within the Gladstone region that will be of concern to this project. Feral animals or invasive pest animals pose economic, environmental and social threats to the Gladstone Region.

#### 4.4 Visual amenity

There is one dwelling mapped within the Study Area, this is associated with Euroa homestead local heritage listing, which involves the homestead, caretaker's cottage and associated structures. The transmission line will be visible from both the Gladstone Mt Larcom Road and the Bruce Highway, both of which are high traffic areas.

The proposed transmission lines within the corridor will be visible from the Mt Larcom Lookout, which is a popular tourist destination in the region. As development progresses across the broader GSDA the transmission lines will integrate into the views from the lookout, which are currently a mix of industrial and natural vistas.

The proposed transmission lines do not intersect areas mapped on the scenic amenities overlay under the *Gladstone Regional Council Planning Scheme 2015* (GRC Planning Scheme).

#### 4.5 Heritage

##### 4.5.1 Local, State and Commonwealth Heritage

The GRC Planning Scheme<sup>10</sup> has two heritage sites in the vicinity of the Study Area, as summarised below:

- Mount Larcom homestead original site.
- Euroa Homestead.

There are no Queensland or Commonwealth heritage-listed matters in the vicinity of the Study Area

##### 4.5.2 Cultural Heritage

The Study Area falls within the traditional lands of the FNBGGGTB. Searches of the Queensland Cultural Heritage register<sup>11</sup> shows two (2) sites recorded within the corridor with the listed sites shown in **APPENDIX B**.

There is potential for further or residual Indigenous historical and cultural sites to be discovered within the Project area. Consultation with FNBGGGTB people and Cultural Heritage field surveys are to be undertaken once the final corridor is confirmed.

#### 4.6 Transport and Traffic

The Study Area intersects a number of state-controlled roads, local government-controlled roads and rail corridors.

##### 4.6.1 State-controlled roads

The Corridor is intersected by the Bruce Highway in the south and by Gladstone–Mt Larcom Road in the north.

##### 4.6.2 Local government roads

The Study Area traverses a number of named and unnamed local government roads including the Mount Alma Road and the Aldoga Road (formed and unformed).

<sup>10</sup> Gladstone Regional Council, 2017, Gladstone Regional Council Planning Scheme <https://www.grcplanningscheme.com.au/>

<sup>11</sup> Department of Seniors, Disability Services and Aboriginal and Torres Strait Islander Partnerships, 2021, Cultural Heritage Database and Register <https://www.culturalheritage.qld.gov.au/achris/public/application-for-advice/home>

#### 4.6.3 Rail lines

In the northern part of the Study Area, the Blackwater Rail Line (East-end Balloon Loop) and the North Coast Rail Line (Brisbane to Cairns) intersect the corridor. The approved but not yet constructed Moura Link Aldoga Project also traverses the corridor near the Bruce Highway. Given the close proximity of the Moura Link project corridor to the Bruce Highway, the area east of the highway was assessed as too constrained to accommodate a new transmission corridor.

#### 4.6.4 Airport

The Study Area is located outside the Gladstone Airport's buffer areas. There are no mapped aviation building restrictions within the Study Area.

#### 4.6.5 Bushfire Hazard

Parts of the Study Area are mapped as Very High, High, and Medium Potential Bushfire Intensity under the Queensland State Planning Policy Bushfire Prone Area mapping. These areas also include a standard 100-metre buffer known as the Potential Impact Buffer. Together, these zones are referred to as the Bushfire Prone Area.

Where possible, the corridor has been located to avoid areas of dense vegetation to minimise exposure to higher bushfire risk zones.

### 5.0 Recommended Corridor

Social, environmental and economic constraints and opportunities were considered when identifying the recommended corridor. Based on the desktop assessment and preliminary investigations of the Study Area, the following opportunities and constraints were considered:

- Powerlink's existing transmission infrastructure, easements and owned land;
- location of residential dwellings and associated structures e.g. sheds;
- existing and proposed land use (associated with the GSDA);
- watercourses and flood plains associated with Larcom Creek;
- presence of areas of high environmental value, remnant vegetation and TECs;
- existing and proposed infrastructure;
- topography;
- soils and soil erosivity; and
- Heritage and Cultural Heritage values.

#### 5.1 Key Findings

The recommended corridor seeks to connect the proposed Gladstone West Substation by securing a small section of additional 60m wide easement to form a corridor (approximately 5km in length) that abuts the proposed substation, then heads north, north-west until it intersects Powerlink's existing vacant easements. The existing vacant easements (approximately 10km in length) then forms the remainder of the recommended corridor connecting into the Larcom Creek Substation. The existing vacant easements are wide enough to accommodate the proposed line.

The recommended corridor seeks to:

- maximise use of the largest section of existing vacant easement, helping reduce time, costs, and community disruption compared to a new greenfield corridor;
- meet Powerlink's immediate needs and can accommodate the proposed 275kV double circuit transmission line;
- avoid unnecessary crossings of major infrastructure and sensitive areas;
- avoid conflict with future development plans within the GSDA;
- present the lowest overall social, environmental and economic impacts on balance; and
- avoid steep terrain, reducing construction costs.

**Table 6** summarises the key findings of the corridor assessment.

**Table 6: Corridor selection criteria**

Criteria	Measure	Corridor
<b>Social</b> To consider the use of land and community livelihood within and adjacent to the Recommended Corridor		
<b>Criteria 1:</b> Tenure and zoning	Number land parcels intersected	29
	Number of landholders	8
	Number of residential dwellings intersected	0
	Number of planning schemes or overlays impacted i.e. GDSA etc	4
<b>Environment</b> To consider a balanced approach to corridor selection with the least practicable impact on environment and heritage values.		
<b>Criteria 4:</b> Heritage Values	Number of sites on Cultural Heritage register	2
<b>Criteria 5:</b> Vegetation and protected areas	Protected plant trigger mapping	30 ha
	Area of remnant Of Concern regional ecosystems	1.68 ha
	Area of regrowth Of Concern regional ecosystems	130 ha
	Area of remnant Least Concern regional ecosystems	0 ha

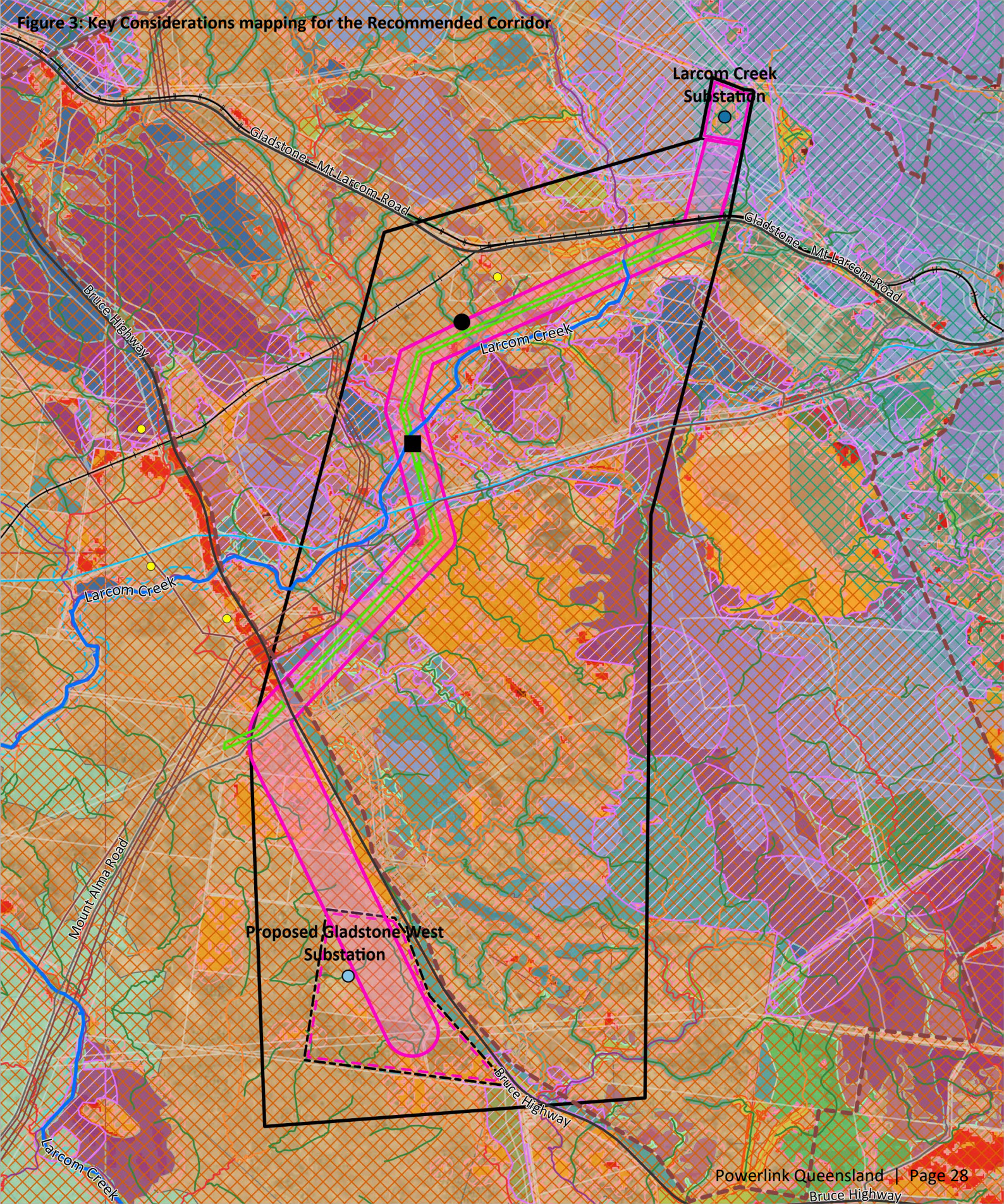


Criteria	Measure	Corridor
	Area of regrowth Least Concern regional ecosystems	22.4 ha
<b>Criteria 7: Fauna Values</b>	Area of Essential habitat VMA / MSES (Remnant)	1.7 ha
	Area of Essential habitat VMA / MSES (Regrowth)	58 ha
	Area of MSES habitat (Special Least Concern)	37.1 ha
<b>Economic</b> To consider construction and operational factors such as cost at a preliminary level, given the scale of the project.		
<b>Criteria 8: Corridor length</b>	Length of corridor	14.5 km
<b>Criteria 9: Slope</b>	Area of corridor with slope 10-20%	2.7 ha
<b>Criteria 10: Existing infrastructure</b>	Number of electricity distribution transmission line (i.e. Ergon Energy) crossings	3
	Number of formed State / local road crossings	3
	Number of existing / proposed rail corridor crossings	2
	Number of gas / other pipeline crossings	3
<b>Criteria 11: Powerlink easements</b>	Existing Powerlink easement available to meet immediate need (275 kV requiring minimum easement width of 60 m)	9.5 km
<b>Criteria 12: Other easements</b>	Number of non-Powerlink easements intersected	4

**Figure 3** shows the key constraints mapped within proximity to the corridor.



Figure 3: Key Considerations mapping for the Recommended Corridor



- |  |                        |  |                                    |                                  |                             |
|--|------------------------|--|------------------------------------|----------------------------------|-----------------------------|
| Existing Substation                                  | Reg veg - cat A        | Protected flora trigger area           | Acid sulfate soil - Extremely low  | Flood mapping                    | Moura - Aldoga link railway |
| Proposed Gladstone West Substation                   | Reg veg - cat B        | Essential habitat                      | Acid sulfate soil - Low            | Water pipelines                  | Railway line                |
| Study area   | Reg veg - cat C        | High potential bushfire intensity      | Acid sulfate soil - High           | Gas pipelines                    | Isolated Find               |
| Recommended corridor                                 | Reg veg - cat R        | Medium potential bushfire intensity    | Sodosol                            | Watercourse                      | Scarred/Carved Tree         |
| Existing transmission easement                       | Reg veg - cat X        | Potential impact buffer                | Tenosol                            | Fish passage 1 - low impact      | Dwellings                   |
| Proposed Gladstone West Substation property boundary | Non-remnant            | Very high potential bushfire intensity | Gladstone State Development Area   | Fish passage 2 - moderate impact | Corridor buffers            |
| Larcom Creek Substation property boundary            | Endangered subdominant |  | Gladstone water treatment facility | Fish passage 3 - high impact     | Land parcel                 |
|  | Endangered dominant    |  |                                    | Fish passage 4 - assessable      | State controlled road       |
|  | Of concern subdominant |  |                                    |                                  | Local road                  |
|  | Of concern dominant    |  |                                    |                                  |                             |
|  | Of least concern       |  |                                    |                                  |                             |



## 6.0 Legislative and Approval Requirements

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);
- 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.

## 7.0 Next Steps

Further desktop and field studies will be carried out to better understand potential impacts during both the construction and operation of the Project. These investigations will build on the considerations outlined in this report and help identify the approvals needed for the final alignment.

As the corridor is finalised, Powerlink will continue to focus on avoiding or minimising impacts on landholders, the community, the environment, cultural heritage, and development areas. This will be achieved through careful design measures such as strategic tower placement, responsible construction practices, and operational management.

### 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:** Work with Landholders to understand their land use and access requirements in order to 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.

**Heritage Assessments:** Work with the Traditional Owner group 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 required to 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:** Property surveys may be required to confirm the exact location of the existing easement boundaries.

**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.

## 8.0 Have your say

General feedback will be sought on this Draft CSR from existing landholders, community, Traditional Owners and broader stakeholders. Feedback will continue to be sought throughout the Project, as technical studies and project planning and approval processes continue. Engagement will be guided by the following goals:

- communicate clearly and regularly;
- facilitate informed input; and
- show how feedback has been considered in the planning process.

Engagement will be undertaken through both:

1. ongoing responsive engagement (to respond to stakeholder questions); and
2. planned engagement activities, to explain and gain feedback about project milestones.

Powerlink will also comply with the engagement requirements of formal planning and approval processes undertaken, which may include supporting formal submission periods undertaken by the government.

Throughout the Project, Powerlink welcomes feedback 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, 7.30am – 5pm)

## APPENDIX A

### Acronyms

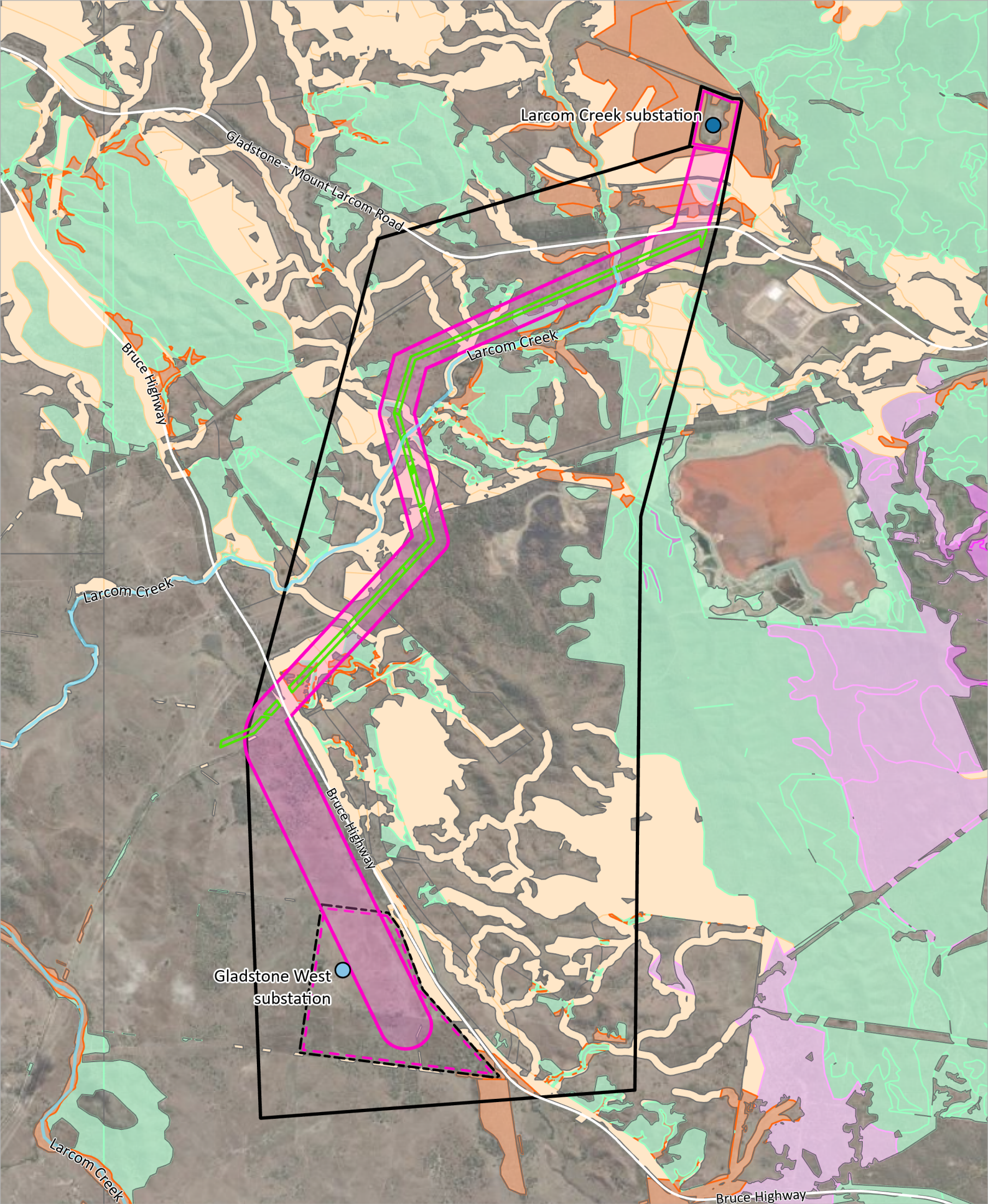
Acronym	Meaning
<b>CHMP</b>	Cultural heritage management plan
<b>CQG</b>	CQ Environmental Pty Ltd T/A CQG Consulting
<b>Cwth</b>	Commonwealth
<b>DCCEEW</b>	Department of Climate Change, Energy, the Environment and Water
<b>DETSI</b>	Department of Environment, Tourism, Science, and Innovation
<b>DNRMMRRD</b>	Department of Natural Resources, Mines, Manufacturing and Rural and Regional Development
<b>DTMR</b>	Department of Transport and Main Roads
<b>DWATSIPM</b>	Department of Women, Aboriginal and Torres Strait Islander Partnerships and Multiculturalism
<b>E2M</b>	E2M Environmental Consultants
<b>EO Act</b>	<i>Environmental Offsets Act 2014 (Qld)</i>
<b>EP Act</b>	<i>Environmental Protection Act 1994 (Qld)</i>
<b>EPBC Act</b>	<i>Environment Protection and Biodiversity Conservation Act 1999 (Cwth)</i>
<b>Ergon Energy</b>	Energy Queensland
<b>FNBGGGTB</b>	First Nations Bailai, Gurang, Gooreng Gooreng, Taribelang, Bunda People
<b>GPC</b>	Gladstone Ports Corporation
<b>GRC</b>	Gladstone Regional Council
<b>GSDA</b>	Gladstone State Development Area
<b>ha</b>	Hectare
<b>km</b>	Kilometre
<b>kV</b>	Kilovolts

Acronym	Meaning
<b>LGA</b>	Local government area
<b>m</b>	metres
<b>MID</b>	Ministerial Infrastructure Designation
<b>MNES</b>	Matters of National Environmental Significance
<b>MSES</b>	Matters of State Environmental Significance
<b>OCG</b>	Office of the Coordinator-General
<b>Planning Act</b>	<i>Planning Act 2016 (Qld)</i>
<b>PMST</b>	Protected Matters Search Tool
<b>Powerlink</b>	Powerlink Queensland
<b>QGC</b>	Shell, formerly Queensland Gas Company
<b>Qld</b>	Queensland
<b>RE</b>	Regional Ecosystem
<b>SDA</b>	State Development Area
<b>SMP</b>	Species Management Program
<b>SRI</b>	Significant residual impacts
<b>Study Area</b>	Area nominated by Powerlink to be investigated for corridor
<b>TECs</b>	Threatened Ecological Communities
<b>VM Act</b>	<i>Vegetation Management Act 1999 (Qld)</i>

## APPENDIX B

### Constraints Maps

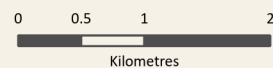




Legend

- |  |                      |  |                                    |  |                        |
|--|----------------------|--|------------------------------------|--|------------------------|
|  | Existing substation  |  | Proposed Gladstone West substation |  | Endangered dominant    |
|  | Proposed substation  |  | Larcom Creek substation            |  | Of concern subdominant |
|  | Road                 |  | Existing transmission easement     |  | Of concern dominant    |
|  | Watercourse          |  | Non-remnant                        |  | Of least concern       |
|  | Study area           |  | Endangered subdominant             |  |                        |
|  | Recommended corridor |  |                                    |  |                        |

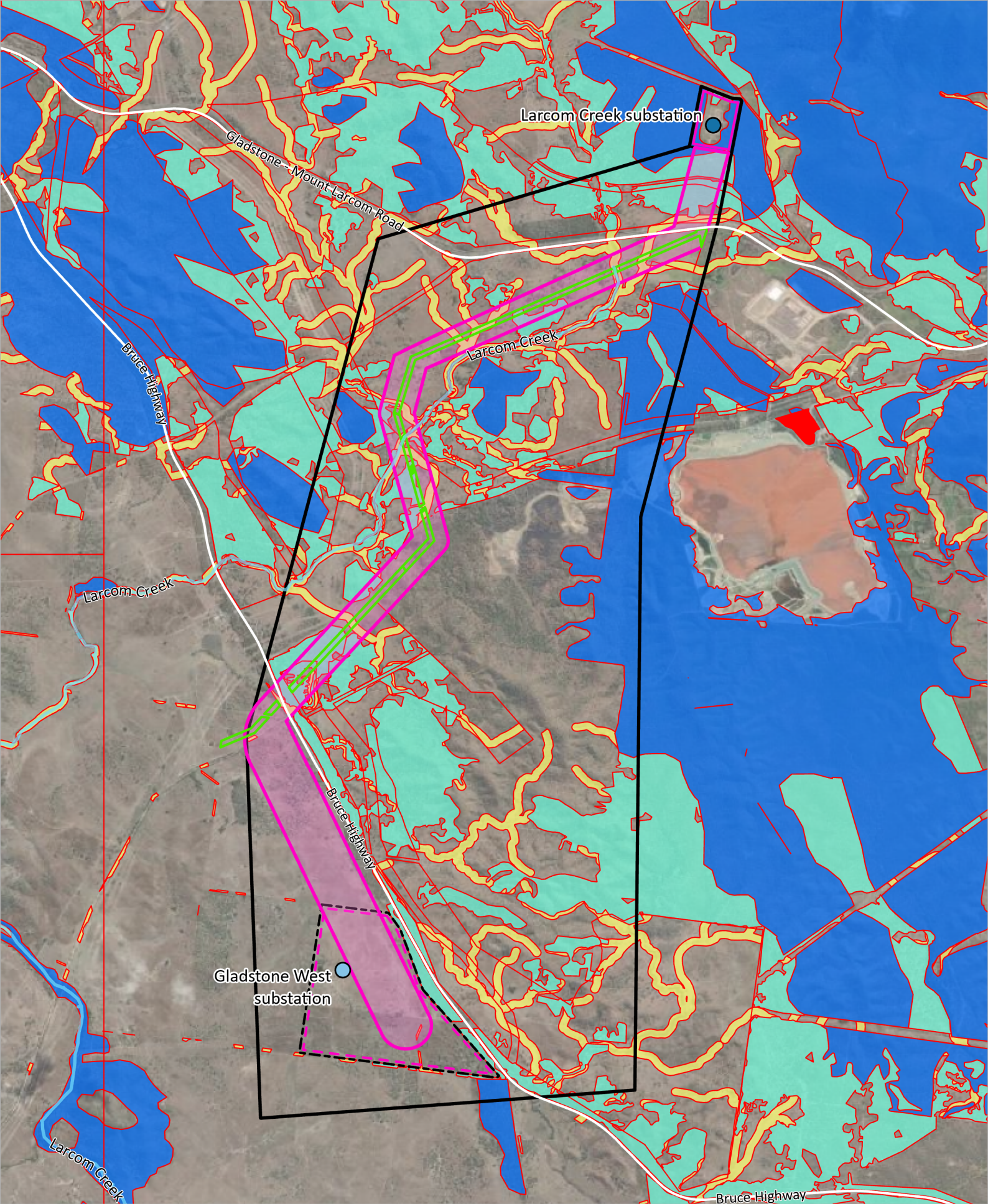
### Regional ecosystem



Scale @ A4 : 1:60,000  
Datum: GDA2020

© 2025 Powerlink Queensland  
Powerlink has provided this information as a general reference source only and not for any other purpose. Powerlink makes no representation and gives no warranty about the accuracy, reliability, completeness or suitability for any particular purpose of the information. It is not to be reproduced or copied without the expressed permission of Powerlink Queensland.





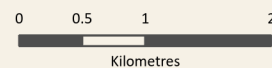
Legend

- Existing substation
- Proposed substation
- Road
- Watercourse
- Study area

- Recommended corridor
- Proposed Gladstone West substation
- Larcom Creek substation
- Existing transmission easement

- Category A
- Category B
- Category C
- Category R
- Category X

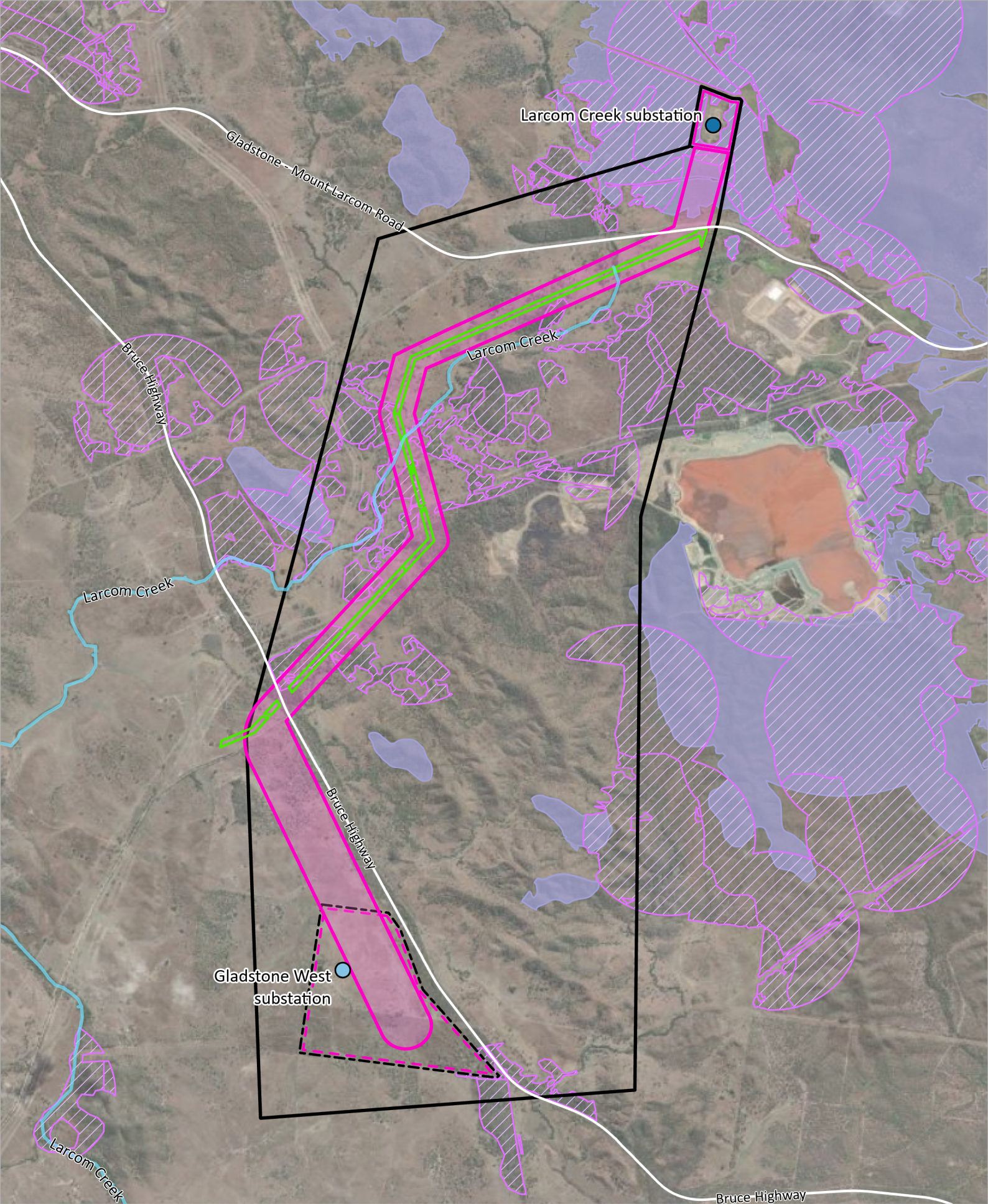
## Regulated vegetation







Scale @ A4 : 1:60,000  
Datum: GDA2020





© 2025 Powerlink Queensland  
Powerlink has provided this information as a general reference source only and not for any other purpose. Powerlink makes no representation and gives no warranty about the accuracy, reliability, completeness or suitability for any particular purpose of the information. It is not to be reproduced or copied without the expressed permission of Powerlink Queensland.








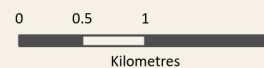
Legend

-  Existing substation
-  Proposed substation
-  Road
-  Watercourse

-  Study area
-  Recommended corridor
-  Proposed Gladstone West substation
-  Larcom Creek substation

-  Existing transmission easement
-  Protected flora trigger area
-  Essential habitat

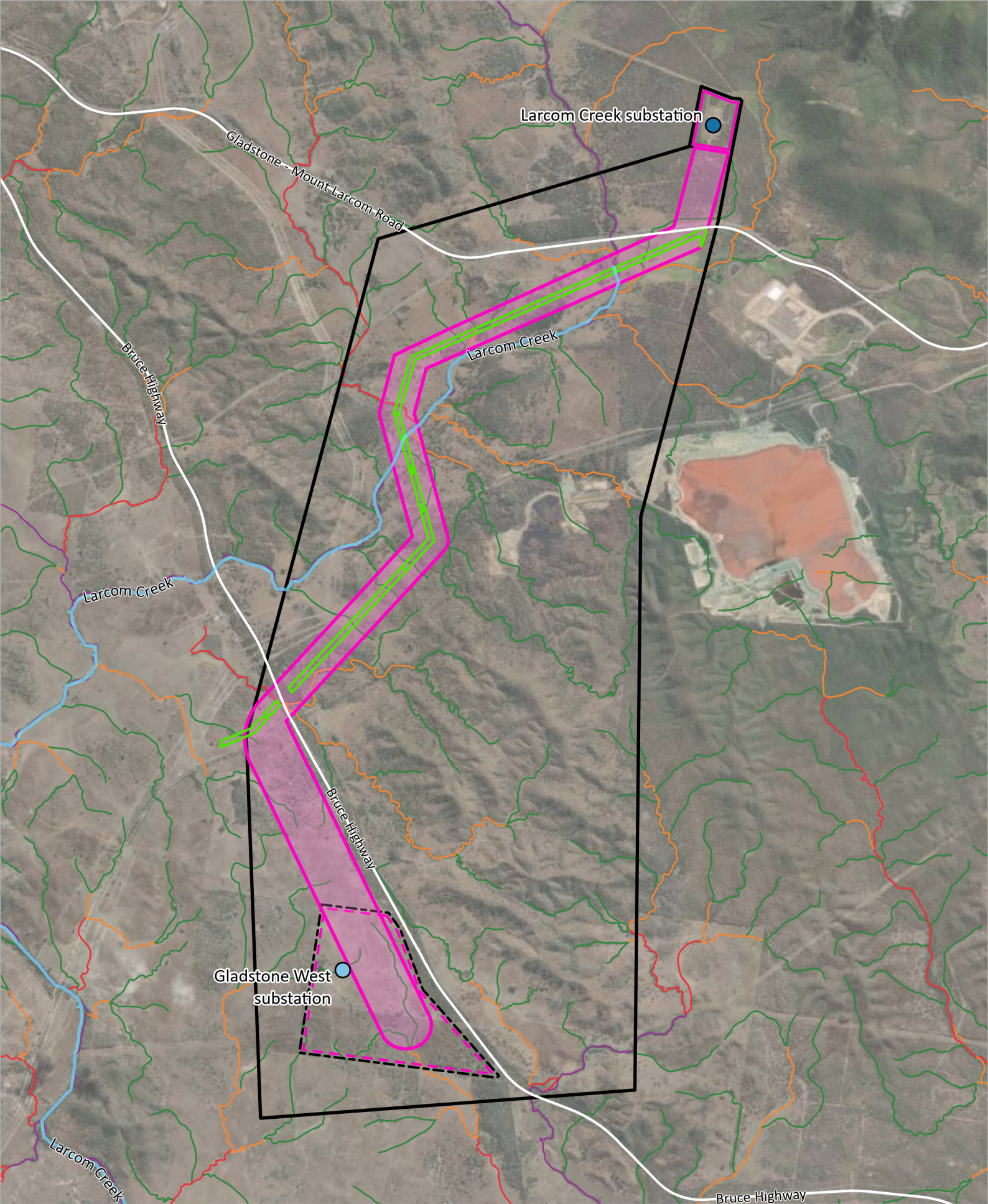
### Protected flora & essential habitat



  
Scale @ A4 : 1:60,000  
Datum: GDA2020

© 2025 Powerlink Queensland  
Powerlink has provided this information as a general reference source only and not for any other purpose. Powerlink makes no representation and gives no warranty about the accuracy, reliability, completeness or suitability for any particular purpose of the information. It is not to be reproduced or copied without the expressed permission of Powerlink Queensland.





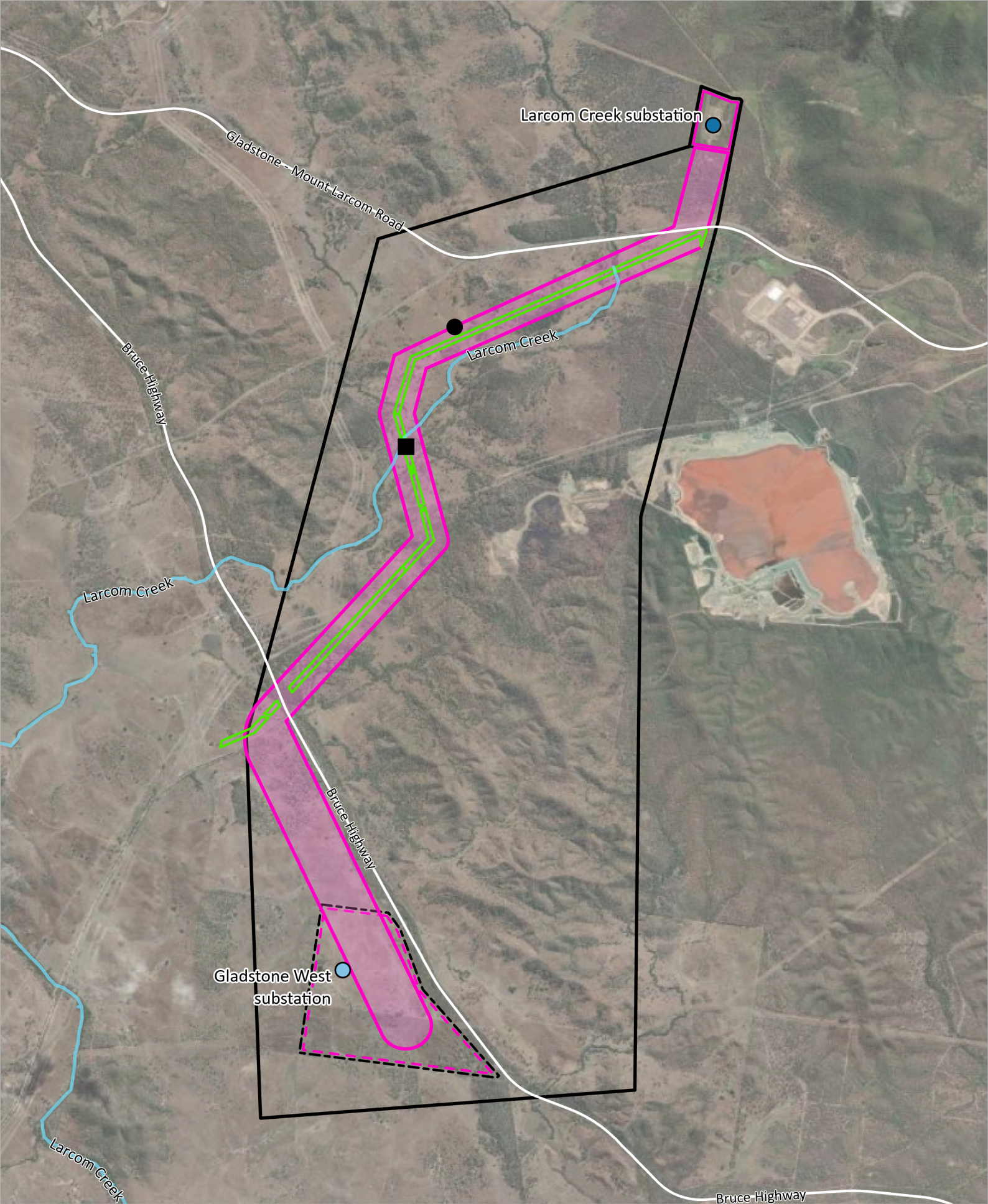
## Waterway barrier works



Scale @ A4 : 1:60,000  
Datum: GDA2020

© 2025 Powerlink Queensland  
Powerlink has provided this information as a general reference source only and not for any other purpose. Powerlink makes no representation and gives no warranty about the accuracy, reliability, completeness or suitability for any particular purpose of the information. It is not to be reproduced or copied without the expressed permission of Powerlink Queensland.





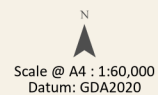
Legend

- Existing substation
- Proposed substation
- Isolated Find
- Scarred/Carved Tree

- ~ Road
- ~ Watercourse
- Study area
- Recommended corridor

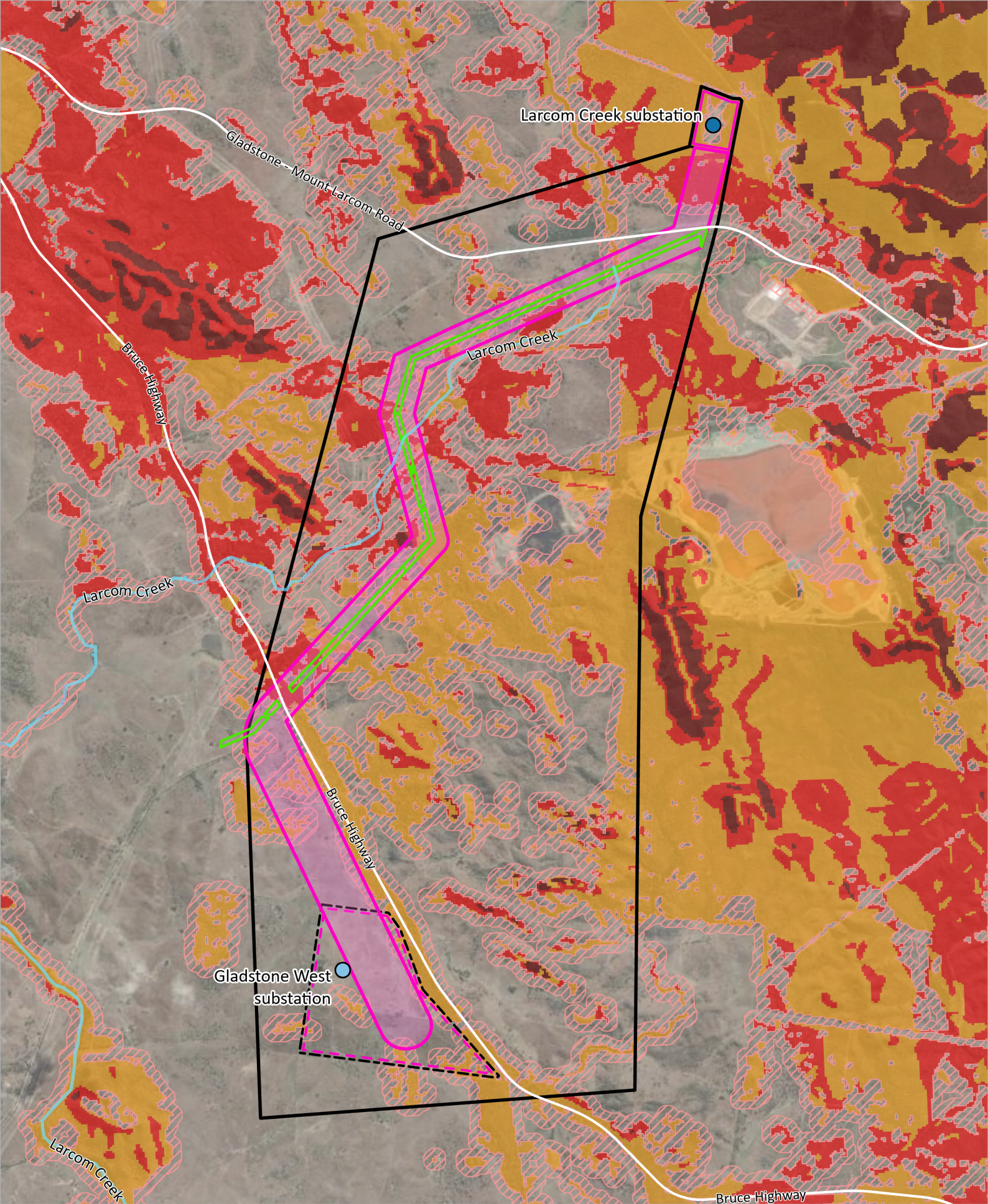
- Proposed Gladstone West substation
- Larcom Creek substation
- Existing transmission easement

## Heritage












© 2025 Powerlink Queensland  
Powerlink has provided this information as a general reference source only and not for any other purpose. Powerlink makes no representation and gives no warranty about the accuracy, reliability, completeness or suitability for any particular purpose of the information. It is not to be reproduced or copied without the expressed permission of Powerlink Queensland.






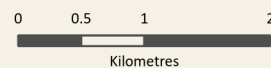
Legend

-  Existing substation
-  Proposed substation
-  Road
-  Watercourse
-  Study area

-  Recommended corridor
-  Proposed Gladstone West substation
-  Larcom Creek substation
-  Existing transmission easement

-  High potential bushfire intensity
-  Medium potential bushfire intensity
-  Potential impact buffer
-  Very high potential bushfire intensity

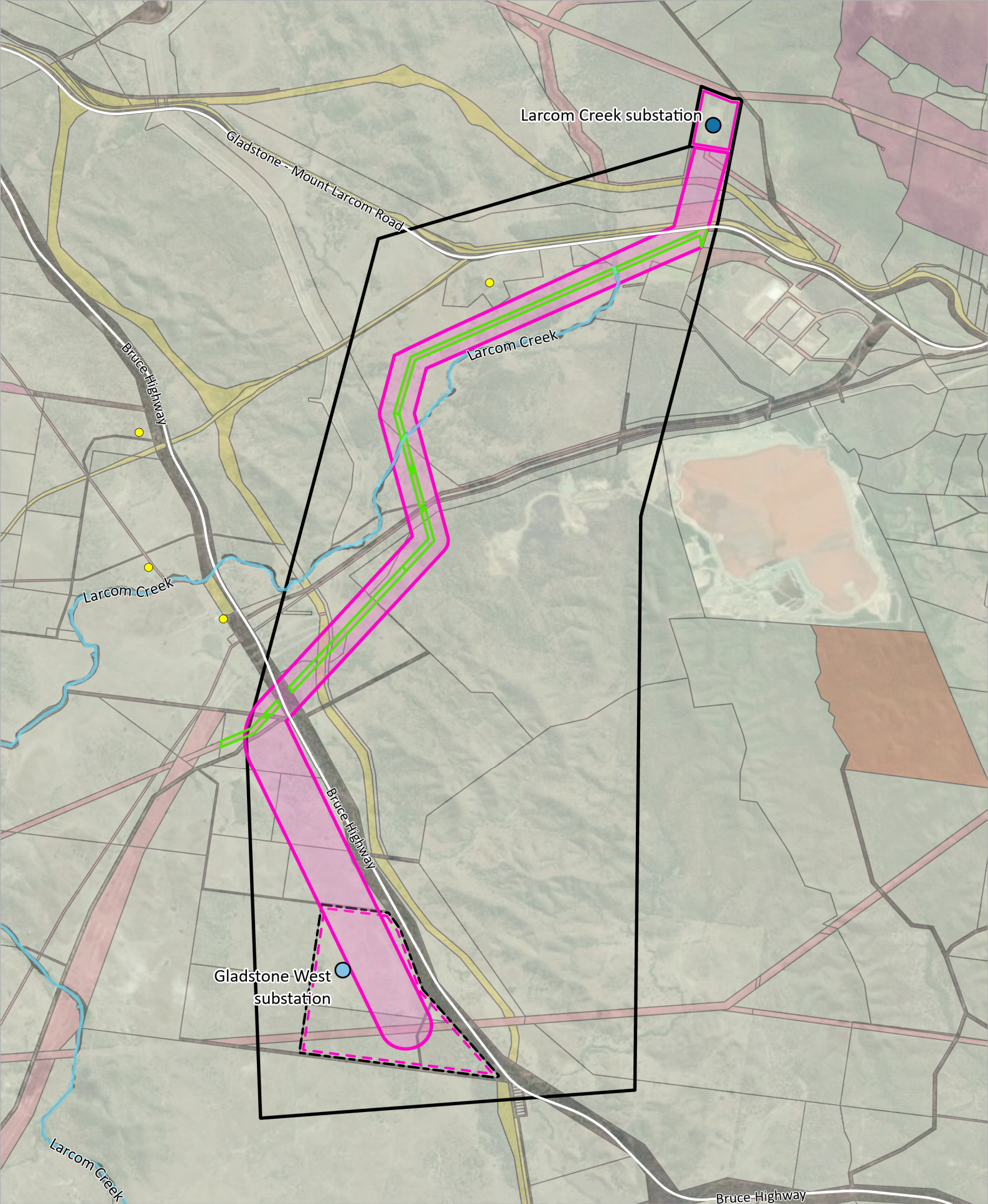
## Bushfire zones



Scale @ A4 : 1:60,000  
Datum: GDA2020

© 2025 Powerlink Queensland  
Powerlink has provided this information as a general reference source only and not for any other purpose. Powerlink makes no representation and gives no warranty about the accuracy, reliability, completeness or suitability for any particular purpose of the information. It is not to be reproduced or copied without the expressed permission of Powerlink Queensland.

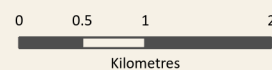




Legend

- |  |                     |  |                                    |  |            |
|--|---------------------|--|------------------------------------|--|------------|
|  | Existing substation |  | Recommended corridor               |  | Land Lease |
|  | Proposed substation |  | Proposed Gladstone West substation |  | Easement   |
|  | Dwellings           |  | Larcom Creek substation            |  | Reserve    |
|  | Road                |  | Existing transmission easement     |  | State Land |
|  | Watercourse         |  | Freehold                           |  |            |
|  | Study area          |  |                                    |  |            |

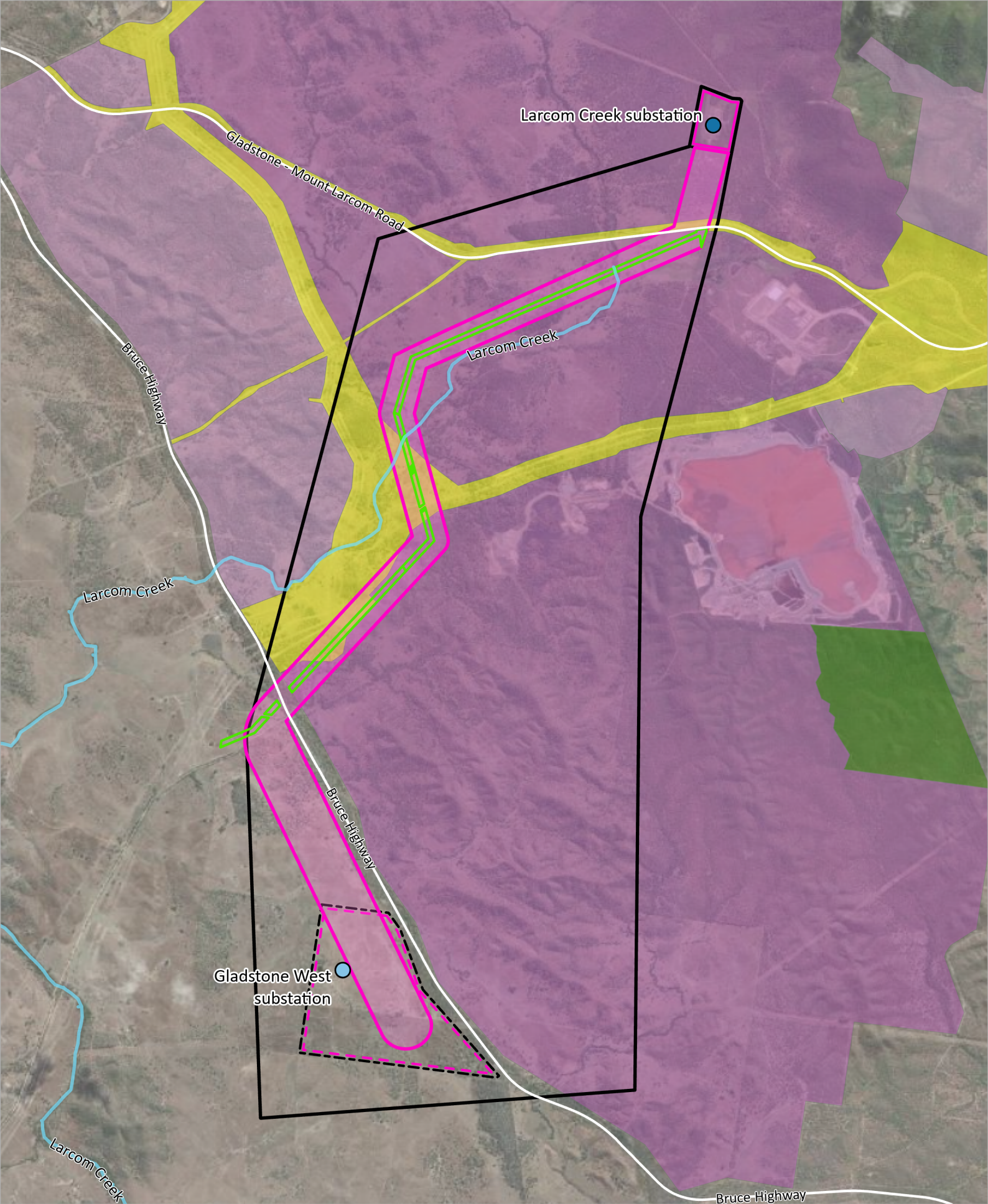
## Landuse



Scale @ A4 : 1:60,000  
Datum: GDA2020

© 2025 Powerlink Queensland  
Powerlink has provided this information as a general reference source only and not for any other purpose. Powerlink makes no representation and gives no warranty about the accuracy, reliability, completeness or suitability for any particular purpose of the information. It is not to be reproduced or copied without the expressed permission of Powerlink Queensland.





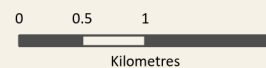
Legend

- Existing substation
- Proposed substation
- Road
- Watercourse
- Study area

- Recommended corridor
- Proposed Gladstone West substation
- Larcom Creek substation
- Existing transmission easement

- Environmental Management Precinct
- High Impact Industry Precinct
- Materials Transportation and Services Corridor Precinct
- Medium Impact Industry Precinct

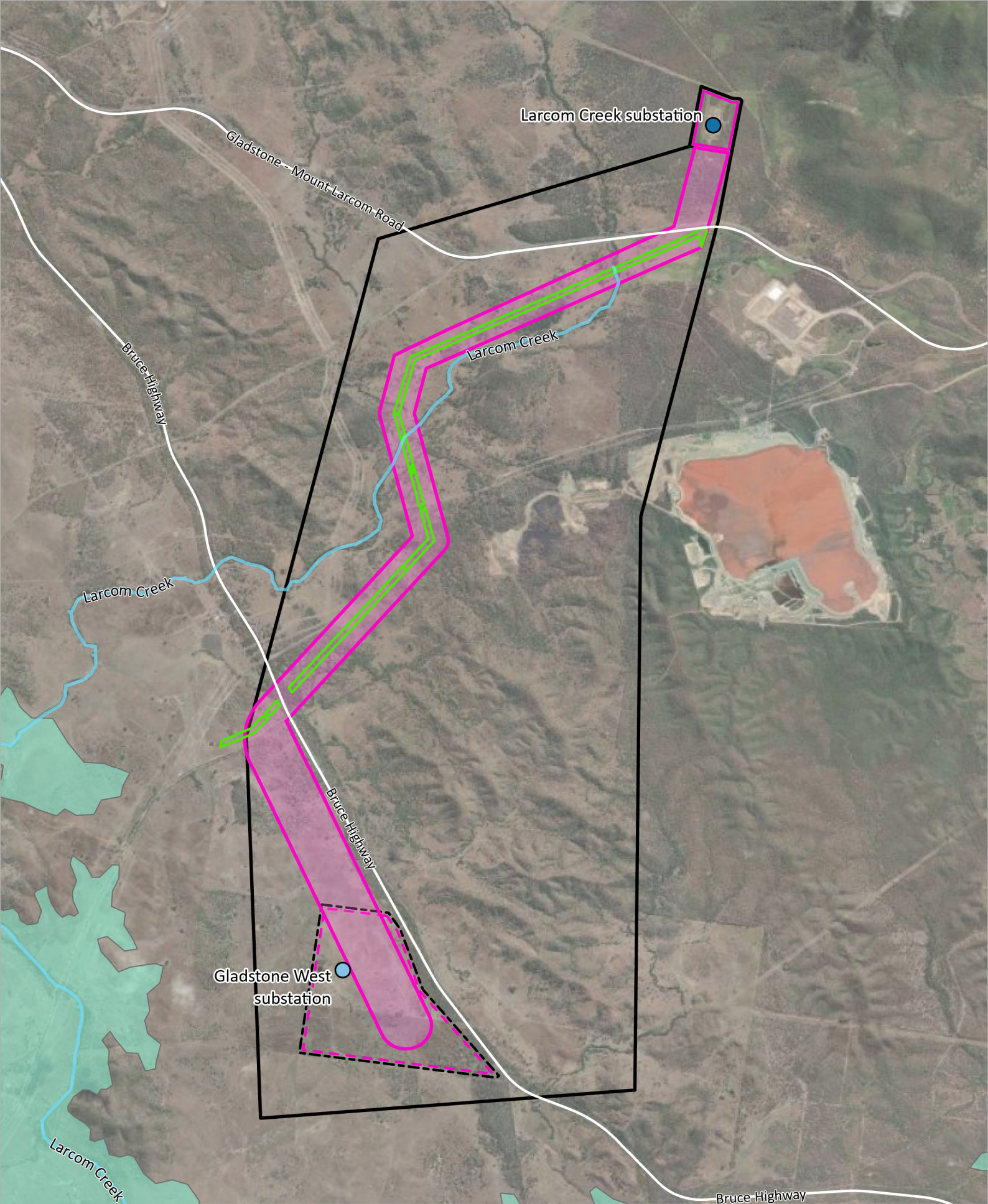
### GSDA with precincts



Scale @ A4 : 1:60,000  
Datum: GDA2020

© 2025 Powerlink Queensland  
Powerlink has provided this information as a general reference source only and not for any other purpose. Powerlink makes no representation and gives no warranty about the accuracy, reliability, completeness or suitability for any particular purpose of the information. It is not to be reproduced or copied without the expressed permission of Powerlink Queensland.





Legend

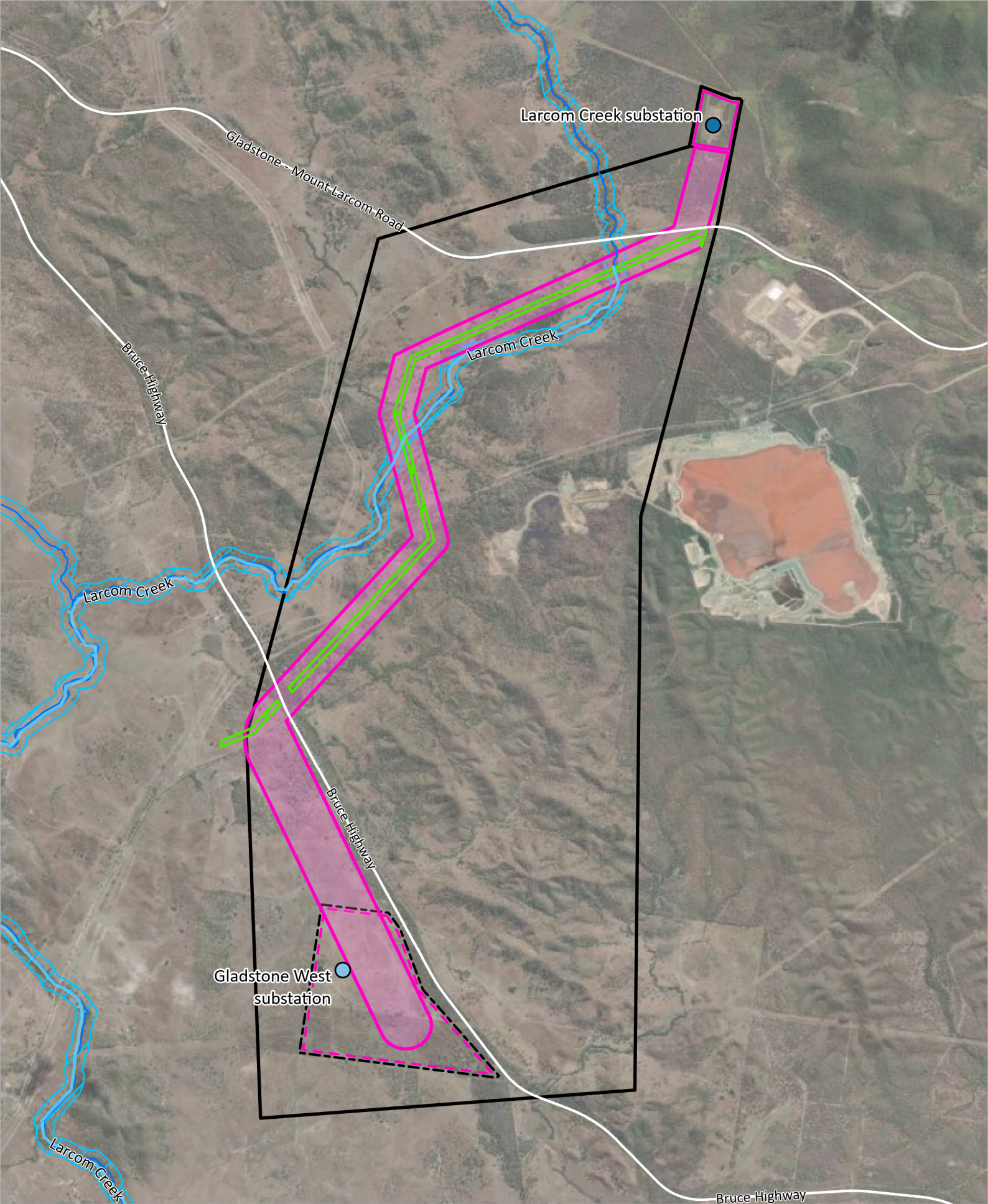
- |  |                      |  |                                    |
|--|----------------------|--|------------------------------------|
|  | Existing substation  |  | Proposed Gladstone West substation |
|  | Proposed substation  |  | Larcom Creek substation            |
|  | Road                 |  | Existing transmission easement     |
|  | Watercourse          |  | Flood mapping                      |
|  | Study area           |  |                                    |
|  | Recommended corridor |  |                                    |

Waterways & flood mapping



© 2025 Powerlink Queensland  
Powerlink has provided this information as a general reference source only and not for any other purpose. Powerlink makes no representation and gives no warranty about the accuracy, reliability, completeness or suitability for any particular purpose of the information. It is not to be reproduced or copied without the expressed permission of Powerlink Queensland.





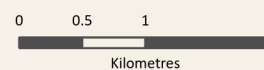
Legend

- Existing substation
- Proposed substation
- Road
- Watercourse

- Study area
- Recommended corridor
- Proposed Gladstone West substation
- Larcom Creek substation

- Existing transmission easement
- Corridor buffers
- Riparian centrelines

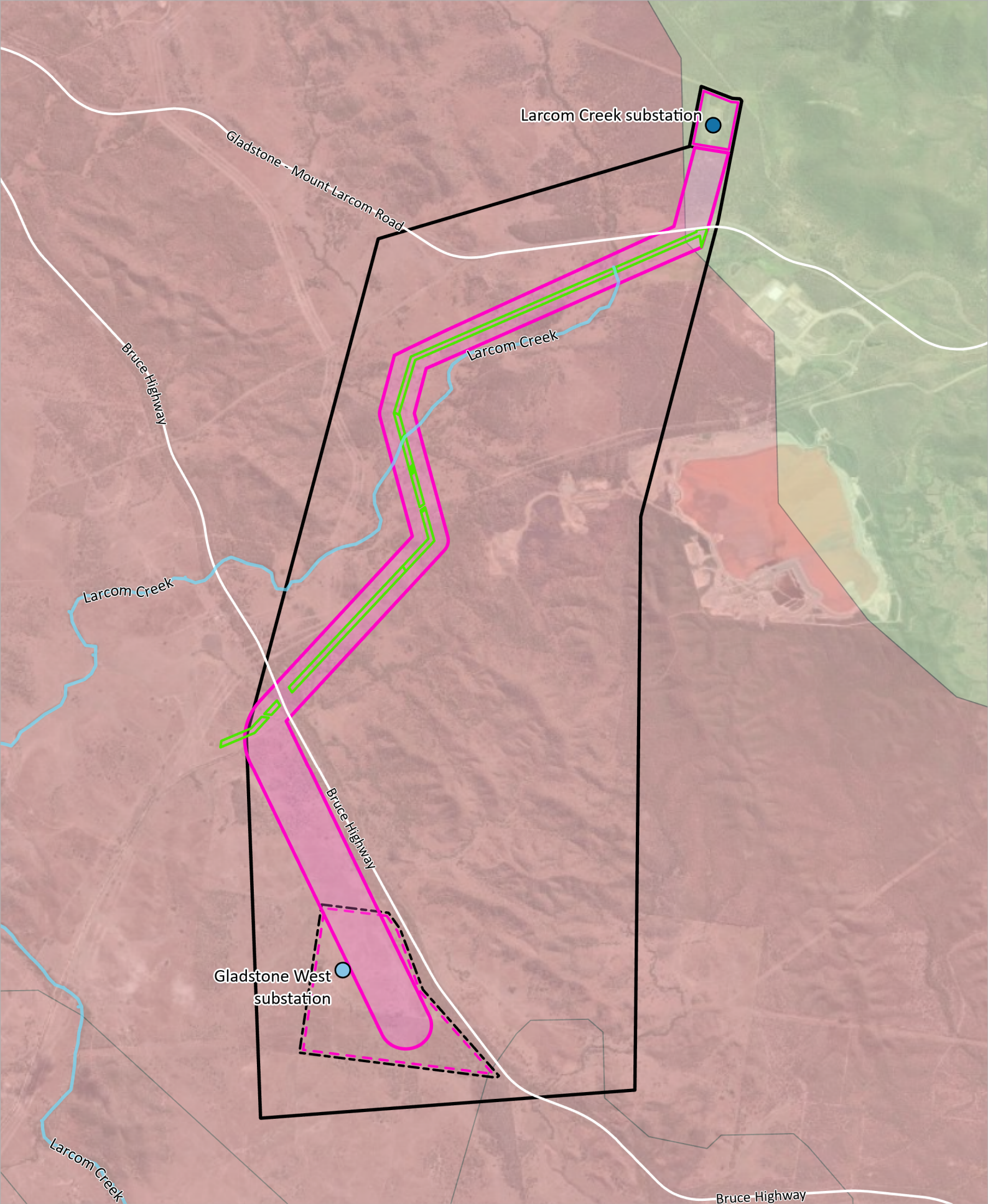
### State corridor & protected areas







Scale @ A4 : 1:60,000  
Datum: GDA2020





© 2025 Powerlink Queensland  
Powerlink has provided this information as a general reference source only and not for any other purpose. Powerlink makes no representation and gives no warranty about the accuracy, reliability, completeness or suitability for any particular purpose of the information. It is not to be reproduced or copied without the expressed permission of Powerlink Queensland.








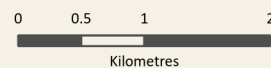
Legend

-  Existing substation
-  Proposed substation
-  Road
-  Watercourse

-  Study area
-  Recommended corridor
-  Proposed Gladstone West substation
-  Larcom Creek substation

-  Existing transmission easement
-  Sodosol
-  Tenosol

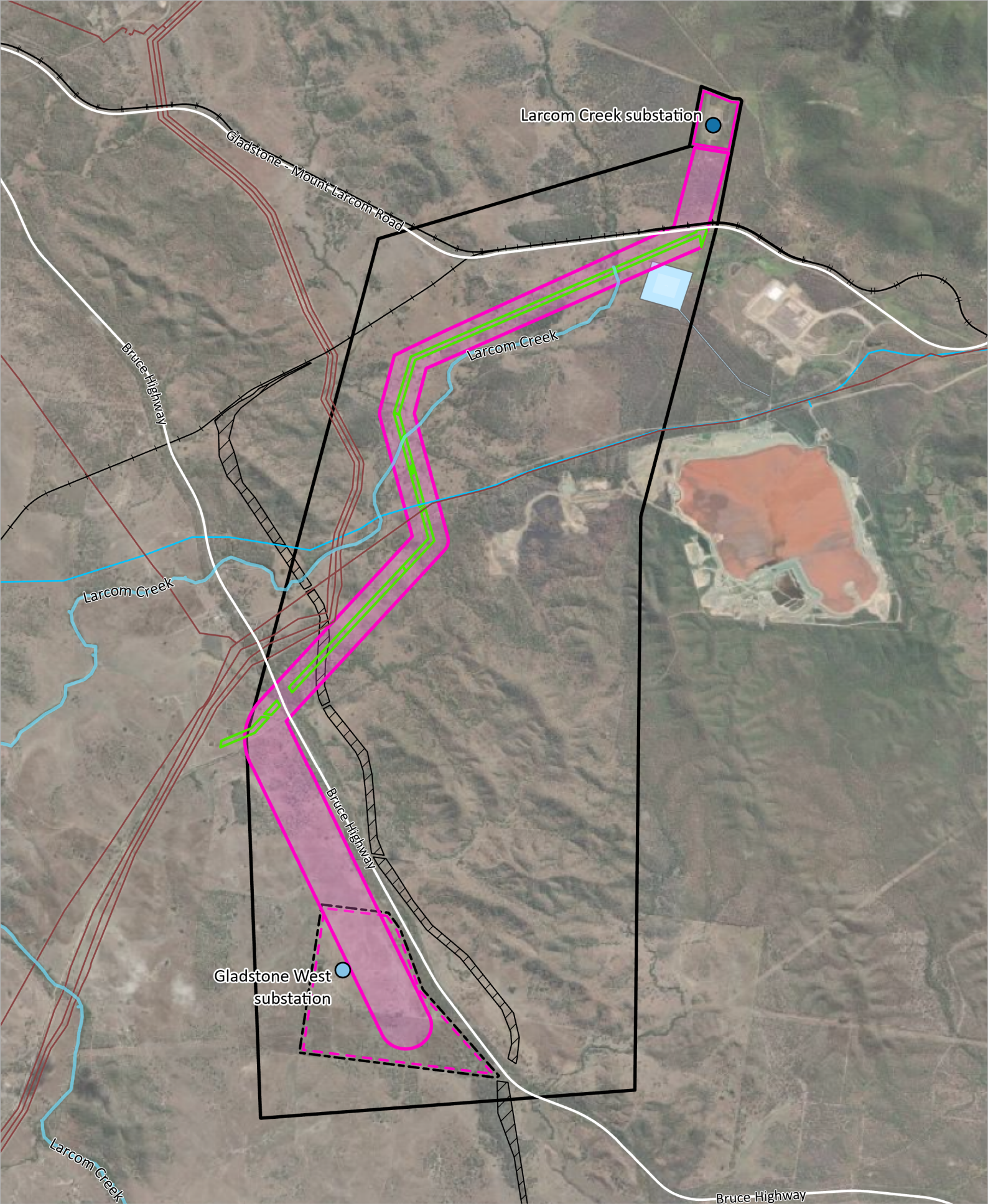
## Soil








  
Scale @ A4 : 1:60,000  
Datum: GDA2020






© 2025 Powerlink Queensland  
Powerlink has provided this information as a general reference source only and not for any other purpose. Powerlink makes no representation and gives no warranty about the accuracy, reliability, completeness or suitability for any particular purpose of the information. It is not to be reproduced or copied without the expressed permission of Powerlink Queensland.









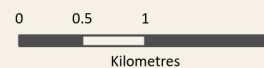
Legend

-  Existing substation
-  Proposed substation
-  Road
-  Watercourse
-  Study area

-  Recommended corridor
-  Proposed Gladstone West substation
-  Larcom Creek substation
-  Existing transmission easement
-  Water pipelines

-  Gas pipelines
-  Railway line
-  Moura - Aldoga link railway
-  Gladstone water treatment facility

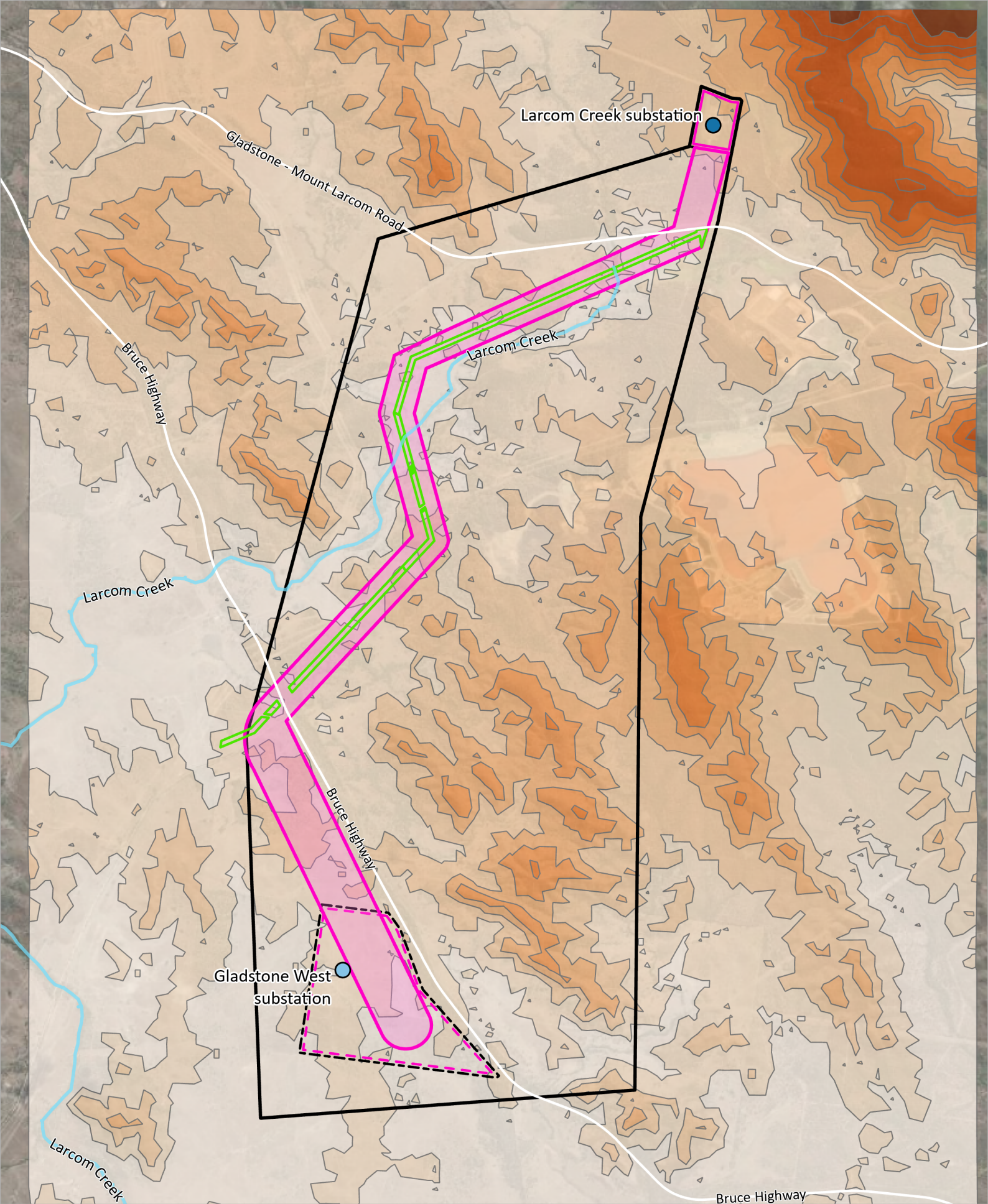
### Infrastructure interactions









Scale @ A4 : 1:60,000  
Datum: GDA2020

© 2025 Powerlink Queensland  
Powerlink has provided this information as a general reference source only and not for any other purpose. Powerlink makes no representation and gives no warranty about the accuracy, reliability, completeness or suitability for any particular purpose of the information. It is not to be reproduced or copied without the expressed permission of Powerlink Queensland.

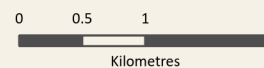




Legend

-  Existing substation
-  Proposed substation
-  Road
-  Watercourse
-  Study area
-  Recommended corridor

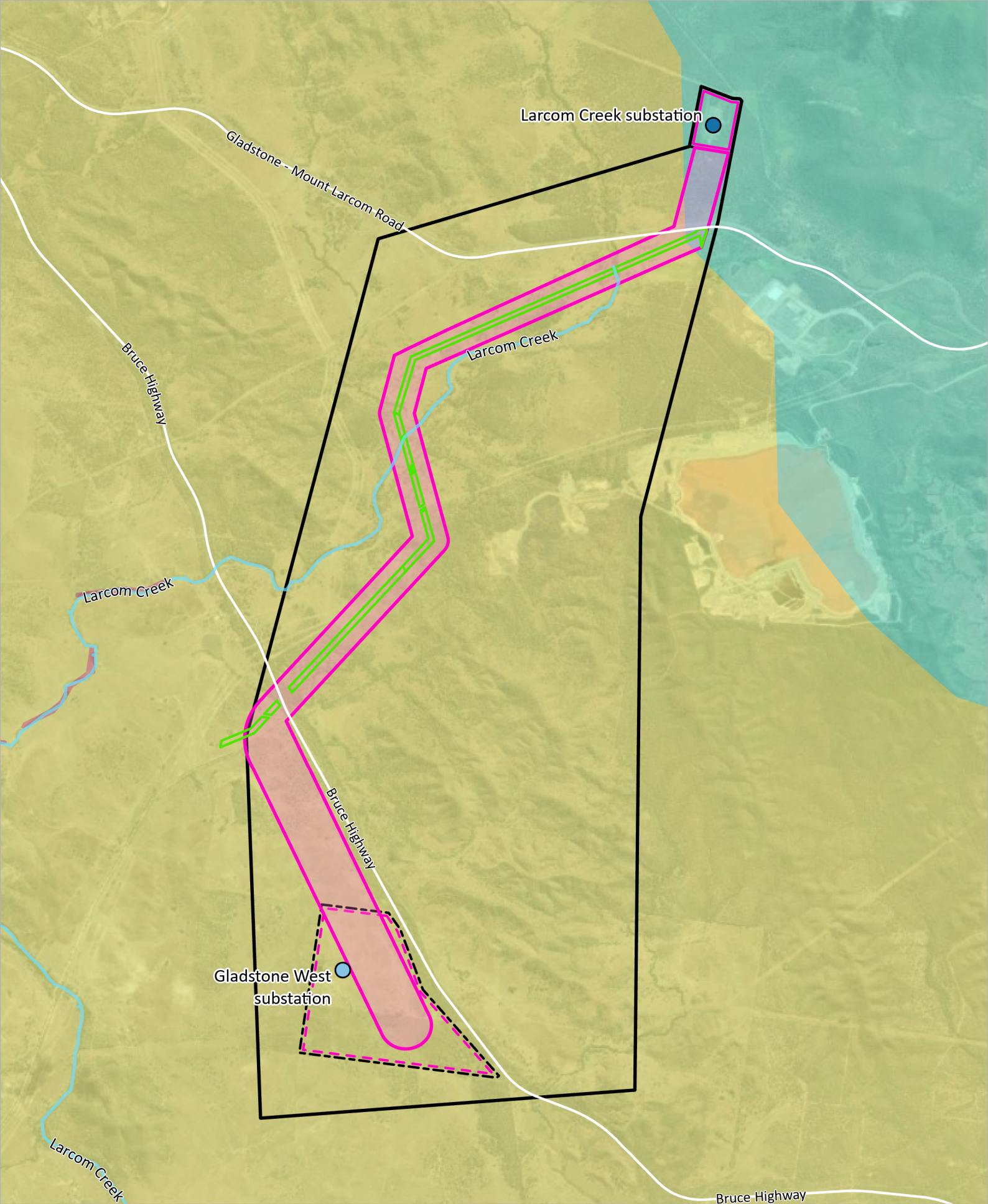
## Topography



  
Scale @ A4 : 1:60,000  
Datum: GDA2020

© 2025 Powerlink Queensland  
Powerlink has provided this information as a general reference source only and not for any other purpose. Powerlink makes no representation and gives no warranty about the accuracy, reliability, completeness or suitability for any particular purpose of the information. It is not to be reproduced or copied without the expressed permission of Powerlink Queensland.





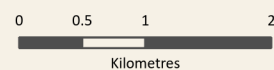
Legend

- Existing substation
- Proposed substation
- Road
- Watercourse
- Study area

- Recommended corridor
- Proposed Gladstone West substation
- Larcom Creek substation
- Existing transmission easement

- Extremely low
- Low
- High

## Acid Sulfate Soils



Scale @ A4 : 1:60,000  
Datum: GDA2020

© 2025 Powerlink Queensland  
Powerlink has provided this information as a general reference source only and not for any other purpose. Powerlink makes no representation and gives no warranty about the accuracy, reliability, completeness or suitability for any particular purpose of the information. It is not to be reproduced or copied without the expressed permission of Powerlink Queensland.

## Contact us

Registered office	33 Harold St Virginia Queensland 4014  ABN 82 078 849 233
Postal address	PO Box 1193 Virginia Queensland 4014
Telephone	+61 7 3860 2111 (during business hours)
Email	<a href="mailto:pqenquiries@powerlink.com.au">pqenquiries@powerlink.com.au</a>
Website	<a href="http://powerlink.com.au">powerlink.com.au</a>
Social	