

# Fitzroy to Gladstone Pipeline Project

Planning Report for Material Change of Use – FGP SGIC SDA Alignment

Gladstone Area Water Board

13 January 2023

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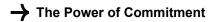
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# Abbreviations

Abbreviation	Definition
ADR	Accepted Development Requirements
AHD	Australian Height Datum
AIPP	Australian Industry Participation Plan
APB	Arrow Bowen Pipeline
ARI	Average Recurrance Interval
ASS	Acid Sulfate Soils
Aurizon	Aurizon Network Pty Ltd
BGGGTBP	Bailai, Gurang, Gooreng, Taribelang Bunda People
Biosecurity Act	Queensland Biosecurity Act 2014
BOM	Bureau of Meteorology
BPP	Best Practice Principles
CE	Critically Endangered
CEMP	Construction Environmental Management Plan
СН	Chainage
CHMPs	Cultural Heritage Management Plans
CLR	Contaminated Land Register
CMD	Coastal Management District
CPESC	Certified Professional in Erosion and Sediment Control
CQ Regional Plan	Central Queensland Regional Plan
DA	Development Application
DAF	Department of Agriculture and Fisheries
DAWE	Department of Agriculture, Water and the Environment
DES	Department of Environment and Science
DNRME	Department of Natural Resources, Mines and Energy
DoR	Department of Resources
DRDMW	Department of Regional Development, Manufacturing and Water
DSDILGP	Department of State Development, Infrastructure, Local Government and Planning
DSDSATSIP	Department of Seniors, Disability Services and Aboriginal and Torres Strait Islander Partnerships
E	Endangered
EAs	Environmental Authorities
EIS	Environmental Impact Statement
EMR	Environmental Management Register
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
EPPs	Environmental Protection Policies
Ergon	Ergon Energy Corporation Limited
ESCP	Erosion and Sediment Control Plan
FGP	Fitzroy to Gladstone Pipeline

Abbreviation	Definition
GAWB	Gladstone Area Water Board
GDE	Groundwater Dependent Ecosystems
GES	General Ecological Significance
GFP	Gladstone to Fitzroy Pipeline
GHD	GHD Pty Ltd
GHG	Greenhouse Gas
GL	Gigalitre
GPR	Ground Penetrating Radar
GRC	Gladstone Regional Council
GRC LGA	Gladstone Regional Council Local Government Area
GSDA	Gladstone State Development Area
HAT	Highest Astronomical Tide
HES	High Ecological Significance
IECA	International Erosion Control Association 2008
ILUA	Indigenous Land Use Agreements
km	Kilometres
kml file	Keyhole Markup Language file
KRA	Key Resource Area
LGAs	Local Government Areas
m	Metres
MCU	Material Change of Use
MHWS	Mean High Water Springs
ML	Megalitre
mm	Millimetre
MNES	Matters of National Environmental Significance
MP	Member of Parliament
MSCL	Mild Steel Cement Lined
MSES	Matter of State Environmental Significance
NC Act	Nature Conservation Act 1992
NPI	National Pollutant Inventory
OCG	Office of the Coordinator General
OEMP	Operational Environmental Management Plan
PASS	Potential Acid Sulfate Soils
PEMP	Project Environmental Management Plan
PMAV	Property Map of Assessable Vegetation
PMST	Protected Matters Search Tool
Powerlink	Powerlink Queensland
PPLs	Petroleum Pipeline Licences
QPP	Queensland Procurement Policy
REs	Regulated Ecosystems
ROW	Right of Way

Abbreviation	Definition	
RPEQ	Registered Professional Engineer of Queensland	
RRC	Rockhampton Regional Council	
SARA	State Assessment and Referral Agency	
SCR	State-controlled Road	
SDA	State Development Area	
SDAP	State Development Assessment Provisions	
SDPWO Act	State Development and Public Works Organisation Act 1971	
SEIS	Supplementary Environmental Impact Statement	
SGIC SDA	Stanwell-Gladstone Infrastructure Corridor State Development Area	
SMP	Species Management Program	
TEC	Threatened Ecological Communities	
VM Act	Vegetation Management Act 1999	
TMR	Department of Transport and Main Roads	
Water Act	Water Act 2000	
WoNS	Weeds of National Significance	
WTP	Water Treatment Plant	
WWBW	Waterway Barrier Works	

# Contents

1.	Introd	uction	1
	1.1	Background	1
	1.2	About GAWB	1
	1.3	Purpose of this Report	2
	1.4	Development Application Details	2
	1.5	Limitations	3
2.	Backg	jround	4
	2.1	Project Objectives	4
	2.2	Overview of Project and Proposed Use	4
	2.3	Use Being Applied For	22
	2.4	State Interests and Referral Triggers	22
	2.5	Public Notification	24
3.	Subje	ct Land and Locality	29
	3.1	Location	29
	3.2	Land Uses	39
	3.3	Utilities	59
	3.4	Community Values	73
	3.5	Environmental Values	75
	3.6	Cultural Heritage Values	137
	3.7	Natural Hazards	139
4.	Devel	opment Proposal	141
	4.1	Pipeline	141
	4.2	Raglan Pump Station and Reservoir Access	145
	4.3	Construction Timeframe	145
	4.4	Operation	146
5.	Devel	opment Assessment	147
	5.1	State Development and Public Works Organisation Act 1971	147
	5.2	SGIC SDA Development Scheme	147
	5.3	State Planning Policy	152
	5.4	Central Queensland Regional Plan	153
6.	Statut	ory Considerations	163
	6.1	Existing Approvals / Agreements	163
	6.2	Planning Act 2016 and Associated Operational Works	163
	6.3	Other Approvals, Permits or Considerations	165
	6.4	Legislative Requirements and Approval Register	166
7.	Impac	ts of Proposal and Management	171
8.	Concl	usion	181
9.	Refere	ences	182

### **Table Index**

Table 1.1	Proponent and Application Details	2
Table 2.1	Project Objectives	4
Table 2.2	State Interests and Referral Triggers Applicable to the FGP SGIC SDA Alignment	22
Table 2.3	Factors for Consideration in Requiring Public Consultation	24
Table 3.1	Properties Traversed by the FGP SGIC SDA Alignment	30
Table 3.1 Table 3.2	Existing Land Uses	39
Table 3.2 Table 3.3	State-controlled Transport Corridor Land Uses	59
Table 3.3	Local Government Road Land Uses	60
Table 3.4 Table 3.5	Existing Infrastructure and Utilities that Intersects the Pipeline	63
Table 3.6	Waterways Traversed by the FGP SGIC SDA Alignment	92
Table 3.7	Water Quality Data at sites within the FGP SGIC SDA Alignment	105
Table 3.8	Tidal Waters Traversed by the FGP SGIC SDA Alignment	100
Table 3.9	Nationally Important Wetlands relevant to the FGP SGIC SDA Alignment	108
Table 3.10	TECs Predicted to Occur Within the Desktop Search Extent of the FGP SGIC	100
	SDA Alignment	133
Table 3.11	EPBC Approval Threatened Fauna Species Likelihood of Occurrence	134
Table 3.12	Weed Species Identified Within the FGP SGIC SDA Alignment	136
Table 3.13	Introduced Fauna Species Recorded Within the FGP SGIC SDA Alignment	136
Table 3.14	Aboriginal Cultural Heritage Assessment	137
Table 3.15	Non-Indigenous Cultural Heritage within 1 km	139
Table 4.1	Pipeline Design and Material	141
Table 4.2	Indicative FGP SGIC SDA Alignment Pipeline Alignment Construction	
	Timeframe	145
Table 5.1	GSDA Assessable Development Assessment Framework	147
Table 5.2	Assessment Against the Intents for the SGIC SDA	148
Table 5.3	Assessment Against the Overall Objectives of the SGIC SDA	149
Table 5.4	Assessment Against SGIC SDA Policy 1 Outcomes	150
Table 5.5	State Interests Relevant to the FGP SGIC SDA Alignment	152
Table 6.1	Legislative Requirements and Approvals Register	166
Table 7.1	Key Potential Impacts During Design, Construction and Operation Phases and Proposed Mitigation Measures	172

# **Figure Index**

Figure 2-1	Project Schematic	5
Figure 2-2	Project Locality	6
Figure 2-3	FGP SGIC SDA Alignment Locality	7
Figure 2-4	Sensitive Receptors within 2 km	26
Figure 3-1	FGP SGIC SDA Alignment Resource Tenements	44
Figure 3-2	FGP SGIC SDA alignment Infrastructure & Utilities	66
Figure 3-3	ASS Risk Areas	77
Figure 3-4	Agricultural Land	81
Figure 3-5	Watercourses and Waterways Intersecting the FGP SGIC SDA Alignment	95
Figure 3-6	Wetland Areas	110

### Appendices

- Appendix A Landowners Consent
- Appendix B EIS Referenced Chapters
- Appendix C Preliminary Contamination Assessment Report
- Appendix D Ecology Assessment Report
- Appendix E Design Drawings
- Appendix F Draft Construction Environmental Management Plan (CEMP)
- Appendix G SARA Pre-Lodgement Advice

# 1. Introduction

# 1.1 Background

The Department of Regional Development, Manufacturing and Water (DRDMW) has appointed Gladstone Area Water Board (GAWB) as the Delivery Management Proponent for pre-construction activities for the Fitzroy to Gladstone Pipeline (FGP) (previously referred to as the Gladstone to Fitzroy Pipeline/GFP) project, (the Project).

The Project has the potential to provide water security to urban and industrial customers and, potentially provide water for the emerging hydrogen industry in the Gladstone region.

The proposed Project traverses the Rockhampton Regional Council (RRC) and Gladstone Regional Council (GRC) Local Government Areas (LGAs). The 116 kilometres (km) long pipeline will run from the Lower Fitzroy River at Laurel Bank, with the majority of its length within the Stanwell-Gladstone Infrastructure Corridor State Development Area (SGIC SDA), and then connect with GAWB's existing water infrastructure near Yarwun within the Gladstone State Development Area (GSDA).

A large portion of the proposed Project is the pipeline which extends for approximately 80 km within the SGIC SDA. It is considered that these works trigger the requirement for a State Development Area (SDA) application, specifically for a Material Change of Use (MCU), in accordance with the SGIC SDA Development Scheme.

The subject of this Planning Report is the Project within the SGIC SDA section of the alignment (referred to as the FGP SGIC SDA alignment). The FGP SGIC SDA alignment traverses from Lot 71 on LIV40477 in the RRC through to The Narrows Road in GRC. The pipeline will be underground, has a design capacity of 30 gigalitres (GL)/annum and will be a mild steel cement lined (MSCL) (8 millimetre (mm) thickness) pipeline with a 1,067 mm diameter (preferred option).

The FGP that forms part of the FGP SGIC SDA alignment is 80 km of pipeline and part of the access road for the Raglan Pump Station and Reservoir. Construction works of the FGP SGIC SDA alignment are expected to commence in May 2023 and conclude in November 2024, with the construction of the Raglan Pump Station and Reservoir from March 2023 to May 2024.

# 1.2 About GAWB

GAWB is a Queensland Government statutory Water Authority with the purpose of ensuring the long- and shortterm water needs of current and future customers are met in ways that are environmentally, socially and commercially sustainable.

On 1 October 2000, GAWB commenced operations as a Category 1 commercialised Water Authority under the *Water Act 2000* (Qld) (Water Act). From 1 July 2008, GAWB became a registered service provider under the *Water Supply (Safety and Reliability) Act 2008* (Qld). GAWB is responsible to Mr Glenn Butcher, Member of Parliament (MP), Minister for Regional Development and Manufacturing and Minister for Water.

The proposed Project is an option to address the single source water supply risk from Awoonga Dam, enabling long-term water security for Gladstone's urban and industrial customers in the Gladstone region. The pipeline also has the potential to provide water for the emerging hydrogen industry in the Gladstone region.

Gladstone was officially drought declared between 1 May 2019 and October 2022 due to three consecutive failed wet seasons in 2018-19, 2019-20 and 2020-21. Despite the recent rainfall in the region, Awoonga Dam capacity remains at 64% (13 January 2023) and a Low Supply Alert remains in place for Awoonga Dam and the Gladstone region. The Gladstone region has a long history of drought. Water security and reliability is a key consideration for the region.

GAWB has been appointed as the Delivery Management Proponent for pre-construction activities for the Project. The pre-construction activities include:

- Appointing key advisors.
- Addressing land tenure, permits and approvals.
- Determining long lead time items (if required).

- Determining and commencing the preferred construction procurement strategy.

In addition, GAWB is undertaking several technical investigations and baseline surveys for the Project to assess the existing environment and the potential impacts. GAWB is also developing environmental management plans and procedures to manage potential impacts from the Project.

### **1.3 Purpose of this Report**

The purpose of this Planning Report is to provide supporting information required for assessment of the SDA application (MCU) within the SGIC SDA. This report pertains to the proposed underground water pipeline, 80 km of which is located within the SGIC SDA.

This SDA application (MCU) has been prepared in accordance with the *State Development and Public Works Organisation Act 1971* (SDPWO Act) and the SGIC SDA Development Scheme (September 2012). Its aim is to assist the Office of the Coordinator General (OCG) and relevant referral agencies in the assessment of the application. In summary, the following information is provided in this report:

- Background.
- Subject land and locality details.
- Statutory considerations for the FGP SGIC SDA alignment.
- Development details.
- An assessment of the developments' consistency with the objectives and land use designations of the Development Scheme for the SGIC SDA.
- Statutory considerations for the FGP SGIC SDA alignment.
- Identification of potential impacts and proposed solutions/management plans to manage adverse impacts.

# 1.4 Development Application Details

This SDA application (MCU) is for a use defined as "infrastructure services" within the SGIC SDA Development Scheme. It should be acknowledged that suitable infrastructure installation includes below ground pipelines for services that facilitate economic development.

This SDA application (MCU) is for the installation of a new underground water pipeline within the SGIC SDA, and the portion of the access road to the Raglan Pump Station and Reservoir is within the SGIC SDA.

The proponent and application details are summarised in Table 1.1. In addition, the following is provided as part of the SDA application (MCU):

- Application form required for this SDA application (refer to the online submission).
- Landowner consents for applicable land tenures (refer to Appendix A).
- Fee of \$32,868 (GST exempt) payable by GAWB.

Item	Description		
Proponent/Applicant	GAWB		
Property Details	From north-east of Stanwell at pipeline chainage (CH) 15133 to The Narrows Road, Gladstone at pipeline CH 96473.		
	Refer to Table 3.1 for a full list of the impacted properties.		
Name of Landowner	Detail of landowners are provided in Section 3.1.		
Current Land Use	Various land uses including:		
	<ul> <li>Rural Residences.</li> <li>Native vegetation.</li> </ul>		
	– Grazing. – Transportation.		
	– Agriculture.		
Development Proposal	Construction of infrastructure services, namely an underground water pipeline.		

 Table 1.1
 Proponent and Application Details

Item	Description
Development Assessment	MCU in accordance with the SDPWO Act and the SGIC SDA Development Scheme. The proposed development is identified as infrastructure services that is consistent with the preferred development intents and objectives of the SGIC SDA Development Scheme.
Assessment Manager	OCG
State Interests	<ul> <li>Clearing of native vegetation.</li> <li>Agricultural land classification - class A and B.</li> <li>Various Matters of State Environmental Significance (MSES).</li> <li>Works within State controlled road.</li> <li>Major electricity infrastructure and pipelines.</li> </ul>
Contact Details for Application	GHD Pty Ltd – Amanda Smedley (Senior Environmental Consultant)Level 2, 100 Goondoon Street, Gladstone QLD 4680P: (07) 4973 1613   E: amanda.smedley@ghd.comGAWB – Simon Wakefield (Approvals Advisor – Fitzroy to Gladstone Pipeline)147 Goondoon Street, Gladstone QLD 4680P: 0401 712 962   E: swakefield@gawb.qld.gov.au

# 1.5 Limitations

This Planning Report was prepared by GHD Pty Ltd (GHD) in performing services under the Service Provider Agreement dated 4 June 2015 between GHD and GAWB (the Contract). The report does not amend the Contract or take away from the rights or obligations of GAWB and GHD under the Contract or in respect of the standard and quality of the services performed under the Contract. If there is any inconsistency between the Contract and this report, the Contract prevails to the extent of the inconsistency.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report.

GHD has prepared this report on the basis of information provided by GAWB and others who provided information to GHD (including Government authorities), which GHD has not independently verified or checked beyond the agreed scope of work. GHD does not accept liability in connection with such unverified information, including errors and omissions in the report which were caused by errors or omissions in that information.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

# 2. Background

# 2.1 Project Objectives

The objectives established for the Project are outlined in Table 2.1.

Table 2.1 Proje	ct Objectives
Project Objective	Description
Water Security	Deliver infrastructure that connects communities, deliver a sustainable and resilient network and a network that provides for immediate drought response.
Reliability	Deliver a network that runs efficiently, effectively and is fit for its intended purpose, that considers operation and whole-of-life design for replacement and availability of components, and that establishes trust in the local community that the Principal delivers as an authority on time and to its commitments.
Cost	Deliver the works within the agreed construction value and demonstrate a value for money outcome to the State Government. Ensure that cash moves quickly through the supply chain, and all subcontractors, suppliers, professional service providers are paid in a timely manner.
Time	Delivery of the asset as per the delivery program to meet water security and planning objectives.
Safety	Deliver and construct the Project with a zero rate of incidents and be injury free. Create a culture where the safety of the Project workforce, operators of the network and the general community is paramount.
Quality	Ensure that constructed works are fit for purpose and meet all Project design requirements, standards and warranties and achieve a zero defects status.
Environment	Actively manage the Project to eliminate environmental harm and demonstrate genuine sensitivity and care for the environment.
Community and Stakeholders	Engage commercially competitive local suppliers, where possible. Recruit local skilled workers. Develop and maintain productive relationships with community and stakeholders. Effectively plan and deliver communication and engagement strategies to support Project works, minimise impacts to community and stakeholders, contribute to a positive Project reputation and produce economic benefits to the local area.
Values and Behaviours	<ul> <li>Alignment with GAWB's corporate philosophy and 'the way we work' including:</li> <li>Engage –We work together. Always.</li> <li>Accountable –We all contribute. Openly.</li> <li>Safety &amp; Wellbeing –We look after ourselves. And each other.</li> <li>One Team –We Deliver. You and I.</li> </ul>
QPP Compliance	Demonstrate and comply with each category of the Queensland Procurement Policy (QPP) including the Best Practice Principles (BPP), Local Benefits Test and all statutory requirements. Demonstrate and comply with the Australian Industry Participation Plan (AIPP) and all other Project-related regulatory requirements.
Skill and System Development	Provide training and skills development opportunities for all people working in the Project team and enable GAWB to increase its overall capability as an organisation. Contribute to local and Indigenous supply chain capability and capacity development and skill development of local and Indigenous labour.

#### Table 2.1 Project Objectives

# 2.2 Overview of Project and Proposed Use

The Project is a 116 km pipeline (approximately) that will transport up to 30,000 ML of water per annum from an intake point at Laurel Bank on the Fitzroy River to GAWB's existing water infrastructure at Yarwun. A Project schematic is presented in Figure 2-1 and a locality plan is provided in Figure 2-2.

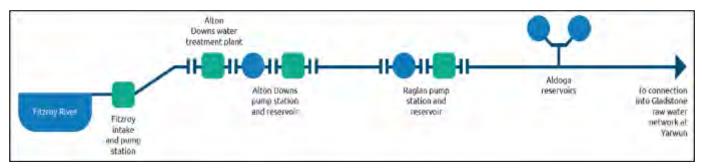


Figure 2-1 Project Schematic

The Project comprises the following key elements (as shown in Figure 2-2):

- An intake and pump station on the southern bank of the Fitzroy River, approximately 17 km upstream of Rockhampton's Alexandra Bridge near Laurel Bank, and in the vicinity of an existing Sunwater pump station that supplies the Stanwell Energy Park.
- A Water Treatment Plant (WTP) at Alton Downs near the Fitzroy River, occupying an area of approximately 11.5 ha.
- A pipeline with a length of approximately 116 km and 1,067 millimetres (mm) in diameter, constructed within a right of way (ROW) corridor of approximately 30 metres (m) in width. A fibre optic cable will run alongside the pipeline within the trench. This will be used to transmit signals along the FGP alignment.
- Three pump stations, one located at the Fitzroy River water intake, one at the Alton Downs WTP, and another near Raglan (within GRC LGA), each occupying an area of approximately one hectare. Associated with each pump station there may be:
  - A single building (approximately 30 m x 25 m) housing the pumps, complete with motors, controls and starters.
  - A small substation.
  - Connection manifolds and valves.
- A water storage tank of 10–15 ML located at the Raglan booster pump station.
- Two reservoirs providing storage of approximately 100 ML capacity at Aldoga.

The FGP will be buried for its full length with a nominal cover of 900 mm. The depth of the FGP will vary depending upon the pipe material, ground conditions and loading. GAWB is currently securing land access and tenure for the FGP.

An Environmental Impact Statement (EIS) was completed for the overall Project in 2007 (Arup, 2008), with a supplementary EIS (SEIS) completed in 2009 (Arup, 2009). The OCG issued an evaluation of the project's EIS on 2 February 2010 which established the framework for the State approvals required for the Project (noting the report lapsed in February 2018). In addition, Commonwealth approval under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) was received on 4 November 2011 and varied on 25 October 2021 and 20 June 2022.

GAWB is in the process of securing the secondary approvals for the Project, which includes approvals under the SGIC SDA and GSDA Development Schemes, the *Planning Act 2016* and other State or local statutory requirements.

The intention is to commence preparatory works on the Project as early as practicable. The overall construction period for the Project is to commence and complete construction in approximately November 2022 and June 2025, respectively (pending receipt of the required approvals). For the FGP SGIC SDA alignment, it is anticipated construction will commence in May 2023 and be completed by November 2024.

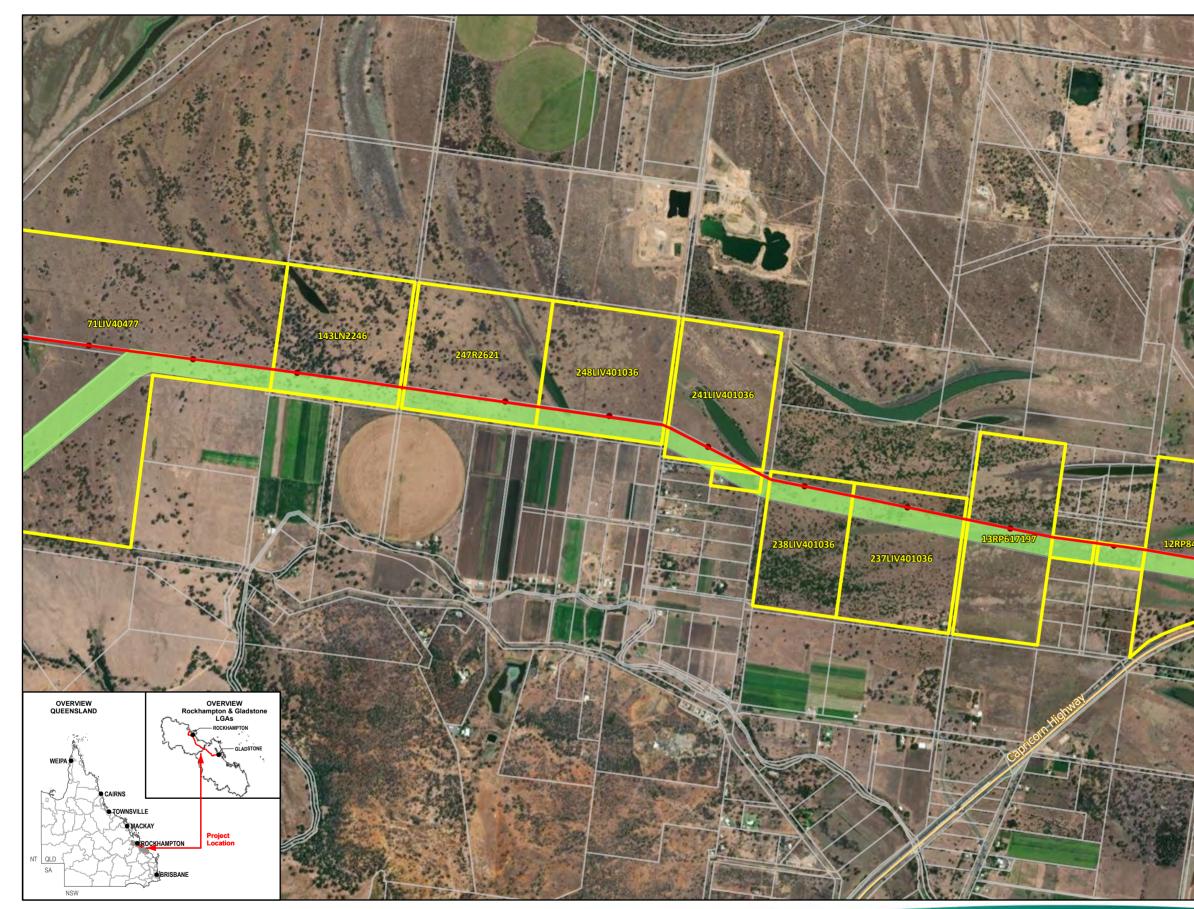
This SDA application (MCU) specifically pertains to the proposed underground water pipeline within the SIGC SDA from Lot 71 on LIV40477 in the RRC through to The Narrows Road in GRC as identified in Figure 2-3a through to Figure 2-3o.





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FITZROY TO GLADSTONE PIPELINE PROJECT Figure 2.2 Project Locality 000-G-MAP-2550 Version: 2 Date: 10/10/2022

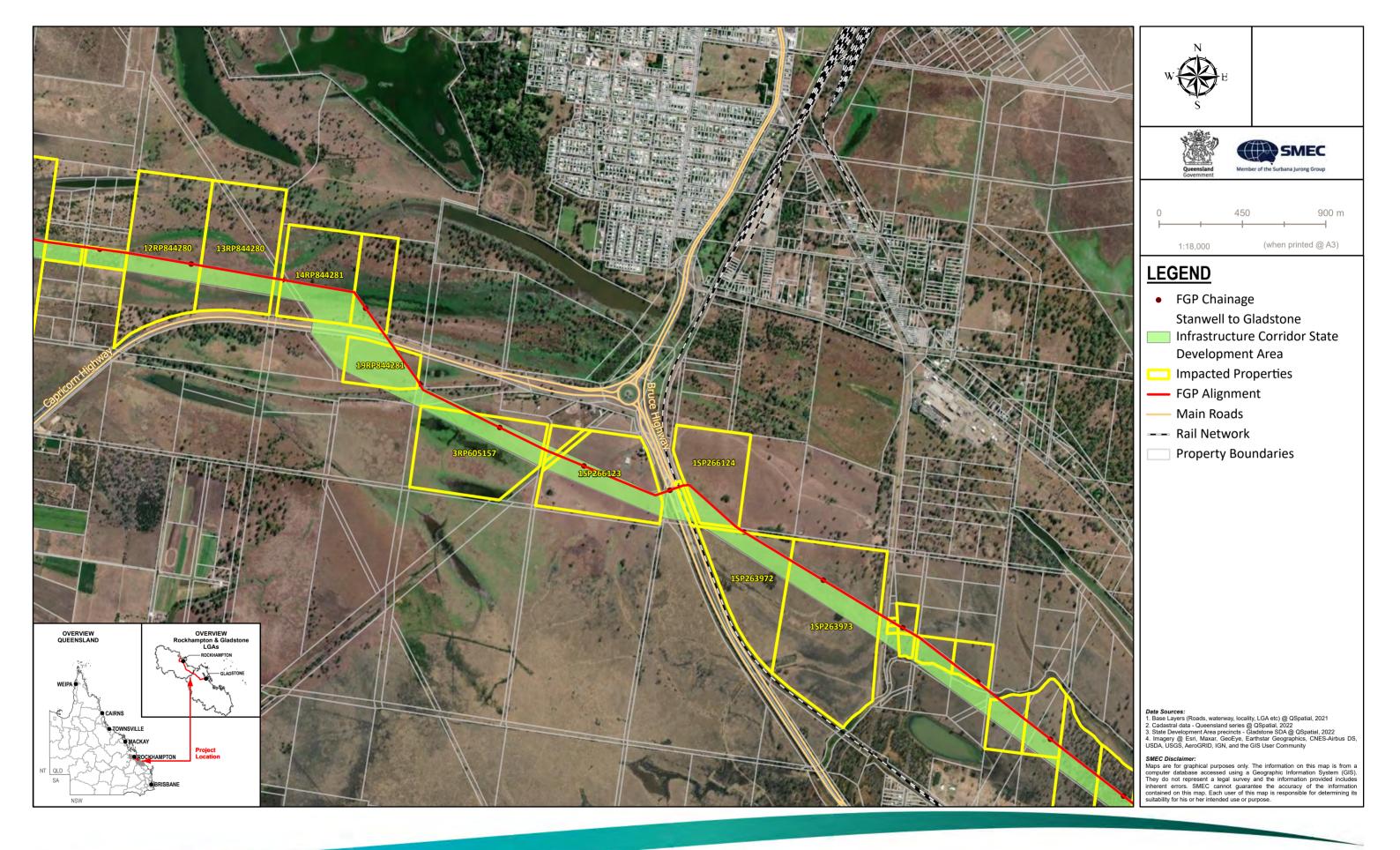




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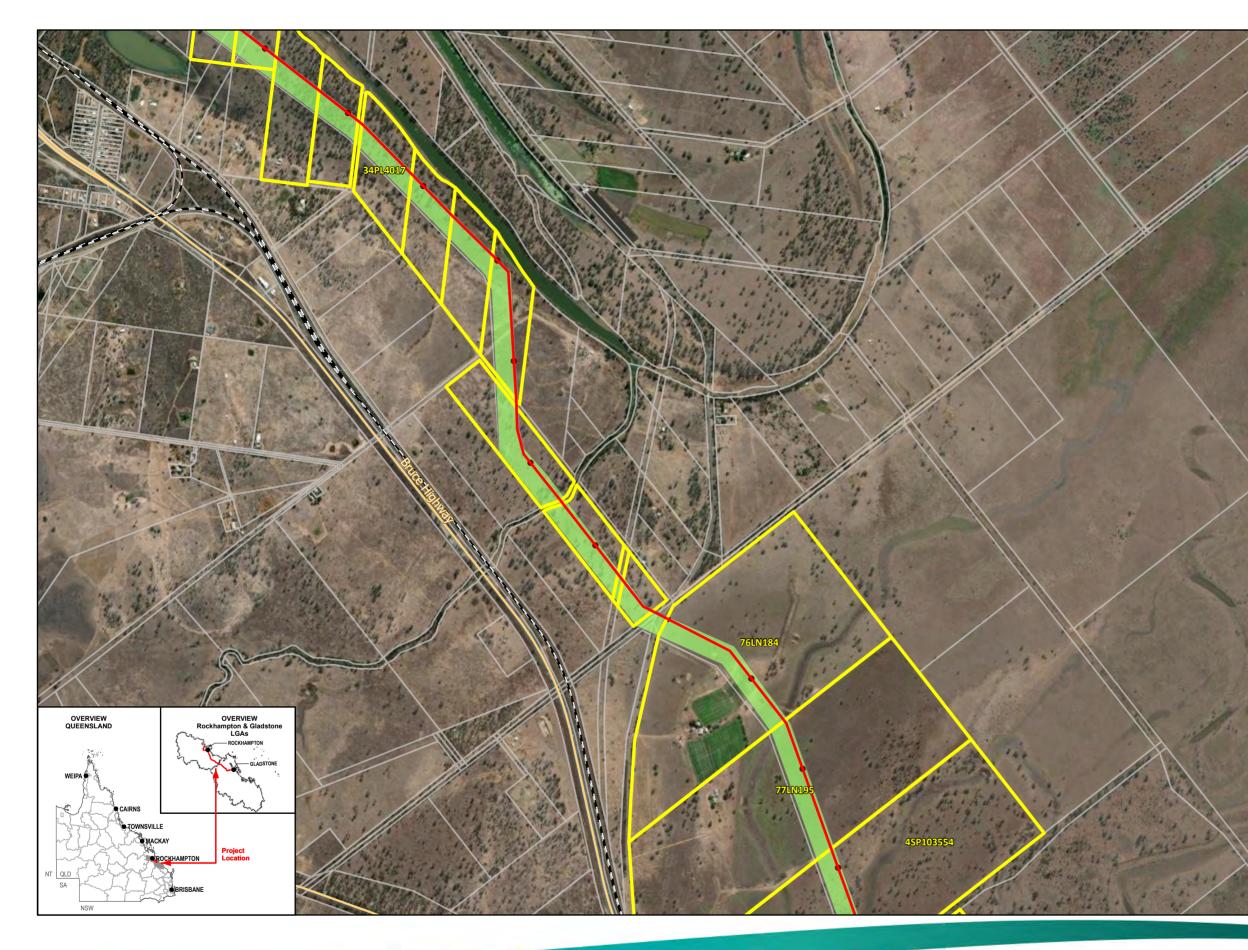
**Fitzroy to Gladstone Pipeline Project** Planning Report for Material Change of Use - FGP SGIC SDA Alignment Figure 2.3a FGP SGIC SDA Alignment Locality 000-G-MAP-2501 Version: 1 Date: 28/10/2022





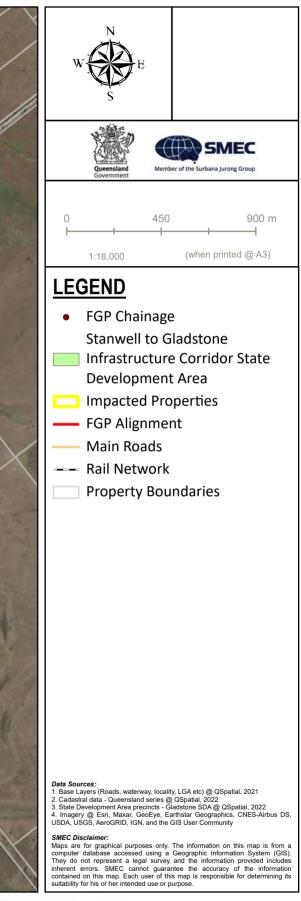
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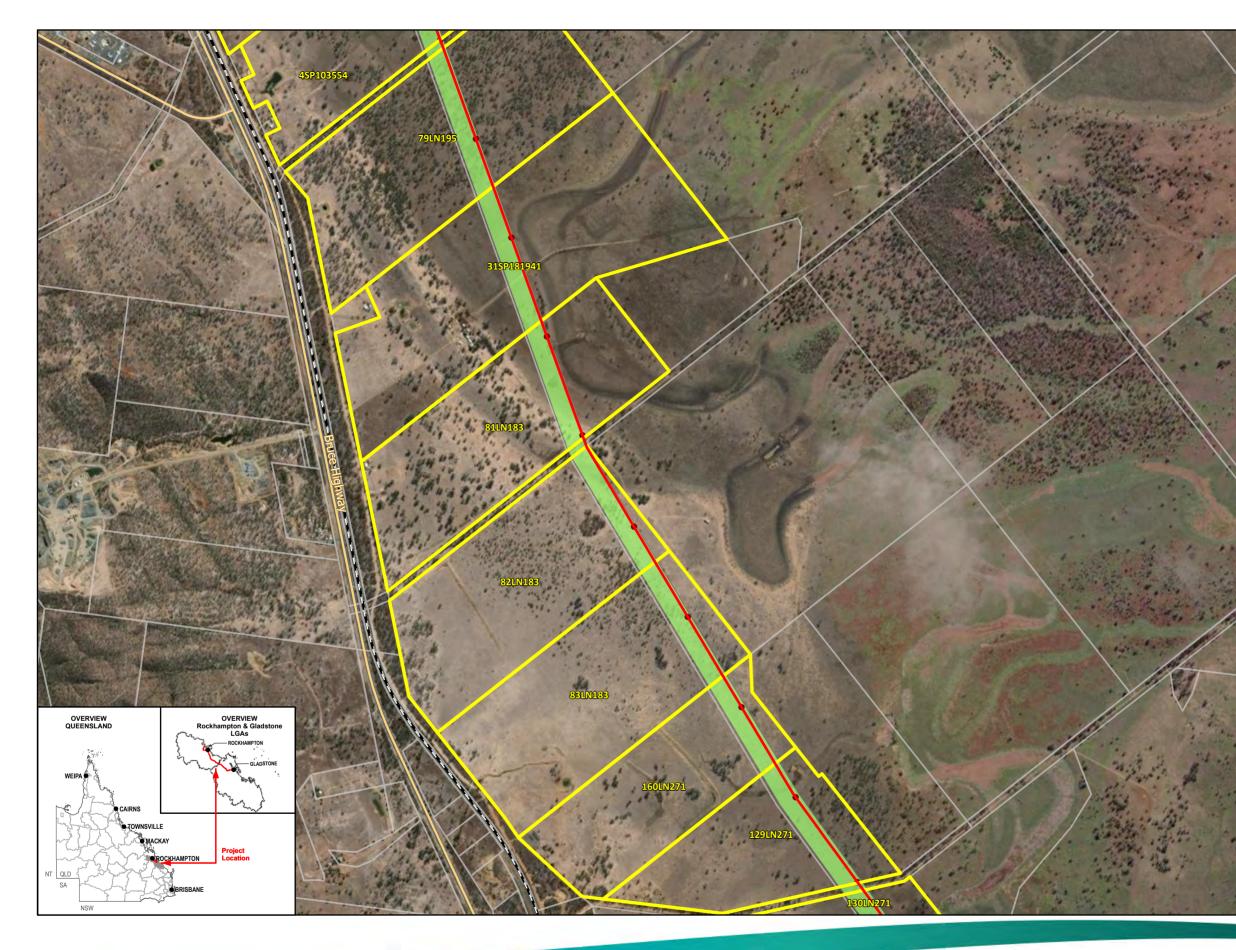




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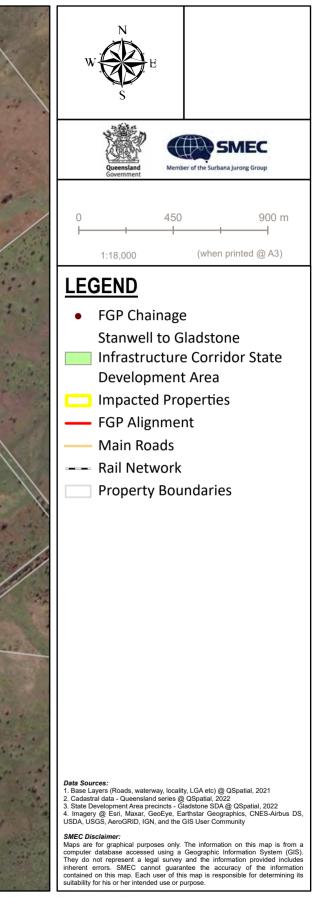


Fitzroy to Gladstone Pipeline Project Planning Report for Material Change of Use - FGP SGIC SDA Alignment Figure 2.3c FGP SGIC SDA Alignment Locality 000-G-MAP-2501 Version: 1 Date: 28/10/2022

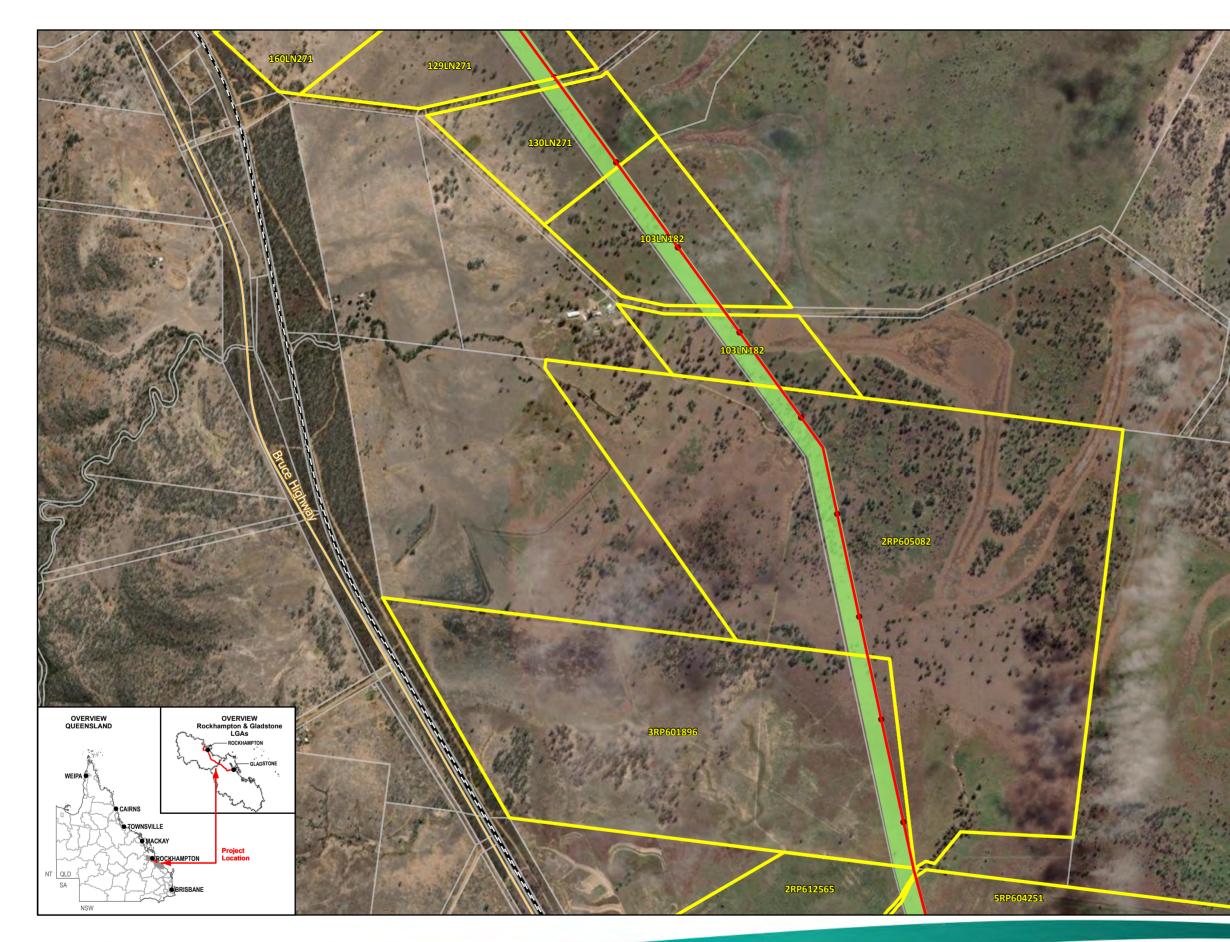




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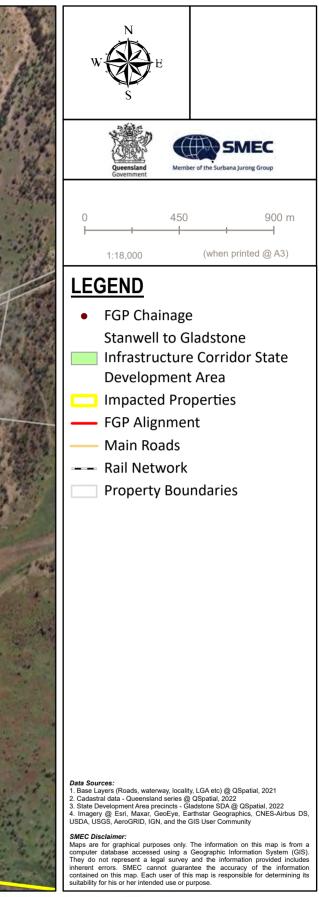


**Fitzroy to Gladstone Pipeline Project** Planning Report for Material Change of Use - FGP SGIC SDA Alignment Figure 2.3d FGP SGIC SDA Alignment Locality 000-G-MAP-2501 Version: 1 Date: 28/10/2022

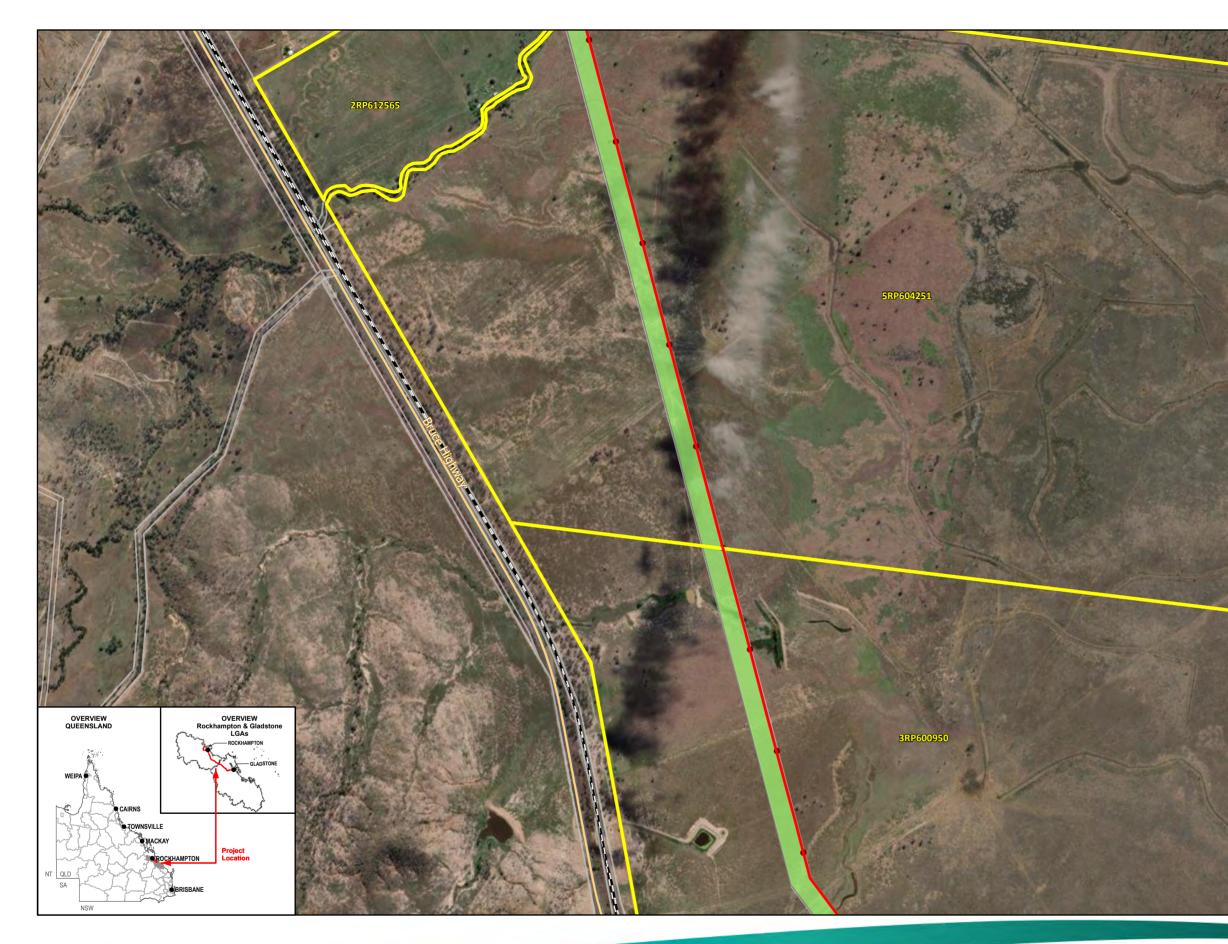




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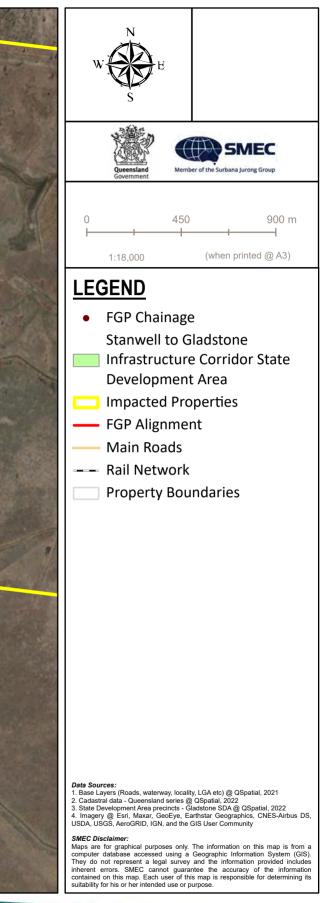
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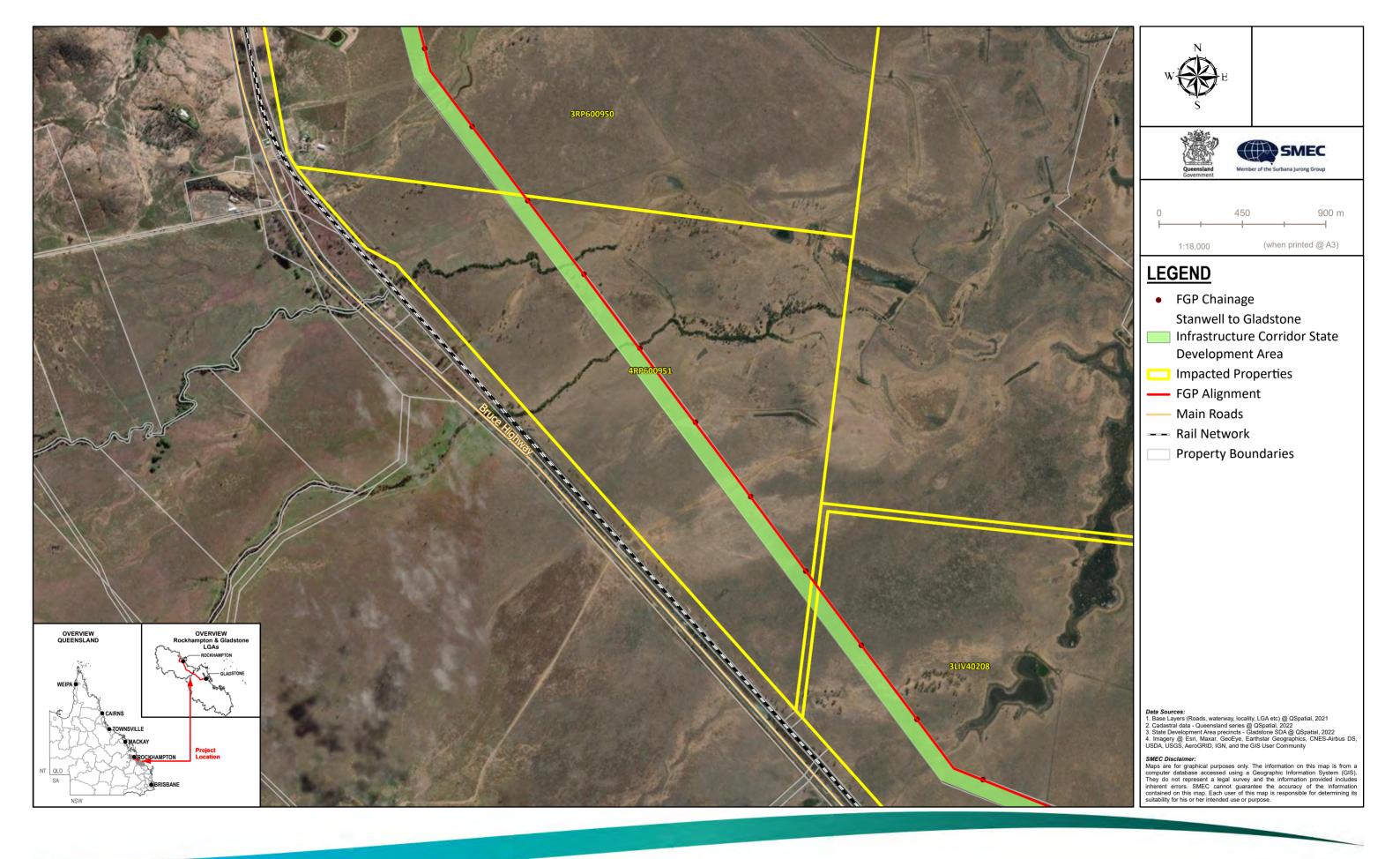


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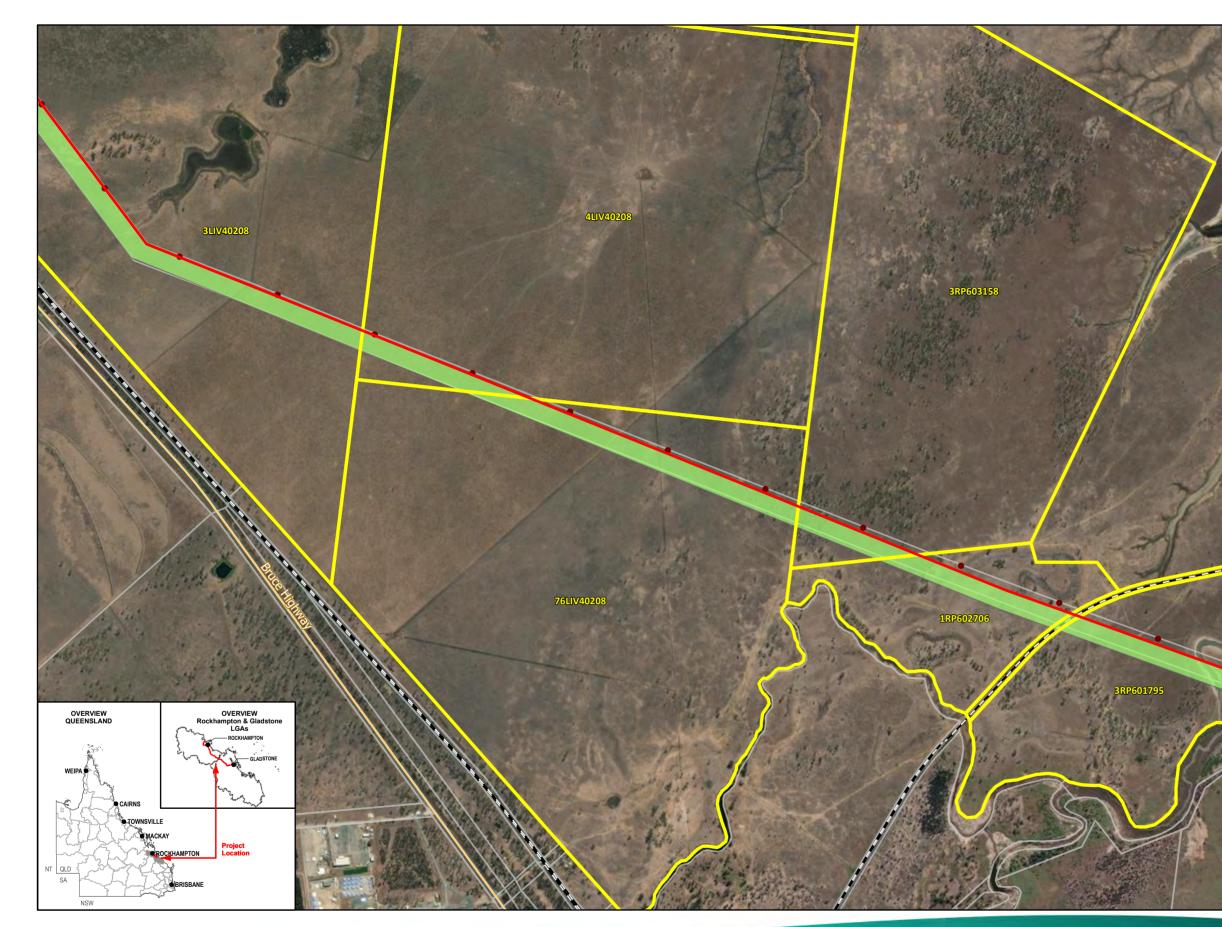
Fitzroy to Gladstone Pipeline Project Planning Report for Material Change of Use - FGP SGIC SDA Alignment Figure 2.3f FGP SGIC SDA Alignment Locality 000-G-MAP-2501 Version: 1 Date: 28/10/2022





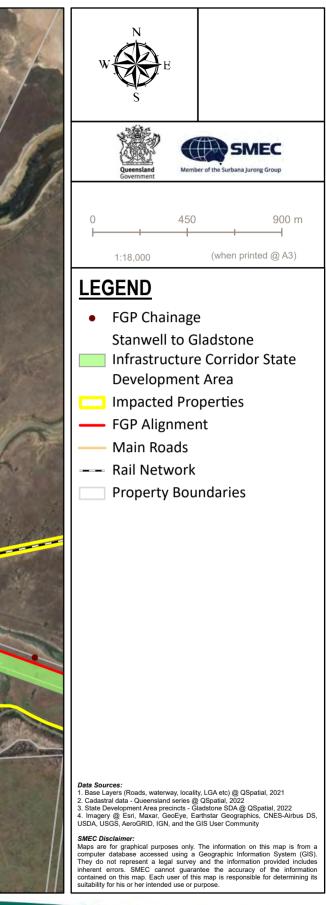
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**Fitzroy to Gladstone Pipeline Project** Planning Report for Material Change of Use - FGP SGIC SDA Alignment Figure 2.3g FGP SGIC SDA Alignment Locality 000-G-MAP-2501 Version: 1 Date: 28/10/2022

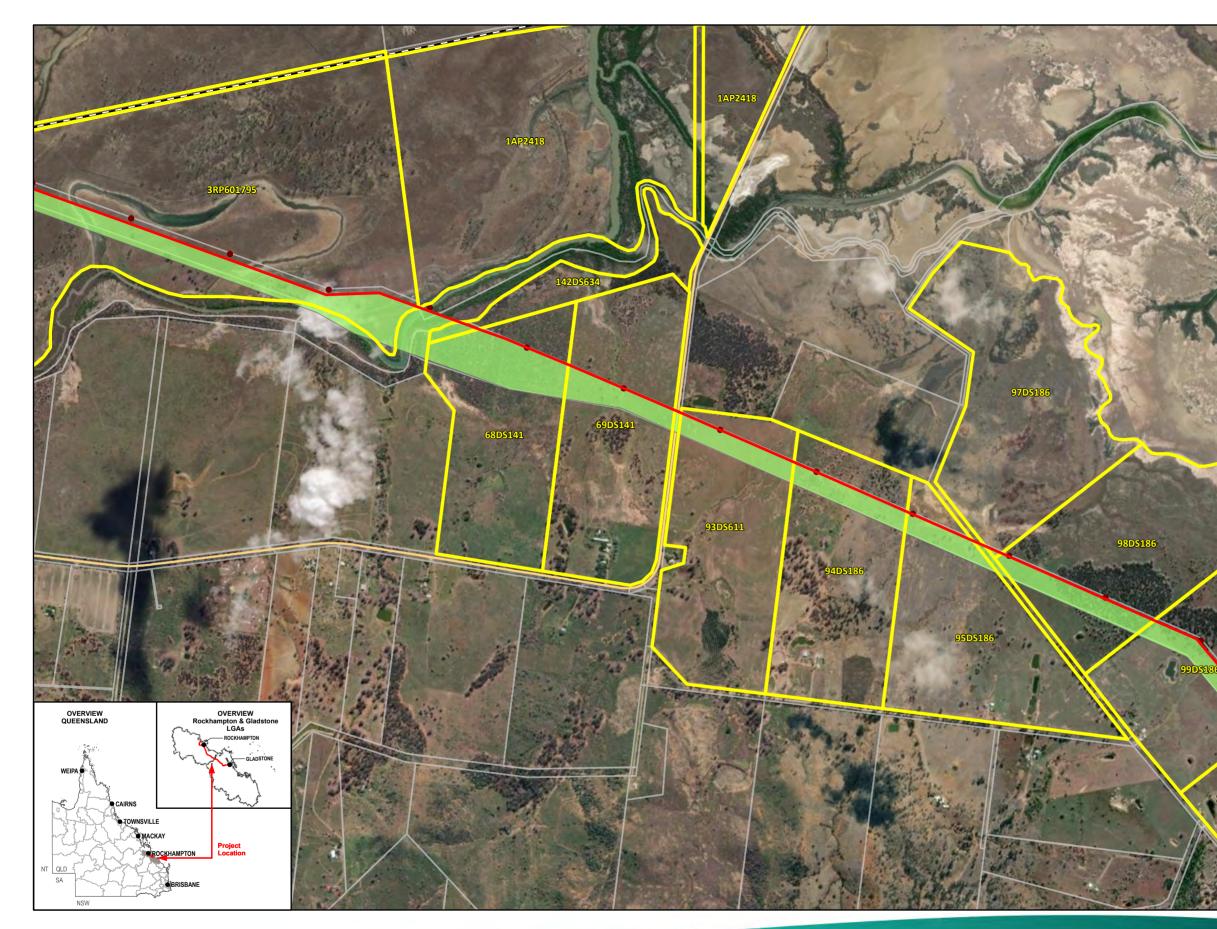




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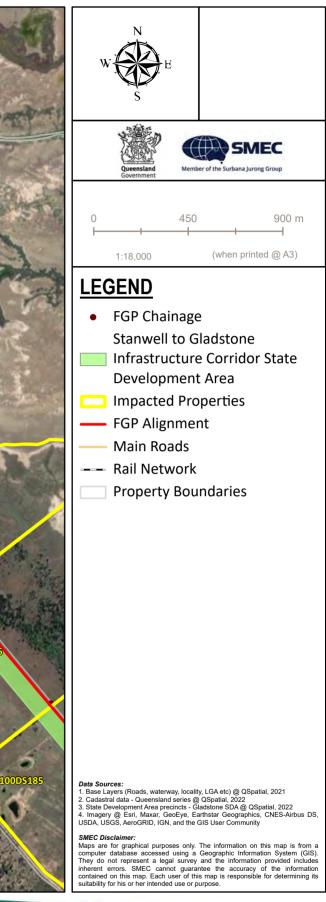


Fitzroy to Gladstone Pipeline Project Planning Report for Material Change of Use - FGP SGIC SDA Alignment Figure 2.3h FGP SGIC SDA Alignment Locality 000-G-MAP-2501 Version: 1 Date: 28/10/2022

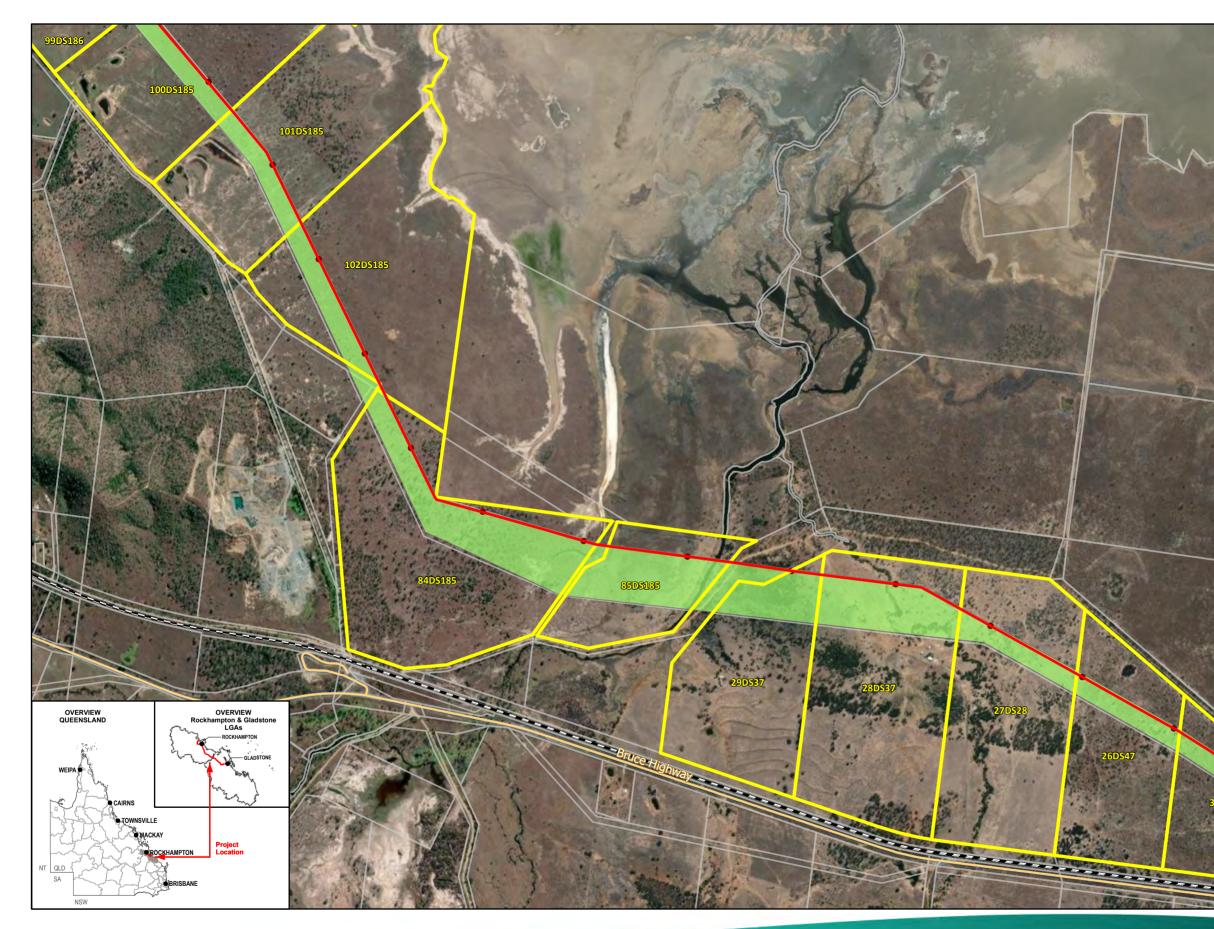




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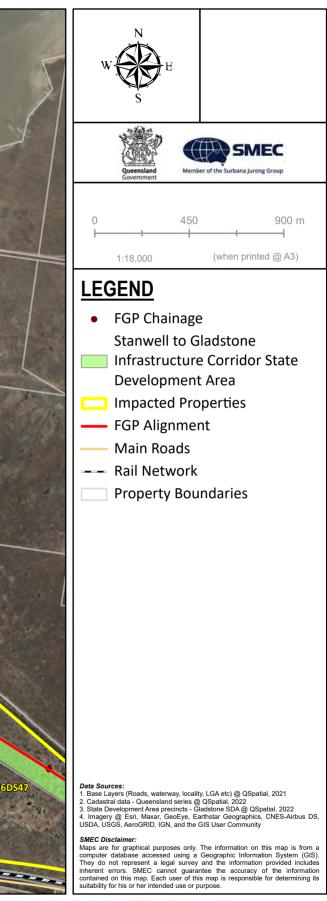


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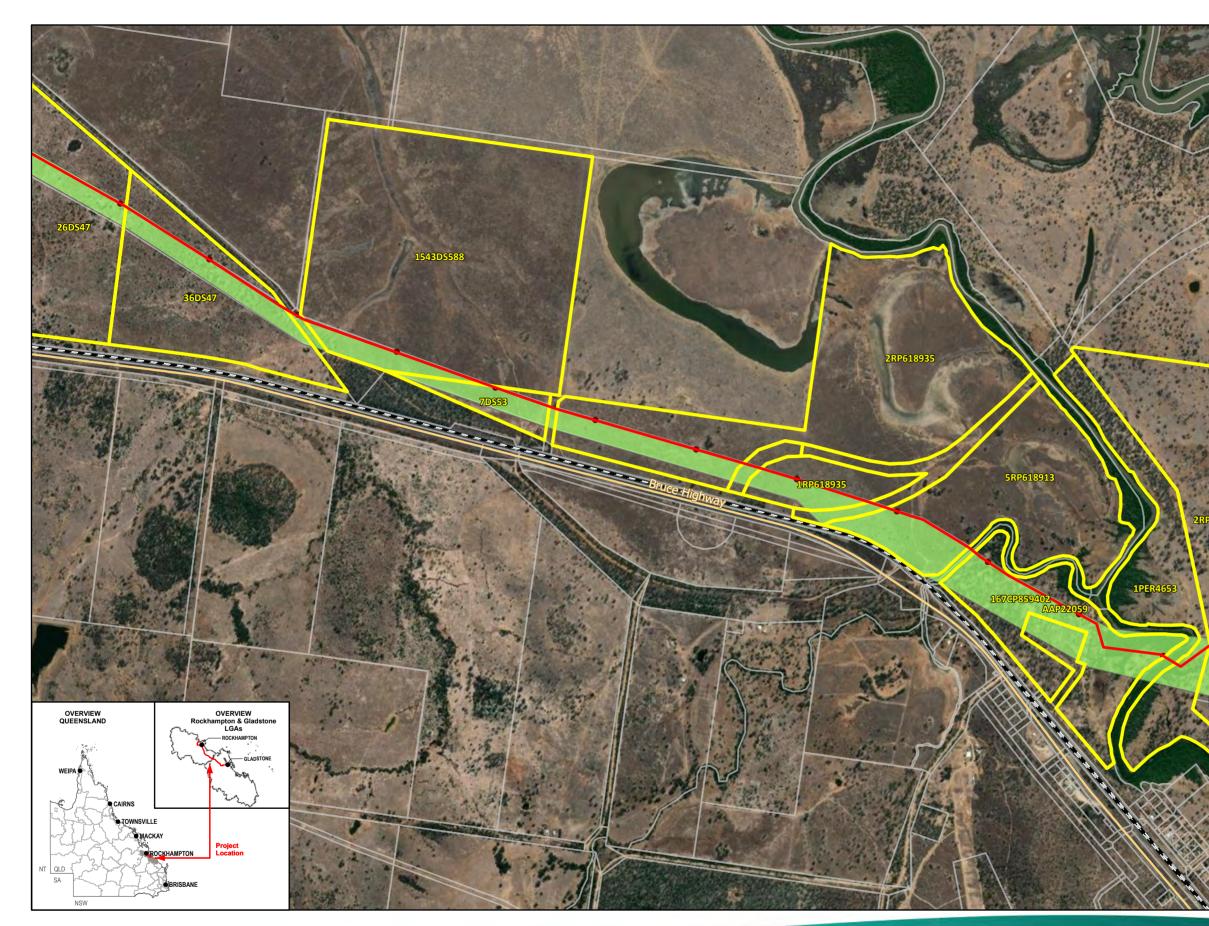




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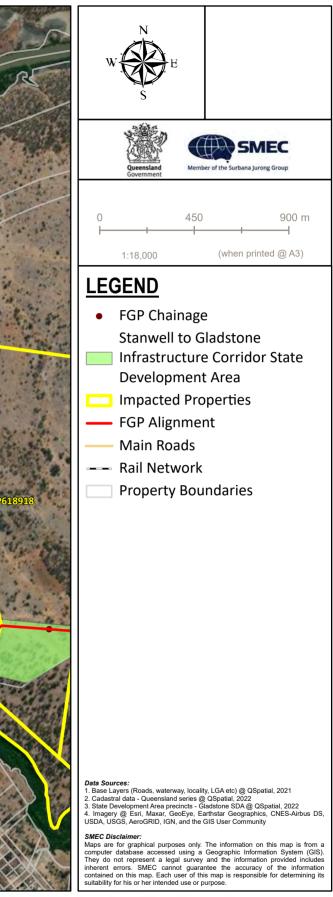


**Fitzroy to Gladstone Pipeline Project** Planning Report for Material Change of Use - FGP SGIC SDA Alignment Figure 2.3j FGP SGIC SDA Alignment Locality 000-G-MAP-2501 Version: 1 Date: 28/10/2022

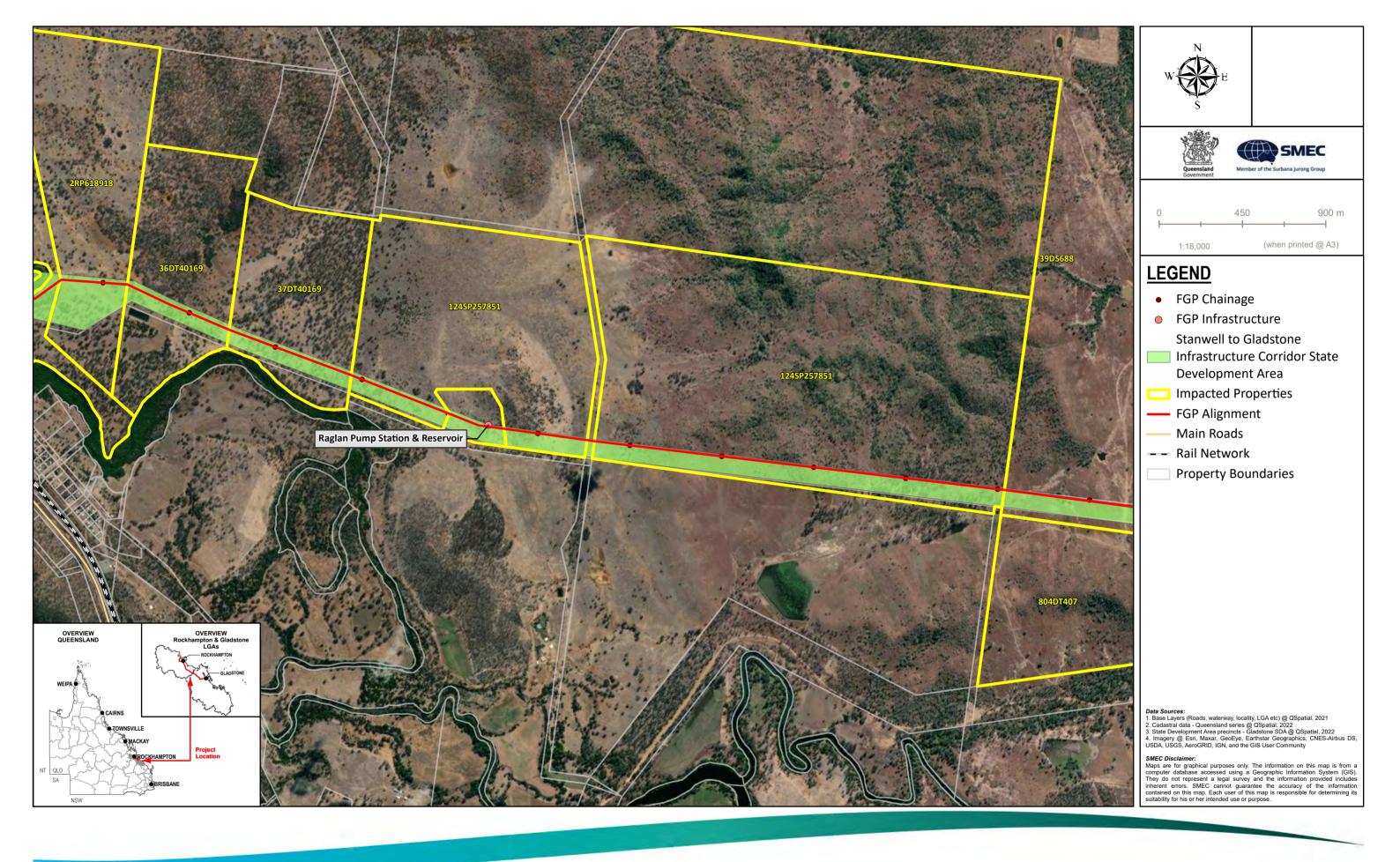




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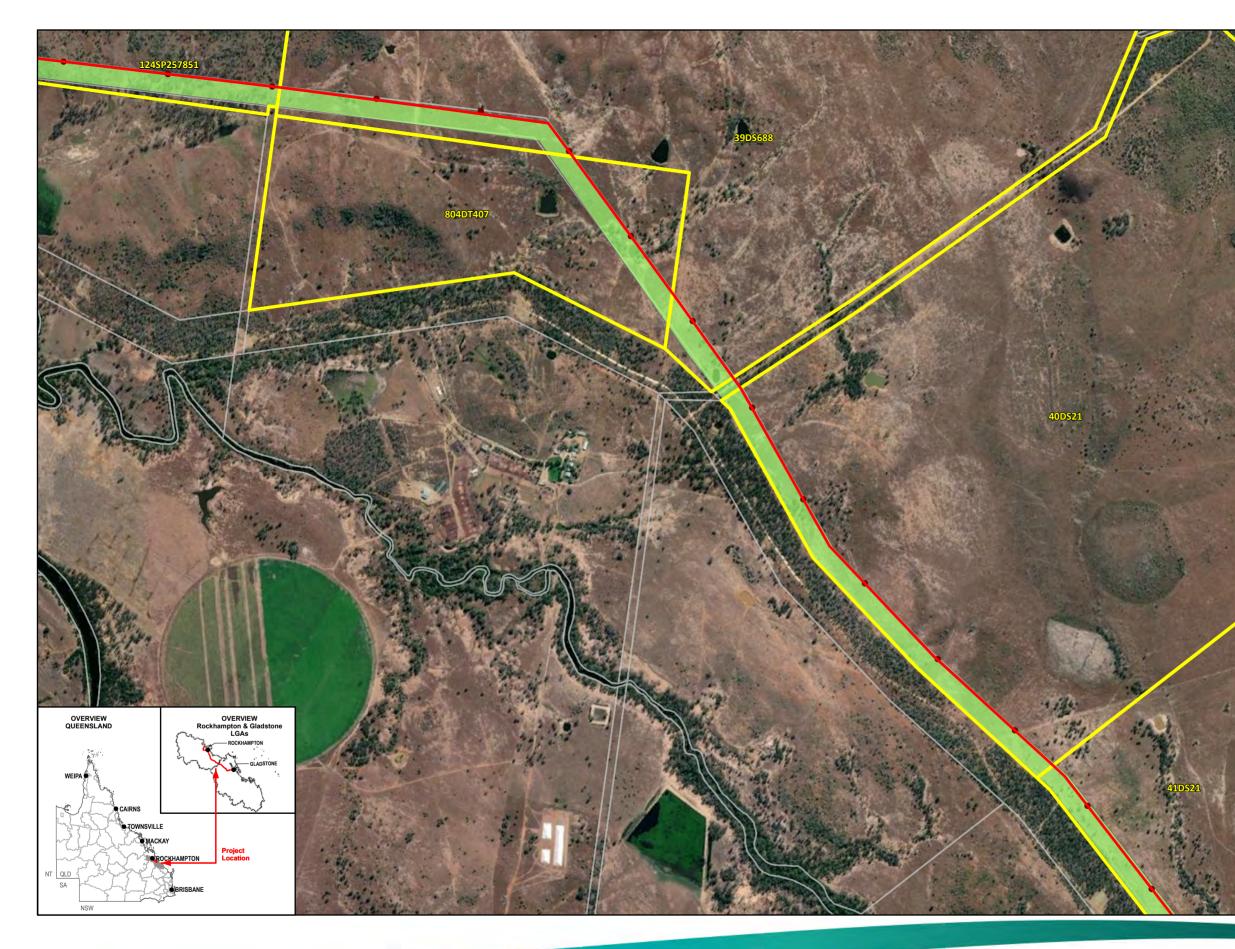
Fitzroy to Gladstone Pipeline Project Planning Report for Material Change of Use - FGP SGIC SDA Alignment Figure 2.3k FGP SGIC SDA Alignment Locality 000-G-MAP-2501 Version: 1 Date: 28/10/2022





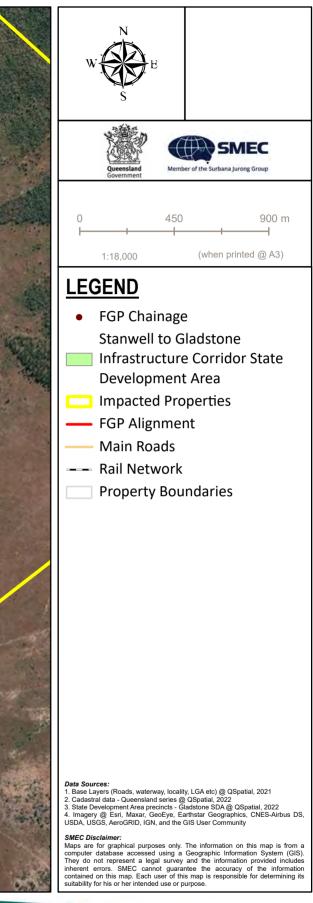
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Fitzroy to Gladstone Pipeline Project Planning Report for Material Change of Use - FGP SGIC SDA Alignment Figure 2.3I FGP SGIC SDA Alignment Locality 000-G-MAP-2501 Version: 1 Date: 28/10/2022

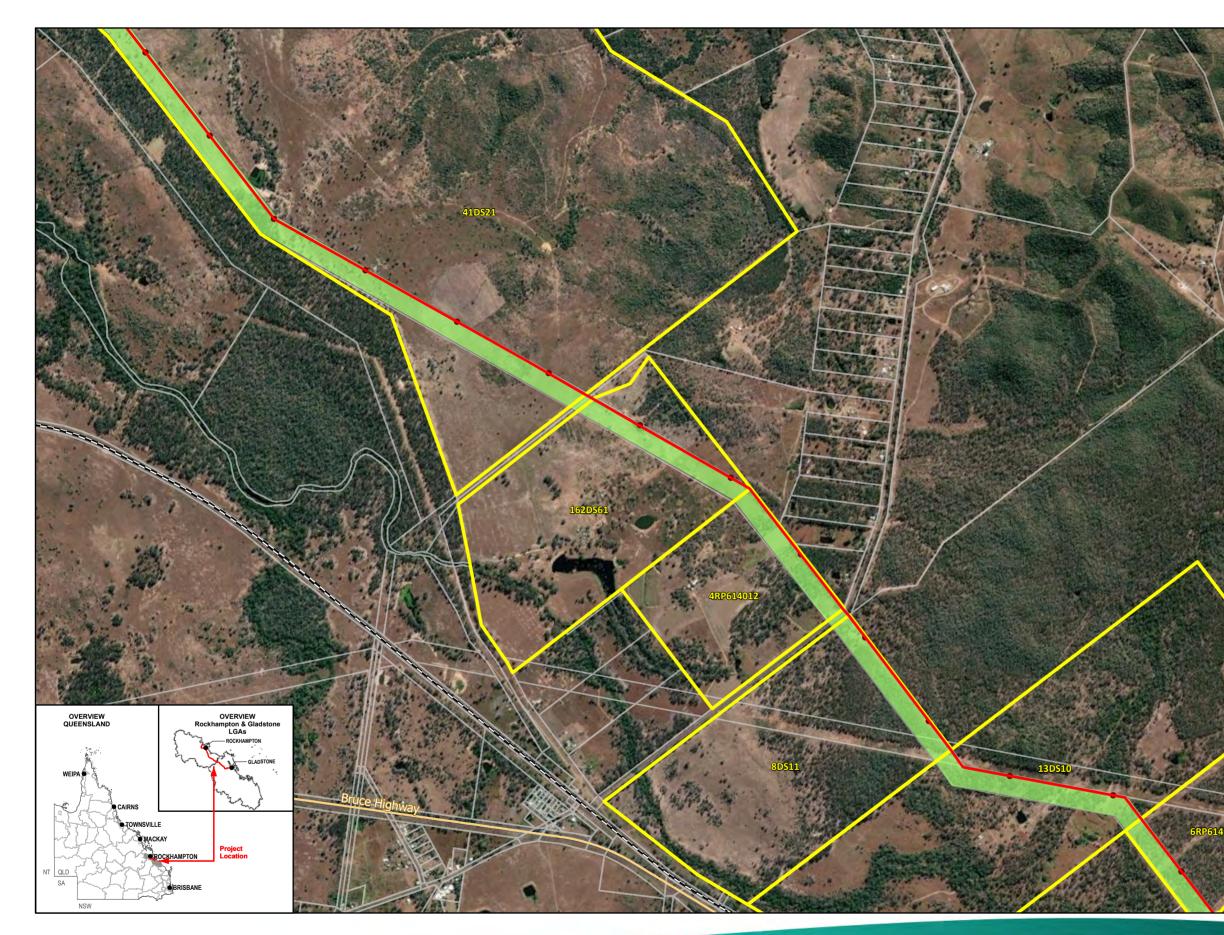




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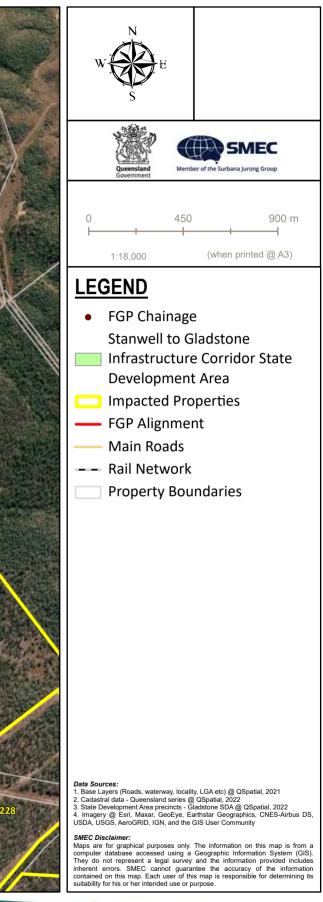


Fitzroy to Gladstone Pipeline Project Planning Report for Material Change of Use - FGP SGIC SDA Alignment Figure 2.3m FGP SGIC SDA Alignment Locality 000-G-MAP-2501 Version: 1 Date: 28/10/2022

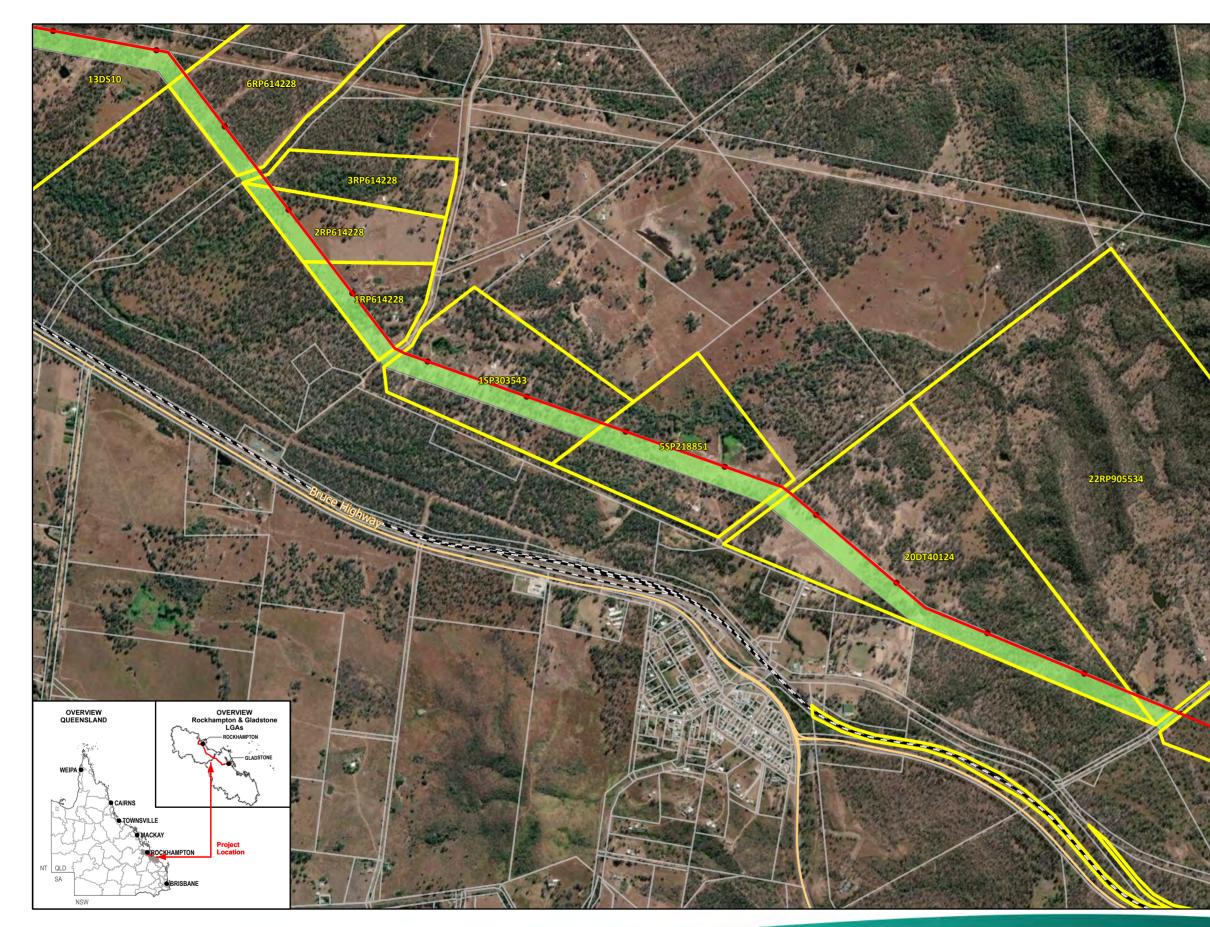




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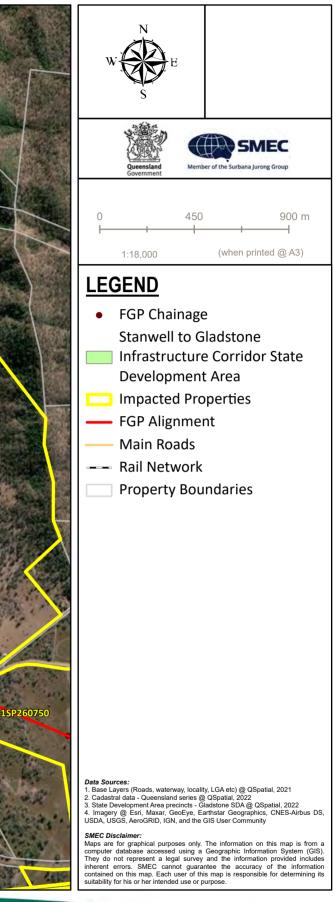


**Fitzroy to Gladstone Pipeline Project** Planning Report for Material Change of Use - FGP SGIC SDA Alignment Figure 2.3n FGP SGIC SDA Alignment Locality 000-G-MAP-2501 Version: 1 Date: 28/10/2022





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Fitzroy to Gladstone Pipeline Project Planning Report for Material Change of Use - FGP SGIC SDA Alignment Figure 2.30 FGP SGIC SDA Alignment Locality 000-G-MAP-2501 Version: 1 Date: 28/10/2022

# 2.3 Use Being Applied For

No person may carry out a MCU of premises in the SGIC SDA without the approval of the OCG as specified in Section 8.1 of the SGIC SDA Development Scheme (OCG, September 2012). An MCU is defined by the Department of State Development, Infrastructure, Local Government and Planning (DSDILGP) as:

- The start of a new use of the premises.
- The re-establishment on the premises of a use that has been abandoned.
- A material change in the intensity or scale of the use of the premises (DSDILGP, 2022).

It is considered that the proposed FGP SGIC SDA alignment constitutes the start of a new use and the material increase in the intensity and scale of the use of the premises. The application is to be assessed against the intent and objectives of the SGIC SDA Development Scheme.

# 2.4 State Interests and Referral Triggers

This application identifies the referral triggers under the *Planning Act 2016* and referral entities for the application in accordance with the SGIC SDA Development Scheme. The States interests and referrals associated with the FGP SGIC SDA alignment are outlined in Table 2.2. Further information related to State's interests and statutory considerations is provided in Sections 5 and 6.

State Interests	Comments	Referral Triggers Under the <i>Planning</i> Act 2016	Agency
Agriculture	<ul> <li>Four properties along the northern section of the SGIC SDA alignment intersect class A1 agricultural land. These properties are:</li> <li>Lot 71 on LIV40477.</li> <li>Lot 143 on LN2246.</li> <li>Lot 247 on R2621.</li> <li>Lot 248 on LIV401036.</li> </ul>	Nil	Nil
Economic Growth	The alignment is within the SGIC SDA within the 'Infrastructure corridor State Development Area'.	Works within a SDA	OCG
Environment and Heritage	<ul> <li>The alignment intersects the following MSES related to regulated vegetation:</li> <li>MSES – regulated vegetation (category B that is endangered or of concern).</li> <li>MSES – regulated vegetation (within a defined distance from the banks of a watercourse or relevant drainage feature).</li> <li>MSES – regulated vegetation (that intersects with a mapped wetland).</li> <li>MSES – regulated vegetation that is essential habitat (critically endangered, endangered or vulnerable plants or wildlife).</li> <li>MSES – regulated vegetation that is essential habitat (near threatened plants or wildlife).</li> <li>MSES – wetland protection area or wetland of high ecological significance.</li> <li>MSES – protected wildlife habitat (high risk area on a flora survey trigger map).</li> <li>MSES – protected wildlife habitat (habitat for an animal that is critically endangered, endangered, vulnerable or special least concern).</li> </ul>	Clearing of native vegetation	Department of Resources (DoR)

Table 2.2 State Interests and Referral Triggers Applicable to the FGP SGIC SDA Alignment

State Interests	Comments	Referral Triggers Under the <i>Planning</i> <i>Act 2016</i>	Agency
	<ul> <li>Regulated vegetation (where not an MSES):</li> <li>Category C.</li> <li>Category R.</li> <li>Category X (except clearing on freehold land).</li> </ul>	Clearing of native vegetation	DoR
	<ul> <li>Fisheries matters will be intersected by the alignment:</li> <li>Waterways for the purpose of waterway barrier works.</li> <li>Marine plants.</li> <li>The fisheries matters are also MSES.</li> </ul>	Operational work for waterway barrier works Operational work that is the removal, destruction or damage of marine plants	Department of Agriculture and Fisheries (DAF)
	<ul><li>Coastal matters will be intersected by the alignment:</li><li>Tidal waters.</li><li>Coastal management district.</li></ul>	Operational work that is tidal works or work in a coastal management district	Department of Environment and Science (DES)
	Clearing of protected plants.	Nil	DES
	Disturbance to animal breeding places.	Nil	DES
	Disturbance to potentially contaminated material.	Nil	DES
	Work in proximity to or disturbing Indigenous cultural heritage values, sites or places.	Nil	Department of Seniors, Disability Services and Aboriginal and Torres Strait Islander Partnerships (DSDSATSIP)
Safety and Resilience to Hazards	<ul> <li>The alignment is located within the following hazard areas:</li> <li>Flood hazard area.</li> <li>Bushfire hazard area.</li> <li>Coastal protection hazards.</li> </ul>	Nil	RRC GRC DES
Infrastructure	<ul> <li>The alignment intersects the following mapped State interests:</li> <li>State controlled road (current and future).</li> <li>State controlled railway (current and future).</li> </ul>	Works within a State- controlled Road Works within a State controlled railway	Department of Transport and Main Roads (TMR)
	The alignment intersects a number of local government road reserves.	Nil	RRC GRC

In addition to referral parties/agencies, a number of other parties may act as advice agencies. The following parties may be consulted for advice during the assessment of the SDA application (MCU) for the following impacted land:

- Alignment intersecting premises that are subject to easements for the benefit of a distribution entity under the Electricity Act 1994:
  - Ergon Energy Corporation Limited (Ergon).
  - Powerlink Queensland (Powerlink).
- Properties where all or part of the premises are subject to an easement for the benefit of the holder of a
  pipeline licence under the *Petroleum and Gas (Production and Safety) Act 2004*:
  - Jemena Queensland Gas Pipeline Pty Ltd.
  - Arrow Bowen Pipeline Pty Ltd (proposed, not yet constructed).
  - Sublessee of State controlled railways: Aurizon Network Pty Ltd (Aurizon).
- Watercourses where riverine protection provisions or taking of construction water apply: DRDMW.
- Water network crossing: RRC.

- Other infrastructure owners including the Telstra communication network.
- Exploration permit for Raglan Resources Pty Ltd for minerals.

Further information regarding land uses (tenements and resource areas) and infrastructure (road, rail and utilities) is located in Section 3.2 and 3.3 respectively.

# 2.5 Public Notification

During the assessment of the SDA application (MCU), the Coordinator-General is to decide if the application requires public consultation in accordance with the Public Consultation Policy State Development Areas (State of Queensland, OCG, 2021), as per Schedule 2 Part 2.3 of the SGIC SDA Development Scheme, Public Consultation Stage.

The decision that no public consultation is required may be made by the Coordinator-General because the proposed development has been subject to some other form of public consultation that would satisfy the consultation requirements under the SGIC SDA Development Scheme. Examples outlined within the Public Consultation Policy include if the development has undergone public consultation under a formal environmental impact assessment process where extensive public consultation was undertaken.

The Project has undergone an extensive public consultation process as part of the EIS process. The EIS (Arup, 2008) was on display for a public consultation period of 30 business days (1 November 2008 to 15 December 2008) and invited written comments from any interested stakeholders. The public consultation for the Project included letters to impacted stakeholders, advertising, media, community information sessions, Project update newsletters, EIS document display and presentations, summary of major findings, 1800 number/project email address. During the public consultation period, 27 submissions were received. In accordance with the relevant legislation, a SEIS was issued to the OCG that addressed the issues and comments raised in the submissions received (Arup, 2009).

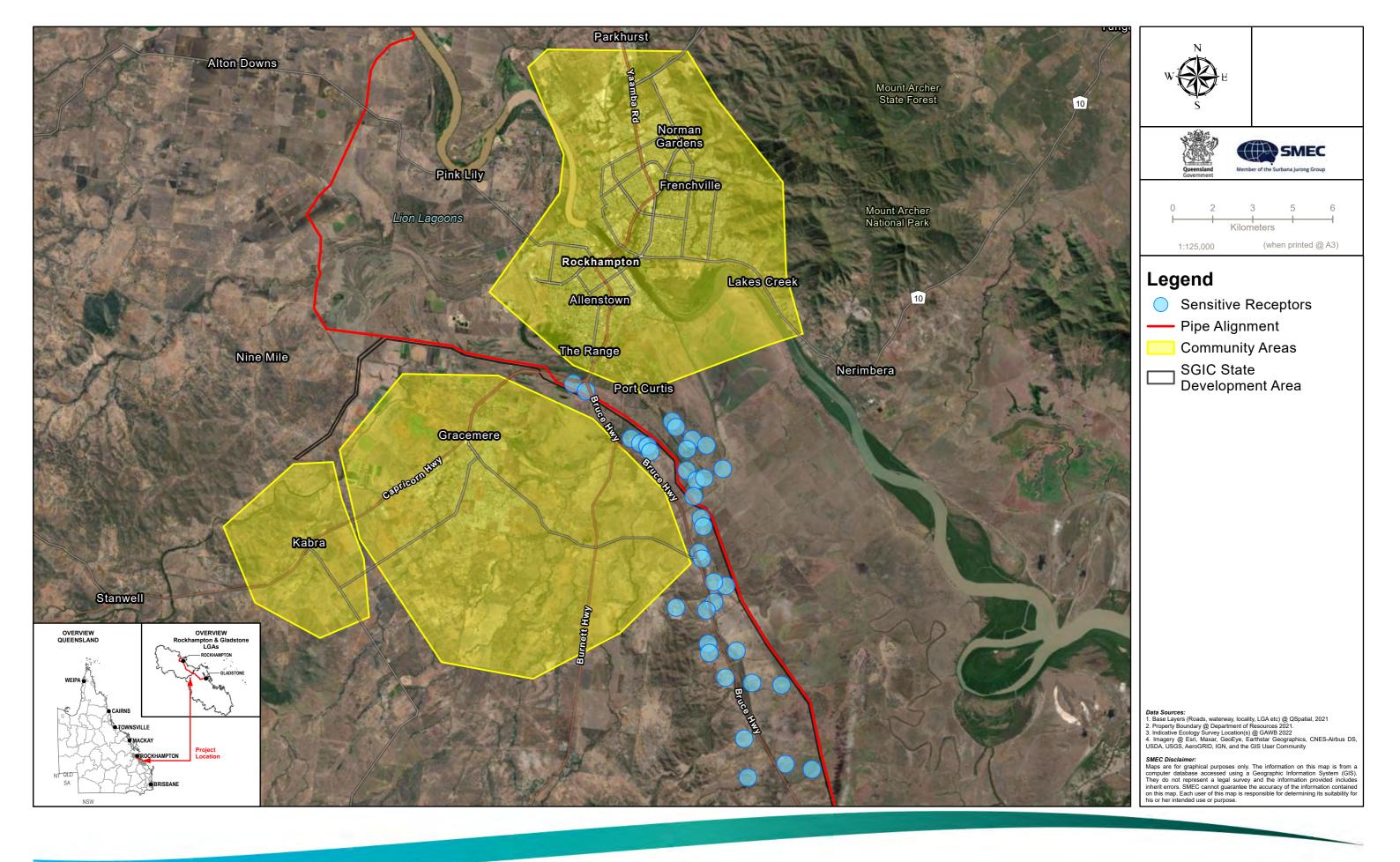
This process took place over 14 years ago, and as such may not meet the requirements of the Public Consultation Policy, or the SGIC SDA Development Scheme. However, GAWB has actively been consulting with Commonwealth, State and local regulatory agencies, impacted landholders and First Nations' groups over the last year and has received positive feedback about the progression of the Project. Based on environmental assessments for the Project and with appropriate management the FGP SGIC SDA alignment is not expected to significantly impact any sensitive receptors.

The Public Consultation Policy outlines additional matters that are to be considered in the public consultation stage to determine if public consultation is required. These are outlined in Table 2.3. Based on the assessment of the underground pipeline SDA application (MCU), it is proposed that further public notification is not required due to the extensive consultation that occurred as part of the EIS and SEIS and the ongoing consultation with State government departments, local governments and affected landholders regarding the Project. As the proposed development would be accepted development under the both the Rockhampton Region Planning Scheme and GRC Planning Scheme, and does not include a variation request, public notification would not be required.

Factor	Response
The age of the relevant development scheme	The SGIC SDA Development Scheme commenced in 2001 (OCG, 2012). The latest version of the SGIC SDA Development Scheme was approved in September 2012.
	This SDA application has also been prepared in consideration of the following additional planning legislation:
	<ul> <li>State interest review against the State Planning Policy (DILGP, 2017).</li> </ul>
	<ul> <li>Review against the Central Queensland Regional Plan (DSDIP, 2013).</li> </ul>
	<ul> <li>Review against the Rockhampton Region Planning Scheme (RRC, 2015).</li> </ul>
	<ul> <li>Review against the GRC Planning Scheme (GRC, 2017).</li> </ul>
	As the proposed Project has been reviewed against the most up to date versions of relevant State and local planning legislation in this SDA application (MCU), the Project is considered to have regard to the current constraints and intent over the FGP SGIC SDA alignment. The proposed development is generally compliant with the relevant planning legislation.

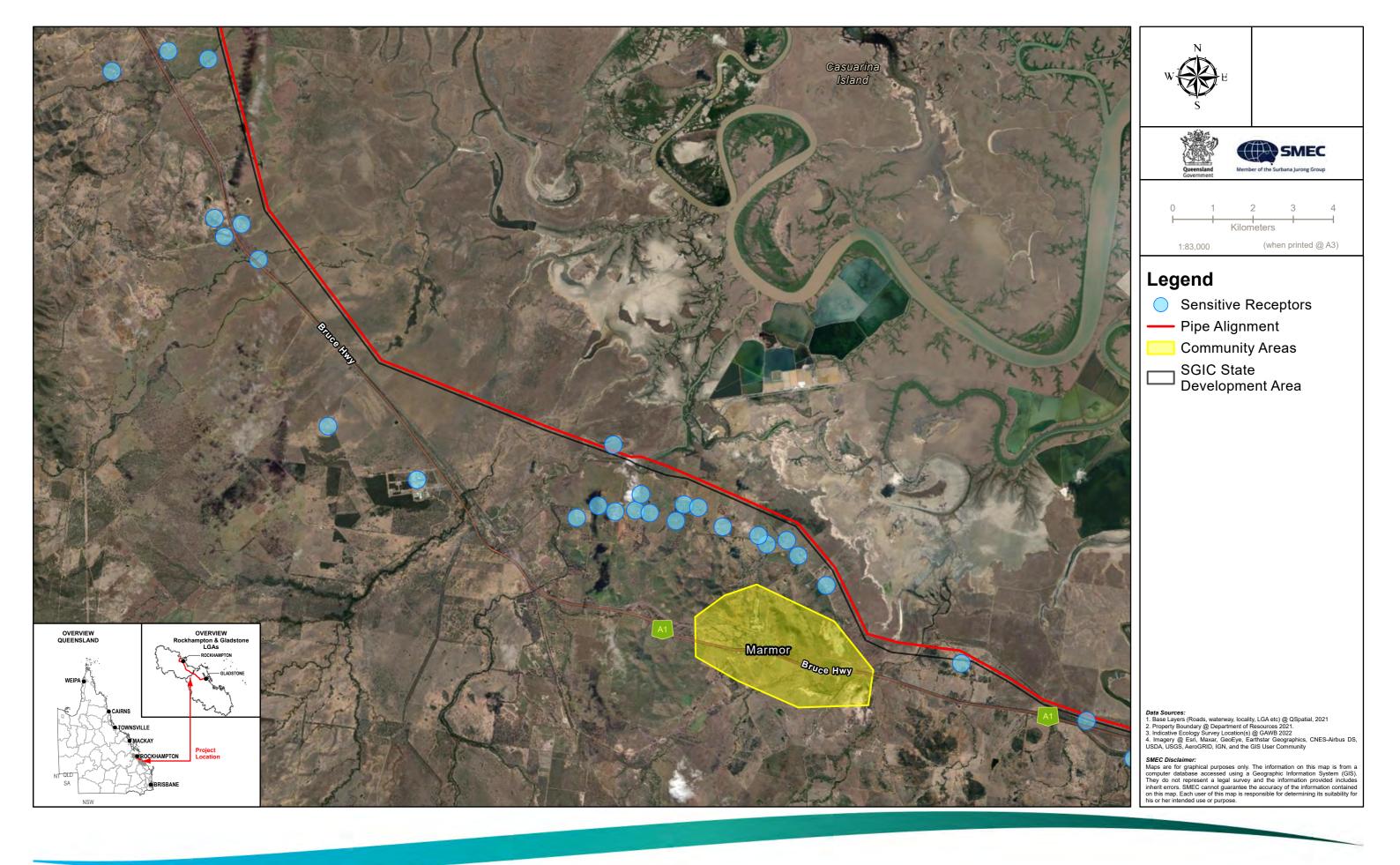
Table 2.3 Factors for Consideration in Requiring Public Consultation

Factor	Response
Whether the proposed development is likely to adversely impact on sensitive receptors	A number of sensitive receptors as defined by the Environmental Protection (Noise) Policy 2019 are located within approximately 2 km of the FGP SGIC SDA alignment. There are also natural environmental features and cultural heritage values located along, adjacent to and/or in the vicinity of the FGP SGIC SDA alignment. The sensitive receptors within 2 km of the FGP SGIC SDA alignment are displayed in Figure 2-4a and Figure 2-4c. Further information regarding sensitive receptors is provided in Section 3.4. The proposed FGP SGIC SDA alignment is considered to have short term impacts on surrounding sensitive receptors during the construction phase only. GAWB will be implementing management plans during construction to mitigate any adverse impacts to sensitive receptors. It is proposed that the consultation being undertaken in general as part of the Project, including landowner consultation, would be a suitable means for any concerns by sensitive receptors to be raised.
Whether the proposed development is likely to adversely impact existing development within the SDA	The potential impacts of the proposal and proposed mitigation measures, informed by detailed assessments, are detailed in Section 7 of this report. A range of infrastructure and land types are proposed to be impacted; these impacts will be addressed during Project specific consultation with landowners and asset owners as appropriate.
Whether the proposed development is consistent with the preferred development intent for the precinct, or the purpose of the precinct (depending on the development scheme)	<ul> <li>The proposed Project is consistent with the:</li> <li>The strategic vision for SGIC SDA.</li> <li>The overall objectives for development in the SGIC SDA.</li> <li>The intent and purpose of the SGIC SDA Development Scheme.</li> <li>SGIC SDA Policy 1 Outcomes.</li> <li>Compliance has been demonstrated in Section 5.2. (Note, precincts are not defined for the SGIC SDA.)</li> </ul>
Whether the proposed development would be subject to public consultation under the local RRC and GRC's planning scheme	Under the Rockhampton Region Planning Scheme, the FGP SGIC SDA alignment is predominately zoned 'rural' and sections of 'special purpose' where it intersects existing road and rail networks. Under the GRC Planning Scheme, the FGP SGIC SDA alignment is zoned 'special purpose'. An MCU for a new utility installation in the special purposes zone is subject to accepted development, where undertaken by a public sector entity, and would not require public notification.
Whether the proposed development would be subject to public consultation if the application was made under the <i>Planning Act 2016</i> .	In accordance with Chapter 3, Part 2, Division 2, Section 53 of the <i>Planning Act 2016</i> , public notification is required if a development application requires impact assessment, or the application includes a variation request. As the proposed development would be accepted development under the both the Rockhampton Region Planning Scheme and GRC Planning Scheme, and does not include a variation request, public notification would not be required.



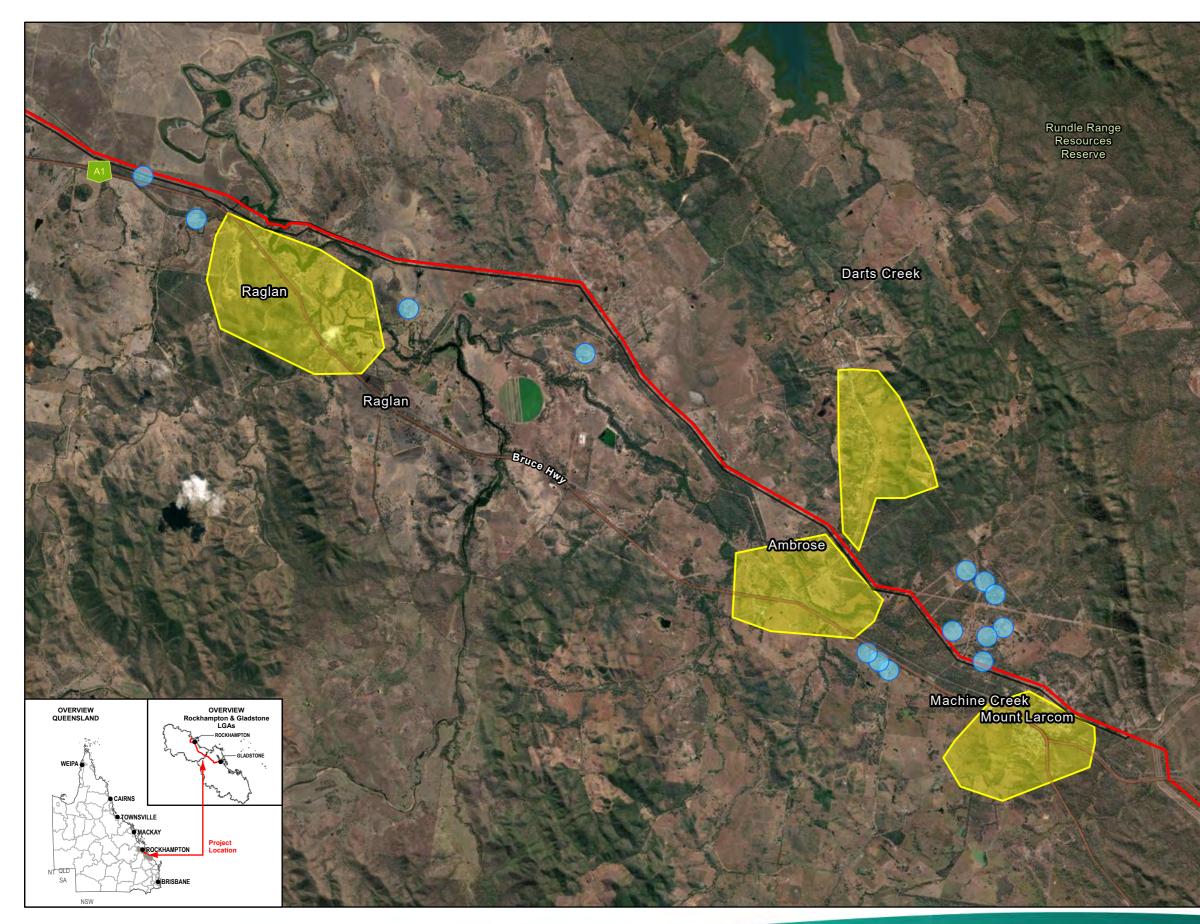


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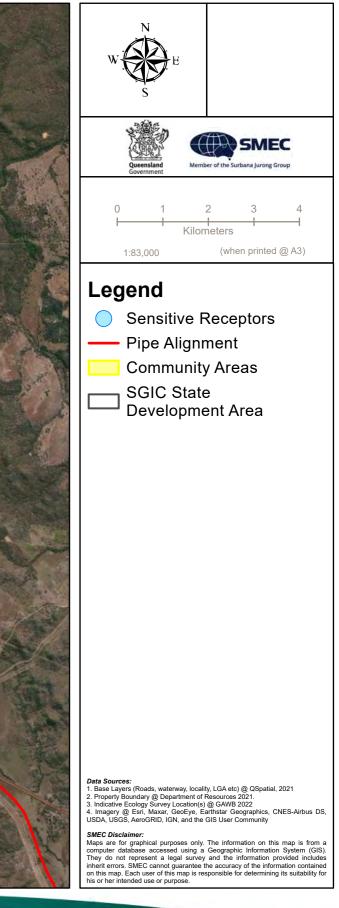


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FITZROY TO GLADSTONE PIPELINE PROJECT FIGURE 2.4c Sensitive Receptors within 2 km 000-G-MAP-2637 Version: 1 Date: 16/11/2022

# 3. Subject Land and Locality

## 3.1 Location

The FGP SGIC SDA alignment traverses the following localities:

- Ambrose.
- Bajool.
- Fariy Bower.
- Marmor.
- Midgee.
- Mount Larcom.
- Port Alma.
- Port Curtis.
- Raglan.

The FGP SGIC SDA alignment intersects, 164 properties, 133 of which are within the RRC and 31 properties within the GRC LGA, (refer to Figure 2-3a through to Figure 2.3o).

The land tenure types that are traversed by the FGP SGIC SDA alignment include:

- State-controlled road reserves.
- Road reserves.
- Freehold land parcels.
- Leased land parcels.
- Unallocated state land / waterways.

The land parcels traversed are outlined in Table 3.1. Table 3.1 also identifies:

- If the underlying landowner is private or public.
- Where the OCG has an easement for the purpose of the SGIC SDA.
- Who landowner consent is required from.
- Where other easements burden the land parcel.

Appropriate landowner consents have been sought to enable lodgement of this SDA application (MCU), refer to Table 3.1 and Appendix A.

GAWB is in the process of securing appropriate land tenure for the pipeline infrastructure in the SGIC SDA. This will be in the form of easements, licences and wayleaves as appropriate. GAWB will also obtain Road Corridor Permits and Works on a Road Corridor Permits for pipeline crossings of State government and local government-controlled roads respectively.

The FGP SGIC SDA alignment is subject to further alignment refinement as a result of engagement with landowners.

#### Table 3.1 Properties Traversed by the FGP SGIC SDA Alignment

GAWB Property ID #	Lot and Plan	Underlying Tenure	Underlying Landowner	Suburb	Existing Easement to the OCG for the SGIC SDA	Landowners Consent	Other Easements
Local Gov	vernment Area – Ro	ckhampton Region	al Council				
46A	71 LIV40477	Freehold	Private	Fairy Bower	Easement A on SP226009	OCG	Easement A on CP LIV40477 to the Coordinator General
47	143 LN2246	Freehold	Private	Fairy Bower	Easement B on SP226009	OCG	-
47A	Road Reserve – Unnamed Road	Road Reserve	RRC	Fairy Bower	-	The State of Queensland (represented by DoR/SLAM)	-
48	247 R2621	Freehold	Private	Fairy Bower	Easement A on SP226010	OCG	-
49	248 LIV401036	Freehold	Private	Fairy Bower	Easement B on SP226010	OCG	-
50	Road Reserve - Fogarty Road	Road Reserve	RRC	Fairy Bower	-	The State of Queensland (represented by DoR/SLAM)	-
51	241 LIV401036	Freehold	Private	Fairy Bower	Easement A on SP226011	OCG	-
52	Road Reserve - Titman Road	Road Reserve	RRC	Fairy Bower	-	The State of Queensland (represented by DoR/SLAM)	-
53	24 RP603312	Freehold	Private	Fairy Bower	Easement A on SP226013	OCG	-
54	Road Reserve - Newman Road	Road Reserve	RRC	Fairy Bower	-	The State of Queensland (represented by DoR/SLAM)	-
55	238 LIV401036	Freehold	Private	Fairy Bower	Easement A on SP226086	OCG	-
56	237 LIV401036	Freehold	Private	Fairy Bower	Easement B on SP226086	OCG	-
57	Road Reserve – Unnamed Road	Road Reserve	RRC	Fairy Bower	-	The State of Queensland (represented by DoR/SLAM)	-
58	13 RP617197	Freehold	Private	Fairy Bower	Easement C on SP226086	OCG	-
59	11 RP603184	Freehold	Private	Fairy Bower	Easement over the whole of the land	OCG	-
60	Road Reserve – Unnamed Road	Road Reserve	RRC	Fairy Bower	-	The State of Queensland (represented by DoR/SLAM)	-
61	10 RP603184	Freehold	Private	Fairy Bower	Easement over the whole of the land	OCG	-
62	12 RP844280	Freehold	Private	Fairy Bower	Easement A on SP226015	OCG	-

GAWB Property ID #	Lot and Plan	Underlying Tenure	Underlying Landowner	Suburb	Existing Easement to the OCG for the SGIC SDA	Landowners Consent	Other Easements
63	13 RP844280	Freehold	Private	Fairy Bower	Easement B on SP226015	OCG	Easement L on RP836743 to Alinta
64	Road Reserve – Unnamed Road	Road Reserve	RRC	Fairy Bower	-	The State of Queensland (represented by DoR/SLAM)	-
65	14 RP844281	Freehold	Private	Fairy Bower	Easement C on SP226015	OCG	Easement K on RP836743 to Alinta
66	15 RP844281	Freehold	Private	Fairy Bower	Easement D on SP226015	OCG	-
67	Road Reserve – Capricorn Highway	Road Reserve	TMR	Fairy Bower	-	The State of Queensland (represented by TMR)	-
68	19 RP844281	Freehold	Private	Fairy Bower	Easement A on SP226016	OCG	Easement K on RP836743 to Alinta
68A	Road Reserve – Unnamed Road	Road Reserve	RRC	Fairy Bower	-	The State of Queensland (represented by DoR/SLAM)	-
69	Road Reserve – Old Capricorn Highway	Road Reserve	RRC	Fairy Bower	-	The State of Queensland (represented by DoR/SLAM)	-
69A	Road Reserve – Unnamed Road	Road Reserve	Private	Fairy Bower		The State of Queensland (represented by DoR/SLAM)	-
70	3 RP605157	Freehold	Private	Fairy Bower	Easement A on SP226017	OCG	-
71	Road Reserve – Unnamed Road	Road Reserve	RRC	Fairy Bower	-	The State of Queensland (represented by DoR/SLAM)	-
72	1 RP603319	Freehold	Private	Fairy Bower	Easement B on SP226017	OCG	-
73	2 RP603319	Freehold	Queensland Rail	Fairy Bower	-	Queensland RailT	-
74	1 SP266123	Freehold	Private	Fairy Bower	Easement B on SP266125	OCG	-
75	Road Reserve – Bruce Highway	Road Reserve	TMR	Fairy Bower	-	The State of Queensland (represented by TMR)	-
76	1 SP234061	Lands Lease	Aurizon Network Pty Ltd (as sublessee)	Port Curtis	-	The State of Queensland (represented by TMR (Rail))	-
76A	Road Reserve – Unnamed Road	Road Reserve	RRC	Port Curtis		The State of Queensland (represented by DoR/SLAM)	-

GAWB Property ID #	Lot and Plan	Underlying Tenure	Underlying Landowner	Suburb	Existing Easement to the OCG for the SGIC SDA	Landowners Consent	Other Easements
77	1 SP266124	Freehold	Private	Port Curtis	Easement B on SP226020	OCG	-
78	Road Reserve – Unnamed Road	Road Reserve	RRC	Port Curtis	-	The State of Queensland (represented by DoR SLAM)	-
79	1 SP263972	Freehold	Private	Port Curtis	Easement A on SP226022	OCG	-
80	1 SP263973	Freehold	Private	Port Curtis	Easement B on SP226022	OCG	-
81	Road Reserve – Old Bruce Highway	Road Reserve	RRC	Port Curtis	-	The State of Queensland (represented by DoR/SLAM)	-
82	10 LN1189	Freehold	Private	Port Curtis	Easement A on SP226087	OCG	-
83	11 LN1189	Freehold	Private	Port Curtis	Easement over the whole of the land	OCG	-
84	17 RP603306	Freehold	Private	Port Curtis	Easement C on SP226024	OCG	-
85	16 RP603306	Freehold	Private	Port Curtis	Easement B on SP226024	OCG	-
86	Road Reserve Unnamed Road	Road Reserve	RRC	Port Curtis	-	The State of Queensland (represented by DoR/SLAM)	-
87	42 RP603259	Freehold	Private	Port Curtis	Easement A on SP226025	OCG	-
88	38 RP603259	Freehold	Private	Port Curtis	Easement B on SP226025	OCG	-
89	Watercourse – Scrubby Creek	Watercourse	State of Queensland (administered via DoR)	Port Curtis	-	The State of Queensland (represented by DoR/SLAM)	-
89A	27 PL4017	Freehold	Private	Port Curtis	Easement A on SP226026	OCG	Easement B on RP620253
90	28 PL4017	Freehold	Private	Port Curtis	Easement B on SP226027	OCG	-
91	31 PL4017	Freehold	Private	Port Curtis	Easement C on SP226027	OCG	Easement A on RP10347
92	32 PL4017	Freehold	Private	Port Curtis	Easement A on SP226029	OCG	-
93	33 PL4017	Freehold	Private	Port Curtis	Easement B on SP226029	OCG	-
94	Road Reserve – Unnamed Road	Road Reserve	RRC	Port Curtis	-	The State of Queensland (represented by DoR/SLAM)	-
95	34 PL4017	Freehold	Private	Port Curtis	Easement A on SP226030	OCG	-

GAWB Property ID #	Lot and Plan	Underlying Tenure	Underlying Landowner	Suburb	Existing Easement to the OCG for the SGIC SDA	Landowners Consent	Other Easements
96	35 PL4017	Freehold	Private	Port Curtis	Easement B on SP226030	OCG	-
97	36 PL4017	Freehold	Private	Port Curtis	Easement A on SP226031	OCG	-
98	37 PL4017	Freehold	Private	Port Curtis	Easement B on SP226031	OCG	-
99	Road Reserve – Whyte Road	Road Reserve	RRC	Port Curtis	-	The State of Queensland (represented by DoR/SLAM)	-
100	45 PL4017	Freehold	Private	Port Curtis	Easement A on SP226032	OCG	-
101	Watercourse – Gavial Creek	Watercourse	State of Queensland (administered via DoR)	Port Curtis	-	The State of Queensland (represented by DoR/SLAM)	-
102	1 RP601377	Freehold	Private	Port Curtis	Easement B on SP226032	OCG	-
103	2 RP601377	Freehold	Private	Port Curtis	Easement A on SP226033	OCG	-
104	3 RP601377	Freehold	Private	Port Curtis	Easement A on SP226034	OCG	-
104A	Road Reserve – River Road	Road Reserve	RRC	Port Curtis	-	The State of Queensland (represented by DoR/SLAM)	-
105	Road Reserve – Roope Road	Road Reserve	RRC	Port Curtis	-	The State of Queensland (represented by DoR/SLAM)	-
106	76 LN184	Freehold	Private	Midgee	Easement B on SP226035	OCG	-
107	77 LN195	Freehold	Private	Midgee	Easement A on SP226036	OCG	-
108	4 SP103554	Freehold	Private	Midgee	Easement A on SP226037	OCG	-
109	Road Reserve – Unnamed Road	Road Reserve	RRC	Midgee	-	The State of Queensland (represented by DoR/SLAM)	-
110	79 LN195	Freehold	Private	Midgee	Easement A on SP226038	OCG	-
111	31 SP181941	Freehold	Private	Midgee	Easement A on SP226039	OCG	-
112	81 LN183	Freehold	Private	Midgee	Easement A on SP226040	OCG	-
113	Road Reserve – Unnamed Road	Road Reserve	RRC	Midgee	-	The State of Queensland (represented by DoR/SLAM)	-
114	82 LN183	Freehold	Private	Midgee	Easement A on SP226041	OCG	-
116	83 LN183	Freehold	Private	Midgee	Easement B on SP226041	OCG	-
118	160 LN271	Freehold	Private	Midgee	Easement C on SP226041	OCG	-

GAWB Property ID #	Lot and Plan	Underlying Tenure	Underlying Landowner	Suburb	Existing Easement to the OCG for the SGIC SDA	Landowners Consent	Other Easements
120	129 LN271	Freehold	Private	Midgee	Easement A on SP226042	OCG	-
121	Road Reserve – Georges Road	Road Reserve	RRC	Midgee	-	The State of Queensland (represented by DoR/SLAM)	-
122	130 LN271	Freehold	Private	Midgee	Easement A on SP226043	OCG	-
123	103 LN182	Freehold	Private	Midgee	Easement B on SP226043	OCG	-
124	Road Reserve – Casuarina Road	Road Reserve	RRC	Midgee	-	The State of Queensland (represented by DoR/SLAM)	-
125	103 LN182	Freehold	Private	Midgee	Easement C on SP226043	OCG	-
126	2 RP605082	Freehold	Private	Midgee	Easement A on SP226044	OCG	-
127	3 RP601896	Freehold	Private	Midgee	Easement B on SP226044	OCG	-
128	2 RP612565	Freehold	Private	Bajool	Easement A on SP226045	OCG	-
129	Watercourse – Bob's Creek	Watercourse	State of Queensland (administered via DoR)	Bajool	-	The State of Queensland (represented by DoR/SLAM)	-
130	5 RP604251	Freehold	Private	Bajool	Easement A on SP226085	OCG	-
131	3 RP600950	Freehold	Private	Bajool	Easement B on SP226046	OCG	-
132	4 RP600951	Freehold	Private	Bajool	Easement C on SP226046	OCG	-
133	1 RL8197	Road licence	RRC	Bajool	-	The State of Queensland (represented by DoR/SLAM)	-
134	3 LIV40208	Freehold	Private	Bajool	Easement D on SP226046	OCG	-
135	4 LIV40208	Freehold	Private	Bajool	Easement E on SP226046	OCG	-
136	76 LIV40208	Freehold	Private	Bajool	Easement F on SP226046	OCG	-
137	3 RP603158	Freehold	Private	Bajool	Easement A on SP226047	OCG	
138	1 RP602706	Freehold	Private	Bajool	Easement A on SP226048	OCG	-
139	2 RP601795	Lands Lease	TMR	Bajool	-	The State of Queensland (represented by TMR)	-
140	3 RP601795	Freehold	Private	Bajool	Easement A on SP226050	OCG	-
141	1 AP2418	Unallocated State Land	DoR	Port Alma	-	The State of Queensland (represented by DoR/SLAM)	-

GAWB Property ID #	Lot and Plan	Underlying Tenure	Underlying Landowner	Suburb	Existing Easement to the OCG for the SGIC SDA	Landowners Consent	Other Easements
142	Watercourse – Inkerman Creek	Watercourse	State of Queensland (administered via DoR)	Bajool	-	The State of Queensland (represented by DoR/SLAM)	-
144	142 DS634	Freehold	Private	Bajool	Easement A on SP226052	OCG	
145	68 DS141	Freehold	Private	Bajool	Easement B on SP226052	OCG	
146	69 DS141	Freehold	Private	Bajool	Easement A on SP226054	OCG	
147	Road Reserve – Bajool Port Alma Road	Road Reserve	TMR	Bajool	-	The State of Queensland (represented by TMR)	-
148	93 DS611	Freehold	Private	Bajool	Easement B on SP226054	OCG	
149	94 DS186	Freehold	Private	Marmor	Easement A on SP226055	OCG	
150	95 DS186	Freehold	Private	Marmor	Easement A on SP226056	OCG	
151	Road Reserve - Tonga Port Alma	Road Reserve	RRC	Marmor	-	The State of Queensland (represented by DoR/SLAM)	-
151A	97 DS186	Freehold	Private	Marmor	Easement B on SP226055	OCG	-
152	98 DS186	Freehold	Private	Marmor	Easement A on SP226057	OCG	-
153	99 DS186	Freehold	Private	Marmor	Easement A on SP226058	OCG	-
154	100 DS185	Freehold	Private	Marmor	Easement A on SP226059	OCG	-
155	101 DS185	Freehold	Private	Marmor	Easement A on SP226060	OCG	-
156 and 157A	102 DS185	Freehold	Private	Marmor	Easement A on SP226061	OCG	-
157	Temporarily Closed Road	Road Reserve	RRC	Marmor	-	The State of Queensland (represented by DoR/SLAM)	-
158	84 DS185	Freehold	Private	Marmor	Easement A on SP226062	OCG	-
159	Road Reserve – Unnamed Road	Road Reserve	RRC	Marmor	-	The State of Queensland (represented by DoR/SLAM)	-
160	85 DS185	Freehold	Private	Marmor	Easement B on SP226062	OCG	-
161	Road Reserve – Twelve Mile Road	Road Reserve	RRC	Marmor	-	The State of Queensland (represented by DoR/SLAM)	-
162	29 DS37	Freehold	Private	Marmor	Easement C on SP226062	OCG	-

GAWB Property ID #	Lot and Plan	Underlying Tenure	Underlying Landowner	Suburb	Existing Easement to the OCG for the SGIC SDA	Landowners Consent	Other Easements
163	28 DS37	Freehold	Private	Marmor	Easement A on SP226063	OCG	-
164	27 DS28	Freehold	Private	Marmor	Easement B on SP226063	OCG	-
165	26 DS47	Freehold	Private	Marmor	Easement A on SP226064	OCG	-
166	36 DS47	Freehold	Private	Marmor	Easement B on SP226064	OCG	-
167	Road Reserve – Twelve Mile Road	Road Reserve	RRC	Marmor	-	The State of Queensland (represented by DoR/SLAM)	-
168	1543 DS588	Freehold	Private	Marmor	Easement C on SP226064	OCG	-
169	7 DS53	Freehold	Private	Marmor	Easement A on SP226065	OCG	-
170	Road Reserve – Unnamed Road	Road Reserve	RRC	Marmor	-	The State of Queensland (represented by DoR/SLAM)	-
171	2 RP618935	Freehold	Private	Marmor	Easement A on SP226066	OCG	-
172	1 RP618912	Freehold	Private	Marmor	Easement B on SP226066	OCG	-
173	1 RP618935	Freehold	Private	Marmor	Easement C on SP226066	OCG	-
174	2 RP618913	Freehold	Private	Marmor	Easement D on SP226066	OCG	-
175	5 RP618913	Freehold	Private	Marmor	Easement E on SP226066	OCG	-
176	Watercourse – Horrigan Creek	Watercourse	State of Queensland (administered via DoR)	Marmor	-	The State of Queensland (represented by DoR/SLAM)	-
Local Gov	vernment Area – Gla	dstone Regional Co	uncil				
177	167 CP859402	Racecourse and Recreation Reserve	State of Queensland (represented via DoR)	Raglan	Permit to Occupy	The State of Queensland (represented by DoR/SLAM)	-
178	Watercourse – Raglan Creek	Watercourse	State of Queensland (administered via DoR)	Raglan	-	The State of Queensland (represented by DoR/SLAM)	-
179	1 PER4653	Grazing permit over Road Reserve	State of Queensland (administered via DoR)	Raglan	-	The State of Queensland (represented by DoR/SLAM)	-

GAWB Property ID #	Lot and Plan	Underlying Tenure	Underlying Landowner	Suburb	Existing Easement to the OCG for the SGIC SDA	Landowners Consent	Other Easements
180	2 RP618918	Freehold	Private	Raglan	Easement A on SP226070	OCG	-
181	36 DT40169	Freehold	Private	Raglan	Easement B on SP226070	OCG	-
182	37 DT40169	Freehold	Private	Raglan	Easement C on SP226070	OCG	-
183 & 186	124 SP257851	Freehold	Private	Raglan	Easements A and B on SP226071	OCG	-
185	Road Reserve – Unnamed Road	Road Reserve	GRC	Raglan	-	The State of Queensland (represented by DoR/SLAM)	-
187 & 189	39 DS688	Freehold	Private	Raglan	Easements E and F on SP264783	OCG	-
188	804 DT407	Freehold	Private	Raglan	Easement B on SP264784	OCG	-
190	Road Reserve – Reedy Creek Road	Road Reserve	GRC	Raglan	-	The State of Queensland (represented by DoR/SLAM)	-
191	40 DS21	Freehold	Private	Raglan	Easement G on SP264783	OCG	-
192	41 DS21	Freehold	Private	Raglan	Easement D on SP226072	OCG	-
193	Road Reserve – Unnamed Road	Road Reserve	GRC	Ambrose	-	The State of Queensland (represented by DoR/SLAM)	-
194	162 DS61	Freehold	Private	Ambrose	Easement B on SP226074	OCG	Easement A on RP10555 to The Capricornia Regional Electricity Board
195	4 RP614012	Freehold	Private	Ambrose	Easement C on SP226075	OCG	Easement A on RP10556 to The Capricornia Regional Electricity Board Easement B on RP614012
196	Road Reserve – Darts Creek Road	Road Reserve	GRC	Ambrose	-	The State of Queensland (represented by DoR/SLAM)	-

GAWB Property ID #	Lot and Plan	Underlying Tenure	Underlying Landowner	Suburb	Existing Easement to the OCG for the SGIC SDA	Landowners Consent	Other Easements
197	8 DS11	Freehold	Private	Ambrose	Easement D on SP226075	OCG	Easement A on RP10557 to The Capricornia Regional Electricity Board
198	13 DS10	Freehold	Private	Ambrose	Easement B on SP226076	OCG	Easement A on RP610588 to The Capricornia Regional Electricity Board
199	6 RP614228	Freehold	Private	Mount Larcom	Easement B on SP226077	OCG	Easement A on RP10590 to The Capricornia Regional Electricity Board
200	Road Reserve – Unnamed Road	Road Reserve	GRC	Mount Larcom	-	The State of Queensland (represented by DoR/SLAM)	-
201	3 RP614228	Freehold	Private	Mount Larcom	Easement A on SP226078	OCG	-
202	2 RP614228	Freehold	Private	Mount Larcom	Easement A on SP226079	OCG	-
203	1 RP614228	Freehold	Private	Mount Larcom	Easement A on SP226080	OCG	-
204	Road Reserve - Popenia Road	Road Reserve	GRC	Mount Larcom	-	The State of Queensland (represented by DoR/SLAM)	-
205	1 SP303543	Freehold	Private	Mount Larcom	Easement A on SP226081	OCG	-
206	5 SP218851	Freehold	Private	Mount Larcom	Easement B on SP226081	OCG	-
207	Road Reserve - Gostevsky Road	Road Reserve	GRC	Mount Larcom	-	The State of Queensland (represented by DoR/SLAM)	-
208	20 DT40124	Freehold	Private	Mount Larcom	Easement A on SP226082	OCG	-
209	22 RP905534	Freehold	Private	Mount Larcom	Easement B on SP226082	OCG	-
210	Road Reserve – The Narrows Road	Road Reserve	GRC	Mount Larcom	-	The State of Queensland (represented by DoR/SLAM)	-

## 3.2 Land Uses

The proposed FGP SGIC SDA alignment is considered to be compatible with the objectives of the SGIC SDA as it will support the expanding industrial development from Stanwell to Gladstone, as there is a growing need to provide a reliable supply of water for growth of current consumers and future demands. An assessment of the proposed FGP SGIC SDA alignment against the provisions of the SGIC SDA Development Scheme is presented in Section 5.2.

The FGP SGIC SDA alignment traverses a range of different land uses. The dominant land uses for the properties within the FGP SGIC SDA alignment is predominately agriculture which includes horticulture and grazing land for livestock.

The following sections describe the key land uses and potential effects of the FGP SGIC SDA alignment based on underlying land tenure. Potential impacts to relevant infrastructure and utilities, including roads and rail, is discussed in Section 3.3.

## 3.2.1 Surrounding Land Uses

### **Existing Land Uses**

Land uses surrounding the FGP SGIC SDA alignment include:

- Existing Infrastructure including State-controlled roads (Capricorn Highway and the Bruce Highway), local government roads, rail lines, electricity transmission, telecommunications and gas pipelines.
- Industrial uses including Nerimbera Quarry, unnamed sand and hard rock quarries, and land where exploration permits for minerals are held.
- Port Alma facilities.
- Established agricultural properties.
- GSDA to the south of the SGIC SDA.
- Sensitive receptors (such as residential properties); these are further detailed in Section 3.4.
- Environmental areas and waterways including the Great Barrier Reef Marine Park, Bouldercombe Gorge Conservation Park Bouldercombe Gorge Resources Reserve, Mount Archer National Park and Mount Archer State Forest.

The FGP SGIC SDA is considered to be consistent with the surrounding land uses. The Project is also in support of the surrounding land uses as it has the potential to provide water security for the region.

### **Future Land Uses**

Future land uses within this area of the FGP SGIC SDA alignment may include industry, infrastructure, and agriculture. The FGP SGIC SDA alignment is predominantly located within grazing natural vegetation land use areas and will enable continued land use. The Project is also in support of the future development via the provision of water security.

## 3.2.2 Intersected Land Uses

### **Existing Land Uses**

The FGP SGIC SDA alignment is considered to be consistent and compatible with the surrounding land uses. The land uses of properties (not infrastructure properties) traversed by the FGP SGIC SDA alignment are discussed in Table 3.2.

Table 3.2	Existing	Land	lleas
Table 3.2	Existing	Lanu	Uses

GAWB Property ID #	Lot and Plan	Existing Land Use
46A	71 LIV40477	Grazing modified pastures

GAWB	Lot and Plan	Existing Land Use
Property ID #		
47	14 3LN2246	Grazing modified pastures and marsh/wetland areas
48	247 R2621	Grazing modified pastures and channel/aqueduct
49	248 LIV401036	Grazing modified pastures and channel/aqueduct
51	241 LIV401036	Grazing modified pastures and channel/aqueduct
53	24 RP603312	Rural residential
55	238 LIV401036	Grazing modified pastures
56	237 LIV401036	Grazing modified pastures
58	13 RP617197	Grazing modified pastures and channel/aqueduct
59	11 RP603184	Grazing modified pastures
61	10 RP603184	Grazing modified pastures
62	12 RP844280	Grazing modified pastures and channel/aqueduct
63	13 RP844280	Grazing modified pastures
65	14 RP844281	Grazing modified pastures and a lake
66	15 RP844281	Grazing modified pastures and a lake
68	19 RP844281	Grazing modified pastures and marsh/wetland areas
70	3 RP605157	Grazing modified pastures and marsh/wetland areas
72	1 RP603319	Grazing modified pastures
73	2 RP603319	Vacant land, owned by Queensland Rail
74	1 SP266123	Residential and grazing modified pastures
76	1 SP234061	Grazing modified pastures
77	1 SP266124	Grazing modified pastures and marsh/wetland areas
79	1 SP263972	Grazing modified pastures and marsh/wetland
80	1 SP263973	Grazing modified pastures and marsh/wetland
82	10 LN1189	Grazing modified pastures
83	11 LN1189	Grazing modified pastures
84	17 RP603306	Grazing modified pastures
85	16 RP603306	Grazing modified pastures
87	42 RP603259	Grazing modified pastures
88	38 RP603259	Grazing modified pastures
89A	27 PL4017	Grazing modified pastures
90	28 PL4017	Grazing modified pastures
91	31 PL4017	Grazing modified pastures
92	32 PL4017	Rural residential
93	33 PL4017	Rural residential
95	34 PL4017	Grazing modified pastures and a lake
96	35 PL4017	Grazing modified pastures and a lake
97	36 PL4017	Residential and a lake
98	37 PL4017	Residential and a lake
100	45 PL4017	Grazing modified pastures
102	1 RP601377	Grazing modified pastures

GAWB	Lot and Plan	Existing Land Use
Property ID #		
103	2 RP601377	Grazing modified pastures
104	3 RP601377	Grazing modified pastures
106	76 LN184	Grazing modified pastures; marsh/wetland areas; cropping; and residential
107	77 LN195	Grazing modified pastures; marsh/wetland areas; and rural residential
108	4 SP103554	Grazing modified pastures; marsh/wetland areas; and rural residential
110	79 LN195	Grazing modified pastures
111	31 SP181941	Grazing modified pastures; marsh/wetland areas; and rural residential
112	81 LN183	Grazing modified pastures; marsh/wetland areas; and rural residential
114	82 LN183	Grazing modified pastures
116	83 LN183	Grazing modified pastures
118	160 LN271	Grazing modified pastures
120	129 LN271	Grazing modified pastures
122	130 LN271	Grazing modified pastures and marsh/wetland areas
123 & 125	103 LN182	Grazing modified pastures and marsh/wetland areas
126	2 RP605082	Grazing modified pastures and marsh/wetland areas
127	3 RP601896	Grazing modified pastures
128	2 RP612565	Grazing modified pastures and rural residential
130	5 RP604251	Grazing modified pastures and marsh/wetland areas
131	3 RP600950	Grazing modified pastures; reservoir/dam; and rural residential
132	4 RP600951	Grazing modified pastures; rural residential
133	1 RL8197	Grazing modified pastures
134	3 LIV40208	Grazing modified pastures; reservoir/dam; and marsh/wetland areas
135	4 LIV40208	Grazing modified pastures and marsh/wetland areas
136	76 LIV40208	Grazing modified pastures
137	3 RP603158	Grazing modified pastures and marsh/wetland areas
138	1 RP602706	Grazing modified pastures
139	2 RP601795	Discontinued railway - Bajool to Central Queensland Saltworks Pipeline is compatible and consultation with the landowner will occur
140	3 RP601795	Grazing modified pastures
141	1 AP2418	Grazing modified pastures
144	142 DS634	Grazing modified pastures and marsh/wetland areas
145	68 DS141	Grazing modified pastures
146	69 DS141	Grazing modified pastures and rural residential
148	93 DS611	Grazing modified pastures and cropping
149	94 DS186	Grazing modified pastures; cropping; and rural residential
150	95 DS186	Grazing modified pastures; rural residential; and reservoir/dam
151A	97 DS186	Grazing modified pastures and marsh/wetland areas
152	98 DS186	Grazing modified pastures and marsh/wetland areas
153	99 DS186	Grazing modified pastures; marsh/wetland areas; and rural residential
154	100 DS185	Grazing modified pastures; marsh/wetland areas; and rural residential

GAWB	Lot and Plan	Existing Land Use
Property ID #		
155	101 DS185	Grazing modified pastures; marsh/wetland areas; and rural residential
156	102 DS185	Grazing modified pastures and marsh/wetland areas
158	84 DS185	Grazing modified pastures
160	85 DS185	Grazing modified pastures
162	29 DS37	Grazing modified pastures and rural residential
163	28 DS37	Grazing modified pastures and rural residential
164	27 DS28	Grazing modified pastures
165	26 DS47	Grazing modified pastures
166	36 DS47	Grazing modified pastures
168	1543 DS588	Grazing modified pastures
169	7 DS53	Grazing modified pastures
171	2 RP618935	Grazing modified pastures and marsh/wetland areas
172	1 RP618912	Grazing modified pastures
173	1 RP618935	Grazing modified pastures
174	2 RP618913	Grazing modified pastures and marsh/wetland areas
175	5 RP618913	Grazing modified pastures and marsh/wetland areas
177	167 CP859402	Designated as reserve tenure for racecourse and recreation; however only minimal land uses present
179	1 PER4653	Esplanade / road tenure with grazing permit over the property
180	2 RP618918	Grazing modified pastures
181	36 DT40169	Grazing modified pastures and marsh/wetland areas
182	37 DT40169	Grazing modified pastures and marsh/wetland areas
183 & 186	124 SP257851	Grazing modified pastures
187 & 189	39 DS688	Grazing native vegetation; marsh/wetland areas; and other minimal use
188	804 DT407	Grazing modified pastures; and rural residential; and reservoir/dam
191	40 DS21	Grazing modified pastures
192	41 DS21	Grazing native vegetation
194	162 DS61	Grazing modified pastures and rural residential
195	4 RP614012	Grazing modified pastures and rural residential
197	8 DS11	Grazing modified pastures
198	13 DS10	Grazing modified pastures and rural residential
199	6 RP614228	Grazing modified pastures and rural residential
201	3 RP614228	Grazing modified pastures and rural residential
202	2 RP614228	Grazing modified pastures and rural residential
203	1 RP614228	Grazing modified pastures and rural residential
205	1 SP303543	Grazing modified pastures and rural residential
206	5 SP218851	Grazing modified pastures and rural residential
208	20 DT40124	Grazing modified pastures
209	22 RP905534	Grazing modified pastures; intensive animal husbandry; reservoir/dam; and rural residential

#### **Future Land Uses**

There are no known future land uses of freehold properties at this stage; however, consultation with landowners is ongoing. There will be future land development constraints on the directly impacted land (e.g. the FGP is to remain accessible). However, the impact of this has been minimised where possible by aligning the FGP near property boundaries or aligning parallel with other infrastructure.

### 3.2.3 Resource Tenements

The current mining and petroleum tenements traversed by the FGP SGIC SDA include:

- No production permits.
- Infrastructure permits:
  - Jemena Queensland Gas Pipeline Pty Ltd, reference PPL 30.
  - Arrow Bowen Pipeline Pty Ltd for coal seam gas (CSG), reference PPL 2016, runs parallel to the FGP for the majority of the SGIC SDA, the pipeline is proposed and not yet constructed.
- Exploration permits traversed:
  - Raglan Resources Pty Ltd for minerals, reference EPM 26476.

The Jemena pipeline is crossed by the FGP SGIC SDA alignment at approximate CH 21000 which is a road reserve (GAWB property number 64). The design process has considered the Jemena pipeline and will meet Jemena requirements, such as depth of cover and access. GAWB will consult with Jemena as required.

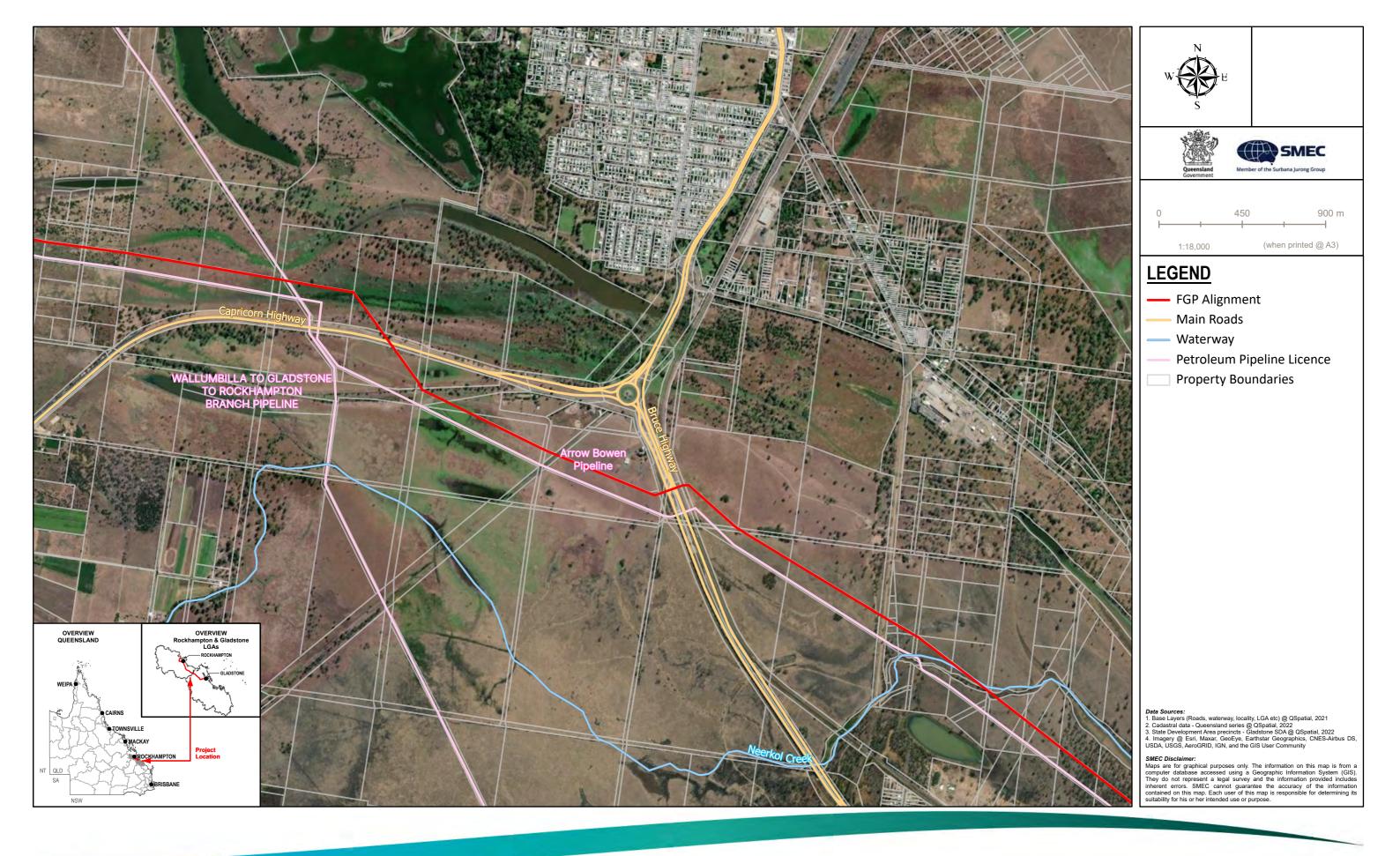
A number of other current mining tenements are in proximity to the FGP SGIC SDA alignment; however, impacts are not anticipated. Figure 3-1a to Figure 3-1o depicts the mining tenements in proximity to the FGP SGIC SDA alignment.





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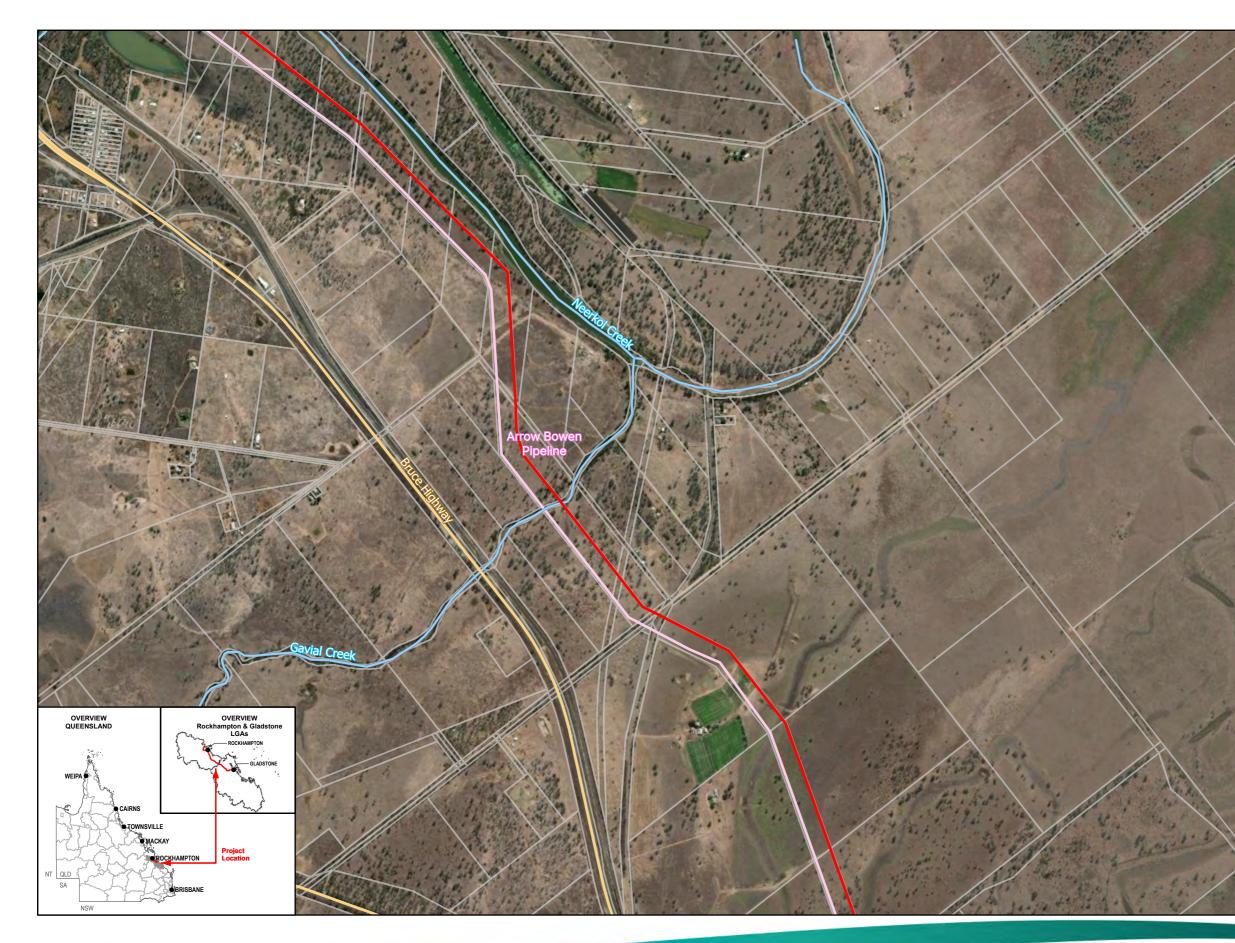
Fitzroy to Gladstone Pipeline Project Planning Report for Material Change of Use - FGP SGIC SDA Alignment Figure 3.1a FGP SGIC SDA Alignment Resource Tenements





Fitzroy to Gladstone Pipeline Project Planning Report for Material Change of Use - FGP SGIC SDA Alignment Figure 3.1b FGP SGIC SDA Alignment Resource Tenements

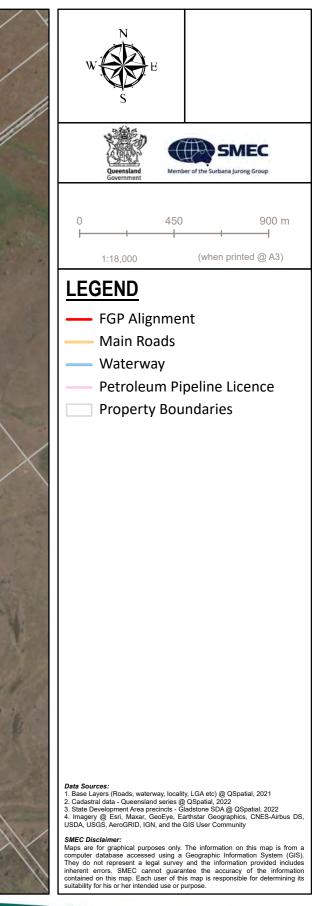
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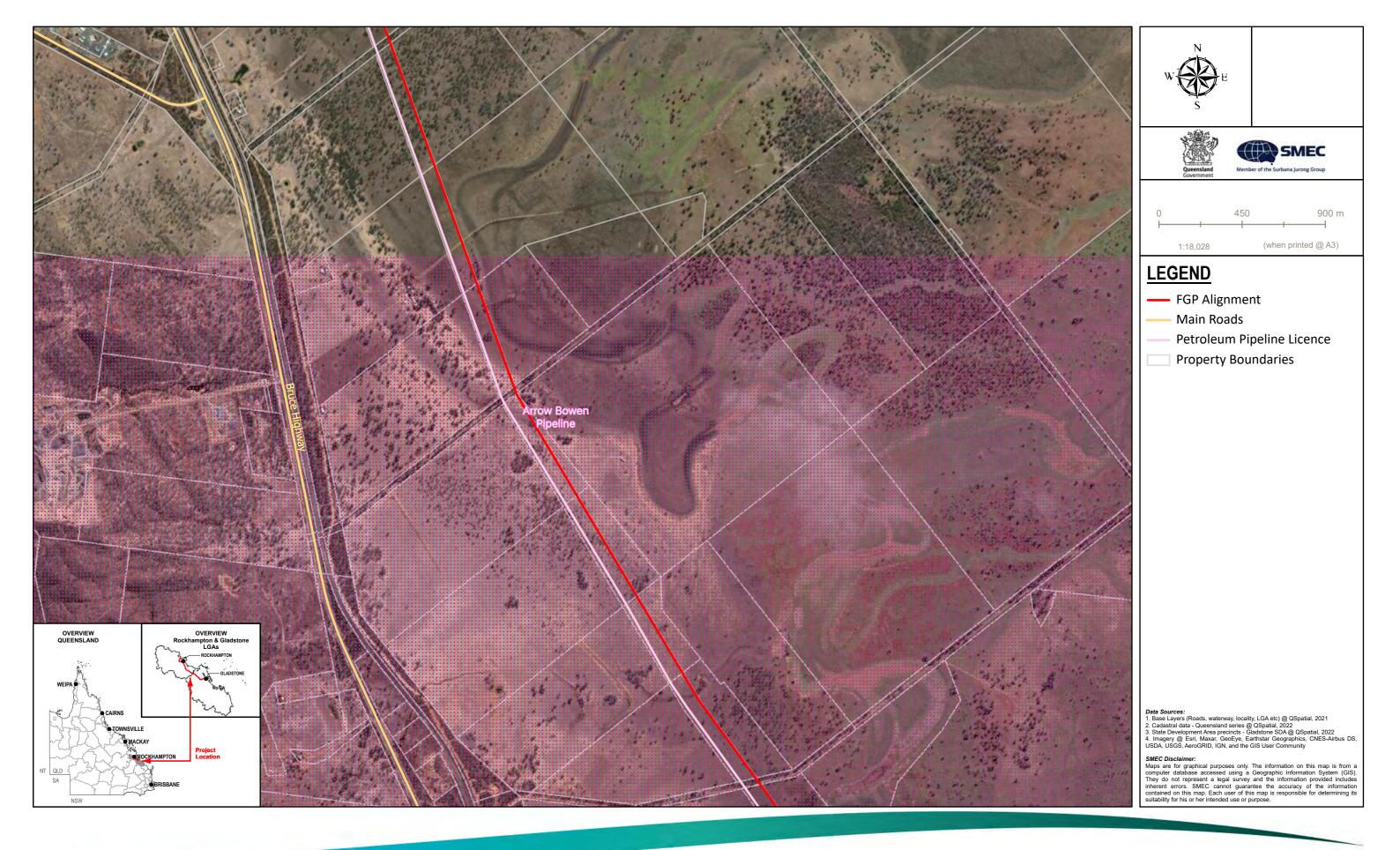




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Fitzroy to Gladstone Pipeline Project Planning Report for Material Change of Use - FGP SGIC SDA Alignment Figure 3.1d FGP SGIC SDA Alignment Resource Tenements

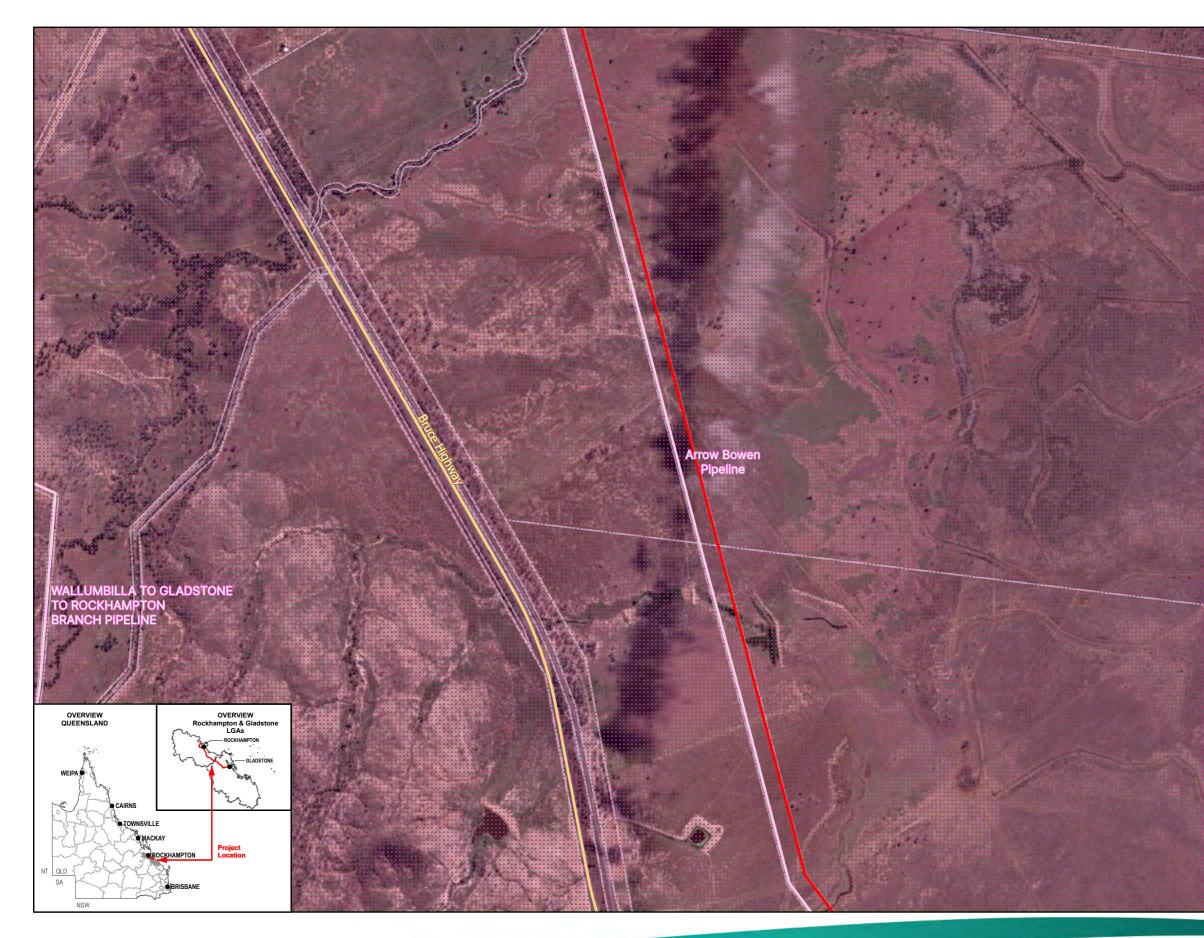
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Fitzroy to Gladstone Pipeline Project Planning Report for Material Change of Use - FGP SGIC SDA Alignment Figure 3.1e FGP SGIC SDA Alignment Resource Tenements

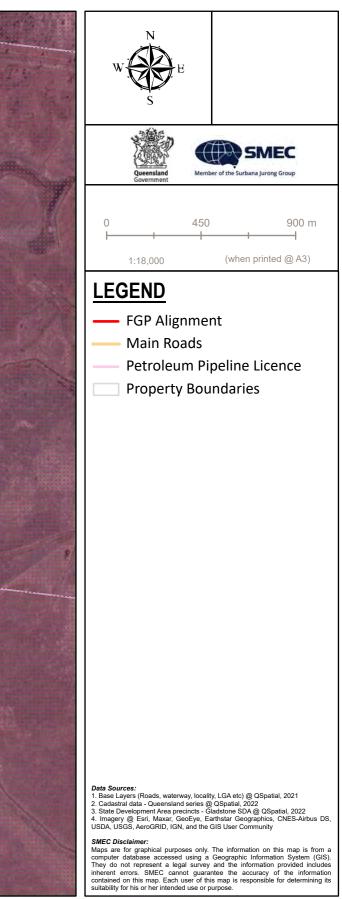
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Fitzroy to Gladstone Pipeline Project Planning Report for Material Change of Use - FGP SGIC SDA Alignment Figure 3.1f FGP SGIC SDA Alignment Resource Tenements

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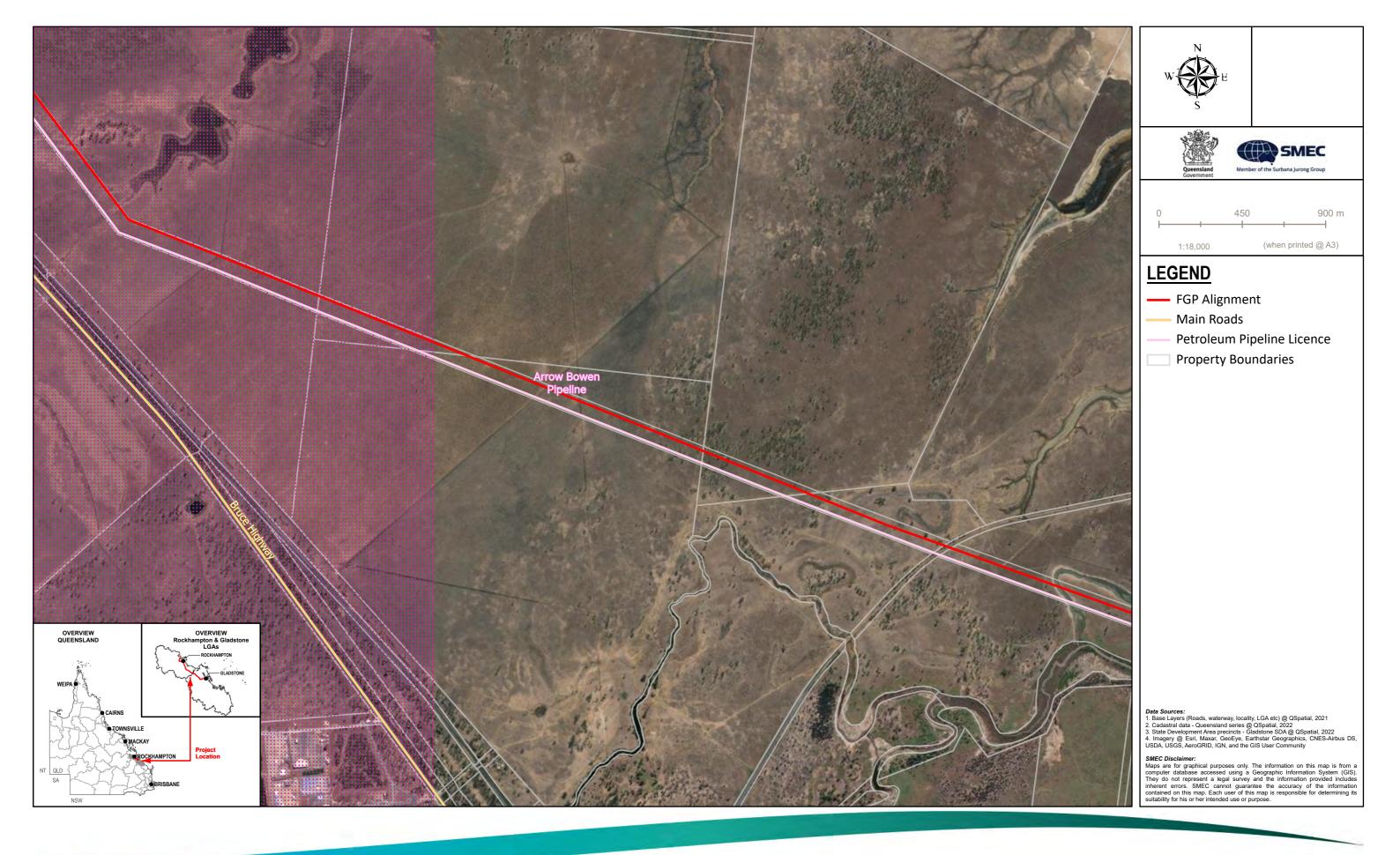






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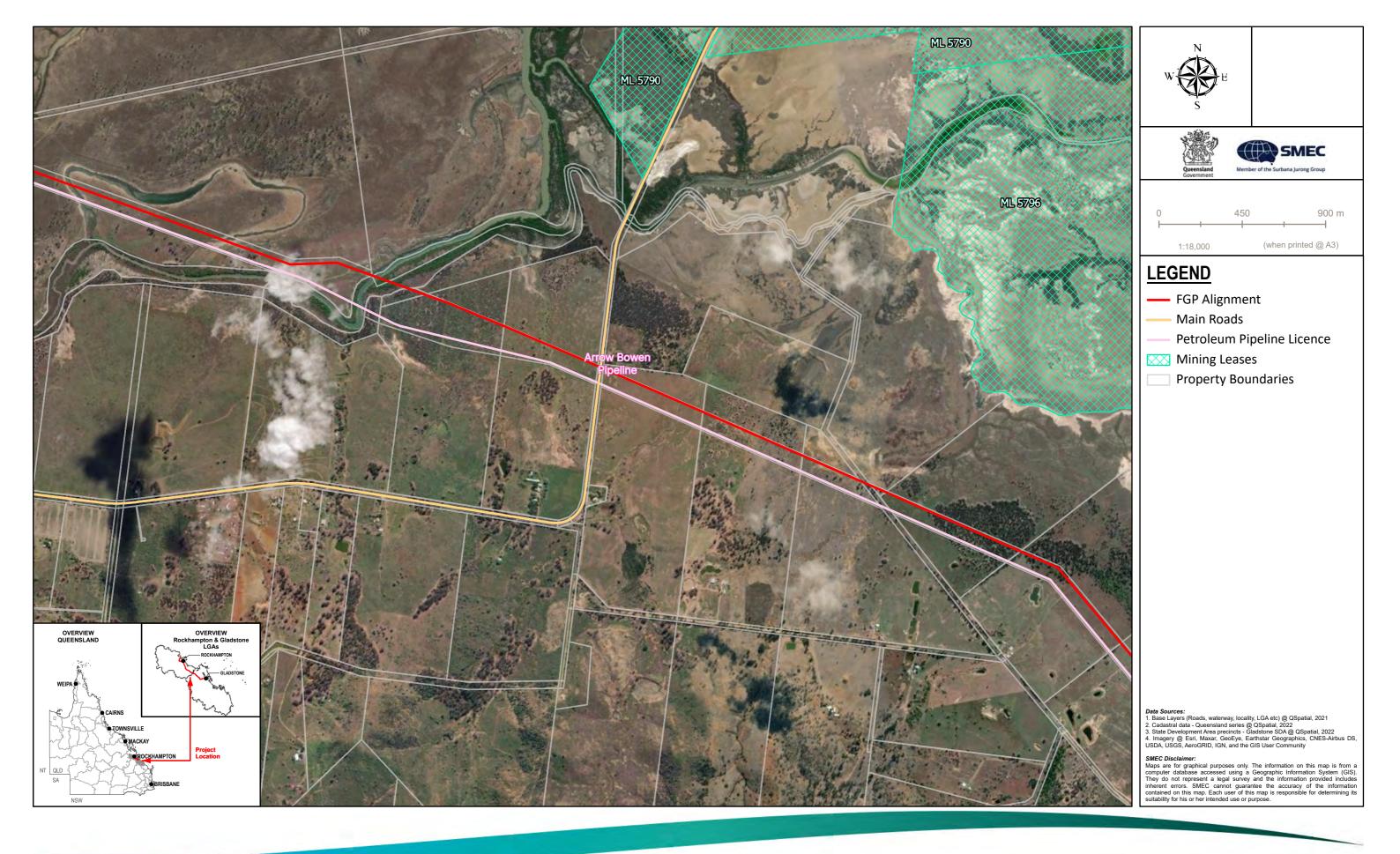
Fitzroy to Gladstone Pipeline Project Planning Report for Material Change of Use - FGP SGIC SDA Alignment Figure 3.1g FGP SGIC SDA Alignment Resource Tenements





Fitzroy to Gladstone Pipeline Project Planning Report for Material Change of Use - FGP SGIC SDA Alignment Figure 3.1h FGP SGIC SDA Alignment Resource Tenements

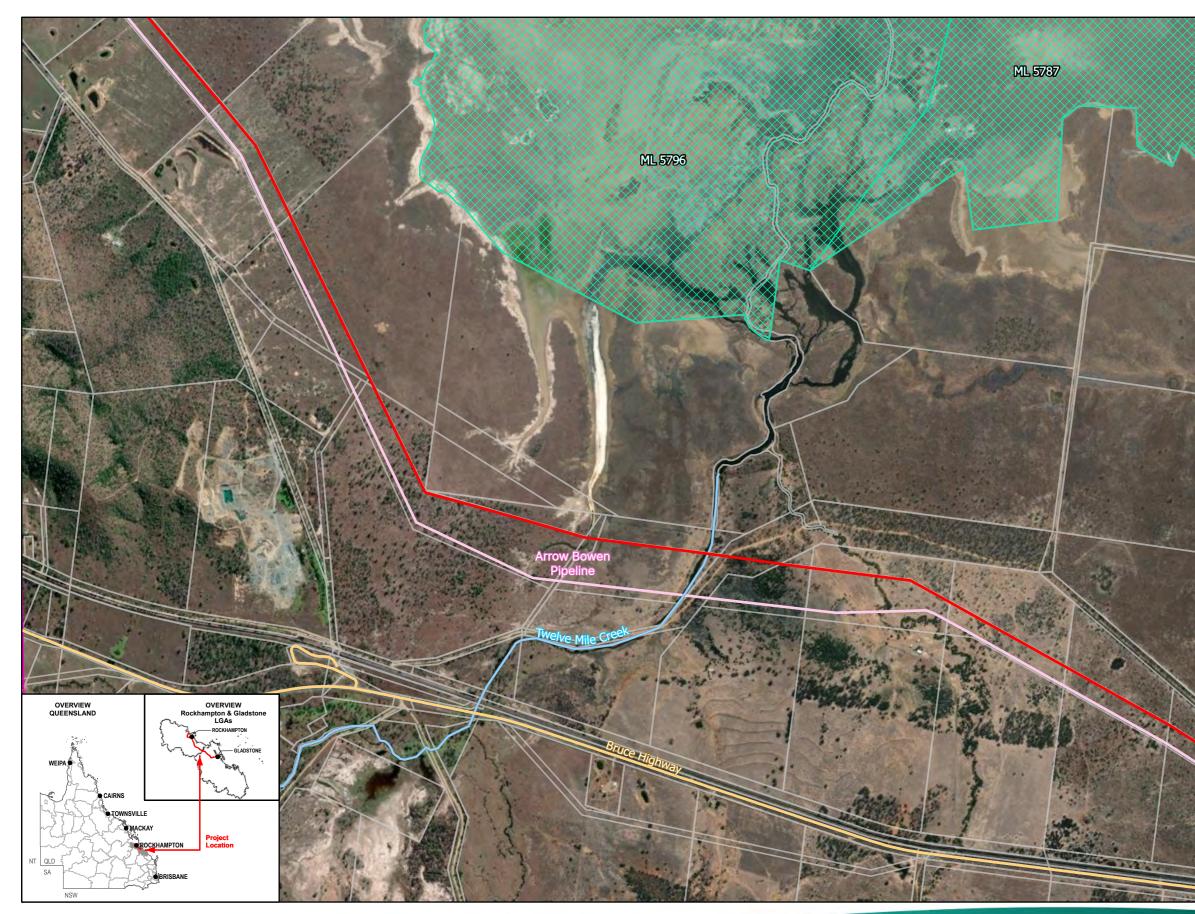
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Fitzroy to Gladstone Pipeline Project Planning Report for Material Change of Use - FGP SGIC SDA Alignment Figure 3.1i FGP SGIC SDA Alignment Resource Tenements

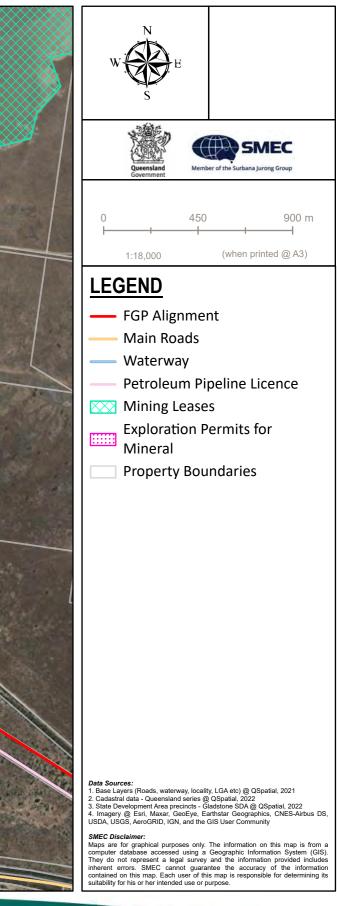
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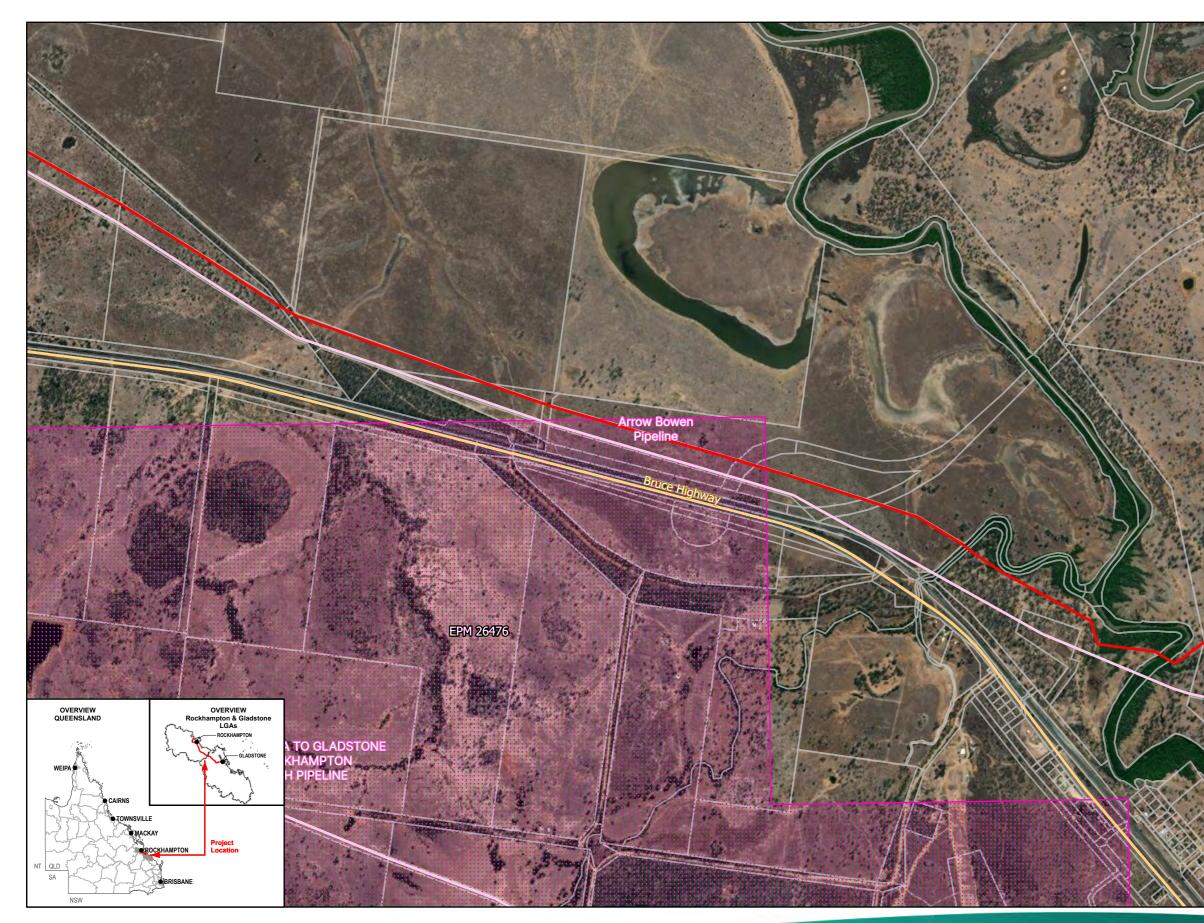




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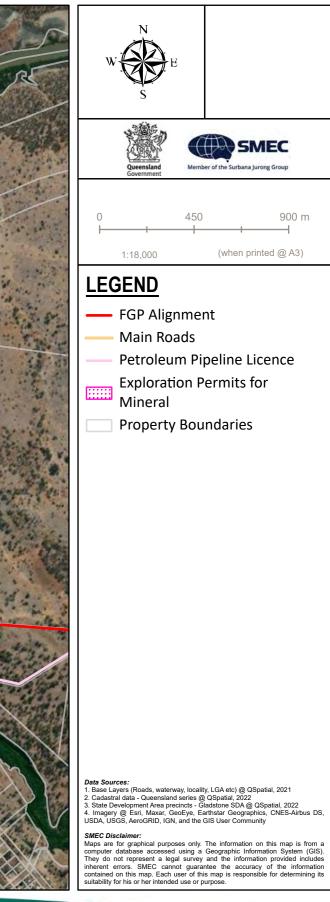


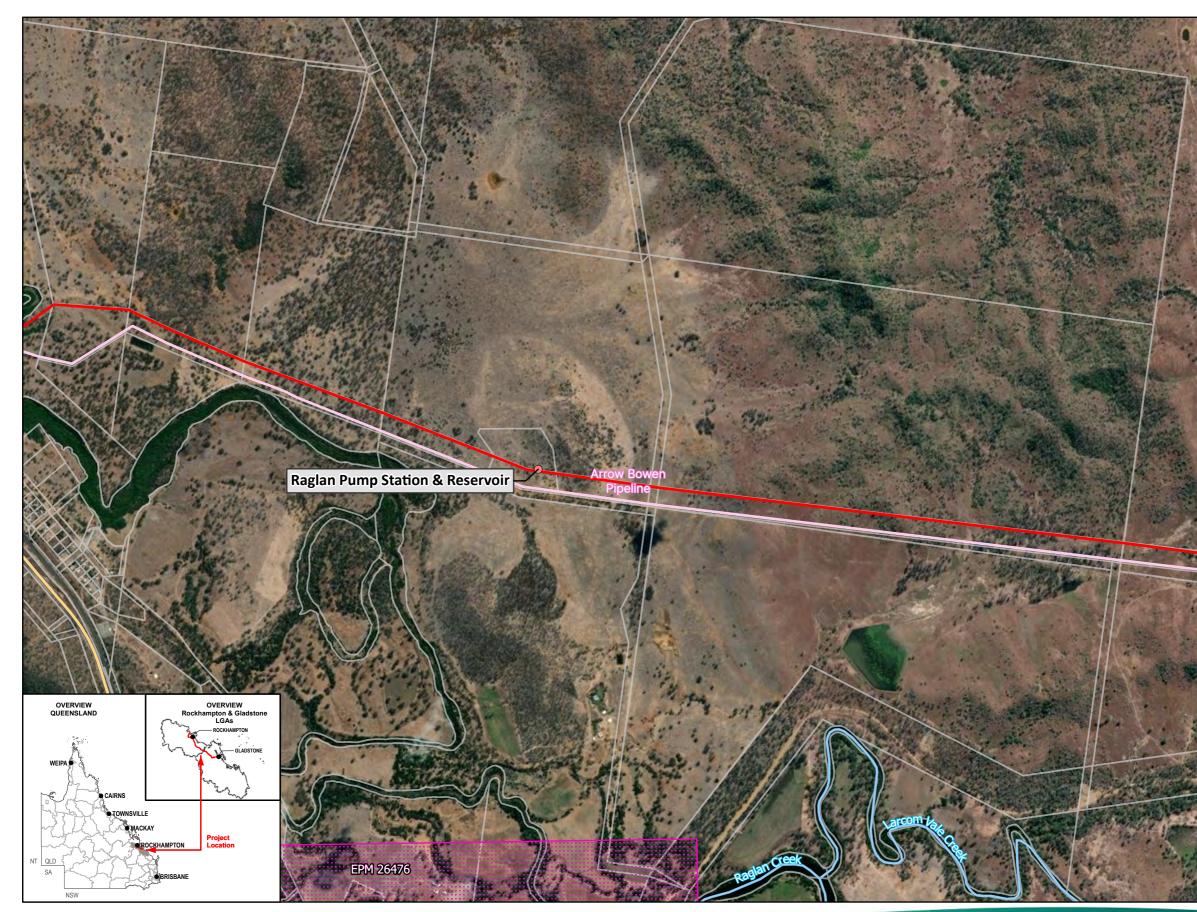




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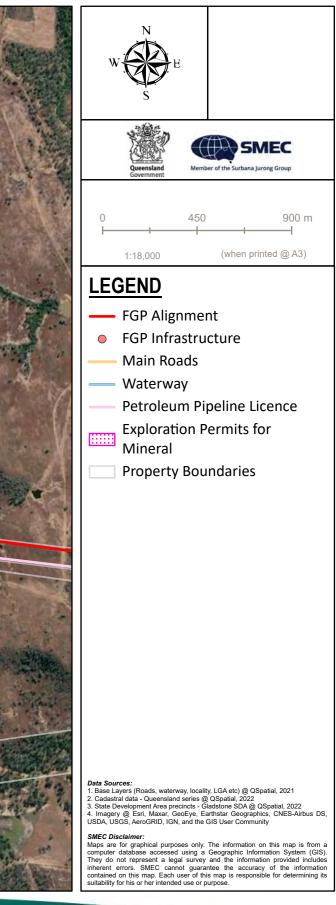






Fitzroy to Gladstone Pipeline Project Planning Report for Material Change of Use - FGP SGIC SDA Alignment Figure 3.11 FGP SGIC SDA Alignment Resource Tenements

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Fitzroy to Gladstone Pipeline Project Planning Report for Material Change of Use - FGP SGIC SDA Alignment Figure 3.10 FGP SGIC SDA Alignment Resource Tenements

# 3.3 Utilities

## 3.3.1 State-controlled Transport Corridors

### **Existing State-controlled Transport Corridors**

The State-controlled transport corridors traversed by the FGP SGIC SDA alignment include State-controlled road (SCR) corridors and State-controlled railway corridors as identified in Table 3.3.

The FGP SGIC SDA alignment design is being advanced to minimise direct impact to roads and railways, where practical by the use of trenchless installation methods (such as horizontal thrust boring or micro tunnelling).

Works within the State-controlled Transport Corridor is progressing to consultation with the relevant authorities, namely TMR and Aurizon, and under the requirements of the relevant road corridor permits and wayleave agreements. Constructing pipelines within road reserves, including crossing of roads, is standard practice and impacts are anticipated to the temporary, and for most roads, minor. Appropriate management will be implemented in accordance with the road corridor permits, wayleave agreements and legislative requirements.

GAWB Property ID #	State-controlled Transport Corridor	Approx. Pipeline CH	Compatibility of Pipeline
67	Capricorn Highway (Rockhampton – Duaringa) Crossing at road CH 1.3 km	CH 22100	Crossing proposed, consultation with TMR occurring, crossing proposed via trenchless methods (e.g. thrust boring). The recent duplication of the Capricorn Highway has been reflected in design.
75	Bruce Highway (Benaraby – Rockhampton) Crossing at road CH 116.3 km	CH 23500	Crossing proposed, consultation with TMR occurring, crossing proposed via trenchless methods (e.g. thrust boring).
76	6 1SP234061 Aurizon Railway North Coast Line		The FGP SGIC SDA alignment design and construction will advance in a way to minimise impacts upon rail infrastructure and railway use. Pipeline will cross the railway at a near 90 degree angle via trenchless methods.
			Pipeline is compatible and has been designed in accordance with relevant Aurizon requirements. Wayleave applications have been submitted to Aurizon and contact terms are currently being negotiated.
147	Bajool Port Alma Road Crossing at road CH 6.2 km	CH 57800	Crossing proposed, consultation with TMR occurring, crossing proposed via trenchless methods (e.g. thrust boring).

#### Table 3.3 State-controlled Transport Corridor Land Uses

#### Future State-controlled Transport Corridors

The FGP SGIC SDA alignment crosses the proposed TMR Rockhampton Ring Road at approximate pipeline CH 20500. The Rockhampton Ring Road is proposed to reduce congestion and improve safety through the city by providing an alternative route for heavy vehicles (TMR, 2022). The Rockhampton Ring Road includes provision for both road and rail. GAWB is consulting with the TMR Rockhampton Ring Road team. TMR has identified unfavourable geotechnical conditions at the proposed crossing point where pre-loading for six months is required prior to construction of the road.

It is understood that the pre-loading will be an early works package issued by TMR that may impact the design and construction of the FGP. Conditions of the Rockhampton Ring Road MCU approval require GAWB to submit detailed design of the pipeline and envelope at least six months prior to construction. Conditions also required TMR and GAWB to continue regular consultation regarding construction timing and develop an interface plan if construction of the projects is expected to overlap.

## 3.3.2 Local Government Road Reserve

A number of local government road reserves will be traversed or impacted directly by the FGP SGIC SDA alignment as identified in Table 3.4. The FGP SGIC SDA alignment design is being advanced to minimise direct impact to roads where practical, by the use of trenchless installation methods (such as horizontal thrust boring or micro tunnelling).

Works within the road reserves is progressing in consultation with the relevant authority, either RRC or GRC and under relevant road corridor permits. Constructing pipelines within road reserves, including crossing of roads, is standard practice and impacts are anticipated to the temporary, and for most roads, minor. There is potential for the impacted roads to have associated stormwater infrastructure. Appropriate management will be implemented in accordance with the road corridor permits, legislative requirements and a CEMP.

LGA	GAWB Property ID #	Approx. Pipeline CH	Road Name	Coordinates	Type of Road	Type of Impact	
RRC	47A	16500	Unnamed road	150.436679, None -23.399492,		Crossing – Open Cut	
	50	17800	Fogarty Road	150.448911, -23.4013141	Sealed	Crossing – Thrust Boring	
	52	18300	Titman Road	150.453013, -23.403394	Sealed	Crossing – Open Cut	
	54	18300	Newman Road	150.453528, -23.403635	Sealed	Crossing – Open Cut	
	57	19300	Unnamed road	150.462792, -23.405606	None	Crossing – Open Cut	
	60	19900	Unnamed road	150.468849, -23.40672	None	Crossing – Open Cut	
	64	21000	Unnamed road	150.478998, -23.408437	None	Crossing – Open Cut	
	68A	21700	Unnamed road	150.485054, -23.41192	None	Crossing – Open Cut	
	69	22000	Old Capricorn Highway	150.486455, -23.413761	Sealed	Minor Road Crossing- Open Cut	
	71	22300	Unnamed road	150.487709, -23.414496	None	Crossing – Open Cut	
	76A	23600	Unnamed road	150.500247 -23.418831	None	Crossing – Open Cut	
	78	24000	Unnamed road	150.503232, -23.42106	None	Crossing – Open Cut	
	81	24900	Old Bruce Highway	150.510735, -23.425425	Sealed	Minor Road Crossing- Open Cut	
	86	25000	Unnamed road	150.512422, -23.426355	None	Crossing – Open Cut	
	94	26500	Unnamed road	150.523745, -23.434757	None	Crossing – Open Cut	
	99	28200	Whyte Road	150.5308, -23.446957	Gravelled	Minor Road Crossing- Open Cut	
	104A	29500	River Road	150.537169 -23.456072	Sealed	Minor Road Crossing- Open Cut	
	105	29500	Roope Road	150.537239, -23.456095	Sealed	Minor Road Crossing- Open Cut	

 Table 3.4
 Local Government Road Land Uses

LGA	GAWB Property ID #	Approx. Pipeline CH	Road Name	Coordinates	Type of Road	Type of Impact
	109	31500	Unnamed road	150.547039, -23.471553	None	Crossing – Open Cut
	113	33500	Unnamed road	150.553405, -23.48878	None	Crossing – Open Cut
	121	36000	Georges Road	150.56589, -23.50804	Gravelled	Minor Road Crossing- Open Cut
	124	37400	Casuarina Road	150.573416, -23.517964	Gravelled	Minor Road Crossing – Open Cut
	133	48000	Temporarily closed road	150.612, -23.60593	-	Crossing – Open Cut
	151	59500	Toonda Port Alma Road	150.709835, -23.648796	None	Crossing – Open Cut
	157	63200	Unnamed road	150.734115 -23.673373	None	Crossing – Open Cut
	159	64500	Unnamed road	150.744321, -23.680417	None	Crossing – Open Cut
	161	65200	Twelve Mile Road	150.750996, -23.681323	Gravelled	Minor Road Crossing – Open Cut
	167	68500	Twelve Mile Road	150.778917, -23.693491	Gravelled	Minor Road Crossing – Open Cut
	170	69700	Unnamed road	150.790923, -23.697725	None	Crossing – Open Cut
GRC	185	76200	Road Reserve	150.849319, -23.716588	None	Crossing – Open Cut
	190	81200	Reedy Creek Road	150.892317, -23.732259	Gravelled	Minor Road Crossing – Open Cut
	193	86700	Road Reserve	150.928911, -23.7657	None	Crossing – Open Cut
	196	88800	Darts Creek Road	150.940687, -23.775154	Gravelled	Minor Road Crossing – Open Cut
	200	90800	Road Reserve	150.957771, -23.788528	None	Crossing – Open Cut
	204	91800	Popenia Road	150.964111, -23.7962	Gravelled	Minor Road Crossing – Open Cut
	207	93800	Gostevsky Road	150.982168, -23.802492	Gravelled	Minor Road Crossing – Open Cut
	210	96000	The Narrows Road	151.000206, -23.812243	Gravelled	Minor Road Crossing – Open Cut

## 3.3.3 Utilities

GAWB has been working to identify affected third party infrastructure and services, and corresponding owners and operators, to put in place relevant interface arrangements (including crossing deeds or other agreements, approvals and/or consents) with those affected owners and/or operators to enable the construction, as well as the ongoing operation and maintenance, of the Project.

GAWB has identified affected third party infrastructure, including electricity, water, sewer, gas, telecommunication services, through information from the Office of the Coordinator-General (OCG), Queensland government databases and mapping platforms (e.g. Queensland Globe), searches at Queensland government departments (e.g. land title and mining tenement searches at the Department of Resources) and other publicly available information.

This information has been uploaded into GAWB's GIS (web) portal. GAWB has been, and continues to, seek to independently verify this information and refine the GIS portal through Before You Dig Australia investigations, Public Utility Plans and discussions with relevant landowners/third party infrastructure owners.

The information has allowed GAWB to assess whether any of the activities associated with construction, operation and maintenance of the FGP SGIC SDA alignment will impact any third party infrastructure and to understand what actions would be required for the FGP and third party infrastructure to co-exist. This information also continues to inform the FGP SGIC SDA alignment, design and construction methodology that will ultimately be used by GAWB's Construction Contractor.

Where GAWB has identified the FGP SGIC SDA alignment intersects with third party owned infrastructure, it has considered whether the interaction between the FGP and the relevant third party infrastructure requires a crossing deed or other agreement to manage the interface, or whether relocation of the infrastructure, or other design feature, may be required. GAWB's Construction Contractor will be responsible for the detailed design of the FGP SGIC SDA alignment so will need to develop and confirm the technical requirements to the satisfaction of GAWB, the third party infrastructure owners and/or operators as well as the relevant landowners (including any requirements in the interface or land tenure arrangements).

If impacts are identified, the Construction Contractor will ensure that disruption in disconnecting, relocating and reconnecting third party infrastructure, including public utilities, is kept to a minimum. The Construction Contractor will consult with all affected infrastructure owners and/or operators as well as affected landowners and/or occupiers to arrange for a mutually acceptable time for such works. The Construction Contractor will provide temporary supply arrangements, if required.

Emergency response and incident management and investigation procedures will be in place for any unplanned disruption to services as a result of the Construction Contactor's activities.

The process adopted for managing the interfaces with third party infrastructure includes:

- Undertaking a desktop assessment to identify the infrastructure (largely complete).
- Identifying any land tenure (e.g. easement, licence etc) conditions and/or requirements. This will be undertaken by GAWB.
- Requesting Before You Dig Australia information. This will be undertaken by GAWB or the Construction Contractor.
- Surveying the actual locations of the infrastructure and confirming clearance distances. This will be undertaken by the Construction Contractor.
- Ground proofing the location through undertraining utility locating, potholing and/or ground penetrating radar (GPR). This will be undertaken by the Construction Contractor.
- Consulting with the infrastructure owners and/or operators as well as relevant landowners and/or occupiers to confirm and agree the management of the interface. This will be undertaken by GAWB and/or the Construction Contractor.
- Providing design drawings of the crossing or relocation as required. This will be undertaken by the Construction Contractor.
- Consulting with affected third party infrastructure owners and/or operators as well as affected landowners and/or occupiers to agree to protocols around any disruption to services. This will be undertaken by GAWB and/or the Construction Contractor.

To date GAWB has consulted with the following third party infrastructure owners and operators:

- RRC.
- GRC.
- Telstra.

#### **Existing Land Uses**

The FGP SGIC SDA alignment intersects several existing utilities in addition to road, rail and mining. These are outlined in Table 3.5 and depicted in Figure 3-2a to Figure 3-2g. In summary, the key existing infrastructure directly impacted includes:

- Electricity network:
  - The design process has considered the existing electricity infrastructure including Ergon and Powerlink. GAWB is in consultation with Ergon and Powerlink to determine a suitable outcome for the infrastructure.
- RRC watermains:
  - The design process has considered these localities and will meet RRC requirements, such as depth of cover and access.
  - GAWB is in consultation with RRC to determine a suitable outcome for the infrastructure.
- Telstra communication network:
  - The design process has considered the Telstra communication networks. GAWB will consult with Telstra to determine a suitable outcome for the infrastructure crossings.
  - Design has been progressed in accordance with relevant design standards and requirements.

Water pipelines are commonly designed in consideration of these types of utility interactions and no major impacts to the utilities are anticipated (e.g. no relocations of existing utilities are proposed).

Section 7 provides a discussion of the potential impacts the proposed works may have on existing infrastructure during the construction and operational phases.

Component/ Infrastructure	Pipeline CH	Lot and Plan	GAWB Property ID #	Approximate Coordinates	Compatibility of Pipeline
Ergon infrastructure – high voltage line	CH 20100	10 RP603184	61	150.47087, -23.407003	Compatible, design and construction will meet utility provider requirements
Jemena Queensland Gas Pipeline	CH 21200	14 RP844281	65	150.47953, -23.40853	Compatible, design and construction will meet utility provider requirements
RRC – water main	CH 21700	Road reserve – Capricorn Highway	67	150.485027, -23.4118115	Compatible, design and construction will meet utility provider requirements
RRC - watermain	CH 21700	Road reserve – Capricorn Highway	67	150.4850363, -23.4118238	Compatible, design and construction will meet utility provider requirements
RRC – water main	CH 22000	Road Reserve - Unnamed Road	68A	150.4863589, -23.4136002	Compatible, design and construction will meet utility provider requirements
Telstra infrastructure	CH 22000	Road reserve – Old Capricorn Highway	69	150.4865608, -23.4139356	Compatible, design and construction will meet utility provider requirements
Ergon infrastructure – high voltage line	CH 22000	Road reserve – Old Capricorn Highway	69	150.4867888, -23.4140691	Compatible, design and construction will meet utility provider requirements
RRC – water main	CH 22000	Road reserve – Old Capricorn Highway	69	150.486798, -23.4140736	Compatible, design and construction will meet utility provider requirements
Ergon infrastructure – high voltage line	CH 22200	Road reserve – Unnamed Road	71	150.4884295, -23.4148414	Compatible, design and construction will meet utility provider requirements
Telstra infrastructure	CH 24900	Road reserve – Old Bruce Highway	81	150.5106084, -23.4253593	Compatible, design and construction will meet utility provider requirements
Ergon infrastructure – TR Cable, TR line	CH 24900	Road reserve – Old Bruce Highway	81	150.510641, -23.425377	Compatible, design and construction will meet utility provider requirements

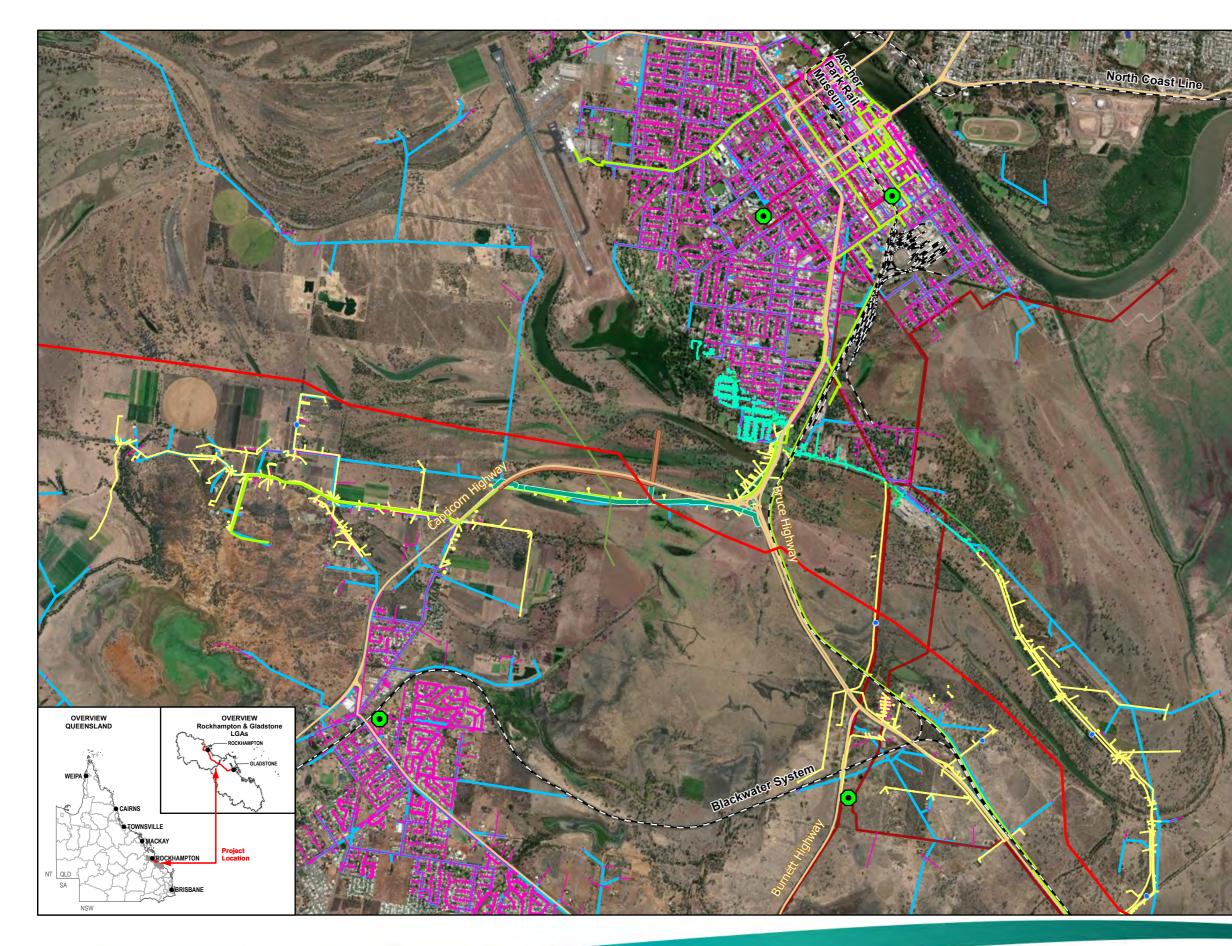
 Table 3.5
 Existing Infrastructure and Utilities that Intersects the Pipeline

Component/ Infrastructure	Pipeline CH	Lot and Plan	GAWB Property ID #	Approximate Coordinates	Compatibility of Pipeline
Ergon infrastructure – TR Cable, TR line	CH 24900	Road reserve – Old Bruce Highway	81	150.510906, -23.425533	Compatible, design and construction will meet utility provider requirements
Ergon infrastructure – TR Cable, TR line	CH 25500	Watercourse – Scrubby Creek	89	150.516254, -23.429142	Compatible, design and construction will meet utility provider requirements
Telstra infrastructure	CH 29500	Road reserve – River Road/Roper Road	105	150.5369885, -23.4559763	Compatible, design and construction will meet utility provider requirements
Telstra infrastructure	CH 29500	Road reserve – River Road/Roper Road	105	150.5370819, -23.4560224	Compatible, design and construction will meet utility provider requirements
Telstra infrastructure	CH 29500	Road reserve – River Road/Roper Road	105	150.5371605, -23.4560598	Compatible, design and construction will meet utility provider requirements
Telstra infrastructure	CH 29500	Road reserve – River Road/Roper Road	105	150.537437, -23.4561953	Compatible, design and construction will meet utility provider requirements
Telstra infrastructure	CH 29500	Road reserve – River Road/Roper Road	105	150.5376141, -23.4562802	Compatible, design and construction will meet utility provider requirements
Telstra infrastructure	CH 29800	76 CPLN184	106	150.5376597, -23.4563024	Compatible, design and construction will meet utility provider requirements
Telstra infrastructure	CH 29800	76 CPLN184	106	150.5377464, -23.4563475	Compatible, design and construction will meet utility provider requirements
Telstra infrastructure	CH 29800	76 CPLN184	106	150.5380086, -23.4564766	Compatible, design and construction will meet utility provider requirements
Ergon infrastructure – high voltage line	CH 29800	76 CPLN184	106	150.539774, -23.457345	Compatible, design and construction will meet utility provider requirements
Telstra infrastructure	CH 57500	69 CPDS141	146	150.695511, -23.642829	Compatible, design and construction will meet utility provider requirements
Telstra infrastructure	CH 57700	Road reserve – Bajool Port Alma Road	147	150.695858, -23.642969	Compatible, design and construction will meet utility provider requirements
Ergon infrastructure – high voltage line	CH 57700	Road reserve – Bajool Port Alma Road	147	150.695856. -23.642971	Compatible, design and construction will meet utility provider requirements
Telstra infrastructure	CH 57700	Road reserve – Bajool Port Alma Road	147	150.696005, -23.64303	Compatible, design and construction will meet utility provider requirements
Ergon infrastructure – high voltage line	CH 74000	36 CPDT40169	181	150.82578, -23.7090418	Compatible, design and construction will meet utility provider requirements
Telstra infrastructure	CH 88000	4 RP614012	195	150.940483, -23.774914	Compatible, design and construction will meet utility provider requirements
Telstra infrastructure	CH 88300	Road reserve – Darts Creek Road	196	150.9405869, -23.7750373	Compatible, design and construction will meet utility provider requirements

Component/ Infrastructure	Pipeline CH	Lot and Plan	GAWB Property ID #	Approximate Coordinates	Compatibility of Pipeline
Ergon infrastructure – high voltage line	CH 88300	Road reserve – Darts Creek Road	196	150.940591, -23.775006	Compatible, design and construction will meet utility provider requirements
Telstra infrastructure	CH 88300	Road reserve – Darts Creek Road	196	150.9406107, -23.7750665	Compatible, design and construction will meet utility provider requirements
Telstra infrastructure	CH 88300	Road reserve – Darts Creek Road	196	150.9407756, -23.7752641	Compatible, design and construction will meet utility provider requirements
Powerlink High Voltage Line- Gladstone to Bouldercombe No.1	CH 89600	13 DS10	198	150.945783, -23.781515	High voltage lines cross either side of the chainage Compatible, design and construction will meet utility provider requirements
Ergon infrastructure – high voltage line	CH 91800	Road Reserve – Popenia Road	204	150.964164, -23.796251	Compatible, design and construction will meet utility provider requirements
Telstra infrastructure	CH 91800	Road reserve – Popenia Road	204	150.9643485, -23.7963445	Compatible, design and construction will meet utility provider requirements
Telstra infrastructure	CH 92500	1 SP303543	205	150.971245, -23.798698	Compatible, design and construction will meet utility provider requirements
Telstra infrastructure	CH 93800	Road Reserve – Gostevsky Road	207	150.982042, -23.802403	Compatible, design and construction will meet utility provider requirements
Ergon infrastructure – high voltage line	CH 93800	Road Reserve – Gostevsky Road	207	150.982028, -23.802381	Compatible, design and construction will meet utility provider requirements
Telstra infrastructure	CH 93800	Road Reserve – Gostevsky Road	207	150.982321, -23.802597	Compatible, design and construction will meet utility provider requirements
Telstra infrastructure	CH 96000	22 RP905534	209	150.999975, -23.812146	Compatible, design and construction will meet utility provider requirements

#### **Future Utilities**

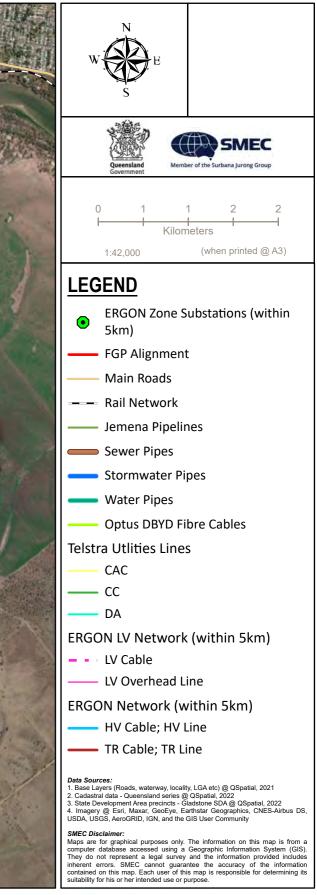
The Arrow Bowen Pipeline project (which is a subsidiary of Arrow Energy Pty Ltd), comprises a 580 km of highpressure CSG pipeline which will convey CSG from the Bowen Basin to Curtis Island, Gladstone. The project has completed the EIS process and is in the process of obtaining relevant approvals. A construction timeframe has not been published. There are no other known future utilities planned. GAWB is consulting with relevant authorities as part of the Project planning and part of this consultation will include identifying any planned or proposed infrastructure and/or utilities that may impact the FGP SGIC SDA alignment.

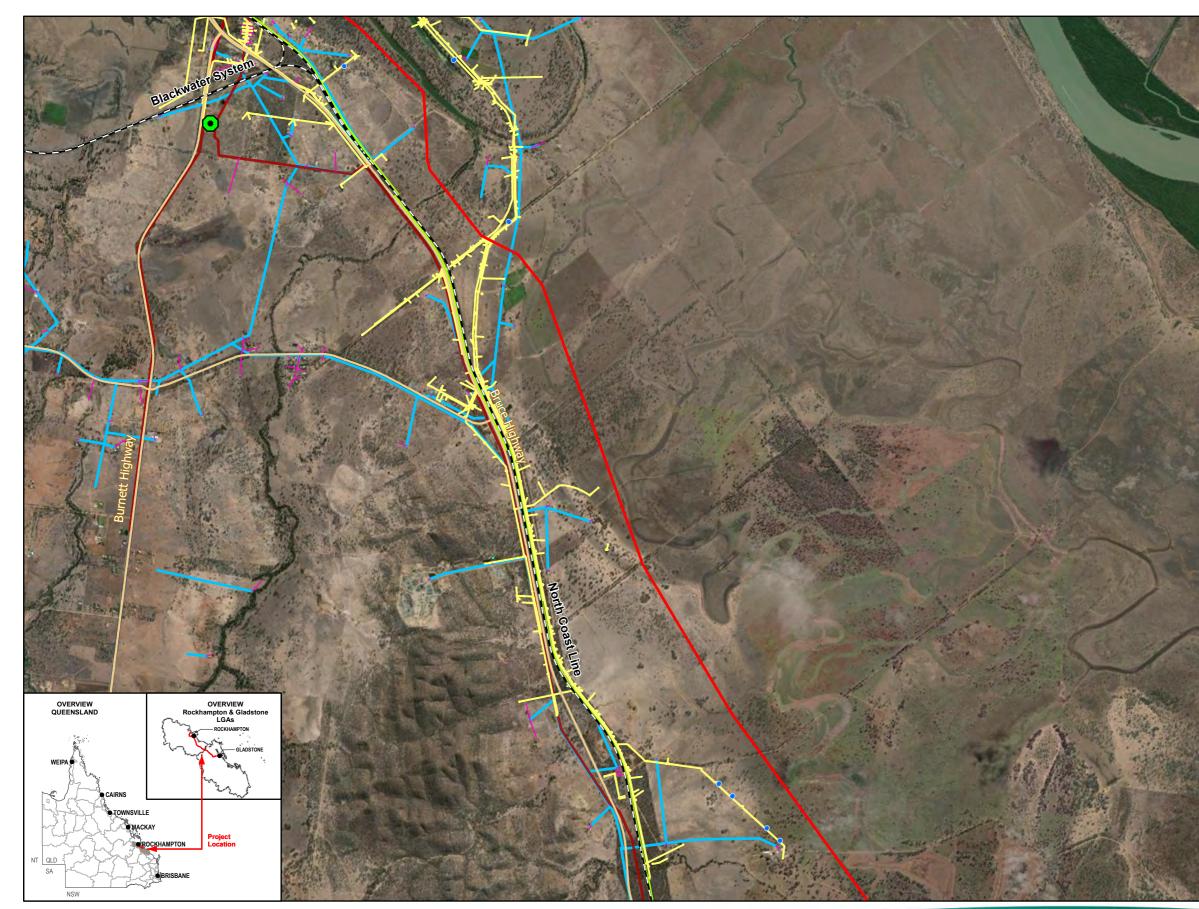




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Figure 3.2a FGP SGIC SDA Alignment Infrastructure & Utilities 000-G-MAP-2618 Version: 1 Date: 28/10/2022

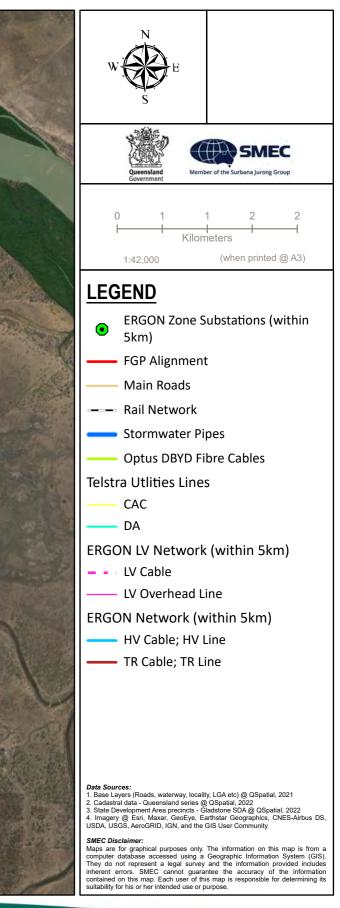


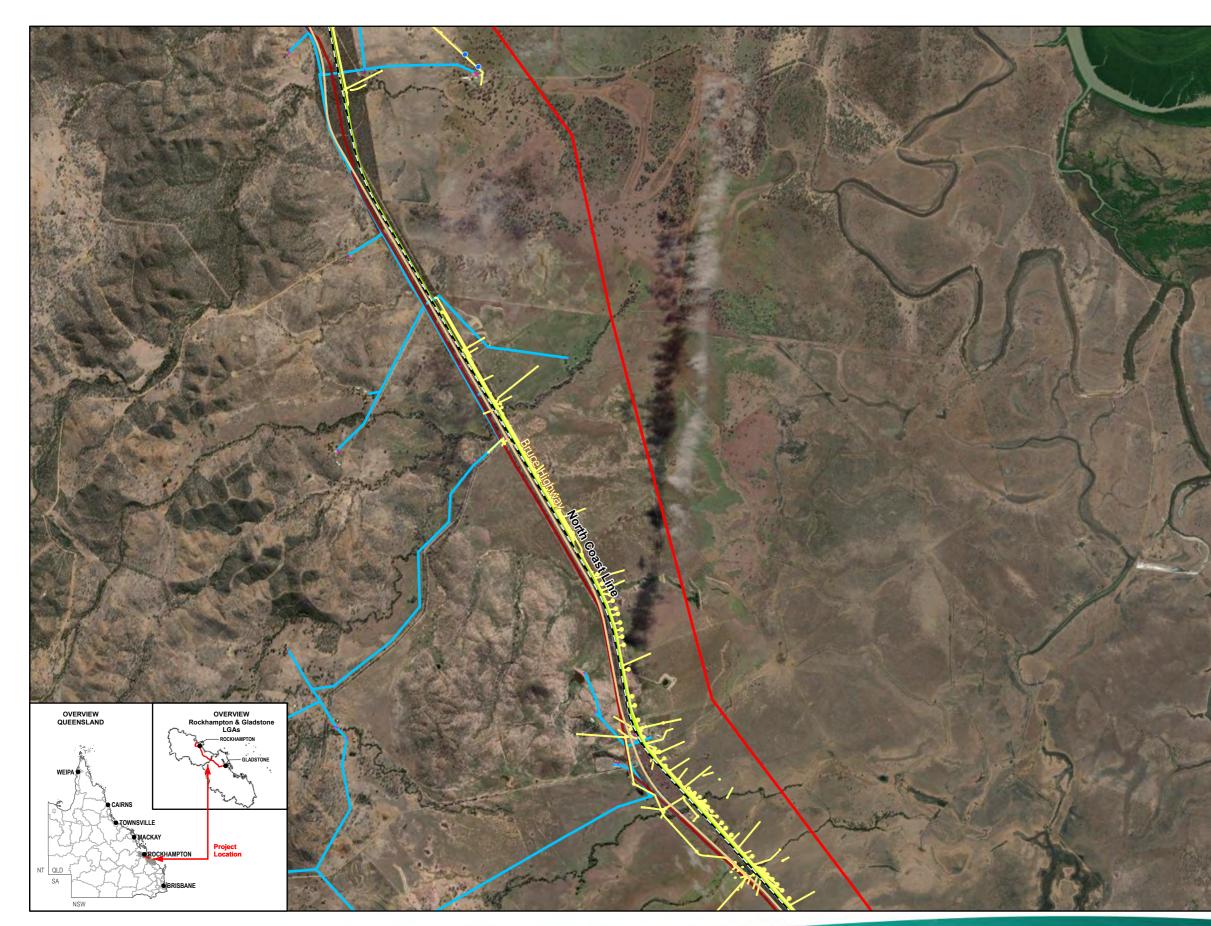




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Figure 3.2b FGP SGIC SDA Alignment Infrastructure & Utilities 000-G-MAP-2618 Version: 1 Date: 28/10/2022

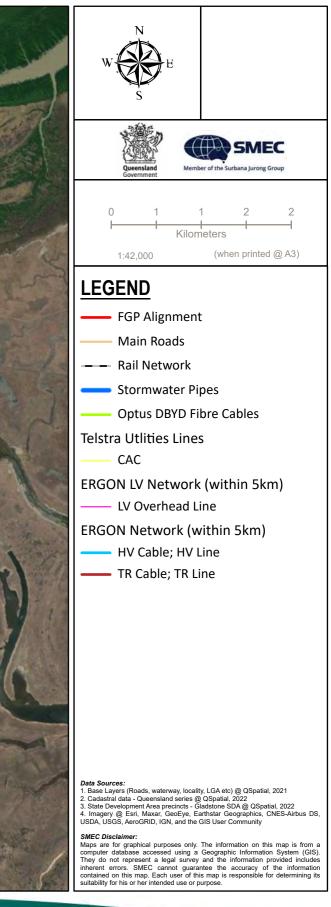


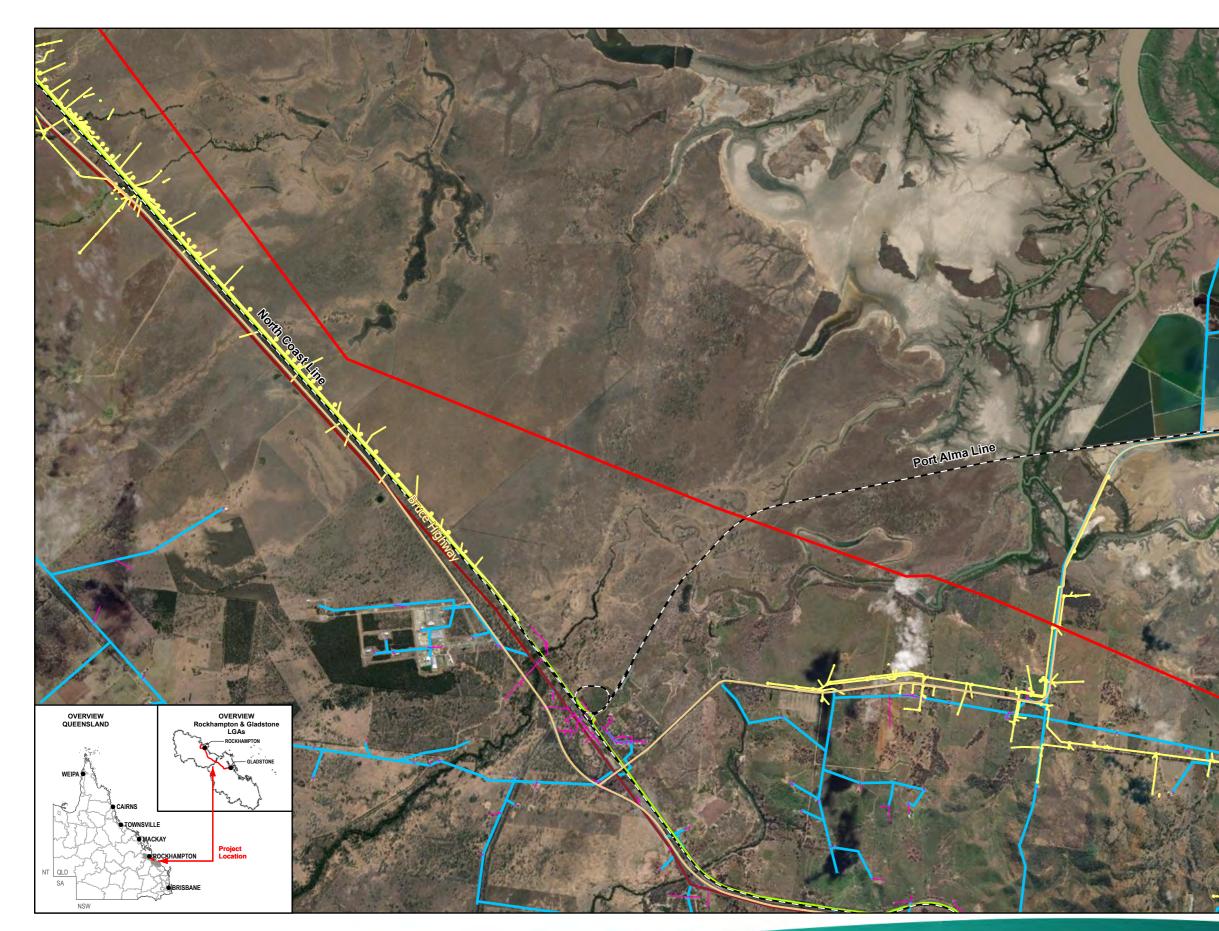




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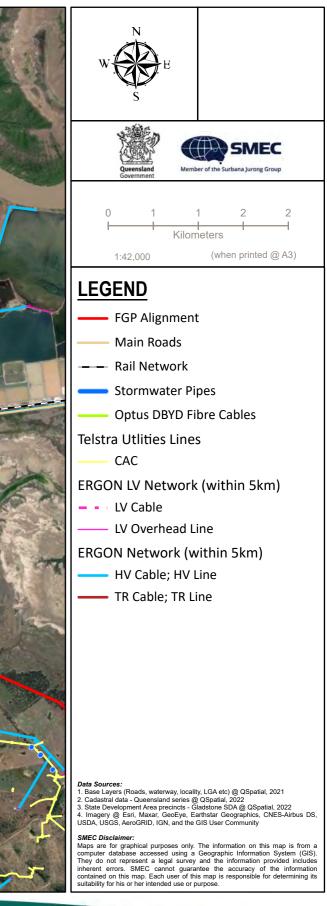


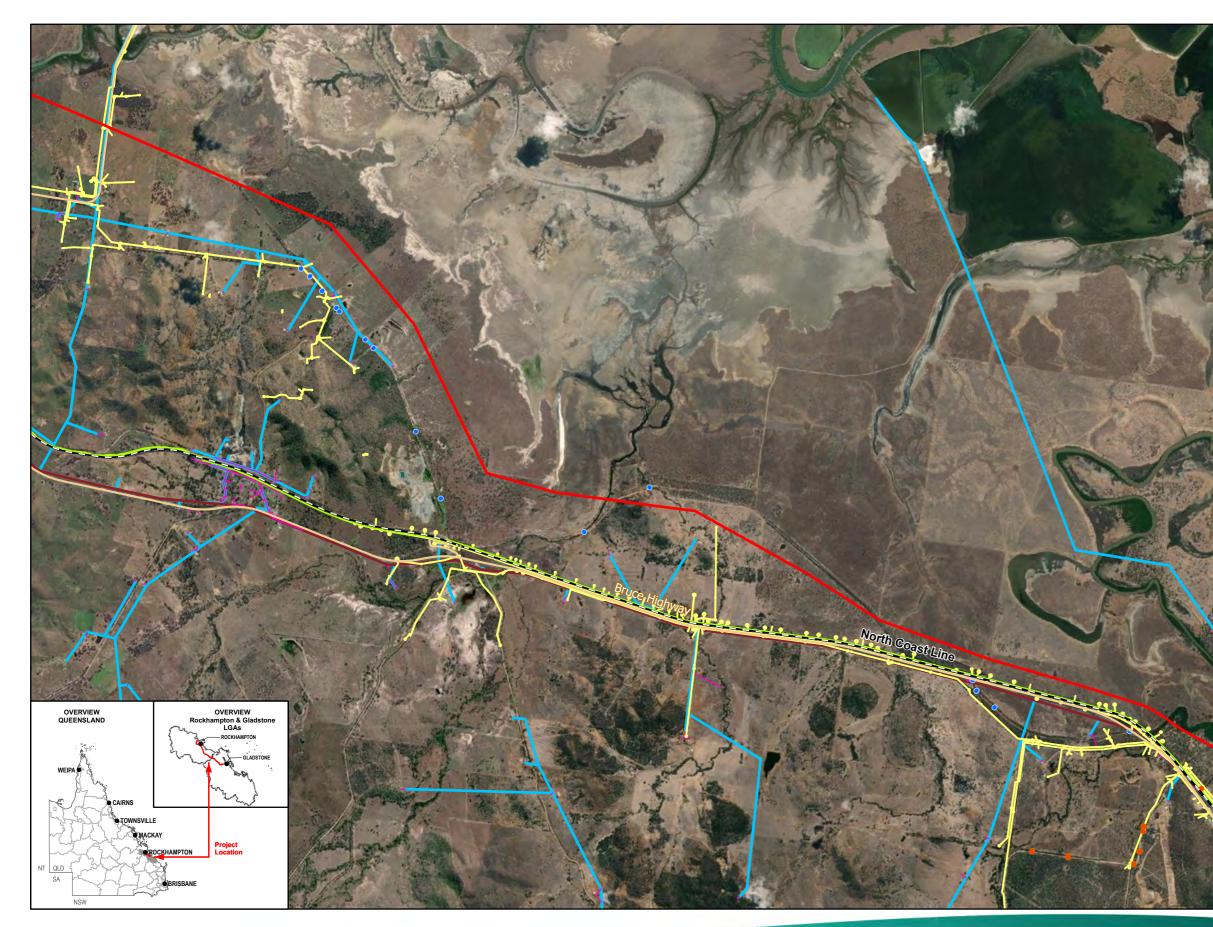




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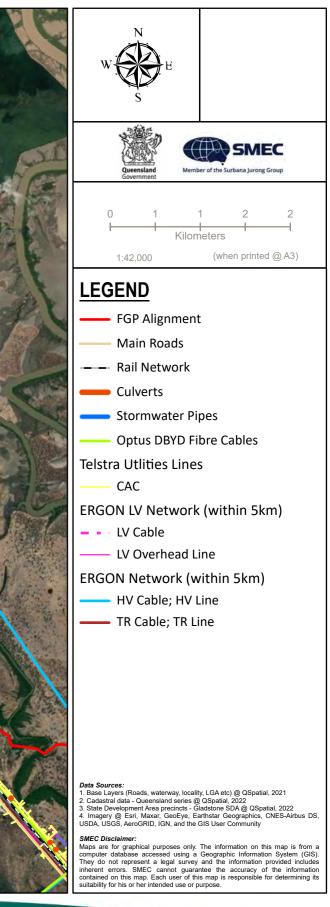


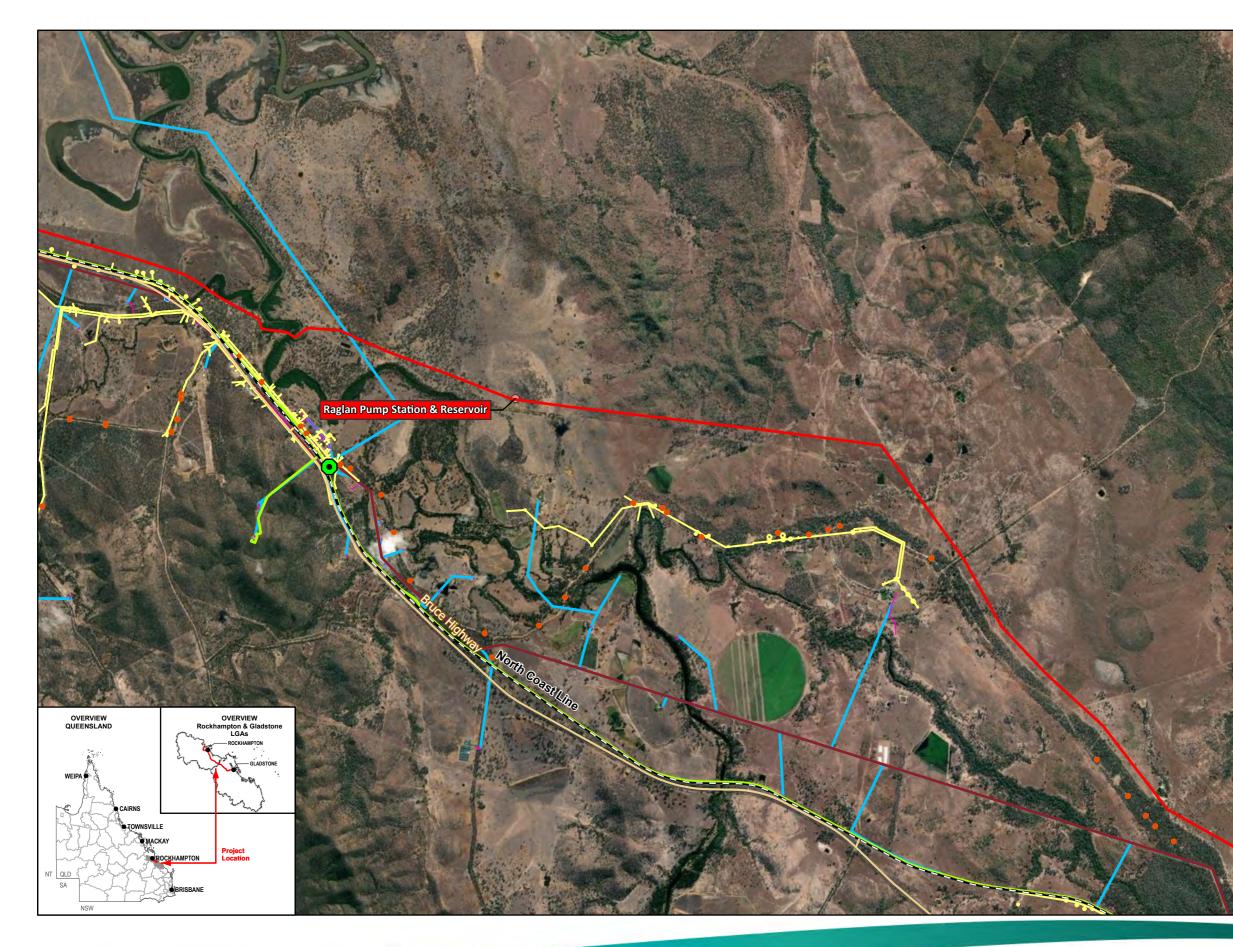




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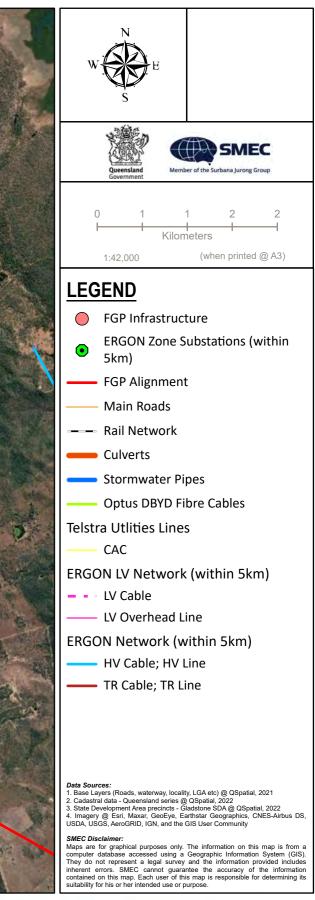


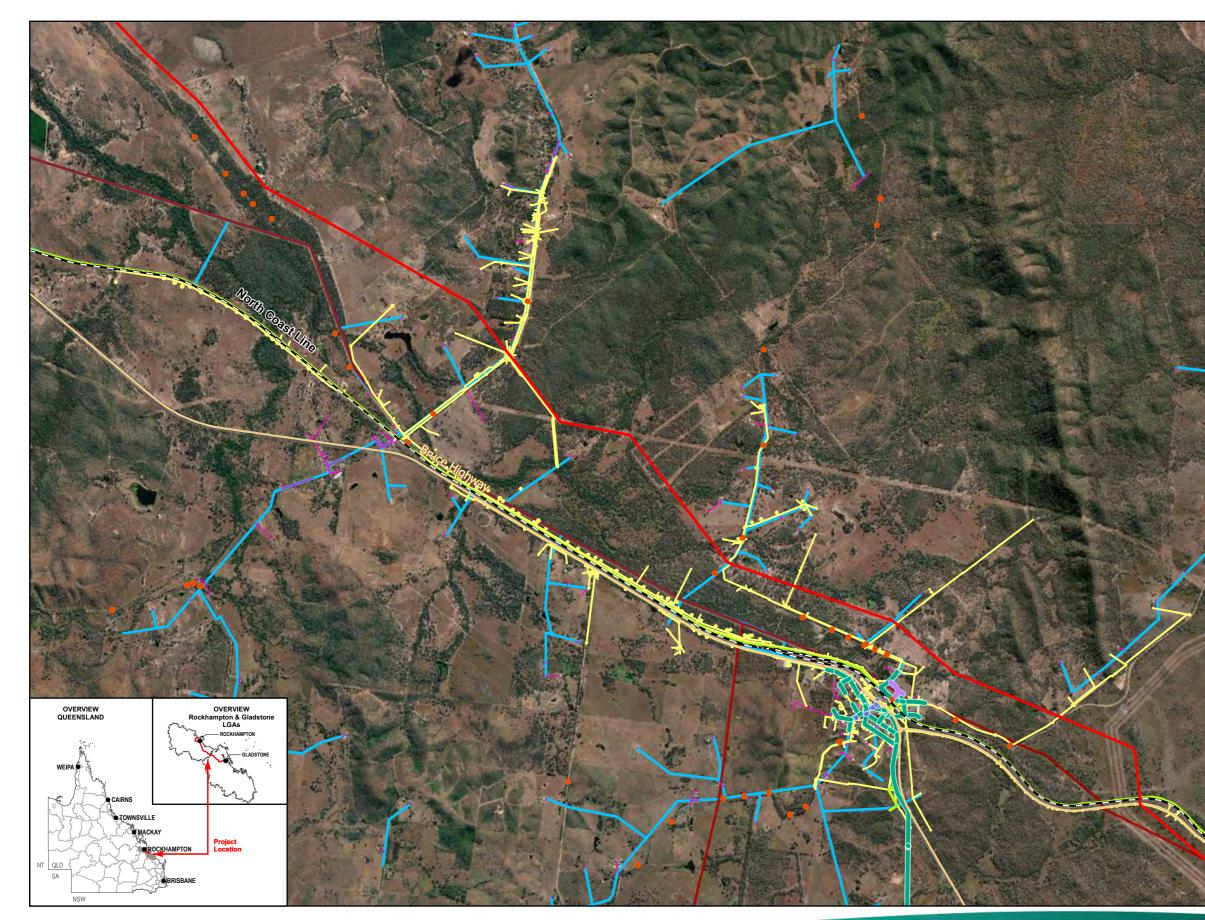




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Figure 3.2f FGP SGIC SDA Alignment Infrastructure & Utilities 000-G-MAP-2618 Version: 1 Date: 28/10/2022

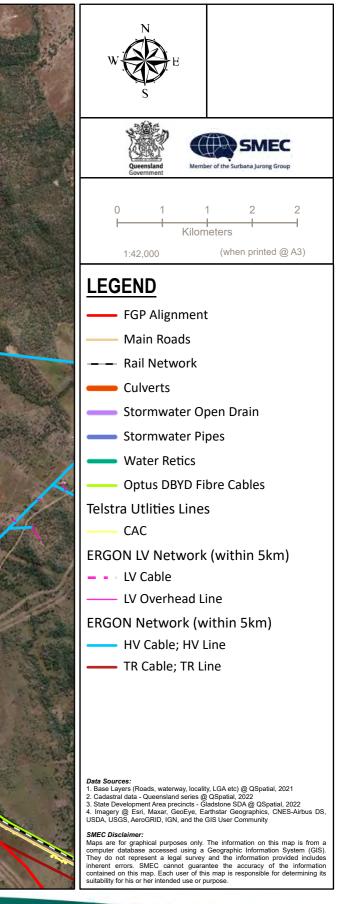






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Figure 3.2g FGP SGIC SDA Alignment Infrastructure & Utilities 000-G-MAP-2618 Version: 1 Date: 28/10/2022



# 3.4 Community Values

Community values include surrounding landscape and amenity of the area, tourism values and sensitive receptors.

Sensitive receptors are identified within the Queensland Environmental Protection Policies (EPPs), specifically the *Environmental Protection (Air) Policy 2019* and *Environmental Protection (Noise) Policy 2019*. Sensitive receptors include places such as residences, education facilities, hospitals, commercial and retail activities, and protected areas. A number of sensitive receptors are located within approximately 1 km of the FGP SGIC SDA alignment from north to south as follows and displayed in Figure 2-4a to Figure 2-4c:

- Rockhampton City approximately 1 km to northwest of the FGP SGIC SDA alignment:
  - Schools St. Peters Catholic Primary School Rockhampton and Rockhampton Flexible Learning Centre.
  - Open space, parks and gardens including heritage listed Rockhampton Botanic Gardens located approximately 900 m from FGP SGIC SDA alignment, diggers park and O'Shanesy Park.
  - Health services including Mater Misericordiae Hospital Rockhampton.
  - Rockhampton Golf Course.
  - Rockhampton Zoo.
  - Bethany Residential Aged Care.
- Cromptom Park (Pony Club) approximately 80 m to the south from the FGP SGIC SDA alignment.
- Sunny Ride Nursery approximately 130 m to the south from the FGP SGIC SDA alignment.
- Raglan township approximately 1 km to the south of the FGP SGIC SDA alignment:
  - Commercial and retail infrastructure including Raglan Tavern.
  - Raglan Target Sports Association, Shooting Complex and Capricornia Field & Game.
  - Tourism Reglan Homestead.
  - Raglan Cemetery.
- Mount Larcom township approximately 750 m to the west of the FGP SGIC SDA alignment:
  - Local residences.
  - Mount Larcom State School.
  - Mount Larcom Medical Centre.
  - Open space parks and gardens including Mount Larcom Showground.
  - Commercial and retail infrastructure including Mount Larcom Police Station.
  - Mt Larcom Library.
- Rural residences.
- Agricultural properties.
- Environmental values (refer to Section 3.5).
- Cultural heritage values (refer to Section 3.6).

Aspects that may affect community values were assessed within *Chapter 15 – Social and Economic Environment* and *Chapter 17 – Landscape and Visual Amenity Assessment* of the EIS (Arup, 2008) (refer to Appendix B). Key outcomes from either the EIS or as determined during preparation of this SDA application (MCU) are summarised below. The community values outlined within the EIS, including sensitive receptors, are similar to the current values, therefore the assessment within the EIS is still relevant. The part of the Project subject to this SDA application (MCU) is the section of Project within the SGIC SDA only, and community value impacts are anticipated to be localised and manageable.

Section 7 provides a discussion of the potential impacts the proposed works may have on community values during the construction and operational phases.

### 3.4.1 Air Quality

The air quality along the FGP SGIC SDA alignment is characterised by a primarily rural setting for the majority of its length (Rockhampton to Gladstone direction) with a small number of industrial land uses. Existing air quality impacts are related to agricultural land use, industrial land uses, bushfire, traffic, rail and maintenance to other infrastructure. Air quality is currently impacted on a local scale by industry.

Air quality impacts (including increased greenhouse gas (GHG) emissions) from construction activities will depend on a combination of the potential for emission and the effectiveness of control measures. The two key sources of potential air quality impacts include:

- Exhaust emissions from construction plant, equipment and vehicles (increased GHG emissions).
- Fugitive dust emissions from construction activities (primarily earthworks).

The sources of air quality impact are temporary and localised in nature and primarily associated with the construction phase. During operation, air quality impacts will be minor and related to infrequent access or maintenance works.

According to *Chapter 10 – Air Environment* of the EIS (Arup, 2008) approximately 10 sensitive receptors (all rural/residential properties) are located within 200 m within the Fitzroy to Bajool section of the FGP SGIC SDA alignment. Furthermore, two facilities are reporting to the National Pollutant Inventory (NPI) at Marmor for the production and refining of sea salt. The NPI identifies that Raglan has similar pollutant sources as Bajool area and Mount Larcom has two facilities reporting to the NPI for a gas pipeline check and limestone mining and crushing facility.

Refer to Section 7 for further discussion on impacts and management.

### 3.4.2 Noise and Vibration

Similar to air quality, the current noise and vibration environment is influenced by agricultural, minor industrial and infrastructure land uses.

Noise and vibration impacts from the FGP SGIC SDA alignment during construction have the potential to impact upon sensitive receptors. The sources of noise and vibration impact are temporary and localised in nature and primarily associated with the construction phase. Construction activities will be limited to 6am to 6pm Monday to Saturday. If work is required outside of these hours, approval will be required from GAWB, accompanied by engagement with affected landholders.

During operation, noise and vibration impacts will be minor and related to infrequent access or maintenance works.

According to *Chapter 12 – Noise and Vibration* of the EIS (Arup, 2008), there are few sensitive receptors in close proximity to the FGP SGIC SDA alignment. Potential noise sensitive locations along the proposed FGP SGIC SDA alignment where unattended noise monitoring was conducted were identified to include:

- Gracemere approximately 2 km south of the FGP SGIC SDA alignment.
- Archer approximately 1 km north of the FGP SGIC SDA alignment.
- Mt Larcom approximately 700 m southwest of the FGP SGIC SDA alignment.

Due to the sectional nature of the FGP construction and limited locations where receptors are in close proximity to the FGP alignment it is expected that the impact of construction noise for the majority of receivers will be minor. Potential cumulative noise effects are not anticipated to impose a significant impact.

Refer to Section 7 for further discussion on impacts and management.

### 3.4.3 Traffic and Transport

The road network in the FGP SGIC SDA alignment that may be utilised includes regionally and locally significant roads, with the major roads established for the industry located within the FGP SGIC SDA alignment.

The traffic generated during construction of the FGP SGIC SDA alignment will include:

- Transportation of construction equipment to/from the FGP SGIC SDA alignment.

- Delivery of pipe.
- Delivery of construction materials.
- Transport for construction workers.

The Construction Contractor will be required to identify and confirm preferred access routes and obtain any required permits. The current base case for the construction is to utilise the existing road network to access the alignment.

During operation, there is expected to be negligible increase in traffic on the local road network. Occasional access via four-wheel drive or maintenance by heavy machinery may be required (refer to Section 7).

Refer to Section 7 for further discussion on impacts and management.

### 3.4.4 Visual Amenity

A review of landscape context and visual amenity values was presented in *Chapter 17 – Landscape and Visual Impact Assessment* of the EIS (Arup, 2008) (refer to Appendix B). The landscape for the FGP SGIC SDA alignment is influenced by rural (including broadacre grazing), minor industry and infrastructure land uses. The gently undulating topography and scattered natural areas also influence the landscape. Small rural townships occur adjacent to the SGIC SDA alignment with rural residential properties scattered throughout. The landscape means that there a variety of framed and/or open views from distant, middle and close locations.

The EIS identified that during construction the FGP SGIC SDA alignment may affect views from a distance. However, the FGP SGIC SDA alignment will not be a prominent feature during operation as it will be underground with only minor infrastructure above ground. Above ground infrastructure for the FGP SGIC SDA alignment includes valves and the Raglan Pump Station and Reservoir. The key visual amenity impact as a result of the FGP SGIC SDA alignment is the loss of trees and vegetation along the approximate 30 m ROW with views of the FGP SGIC SDA alignment limited to close receptors.

Further, EIS (Arup, 2008) identifies that the majority of viewers will be travelling motorists using roads that intersect or run adjacent to the FGP SGIC SDA alignment. Other potential receptors identified include residents, rail users, agricultural and industrial workers and users of recreational open space. As the majority of the installation is proposed to be underground, aboveground elements such as intake infrastructure, water treatment plant, storage reservoirs and associated infrastructure will be visible from a limited number of specific surrounding locations. Temporary visual impacts during construction are likely to include stockpiles, construction vehicles, works and associated machinery, fencing removal and lighting.

The EIS (Arup, 2008) analysed a number of viewsheds within the FGP SGIC SDA alignment (refer to Appendix B), with the significance of impact given as negligible or minor adverse impact. The landscape features of the FGP SGIC SDA alignment have not significantly altered since preparation of the EIS, therefore the assessment undertaken during the EIS remains relevant.

## 3.5 Environmental Values

### 3.5.1 Land

This section outlines the existing environmental values pertaining to the FGP SGIC SDA alignment.

#### 3.5.1.1 Soils

Soil types have been mapped for the FGP SGIC SDA alignment with the dominant soil types including (Atlas of Australian Soils, 2014):

- Vertosols: Vertosols are the most common soil in Queensland and are brown, grey or black which shrink, swell and crack open when dry. This movement itself can be problematic leading to subsidence. Characteristically, vertosols have a very high soil fertility and have vast water retention capabilities.
- Tenosols: Tenosols have a weakly developed soil profile which is typically very sandy and without obvious horizons. These soils can have a range of surface conditions and textures but are generally shallow and rocky. Tenosols can be susceptible to soil creep, sheet and rill erosion.

- Sodosols: Sodosols are soils which display a strong texture contrast between surface and subsoils. These
  soils generally have a weak structure in the surface with a firm to hard setting surface condition. The subsoils
  are sodic in nature and are generally quite dense, coarsely structured and disperse when wet.
- Ferrosol: Ferrosols are well drained soils which are yellow-brown or red colour and have clay-loam to clay textures often associated with former volcanic activity. These soils are typically strongly acidic in the upper soil profile.

All soil types are likely to be erodible upon exposure. Therefore, erosion and sediment controls will be required.

Earthworks undertaken during the construction phase will require an erosion and sediment control plan (ESCP) to be developed and implemented prior to construction to manage potential adverse impacts to the character of the soils, nearby waterways and sensitive receptors. The ESCP will be required to be developed in accordance with current practice for construction projects including the International Erosion Control Association (IECA) 2008 guidelines.

Impacts on environmental values of land (soils and geology) are expected to be minor and temporary as the impacts are largely confined to the construction phase. Impact mitigation measures are expected to be relatively typical of a construction project and conform to industry best practice.

Section 7 provides a discussion of the potential impacts (and associated mitigations) the proposed works may have on soils and the landform during the design, construction and operational phases.

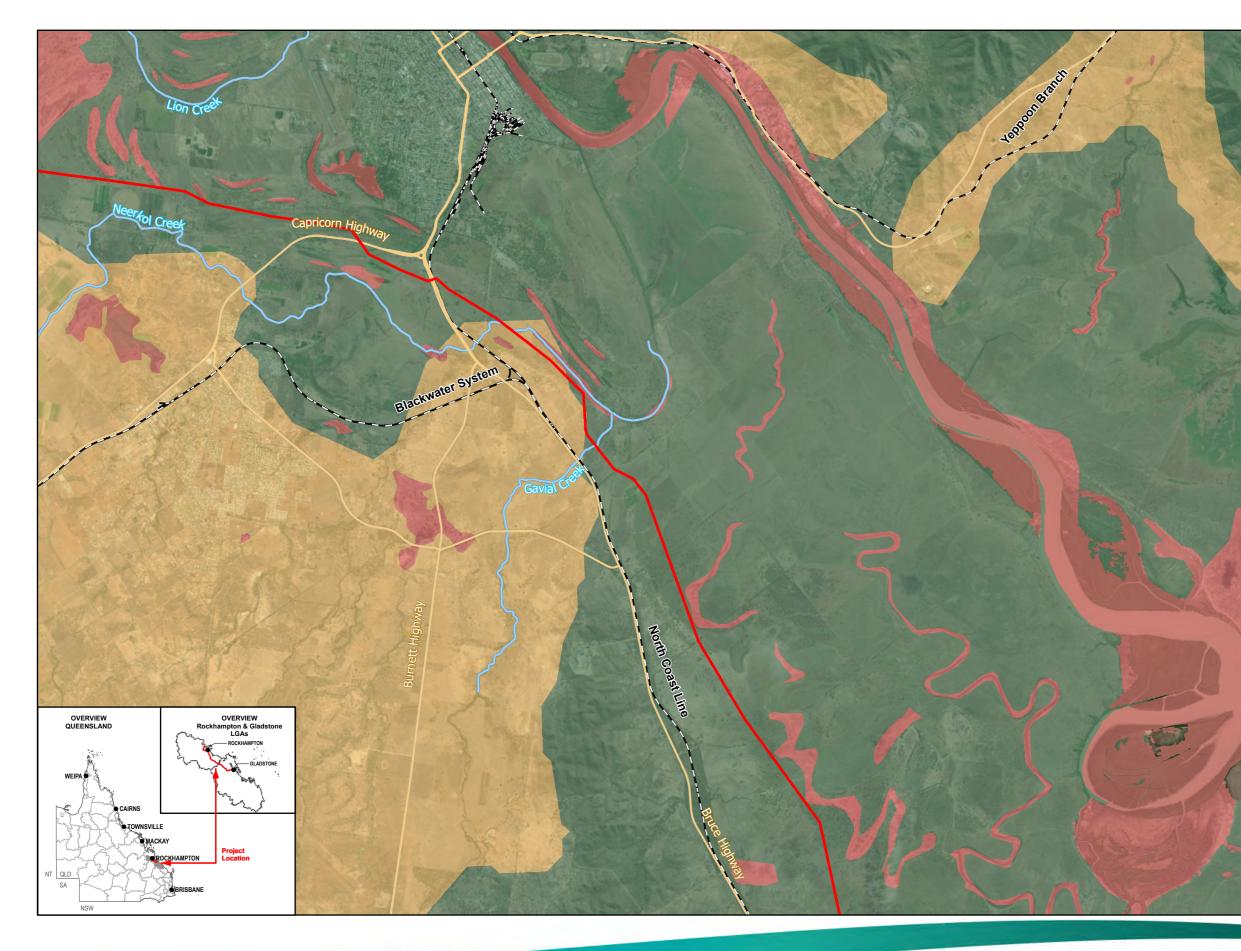
#### 3.5.1.2 Acid Sulfate Soils

While acid sulfate soils (ASS) can be associated with alluvial soils, they are generally found in low lying areas below 5 m AHD (Australian Height Datum), on alluvial plains where groundwater is generally close to the surface, and where materials have generally been in reducing conditions. However, ASS may also be found at elevations up to 20 m AHD, especially where excavation to depths below 5 m AHD is proposed.

Atlas of Australian Soils dataset (CSIRO, 2022) maps the probability of encountering ASS. The majority of the FGP SGIC SDA alignment is of low to very low probability, refer to Figure 3-3a to Figure 3-3c, with areas of high probability associated with watercourses. ASS may be encountered near Raglan Creek, approximate CH 72000 to 74000.

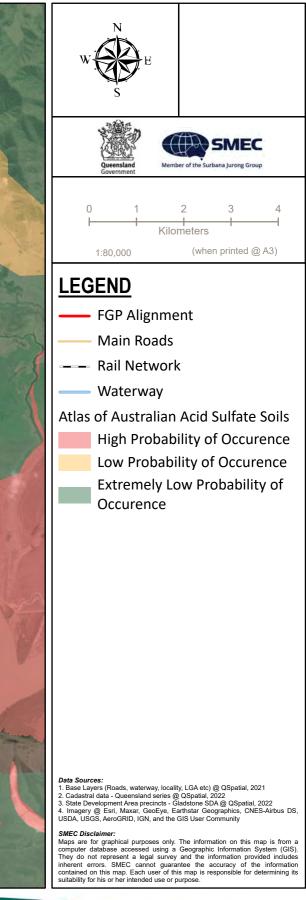
Earthworks, in the form of excavation, will be required establish the underground pipeline. These proposed earthworks have the potential to disturb ASS practically where land elevation is less than 5 m AHD or where excavation is required to depths below 5 m AHD. An ASS investigation will be undertaken by the Construction Contractor and if encountered, an ASS management plan will be developed with management actions in alignment with DES guidelines and technical manuals.

Section 7 provides a discussion of the potential impacts (and associated mitigation) the proposed works may have on soils and the landform during the construction and operational phases.



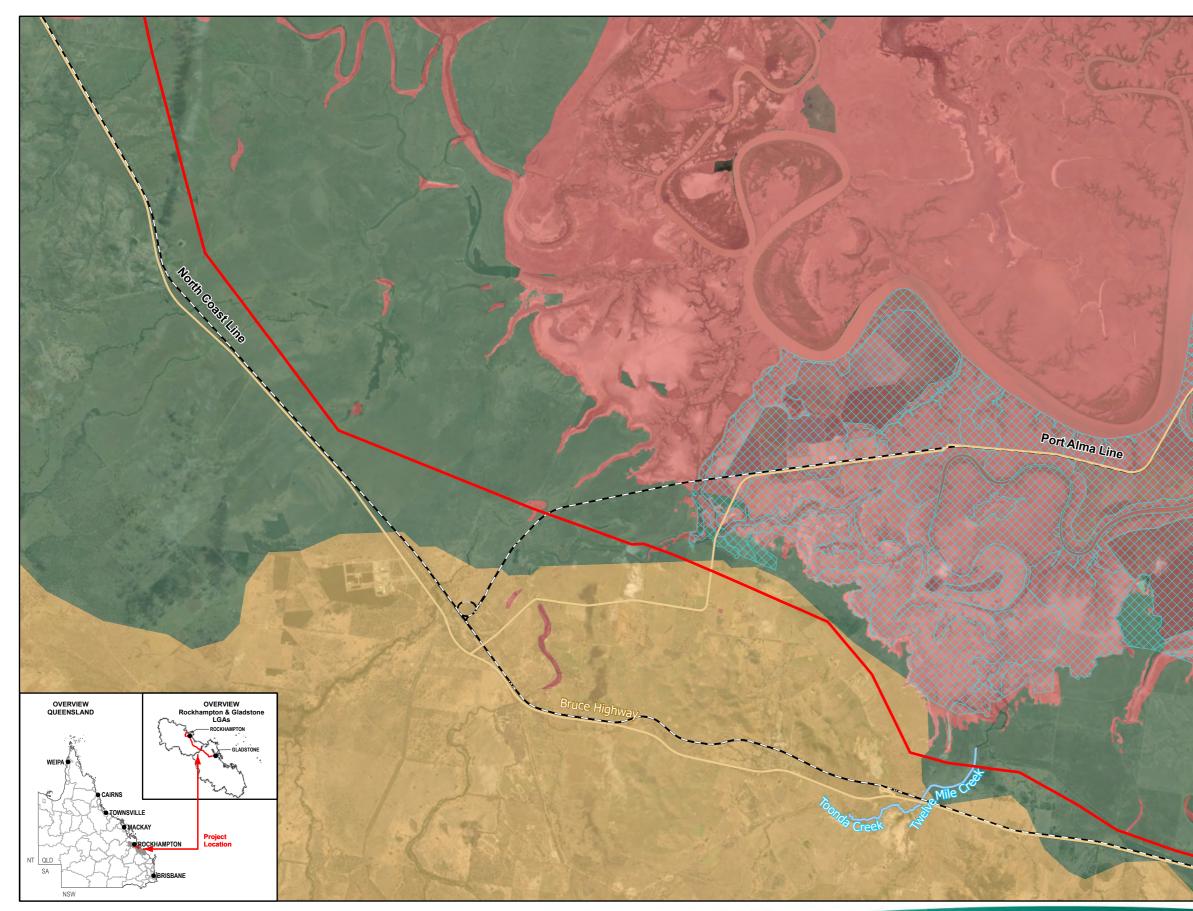


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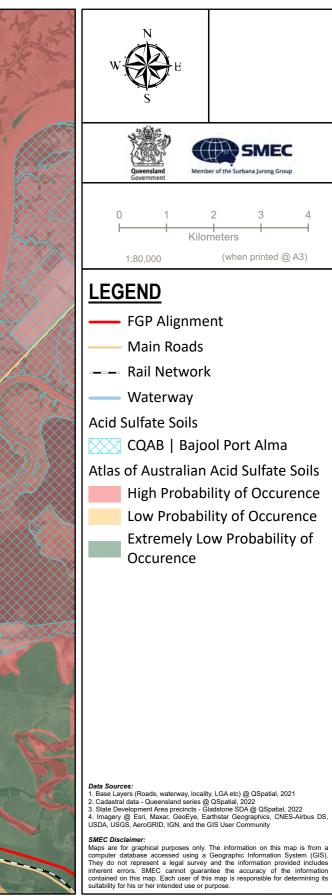
Fitzroy to Gladstone Pipeline Project Planning Report for Material Change of Use - FGP SGIC SDA Alignment Figure 3.3a ASS Risk Areas

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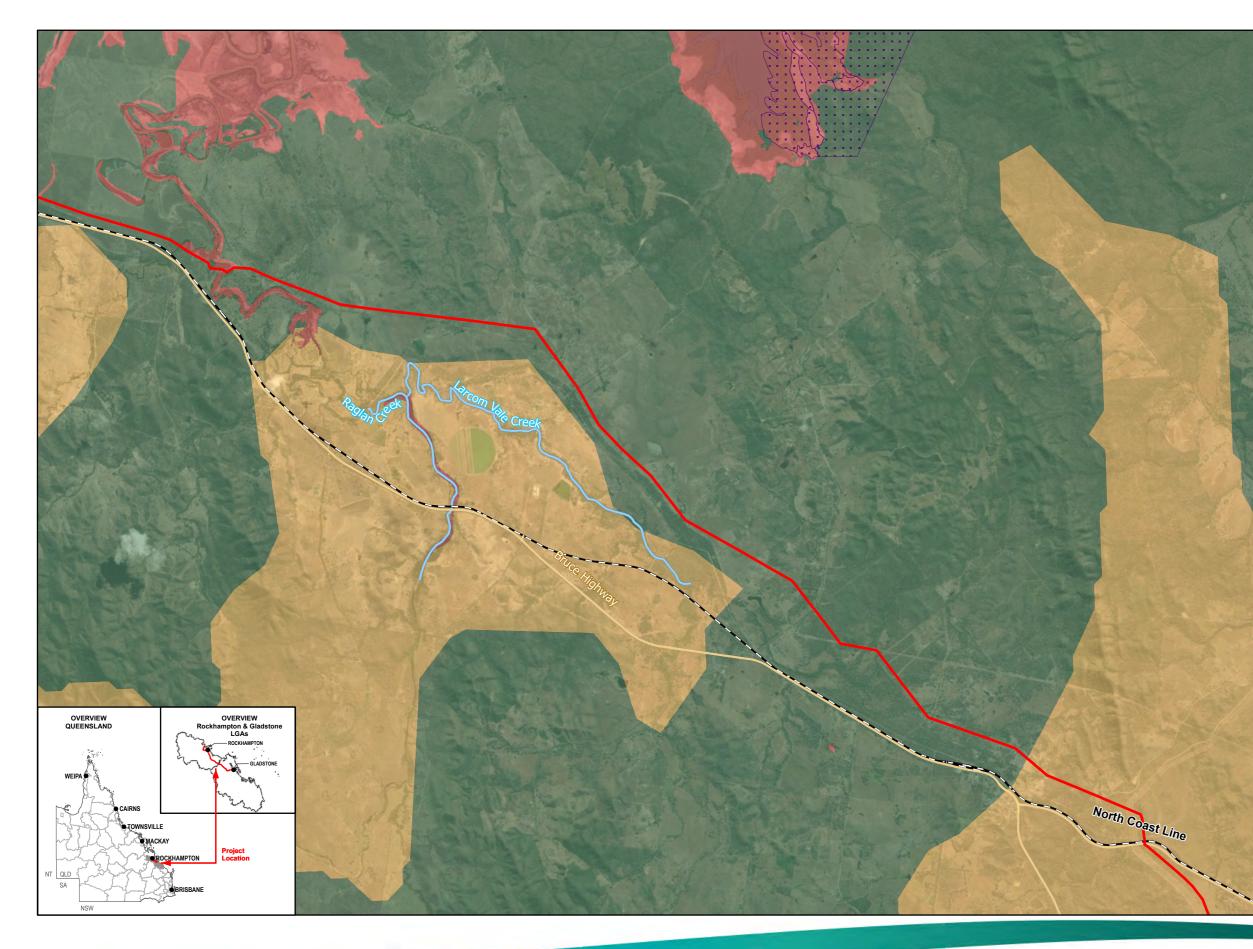




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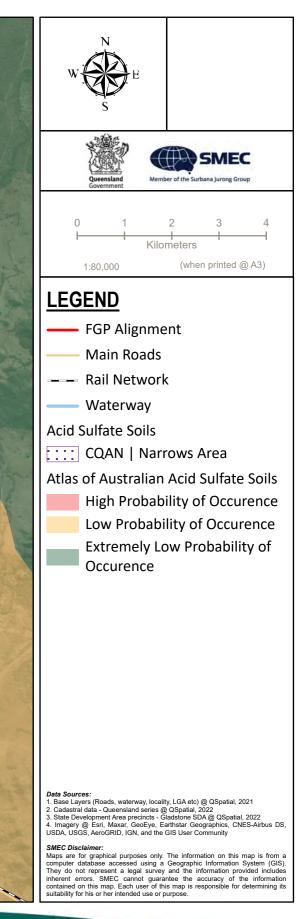


Fitzroy to Gladstone Pipeline Project Planning Report for Material Change of Use - FGP SGIC SDA Alignment Figure 3.3b ASS Risk Areas 000-G-MAP-2619 Version: 1 Date: 28/10/2022





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Fitzroy to Gladstone Pipeline Project Planning Report for Material Change of Use - FGP SGIC SDA Alignment Figure 3.3c ASS Risk Areas

000-G-MAP-2619 Version: 1 Date: 28/10/2022

#### 3.5.1.3 Agricultural Land

Mapped or protected agricultural land is identified as:

- An area of regional interest: strategic cropping land.
- Agricultural land class A and B as mapped by the State Planning Policy Interactive Mapping System.

An assessment of agricultural land was undertaken for the SGIC SDA alignment; the following properties are mapped as agricultural land and are traversed by the FGP SGIC SDA alignment as shown on Figure 3-4a to Figure 3-4j:

- Lot 71 LIV40477: Agricultural land class A and B crop land broadacre and horticulture.
- Lot 143 LN2246: Agricultural land class A and B crop land broadacre and horticulture.
- Lot 247 R2621: Agricultural land class A and B crop land broadacre and horticulture and strategic cropping land.
- Lot 248 LIV401036: Agricultural land class A and B crop land broadacre and horticulture and strategic cropping land.
- Lot 241 LIV401036: Strategic cropping land.
- Lot 13 RP617197: Strategic cropping land.
- Lot 10 RP603184: Strategic cropping land.
- Lot 76 LN184: Strategic cropping land.

The properties identified above are already subject to some form of impact, such as existing linear infrastructure, and as such their value as cropping land is reduced. The alignment for the pipeline has been selected to minimise sterilisation and fragmentation of cropping land where practical. The economic development opportunities that would result from this Project will apply to all sectors of the economy including agriculture.

The Queensland stock route network has a long and rich history of supporting landholders. There are no stock routes or stock route reserves directly impacted by the FGP SGIC SDA alignment.

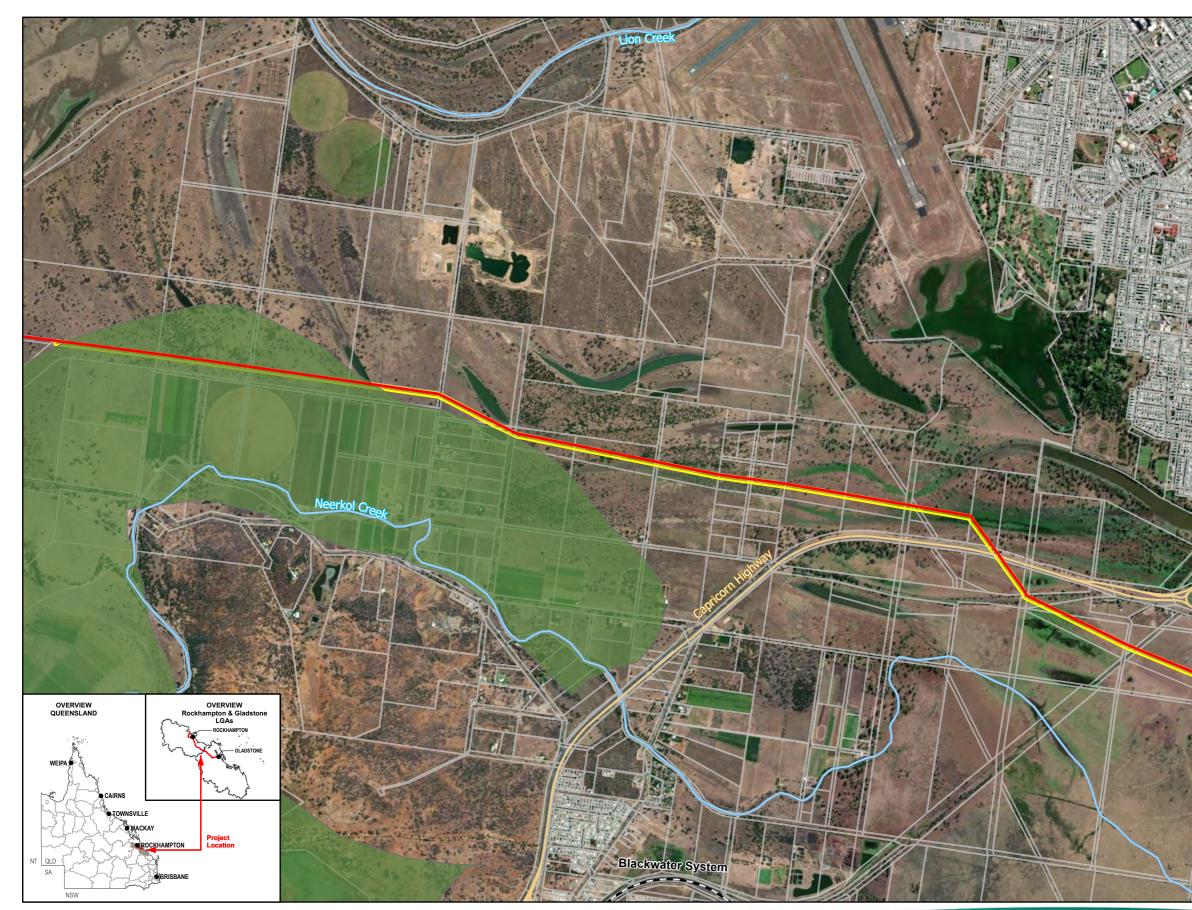
#### 3.5.1.4 Contaminated Land

Potentially contaminated land is identified by reviewing past and historical land uses and by searching the Environmental Management Register (EMR) and Contaminated Land Register (CLR). The Preliminary Contamination Assessment Report (GHD, 2021) (refer to Appendix C) identified that the following properties (or general areas) pose a moderate to high contamination risk within the FGP SGIC SDA alignment:

- Lot 101 DS185: listed on the EMR for waste storage, treatment or disposal of regulated wastes.
- Lot 140 SP122252 and railway yards or corridors: Where the Project intersects the North Coast Line, there is a higher risk for encountering potential contamination due to historical railway corridor management practices. Particularly as there are a number of potential contamination sources from the railway corridor's previous land use (i.e., scrap metal storage, potential storage and use of fuels and chemicals, use of herbicides/pesticides on the site and surrounding areas).
- Lot 167 CP859402: Although not listed on the EMR or CLR some historical land use associated with use as a racetrack indicates contamination may be present.

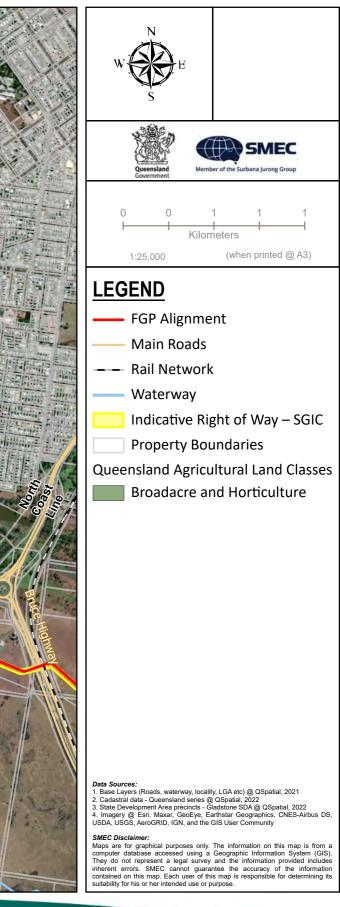
There are no current Environmental Authority activities undertaken along the FGP SGIC SDA alignment.

The proposed works may result in the disturbance of contaminated material from these properties. Additional unreported contaminated land may also be encountered. Contaminated material will be treated in accordance with legislative requirements as outlined in the Construction Environmental Management Plan (CEMP), (refer to Appendix F for a draft CEMP). This is further discussed in Section 7.





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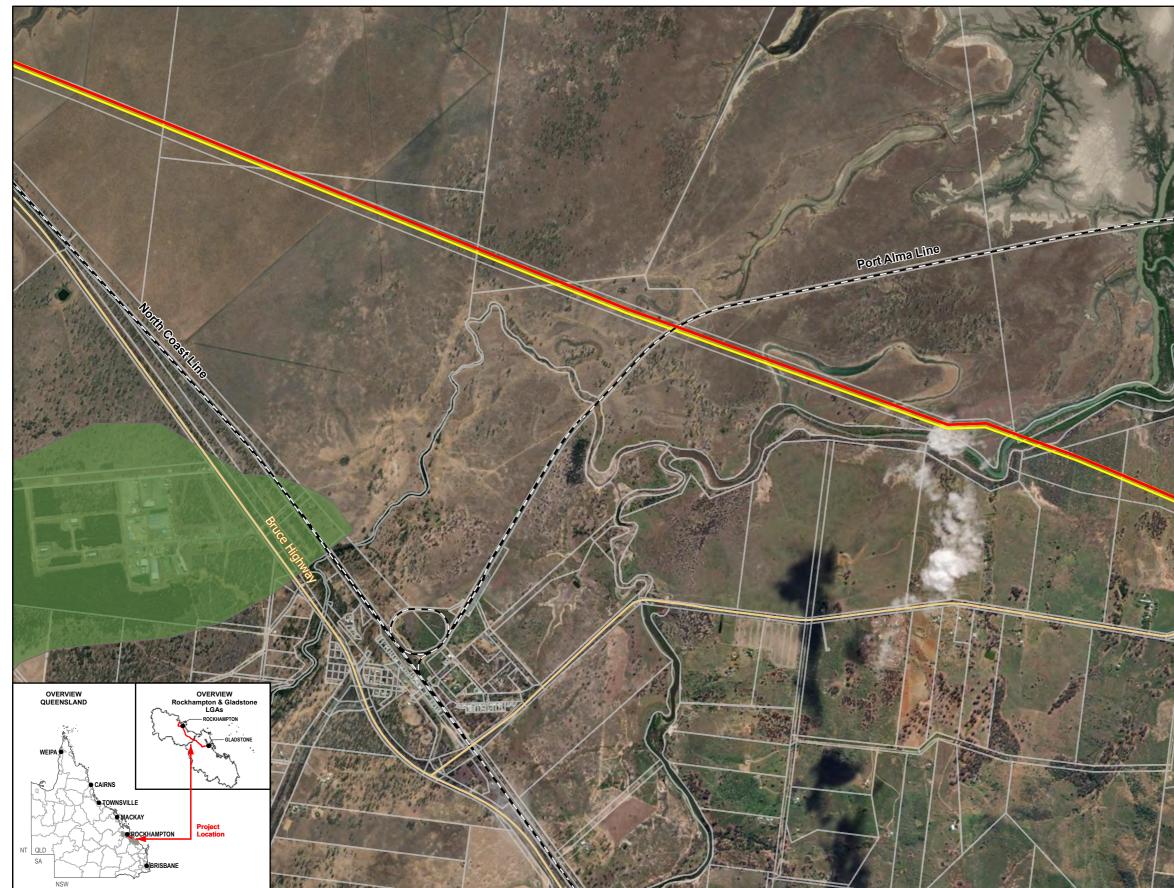


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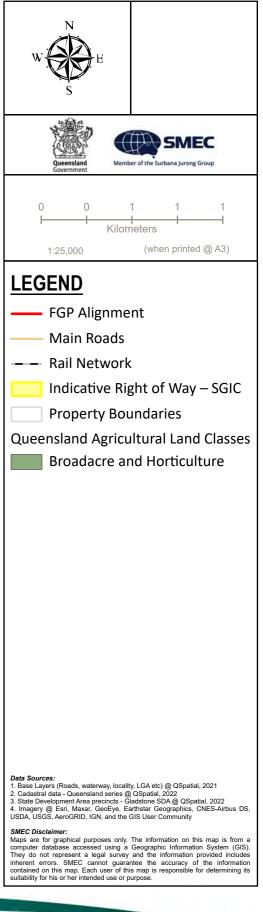
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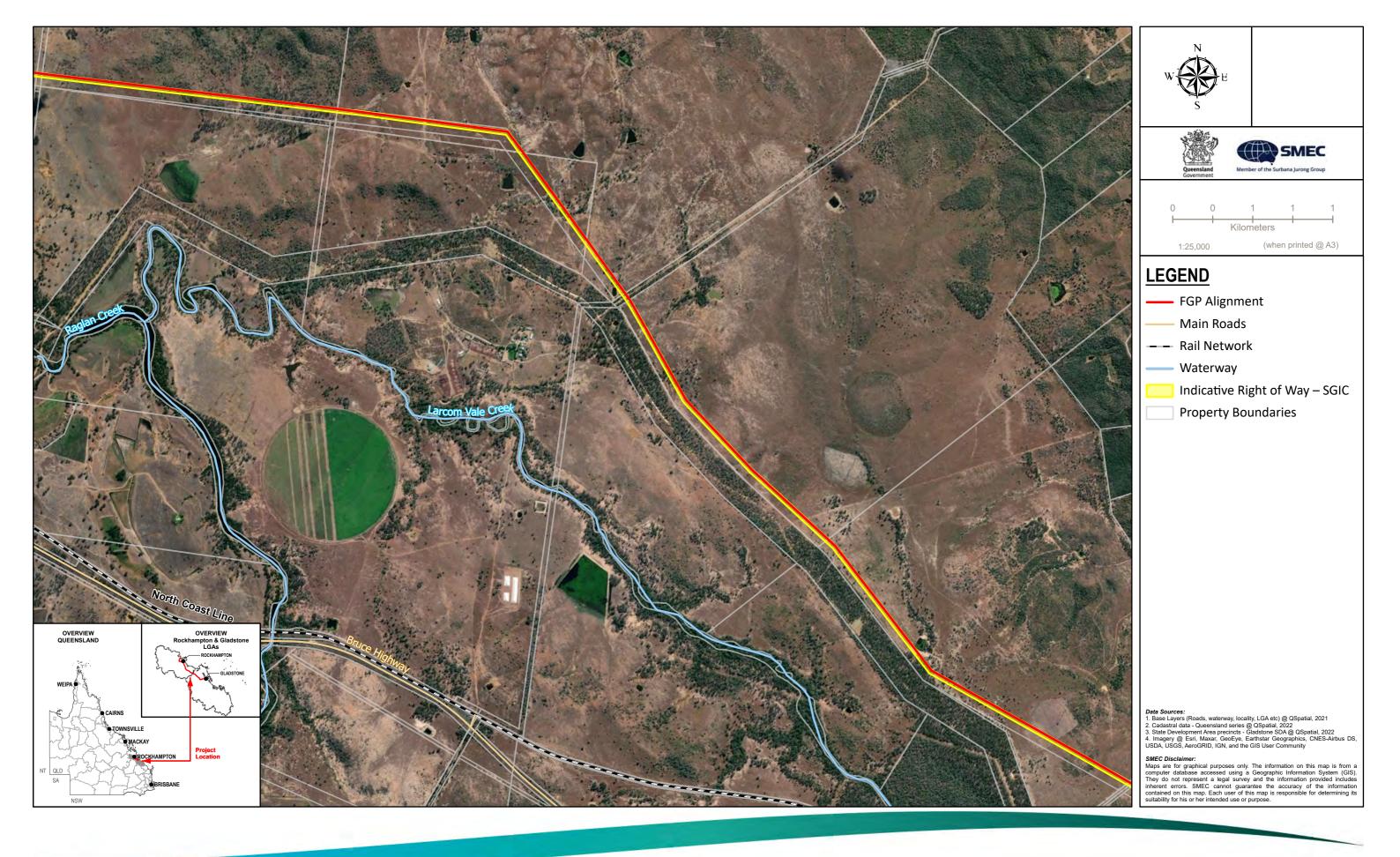


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