



## REPORT

# Regional Interests Development Approval Application

## Supporting Information Report

Q-4170-15-RP-0005

# Australia Pacific LNG Upstream Project

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Supporting information report for proposed activities within a Strategic Cropping Area  
and Priority Agricultural Area

Revision	Date	Description
A	16/08/2018	Draft for review
B	28/08/18	Revised to incorporate DAF and DSDMIP comments
C	12/11/18	Revised to incorporate internal review comments

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- **Should** indicates a recommended course of action
- **May or can** indicate a possible course of action.

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## Table of Contents

1.	Introduction .....	5
1.1.	Overview .....	5
1.2.	Document References, Abbreviations and Definitions .....	5
2.	Description of Resource Activities.....	6
2.1.	Background .....	6
2.2.	Resource Activities .....	6
2.2.1.	Gas Gathering Station .....	6
2.2.2.	Ancillary Linear Infrastructure .....	7
3.	Location Details .....	8
3.1.	Pre-Activity Land Condition .....	8
3.1.1.	Current Land Use.....	8
3.1.2.	Soil Characteristics and Vegetation .....	8
3.2.	Surrounding Land Uses .....	9
4.	Potential Impacts to Areas of Regional Interest.....	10
4.1.	Maximum Temporary Disturbance Area .....	10
4.2.	Extent and Duration of Temporary Disturbance.....	10
5.	Management Measures .....	12
5.1.	Gas Gathering Station.....	12
5.1.1.	Assessment of Alternatives .....	12
5.1.2.	Design.....	13
5.1.3.	Construction .....	13
5.1.4.	Operations .....	13
5.1.5.	Rehabilitation.....	14
5.2.	Ancillary Infrastructure .....	14
6.	Public Notification.....	16
7.	Assessment Application Fees.....	17
8.	Required Outcome Assessment .....	18
	Appendix A - Maps .....	22
	Appendix B - Proposed RIDA Details.....	23
	Appendix C - Preliminary Gas Gathering Station Design - Not for Construction .....	24
	Appendix D - Land Use Map .....	25

## List of Tables

Table 1: Associated Document References .....	5
Table 2: Abbreviations .....	5
Table 3: Summary of Property Specific Information .....	8

Table 4: Surrounding Land Use .....	9
Table 5: Maximum Temporary Disturbance Area and SCA.....	10
Table 6: Maximum Temporary Disturbance Area and PAA .....	10
Table 7 Alternate Locations for the proposed gas gathering station .....	12
Table 8: SCA Assessment Criteria - Required Outcome 1.....	18
Table 9: SCA Assessment Criteria - Required Outcome 2.....	18
Table 10: SCA Assessment Criteria - Required Outcome 3 .....	18
Table 11: PAA Assessment Criteria - Required Outcome 1 .....	19

# 1. Introduction

## 1.1. Overview

Australia Pacific LNG Pty Limited (Australia Pacific LNG), has prepared this report to accompany an application under s28 of the *Regional Planning Interests Act 2014* (RPI Act). This application relates to the construction and operation of a gas gathering station and ancillary linear infrastructure (the proposed activity) located within an area of regional interest (ARI) including a strategic cropping area (SCA) and priority agricultural area (PAA). The proposed activity would be constructed and operated under existing Petroleum Lease (PL) 226 and environmental authority (EA) EPPG00968013 and be located wholly within Australia Pacific LNG's property 'Gavindale' (Lot 52BWR104).

Australia Pacific LNG intends to undertake the activities within an ARI and as the holder of an EA is an *eligible person* for making an assessment application under s28(3) of the RPI Act.

## 1.2. Document References, Abbreviations and Definitions

In addition to a cover letter, the assessment application includes the following documents listed in Table 1 and provided in accordance with s29 of the RPI Act:

- approved application form (Version 3.0) made to the chief executive;
- this report assessing the resource activity's impact on the ARI and identifying any constraints on the configuration or operation of the activity; and
- an application fee prescribed under the *Regional Planning Interests Regulation 2014*.

**Table 1: Associated Document References**

Document Number	Title	Attachment
Q-4170-15-EA-0001	Cover letter and approved application form	N/A
Q-4170-15-RP-0005	Supporting Information Report (this report)	N/A
GISWR_63856	Maps	Appendix A
N/A	Proposed RIDA Details	Appendix B
Q-4170-40-DG-0001	Gas gathering station preliminary design - not for construction	Appendix C
N/A	Land Use Map	Appendix D

**Table 2: Abbreviations**

Abbreviation	Description
ARI	Area of Regional Interest
CSG	Coal Seam Gas
EA	Environmental Authority
EP Act	<i>Environmental Protection Act 1994</i>
ha	Hectare
PL	Petroleum Lease
PAA	Priority Agricultural Area
RIDA	Regional Interests Development Approval
RPI Act	<i>Regional Planning Interests Act 2014</i>
SCA	Strategic Cropping Area
SCL	Strategic Cropping Land

## 2. Description of Resource Activities

### 2.1. Background

The 'Gavindale' property (Lot 52BWR104) owned by Australia Pacific LNG Pty Limited is located within PL 226 and subject to EA EPPG00968013. At the time of commencement of the RPI Act this EA did not authorise the construction of gas gathering stations and ancillary linear infrastructure located within 200m of an environmentally sensitive area (ESA). The proposed gas gathering station and ancillary infrastructure is located partially within a SCA and entirely within a PAA.

As the proposed gas gathering station and ancillary infrastructure does not meet the exemption requirements under the RPI Act, temporary disturbance of up to 7.9 ha of a SCA and 12.9 of a PAA is proposed under this Regional Interests Development Approval (RIDA) application. Refer to Appendix A for the location of the proposed gas gathering station and ancillary linear infrastructure within Lot 52BWR104, the SCA, and the PAA. The proposed gas gathering station would connect to existing and proposed CSG wells and existing compressor stations that meet the exemption requirements of the RPI Act; this surrounding infrastructure does not form part of this RIDA application.

Australia Pacific LNG Pty Limited owns additional properties adjacent to Lot 52BWR104. However, these properties do not collectively constitute a *property* as defined by the RPI Act, as they are not *managed as a single agricultural enterprise*; no coordinated agricultural activities are undertaken on these collective properties.

### 2.2. Resource Activities

#### 2.2.1. Gas Gathering Station

The activities that would be undertaken in construction of the gas gathering station would include the following:

- Limited clearing of vegetation.
- Removing topsoil and stockpiling it within the gas gathering station's disturbance area to preserve its biological and chemical properties for later use in rehabilitation. Topsoil stockpiles would be vegetated to minimise potential erosion.
- Implementing erosion and sediment control measures, as determined by a suitably qualified person and in accordance with a site-specific erosion and sediment control plan.
- Undertaking minor civil works required due to the proposed use of height adjustable steel piles with minimal footing requirements, and relatively flat slope of the existing site.
- Mechanical installation of the pre-constructed gas gathering station packages and associated equipment, including:
  - Electric compressor packages.
  - Above-ground and below-ground water and gas pipelines.
  - Electrical and instrumentation equipment, including switchrooms.
  - Concrete slab and connection points for portable nitrogen bottles.
  - Rainwater tank and pumps.
  - Dry store.
  - Laydown and carparking.
  - Security fencing.
- Revegetation of disturbed areas with ongoing maintenance and monitoring to achieve rehabilitation objectives.

Operation of the gas gathering station would not include emissions to air, water, or land due to the following:

- As an electrified facility, operation of the gas gathering station would not involve the combustion of hydrocarbons.
- The facility does not involve flaring or venting of gas.
- The facility does not include water treatment requiring the consumption of chemicals.
- The facility does not include the storage of liquid chemicals, fuels, or coal seam water.

### 2.2.2. Ancillary Linear Infrastructure

The activities that would be undertaken in construction of the ancillary linear infrastructure (gas pipelines, and power and fibre optic cables) for the gas gathering station would include the following:

- Limited clearing of vegetation within a maximum 40m construction right-of-way required to facilitate minimum safe separation of gas pipelines and powerlines.
- Removing topsoil and subsoil and stockpiling these separately to preserve the soil's biological and chemical properties for later use in rehabilitation.
- Implementing erosion and sediment controls, as determined by a suitably qualified person and in accordance with a site-specific erosion and sediment control plan.
- Installation of approximately 2 km of below ground 800 mm diameter gas and 125 mm diameter water gathering pipelines.
- Installation of approximately 2 km below ground power and fibre optic cables.
- Installation of limited ancillary aboveground pipeline infrastructure including signage, an automated low point drain and vent, manifolds and covered valve and inspection pits.
- Reinstatement of topsoil and subsoils consistent with the surrounding soil horizon.
- Revegetation of disturbed areas with ongoing maintenance and monitoring to achieve rehabilitation objectives.

An automated low point drain would be used to avoid emissions to water or land during operation. Negligible amounts of low pressure residual gas would be vented from the water gathering pipeline during operations.

Appendix B provides details of the activities proposed for approval (e.g. Table 1 and Table 2 of a typical RIDA).

### 3. Location Details

Table 3 summarises the key information relevant to this RIDA application.

**Table 3: Summary of Property Specific Information**

Aspect	Description
Lot Plans	Lot 52BWR104
Property Name	'Gavindale'
Land Owner	Australia Pacific LNG Pty Ltd
Regional Council	Western Downs Regional
Area of Regional Interest	SCA and PAA

ArcGIS Shapefiles to a projected coordinate system of GDA94 accompany the application and identify the location of the activity.

#### 3.1. Pre-Activity Land Condition

##### 3.1.1. Current Land Use

Lot 52BWR104 is approximately 257 ha and is located within a SCA and PAA with the majority of approximately 219 ha of the property mapped as Strategic Cropping Land (SCL) and entirely mapped as a PAA. The current land use of Lot 52BWR104 is coal seam gas (CSG) production. No cropping or other agricultural activities, beyond maintenance of vegetation for the safe operation of petroleum activities, are currently undertaken or proposed to be undertaken within Lot 52BWR104. Photo 1 below shows the location of the proposed gas gathering station, dominated by pasture grasses, looking towards the south-east towards Tames Road

**Photo 1: Existing Site**



##### 3.1.2. Soil Characteristics and Vegetation

The site is located within the Southern Downs subregion within the Brigalow Belt bioregion. Southern Downs is based on Jurassic and Cretaceous sediments that outcrop around the rim of the Great Artesian Basin. Soils of this area are predominantly fine grained, forming a low, hilly landscape. Late Cainozoic flood-outs/clay plains, with minor areas of Tertiary volcanic define the southern part of the region.



Reference to the Geological Survey of Queensland's 1:250,000 Chinchilla sheet indicates that the site is located in an area mapped as very close to a boundary between the Quaternary alluvium (mainly comprising sandy alluvium of the Condamine River) and Kumbarilla Beds (comprising clayey labile to quartzose sandstone, siltstone, mudstone, and polymictic conglomerate).

Although the site is dominated by pasture grasses that have historically supported grazing activities, limited remnant vegetation is located within Lot 52BWR104 including open forest dominated by *Acacia harpophylla* and/or *Casuarina cristata* occurring on Cainozoic clay plains with cracking clay soils which are often with a weak gilgai microrelief. The plains may be flat to gently undulating. Soils are often cracking clay which are usually deep to very deep, often self-mulching, and sometimes with surface stone. Texture contrast soils and other clays may also be present in places.

The Atlas of Australian Soils maps the area as containing hard alkaline and neutral yellow mottled sodosols. However, site-specific soil samples show that soils predominately consist of very stiff brown silty clay with fine to medium grained sand with some areas of strong acidity and limited areas of sandy clay.

### 3.2. Surrounding Land Uses

The existing land use and ARIs on land surrounding the proposed gas gathering station is provided in Table 4 and shown in Appendix A. The existing land uses include petroleum activities for CSG production, with agricultural uses including grazing natural vegetation.

**Table 4: Surrounding Land Use**

Lot Plan	Closest Boundary Location in Relation to Proposed Activity	Existing Land Use	ARIs within Lot Plan
39BWR104	Located approximately 0.6 km east	Mapping indicates the land use is agriculture including the grazing of native vegetation	PAA SCA
30BWR83	Located approximately 0.3 km southeast	Mapping indicates the land use is agriculture including the grazing of native vegetation	PAA SCA
84BWR453	Located approximately 0.75 km south-southeast	Mapping indicates the land use is agriculture including the grazing of native vegetation	PAA SCA
85BWR181	Located approximately 0.1km south	CSG production. Mapping indicates the land use also includes agriculture including the grazing of native vegetation	PAA SCA
2BWR104	Located approximately 0.75 km	CSG production. Mapping indicates the land use also includes agriculture including the grazing of native vegetation	PAA SCA
50BWR104	Located approximately 0.9 km north-northwest	CSG production. Mapping indicates the land use also includes agriculture including the grazing of native vegetation	PAA SCA
74BWR188	Located approximately 1.8 km west	CSG production. Mapping indicates the land use also includes agriculture including the grazing of native vegetation	SCA

## 4. Potential Impacts to Areas of Regional Interest

### 4.1. Maximum Temporary Disturbance Area

Tables 5 and 6 provide the maximum temporary disturbance area for the proposed activities within mapped SCA and PAA as a proportion of the total ARI present within Lot 52BWR104.

**Table 5: Maximum Temporary Disturbance Area and SCA**

Proposed Activity	Maximum temporary disturbance area within SCA	Proportion of area within total 219 ha of SCA within Lot 52BWR104
Gas gathering station	1.5 ha	0.68%
Ancillary linear infrastructure	6.4 ha	2.92%
<b>Total</b>	<b>7.9 ha</b>	<b>3.60%</b>

**Table 6: Maximum Temporary Disturbance Area and PAA**

Proposed Activity	Maximum temporary disturbance area within PAA	Proportion of area within total 265 ha of PAA within Lot 52BWR104
Gas gathering station	5.0 ha	1.88%
Ancillary linear infrastructure	7.9 ha	3.01%
<b>Total</b>	<b>12.9 ha</b>	<b>4.89%</b>

As shown in Tables 5 and 6, the majority of the proposed temporary disturbance is associated with construction of ancillary linear infrastructure which can be rapidly returned to the pre-activity condition of the land following construction as described in Section 5.

While the majority of Lot 52BWR104 is located within SCL for which a maximum of up to 7.9 ha would be temporarily disturbed for the proposed activities prior to restoration of the pre-activity condition of the land, the majority of the 5.0 ha gas gathering station would not be located within SCL.

All of Lot 52BWR104 is located within a PAA for which a maximum of up to 12.9 ha would be temporarily disturbed for the proposed activities prior to restoration of the pre-activity condition of the land. However, as shown in Appendices A and D, there are no priority agricultural land uses (PALUs) within Lot 52BWR104 or immediate surrounds.

There will be no significant impact to the land as the land can rapidly be restored to its pre-activity condition as soon as possible following completion of the activity due to the 'relocatable' design of the gas gathering station (including 'skid mounted' infrastructure mounted removable steel piles), and implementation of management measures described in Section 5 including existing comprehensive regulatory requirements for rehabilitation and provision of financial assurance for rehabilitation.

Potential off-site impacts would be limited to the alteration of localised overland flow paths during construction from implementation of temporary erosion and sediment controls (e.g. surface water diversions installed up-slope of disturbance areas). However, impacts to SCA and PAA are not envisaged due to the temporary and minor alteration of overland flow and limited catchment down-slope of the gas gathering station which generally drains a short distance to the west towards Bogrumbilla Creek, not towards any known cropping activities or PALUs.

The SCA Assessment Criteria and PAA Assessment Criteria responses to required outcomes are described in Section 8.

### 4.2. Extent and Duration of Temporary Disturbance

Construction of the gas gathering station and ancillary linear infrastructure would require temporary disturbance of up to 7.9 ha of SCA and 12.9 ha of PAA and is scheduled to commence in mid 2019. The duration of the temporary disturbance prior to restoration of the pre-activity condition of the land associated with the gas gathering station would be for the operational life of the gas gathering station, nominally 20 years. The duration of the temporary disturbance prior to restoration of the pre-activity condition of the land associated with the ancillary linear infrastructure would be approximately 1 year given the existing conditions of the site dominated by pasture grasses and proposed rehabilitation

measures described in Section 5. Relatively minor disturbances for the above ground ancillary linear (e.g. signage, drains/vents) would remain for the operational life of the gas gathering station, nominally 20 years, prior to removal and restoration of the pre-activity condition of the land.

## 5. Management Measures

### 5.1. Gas Gathering Station

#### 5.1.1. Assessment of Alternatives

Avoidance of SCL has largely been achieved as the proposed gas gathering station would mostly be located in the relatively small portion of Lot 52BWR104 that does not contain SCA or native vegetation including remnant regional ecosystems (REs). In addition to these SCA and RE constraints, the following influence the proposed location of the gas gathering station:

- Australia Pacific LNG's ownership of the land, important for operation of long-term and critical CSG infrastructure such as gas gathering stations.
- Engineering design constraints providing the optimal location relative to surrounding CSG wells to minimise gas compression costs required over the nominal 20-year operational life of the gas gathering station.
- Maintaining appropriate separation distances from existing infrastructure including high voltage powerlines and other gas pipelines.
- Maintaining appropriate separation distances from sensitive receptors to avoid potential long-term noise impacts from operation of gas gathering stations.

Appendix A demonstrates how the proposed disturbance to SCA has inherently been minimised through use of minimum separation distances for the proposed gas gathering station.

As the proposed gas gathering station has largely been located within the limited non-SCA areas of Lot 52BWR104, alternate locations within Lot 52BWR104 would result in increased disturbance to SCA and/or REs. Alternate locations considered within surrounding parcels of land would result in increased disturbance to SCA and/or REs as summarised in Table 7.

**Table 7 Alternate Locations for the proposed gas gathering station**

Alternate Location	Considerations
East of proposed location	<p>An area of non SCL and devoid of native vegetation exists approximately 2.5 km east of the proposed location of the gas gathering station. However, this location is not suitable as it:</p> <ul style="list-style-type: none"> <li>• would significantly increase gas compression costs over the life of the facility;</li> <li>• is on property is not owned by Australia Pacific LNG; and</li> <li>• would likely result in noise impacts, including sleep disturbance, at a sensitive receptor located approximately 1.2 km to the north of this alternate location.</li> </ul> <p>This area is located within a PAA.</p>
West of proposed location	<p>An area of non SCL and devoid of native vegetation exists approximately 2.5 km southwest of the proposed location of the gas gathering station. However, this location is not suitable as it:</p> <ul style="list-style-type: none"> <li>• would significantly increase gas compression costs over the life of the facility;</li> <li>• is on property is not owned by Australia Pacific LNG; and</li> <li>• would likely result in noise impacts, related to sleep disturbance, at a sensitive receptor located approximately 0.5 km to the west of this alternate location.</li> </ul> <p>This area is not located within a PAA.</p>
North of proposed location	<p>An area of non SCL and devoid of native vegetation exists approximately 11 km north of the proposed location of the gas gathering station. However, this location is not suitable as it:</p> <ul style="list-style-type: none"> <li>• would significantly increase gas compression costs over the life of the facility;</li> <li>• is on property is not owned by Australia Pacific LNG; and</li> </ul> <p>This area is located within a PAA.</p>
South of proposed location	<p>An area of non SCL exists approximately 0.4 km southeast of the proposed location of the gas gathering station. However, this location is not suitable as it contains areas of remnant REs being managed by Australia Pacific LNG to comply with existing environmental approvals. This area is located within a PAA.</p>

Alternate Location	Considerations
	An area of non SCL exists approximately 0.8 km east-southeast of the proposed location of the gas gathering station. However, this location is not suitable as it is on property is not owned by Australia Pacific LNG. This area is located within a PAA.

### 5.1.2. Design

Design of the proposed gas gathering station has minimised disturbance of SCA and PAA as shown in Appendix C, including the following:

- the minimum separation distance of 35 metres has been utilised between electrified compressor units and electrical switch room equipment;
- the minimum separation distance of 25 metres has been utilised between each of the electrified compressor units;
- flares and vents have been excluded from the design thereby avoiding disturbance associated with their construction and significant additional separation / offset distances due to thermal radiation effects of flares; and
- the proposed gas gathering station includes provision for future relocation and largely avoids cast in-situ foundations and buried services.

The gas gathering station would be fenced to exclude livestock and facilitate adjacent agricultural operations including potential grazing and/or cropping.

### 5.1.3. Construction

The majority of equipment and piping will be installed on height adjustable steel piles with minimal footings, significantly minimising civil earthworks and total disturbance. The following mitigation measures would be undertaken for significant disturbance to land required during construction:

- Stockpiling of grasses and woody vegetation.
- Topsoil and subsoils will be stored separately, with topsoil stockpiled no greater than 2 metres in height.
- Soil stockpiles would be seeded to promote revegetation to minimise potential erosion and preserve the soil's biological and chemical properties.
- Topsoil stripping and handling will not occur during significant rainfall and when soils are saturated.
- Erosion and sediment controls will be installed and maintained in accordance with site specific erosion and sediment control plans to avoid offsite transport of soil resources.
- Existing overland flow paths would be reinstated.

Progressive reinstatement would be undertaken during construction, including reinstatement of soils as soon as practical following pipeline installation with replacement of soils consistent with surrounding soil horizons and re-instatement of groundcover to minimise erosion.

### 5.1.4. Operations

Operation of the gas gathering station would not include emissions to air, water, or land thereby minimising potential operational impacts to soil resources and adjacent agricultural activities due to the following:

- As an electrified facility, operation of the gas gathering station would not involve the combustion of hydrocarbons.
- The facility does not involve flaring or venting of gas.
- The facility does not include the treatment of gas or water requiring the consumption of chemicals.
- The facility does not include the storage of liquid chemicals, fuels, or coal seam water.

The gas gathering station would be fully fenced to exclude livestock allowing for the safe operation of adjacent agricultural uses.

#### 5.1.5. Rehabilitation

Following the cessation of operations, the gas gathering station would be relocated with all equipment removed from the site. The land would be rehabilitated to its pre-activity condition and to meet the requirements of EA EPPG00968013, including:

- all significantly disturbed land is reinstated to the pre-disturbed land use;
- all significantly disturbed land is reinstated to the pre-disturbed soil suitability class;
- the landform is safe for humans and fauna;
- the landform is stable with no subsidence or erosion gullies for at least five years;
- a minimum of 80 percent foliage cover of analogue sites is maintained in the rehabilitated sites for at least three years;
- a minimum of 80 percent of the flora species diversity in analogue sites is maintained in the rehabilitated sites for at least three years;
- a minimum equal density of habitat structures, including but not limited to litter cover, coarse woody debris and hollow logs, as that in analogue sites;
- erosion is minimised with appropriate sediment traps and erosion control measures installed as determined by a suitably qualified person;
- the water quality of any residual void or water bodies constructed by the petroleum activity meets criteria for subsequent uses and does not have potential to cause environmental harm;
- there is no ongoing contamination to waters; and
- the maintenance requirements for rehabilitated land is no greater than that required for the land prior to its disturbance caused by carrying out the petroleum activity.

Rehabilitation would be maintained as required and monitored until five consecutive annual monitoring events demonstrate completion of the all of the above rehabilitation criteria.

#### 5.2. Ancillary Infrastructure

Due to the wide mapped extent of ARIs within Lot 52BWR104 and surrounds, no other alternatives were preferential to the proposed location of the ancillary linear infrastructure. The proposed location would minimise temporary disturbance to ARIs to the greatest extent possible and represents the preferred location due to the following:

- The proposed alignment of the ancillary linear infrastructure is the shortest distance for connection to existing linear infrastructure located immediately west of Lot 52BWR104.
- A formed access track would not be constructed associated with the ancillary linear infrastructure to minimize ongoing disturbance.
- The proposed linear infrastructure is located as close to the property boundary as possible given existing belowground services.
- Pipelines, power and fibre optic cable are located underground to allow the land to be rapidly restored to its pre-activity condition following construction.
- Although cropping activities are not proposed by APLNG on Lot 52BWR104, the cropping potential of the land would be maintained by providing a minimum depth of cover of 900mm above all buried infrastructure remaining in-situ following the cessation of operations.
- Operation of the gas gathering station would not include emissions to water, or land thereby minimising potential operational impacts to soil resources and adjacent agricultural activities.

The following mitigation measures would be undertaken for significant disturbance to land required during construction:

- Stockpiling of grasses and woody vegetation.
- Topsoil and subsoils will be stored separately, with topsoil stockpiled no greater than 2 metres in height.
- Soil stockpiles would be seeded to promote revegetation to minimise potential erosion and preserve the soil's biological and chemical properties.
- Topsoil stripping and handling will not occur during significant rainfall and when soils are saturated.
- Erosion and sediment controls will be installed and maintained in accordance with site specific erosion and sediment control plans to avoid offsite transport of soil resources.
- Existing overland flow paths would be reinstated.

Progressive reinstatement would be undertaken during construction, including reinstatement of soils as soon as practical following pipeline installation with replacement of soils consistent with surrounding soil horizons and re-instatement of existing groundcover to minimise erosion. It is expected that the pre-activity condition of the land would be restored approximately 1 year following construction given the existing conditions of the site dominated by pasture grasses. The minimal surface infrastructure would be removed following operations with these areas returned to the pre-activity condition of the land.

Following the cessation of operations, the gas gathering station would be relocated with all equipment removed from the site. The land would be rehabilitated to its pre-activity condition and to meet the requirements of EA EPPG00968013, including:

- all significantly disturbed land is reinstated to the pre-disturbed land use;
- all significantly disturbed land is reinstated to the pre-disturbed soil suitability class;
- the landform is safe for humans and fauna;
- the landform is stable with no subsidence or erosion gullies for at least five years;
- a minimum of 80 percent foliage cover of analogue sites is maintained in the rehabilitated sites for at least three years;
- a minimum of 80 percent of the flora species diversity in analogue sites is maintained in the rehabilitated sites for at least three years;
- a minimum equal density of habitat structures, including but not limited to litter cover, coarse woody debris and hollow logs, as that in analogue sites;
- erosion is minimised with appropriate sediment traps and erosion control measures installed as determined by a suitably qualified person;
- the water quality of any residual void or water bodies constructed by the petroleum activity meets criteria for subsequent uses and does not have potential to cause environmental harm;
- there is no ongoing contamination to waters; and
- the maintenance requirements for rehabilitated land is no greater than that required for the land prior to its disturbance caused by carrying out the petroleum activity.

Rehabilitation would be maintained as required and monitored until five consecutive annual monitoring events demonstrate completion of the all of the above rehabilitation criteria.

## 6. Public Notification

The surrounding landholders outside Australia Pacific LNG properties are frequently consulted by Australia Pacific LNG due to existing construction and operations of CSG activity in the area. Due to the volume of petroleum activities in the area, Australia Pacific LNG considers that the public interest in the proposed RIDA is very low.

In addition, the proposed construction is within the Australia Pacific LNG Environmental Impact Statement (EIS) study area. Evidence of public notification of the Australia Pacific LNG EIS can be found here: <http://www.statedevelopment.qld.gov.au/assessments-and-approvals/australia-pacific-lng-project.html>. The proposed gas gathering station is one of 18 compressor stations subject to cumulative impact assessment for this EIS.

In accordance with Section 34(3) of the RPI Act, Australia Pacific LNG requests that the chief executive grant an exemption from notification for the assessment application given the previous public notification for APLNG's EIS, APLNG's ownership of the land, and APLNG's existing relationships with surrounding landholders including conduct and compensation agreements (CCAs) for existing and future resource activities on all land surrounding Lot 52BWR104.



## 7. Assessment Application Fees

As the expected area of impact relating to this application is less than 30 ha, the assessment fee for this application is \$6,480 in accordance Part 3, Schedule 4 of the *Regional Planning Interests Regulation 2014*.

## 8. Required Outcome Assessment

Schedule 2, Part 4 of the *Regional Planning Interests Regulation 2014* sets out the required outcome and prescribed solutions for activities carried out in a SCA. Refer to Table 8, Table 9 and Table 10 for the evidence associated with each prescribed solution.

**Table 8: SCA Assessment Criteria - Required Outcome 1**

<b>Required Outcome 1 - No impact on strategic cropping land</b> <i>The activity will not result in any impact on strategic cropping land in the strategic cropping area</i>	
Prescribed Solution	Evidence / Response
<b>PS1:</b> <i>The application demonstrates the activity will not be carried out on strategic cropping land that meets the criteria stated in schedule 3, part 2.</i>	This application does not seek to demonstrate that the area of the SCA is not SCL

**Table 9: SCA Assessment Criteria - Required Outcome 2**

<b>Required Outcome 2 - Managing impacts on strategic cropping land on property (SCL) in the strategic cropping area</b> <i>The activity will not result in a material impact on strategic cropping land on the property (SCL)</i>	
Prescribed Solution	Evidence / Response
<b>PS2:</b> <i>The application demonstrates all of the following—</i>	
<i>(a) if the applicant is not the owner of the land and has not entered into a voluntary agreement with the owner—the applicant has taken all reasonable steps to consult and negotiate with the owner of the land about the expected impact of carrying out the activity on strategic cropping land;</i>	N/A - the applicant is the landholder.
<i>(b) the activity can not be carried out on land that is not strategic cropping land, including, for example, land elsewhere on the property (SCL), on adjacent land or at another nearby location;</i>	The location of the gas gathering station largely avoids SCL. The area required for the proposed gas gathering station and ancillary linear infrastructure is necessary given the extent of SCL within the property and surrounds (as described in Section 4), and other design constraints described in Sections 4 and 5.
<i>(c) the construction and operation footprint of the activity on strategic cropping land on the property (SCL) is minimised to the greatest extent possible;</i>	The footprint of the proposed gas gathering station and ancillary linear infrastructure has been minimised as detailed in Sections 4 & 5.
<i>(d) if the activity will have a permanent impact on strategic cropping land on a property (SCL)—no more than 2% of the strategic cropping land on the property (SCL) will be impacted.</i>	Through implementation of the robust management measures detailed in Section 5, the proposed activity would not have a permanent impact on SCL.

**Table 10: SCA Assessment Criteria - Required Outcome 3**

<b>Required Outcome 3</b> <i>The activity will not result in a material impact on strategic cropping land in an area in the strategic cropping area</i>					
Prescribed Solution	Evidence/Response				
<b>PS3:</b> <i>(1) The application demonstrates all of the following—</i>					
<i>(a) the activity cannot be carried out on other land in the area that is not strategic cropping land, including, for example, land elsewhere on the property (SCL), on adjacent land or at another nearby location;</i>	The proposed location for the activities was determined based on the assessment of alternative locations described in Section 4.				
<i>(b) if there is a regional plan for the area in which the activity is to be carried out—the activity will contribute to the regional outcomes, and be consistent with the regional policies, stated in the regional plan;</i>	Chapter 4 of the <i>Darling Downs Regional Plan 2013</i> provides the following regional outcomes and policies: <table border="1"> <tr> <th>Regional Outcome</th><th>Contribution</th></tr> <tr> <td><i>Agriculture and resources industries within the Darling</i></td><td>The proposed activity would contribute to growth of the</td></tr> </table>	Regional Outcome	Contribution	<i>Agriculture and resources industries within the Darling</i>	The proposed activity would contribute to growth of the
Regional Outcome	Contribution				
<i>Agriculture and resources industries within the Darling</i>	The proposed activity would contribute to growth of the				

	Downs region continue to grow with certainty and investor confidence.	resources industry within the Darling Downs region with no negative consequences for the agricultural industry.
	The growth potential of towns within the Darling Downs region is enabled through the establishment of Priority Living Areas. Compatible resource activities within these areas which are in the communities' interest can be supported by local governments.	The proposed activity would result in increased regional employment opportunities and contribute to the growth potential of towns within the Darling Downs region without requiring development of resource activities within Priority Living Areas.
	<b>Regional Policy</b>	<b>Consistency</b>
	Protect Priority Agricultural Land Uses within Priority Agricultural Areas.	Priority Agricultural Land Uses will be protected within the PAA as demonstrated in Table 11.
	Maximise opportunities for co-existence of resource and agricultural land uses within Priority Agricultural Areas.	The proposed activity would maximise opportunities for co-existence of resource and agricultural land uses within the PAA through; <ul style="list-style-type: none"> <li>• minimisation of the required footprint of the activity within PAA;</li> <li>• fencing of the activity to exclude livestock allowing for the safe operation of adjacent agricultural uses;</li> <li>• avoidance of offsite emissions or other activities that could preclude adjacent agricultural uses.</li> </ul>
	Safeguard the areas required for the growth of towns through establishment of Priority Living Areas (schedule 1).	N/A - the activity would not be located within a PLA.
	Provide for resource activities to locate within a Priority Living Area where it meets the communities' expectations as determined by the relevant local government.	N/A - the activity would not be located within a PLA.
(c) the construction and operation footprint of the activity on strategic cropping land is minimised to the greatest extent possible;	The footprint of the proposed gas gathering station and ancillary linear infrastructure within SCL has been minimised as described in Section 4 & 5.	
(d) either - (i) the activity will not have a permanent impact on the strategic cropping land in the area; or (ii) the mitigation measures proposed to be carried out if the chief executive decides to grant the approval and impose an SCL mitigation condition.	The activity will not have a permanent impact on the SCL as it can be restored to its pre-activity condition through implementation of existing requirements for restoration enforced by the <i>Environmental Protection Act 1994</i> including provision of financial assurance for rehabilitation purposes prior to undertaking the activity.	
(2) Subsection (3) applies for each property (SCL) on which the activity is to be carried out if the applicant is not the owner of the land and has not entered into a voluntary agreement with the owner.	N/A - the applicant is the owner of the land	

Schedule 2, Part 2 of the *Regional Planning Interests Regulation 2014* sets out the required outcome and prescribed solutions for activities carried out in a PAA. Refer to Table 11 for the evidence associated with each prescribed solution. Required outcome 2 for a PAA is not relevant as the activity would be undertaken within one property only.

**Table 11: PAA Assessment Criteria - Required Outcome 1**

**Required Outcome 1 - No impact on strategic cropping land**

*The activity will not result in a material impact on the use of the property for a PALU.*

Prescribed Solution	Evidence / Response
<b>PS1:</b> <i>The application demonstrates the activity will not be located on land in a PAA that is used for a PALU.</i>	As shown in Appendix D, there are no PALUs within Lot 52BWR104 or immediate surrounds.
<b>PS2:</b> <i>(1) The application demonstrates all of the following—</i>	
<i>a) if the applicant is not the owner of the land and has not entered into a voluntary agreement with the owner:</i>  <i>(i) the applicant has taken all reasonable steps to consult and negotiate with the owner about the expected impacts of carrying out the activity on each PALU for which the land is used; and</i>  <i>(ii) carrying out the activity on the property will not result in a loss of more than 2 per cent of both:</i> <i>(A) the land on the property used for a PALU; and</i> <i>(B) the productive capacity of any PALU on the property.</i>	N/A - the applicant is the owner of the land.
<i>b) the activity cannot be carried out on other land that is not used for a PALU; for example, land elsewhere on the property, on an adjacent property or at another nearby location</i>	While there are no PALUs within Lot 52BWR104, and APLNG does not proposed to undertake PALUs in the future, all land within the property is located within a PAA. As described in Table 7, non-PAA exist in other properties to the west of Lot 52BWR104. However, this location is not suitable as it: <ul style="list-style-type: none"> <li>would significantly increase gas compression costs over the life of the facility;</li> <li>is on property not owned by Australia Pacific LNG; and</li> <li>would likely result in noise impacts, related to sleep disturbance, at a sensitive receptor located approximately 0.5 km to the west of this alternate location.</li> </ul>
<i>(c) the construction and operation footprint of the activity on the part of the property used for a priority agricultural land use is minimised to the greatest extent possible;</i>	While there are no PALUs within Lot 52BWR104, and APLNG does not proposed to undertake PALUs in the future, the footprint has been minimised by the following: <ul style="list-style-type: none"> <li>the minimum separation distance of 35 metres has been utilised between electrified compressor units and electrical switchroom equipment;</li> <li>the minimum separation distance of 25 metres has been utilised between each of the electrified compressor units;</li> <li>flares and vents have been excluded from the design thereby eliminating disturbance associated with their construction and significant additional separation / offset distances due to thermal radiation effects of flares;</li> <li>fencing of the gas gathering station would exclude livestock and facilitate adjacent agricultural operations including cropping and/or grazing; and</li> <li>minimal operational footprint for the ancillary linear infrastructure.</li> </ul>
<i>(d) the activity will not constrain, restrict or prevent the ongoing conduct on the property of a priority agricultural land use, including, for example, everyday farm practices and an activity or infrastructure essential to the operation of a priority agricultural land use on the property;</i>	While there are no PALUs within Lot 52BWR104, and APLNG does not proposed to undertake PALUs in the future, the activity will not constrain, restrict or prevent the ongoing conduct of agricultural activities due to: <ul style="list-style-type: none"> <li>minimisation of the required footprint of the activity within PAA;</li> <li>fencing of the gas gathering station to exclude livestock allowing for the safe operation of adjacent agricultural uses;</li> </ul>

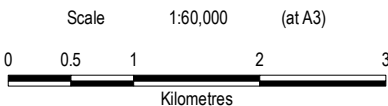
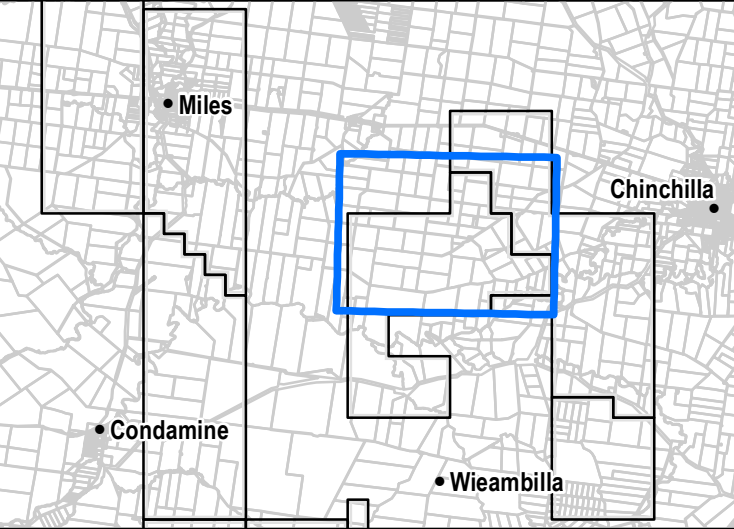
	<ul style="list-style-type: none"> <li>• avoidance of offsite emissions or other activities that could preclude adjacent agricultural uses;</li> <li>• maintenance of access to other areas of PAA;</li> <li>• no change to the overland flow characteristics of the land; and</li> <li>• minimal operational footprint for the ancillary linear infrastructure.</li> </ul>
<i>(e) the activity is not likely to have a significant impact on the priority agricultural area;</i>	The activity is not likely to have a significant impact on the priority agricultural area as the land will be restored to its pre-activity condition as required by EA EPPG00968013 as described in Section 5. Surrounding PALUs would not be impacted due to the significant separation distance to the nearest PALU, and the activities would not result in offsite impacts (including no impacts to overland flow paths, no restriction to access, and no generation of discharges to land or water).
<i>(f) the activity is not likely to have an impact on land owned by a person other than the applicant or the land owner mentioned in paragraph (a).</i>	The activity is not likely to have an impact on land owned by any other person as it would not result in offsite impacts (including no impacts to overland flow paths, no restriction to access, and no generation of discharges to land or water).

## Appendix A - Maps

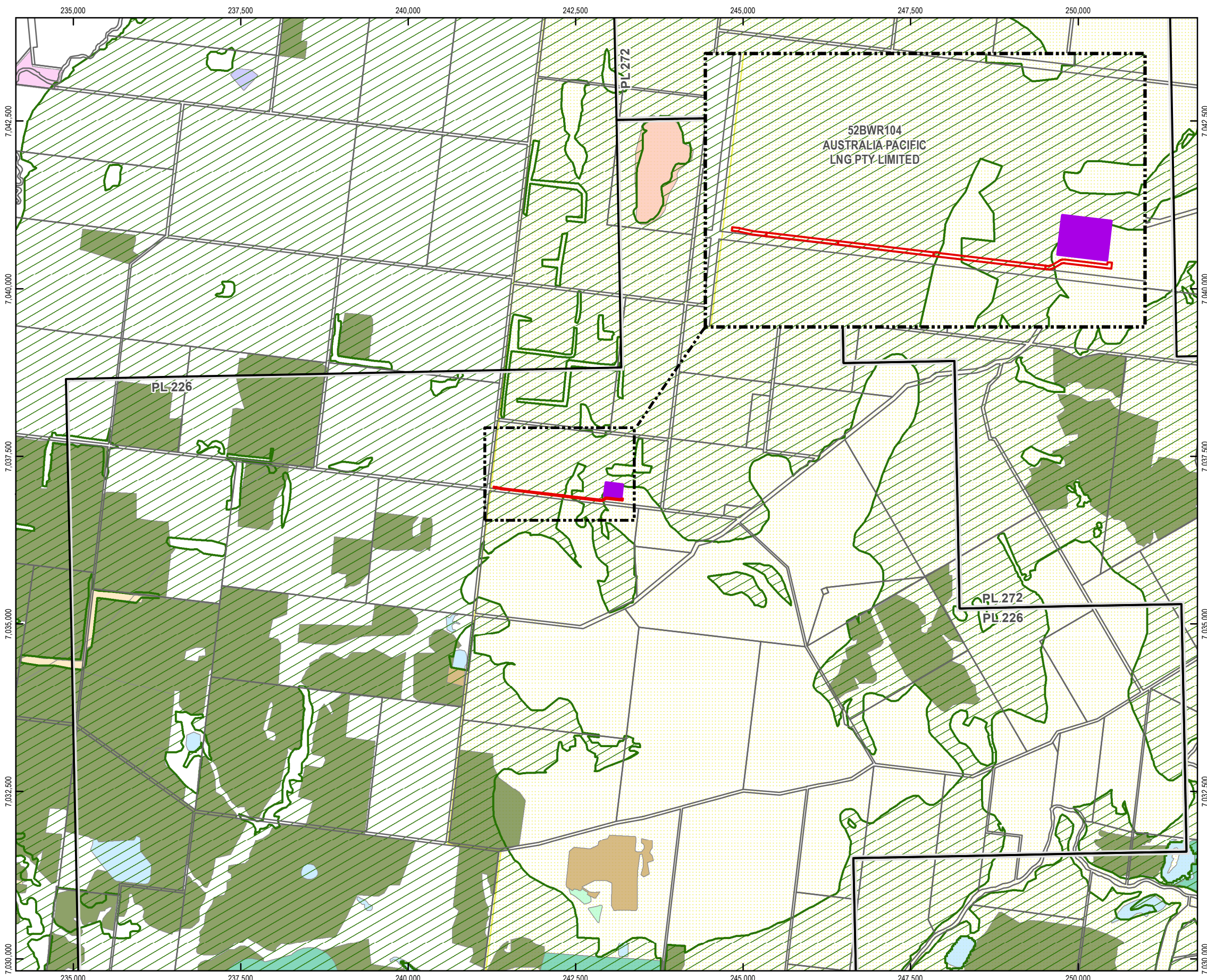


- Legend**
- Proposed Ancillary Linear Infrastructure
  - Compressor Station
  - Agriculture and Regional Interest**
  - Strategic Cropping Land
  - Priority Agricultural Area
  - Land Use Category - Secondary**
  - Cropping
  - Intensive animal production
  - Irrigated cropping
  - Marsh/wetland
  - Mining
  - Nature conservation
  - Other minimal use
  - Reservoir/dam
  - Waste treatment and disposal
  - Boundary**
  - Cadastral Property
  - Australia Pacific LNG Operated Permit

Source Information:  
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Coordinate System: GDA 1994 MGA Zone 56



1	Issued For Use	SAW	CB	TJB	CB	15/11/2018
0	Issued For Review	SAW	DK	MLM	CB	13/08/2018
Rev	Description	Drawn	Check	QA	Approved	Date



Regional Interests Development Application		
TOGGS - Regional Interest, Agricultural Areas, and Land Use Mapping		
Date: 15 November 2018		
Map Number	Doc No	Rev
1 of 1	Map ID GISWR_63856	1



## Appendix B - Proposed RIDA Details

**Table 1: Approved Activities**

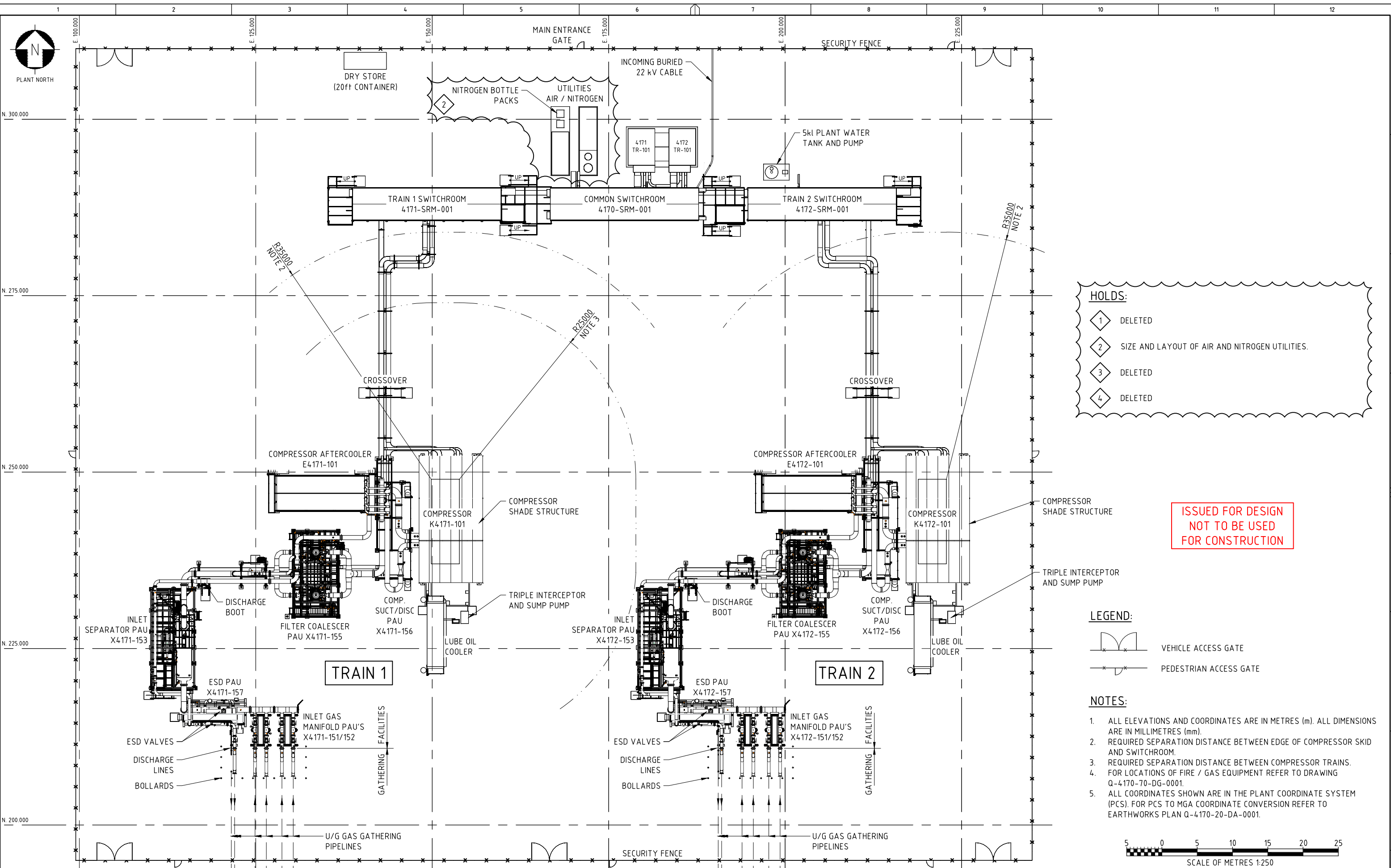
Area of regional interest	Resource activity	Location	Area of disturbance
Strategic cropping area	Gas gathering station and ancillary linear infrastructure	Lot 52BWR104	7.9 ha
Priority agricultural area			12.9 ha

**Table 2: Approved Activities**

Resource activity	Definition
Gas gathering station	<p>A facility for the collection and distribution of gas including:</p> <ul style="list-style-type: none"> <li>• Electric compressor packages.</li> <li>• Above-ground and belowground water and gas pipelines.</li> <li>• Power supply and electrical instrumentation equipment, including switchrooms.</li> <li>• Concrete slab and connection points for portable nitrogen bottles.</li> <li>• Rainwater tank and pumps.</li> <li>• Dry store.</li> <li>• Security fencing.</li> <li>• Laydown and carparking.</li> <li>• Ancillary equipment.</li> </ul>
Ancillary linear infrastructure	<p>Linear infrastructure connected to the gas gathering station, including:</p> <ul style="list-style-type: none"> <li>• Underground gas pipelines.</li> <li>• Underground water pipelines.</li> <li>• Underground power and fibre optic cables.</li> <li>• Pipeline signage, drains, vents, and valve and inspection pits.</li> </ul>



## Appendix C - Preliminary Gas Gathering Station Design - Not for Construction

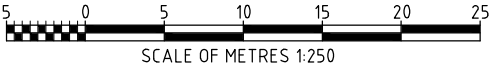


- HOLDS:**
- 1 DELETED
  - 2 SIZE AND LAYOUT OF AIR AND NITROGEN UTILITIES.
  - 3 DELETED
  - 4 DELETED

ISSUED FOR DESIGN  
NOT TO BE USED  
FOR CONSTRUCTION

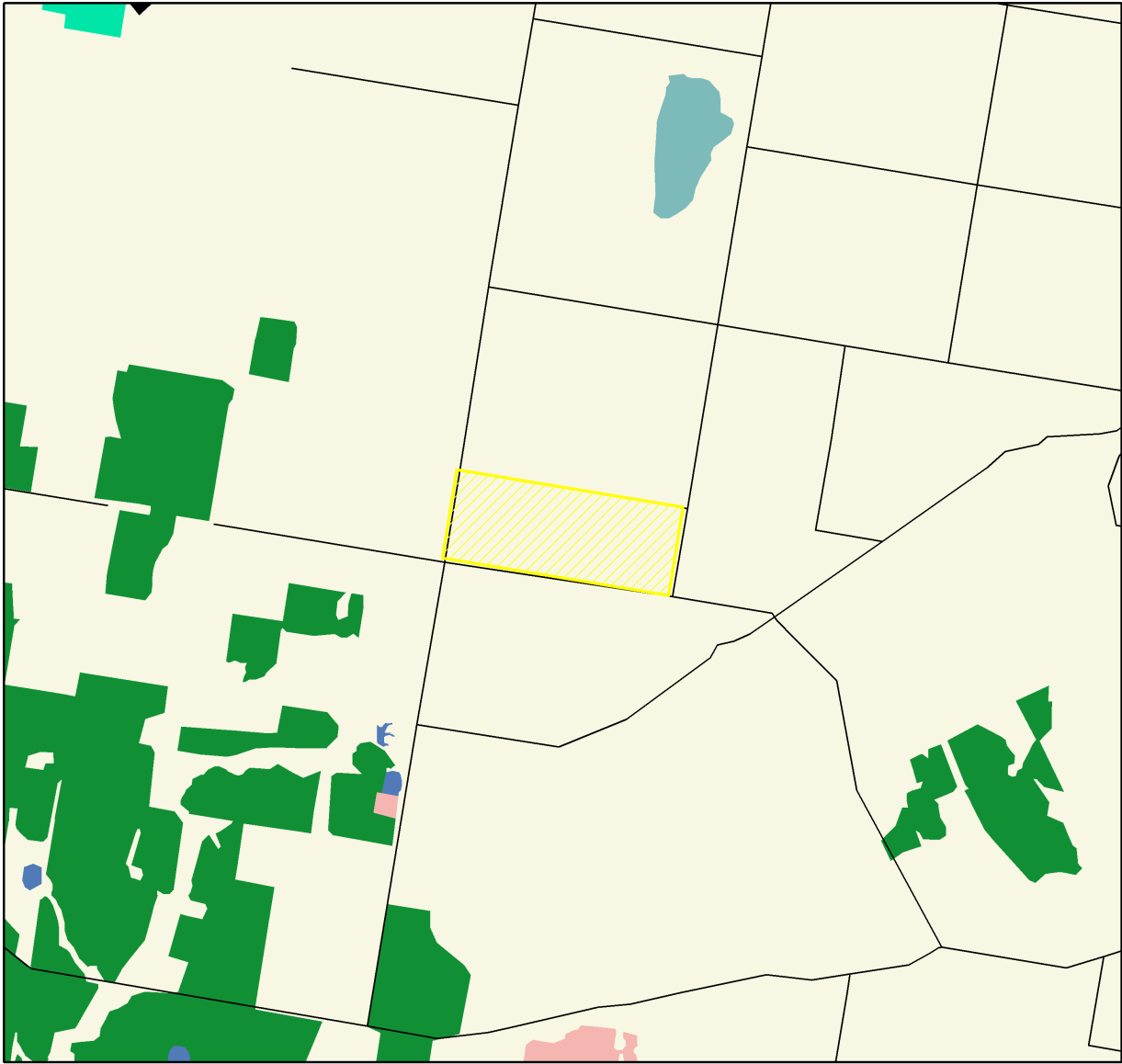
- LEGEND:**
- VEHICLE ACCESS GATE
  - PEDESTRIAN ACCESS GATE

- NOTES:**
- ALL ELEVATIONS AND COORDINATES ARE IN METRES (m). ALL DIMENSIONS ARE IN MILLIMETRES (mm).
  - REQUIRED SEPARATION DISTANCE BETWEEN EDGE OF COMPRESSOR SKID AND SWITCHROOM.
  - REQUIRED SEPARATION DISTANCE BETWEEN COMPRESSOR TRAINS.
  - FOR LOCATIONS OF FIRE / GAS EQUIPMENT REFER TO DRAWING Q-4170-70-DG-0001.
  - ALL COORDINATES SHOWN ARE IN THE PLANT COORDINATE SYSTEM (PCS). FOR PCS TO MGA COORDINATE CONVERSION REFER TO EARTHWORKS PLAN Q-4170-20-DA-0001.



Q-4170-20-DA-0001		TOGGS - EARTHWORKS PLAN	F	25/06/18	ISSUED FOR DESIGN	LMB	AFG	LMB	ARM	WorleyParsons		Origin Energy Ltd		DRAWN		BY		DATE		TITLE		PROJECT NO.		DRAWING NO.		REVISION			
Q-4170-30-DG-0001		TOGGS - SITE PILING ARRANGEMENT	E	22/05/18	ISSUED FOR HAZOP (DETAILED DESIGN)	LMB	CV	LMB	ARM	resources & energy		ABN 30 000 051 696		DWG CHECK						WALLOONS - TALINGA NORTH		171616		Q-4170-40-DG-0001		F			
Q-4170-60-DA-0003		TOGGS - EARTHING LAYOUT	D	21/03/18	ISSUED FOR REVIEW (FEED UPDATE)	LMB	AFG	LMB	ARM	origin		GPO Box 148		DESIGN						TALINGA ORANA GAS GATHERING STATION		N/A							
Q-4170-70-DG-0001		TOGGS - FIRE AND GAS DETECTION SYSTEM SITE PLAN	C	07/11/17	RE-ISSUED FOR TENDER	KAH	AFG	TRP		NOTE: THIS DRAWING IS SOLELY THE PROPERTY OF ORIGIN. THE INFORMATION IT CONTAINS IS NOT TO BE DISCLOSED, REPRODUCED OR COPIED IN WHOLE OR PART WITHOUT WRITTEN APPROVAL FROM ORIGIN.		Ph: (07) 3858 0600		ENG DES CHECK						GAS GATHERING STATION		SCALE		1: 250					
			B	21/07/17	ISSUED FOR TENDER	BGD	BRC	BRC	CJ	PROJECT APPROVALS - OTHERS		Fax: (07) 3369 7840		DRAFT						SITE PLAN		CADFILE		Q-4170-40-DG-0001.dwg					
			A	30/06/17	ISSUED FOR REVIEW	BGD	-	BRC	CJ	-	JB			SUPER															
DRAWING NO.		REFERENCE DRAWING TITLE	REV	DATE	REVISION DESCRIPTION	DRAWN	DWG CHECK	DESIGN	ENG DES CHECK	OR DRAFT OR PROJECT SUPER APPROVAL	PROJECT	DRAWING OFFICE	SCALE		PROJECT APPROVAL														
1		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29


## Appendix D - Land Use Map





Land Use


Queensland Land Use Mapping Program


Legend  
ALUM v8 Secondary level


-  Lot and Plan


 Grazing native vegetation



 Cropping


 Land in transition

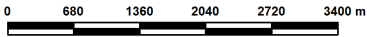
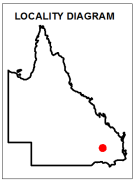
 Intensive animal production

 Mining

 Reservoir/dam

 Marsh/wetland
-  Freeways / motorways; Highways

 Secondary roads; Streets



This product is projected into GDA 1994 Queensland ALUMs

The land use dataset is a product of the Queensland Land use Mapping Program (QLUMP), at a nominal scale of 1:50,000. The layer is a polygon dataset with each feature having attributes describing land use. It presents the most current land use information available in Queensland.

Land use is classified according to the Australian Land Use and Management Classification (ALUMC) Version 8, October 2016. Primary and secondary levels relate to land use (i.e. the principal use of the land in terms of the objectives of the land manager), the tertiary level further discriminate land use, eg. commodity/intensity. Where required and possible, attribution is performed to tertiary level. QLUMP maps the land use classes of sugar and cotton consistently to tertiary level. The minimum attribution level for land use mapping in Queensland is secondary land use, as presented in this map.

Refer to the contact position for additional information regarding source data. Further information relating to land use mapping can be found at  
<http://www.qld.gov.au/environment/land/vegetation/mapping/qlump/>  
and <http://www.agriculture.gov.au/abares/aclump/land-use/>

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