Westside Corporation Pty Ltd

DOCUMENT TYPE Supporting Information

DOCUMENT TITLE

Regional Interest Development Approval Application for the Moura Priority Living Area – Assessment Report

APPROVAL

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DISTRIBUTION

No. of Copies	Name
1	Chief Executive - The Department of State Development, Infrastructure, Local Government and Planning
2	Banana Shire Council

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ACH Act	*Aboriginal Cultural Heritage Act 2003* (Qld)
Applicant	Westside CSG A Pty Ltd Westside CSG D Pty Ltd Mitsui E&P Australia Pty Ltd Westside Mungi Pty Ltd Harcourt (Queensland) LLC Westside Corporation Pty Ltd
ATP	Authority to Prospect
ATP564 JV	The unincorporated joint venture comprised of the following parties: Westside Mungi Pty Ltd (33.56%) Harcourt (Queensland) LLC (17.44%) Mitsui E&P Australia Pty Ltd (49%)
BSC	Banana Shire Council
CHIMA	Cultural Heritage Investigation and Management Agreement
Community Plan 2017-2027	*Banana Shire Community Plan 2017-2027*
CSG	Coal Seam Gas
DSDILGP	Department of State Development, Infrastructure, Local Government and Planning (Qld)
EA	Environmental Authority
EMS	Environmental Management System
EP Act	*Environmental Protection Act 1994* (Qld)
EPC	Mining Exploration Permit
ESA	Environmentally Sensitive Area
GNP	Gaangalu Nation People
Ha	Hectare
JV	Joint venture
Land Access Code	Land Access Code – Department of Natural Resources and Mines September 2016 (Version 2)
LGA	Local Government Area
Meridian JV	The unincorporated joint venture comprised of the following parties: Westside CSG A Pty Ltd (25.5%) Westside CSG D Pty Ltd (25.5%) Mitsui E&P Australia Pty Ltd (49%)
ML	Mining Lease
Mungi North	The area of PL1048
Mungi West	The area of PL1049
Operator	Westside Corporation Pty Ltd
PJ	Petajoule
PL	Petroleum Lease
PLA	Priority Living Area
PL Application	Petroleum Lease Application
Place Based Plan	*Moura & District 2017/2027 Place Based Plan*
PPL	Petroleum Pipeline Licence
Planning Scheme	*Banana Shire Council Planning Scheme 2021*
Qld	Queensland
Regional Plan	*Central Queensland Regional Plan 2013*
RIDA	Regional Interests Development Approval
RPI Act	*Regional Planning Interests Act 2014* (Qld)
RPI Regulation	*Regional Planning Interests Regulation 2014* (Qld)
Theodore	The area currently subject to PL Application 1050
Timmy	The area currently subject to PL Application 1061
Westside	Westside Corporation Pty Ltd

1.0 Introduction

Westside Corporation Pty Ltd (**Westside**) is a Queensland-based oil and gas producer which has been successfully exploring, developing, and operating in Queensland since 2005 and New Zealand since 2016.

Westside is the operator of coal seam gas (**CSG**) assets in Queensland's Bowen Basin, west of Gladstone in the Moura/Theodore area, on behalf of the Meridian Joint Venture and ATP564 Joint Venture.

The focus of Westside's production activities has predominantly been Petroleum Lease (**PL**) 94 and a number of adjacent Mining Leases (**ML**) developed by Westside under a commercial co-development agreement with the owners of the Anglo American Dawson mine. PL94 is subject to a sublease (**PL94 Sublease**) originally created by a deed of sublease dated 18 March 2003, also operated by Westside.

The Joint Ventures have both PLs granted and in application form over the underlying Authority to Prospect (**ATP**) 2027 and ATP602.PL1048 (**Mungi North**) was granted in April 2020 and PL1049 (**Mungi West**) was granted in September 2020. Petroleum Lease Applications 1050 (**Theodore**) and 1061 (**Timmy**) are still in the application phase. All of these permits are collectively referred to as the 'Greater Meridian Project' (the **Project** – see Figure 1).

Westside is currently developing the Project within the PL94 Sublease and PL1049. These tenures intersect a Priority Living Area (**PLA**) surrounding the town of Moura within the Banana Shire Council (**BSC**) (Figure 2).

Moura is located approximately 200km south-west of Rockhampton and is a small township with an estimated resident population of 3,326 (as at June 2017) (Australian Bureau of Statistics, 2019).

Westside proposes to undertake seismic operations within an area of the Moura PLA (Figure 2). This includes:

- Walking through areas for scouting and surveying purposes;
- Driving on existing tracks; and
- Acquiring seismic data.

A description of the specific activities is detailed in Section 6. Given the low-impact and temporary nature of the activity, the resource activity is compatible with, and will not adversely impact on, development certainty in the PLA.

Westside has prepared this report to support an assessment application for a Regional Interests Development Approval (**RIDA**) as required under section 29 of the *Regional Planning Interests Act 2014* (Qld) (**RPI Act**) to carry out resource activities within the PLA.

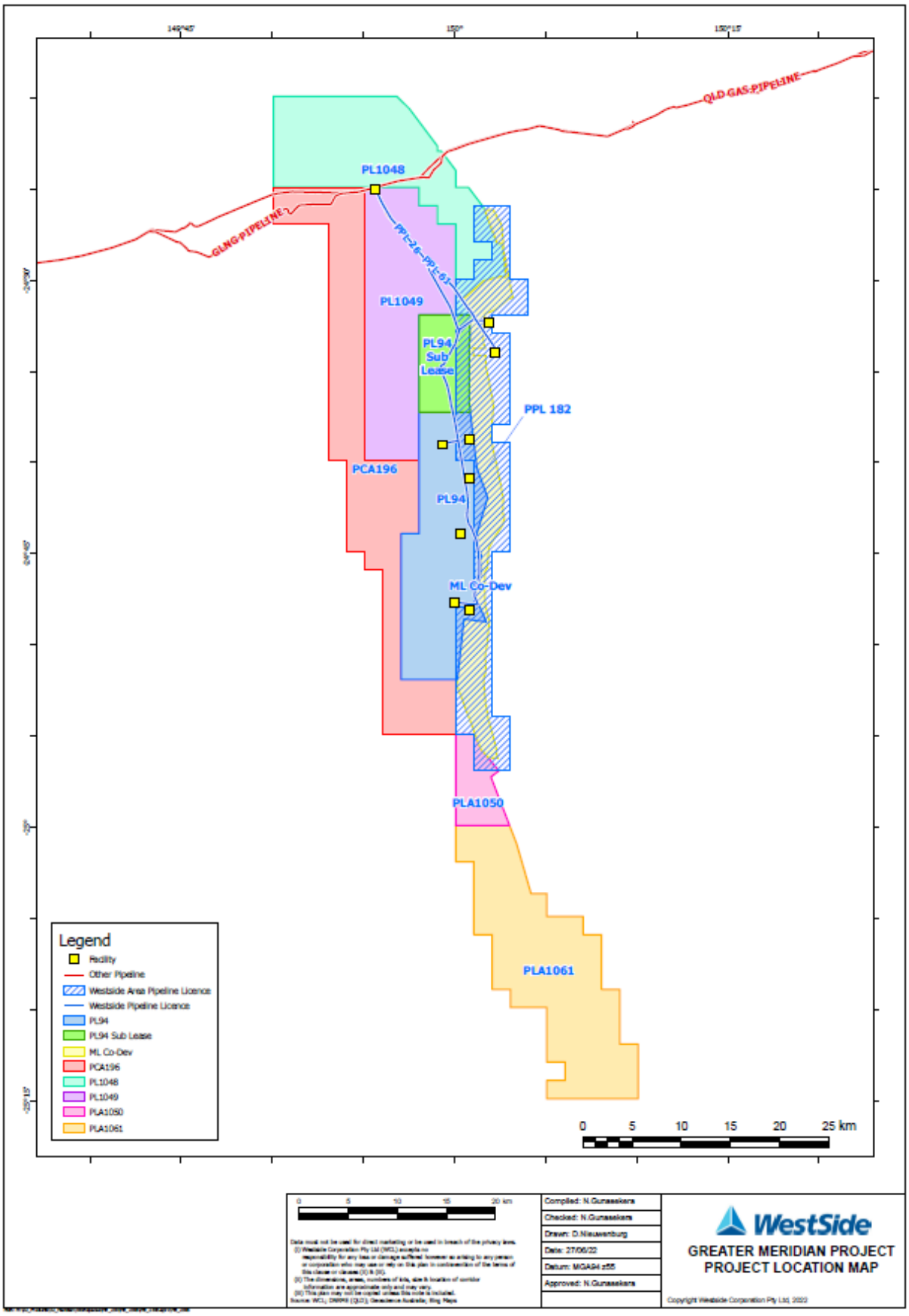

Figure 1 Greater Meridian Seam Gas Project

2.0 Priority Living Area

A PLA is "an area of regional interest" under the RPI Act. The purpose of establishing PLAs as areas of regional interest is to provide greater certainty for investment in the development of a region's towns or urban growth areas.

The *Central Queensland Regional Plan 2013* (**Regional Plan**) gazetted in October 2013 established a PLA over and around the town of Moura that included portions over existing Westside-operated permits, namely PL94 and ATP2027 (Figure 2). Westside subsequently applied for PL Application 1049 over a portion of ATP2027 which overlaps the PLA. PL1049 was granted in September 2020.

Moura is known as the 'cradle of Coal Seam Gas' in Australia as it is the location of where the viability of CSG was first proven. CSG has been part of the Moura region since the 1970s. Westside has been developing the Project from its Moura-based field office since 2010 when it, along with its joint venture partner Mitsui E&P Australia Pty Ltd, acquired interests in the Meridian Gas Fields (namely PL94).

There are existing resource activities within the Moura PLA that pre-date the Regional Plan and Westside's operatorship of the permits, including 10 CSG wells and associated gathering and access within the PLA (see Figure 3). Along with PL94 and PL1049, Petroleum Pipeline Licence (**PPL**) 26 currently operated by Westside was also installed through the PLA by predecessors of Westside. There are also three Mining Exploration Permits (**EPCs**) held by Anglo American that overlap the PLA where coal exploration wells have been drilled.

Figure 3 also shows current CSG activity in the area surrounding the PLA immediately south of Queensland Cotton's Moura Cotton Gin.

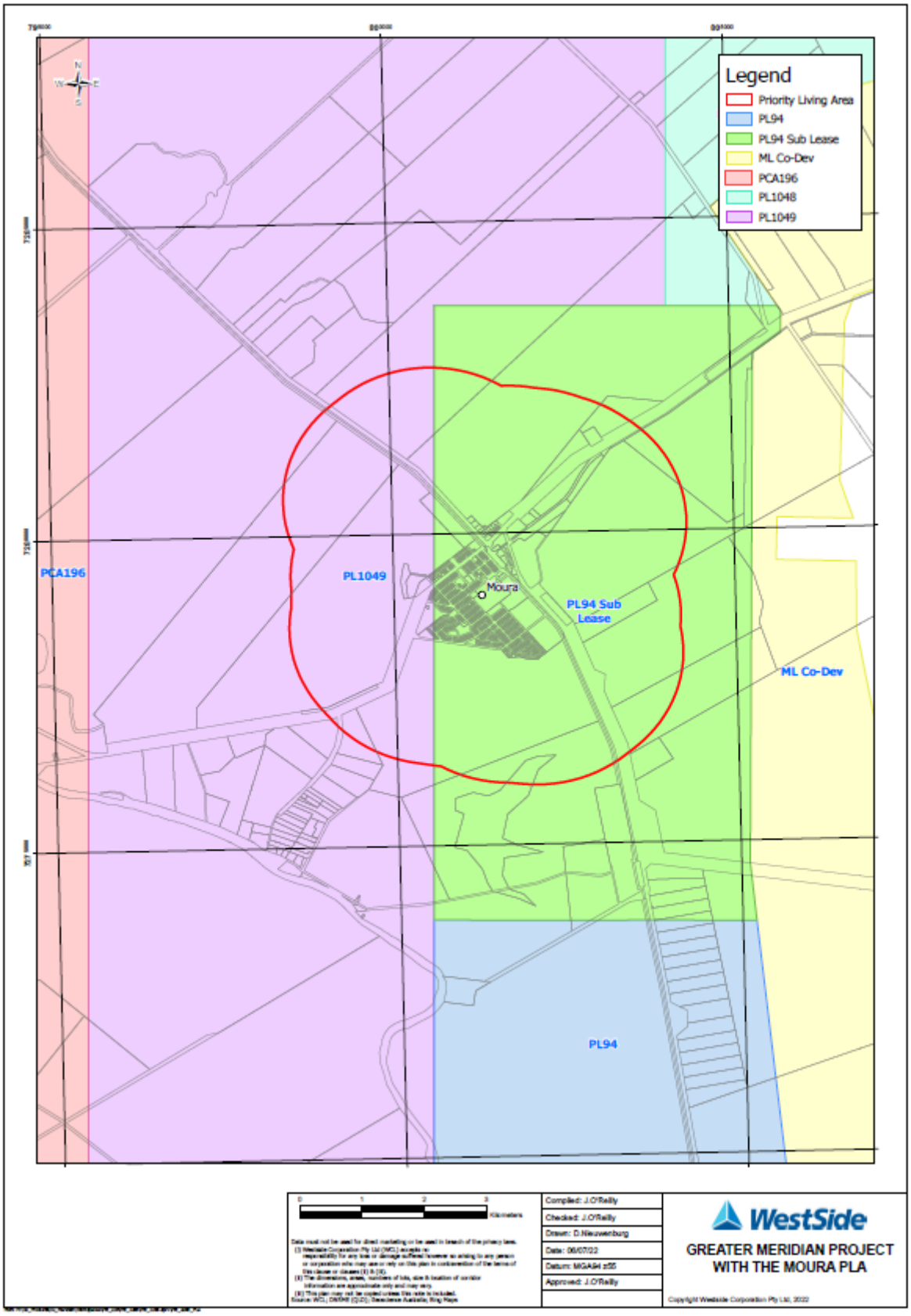

Figure 2 Moura PLA Boundary and Westside-Operated Tenements

Figure 3 Resource Activities within and surrounding the Moura PLA

3.0 Regional Interest Development Approval

The Applicant, as detailed in Section 3.1., is making an assessment application to the Chief Executive of the Department of State Development, Infrastructure, Local Government and Planning (**DSDILGP**) for a Regional Interests Development Approval (**RIDA**) under section 29(a) of the RPI Act to undertake a resource activity (namely, a seismic acquisition program) on PL94 and PL1049 in certain areas within the PLA surrounding the township of Moura.

In accordance with Schedule 1 of the *Regional Planning Interests Regulation 2014* (Qld) (**RPI Regulation**), the assessing agency for the Moura PLA is the Banana Shire Council, being the local government authority (**LGA**) for Moura.

This application's scope details petroleum activities within the PLA which supports the Project that will be undertaken in compliance with the relevant EAs, permits and regulatory requirements.

This Assessment Report is prepared as per section 29(b) of the RPI Act and provides the supporting information for a RIDA application which meets the following required outcome for the PLA assessment criteria described in regulation 6 of the RPI Regulations:

> *The location, nature and conduct of the activity is compatible with the planned future for the priority living area stated in a planning instrument under the Planning Act.*

The Assessment Report follows the RPI Act Statutory *Guideline 01/14: How to make an assessment application for a regional interests development approval under the Regional Planning Interests Act 2014* and the RPI Act *Statutory Guideline 04/14 - Carrying out activities in a Priority Living Area*.

3.1. Applicant

Westside CSG A Pty Ltd (25.5%), Westside CSG D Pty Ltd (25.5%) and Mitsui E&P Australia Pty Ltd (49%) are all participants in the Meridian Joint Venture (**Meridian JV**) that holds PL94.

Westside Mungi Pty Ltd (33.56%), Harcourt (Queensland) LLC (17.44%) and Mitsui E&P Australia Pty Ltd (49%) are all participants in the ATP564 Joint Venture (**ATP564 JV**) that hold the PL94 Sublease and PL1049.

Westside operates the PL94 Sublease and PL1049 on behalf of the Meridian JV and ATP564 JV.

For the purposes of this application, a reference to Applicant means together all six of the entities.

Table 1 Authorities subject of this RIDA application within the Moura PLA

Tenure	Tenure Granted	Tenement Holder	Environmental Authority
PL94	Yes	Westside CSG A Pty Ltd (25.5%) Westside CSG D Pty Ltd (25.5%) Mitsui E&P Australia Pty Ltd (49%) *(collectively, the Meridian Joint Venture)*	EPPG00783713
PL94 Sublease	Yes	Mitsui E&P Australia Pty Ltd (49%) Westside Mungi Pty Ltd (33.56%) Harcourt (QLD) LLC (17.44%) *(collectively, the ATP564 Joint Venture)*	EPPG00783713
PL1049	Yes	Mitsui E&P Australia Pty Ltd (49%) Westside Mungi Pty Ltd (33.56%)	EA0002230

Tenure	Tenure Granted	Tenement Holder	Environmental Authority
		Harcourt (Queensland) LLC (17.44%) *(collectively, the ATP564 Joint Venture)*	

3.2. Resource Activities

Resource activities are defined in section 12(2) of the RPI Act and include:

1. An activity for which a resource authority is required; or
2. An activity that is authorised under a resource authority or proposed resource authority.

The resource activities that the Applicant proposes to carry out within the PLA are:

- Walking through areas for scouting and surveying purposes;
- Driving on existing tracks; and
- Seismic acquisition.

3.3. Location of Activities

The extent of the activity within the PLA will be limited to land parcels outside of the "General Residential" and "Centre" zones with activities mostly concentrated within "Rural" zoned parcels as per the 2021 Banana Shire Planning Scheme (**Planning Scheme**) – see Figure 4.

The properties within the PLA that the Applicant is intending to conduct the seismic activities on are listed in Table 1. The conduct of the proposed resource activities on these properties will remain subject to reaching agreement with the relevant landholders for the activity to occur. Title searches for each land parcel are provided in Appendix B.

There are a range of surface constraints that must be determined through discussions with relevant stakeholders including landholders around existing infrastructure, land uses, future property plans and amenities as well as ground truthing to determine environmental and cultural heritage values.

The Applicant applies a range of constraints when assessing a location for its developmental suitability which are described in the Westside "Development Planning Process" (Section 5).

EA conditions require permit holders to consider noise, dust, odour, light and smoke at a sensitive place, including for example a dwelling, library, childcare centre, medical centre or a public park.

The Applicant has applied a buffer around the town of Moura for the seismic activity described above and will not conduct the identified activities within the buffer zone shown in Figure 5.

Table 1 Land parcels within the PLA intended for seismic activities

Lot 6SP311690	Lot 1SP272409	Lot 6FN180	Lot 107FN513
Lot 5SP311690	Lot 19FN200	Lot 2SP272409	Lot 2SP252890
Lot 1SP317555	Lot 2SP122581	Lot 110CP895858	Lot 34FN499
Lot 57FN275	Lot 109FN524	Lot 61FN563	Lot 7SP118855
Lot 1SP252890	Lot 22RP911707	Lot 51FN275	Lot 151SP119263
Lot 2FN563	Lot 64FN339	Lot 7SP200916	Lot 2SP108639
Lot 97FN488	Lot 6CP886963	Lot 39FN513	Lot 3FN563

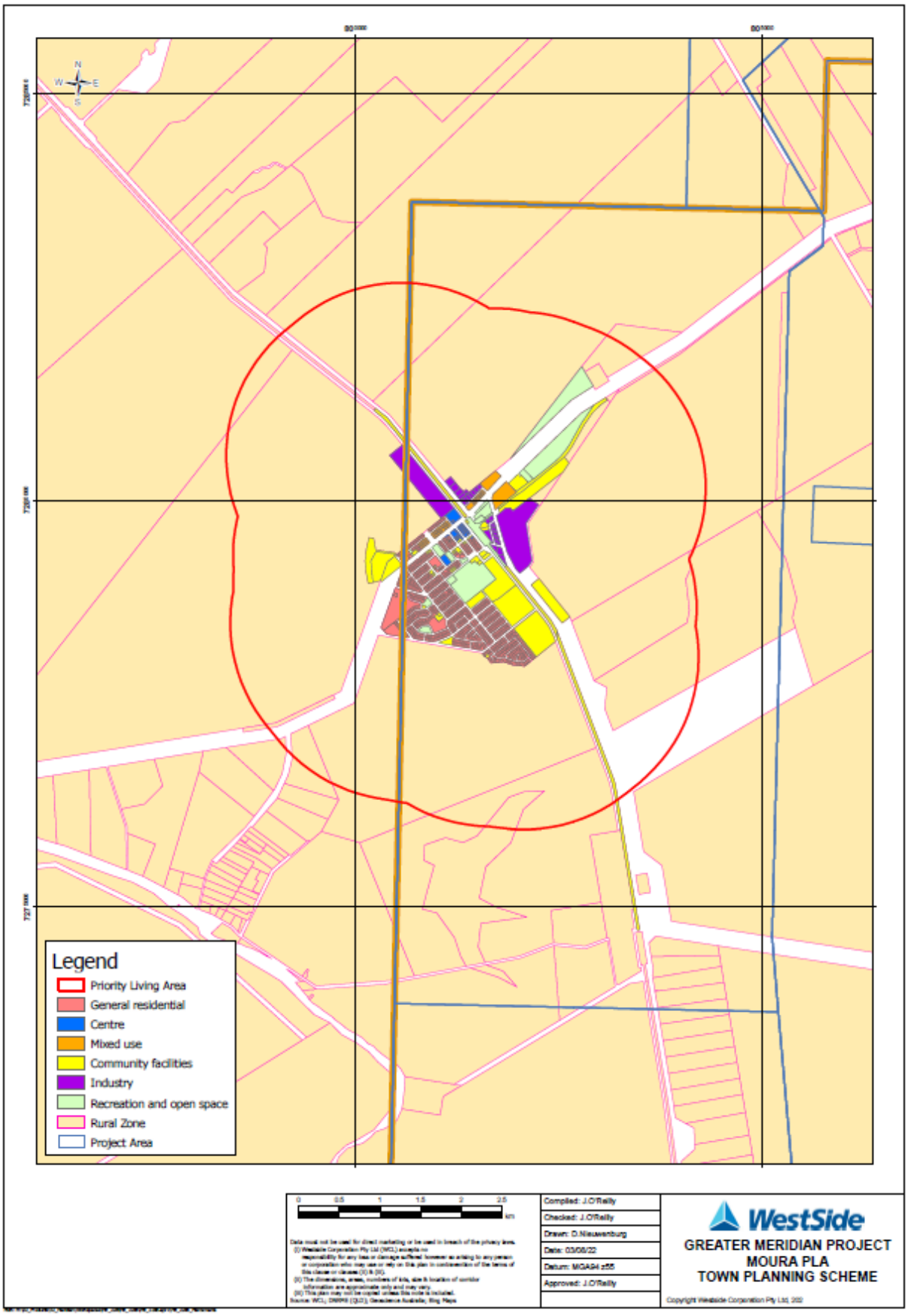

Figure 4 Moura PLA Town Planning Scheme

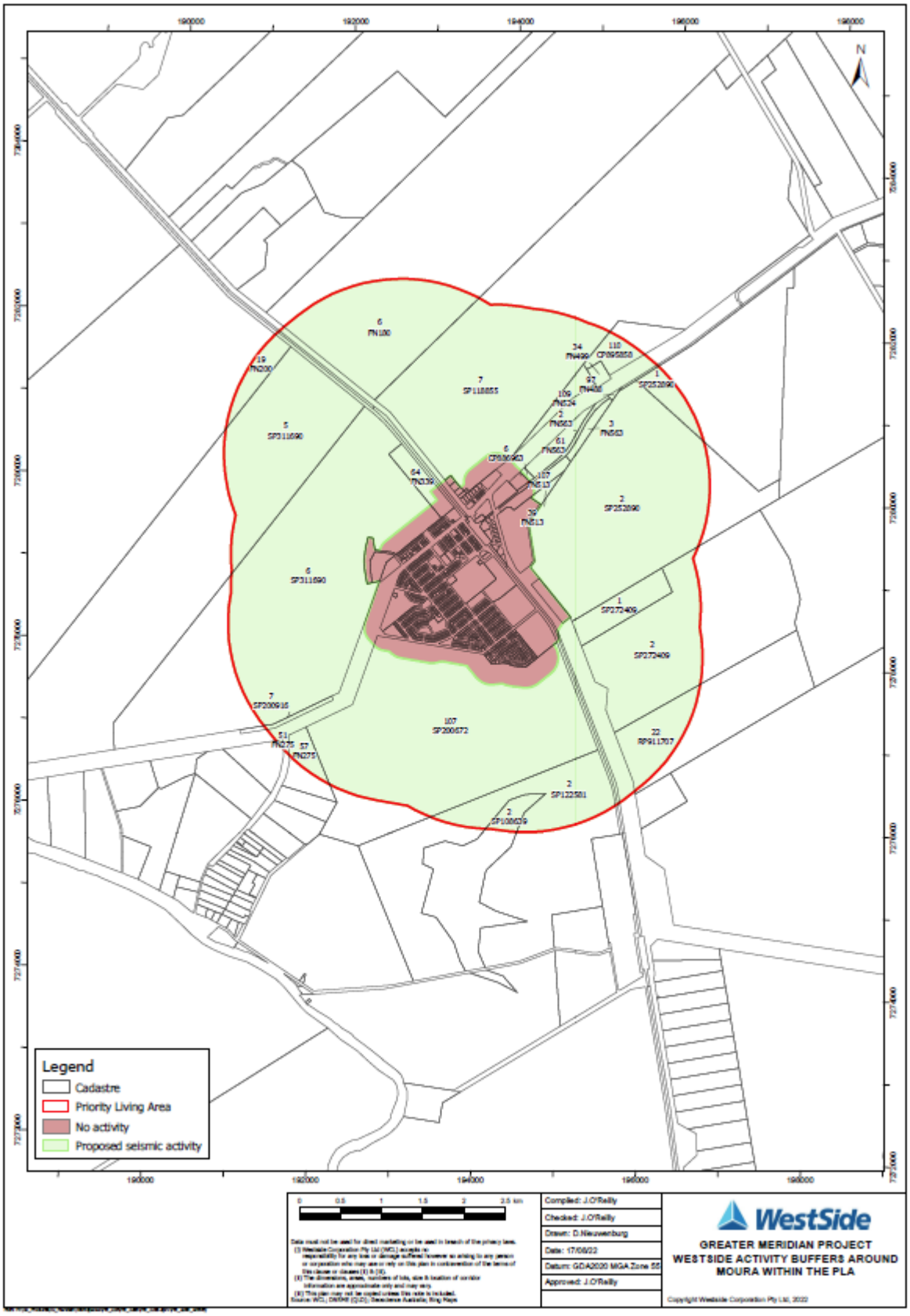

Figure 5 Buffers around Moura that would apply to seismic activities

3.4. Extent of Activities within the PLA

A summary of the estimated maximum surface disturbance within the PLA is detailed in Table 2 below.

Section 6 describes in detail the nature of the resource activities that may be undertaken within the PLA. This detail is provided to support the responses given to the Prescribed Solutions in Section 4 of this report.

Table 2 Summary of Estimated Surface Disturbance within the PLA

Activity	Surface Disturbance
Seismic activities	**Surface Disturbance: 0 ha** A maximum of 170 km of seismic lines will be acquired within the PLA. Seismic is a low impact activity that lasts only a few days on each line segment, totalling a few weeks. Therefore, the activities will not cause any long-term surface disturbance. Westside's seismic acquisition method is detailed in Section 6.

4.0 Prescribed Solution

Prescribed Solution 1 for a PLA is:

The activity

a) is unlikely to adversely impact on development certainty—

i) for the land in the immediate vicinity of the activity; and

ii) in the PLA generally.

Prescribed Solution 2 for a PLA is:

Carrying out the activity in the priority living area, and in the location stated in the application, is likely to result in community benefits and opportunities, including, for example, financial and social benefits and opportunities.

(Regulations 6 & 7, RPI Regulation).

The following documents were considered when responding to the Prescribed Solution criteria:

1. *Banana Shire Council Planning Scheme 2021 (**Planning Scheme**);*
2. *Banana Shire Community Plan 2017-2027 (**Community Plan 2017-2027**);*
3. *Central Queensland Regional Plan 2013 (**Regional Plan**); and*
4. *Moura & District 2017/2027 Place Based Plan (**Place Based Plan**).*

4.1. Addressing Prescribed Solution 1

This table addresses Prescribed Solution 1 for PLAs and follows the guidance provided in the RPI Act *Statutory Guideline 04/14 - Carrying out activities in a Priority Living Area*.

a) Understanding whether an activity may adversely impact on development certainty	
1. *Analysis that demonstrates the extent to which the activity would or would not result in the loss of land available for urban development*	Activities within the PLA will be contained within petroleum permits PL94 Sublease and PL1049 and will be an extension of the activities that are currently being undertaken outside of the PLA within PL94 and the PL94 Sublease. The Planning Scheme identifies that Moura continues to service its surrounding rural area, existing major industry, and mining activities. Residential growth is directed away from mining and industrial activities to the north and north-west of the town. The Scheme also intends for urban expansion to avoid areas of viable natural resources extraction. The Applicant does not propose to carry out activities on land parcels within the "General Residential", "Centre", "Community Facilities", or "Mixed Use" Zones as identified in the Planning Scheme which are reserved for urban development. The General Residential Zone seeks to provide for the availability of land for residential use, a high level of residential amenity and the minimising of non-residential uses. There is also an area earmarked for a Multiple Dwelling Precinct development within the urban area which will not be impacted by the seismic activities. The purpose of the Centre Zone is to provide for a variety of uses and activities to service all or part of the LGA, including, for example, administrative, business, community, cultural, entertainment, professional, residential, or retail uses or activities. Located entirely within the urban area of Moura, these areas will not be impacted by seismic activities. The purpose of the Community Facilities Zone is to provide for community-related uses, activities, and facilities, whether publicly or privately owned, including, for example educational establishments, hospitals, transport and telecommunications networks and utility installations. Under the Planning Scheme, additional water treatment facilities are proposed at the existing Moura Water Treatment Plant. This area will also be avoided during seismic activities.

	The Mixed Use Zone seeks to provide for a variety of uses and activities, including, for example, business, residential, retail, service industry, tourist accommodation or low impact industrial uses or activities. The Planning Scheme identifies areas reserved for a highway precinct which will not be impacted by the proposed seismic activities. In addition to the above exclusions, the Applicant has applied an additional buffer around the Moura town urban area to further ensure that seismic survey activities (which have zero permanent or long-term surface impacts) will not encroach on or impact the urban area. The Applicant proposes to carry out the resource activities on land predominantly zoned as "Rural" in the Planning Scheme, with the exception of Lot 64 FN339 which is a parcel of vacant State land currently zoned as "Industry". However, the BSC has advised that it is comfortable with the lot being used for seismic activities, as well as small areas of Lot 109 FN524, Lot 61 FN563 and Lot 3FN563 which are zoned "Recreation and Open Space". The Planning Scheme seeks to ensure the rural character of agricultural land, mining resources and natural areas are protected and maintained for their production, landscape, and environmental values. Moura's rural areas support a diverse rural sector including mining and resources activity. Activities and land uses occurring in rural areas are managed to provide for the development of the rural and resources sectors while ensuring that the amenity of existing residents, towns and small settlements and the landscape and environmental values of rural areas are not compromised. While the Applicant's proposed seismic acquisition program is not intensive or large-scale, the Planning Scheme states that rural areas can provide suitable locations for intensive or large-scale development that cannot be located in urban areas. Westside's Development Planning Process (see Figure 6) will be utilised when planning activities around existing or planned infrastructure and this will occur in conjunction with consultation and negotiation with the relevant stakeholders. It is not anticipated that the proposed activities will result in the loss of land available for urban development within and surrounding the Moura PLA, particularly when considering the application of the buffer zones as identified above. The Place Based Plan identifies potential future development plans for Moura and includes the following:

	- Multi-staged Moura Memorial project in the Industrial Zone including a new Council Office, Museum, Library and Cultural Education Centre and a concept study to commence redevelopment of a disused railway corridor; - Create redevelopment plan for the precinct from Rotary Park in the Recreational Zone to Gillespie Street and installing pathways linking Theodore Road and Gillespie Street in town; - Improvements to the Moura River Park located outside the PLA, including a walking/cycling track from town to the River Park and from town to the Meridian site which is also located outside the PLA; - Improvement of existing parks, gardens, main roads and relocating/screening of the town refusal transfer facility; and - Improvement of local facilities such as Lions Park, Moura Recreation Reserve, Youth Centre Precinct and Retirement Village. The Applicant's activities within the PLA will be outside of the areas planned to be utilised for the above-mentioned future town development activities which are identified as being located within the urban area which the Applicant is actively avoiding. Accordingly, the Applicant's proposed development within the PLA, focused within "Rural" Zoned land, will not result in the loss of land available for urban development as identified in the Planning Scheme.
2. *Analysis that demonstrates the extent to which the activity would or would not prevent or delay the orderly expansion of planned urban development*	It is not anticipated that the seismic activity would prevent or delay the orderly expansion of planned urban development. The seismic activities are proposed to be undertaken approximately 200m outside of the urban area and the activities will be of a zero-disturbance nature. Seismic is a low-impact, temporary activity that lasts only a few days on each line segment, and weeks in total. According to the Planning Scheme and Regional Plan, there are no planned urban developments that will be restricted by the proposed activities on properties zoned as "Rural" within the PLA and outside the buffer zone as demonstrated in item 1 above. As per the Planning Scheme, one of the overall outcomes for the Rural Zone is that Rural Uses which are likely to generate significant odour, noise or other impacts are located away from the town to protect the amenity of the town, which indicates that no urban development is currently planned within the Rural Zone in the PLA.
3. *Analysis that demonstrates the extent*	There are no activities identified in the Planning Scheme or other planning instruments within the PLA that

to which the activity would or would not result in the discontinuation of an activity that is lawfully in existence under a local government planning scheme, development scheme or other applicable statutory planning instrument	would need to discontinue because of the proposed resource activities. As demonstrated elsewhere within PL94, the Applicant's activities within rural properties will be undertaken in consultation and negotiation with landholders to minimise impacts to their existing/planned enterprises and maintain rural amenity and character as desired. All activities are sited using Westside's Development Planning Process (see section 5) which ranks locations of preference according to likely impacts on land use values such as agriculture and grazing. Any activities and infrastructure proposed to be located on land that is used for these purposes require written agreement from the landholders as per the requirements of the Land Access framework in accordance with the relevant legislative requirements. As detailed in this report, any activities undertaken in the identified areas of the PLA will be conducted in such a manner as to ensure compliance with all environmental legislative requirements and will not adversely impact natural features such as water quality, watercourses, soil landscapes, vegetation or the management of weeds and pest animals. The proposed resource activities will be located and conducted in such a way that primary land uses will not need to discontinue because of the activities. There are also other regulatory requirements that effectively require any land used for resource activities to be returned to its original land use (or otherwise in consultation with the landholder) once resource activities have ceased.
4. *Analysis that demonstrates the extent to which the activity would or would not increase the cost of planned development*	The seismic activities are planned with consideration given to urban development, environmental values and existing, as well as future, landholder property development plans using the Development Planning Process. It is noted that the planned seismic works are a zero-disturbance activity of a low-impact that lasts only a few days on each line segment, and weeks in total. The identified buffers that the Applicant intends to apply to its activities within the PLA ensure that resource activities will not encroach on the urban area or its immediate surrounds. No resource activities (seismic or surface disturbance) will occur within 200m of the urban area. Within the identified areas outside of the applied buffer zones, the Applicant only proposes to conduct activities within rural properties that have not been earmarked for planned urban development within the Planning Scheme or other Plans.

5. *Analysis that demonstrates the extent to which the activity would or would not damage or otherwise affect existing infrastructure*	The planned activities will not affect existing infrastructure as the intention is to only conduct activities within properties classified as "Rural" and outside of the buffer zone applied by the Applicant within the PLA. The Planning Scheme also identifies that one of the overall outcomes sought for all Rural Zoned land in Moura is that the land is not provided with urban services. As such, proposed activities within the Rural Zone are also unlikely to impact on future urban infrastructure. All activities will be located in discussion and negotiation with landholders using Westside's Development Planning Process which considers potential impacts to existing infrastructure and land uses. The land access regulatory regime also applies a restricted land framework imposing mandatory buffers around rural and residential infrastructure that can only be waived with landholder consent. Further, the seismic activities will be temporary and will not cause any permanent disturbance to the land, so the activity will not damage or otherwise affect any existing infrastructure.
6. *Analysis that demonstrates the extent to which the activity would or would not result in additional demand on existing infrastructure or services*	The resource activity will not result in an additional demand on existing infrastructure or services. <u>Accommodation</u> The proposed activities within the PLA will not require any additional workforce from what is currently required for operating the other areas of the Applicant's Greater Meridian field. As such, there will be no extra demand on housing or accommodation (rental as well as motels/caravan park) as a result of the planned activities within the PLA. <u>Road Use</u> There may be a slight increase in the use of Dawson Highway, Theodore-Moura Road and the Moura-Bindaree Road during the seismic acquisition within the PLA. However, this is not expected to be significant as the activity is temporary, and the area within the PLA proposed to be accessed for the activities is only a small percentage of the Greater Meridian field and the Applicant's other existing and planned operations within the region. Additionally, the Planning Scheme identifies an outcome for Mining Resources areas that *'roads used for the haulage of agricultural products, extractive and mining resources including major highways, key resource area transport routes and the coal train load-out facility haul route in Moura are protected from incompatible land uses and works'.* This suggests that the Planning Scheme anticipates resource activity dependence on road infrastructure. However, as noted above there will only be a slight increase in the use

	of the local roads as a result of the proposed resource activities. Washdown Facility The Applicant uses the Moura Machinery Wash Down Facilities. There is expected to be some additional demand during seismic acquisition, however this demand will be temporary and limited to a few weeks. Town Water Additional town water will not be required for any proposed resource activities within the identified areas of the PLA. The Applicant has adequate sources of water available to it from its existing produced water storages and other sources. Town water is currently supplied to the Westside office site on Okano Street for drinking and emergency wash down purposes and this usage is not expected to increase due to proposed activities within the PLA. Emergency Services The Applicant relies on the Moura hospital and emergency services for staff injuries and illnesses. However, the reliance on these services is not expected to increase on account of activities within the PLA, given the low-impact, temporary nature of the activities.
7. *Analysis that demonstrates the extent to which the activity would or would not negatively impact on the amenity of the PLA in general and on land in the immediate vicinity of the activity*	Noise Noise is generated by the use of vehicles, generators and other relevant equipment utilised for seismic activities. However, the Applicant is subject to stringent noise limits contained in its EAs which must be complied with when conducting resource activities. The Applicant will not conduct activities within areas of the PLA that will result in exceeding the prescribed noise limits for any sensitive place or commercial place (as defined in the EA) within the urban area. The Applicant will only conduct activities during daylight hours avoiding where possible, the lower noise thresholds between 6pm and 7am. The Applicant is also required to adhere to the EA prescribed noise limits for residents of rural properties and other dwellings outside of the urban area. There is minimal noise associated with seismic survey activities and the proposed buffer is expected to be sufficient to ensure no negative impacts as a result of these activities. Visual

	Impacts to visual amenity will be temporary, limited and localised to the areas in which seismic activities occur, namely vibrator buggies, trucks and 4WD vehicles which will temporarily traverse local roads and properties as well as traffic control vehicles and signage associated with the acquisition. <u>Dust</u> Dust suppression activities are conducted on a regular basis for the Applicant's current operations, and this will continue for activities proposed within the PLA. This generally involves the application of water to access roads and tracks during seismic acquisition as required to effectively suppress dust. Under the Land Access Code, vehicles must be operated on a landholder's property at speeds that are appropriate for the landholder's land and minimise noise, dust and disturbance to the land. Westside's vehicle speeds are restricted to 40km/hr on all access tracks and site roads (unless a slower speed is necessary). Dust suppression activities (currently using water trucks) are carried out on an as-required basis to minimise the potential for environmental nuisance due to dust. Watering frequency will be increased as required (e.g. due to high winds or dry conditions). <u>Traffic</u> As previously mentioned, it is expected there may be a slight increase in the use of Dawson Highway, Theodore-Moura Road and the Moura-Bindaree Road during seismic acquisition within the PLA. However, this is not expected to cause a negative impact on the amenity of the PLA and surrounds as increased road use is expected to be minimal and will be temporary. Work shifts and activities are also scheduled in order to avoid excessive vehicle movements during sensitive times of the day, such as school drop off and pickup times at certain locations. Activities will be conducted during day light hours for safety reasons. The Applicant will engage licensed professional traffic control contractors to manage activities on or across road corridors and road reserves.

b) Determine the impact on amenity, the proposed activity should be evaluated against the following factors:	
1. *The compatibility of the activity with surrounding activities*	The Planning Scheme identifies much of the subject land for the PL94 Sublease and PL1049 within the PLA as a "Key Resource Area" which includes land covered by Petroleum Leases.

	There is a significant amount of existing CSG activity within proximity to the PLA and between the urban area and Anglo's Dawson Mine complex. There are also CSG wells (capped and shut in), gathering lines and a steel gas pipeline that have been previously constructed within (but prior to establishment of) the PLA which indicates the ability for these activities to occur without significant impact to the town (see Figure 3). The co-existence of CSG activities with existing and prior land uses has also been the subject of considerable focus in recent years with many legislative changes and advisory and statutory bodies formed as a result (such as the Land Access Ombudsman and Gas Fields Commission Queensland). By its very nature, CSG activities must co-exist with existing land uses as the activity generally occurs on land owned by third-party landowners as opposed to an activity such as mining, in which the land is generally purchased by the mining operator. As a result of its current and previous activity in the area, the Applicant has considerable experience in the coordination of its CSG activities with rural enterprises and nearby townships. The compatibility of CSG activities with surrounding activities near a town is probably best demonstrated by the fact that similar development to that proposed by the Applicant has successfully occurred in comparable proximity to other towns (such as Miles) by other CSG proponents. In these instances, the existing legislative requirements in relation to environmental and other impacts, as well as the need to negotiate access and the location of activities with landowners, has ensured that any potential impacts to the neighbouring townships was minimised and managed appropriately.
2. *The nature and scale of the proposed activity and the extent of its intrusion on the predominant character of the surrounding area*	There will be no ongoing surface disturbance within the PLA as a result of the seismic activities. As evident in the Applicant's proposed activities as detailed in Section 6, and other proponents' development within a similar distance to other townships, resource activities such as seismic acquisition can successfully be undertaken within rural land uses such as agriculture and grazing in proximity to towns and residential areas. The impact of activities on the predominant character of the surrounding area will be nil due to the non-disturbance and temporary nature of the activity.
3. *The extent of change to the volume or nature of traffic on the roads in the PLA*	Please refer to item #6 in the previous table.

4. *The effect on the existing linkages between various parts of the PLA (for example, between residential areas and employment areas)*	The Zoning Code aims to ensure that the availability of land, the amenity, and the operational needs of different uses in each Zone are not compromised by the inclusion or encroachment of inappropriate development and that land on the boundaries of each of the Zones is of a nature, design and appearance that respects the scale and nature of uses in the adjoining Zone. As discussed previously, the Applicant only proposes to conduct seismic activities within land outside of the urban areas of the PLA. Aside from the use of existing roads that link the various Zones (which is not expected to have any negative effects), the Applicant's activities will have no other effect on the linkages between the various parts of the PLA.
5. *Changes to the outlook from key vistas, nearby sensitive uses (for example, residential areas) or public facilities (for example, parks) and tourist attractions*	Please refer to item #7 in the previous table.
6. *The effect on the sense of place, local cultural heritage values and perceptions of safety*	The Moura area has a long history of settlement and agriculture development spanning over one hundred years. By the 1960s, mining had played a prominent role in the Moura area, along with grain, cotton, and cattle grazing. The CSG industry has been present in various forms since the 1970s and an industry in its own right in the region since the mid-1990s. The nearby nitrate plant has also been in operation since 2000. Moura is therefore an economically diverse community, albeit largely dominated by the neighbouring Dawson coal mine (www.moura.net.au). The mining sector, including CSG exploration and development, is a part of the social fabric of Moura and the surrounding region. This is reflected in Banana Shire Council's future direction for the town of Moura as outlined in the 2017-2027 Moura and District Place Based Plan as well as the Banana Shire Community Plan 2017 – 2027, which state that the vision for Moura in 2031 is to have *'strong and positive ties to both the mining and rural sectors and provide a sustainable economic and social base that enables growth in business and light-to-medium industry sectors'*. The residents of Moura live near the Dawson Mine, and it is a prominent feature of the community. The mine tragedies in 1975, 1986 and 1994 are defining moments in the community and very much a part of the social fabric today. As such, the community has a pragmatic and well understood relationship with the historical risks and opportunities of resource development.

	In terms of Aboriginal Cultural Heritage, surveys within the Moura region have found many links with history such as stone artefact scatters, flakes, grinding stones, shell middens, scarred trees, and places of significance, to name a few. The Applicant's activities within the PLA will be assessed by the traditional owners, the Gaangalu Nation People (**GNP**), prior to any activities in accordance with the existing Cultural Heritage Investigation and Management Agreement (**CHIMA**) between the parties. This agreement ensures the careful management and protection of items and places of heritage value. Westside and the GNP have entered into several CHIMAs and have a relationship spanning over ten years.
7. *The visual prominence of the site*	Please refer to item #7 in the previous table.
8. *Proposed landscaping and enhancements*	There are no proposed landscaping and enhancements identified in the Planning Schemes within the PLA where the Applicant intends to conduct activities that would be impacted by the proposed resource activities. Further, in relation to existing landscaping features in the PLA, the seismic acquisition will cause no impacts given the temporary and low-impact nature of the activities.
9. *Explain how any impacts will be managed or mitigated.*	See Section 6 of this report and above.

4.2. Addressing Prescribed Solution 2

This table addresses Prescribed Solution 2 for PLAs by following the guidance provided in the RPI Act *Statutory Guideline 04/14 - Carrying out activities in a Priority Living Area*.

Carrying out the activity in the PLA, and in the location stated in the application, is likely to result in community benefits and opportunities:	
1. *Analysis of the economic and social benefits that will be associated with the additional workforce (during both the construction and operation phases)*	Activities within the PLA will form part of the Applicant's ongoing operations, which contribute to the local, regional, and State economies through employment and other economic contributions such as payment of rates and rents, local and regional procurement, use of service industries and payment of royalties and taxes. Between 2020-2022, the Meridian Joint Venture also delivered 42 PJ of gas to the market, including the domestic market.

	As at the date of this application, the Applicant employs 9 staff who permanently reside in the Moura area and 2 others who live within the Banana Shire. In addition to this, the Applicant employs a further 30 staff and contractors as part of its workforce who live in Moura while on shift. This represents 75% of Westside's total field-based workforce. As the Applicant continues to develop its tenements within the PLA and surrounding region, these figures are expected to increase. The Place Based Plan 2017 – 2027 states that its future direction includes "*encouraging a shift from barracks/single man quarters to having resource workers live in Moura"* to "*help increase the population of the town and improve the economy".* A key feature of the Applicant's operations in the Moura community is that it does not use camps for the housing of staff. The Applicant currently rents 13 properties in Moura, and staff regularly use local businesses in Moura and the surrounding area to supply household furniture and equipment for the rental properties. Two of the local accommodation providers in Moura also host large contingents of travelling workers who often attend site in addition to the abovementioned staff and contractors. The Applicant will continue to utilise local accommodation providers for this purpose. Discussions with the motel and caravan park operators in Moura revealed that the primary driver of the motel and caravan park industry in Moura is the resources industries with an estimated 80-95% of their business coming from industry. The Applicant is committed to utilising and supporting local services. On average, the Applicant spends around $4 million within Moura and the BSC annually however, in the first six months of 2022 alone, the Applicant has spent $3.3 million with BSC. This figure will increase as the Applicant continues to develop within the PLA and other areas of the Moura region. The Applicant uses local tradespeople such as plumbers, electricians, and mechanics and as activities increase, there will be a higher demand for these services. The Applicant has a fleet of 35 vehicles that are predominantly serviced and repaired in Moura with the occasional trip to Biloela for specialist services. The Applicant patronises local businesses such as IGA, Mitre 10, the pharmacy, cafés, hotels and motels and uses local suppliers in the Moura and surrounding areas for personal protective equipment and logo embroidery. It is expected that these services will see an increase in spend as the Applicant further develops its tenures in the area.
	Trunk infrastructure (whether it be the capacity or the quality of the infrastructure)

2. *Analysis of direct contributions (monetary or in-kind work) towards:*	Operations within the PLA will rely on the use of existing roads. Any required road upgrades will be subject to discussions with the relevant road authority being the State or the BSC. In the past, the Applicant has contributed to the upgrade of Three Chain Road.
	Public infrastructure (including public transport, health and education services) There are promising opportunities to work with Moura State High School and Moura State School on STEM (science, technology, engineering and mathematics) learning with technical experts and guided field trips to the gas fields during seismic acquisition within the PLA. The Applicant will also look to provide career sessions for high school students advising them of the Applicant's involvement in the resources sector locally, its operations and the careers that can be obtained in the sector. There is also interest from local high school students wanting work experience and work placement in the resources sector, especially those completing Certificates in Resources and Infrastructure. Local schools are also interested in industry-based tutors for those students undertaking online learning in extension maths, physics and pre-university courses in engineering. There may also be opportunities to increase the oil and gas component of the tourism story for Moura through additional support of the BSC and the tourism industry. The Applicant's long history with the area and proximity to the township itself make it ideally placed to assist in this regard.
	A community initiative or facility (for example public artwork, community notice board, community centre) Over the past twelve years, the Applicant has established itself as a valued member of the local Moura community. The Applicant's operational team are actively involved by supporting and attending community functions and events, and hosting landholder meetings and community consultation sessions. The Applicant has provided sponsorship and donation funding to local community organisations and festivals, for example: - Coal & Country Festival - Moura Primary and High School's P&C Fundraisers - NAIDOC Week - Moura Hospital Auxiliary - Moura Child Care and Play Group

	- Moura Muddy Water Classic Fishing Competition - Moura Golf Competition - Moura Sportsmen Night - Moura Junior Tigers Rugby League - Moura Christmas Street Party - Moura Blue Care - Moura Men's Shed - Moura Camp draft This provides connectivity between the Applicant and the local community. The Applicant intends to continue to expand its sponsorships and partnerships with local community events and organisations and is looking to grow both its direct contribution (such as monetary contributions) as well as its indirect support through provision of personnel, equipment, and services to assist and aid in the preparation and delivery of successful community events and outcomes.

5.0 Development Planning Process

All proposed activities are assessed and planned in accordance with the Applicant's Development Planning Process (see Figure 6).

In addition to the mandatory requirements embedded in legislation and the land access framework, the Development Planning Process involves the consideration of constraints and landholder and cultural heritage party input in its planning phases.

Accordingly, early consideration is given to potential co-existence matters such as existing/competing land uses, landholder preferences, noise/visual amenity impacts, future property plans, urban development and potential impacts to landholders, the community and the environment.

The Applicant considers that this process goes over and above the mandatory requirements and ensures that potential future impacts from development are considered in the early stages of planning so that any potential issues are avoided, mitigated, or minimised.

Landholders

The Applicant's existing operations are situated in and around dryland and irrigated cropping land as well as existing grazing enterprises within PL94. Westside co-exists with these land use activities.

The Applicant understands how important each property is to the landholder and believes in working in consultation with landholders to ensure farming/grazing activities can co-exist with Westside's projects now and into the future on those properties.

Westside has successfully negotiated over a hundred land access agreements and has dedicated on-site land access coordinators who regularly communicate with landholders and the broader community. The Applicant conducts its operations with a view to maintaining long and collaborative relationships with the owners and occupiers of the land where its activities are conducted.

Environment

There are EAs in place for PL94 (including the PL94 Sublease) and PL1049, which have been issued by the administering authority under Chapter 5 of the *Environmental Protection Act 1994* (Qld) (**EP Act**). The EAs authorise resource activities subject to certain conditions which are designed to promote good environmental management, minimise any potential impacts, prevent any environmental harm and ensure the that the Applicant meets its general environmental duty.

The Applicant has an Environmental Management System (**EMS**) in place which governs its general environmental obligations. The key elements of the EMS are:

- Planning;
- Implementation;
- Monitoring programs; and
- Formal review processes.

The Applicant targets full compliance with legislative and operating permit conditions and the relevant regulatory authorities conduct regular on-site compliance audits.

Cultural Heritage

The traditional owners within the PLA are the Gaangalu Nation People (**GNP**).

In accordance with the *Aboriginal Cultural Heritage Act 2003* (Qld) (**ACH Act**) the Applicant undertakes all practicable measures to identify and to avoid or minimise impacts to Aboriginal Cultural Heritage.

Westside has several voluntary Cultural Heritage Investigation and Management Agreements (**CHIMAs**) with the GNP over parts of the Greater Meridian field including PL94 and PL1049.

The CHIMAs provide the framework through which the parties to the agreements protect and manage Aboriginal Cultural Heritage in a culturally appropriate manner while complying with all necessary legislative requirements.

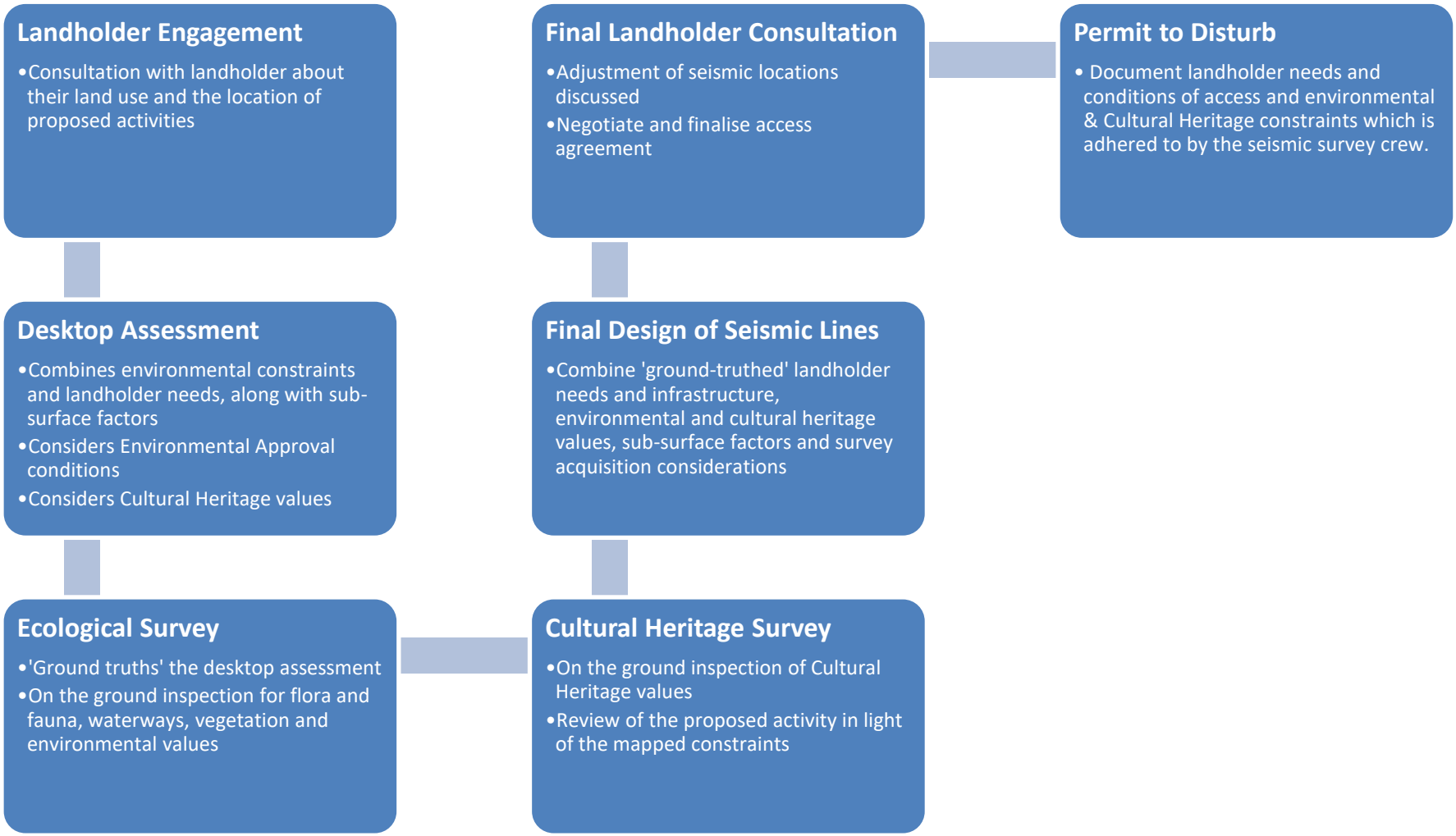

Figure 6 Westside Development Planning Process

6.0 Proposed Works – a general description of activities and methodologies

6.1. Seismic Activities

A maximum of 170 km of seismic lines will be acquired within the PLA.
As seismic is a low-impact, temporary activity, long term surface disturbance is 0ha.
Westside's seismic acquisition method is described below.

Seismic surveys have been used to delineate subsurface geology within the petroleum and gas industry for many decades. The process is summarised as follows:

- Energy source (sound wave) is generated at the surface and propagates below the surface.
- Sound waves are reflected at geological boundaries.
- Reflected sound waves are recorded by sensitive field listening devices (geophones).
- Remaining sound waves propagate deeper and are reflected from deeper boundaries. Energy becomes depleted and diminishes with depth. Different energy sources are used for different depth requirements.
- Energy source is induced at particular stations along the seismic line. When one station is complete, the energy source moves to the next station and so on.

For several years, Westside has used a low-impact vibration-based system for the energy source, such as an "EnviroVibe", for seismic acquisition in environmentally sensitive or populated areas and this methodology is proposed for use within the PLA.

The on-ground process that will occur within the PLA will include the following:

- Line Layout - Where possible, the seismic lines are designed to be approximately 300m apart. Divergence of this will be due to residences, tree clusters, streams and tributaries, roads, fence lines, water sources, and culturally or environmentally sensitive areas.
- Ecological Survey - A precursor to line preparation are ecological surveys of lines that partially cross Environmentally Sensitive Areas (**ESAs**). These areas will be avoided where possible.
- Initial Line Survey - Line preparation starts with an initial line survey to direct the line preparation crew. This can be either before or during line preparation using GPS devices in the slashing unit. Wooden survey pegs and star pickets are placed at pre-determined spacing intervals to guide the preparation crew. The pegs are usually hammered into the ground to a shallow depth.
- Line Preparation – Stick raking of the proposed survey line is undertaken followed by slashing of native (and pasture) grasses to provide access for cultural heritage surveys where required.
- Cultural Heritage Survey – A cultural heritage survey is conducted at least 5m on either side of the line to provide flexibility for the proposed seismic line.
- Final Line Survey – Immediately prior to the seismic acquisition, the prepared lines will require station surveys. This involves the survey crew installing a survey peg every few stations with the intervening stations being marked by biodegradable paint. The survey pegs will be retrieved once the acquisition has taken place.
- Geophone Positioning - Geophone stations will be positioned at regular intervals just before acquisition. Geophones (as shown in Figure 7) are small and are placed into the ground, either

by hand or foot. The spike on each geophone will penetrate the surface by approximately 10cm.

- 

Figure 7 Geophone and Geophone Placement (type shown are connected by cables, most likely the survey will deploy 'cableless' geophones)

Depending on the seismic design, there will be a particular number of geophone groups in front and behind the source station, termed the "Spread". Light vehicles (4WDs), which are all subject to weed washdowns, are usually used to ferry equipment to different parts of the field area.

- Seismic Acquisition - Acquisition begins once the seismic spread has been laid. Geophone stations are linked by cable or a wireless signal (cableless) to the recording vehicle. Reflected energy as a result of vibrating at a station is received by all the geophone groups in the spread and relayed back to the recording vehicle. The average time for the EnviroVibe at each station is approximately 20 seconds. Once a successful recording has been made, the EnviroVibe moves on to the next station. When the line has been acquired, the remaining spread is retrieved by the field crew.
- Vibrations - The amount of vibration induced as a result of the energy source has a minimum operating distance of 10m away from any sensitive infrastructure (such as houses, buildings, cattle yards etc.), and this has been accounted for in the line surveying.
- Noise - Noise is not expected to cause disturbance as these vehicles are not stationary but are continual in a go-stop-go mode of movement, only staying at each station for usually less than a minute.
- Dust - Dust levels are generally reduced as the pad essentially compresses the surface thereby containing dust emission. As with all vehicles, some dust can be expected in dry areas when driving the buggy and if this occurs, the Applicant will employ dust suppression measures as required.
- Rehabilitation - The seismic work proposed does not require significant disturbance to land. The vibrating pad produces a small impression usually less than a metre in diameter. Figure 8 shows typical EnviroVibe impressions.

Figure 8 EnviroVibe pad impression.

A) After vibration during a 2016 Westside seismic survey. Note the impression is very difficult to see.
B) Impression on edge of track elsewhere in the Bowen Basin

The rehabilitation for the areas subject to the seismic methodology outlined in this report will include:

- Removal of geophones and survey pegs
- Visual inspection of the area(s) will be conducted to confirm and document the condition of the area(s)
- Vegetation gathered during the preparation process will be replaced in a manner consistent with the area(s) prior to preparation
- Monitoring of the area(s) will also be conducted (visual inspection) as per standard rehabilitation monitoring processes applied to operational areas.

6.2. Weed Management

Weed management is undertaken in accordance with the land access framework and in consultation with landholders to ensure Westside's activities are consistent with the landholders' own activities and Biosecurity requirements.

Sites are managed in accordance with conditions negotiated with landholders, internal procedures and relevant regulatory requirements.

In addition, measures are undertaken to minimise the spread of weeds from vehicles and machinery. All vehicles and machinery must have a valid weed hygiene certificate (sometimes known as a washdown inspection and certificate) prior to access of any properties for seismic activities.

6.3. Dust Suppression

Dust suppression activities are carried out on an as-required basis to minimise the potential for environmental nuisance due to dust caused by vehicles. Watering frequency is increased during periods of higher risk (e.g. high winds or dry times). If water produced from Westside's CSG activities is used for dust suppression, this activity is undertaken in accordance with the Queensland Government's legislative requirements and end of waste codes.

6.4. Duration of Activities

Westside seeks to commence the activities within the PLA in Quarter 1 of 2023.

The timeline for the seismic acquisition will depend on several factors such as land access

negotiations, cultural heritage and environmental assessments.

The seismic acquisition activities will generally average approximately 4-10 km of activity per day during daylight hours.

Appendix A – Resource Authorities

No. 94

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QUEENSLAND

PETROLEUM ACT 1923

Petroleum Lease

ELIZABETH THE SECOND, by the Grace of God, Queen of Australia, and Her other Realms and Territories, Head of the Commonwealth.

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETING:

WHEREAS **CONOCO AUSTRALIA PTY LIMITED** in Our State of Queensland, in pursuance of the provisions of the Petroleum Act 1923 (hereinafter referred to as "the said Act"), and after consideration of the standard criteria set out under the Environmental Protection Act, 1994 is now entitled to a lease of the land described in the Schedule endorsed on these presents for the term of **Thirty-five years from the Eighteenth day of April, 1996** (with the entitlement to renew the same for a term no longer than the period nominated as hereinafter provided) at the rent and upon the payment of royalty hereinafter mentioned and with, under and subject to the reservations and conditions hereinafter contained and the rights, powers, privileges, terms, conditions, provisions, exceptions, restrictions, reservations, and provisos in the said Act or any Acts amending the same and in the Regulations made or to be made thereunder: Now know Ye that in consideration of the premises and of the payment previous to the issue hereof of the rent prescribed in accordance with the said Act for the said land and of the rent and royalty hereby reserved, We, in pursuance of the said Act do hereby for Us, Our Heirs and Successors, demise and lease unto the said **CONOCO AUSTRALIA PTY LIMITED** (hereinafter with its successors in title designated "the lessee") and its lawful assigns all that parcel of land described in the Schedule endorsed on these presents (hereinafter referred to as "the demised land") to hold the same unto the lessee and its lawful assigns for and during the term of **Thirty-five years** to be computed from the **Eighteenth day of April, 1996** (with the entitlement to renew the same for a term no longer than the period nominated; subject however in the case of any and each renewal to the laws in force at the date of such renewal relating to the amount and payment of royalties on petroleum and the amount and payment of rent with respect to the demised land) with the exclusive right to prospect for, mine, extract, recover, remove, and dispose of all petroleum in or under the demised land, with the right to construct and maintain thereon all works, buildings, plant, waterways (including any pipelines for conveying water), roads, pipelines, reservoirs, tanks, pumping stations, and other structures necessary to the full enjoyment thereof with, under and subject to the reservations hereinafter particularly mentioned and with, under and subject to the rights, powers, privileges, terms, conditions, provisions, exceptions, restrictions, reservations, and provisos referred to, contained or prescribed by the said Act or any Acts amending the said Act or any Regulations made or which may hereafter be made under the said Act: Yielding and paying unto Us, Our Heirs and Successors on or before the Fifteenth day of December, in each and

every year during the said term the yearly rent or sum of **$4180** and also yielding and paying unto Us, Our Heirs and Successors a royalty computed at the rate of Ten per centum on the value at the wellhead of the petroleum produced under this lease, as prescribed by the said Act: Provided that all such payments of rent and royalty shall be made to the Director-General, Department of Mines and Energy unless the Minister for Mines and Energy or other Minister of the Crown for the time being charged with the administration of the said Act (hereinafter referred to as "the Minister") otherwise directs and provided always -

(i) That the lessee shall work the demised land in accordance with recognised good oilfield practice and in compliance with the said Act, unless exemption or partial exemption is granted in such manner as may be prescribed;

(ii) That the lessee shall comply with the provisions of the said Act;

(iii) That the lessee shall use the demised land bona fide exclusively for the purpose for which it is demised and in accordance with the said Act, unless prevented from so doing by circumstances beyond its power and control;

(iv) That the lessee shall not assign, transfer, sublet, mortgage, or make the subject of any trust the lease or the land or any part thereof otherwise than in accordance with the said Act;

(v) That the lessee, if directed by the Minister not to dispose of any petroleum or petroleum products for use or consumption outside Australia, will not so dispose of any petroleum or petroleum products;

(vi) That in the event of any breach of any covenant or condition of this lease by the lessee and the failure of the lessee completely to remedy the same within three (3) months (or such further time as the Minister may in his discretion allow) after the Minister shall have given to the lessee notice in writing to make good the same then the Minister may forfeit this lease;

(vii) Notwithstanding anything to the contrary herein contained any fixtures, equipment, plant, and production facilities of any kind whatsoever which may be installed or erected by the lessee on the demised land may within a period of six (6) calendar months from the expiration of the term hereby granted or any extension or renewal thereof provided that the lessee shall have paid all rent and royalty payable hereunder and observed and performed all the covenants, agreements, and provisions herein contained and on its part to be observed and performed be taken down and removed from the demised land for the lessee's own benefit:

Provided that any such fixtures, equipment, plant, and production facilities which shall not be so taken down and removed within such period of six (6) calendar months shall thereupon become and be the property of the Crown and no compensation or other moneys whatsoever shall be payable by the Crown to the lessee:

Provided always and We do hereby reserve unto Us, Our Heirs and Successors the power to authorise mining on the demised land for any purpose other than the production or obtaining of petroleum or petroleum products, but not such as to interfere with, encroach upon or endanger operations for producing or obtaining petroleum: And We do hereby also reserve unto Us, Our Heirs and Successors all gold and minerals (the term "Minerals" whenever referred to herein to have the same meaning as the meaning set against the term "mineral" in "The Mineral Resources Act 1989", save and except that mineral oil occurring in a free state and which may be obtained by drilling or wells and natural gas shall be deemed to be excluded from the said meaning) and all mines on and below the surface of the demised land: And We do hereby also reserve unto Us, Our Heirs and Successors and to such persons as shall from time to time be duly authorised by Us in that behalf during the term of this lease, the free right and privilege of access, including ingress, egress, and regress into, upon, over, and out of the demised land for the purpose of searching for or working gold and minerals or any of them or mines of gold and

minerals or any of them in any part of the demised land but not such as to interfere with, encroach upon or endanger operations for producing or obtaining petroleum: And We do further reserve the right of any person duly authorised in that behalf by the Governor of Our said State in Council at all times to go upon the demised land or any part thereof for any purpose whatsoever or to make any survey inspection or examination of the same.

The Lessee will work the demised land in accordance with recognised good coal seam gas industry practice so as not to preclude the future recovery of the host resource.

The Lessee will provide to the Minister reasonable downhole locational information of points where its wells intercept recognised, mineable, coal seams.

IN WITNESS WHEREOF We have caused this Our Lease to be Sealed with the Seal of Our said State.

WITNESS

Our Trusty and Well-beloved Her Excellency **LENEEN FORDE,** Companion of the Order of Australia, Governor in and over the State of Queensland and its Dependencies, in the Commonwealth of Australia, at Government House, Brisbane, in Queensland, aforesaid, this Eighteenth day of April, 1996.

Petroleum Lease No. 94

SCHEDULE

ROCKHAMPTON MINING DISTRICT

Area: 78 Sub-blocks

About 209 km²

That part of the State of Queensland within the Blocks and Sub-blocks as set out hereunder and as defined and shown on Department of Mines and Energy Block Identification Map - Series B:-

BLOCK IDENTIFICATION MAP - SERIES B

BRISBANE

Blocks	Sub-Blocks
433	l, q, v
505	a, f, l, q, v, w
577	a, b, f, g, l, m, q, r, v, w
649	a, b, f, g, l, m, q, r, v
721	a, f

CHARLEVILLE

Blocks	Sub-Blocks
504	o, p, t, u, y, z
576	d, e, j, k, o, p, t, u, y, z
648	d, e, j, k, o, p, t, u, x, y, z
720	c, d, e, h, j, k, n, o, p, s, t, u, x, y, z
792	c, d, e, h, j, k

Exclusive of the land contained within Mining Lease Nos. 5593, 5599, 5604, 5630, 5644, 5650, 5656 and 5657 being current Mining Leases for Coal at the date of grant of this Lease.

Petroleum Lease No. 94

ENDORSEMENTS

This is to certify that **CENTRAL QUEENSLAND NATURAL GAS PTY LTD** has been recorded as the holder of **100%** interest of the within written lease the name of the Company Conoco Australia Pty Limited having been changed to **CENTRAL QUEENSLAND NATURAL GAS PTY LTD.**

Date Recorded: 20th day of May, 1998

J Cobb
for Minister

This is to certify that **OIL COMPANY OF AUSTRALIA (MOURA) PTY LIMITED** has been recorded as the holder of **100%** interest of the within written lease the name of the Company Central Queensland Natural Gas Pty Ltd having been changed to **OIL COMPANY OF AUSTRALIA (MOURA) PTY LIMITED.**

Date Recorded: 26th day of May, 1998

J Cobb
for Minister

This is to certify that **SUB-LEASE 1000017** was registered on the **11th day of April, 2003** over part of the within lease as described in the said sub-lease from Oil Company of Australia (Moura) Pty Limited to **OIL COMPANY OF AUSTRALIA (MOURA) PTY LIMITED, LOWELL PETROLEUM N.L. and HELM ENERGY-AUSTRALIA, LLC in the interests of 50.0%, 25.0% and 25.0% respectively** for a period **commencing on the 21st day of August, 2002 and to expire one day before the expiry of the term of the within lease** with an option to renew.

Description: Phase 11 Volume - That portion of the within lease which lies to the north of latitude 24°37'20" South.

Date of Ministers Consent: 9th day of January, 2003.

Dated at Brisbane this 17 day of April, 2003.

J Cobb
for Minister

Petroleum Lease No. 94

ENDORSEMENTS

PETROLEUM ACT 1923

PETROLEUM LEASE DEALING ENDORSEMENT

Pursuant to section 80J of the *Petroleum Act 1923,* the transfer of interest in the sublease of Petroleum Lease Number 94 from Mitsui Moura Investment Pty Ltd 32.88%, Molopo (Queensland), LLC 33.56%, Lowell Petroleum N.L. 33.56% to Mitsui E&P Australia Pty Limited 32.88%, Molopo (Queensland) LLC 33.56%, Lowell Petroleum N.L. 33.56% is taken to be granted.

Mitsui E&P Australia Pty Limited 32.88%, Molopo (Queensland) LLC 33.56%, Lowell Petroleum N.L. 33.56% are now registered as the current holders of the sublease of Petroleum Lease number 94. (Dealing No. 1022079)

John McCormack
Registrar, Petroleum and Gas
Mining and Petroleum Operations
Department of Employment, Economic Development and Innovation
Petroleum and Gas (Production & Safety)
(Ministerial) Delegation (No.2) 2009

Date: 8/2/2011

PETROLEUM ACT 1923

PETROLEUM LEASE DEALING ENDORSEMENT

Pursuant to section 80J of the *Petroleum Act 1923*, the transfer of a 100% share in Petroleum Lease Number 94 from Oil Company of Australia (Moura) Pty Limited to Anglo Coal (Dawson) Limited (51%) and Mitsui Moura Investment Pty Ltd (49%) is approved.

Anglo Coal (Dawson) Limited (51%) and Mitsui Moura Investment Pty Ltd (49%) are registered as the current holders of Petroleum Lease Number 94.

GREGORY PAUL CARPENTER
Regional Manager, Mines
Delegate of the Minister for Natural Resources, Mines and Water
Petroleum Act 1923 (Ministerial) Delegation (No. 1) 2005

Date : 19/6/06.

PETROLEUM ACT 1923

PETROLEUM LEASE DEALING ENDORSEMENT

Pursuant to section 80J(3)(a) of the *Petroleum Act 1923*, the transfer of 50% interest in Sub-lease 1000017 for Petroleum Lease number 94 from Australia Pacific LNG (Moura) Pty Limited to Anglo Coal (Dawson) Limited (25.5%) and Mitsui Moura Investment Pty Ltd (24.5%) is taken to be granted to take effect as of 31 March 2006.

Anglo Coal (Dawson) Limited (25.5%), Mitsui Moura Investment Pty Ltd (24.5%), Lowell Petroleum N.L. (25%) and Molopo (Queensland) LLC (25%) are now registered as the current holders of a Sub-lease for Petroleum Lease number 94.

John McCormack
Registrar, Petroleum and Gas

Date: 13/7/09

Author Naomi Hooper
File / Ref number: PL 94
Directorate / Unit Petroleum & Gas
Phone 07 3238 3800

Queensland Government

Department of
Mines and Energy

13 JUL 2009

Attention: Mr Ben Fox
Minter Ellison Lawyers
PO Box 7844
Waterfront Place
BRISBANE QLD 4001

Dear Mr Fox

RE: APPLICATIONS FOR GRANTING THE APPROVAL OF A DEALING

I refer to your application to grant the approval of a dealing received on 21 May 2009, namely the transfer of a Sub-lease for Petroleum Lease 94 from Australia Pacific LNG (Moura) Pty Limited (50%) to Anglo Coal (Dawson) Limited (25.5%) and Mitsui Moura Investment Pty Ltd (24.5%)

Your application has been assessed, pursuant to section 80J and 80K of the *Petroleum Act* 1923.

Please note your transfer is taken to be granted as of 31 March 2006.

Please find enclosed the original instrument of lease endorsed accordingly, together with the original deed of assignment and assumption.

Should you have any further enquiries, please contact Ms Laura Coleman on telephone number (07) 3406 2119.

Yours sincerely

JOHN McCORMACK
Registrar, Petroleum and Gas
Statewide Services

Statewide Services

Queensland Mines and Energy
Department of Employment, Economic Development and Innovation
Level 16, 61 Mary Street
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PETROLEUM ACT 1923

AUTHORITY TO PROSPECT DEALING ENDORSEMENT

Pursuant to section 80J of the *Petroleum Act 1923,* the transfer of interest in the sublease of Petroleum Lease Number 94 from Anglo Coal (Dawson) Limited, Lowell Petroleum NL, Molopo (Queensland) LLC and Mitsui Moura Investment Pty Ltd to Lowell Petroleum NL, Molopo (Queensland) LLC and Mitsui Moura Investment Pty Ltd is taken to be granted.

Lowell Petroleum NL (33.56%), Molopo (Queensland) LLC (33.56%) and Mitsui Moura Investment Pty Ltd (32.88%) are now registered as the current holders of the sublease of Petroleum Lease number 94. (Dealing No. 1019474)

John McCormack
Registrar, Petroleum and Gas
Queensland Mines and Energy
Department of Employment, Economic Development and Innovation

Date: 17/12/2010

PETROLEUM ACT 1923

PETROLEUM LEASE NUMBER 94

APPROVED LATER DEVELOPMENT PLAN

I, THE HONOURABLE STEPHEN ROBERTSON, MINISTER FOR NATURAL RESOURCES, MINES AND ENERGY AND MINISTER FOR TRADE for the State of Queensland, pursuant to section 53E of the *Petroleum Act 1923* ("the Act"), approve the later development plan for Petroleum Lease Number 94 to expire on 17 April 2011.

Jim Grundy
Executive Director, Statewide Services
Delegate of the Minister for Natural Resources, Mines and Energy and Minister for Trade
Petroleum Act 1923 (Ministerial) Delegation (No.2) 2009

Date Granted: 8 / 11 / 10

PETROLEUM ACT 1923

PETROLEUM LEASE DEALING ENDORSEMENT

Pursuant to section 80J(3)(b) of the *Petroleum Act 1923,* the transfer of 51% interest in Petroleum Lease Number 94 from Anglo Coal (Dawson) Limited to Westside CSG A Pty Ltd (25.5%) and Westside CSG D Pty Ltd (25.5%) is taken to be granted.

Mitsui Moura Investment Pty Ltd (49%), Westside CSG A Pty Ltd (25.5%) and Westside CSG D Pty Ltd (25.5%) are now registered as the current holders of Petroleum Lease number 94 (Dealing No. 1021234)

John McCormack
Registrar
Department of Employment, Economic Development and Innovation

Date: **12/01/2012**

PETROLEUM ACT 1923

PETROLEUM LEASE NUMBER 94

APPROVED LATER DEVELOPMENT PLAN

I, THE HONOURABLE ANDREW CRIPPS, MINISTER FOR NATURAL RESOURCES AND MINES for the State of Queensland, pursuant to section 53E of the *Petroleum Act 1923* ("the Act"), approve the later development plan for Petroleum Lease Number 94 to expire on **17 April 2012**.

KIRSTEN PIETZNER
Director
Mining and Petroleum Operations
Department of Natural Resources and Mines
Delegate of the Minister for Natural Resources and Mines
Petroleum Delegation (No 3) 2012

Date Granted: 10 / 1 / 2013

PETROLEUM ACT 1923

PETROLEUM LEASE NUMBER 94

APPROVED LATER DEVELOPMENT PLAN

I, THE HONOURABLE ANDREW CRIPPS, MINISTER FOR NATURAL RESOURCES AND MINES for the State of Queensland, pursuant to section 53E of the *Petroleum Act 1923* ("the Act"), approve the later development plan for Petroleum Lease Number 94 to expire on **17 April 2015**.

KIRSTEN PIETZNER
Director
Mining and Petroleum Operations
Department of Natural Resources and Mines
Delegate of the Minister for Natural Resources and Mines
Petroleum Delegation (No 3) 2012

Date Granted: 10 / 1 / 2013

PETROLEUM ACT 1923

PETROLEUM LEASE DEALING ENDORSEMENT

Pursuant to section 80J(1) of the *Petroleum Act 1923,* the transfer of 49% interest in Petroleum Lease Number 94 from Mitsui Moura Investment Pty Ltd to Mitsui E&P Australia Pty Limited is approved.

Mitsui E&P Australia Pty Limited (49.0%), Westside CSG A Pty Ltd (25.5%) and Westside CSG D Pty Ltd (25.5%) are now registered as the current holders of Petroleum Lease Number 94 (Dealing No. 1037680)

KIRSTEN PIETZNER
Director
Petroleum Gas and Geothermal
Mining and Petroleum Operations

Date: 24 / 1 /**2013**

Our Ref: PL 94
Your Ref:

Queensland Government

Department of
Natural Resources and Mines

24 JAN 2013

Westside CSG A Pty Ltd
C/- Westside Corporation Limited
Level 8, 300 Queen Street
BRISBANE QLD 4000

Dear Sir/Madam,

I refer to your application to grant the approval of a dealing received 18 November 2010, namely the transfer of 49% interest held in Petroleum Lease Number 94 from Mitsui Moura Investment Pty Ltd to Mitsui E&P Australia Pty Limited.

Your application has been assessed, pursuant to sections 80J and 80K of the *Petroleum Act 1923*. After due consideration it has been decided to grant the approval of the transfer. The approval has effect on the later stated day of 24 January 2012.

Please find enclosed the original instrument of lease endorsed accordingly for PL 94 and instrument of dealing.

Should you have any further enquiries, please contact Laura Coleman, Senior Tenures Officer of the Petroleum, Gas and Geothermal Unit of Mining and Petroleum Operations, Department of Natural Resources and Mines on telephone number (07) 3238 3818 or email dmepetroleumtenures@deedi.qld.gov.au.

Yours sincerely

Kirsten Pietzner
Director
Petroleum Gas and Geothermal

Petroleum, Gas and Geothermal Unit
Mining and Petroleum Operations
Department of Natural Resources and Mines
Level 16, 61 Mary Street
BRISBANE QLD 4000
All Correspondence to:
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Telephone + 61 7 3238 3818
Facsimile + 61 7 3238 3188
Website www.dme.qld.gov.au

Noted on Register on 24/01/13
Dealing Number 1037680
For Director-General
Department of Mines and Energy

Client No: 1051309 Duties Act 2001
Assessment No: 502-390-511
Paid $ NIL ☑ Exempt s. 406
UTI $ -
Date: 14/10/2010 Signed:

TRANSFER of PETROLEUM LEASE 94

PETROLEUM ACT 1923 (QLD)

Full Names of Holders	Full Address	% Held
Mitsui Moura Investment Pty Ltd (ACN 088 091 356)	c/- Mitsui Coal Holdings Pty Ltd Level 12, 240 Queen Street Brisbane QLD 4000	49%
Westside CSG A Pty Ltd (ACN 138 989 358)	c/- Westside Corporation Limited Level 8, 300 Queen Street Brisbane Qld 4000	25.5%
Westside CSG D Pty Ltd (ACN 140 474 362)	c/- Westside Corporation Limited Level 8, 300 Queen Street Brisbane Qld 4000	25.5%

We the above named holders of Petroleum Lease 94 in the percentage shown above do hereby transfer all our entitlements and interests in Petroleum Lease 94 to the Transferees, being the parties specified hereunder in the percentages shown.

Full Names of Proposed Holders	Full Address	% Held
Mitsui E&P Australia Pty Limited (ACN 108 437 529)	Mitsui E&P Australia Pty Limited Level 22, Exchange Plaza 2 The Esplanade Perth WA 6000	49%
Westside CSG A Pty Ltd (ACN 138 989 358)	c/- Westside Corporation Limited Level 8, 300 Queen Street Brisbane Qld 4000	25.5%
Westside CSG D Pty Ltd (ACN 140 474 362)	c/- Westside Corporation Limited Level 8, 300 Queen Street Brisbane Qld 4000	25.5%

If the Minster grants approval of this transfer under section 80J of the *Petroleum Act 1923* (Qld), we the Transferees do hereby accept the interests and entitlements under Petroleum Lease 94 in the percentages shown above subject to compliance with the *Petroleum Act 1923* (Qld) and the terms and conditions of Petroleum Lease 94.

IN WITNESS WHEREOF the parties have executed this Transfer as a Deed this 2nd day of July 2010

Transferors

Executed by **Mitsui Moura Investment Pty Ltd (ACN 088 091 356)** in accordance with Section 127 of the *Corporations Act 2001*

Signature of director

~~Angus Karoll~~ K. Fukamachi

Name of director (print)

Signature of director/~~company secretary~~

(Please delete as applicable)

~~Damian Galvin~~ John Hawgood

Name of director/company secretary (print)

Executed by **Westside CSG A Pty Ltd (ACN 138 989 358)** in accordance with Section 127 of the *Corporations Act 2001*

Signature of director

Angus Karoll

Name of director (print)

Signature of director/company secretary

(Please delete as applicable)

Damian Galvin

Name of director/company secretary (print)

Executed by **Westside CSG D Pty Ltd (ACN 140 474 362)** in accordance with Section 127 of the *Corporations Act 2001*

Signature of director

Angus Karoll

Name of director (print)

Signature of director/company secretary

(Please delete as applicable)

Damian Galvin

Name of director/company secretary (print)

Transferees

Executed by **Mitsui E&P Australia Pty Limited (ACN 108 437 529)** in accordance with Section 127 of the *Corporations Act 2001*

Signature of director

Makoto Nakafuji

Name of director (print)

Signature of director/company secretary

(Please delete as applicable)

Yasuchika Maruyama

Name of director/company secretary (print)

Executed by **Westside CSG A Pty Ltd (ACN 138 989 358)** in accordance with Section 127 of the *Corporations Act 2001*

Signature of director

Angus Karoll

Name of director (print)

Signature of ~~director~~/company secretary
(Please delete as applicable)

Damian Galvin

Name of director/company secretary (print)

Executed by **Westside CSG D Pty Ltd (ACN 140 474 362)** in accordance with Section 127 of the *Corporations Act 2001*

Signature of director

Angus Karoll

Name of director (print)

Signature of ~~director~~/company secretary
(Please delete as applicable)

Damian Galvin

Name of director/company secretary (print)

Petroleum and Gas (Production and Safety) Act 2004

QUEENSLAND GOVERNMENT

PETROLEUM LEASE

No. 1049

PETROLEUM AND GAS (PRODUCTION AND SAFETY) ACT 2004

[Section 120]

Petroleum Lease No. 1049

I, THE HONOURABLE DR ANTHONY LYNHAM, MINISTER FOR NATURAL RESOURCES, MINES AND ENERGY for the State of Queensland, pursuant to the *Petroleum and Gas (Production and Safety) Act 2004* (the Act), grant this petroleum lease authorising the holder(s) to explore, develop and store petroleum in accordance with the terms and conditions of this petroleum lease and the provisions of the Act relating to petroleum leases. Any endorsements, or schedules to this lease, form part of this lease.

1. HOLDER(S):

Company Name		**Share (%)**
Westside Mungi Pty Limited	ACN: 055 269 040	33.56
Mitsui E&P Australia Pty Limited	ACN: 108 437 529	49
Harcourt (Queensland) LLC	ARBN: 099 360 362	17.44

2. DAY OF EFFECT: 1 September 2021

3. TERM: 30 years

4. EXPIRY DATE: 31 August 2051

5. PRODUCTION COMMENCEMENT DATE: Within two years from the day of effect of this petroleum lease.

6. INITIAL DEVELOPMENT PLAN
The Minister has approved the initial development plan for this petroleum lease, for the period ending 31 August 2026.

7. CONDITIONS AND PROVISIONS OTHER THAN MANDATORY CONDITIONS (INCLUDING ANY SPECIAL CRITERIA):
Nil.

8. AREA DESCRIPTION:

That part of the State of Queensland within the boundaries of the blocks and sub-blocks as defined and shown on the Queensland Block Identification Map (BIM) - Series B and set out below.

BIM	**Block(s)**	**Sub-Block(s)**
CHAR	432	a, b, c, f, g, h, j, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z
CHAR	504	a, b, c, d, e, f, g, h, j, k, l, m, n, q, r, s, v, w, x
CHAR	576	a, b, c, f, g, h, l, m, n, q, r, s, v, w, x

Area of Tenure (Total): 56 sub-blocks (approximately 168 km^2)

other than the following:

- land detailed under “Excluded/Unavailable Land” of this authority; and
- land over which a mining interest cannot be granted in relation to the *Nature Conservation Act 1992*.

9. EXCLUDED/UNAVAILABLE LAND:

Unavailable land: Land that may be, or continues to be, subject to Native Title

Excluded land: Mining Lease number 80032.

Date Granted: 22 September 2020

Appendix B – Environmental Authorities

Permit

Environmental Protection Act 1994

Environmental authority EPPG00783713

This environmental authority is issued by the administering authority under Chapter 5 of the Environmental Protection Act 1994.

Environmental authority number: EPPG00783713

Environmental authority takes effect on 02 August 2021

Environmental authority holder(s)

Name(s)	Registered address
Westside CSG D Pty Ltd	Level 17 300 Queen Street BRISBANE CITY QLD 4000
Westside CSG A Pty Ltd	Level 17 300 Queen Street BRISBANE CITY QLD 4000 Australia
Mitsui E&P Australia Pty Limited	Level 11, Exchange Tower, 2 The Esplanade PERTH WA 6000

Environmentally relevant activity and location details

Environmentally relevant activity/activities	Location(s)
Schedule 3 06: A petroleum activity carried out on a site containing a high hazard dam or a significant hazard dam	PL94
Schedule 3 08: A petroleum or GHG storage activity, other than items 1 to 7, that includes an activity from Schedule 2 with an AES	PL94
Ancillary 63 - Sewage Treatment 1: Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of (a-ii) 21 to 100EP otherwise	PL94

Environmentally relevant activity/activities	Location(s)
Ancillary 15 - Fuel burning Using fuel burning equipment that is capable of burning at least 500kg of fuel in an hour	PL94

Additional information for applicants

Environmentally relevant activities

The description of any environmentally relevant activity (ERA) for which an environmental authority (EA) is issued is a restatement of the ERA as defined by legislation at the time the EA is issued. Where there is any inconsistency between that description of an ERA and the conditions stated by an EA as to the scale, intensity or manner of carrying out an ERA, the conditions prevail to the extent of the inconsistency.

An EA authorises the carrying out of an ERA and does not authorise any environmental harm unless a condition stated by the EA specifically authorises environmental harm.

A person carrying out an ERA must also be a registered suitable operator under the *Environmental Protection Act 1994* (EP Act).

Contaminated land

It is a requirement of the EP Act that an owner or occupier of contaminated land give written notice to the administering authority if they become aware of the following:

- the happening of an event involving a hazardous contaminant on the contaminated land (notice must be given within 24 hours); or
- a change in the condition of the contaminated land (notice must be given within 24 hours); or
- a notifiable activity (as defined in Schedule 3) having been carried out, or is being carried out, on the contaminated land (notice must be given within 20 business days);

that is causing, or is reasonably likely to cause, serious or material environmental harm.

For further information, including the form for giving written notice, refer to the Queensland Government website www.qld.gov.au, using the search term 'duty to notify'.

Take effect

Please note that, in accordance with section 200 of the EP Act, an EA has effect:

a) if the authority is for a prescribed ERA and it states that it takes effect on the day nominated by the holder of the authority in a written notice given to the administering authority-on the nominated day; or

b) if the authority states a day or an event for it to take effect-on the stated day or when the stated event happens; or

c) otherwise-on the day the authority is issued.

However, if the EA is authorising an activity that requires an additional authorisation (a relevant tenure for a resource activity, a development permit under the *Sustainable Planning Act 2009* or an SDA Approval under the *State Development and Public Works Organisation Act 1971*), this EA will not take effect until the additional authorisation has taken effect.

If this EA takes effect when the additional authorisation takes effect, you must provide the administering authority written notice within 5 business days of receiving notification of the related additional authorisation taking effect.

If you have incorrectly claimed that an additional authorisation is not required, carrying out the ERA without the additional authorisation is not legal and could result in your prosecution for providing false or misleading information or operating without a valid environmental authority.

Tristan Roberts
Department of Environment and Science
Delegate of the administering authority
Environmental Protection Act 1994

Date issued: 02 August 2021

Enquiries:
Energy and Extractive Resources
Department of Environment and Science
Phone: 3330 5715
Email: energyandextractive@des.qld.gov.au

Obligations under the *Environmental Protection Act 1994*

In addition to the requirements found in the conditions of this environmental authority, the holder must also meet their obligations under the EP Act, and the regulations made under the EP Act. For example, the holder must comply with the following provisions of the Act:

- general environmental duty (section 319)
- duty to notify environmental harm (section 320-320G)
- offence of causing serious or material environmental harm (sections 437-439)
- offence of causing environmental nuisance (section 440)
- offence of depositing prescribed water contaminants in waters and related matters (section 440ZG)
- offence to place contaminant where environmental harm or nuisance may be caused (section 443)

Conditions of environmental authority

SCHEDULE A – GENERAL

Authorised Resource Activities

(A1) This environmental authority authorises the carrying out of the following resource activities:

a) the petroleum activities and specified relevant activities listed in *Schedule A, General, Table 1—Authorised Resource Activities* to the extent they are carried out in accordance with the activity's corresponding scale or intensity or both (where applicable); and

b) incidental activities that are not otherwise specified relevant activities.

(A2) The authorised resource activities are authorised subject to the conditions of this environmental authority.

(A3) This environmental authority does not authorise a relevant act to occur in carrying out an authorised resource activity unless a condition expressly authorises that relevant act to occur. Where there is no condition, the lack of a condition must not be construed as authorising the relevant act.

Schedule A, General, Table 1 – Authorised Resource Activities

Authorised Resource Activities	Scale		Intensity
	Maximum size	Location	
Petroleum activities			
Coal seam gas exploration and production	518ha	Within project area	600 wells
Specified relevant activities			
Stimulation activities	N/A	Within project area	600 wells
Operating fuel burning equipment (permanent, in isolation or combined in operation, or interconnected) that is capable of burning more than 500kg of fuel in an hour	15 ha across 7 compressor stations	Within project area	4200kg/hour (total)
Sewage treatment works, other than no-release works, where treated effluent is discharged from the works to an infiltration trench of through an irrigation scheme of otherwise discharged	100 EP per facility	Within project area	1 facility 1.25KL/day
Waste disposal onsite—operating a facility for disposing of greater than 50t of non-regulated waste in a year (mix-bury-cover where the drill muds do not have any substances that would make it a regulated waste)	Combined disposal capacity for waste less	Within project area	600 waste disposal locations

	than 10000t/year		
Water treatment facility	4.5ha	Within project area	1 water treatment facility Less than 5ML/ day
Regulated Dam	2.73ha	Within project area	1 dam

Monitoring Standards

(A4) All monitoring must be undertaken by a suitably qualified person.

(A5) If requested by the administering authority in relation to investigating a complaint, monitoring must be commenced within 10 business days.

(A6) All laboratory analyses and tests must be undertaken by a laboratory that has NATA accreditation for such analyses and tests.

(A7) Notwithstanding condition (A6), where there are no NATA accredited laboratories for a specific analyte or substance, then duplicate samples must be sent to at least two separate laboratories for independent testing or evaluation.

(A8) Monitoring and sampling must be carried out in accordance with the requirements of the following documents (as relevant to the sampling being undertaken), as amended from time to time:

a) for waters and aquatic environments, the *Queensland Government's Monitoring and Sampling Manual 2009 – Environmental Protection (Water and Wetland Biodiversity) Policy 2019*

b) for groundwater, *Groundwater Sampling and Analysis – A Field Guide* (2009:27 GeoCat #6890.1)

c) for noise, the Environmental Protection Regulation 2019

d) for air, the *Queensland Air Quality Sampling Manual* and/or Australian Standard 4323.1:1995 *Stationary source emissions method 1: Selection of sampling positions*, as appropriate for the relevant measurement

e) for soil, the *Guidelines for Surveying Soil and Land Resources, 2nd edition* (McKenzie *et al.* 2008), and/or the *Australian Soil and Land Survey Handbook, 3rd edition* (National Committee on Soil and Terrain, 2009); and

f) for dust, Australian Standard AS3580.

Notification

(A9) In addition to the requirements under Chapter 7, Part 1, Division 2 of the *Environmental Protection Act 1994*, the administering authority must be notified through the Pollution Hotline and in writing, as soon as possible, but within 48 hours of becoming aware of any of the following events:

a) any unauthorised significant disturbance to land

b) potential or actual loss of structural or hydraulic integrity of a dam

c) when the level of the contents of any regulated dam reaches the mandatory reporting level

d) when a regulated dam will not have available storage to meet the design storage allowance (DSA) on 1 November of any year

e) potential or actual loss of well integrity

f) unauthorised releases of any volume of prescribed contaminants to waters

g) unauthorised releases of volumes of contaminants, in any mixture, to land greater than:

i. 200 L of hydrocarbons or

ii. 200 L of stimulation additives or

iii. 500 L of stimulation fluids or

iv. 1 000 L of brine or

v. 5 000 L of untreated coal seam gas water or

vi. 5 000 L of raw sewage or

vii. 10 000 L of treated sewage effluent.

h) the use of restricted stimulation fluids

i) groundwater monitoring results from a landholder's active groundwater bore monitored under the stimulation impact monitoring program which is a 10 percent or greater increase from a previous baseline value for that bore and which renders the water unfit for its intended use; and

j) monitoring results where two out of any five consecutive samples do not comply with the relevant limits in the environmental authority.

Contingency Plan for Emergency Events and Environmental Incidents

(A10) Authorised resource activities involving significant disturbance to land cannot commence until the development of written contingency procedures for emergency environmental incidents which include, but are not necessarily limited to:

a) a clear definition of what constitutes an environmental emergency incident or near miss for the authorised resource activities

b) consideration of the risks caused by the authorised resource activities including the impact of flooding and other natural events on the authorised resource activities

c) response procedures to be implemented to prevent or minimise the risks of environmental harm occurring

d) the practices and procedures to be employed to restore the environment or mitigate any environmental harm caused

e) procedures to investigate causes and impacts including impact monitoring programs for releases to waters and/or land

f) training of staff to enable them to effectively respond; and

g) procedures to notify the administering authority, local government and any potentially impacted landholder.

Maintenance of plant and equipment

(A11) All plant and equipment must be maintained and operated in their proper and effective condition.

(A12) The following infrastructure must be signed with a unique reference name or number in such a way that it is clearly observable:

a) regulated dams and low consequence dams
b) exploration, appraisal and development wells
c) water treatment facilities
d) brine encapsulation facilities
e) landfill cells
f) sewage treatment facilities
g) specifically authorised discharge points to air and waters
h) any chemical storage facility associated with the environmentally relevant activity of chemical storage
i) field compressor stations
j) central compressor stations
k) gas processing facilities; and
l) pipeline compressor stations.

(A13) Measures to prevent fauna being harmed from entrapment must be implemented during the construction and operation of well infrastructure, dams and pipeline trenches.

Underground Gas Storage

(A14) Testing, evaluating, developing and using natural underground reservoirs for petroleum storage or to store prescribed storage gases is not authorised under this environmental authority.

Erosion and sediment control

(A15) For activities involving significant disturbance to land, control measures that are commensurate to the site-specific risk of erosion, and risk of sediment release to waters must be implemented to:

a) allow stormwater to pass through the site in a controlled manner and at non-erosive flow velocities
b) minimise soil erosion resulting from wind, rain, and flowing water
c) minimise the duration that disturbed soils are exposed to the erosive forces of wind, rain, and flowing water
d) minimise work-related soil erosion and sediment runoff; and
e) minimise negative impacts to land or properties adjacent to the activities (including roads).

Complaints

(A16) Authorised resource activities must not cause environmental nuisance at a sensitive place, other than where an alternative arrangement is in place.

Documentation

(A17) A certification must be prepared by a suitably qualified person within 30 business days of completing every plan, procedure, program and report required to be developed under this environmental authority, which demonstrates that:

a) relevant material, including current published guidelines (where available) have been considered in the written document

b) the content of the written document is accurate and true; and

c) the document meets the requirements of the relevant conditions of the environmental authority.

(A18) All plans, procedures, programs, reports and methodologies required under this environmental authority must be written and implemented.

(A19) All documents required to be developed under this environmental authority must be kept for five years.

(A20) All documents required to be prepared, held or kept under this environmental authority must be provided to the administering authority upon written request within the requested timeframe.

(A21) A record of all complaints must be kept including the date, complainant's details, source, reason for the complaint, description of investigations and actions undertaken in resolving the complaint.

SCHEDULE B – WASTE MANAGEMENT

General

(B1) Measures must be implemented so that waste is managed in accordance with the waste and resource management hierarchy and the waste and resource management principles.

(B2) Waste, including waste fluids, but excluding waste used in closed-loop systems, must be transported off-site for lawful re-use, remediation, recycling or disposal, unless the waste is specifically authorised by conditions (B4) to (B14) to be disposed of or used on site.

(B3) Waste fluids, other than flare precipitant stored in flare pits, or residual drilling material or drilling fluids stored in sumps, must be contained in either:

a) an above ground container; or
b) a structure which contains the wetting front.

(B4) Green waste may be used on-site for either rehabilitation or sediment and erosion control, or both.

(B5) Vegetation waste may be burned if it relates to a state forest, timber reserve or forest entitlement area administered by the *Forestry Act 1959* and a permit has been obtained under the *Fire and Rescue Service Act 1990*.

Pipeline wastewater

(B6) Pipeline wastewater, may be released to land provided that it:

a) can be demonstrated it meets the acceptable standards for release to land; and

b) is released in a way that does not result in visible scouring or erosion or pooling or run-off or vegetation die-off.

Authorised uses of produced water for authorised resource activities

(B7) Produced water may be re-used in:

a) drilling and well hole activities; or

b) stimulation activities.

(B8) Produced water may be used for dust suppression provided the following criteria are met:

a) the amount applied does not exceed the amount required to effectively suppress dust; and

b) the application:

i. does not cause on-site ponding or runoff

ii. is not applied outside the area being suppressed

iii. does not harm vegetation surrounding the area being dust suppressed; and

iv. does not cause visible salting.

(B9) Produced water may be used for construction purposes provided the use:

a) does not result in negative impacts on the composition and structure of soil or subsoils

b) is not directly or indirectly released to waters

c) does not result in runoff from the construction site; and

d) does not harm vegetation surrounding the construction site.

(B10) If there is any indication that any of the circumstances in condition (B8(b)(i)) to (B8(b)(iv)) or (B9(a)) to (B9(d)) is occurring the use must cease immediately and the affected area must be remediated without delay.

Sewage treatment

(B11) Treated sewage effluent or greywater can be released to land provided it:

a) meets or exceeds secondary treated class B standards for a treatment system with a daily peak design capacity of between 150 EP and 1500 EP or

b) meets or exceeds secondary treated class C standards for a treatment system with a daily peak design capacity of less than 150 EP.

(B12) The release of treated sewage effluent or greywater authorised in condition (B11) must:

a) be to a fenced and signed contaminant release area(s)

b) not result in pooling or run-off or aerosols or spray drift or vegetation die-off

c) be to a contaminant release area(s) that is kept vegetated with groundcover, that is:

i. not a declared pest species;

ii. kept in a viable state for transpiration and nutrient uptake; and

iii. grazed or harvested and removed from the contaminant release area as needed, but not less than every three months.

Residual drilling material

(B13) If sumps are used to store residual drilling material or drilling fluids, they must only be used for the duration of drilling activities.

(B14) Residual drilling material can only be disposed of on-site:

a) by mix-bury-cover method if the residual drilling material meets the approved quality criteria or

b) if it is certified by a suitably qualified third party as being of acceptable quality for disposal to land by the proposed method and that environmental harm will not result from the proposed disposal.

(B15) Records must be kept to demonstrate compliance with condition (B13) and (B14).

SCHEDULE C – PROTECTING ACOUSTIC VALUES

General

(C1) Notwithstanding condition (A16), emission of noise from the authorised resource activities at levels less than those specified in *Schedule C, Protecting Acoustic Values, Table 1—Noise nuisance limits* are not considered to be environmental nuisance.

Schedule C, Protecting Acoustic Values, Table 1—Noise nuisance limits

Time period	Metric	Short term noise event	Medium term noise event	Long term noise event
7:00am—6:00pm	$L_{Aeq,adj,15\ mins}$	45 dBA	43 dBA	40 dBA
6:00pm—10:00pm	$L_{Aeq,adj,15\ mins}$	40 dBA	38 dBA	35 dBA
10:00pm—6:00am	$L_{Aeq,adj,15\ mins}$	28 dBA	28 dBA	28 dBA
	Max $L_{Aeq,adj,15\ mins}$	55 dBA	55 dBA	55 dBA
6:00am—7:00am	$L_{Aeq,adj,15\ mins}$	40 dBA	38 dBA	35 dBA

The noise limits in Table 1 have been set based on the following deemed background noise levels (LABG)*:*
7:00am—6:00 pm: 35 dBA
6:00pm—10:00 pm: 30 dBA
10:00pm—6:00 am: 25 dBA
6:00am—7:00 am: 30 dBA

(C2) If the noise subject to a valid complaint is tonal or impulsive, the adjustments detailed in *Schedule C, Protecting Acoustic Values, Table 2—Adjustments to be added to noise levels at sensitive receptors* are to be added to the measured noise level(s) to derive $L_{Aeq,\ adj,\ 15\ min}$.

Schedule C, Protecting Acoustic Values, Table 2—Adjustments to be added to noise levels at sensitive receptors

Noise characteristic	Adjustment to noise
Tonal characteristic is just audible	+ 2 dBA
Tonal characteristic is clearly audible	+ 5 dBA
Impulsive characteristic is detectable	+ 2 to + 5 dBA

(C3) Notwithstanding condition (C1), emission of any low frequency noise must not exceed either (C3(a)) and (C3(b)), or (C3(c)) and (C3(d)) in the event of a valid complaint about low frequency noise being made to the administering authority:

a) 60 dB(C) measured outside the sensitive receptor; and

b) the difference between the external A-weighted and C-weighted noise levels is no greater than 20 dB; or

c) 50 dB(Z) measured inside the sensitive receptor; and

d) the difference between the internal A-weighted and Z-weighted (Max $L_{pZ, 15\ min}$) noise levels is no greater than 15 dB.

(C4) A Blast Management Plan must be developed for each blasting activity in accordance with Australian Standard 2187.

(C5) Blasting operations must be designed to not exceed an airblast overpressure level of 120 dB (linear peak) at any time, when measured at or extrapolated to any sensitive place.

(C6) Blasting operations must be designed to not exceed a ground-borne vibration peak particle velocity of 10mm/s at any time, when measured at or extrapolated to any sensitive place.

SCHEDULE D – PROTECTING AIR VALUES

Fuel burning or combustion equipment – authorised point sources

(D1) As of 22 January 2015, unless venting is authorised under the *Petroleum and Gas (Production and Safety) Act 2004* or the *Petroleum Act 1923*, waste gas from all new or refurbished flares must be flared in a manner that complies with all of (D1(a)) and (D1(b)) and (D1(c)), or with (D1(d)):

a) an automatic ignition system is used

b) a flame is visible at all times while the waste gas is being flared

c) there are no visible smoke emissions other than for a total period of no more than 5 minutes in any 2 hours; or

d) it uses an enclosed flare.

(D2) Contaminant releases to air emitted from fuel burning and combustion equipment point sources that are capable of burning at least 500 kg in an hour must be directed vertically upwards without any impedance or hindrance.

(D3) The holder of this environmental authority must maintain a register of fuel burning and combustion equipment that is capable of burning at least 500 kg of fuel in an hour that must include, as a minimum, the following information for each piece of equipment:

a) fuel burning or combustion equipment name and location

b) stack emission height (metres)

c) minimum efflux velocity (m/s)

d) mass emission rates (g/s); and

e) contaminant concentrations (mg/Nm^3 @ x $\%O_2$ dry gas at 0°Celsius and 1 atmosphere).

(D4) The holder of this environmental authority must ensure that the information contained in the register of fuel burning and combustion equipment is always current and complete.

(D5) All entries in the register of fuel burning and combustion equipment must be certified by the chief executive officer for the tenure holder, or their delegate, as being accurate and correct.

(D6) The operation of fuel burning or combustion facilities must not result in ground level concentrations of contaminants exceeding the maximum limit specified in *Schedule D, Protecting Air Values, Table 1—Maximum Ground Level Concentration Criteria*

Schedule D, Protecting Air Values, Table 1—Maximum Ground Level Concentration Criteria

Contaminant	Concentration at 0°Celsius	Units	Averaging time
NOx as Nitrogen Dioxide	250	µg/m^3	1 hour
NOx as Nitrogen Dioxide	33	µg/m^3	1 year
Carbon Monoxide	11	mg/m^3	8 hours

(D7) An Air receiving environment monitoring program (AREMP) must be developed to demonstrate compliance with the limits in *Schedule D, Protecting Air Values, Table 1 – Maximum Ground Level Concentration Criteria.*

(D8) The AREMP must include, but not necessarily be limited to:

(a) the delineation of the relevant air shed(s)

(b) the identification of background reference sites and impact monitoring sites within the relevant air shed(s), including sensitive places

(c) a monitoring program to be carried out annually that:

(a) includes background reference and impact monitoring sites

(b) includes an assessment of meteorological conditions (wind speed and direction)

(c) is sufficient to determine compliance with the limits listed in *Schedule D, Protecting Air Values, Table 1 – Maximum Ground Level Concentration Criteria.*

(d) identifies the effects of the authorised contaminants released to air in the relevant air shed(s)

(e) is representative of when the fuel burning or combustion facilities are operating under maximum operating conditions for the annual period

(d) an assessment of the condition of each fuel burning or combustion facility; and

(e) and a description of other significant point sources in the air shed and surrounding land use including sensitive places.

(D9) An AREMP report must be written annually which includes the information required by condition (D8) and an assessment of the extent to which monitoring data for ground level concentrations complies with the air contaminant limits listed in *Schedule D, Protecting Air Values, Table 1 – Maximum Ground Level Concentration Criteria.*

(D10) Where monitoring data indicates that ground level concentrations listed in *Schedule D, Protecting Air Values, Table 1 – Maximum Ground Level Concentration Criteria* have not been met, the AREMP report required by condition (D9) must also include an assessment of:

(a) the extent to which the values of the air environment in the relevant air shed(s) are being protected

(b) an assessment of whether contaminant releases to the air environment are consistent with the air management hierarchy in the Environmental Protection (Air) Policy 2019, and

(c) any corrective actions that have been implemented or proposed to be implemented to become consistent with the air management hierarchy and achieve compliance with *Schedule D, Protecting Air Values, Table 1 – Maximum Ground Level Concentration Criteria.*

(D11) A statement of compliance prepared by a suitably qualified person must accompany each AREMP report required by condition (D9) and if applicable, condition (D10) stating:

(a) whether the AREMP as most recently implemented complies with the requirements of conditions (A4) condition (A8(d)), (D7) and (D8)

(b) that, to the best of the suitably qualified person's knowledge, the assessment required by condition (D9) and if applicable, condition (D10) is true, correct and complete, and

(c) that, to the best of the suitably qualified person's knowledge, all information provided as part of the statement of compliance, including attachments, is true, correct and complete.

(D12) Where condition (D10) applies, the documents required by conditions (D9), (D10) and (D11) must be given to the administering authority within 5 business days after the AREMP report is written.

SCHEDULE E – PROTECTING LAND VALUES

General

(E1) Contaminants must not be directly or indirectly released to land except for those releases authorised by conditions (B4) to (B14).

Top soil management

(E2) Top soil must be managed in a manner that preserves its biological and chemical properties.

Land management

(E3) Land that has been significantly disturbed by the authorised resource activities must be managed to ensure that mass movement, gully erosion, rill erosion, sheet erosion and tunnel erosion do not occur on that land.

Chemical storage

(E4) Chemicals and fuels stored, must be effectively contained and where relevant, meet Australian Standards, where such a standard is applicable.

Pipeline operation and maintenance

(E5) Pipeline operation and maintenance must be in accordance, to the greatest practicable extent, with the relevant section of the *APIA Code of Environmental Practice: Onshore Pipelines (2009)*.

Pipeline reinstatement and revegetation

(E6) Pipeline trenches must be backfilled and topsoils reinstated within three months after pipe laying.

(E7) Reinstatement and revegetation of the pipeline right of way must commence within 6 months after cessation of authorised resource activities for the purpose of pipeline construction.

(E8) Backfilled, reinstated and revegetated pipeline trenches and right of ways must be:

a) a stable landform
b) re-profiled to a level consistent with surrounding soils
c) re-profiled to original contours and established drainage lines; and
d) vegetated with groundcover which is not a declared pest species, and which is established and growing.

SCHEDULE F – PROTECTING BIODIVERSITY VALUES

Confirming biodiversity values

(F1) Prior to undertaking activities that will result in significant disturbance to land in areas of native vegetation, confirmation of on-the-ground biodiversity values at that location must be undertaken by a suitably qualified person.

(F2) A suitably qualified person must develop and certify a methodology so that condition (F1) can be complied with and which is appropriate to confirm on-the-ground biodiversity values.

(F3) Except for condition (F10), where mapped biodiversity values differ from those confirmed under conditions (F1) and (F2), the authorised resource activities may proceed in accordance with the conditions of the environmental authority based on the confirmed on-the-ground biodiversity value.

Planning for land disturbance

(F4) The location of the authorised resource activities must be selected in accordance with the following site planning principles:

a) maximise the use of areas of pre-existing disturbance

b) in order of preference, avoid, minimise or mitigate any impacts, including cumulative impacts, on areas of native vegetation or other areas of ecological value

c) minimise disturbance to land that may result in land degradation

d) in order of preference, avoid then minimise isolation, fragmentation, edge effects or dissection of tracts of native vegetation; and

e) in order of preference, avoid then minimise clearing of native mature trees.

Planning for land disturbance – linear infrastructure

(F5) Linear infrastructure construction corridors must:

a) maximise co-location

b) be minimised in width to the greatest practicable extent; and

c) for linear infrastructure that is an essential petroleum activity authorised in an Environmentally Sensitive Area or its protection zone, be no greater than 40 metres or as stated in (F7).

Authorised disturbance to Environmentally Sensitive Areas

(F6) Where authorised resource activities are authorised to be carried out in Environmentally Sensitive Areas or their protection zones, the authorised resource activities must be carried out in accordance with *Schedule F,*

Protecting Biodiversity Values, Table 1—Authorised resource activities in Environmentally Sensitive Areas and their protection zones.

Schedule F, Protecting Biodiversity Values, Table 1—Authorised resource activities in Environmentally Sensitive Areas and their protection zones

Environmentally Sensitive Area	Within the Environmentally Sensitive Area	Primary protection zone of the Environmentally Sensitive Area	Secondary protection zone of the Environmentally Sensitive Area
Category A Environmentally Sensitive Areas	No authorised resource activities permitted.	Only low impact petroleum activities permitted.	Only essential petroleum activities permitted.
Category B Environmentally Sensitive Areas that are other than 'endangered' regional ecosystems	Only low impact petroleum activities permitted.	Only low impact petroleum activities permitted.	Only essential petroleum activities permitted.
Category B Environmentally Sensitive Areas that are 'endangered' regional ecosystems	Only low impact petroleum activities permitted.	Only essential petroleum activities permitted.	Only essential petroleum activities permitted.
Category C Environmentally Sensitive Areas that are 'nature refuges' or 'koala habitat'	Only low impact petroleum activities permitted.	Only low impact petroleum activities permitted.	
Category C Environmentally Sensitive Areas that are 'essential habitat', 'essential regrowth habitat', or 'of concern' regional ecosystems	Only low impact petroleum activities permitted.	Only essential petroleum activities permitted.	
Category C Environmentally Sensitive Areas that are 'regional parks' (previously known as 'resources reserves')	Only essential petroleum activities permitted.	Only essential petroleum activities permitted.	
Category C Environmentally Sensitive Areas that are 'state forests' or 'timber reserves'	Only essential petroleum activities permitted.	Authorised resource activities permitted.	
Areas of vegetation that are 'critically limited'	Only low impact petroleum activities permitted.	Only essential petroleum activities permitted.	

(F7) Despite condition (F6) of this environmental authority, the infrastructure (and associated activities necessary for construction, operation and maintenance purposes) listed below are permitted within the secondary protection zone of Category B Environmentally Sensitive Areas and within a Category C Environmentally Sensitive Area at the locations specified in *Schedule F, Protecting Biodiversity Values, Table 2 – Authorised Resource Activity(ies) Disturbance.*

Schedule F, Protecting Biodiversity Values, Table 2—Authorised Resource Activity(ies) Disturbance

Tenure	Description of Infrastructure	Number	Centre Point of Disturbance	Disturbance	Right of Way Width
PL94	Nipan Booster Compressor Station	1	Easting 197302 Northing 7261480 (MGA94 Map Zone 56J)	Cat B ESA 0.36 hectares	N/A
	Nipan Tank Farm	1			
	Nipan Telemetry Tower	1			
	MEWL Trunk Line	1	24° 41’ 25.1” S 150° 00’ 06.7” E	Cat C ESA 0.5 hectares	20 metres
	Meridian Trunkline Phase 2 (MTL2)	1	24.7195396° S 150.0121350° E	Cat B ESA – 0.14 hectares, comprising: • Endangered RE 11.4.3 – 0.11 hectares • Endangered RE 11.3.1 – 0.03 hectares Cat C ESA – Essential Habitat 0.11 hectares	13.5 metres
	Moura Central Processing Plant to Hillview Processing Plant (MCHV) gathering line	1	804118.9° E 7274695° S	Cat B ESA – 0.36 hectares, comprising: • Endangered RE 11.4.8 – 0.27 hectares • Endangered RE 11.4.9 – 0.09 hectares Cat C ESA – Essential Habitat 0.27 hectares	13.5 metres

(F8) A report must be prepared for each annual return period for all authorised resource activities that involved clearing of any Environmentally Sensitive Area or protection zone which includes:

a) records able to demonstrate compliance with conditions (F4), (F5) and (F6)

b) a description of the works

c) a description of the area and its pre-disturbance values (which may include maps or photographs, but must include GPS coordinates for the works); and

d) based on the extent of Environmentally Sensitive Areas and primary protection zones on the relevant resource authority(ies), the proportion of native vegetation cleared per Environmentally Sensitive Area and primary protection zone, including regional ecosystem type, over the annual return period.

Impacts to Matters of State Environmental Significance

(F9) Authorised resource activities are not permitted within areas containing matters of State environmental significance, unless the activity is authorised in condition (F10) of this environmental authority.

(F10) Despite condition (F9) of this environmental authority, low impact petroleum activities are authorised to occur within all types of matters of State environmental significance.

(F11) Significant residual impacts to prescribed environmental matters are not authorised under this environmental authority or the *Environmental Offsets Act 2014.*

SCHEDULE G – PROTECTING WATER VALUES

Authorised activities in watercourses, wetlands and springs

(G1) The extraction of groundwater as part of the petroleum activity(ies) from underground aquifers must not directly or indirectly cause environmental harm to a wetland

(G2) Petroleum activities must not occur in or within 200m of a:

a) Wetland of high ecological significance

b) Great Artesian Basin Spring

c) Subterranean cave groundwater dependent ecosystem

(G3) Only construction or maintenance of linear infrastructure is permitted in or within any wetland of other environmental value or in a watercourse.

(G4) The construction or maintenance of linear infrastructure in a wetland or other environmental value must not result in the:

a) Clearing of riparian vegetation outside of the minimum rea practicable to carry out the works; or

b) Ingress of saline water into freshwater aquifers; or

c) Draining or filling of the wetland beyond the minimum area practicable to carry out the works.

(G5) After the construction or maintenance works for linear infrastructure in a wetland of other environmental value are completed, the linear infrastructure must not:

a) drain or fill the wetland
b) prohibit the flow of surface water in or out of the wetland
c) lower or raise the water table and hydrostatic pressure outside the bounds of natural variability that existed before the activities commenced
d) result in ongoing negative impacts to water quality
e) result in bank instability; or
f) result in fauna ceasing to use adjacent areas for habitat, feeding, roosting or nesting.

(G6) The construction or maintenance of linear infrastructure activities in a watercourse must be conducted in the following preferential order:

a) firstly, in times where there is no water present

b) secondly, in times of no flow

c) thirdly, in times of flow, providing a bankfull situation is not expected and that flow is maintained.

(G7) The construction or maintenance of linear infrastructure authorised under condition (G3) must comply with the water quality limits as specified in *Schedule G, Protecting water values, Table 1 – Release limits for construction or maintenance of linear infrastructure.*

Schedule G, Protecting water values Table 1 – Release limits for construction or maintenance of linear infrastructure.

Water quality parameters	Units	Water quality limits
Turbidity	Nephelometric Turbidity Units (NTU)	For a wetland of other environmental value, if background water turbidity is above 45 NTU, no greater than 25% above background water turbidity measured within a 50m radius of the construction or maintenance activity. For a watercourse, if background water turbidity is above 45 NTU, no greater than 25% above background water turbidity measured within 50m downstream of the construction or maintenance activity.
		For a wetland of other environmental value, if background water turbidity is equal to, or below 45 NTU, a turbidity limit of no greater than 55 NTU applies, measured within a 50m radius of the construction or maintenance activity. For a watercourse, if background water turbidity is equal to, or below 45 NTU, a turbidity limit of no greater than 55 NTU applies, measured within 50m downstream of the construction or maintenance activity.
Hydrocarbons	-	For a wetland of other environmental value, or watercourse, no visible sheen or slick

(G8) Routine, regular and frequent visual monitoring must be undertaken while carrying out linear infrastructure work and any maintenance of completed works in a watercourse, wetland, lake or spring.

(G9) If, due to linear infrastructure works, water turbidity increases in a watercourse, wetland, lake or spring outside contained areas, works must cease and the sediment control measures must be rectified to limit turbidity before the works recommence.

Authorised activities in floodplains

(G10) Authorised resource activity(ies) on floodplains must be carried out in a way that does not:

a) concentrate flood flows in a way that will or may cause or threaten a negative environmental impact; or

b) divert flood flows from natural drainage paths and alter flow distribution; or

c) increase the local duration of floods; or

d) increase the risk of detaining flood flows.

Authorised impacts to groundwater

(G11) The extraction of groundwater as part of the authorised resource activity(ies) from underground aquifers must not directly or indirectly cause environmental harm to a wetland.

Groundwater Impact Monitoring Program

(G12) A Groundwater Monitoring Program must be developed and implemented which is able to detect any changes to groundwater quality as a result of storing contaminants in a containment facility(ies) (e.g. surface dams, monocells).

(G13) The Groundwater Monitoring Program must be developed and implemented by a suitably qualified person in the fields of hydrogeology, groundwater sampling design and groundwater monitoring program design.

(G14) The Groundwater Monitoring Program, must include, but not necessarily be limited to:

a) locations of monitoring sites, monitoring methodology and trigger values for detecting impacts on groundwater quality

b) as a minimum, sampling of the parameters and at the frequency listed in *Schedule G, Protecting Water Values, Table 2 – Groundwater Monitoring Parameters and Monitoring Frequency*

c) procedures to establish background groundwater quality

d) sampling of groundwater in accordance with the requirements for baseline bore, well and stimulation impact monitoring as per conditions (I14) to (I16); and

e) a sufficient number of monitoring sites to provide information on the following:

i. seepage to groundwater and surrounding soils from any regulated dam and its effect on groundwater and soils and

ii. background monitoring sites (i.e. groundwater quality in representative bores that have not been affected by the authorised resource activity(ies) authorised under this environmental authority)

iii. the conduct of a geodetic survey of all monitoring bores to determine the relative water surface elevations of each bore and reported in metres relative to the AHD and

iv. the determination of groundwater flow direction, groundwater flow rate and hydraulic conductivity; and

v. a rationale containing details on the program purpose, program conceptualisation and verification of assumptions.

(G15) All groundwater monitoring bores must be installed according to the standards outlined in the National Water Commission's *Minimum Construction Requirements for Water Bores in Australia 2012*, the Department of Natural Resources and Mines' *Minimum standards for the construction and reconditioning of water bores that intersect the sediments of artesian basins in Queensland 2014* or *Code of Practice for constructing and abandoning coal seam gas wells and associated bored in Queensland 2013* as amended from time to time.

(G16) Groundwater monitoring bores must be constructed by, or under the supervision of a licensed Queensland water bore driller who has the correct endorsements on their licence for the type of activity being performed.

(G17) Groundwater samples must be monitored for the water quality parameters at the minimum frequencies specified in *Schedule G, Protecting Water Values, Table 2 – Groundwater Monitoring Parameters and Monitoring Frequency.*

Schedule G, Protecting Water Values, Table 2 – Groundwater Monitoring Parameters and Monitoring Frequency

Groundwater Parameter	Monitoring frequency
Water level [m]	Quarterly
Groundwater pressure in geological strata [kPa]	Biannually
pH	Biannually
Electrical conductivity [μS/m]	Biannually
Total dissolved solids [mg/L]	Biannually
Temperature [ºC]	Biannually
Dissolved oxygen [mg/L]	Biannually
Alkalinity (bicarbonate, carbonate, hydroxide and total as $CaCO_3$) [mg/L]	Biannually
Sodium adsorption ratio (SAR)	Biannually
Anions (bicarbonate, carbonate, hydroxide, chloride, sulphate) [mg/L]	Biannually
Cations (aluminium, calcium, magnesium, potassium, sodium) [mg/L]	Biannually
Silica [mg/L]	Biannually
Dissolved and total metals (including but not necessarily being limited to: aluminium, arsenic, barium, borate (boron), cadmium, chromium III, copper, iron, fluoride, lead, manganese, mercury, nickel, selenium, silver, strontium, tin and zinc) [μg/L]	Biannually
Total phosphorus as phosphorus [mg/L]	
Ammonia, nitrate and nitrite as nitrogen [mg/L]	Biannually
Total petroleum hydrocarbons [mg/L]	Biannually
BTEX (as benzene, toluene, ethylbenzene, ortho-xylene, para-xylene, meta-xylene and total xylene) [μg/L]	Biannually
Polycyclic aromatic hydrocarbons (including but not necessarily being limited to: naphthalene, phenanthrene, benzo[a]pyrene) [ug/L]	Biannually
Gross alpha + gross beta or radionuclides by gamma spectroscopy [Bq/L]	Biannually

SCHEDULE H – REHABILITATION

Rehabilitation planning

(H1) A Rehabilitation Plan must be developed by a suitably qualified person and must include the:

a) rehabilitation goals; and

b) procedures to be undertaken for rehabilitation that will:

i. achieve the requirements of conditions (H2) to (H6), inclusive; and

ii. provide for appropriate monitoring and maintenance.

Transitional rehabilitation

(H2) Significantly disturbed areas that are no longer required for the on-going authorised resource activities, must be rehabilitated within 12 months (unless an exceptional circumstance in the area to be rehabilitated (e.g. a flood event) prevents this timeframe being met) and be maintained to meet the following acceptance criteria:

a) contaminated land resulting from authorised resource activities is remediated and rehabilitated

b) the areas are:

i. non-polluting

ii. a stable landform

iii. re-profiled to contours consistent with the surrounding landform

c) surface drainage lines are re-established

d) top soil is reinstated; and

e) either:

i. groundcover, that is not a declared pest species, is growing; or

ii. an alternative soil stabilisation methodology that achieves effective stabilisation is implemented and maintained.

Final rehabilitation acceptance criteria

(H3) All significantly disturbed areas caused by authorised resource activities which are not being or intended to be utilised by the landholder or overlapping tenure holder, must be rehabilitated to meet the following final acceptance criteria measured either against the highest ecological value adjacent land use or the pre-disturbed land use:

a) greater than or equal to 70 percent of native ground cover species richness

b) greater than or equal to the total per cent of ground cover

c) less than or equal to the per cent species richness of declared plant pest species; and

d) where the adjacent land use contains, or the pre-clearing land use contained, one or more regional ecosystem(s), then at least one regional ecosystem(s) from the same broad vegetation group, and with the equivalent biodiversity status or a biodiversity status with a higher conservation value as any of the regional ecosystem(s) in either the adjacent land or pre-disturbed land, must be present.

Final rehabilitation acceptance criteria in Environmentally Sensitive Areas

(H4) Where significant disturbance to land has occurred in an Environmentally Sensitive Area, the following final rehabilitation criteria as measured against the pre-disturbance biodiversity values assessment (required by conditions (F1) and (F2) must be met:

a) greater than or equal to 70 percent of native ground cover species richness

b) greater than or equal to the total per cent ground cover

c) less than or equal to the per cent species richness of declared plant pest species

d) greater than or equal to 50 percent of organic litter cover

e) greater than or equal to 50 percent of total density of coarse woody material; and

f) all predominant species in the ecologically dominant layer, that define the pre-disturbance regional ecosystem(s) are present.

Continuing conditions

(H5) Conditions (H2), (H3) and (H4) continue to apply after this environmental authority has ended or ceased to have effect.

Remaining dams

(H6) Where there is a dam (including a low consequence dam) that is being or intended to be utilised by the landholder or overlapping tenure holder, the dam must be decommissioned to no longer accept inflow from the authorised resource activity(ies) and the contained water must be of a quality suitable for the intended on-going uses(s) by the landholder or overlapping tenure holder.

SCHEDULE I – WELL CONSTRUCTION, MAINTENANCE AND STIMULATION ACTIVITIES

Drilling activities

(I1) Oil based or synthetic based drilling muds must not be used in the carrying out of the authorised resource activity(ies).

(I2) Drilling activities must not result in the connection of the target gas producing formation and another aquifer.

(I3) Practices and procedures must be in place to detect, as soon as practicable, any fractures that have or may result in the connection of a target formation and another aquifer as a result of drilling activities.

Stimulation activities

(I4) Polycyclic aromatic hydrocarbons or products that contain polycyclic aromatic hydrocarbons must not be used in stimulation fluids in concentrations above the reporting limit.

(I5) Stimulation activities must not negatively affect water quality, other than that within the stimulation impact zone of the target gas producing formation.

(I6) Stimulation activities must not cause the connection of the target gas producing formation and another aquifer.

(I7) The internal and external mechanical integrity of the well system prior to and during stimulation must be ensured such that there is:

a) no significant leakage in the casing, tubing, or packer; and

b) there is no significant fluid movement into another aquifer through vertical channels adjacent to the well bore hole.

(I8) Practices and procedures must be in place to detect, as soon as practicable, any fractures that cause the connection of a target gas producing formation and another aquifer.

Stimulation Risk Assessment

(I9) Prior to undertaking stimulation activities, a risk assessment must be developed and implemented to ensure that stimulation activities are managed to prevent environmental harm.

(I10) The stimulation risk assessment must be carried out for every well to be stimulated prior to stimulation being carried out at that well and address issues at a relevant geospatial scale such that changes to features and attributes are adequately described and must include, but not necessarily be limited to:

a) a process description of the stimulation activity to be applied, including equipment and a comparison to best international practice

b) provide details of where, when and how often stimulation is to be undertaken on the tenures covered by this environmental authority

c) a geological model of the field to be stimulated including geological names, descriptions and depths of the target gas producing formation(s)

d) naturally occurring geological faults

e) seismic history of the region (e.g. earth tremors, earthquakes)

f) proximity of overlying and underlying aquifers

g) description of the depths that aquifers with environmental values occur, both above and below the target gas producing formation

h) identification and proximity of landholder's active groundwater bores in the area where stimulation activities are to be carried out

i) the environmental values of groundwater in the area

j) an assessment of the appropriate limits of reporting for all water quality indicators relevant to stimulation monitoring in order to accurately assess the risks to environmental values of groundwater

k) description of overlying and underlying formations in respect of porosity, permeability, hydraulic conductivity, faulting and fracture propensity

l) consideration of barriers or known direct connections between the target gas producing formation and the overlying and underlying aquifers

m) a description of the well mechanical integrity testing program

n) process control and assessment techniques to be applied for determining extent of stimulation activities (e.g. microseismic measurements, modelling etc.)

o) practices and procedures to ensure that the stimulation activities are designed to be contained within the target gas producing formation

p) groundwater transmissivity, flow rate, hydraulic conductivity and direction(s) of flow

q) a description of the chemical compounds used in stimulation activities (including estimated total mass, estimated composition, chemical abstract service numbers and properties), their mixtures and the resultant compounds that are formed after stimulation

r) a mass balance estimating the concentrations and absolute masses of chemical compounds that will be reacted, returned to the surface or left in the target gas producing formation subsequent to stimulation

s) an environmental hazard assessment of the chemicals used including their mixtures and the resultant chemicals that are formed after stimulation including:

   i. toxicological and ecotoxicological information of chemical compounds used

   ii. information on the persistence and bioaccumulation potential of the chemical compounds used; and

iii. identification of the chemicals of potential concern in stimulation fluids derived from the risk assessment.

t) an environmental hazard assessment of use, formation of, and detection of polycyclic aromatic hydrocarbons in stimulation activities

u) identification and an environmental hazard assessment of using radioactive tracer beads in stimulation activities

v) an environmental hazard assessment of leaving chemical compounds in stimulation fluids in the target gas producing formation for extended periods subsequent to stimulation

w) human health exposure pathways to operators and the regional population

x) risk characterisation of environmental impacts based on the environmental hazard assessment

y) potential impacts to landholder bores as a result of stimulation activities

z) an assessment of cumulative underground impacts, spatially and temporally of the stimulation activities to be carried out on the tenures covered by this environmental authority; and

aa) potential environmental or health impacts which may result from stimulation activities including but not limited to water quality, air quality (including suppression of dust and other airborne contaminants), noise and vibration.

(I11) A summary of each stimulation risk assessment must be submitted to the administering authority upon request.

Water quality baseline monitoring

(I12) Prior to undertaking any stimulation activity, a baseline bore assessment must be undertaken of the water quality of:

a) all landholder's active groundwater bores (subject to access being permitted by the landholder) that are spatially located within a two (2) kilometre horizontal radius from the location of the stimulation initiation point within the target gas producing formation and

b) all landholders' active groundwater bores (subject to access being permitted by the landholder) in any aquifer that is within 200 metre above or below the target gas producing formation and is spatially located with a two (2) kilometre radius from the location of the stimulation initiation point; and

c) any other bore that could potentially be adversely impacted by the stimulation activities in accordance with the findings of the risk assessment required by conditions (I9) and (I10).

(I13) Prior to undertaking stimulation activities at a well, there must be sufficient water quality data to accurately represent the water quality in the well to be stimulated. The data must include as a minimum the results of analyses for the parameters in condition (I14).

(I14) Baseline bore and well assessments must include relevant analytes and physico-chemical parameters to be monitored in order to establish baseline water quality and must include, but not necessarily be limited to:

a) pH

b) electrical conductivity [µS/m]

c) turbidity [NTU]

d) total dissolved solids [mg/L]

e) temperature [ºC]

f) dissolved oxygen [mg/L]

g) dissolved gases (methane, chlorine, carbon dioxide, hydrogen sulfide) [mg/L]

h) alkalinity (bicarbonate, carbonate, hydroxide and total as CaCO3) [mg/L]

i) sodium adsorption ratio (SAR)

j) anions (bicarbonate, carbonate, hydroxide, chloride, sulphate) [mg/L]

k) cations (aluminium, calcium, magnesium, potassium, sodium) [mg/L]

l) dissolved and total metals and metalloids (including but not necessarily being limited to: aluminium, arsenic, barium, borate (boron), cadmium, total chromium, copper, iron, fluoride, lead, manganese, mercury, nickel, selenium, silver, strontium, tin and zinc) [µg/L]

m) total petroleum hydrocarbons [µg/L]

n) BTEX (as benzene, toluene, ethylbenzene, ortho-xylene, para- and meta-xylene, and total xylene) [µg/L]

o) polycyclic aromatic hydrocarbons (including but not necessarily being limited to: naphthalene, phenanthrene, benzo[a]pyrene) [µg/L]

p) sodium hypochlorite [mg/L]

q) sodium hydroxide [mg/L]

r) formaldehyde [mg/L]

s) ethanol [mg/L] and

t) gross alpha + gross beta or radionuclides by gamma spectroscopy [Bq/L].

Stimulation Impact Monitoring Program

(I15) A Stimulation Impact Monitoring Program must be developed prior to the carrying out of stimulation activities which must be able to detect adverse impacts to water quality from stimulation activities and must consider the

findings of the risk assessment required by conditions (I9) and (I10) that relate to stimulation activities and must include, as a minimum, monitoring of:

a) the stimulation fluids to be used in stimulation activities at sufficient frequency and which sufficiently represents the quantity and quality of the fluids used
b) flow back waters from stimulation activities at sufficient frequency and which sufficiently represents the quality of that flow back water
c) flow back waters from stimulation activities at sufficient frequency and accuracy to demonstrate that 150 percent of the volume used in stimulation activities has been extracted from the stimulated well and
d) all bores in accordance with condition (I12).

(I16) The Stimulation Impact Monitoring Program must provide for monitoring of:

a) analytes and physico-chemical parameters relevant to baseline bore and well assessments to enable data referencing and comparison including, but not necessarily being limited to the analytes and physico-chemical parameters in condition (I14) and
b) any other analyte or physico-chemical parameters that will enable detection of adverse water quality impacts and the inter-connection with a non-target aquifer as a result of stimulation activities including chemical compounds that are actually or potentially formed by chemical reactions with each other or coal seam materials during stimulation activities.

(I17) The Stimulation Impact Monitoring Program must provide for monitoring of the bores in condition (I15(d)) at the following minimum frequency:

a) monthly for the first six (6) months subsequent to stimulation activities being undertaken then
b) annually for the first five (5) years subsequent to stimulation being undertaken or until analytes and physico-chemical parameters listed in conditions (I14(a)) to (I14(t)) inclusive, are not detected in concentrations above baseline bore monitoring data on two (2) consecutive monitoring occasions.

(I18) The results of the Stimulation Impact Monitoring Program must be made available to any potentially affected landholder upon request by that landholder.

SCHEDULE J – STRUCTURES

Assessment of consequence category

(J1) The consequence category of any structure must be assessed by a suitably qualified and experienced person in accordance with the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)* at the following times:

a) prior to the design and construction of the structure, if it is not an existing structure or

b) if it is an existing structure, prior to the adoption of this schedule or

c) prior to any change in its purpose or the nature of its stored contents.

(J2) A consequence assessment report and certification must be prepared for each structure assessed and the report may include a consequence assessment for more than one structure.

(J3) Certification must be provided by the suitably qualified and experienced person who undertook the assessment, in the form set out in the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)*.

Low consequence dams

(J4) Where a dam is assessed as low consequence, it must be:

a) constructed, operated and maintained in accordance with accepted engineering standards currently appropriate for the purpose for which the dam is intended to be used and

b) designed with a floor and sides made of material that will contain the wetting front and any entrained contaminants within the bounds of the containment system during both its operational life and including any period of decommissioning and rehabilitation.

(J5) Where the consequence category of a low consequence dam is for the first time assessed as significant or high, the holder of this environmental authority must ensure that the dam meets the hydraulic performance required of the assessed consequence category within 12 months of that assessment.

(J6) In the event of early signs of loss of structural or hydrological integrity of a low consequence dam, the holder of this environmental authority must:

a) take immediate action to prevent or minimise any actual or potential environmental harm and

b) within 20 business days of that event, report in writing to the administering authority any findings and actions taken.

Monitoring of low consequence dams

(J7) The condition of all low consequence dams must be monitored for early signs of loss of structural or hydraulic integrity, based on the advice of a suitably qualified and experienced person. The methods of monitoring and frequency of monitoring shall be as assessed by the person who conducts the consequence assessment based on the particular circumstances of each dam.

Design and construction of a regulated structure

(J8) Conditions (J9) to (J10) inclusive do not apply to existing structures

(J9) All regulated structures must be designed by, and constructed under the supervision of, a suitably qualified and experienced person in accordance with the requirements of the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)*.

(J10) Construction of a regulated structure is prohibited unless the holder has submitted a consequence category assessment report and certification to the administering authority that has been certified by a suitably qualified and experienced person for the design and design plan, and the associated operating procedures are in compliance with the relevant condition of this environmental authority.

(J11) Certification must be provided by the suitably qualified and experienced person who oversees the preparation of the design plan in the form set out in the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635),* and must be recorded in the Register of Regulated Structures.

(J12) Regulated structures must:

a) be designed and constructed in accordance with and conform to the requirements of the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)*

b) be designed and constructed with due consideration given to ensuring that the design integrity would not be compromised on account of:

i. floodwaters from entering the regulated dam from any watercourse or drainage line and

ii. wall failure due to erosion by floodwaters arising from any watercourse or drainage line.

c) have the floor and sides of the dam designed and constructed to prevent or minimise the passage of the wetting front and any entrained contaminants through either the floor or sides of the dam during the operational life of the dam and for any period of decommissioning and rehabilitation of the dam.

(J13) Certification by the suitably qualified and experienced person who supervises the construction must be submitted to the administering authority on the completion of construction of the regulated structure, and state that:

a) the 'as constructed' drawings and specifications meet the original intent of the design plan for that regulated structure

b) construction of the regulated structure is in accordance with the design plan.

Aggregation dams

(J14) All aggregation dams must:

a) be designed with a floor and sides of material that will contain the wetting front and any entrained contaminants within the bounds of the containment system during its operational life including any period of decommissioning and rehabilitation; and

b) have a system that will detect any passage of the wetting front or entrained contaminants through the floor or sides of the dam.

Brine dams

(J15) All brine dams must:

a) be designed with a floor and sides of material that will contain the wetting front and any entrained contaminants within the bounds of the containment system during its operational life including any period of decommissioning and rehabilitation and

b) have a system that will detect any passage of the wetting front or entrained contaminants through the floor or sides of the dam; and

c) have a system for the collection and proper disposal of any contaminants that move beyond the bounds of the containment system.

Operation of a regulated structure

(J16) Operation of a regulated structure**,** except for an existing structure, is prohibited unless the holder has submitted to the administering authority;

i. one paper copy and one electronic copy of the design plan and certification of the 'design plan' in accordance with condition (J10), and

ii. a set of 'as constructed' drawings and specifications, and

iii. certification of those 'as constructed drawings and specifications' in accordance with condition (J13), and

iv. where the regulated structure is to be managed as part of an integrated containment system for the purpose of sharing the DSA volume across the system, a copy of the certified system design plan

v. the requirements of this environmental authority relating to the construction of the regulated structure have been met

vi. the holder has entered the details required under this environmental authority, into a Register of Regulated Structures and

vii. there is a current operational plan for the regulated structures.

(J17) For existing structures that are regulated structures:

a) where the existing structure that is a regulated structure is to be managed as part of an integrated containment system for the purpose of sharing the DSA volume across the system, the holder must submit to the administering authority within 12 months of the commencement of this condition a copy of the certified system design plan including that structure and

b) there must be a current operational plan for the existing structures.

(J18) Each regulated structure must be maintained and operated, for the duration of its operational life until decommissioned and rehabilitated, in a manner that is consistent with the current operational plan and, if applicable, the current design plan and associated certified 'as constructed' drawings.

Mandatory Reporting Level

(J19) Conditions (J20) to (J23) inclusive only apply to regulated structures which have not been certified as low consequence category for 'failure to contain – overtopping'.

(J20) The Mandatory Reporting Level (the MRL) must be marked on a regulated dam in such a way that during routine inspections of that dam, it is clearly observable.

(J21) The holder must, as soon as practical and within forty-eight (48) hours of becoming aware, notify the administering authority when the level of the contents of a regulated dam reaches the MRL.

(J22) The holder must, immediately on becoming aware that the MRL has been reached, act to prevent the occurrence of any unauthorised discharge from the regulated dam.

(J23) The holder must record any changes to the MRL in the Register of Regulated Structures.

Design storage allowance

(J24) The holder must assess the performance of each regulated dam or linked containment system over the preceding November to May period based on actual observations of the available storage in each regulated dam or linked containment system taken prior to 1 July of each year.

(J25) By 1 November of each year, storage capacity must be available in each regulated dam (or network of linked containment systems with a shared DSA volume), to meet the DSA volume for the dam (or network of linked containment systems).

(J26) The holder must, as soon as possible and within forty-eight (48) hours of becoming aware that the regulated dam (or network of linked containment systems) will not have the available storage to meet the DSA volume on 1 November of any year, notify the administering authority.

(J27) The holder must, immediately on becoming aware that a regulated dam (or network of linked containment systems) will not have the available storage to meet the DSA volume on 1 November of any year, act to prevent the occurrence of any unauthorised discharge from the regulated dam or linked containment systems.

Annual inspection report

(J28) Each regulated structure must be inspected each calendar year by a suitably qualified and experienced person.

(J29) At each annual inspection, the condition and adequacy of all components of the regulated structure must be assessed and a suitably qualified and experienced person must prepare an annual inspection report containing details of the assessment and include recommended actions to ensure the integrity of the regulated structure.

(J30) The suitably qualified and experienced person who prepared the annual inspection report must certify the report in accordance with the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)*.

(J31) The holder must:

a) Within 20 business days of receipt of the annual inspection report, provide to the administering authority:

   i. the recommendations section of the annual inspection report and

   ii. if applicable, any actions being taken in response to those recommendations and

b) If, following receipt of the recommendations and (if applicable) actions, the administering authority requests a full copy of the annual inspection report from the holder, provide this to the administering authority within 10 business days of receipt of the request.

Transfer arrangements

(J32) The holder must provide a copy of any reports, documentation and certifications prepared under this environmental authority, including but not limited to any Register of Regulated Structures, consequence assessment, design plan and other supporting documentation, to a new holder on transfer of this authority.

Register of Regulated Structures

(J33) A Register of Regulated Structures must be established and maintained by the holder for each regulated dam:

(J34) The holder must provisionally enter the required information in the Register of Regulated Structures when a design plan for a regulated dam is submitted to the administering authority.

(J35) The holder must make a final entry of the required information in the Register of Regulated Structures once compliance with conditions (J16) and (J17) has been achieved.

(J36) The holder must ensure that the information contained in the Register of Regulated Structures is current and complete on any given day.

(J37) All entries in the Register of Regulated Structures must be approved by the chief executive officer for the holder of this environmental authority, or their delegate, as being accurate and correct.

(J38) The holder must, at the same time as providing the annual return, supply to the administering authority a copy of the records contained in the Register of Regulated Structures, in the electronic format required by the administering authority.

Transitional arrangements

(J39) All existing aggregation dams must meet the requirements of condition (J14) by 1 October 2011.

(J40) All existing brine dams must meet the requirements of condition (J15) by 1 October 2011.

(J41) All existing coal seam gas evaporation dams must meet the requirements of conditions (J14) or (J15), relevant to its intended use, by 1 October 2011.

Regulated dam water quality monitoring

(J42) The holder of this environmental authority must monitor the quality of water in all regulated dams on the relevant resource authority(ies) in the month of October every year.

(J43) The monitoring of regulated dam water must include sufficient analytes and physico-chemical parameters to characterise water quality in the dam and must include, but not necessarily be limited to:

a) pH

b) electrical conductivity [µS/m]

c) turbidity [NTU]

d) total dissolved solids [mg/L]

e) temperature [ºC]

f) dissolved oxygen [mg/L]

g) alkalinity (bicarbonate, carbonate, hydroxide and total as $CaCO_3$) [mg/L]

h) sodium adsorption ratio (SAR)

i) anions (bicarbonate, carbonate, hydroxide, chloride, sulphate) [mg/L]

j) cations (aluminium, calcium, magnesium, potassium, sodium) [mg/L]

k) silica [mg/L]

l) dissolved and total metals (including but not necessarily being limited to: aluminium, arsenic, barium, borate (boron), cadmium, chromium III, copper, iron, fluoride, lead, manganese, mercury, nickel, selenium, silver, strontium, tin and zinc) [µg/L]

m) total phosphorus [mg/L]

n) ammonia, nitrate, nitrite as nitrogen [mg/L]

o) total petroleum hydrocarbons [µg/L]

p) BTEX (as benzene, toluene, ethylbenzene, ortho-xylene, para-xylene, meta-xylene and total xylene) [µg/L]

q) polycyclic aromatic hydrocarbons (including but not necessarily being limited to naphthalene, phenanthrene, benzo[a]pyrene) [µg/L]

r) chlorophyll a [µg/L] and

s) total cyanobacteria biovolume [cells/mg/L] and

t) gross alpha + gross beta or radionuclides by gamma spectroscopy [Bq/L].

(J44) Water quality samples of regulated dams must be taken from at least three (3) different dam profile depths for each sampling event and be taken as far as practicable from the edge of the regulated dam.

SCHEDULE K – DEFINITIONS

acceptable standards for release to land	means wastewater of the following quality as determined by monitoring results or by characterisation: (a) electrical conductivity (EC) not exceeding 3000µS/cm (b) sodium adsorption ratio (SAR) not exceeding 8 (c) pH between 6.0 and 9.0 (d) heavy metals (measured as total) meets the respective short term trigger value in section 4.2.6, Table 4.2.10—Heavy metals and metalloids in Australian and New Zealand Guidelines for Fresh and Marine Water Quality (e) does not contain biocides.
accepted engineering standards	in relation to dams, means those standards of design, construction, operation and maintenance that are broadly accepted within the profession of engineering as being good practice for the purpose and application being considered. In the case of dams, the most relevant documents would be publications of the Australian National Committee on Large Dams (ANCOLD), guidelines published by Queensland government departments and relevant Australian and New Zealand Standards.
adjacent land use(s)	means the ecosystem function adjacent to an area of significant disturbance, or where there is no ecosystem function, the use of the land. An adjacent land use does not include an adjacent area that shows evidence of edge effect.
administering authority	means: (a) for a matter, the administration and enforcement of which has been devolved to a local government under section 514 of the *Environmental Protection Act 1994*—the local government; or (b) for all other matters—the Chief Executive of the Department of Environment and Heritage Protection; or (c) another State Government Department, Authority, Storage Operator, Board or Trust, whose role is to administer provisions under other enacted legislation.
aggregation dam	means a regulated dam that receives and contains coal seam gas water or coal seam gas concentrate. The primary purpose of the dam must not be to evaporate the water even though this will naturally occur.

alternative arrangement	means a written agreement about the way in which a particular environmental nuisance impact will be dealt with at a sensitive place, and may include an agreed period of time for which the arrangement is in place. An alternative arrangement may include, but is not limited to, a range of nuisance abatement measures to be installed at the sensitive place, or provision of alternative accommodation for the duration of the relevant nuisance impact.
analogue site(s)	means an area of land which contains values and characteristics representative of an area to be rehabilitated prior to disturbance. Such values must encompass land use, topographic, soil, vegetation, vegetation community attributes and other ecological characteristics. Analogue sites can be the pre-disturbed site of interest where significant surveying effort has been undertaken to establish benchmark parameters.
analyte	means a chemical parameter determined by either physical measurement in the field or by laboratory analysis.
annual inspection report	means an assessment prepared by a suitably qualified and experienced person containing details of the assessment against the most recent consequence assessment report and design plan (or system design plan) a) against recommendations contained in previous annual inspections reports b) against recognised dam safety deficiency indicators c) for changes in circumstances potentially leading to a change in consequence category d) for conformance with the conditions of this authority e) for conformance with the 'as constructed' drawings f) for the adequacy of the available storage in each regulated dam, based on an actual observation or observations taken after 31 May each year but prior to 1 November of that year, of accumulated sediment, state of the containment barrier and the level of liquids in the dam (or network of linked containment systems) g) for evidence of conformance with the current operational plan.
annual return period	means the 12 month period from 1 January to 31 December in a calendar year.
appraisal well	means a petroleum well to test the potential of one (1) or more natural underground reservoirs for producing or storing petroleum. For clarity, an appraisal well does not include an exploration well.
approved quality criteria	for the purposes of residual drilling materials, means the residual drilling material meet the following quality standards:

Part A In all cases:

Parameter	Maximum concentration
pH	6–10.5 (range)
Electrical Conductivity	20dS/m (20,000µS/cm)
Chloride*	8000mg/L

*Chloride analysis is only required if an additive containing chloride was used in the drilling process.

The limits in Part A must be measured in the clarified filtrate of oversaturated solids prior to mixing.

Part B If any of the following metals are a component of the drilling fluids, then for that metal:

Parameter	Maximum concentration
Arsenic	20mg/kg
Selenium	5mg/kg
Boron	100mg/kg
Cadmium	3mg/kg
Chromium (total)	400mg/kg
Copper	100mg/kg
Lead	600mg/kg

The limits in Part B and Part C refer to the post soil/by-product mix.

Part C If a hydrocarbon sheen is visible, the following hydrocarbon fractions:

TPH	Maximum concentration
C6-C10	170mg/kg
C10-C16	150mg/kg
C16-C34	1300mg/kg
C34-C40	5600mg/kg
Total Polycyclic Aromatic Hydrocarbons (PAHs)	20mg/kg
Phenols (halogenated)	1mg/kg
Phenols (non-halogenated)	60mg/kg

	<table><tr><td>Monocyclic aromatic hydrocarbons *(Total sum of benzene, toluene, ethyl benzene, xylenes (includes ortho, para and meta xylenes) and styrene)*</td><td>7mg/kg</td></tr><tr><td>Benzene</td><td>1mg/kg</td></tr></table>
areas of pre-existing disturbance	means areas where environmental values have been negatively impacted as a result of anthropogenic activity and these impacts are still evident. Areas of pre-disturbance may include areas where legal clearing, logging, timber harvesting, or grazing activities have previously occurred, where high densities of weed or pest species are present which have inhibited re-colonisation of native regrowth, or where there is existing infrastructure (regardless of whether the infrastructure is associated with the authorised resource activities). The term 'areas of pre-disturbance' does not include areas that have been impacted by wildfire/s, controlled burning, flood or natural vegetation die-back.
associated water	means underground water taken or interfered with, if the taking or interference happens during the course of, or results from, the carrying out of another authorised activity under a resource authority, such as a resource well, and includes waters also known as produced formation water. The term includes all contaminants suspended or dissolved within the water.
assessed or assessment	by a suitably qualified and experienced person in relation to a consequence assessment of a dam, means that a statutory declaration has been made by that person and, when taken together with any attached or appended documents referenced in that declaration, all of the following aspects are addressed and are sufficient to allow an independent audit of the assessment: a) exactly what has been assessed and the precise nature of that determination b) the relevant legislative, regulatory and technical criteria on which the assessment has been based c) the relevant data and facts on which the assessment has been based, the source of that material, and the efforts made to obtain all relevant data and facts and d) the reasoning on which the assessment has been based using the relevant data and facts, and the relevant criteria.
Australian Height Datum or AHD	is the datum used for the determination of elevations in Australia. The determination uses a national network of benchmarks and tide gauges and sets mean sea level at zero elevation.

Australian Standard AS3580	means any of the following publications: • *AS3580.10.1 Methods for sampling and analysis of ambient air—Determination of particulate matter—Deposited matter—Gravimetric method* • *AS3580.9.6 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter—PM10 high volume sampler with size-selective inlet—Gravimetric method* • *AS3580.9.9 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter— PM10 low volume sampler—Gravimetric sampler.*
authorised resource activities	for this environmental authority means the resource activities authorised to be carried out under condition (A1).
background noise level	means the sound pressure level, measured in the absence of the noise under investigation, as the $L_{A90,T}$ being the A-weighted sound pressure level exceeded for 90 percent of the measurement time period T of not less than 15 minutes (or $LA_{90, adj, 15 mins}$), using Fast response.
bed and banks	for a watercourse or wetland means land over which the water of the watercourse or wetland normally flows or that is normally covered by the water, whether permanently or intermittently; but does not include land adjoining or adjacent to the bed or banks that is from time to time covered by floodwater.
being or intended to be utilised by the landholder or overlapping tenure holder	for significantly disturbed land, means there is a written agreement (e.g. land and compensation agreement) between the landholder or the overlapping tenure holder and the holder of the environmental authority identifying that the landholder or the overlapping tenure holder has a preferred use of the land such that rehabilitation standards for revegetation by the holder of the environmental authority are not required. For dams, means there is a written agreement (e.g. land and compensation agreement) between the landholder or the overlapping tenure holder and the holder of the environmental authority identifying that the landholder or the overlapping tenure holder has a preferred use for the dam such that rehabilitation standards for revegetation by the holder of the environmental authority are not required.
biodiversity values	for the purposes of this environmental authority, means Environmentally Sensitive Areas, areas containing matters of State environmental significance and wetlands.
bore	means a water observation bore or a water supply bore that is either sub-artesian or artesian.

brine dam	means a regulated dam that is designed to receive, contain or evaporate brine.
BTEX	means benzene, toluene, ethylbenzene, ortho-xylene, para-xylene, meta-xylene and total xylene.
Category A Environmentally Sensitive Area	means any area listed in Schedule 19, Part 1, section 1 of the *Environmental Protection Regulation 2019.*
Category B Environmentally Sensitive Area	means any area listed in Schedule 19, Part 1, section 2 of the Environmental Protection Regulation 2019.
Category C Environmentally Sensitive Area	means any of the following areas: • nature refuges as defined in the conservation agreement for that refuge under the *Nature Conservation Act 1992* • koala habitat areas as defined under the *Nature Conservation (Koala) Conservation Plan 2006* • state forests or timber reserves as defined under the *Forestry Act 1959* • regional parks (previously known as resource reserves) under the *Nature Conservation Act 1992* • an area validated as 'essential habitat' or 'essential regrowth habitat' from ground-truthing surveys in accordance with the *Vegetation Management Act 1999* for a species of wildlife listed as endangered or vulnerable under the *Nature Conservation Act 1992* • 'of concern regional ecosystems' that are remnant vegetation and identified in the database called 'RE description database' containing regional ecosystem numbers and descriptions.
certify, certified or certification	in relation to any matter other than a design plan, 'as constructed' drawings or an annual report regarding dams means, a Statutory Declaration by a suitably qualified person or suitably qualified third party accompanying the written document stating: • the person's qualifications and experience relevant to the function • that the person has not knowingly included false, misleading or incomplete information in the document • that the person has not knowingly failed to reveal any relevant information or document to the administering authority

	• that the document addresses the relevant matters for the function and is factually correct and • that the opinions expressed in the document are honestly and reasonably held.
clearing	has the meaning in the dictionary of the *Vegetation Management Act 2000* and for vegetation— a) means remove, cut down, ringbark, push over, poison or destroy in any way including by burning, flooding or draining but b) does not include destroying standing vegetation by stock, or lopping a tree.
closed-loop system	means using waste on site in a way that does not release waste or contaminants in the waste to the environment.
coal seam gas evaporation dam	is defined as a impoundment, enclosure or structure that is designed to be used to hold coal seam gas water for evaporation.
coal seam gas water	means underground water brought to the surface of the earth, or moved underground in connection with exploring for, or producing coal seam gas.
consequence category	means a category, either low, significant or high, into which a dam is assessed as a result of the application of tables and other criteria in the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)*.
construction or constructed	in relation to a dam includes building a new dam and modifying or lifting an existing dam but does not include investigations and testing necessary for the purpose of preparing a design plan.
control measure	has the meaning in section 32 of the Environmental Protection Regulation 2019 and means a device, equipment, structure, or management strategy used to prevent or control the release of a contaminant or waste to the environment.
daily peak design capacity	for sewage treatment works, has the meaning in Schedule 2, section 63(4) of the Environmental Protection Regulation 2019 as the higher equivalent person (EP) for the works calculated using each of the formulae found in the definition for EP.
dam	means a land-based structure or a void that contains, diverts or controls flowable substances, and includes any substances that are thereby contained, diverted or controlled by that land-based structure or void and associated works.

design or design plan	is a document setting out how all identified consequence scenarios are addressed in the planned design and operation of a regulated structure.
design storage allowance or DSA	means an available volume, estimated in accordance with the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)*, published by the administering authority, as amended from time to time, that must be provided in a dam to an annual exceedance probability specified in that Manual.
development well	means a petroleum well which produces or stores petroleum. For clarity, a development well does not include an appraisal well.
document	has the meaning in the *Acts Interpretation Act 1954* and means: • any paper or other material on which there is writing and • any paper or other material on which there are marks and • figures, symbols or perforations having a meaning for a person qualified to interpret them and • any disc, tape or other article or any material from which sounds, images, writings or messages are capable of being produced or reproduced (with or without the aid of another article or device).
ecologically dominant layer	has the meaning in the *Methodology for Surveying and Mapping of Regional Ecosystems and Vegetation Communities in Queensland (Version 3.2 August 2012)* and means the layer making the greatest contribution to the overall biomass of the site and the vegetation community (NLWRA 2001). This is also referred to as the ecologically dominant stratum or the predominant canopy in woody ecosystems.
ecosystem function	means the interactions between and within living and nonliving components of an ecosystem and generally correlates with the size, shape and location of the vegetation community.
enclosed flare	means a device where the residual gas is burned in a cylindrical or rectilinear enclosure that includes a burning system and a damper where air for the combustion reaction is admitted.
environmental harm	has the meaning in section 14 of the *Environmental Protection Act 1994* and means any adverse effect, or potential adverse effect (whether temporary or permanent and of whatever magnitude, duration or frequency) on an environmental value, and includes environmental nuisance. Environmental harm may be caused by an activity— a) whether the harm is a direct or indirect result of the activity or

	b) whether the harm results from the activity alone or from the combined effects of the activity and other activities or factors.
environmental nuisance	has the meaning in section 15 of the *Environmental Protection Act 1994* and means unreasonable interference or likely interference with an environmental value caused by— a) aerosols, fumes, light, noise, odour, particles or smoke or b) an unhealthy, offensive or unsightly condition because of contamination or c) another way prescribed by regulation.
Environmentally Sensitive Area or ESA	means a Category A, B or C Environmentally Sensitive Area.
equivalent person or EP	has the meaning under section 3 of the *Planning Guidelines For Water Supply and Sewerage*, 2005, published by the Queensland Government. It is calculated in accordance with Schedule 2, Section 63 of the Environmental Protection Regulation 2019 where: • EP = V/200 where V is the volume, in litres, of the average dry weather flow of sewage that can be treated at the works in a day or • EP = M/2.5 where M is the mass, in grams, of phosphorus in the influent that the works are designed to treat as the inlet load in a day.

essential petroleum activity	means activities that are essential to bringing the resource to the surface and are only the following:
	• low impact petroleum activities
	• geophysical, geotechnical, geological, topographic and cadastral surveys (including seismic, sample /test / geotechnical pits, core holes)
	• single well sites not exceeding 1 hectare disturbance and multi-well sites not exceeding 1.5 hectare disturbance
	• well sites with monitoring equipment (including monitoring bores):
	  ○ for single well sites, not exceeding 1.25 hectares disturbance
	  ○ for multi-well sites, not exceeding 1.75 hectares disturbance.
	• well sites with monitoring equipment (including monitoring bores) and tanks (minimum 1 ML) for above ground fluid storage:
	  ○ for single well sites, not exceeding 1.5 hectares disturbance

	○ for multi-well sites, not exceeding 2.0 hectares disturbance. • associated infrastructure located on a well site necessary for the construction and operations of wells: ○ water pumps and generators ○ flare pits ○ chemical / fuel storages ○ sumps for residual drilling material and drilling fluids ○ tanks, or dams which are not significant or high consequence dams to contain wastewater (e.g. stimulation flow back waters, produced water) ○ pipe laydown areas ○ soil and vegetation stockpile areas ○ a temporary camp associated with a drilling rig that may involve sewage treatment works that are no release works ○ temporary administration sites and warehouses ○ dust suppression activities using water that meets the quality and operational standards approved under the environmental authority. • communication and power lines that are necessary for the undertaking of petroleum activities and that are located within well sites, well pads and pipeline right of ways without increasing the disturbance area of petroleum activities • supporting access tracks • gathering / flow pipelines from a wellhead to the initial compression facility activities necessary to achieve compliance with the conditions of the environmental authority in relation to another essential petroleum activity (e.g. sediment and erosion control measures, rehabilitation).
existing structure	means the Dawson Dam and Nipan Dam.
exploration well	means a petroleum well that is drilled to: • explore for the presence of petroleum or natural underground reservoirs suitable for storing petroleum or • obtain stratigraphic information for the purpose of exploring for petroleum.

	For clarity, an exploration well does not include an appraisal or development well.
fill	means any kind of material in solid form (whether or not naturally occurring) capable of being deposited at a place but does not include material that forms a part of, or is associated with, a structure constructed in a watercourse, wetland or spring including a bridge, road, causeway, pipeline, rock revetment, drain outlet works, erosion prevention structure or fence.
flare pit	has the meaning in the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)*, and means the containment area where any hydrocarbon that is discovered in an over-pressured reservoir during a drilling operation is diverted to, and combusted, The flare pit is only used during the drilling and work over process on a petroleum well.
flare precipitant	means waste fluids which result from the operation of a flare.
floodplain	has the meaning in the *Water Act 2000* and means an area of reasonably flat land adjacent to a watercourse that— • is covered from time to time by floodwater overflowing from the watercourse and • does not, other than in an upper valley reach, confine floodwater to generally follow the path of the watercourse and • has finer sediment deposits than the sediment deposits of any bench, bar or in-stream island of the watercourse.
flowable substance	means matter or a mixture of materials which can flow under any conditions potentially affecting that substance. Constituents of a flowable substance can include water, other liquids fluids or solids, or a mixture that includes water and any other liquids fluids or solids either in solution or suspension.
green waste	means waste that is grass cuttings, trees, bushes, shrubs, material lopped from trees, untreated timber or other waste that is similar in nature but does not include declared pest species.
greywater	means wastewater generated from domestic activities such as laundry, dishwashing, and bathing. Greywater does not include sewage.
growing	means to increase by natural development, as any living organism or part thereof by assimilation of nutriment; increase in size or substance.
high bank	means the defining terrace or bank or, if no bank is present, the point on the active floodplain, which confines the average annual peak flows in a watercourse.

holder	means any person who is the holder of, or is acting under, this environmental authority.
hydraulic integrity	refers to the capacity of a dam to contain or safely pass flowable substances based on its design.
hydraulic performance	means the capacity of a regulated dam to contain or safely pass flowable substances based on a probability (annual exceedance probability) of performance failure specified for the relevant consequence category Manual for *Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)*, prepared by the Department of Environment and Resource Management, as amended from time to time.
impulsive	for noise, means sound characterised by brief excursions of sound pressure (acoustic impulses) that significantly exceed the background sound pressure. The duration of a single impulsive sound is usually less than one second.
incidental activity	for this environmental authority means an activity that is reasonably necessary for carrying out a petroleum activity.
$LA_{90,\ adj,\ 15\ mins}$	means the A-weighted sound pressure level, adjusted for tonal character that is equal to or exceeded for 90 percent of any 15 minutes sample period equal, using Fast response.
$LA_{eq,adj,15\ mins}$	means the A-weighted sound pressure level of a continuous steady sound, adjusted for tonal character, that within any 15 minute period has the same square sound pressure as a sound level that varies with time.
lake	means: • a lagoon, swamp or other natural collection of water, whether permanent or intermittent and • the bed and banks and any other element confining or containing the water.
land	means the solid substance of the earth's surface.
land degradation	has the meaning in the *Vegetation Management Act 1999* and means the following: • soil erosion • rising water tables • the expression of salinity • mass movement by gravity of soil or rock • stream bank instability

	• a process that results in declining water quality.
landholder's active groundwater bore	means bores that are able to continue to provide a reasonable yield of water in terms of quantity for the bores authorised purpose or use. This term does not include monitoring bores owned by the administering authority of the *Water Act 2000*.
linear infrastructure	means powerlines, pipelines, flowlines, roads and access tracks.
liquid	means a substance which is flowing and offers no permanent resistance to changes of shape.
long term noise event	means a noise exposure, when perceived at a sensitive receptor, persists for a period of greater than five (5) days, even when there are respite periods when the noise is inaudible within those five (5) days.
low consequence dam	means any dam that is not classified as high or significant as assessed using the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (635)*, published by the administering authority, as amended from time to time.
low impact petroleum activity	means authorised resource activities which do not result in the clearing of native vegetation, cause disruption to soil profiles through earthworks or excavation or result in significant disturbance to land which cannot be rehabilitated immediately using hand tools after the activity is completed. Examples of such activities include but are not necessarily limited to soil surveys (excluding test pits), topographic surveys, cadastral surveys and ecological surveys, may include installation of monitoring equipment provided that it is within the meaning of low impact and traversing land by car or foot via existing access tracks or routes or in such a way that does not result in permanent damage to vegetation.
Mandatory Reporting Level or MRL	means a warning and reporting level determined in accordance with the criteria in the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)* published by the administering authority.
matters of State environmental significance	has the meaning in Schedule 2 of the Environmental Offsets Regulation 2014.
maximum extent of impacts	means the total maximum, unabated, impact to a matter of State environmental significance that could to occur over the whole of project life.
Max LpZ, 15 min	means the maximum value of the Z-weighted sound pressure level measured over 15 minutes.
medium term noise event	is a noise exposure, when perceived at a sensitive receptor, persists for an aggregate period not greater than five (5) days and does not re-occur for a period of at least four (4) weeks. Re-occurrence is deemed to apply where a noise of comparable level is observed at the same

	receptor location for a period of one hour or more, even if it originates from a difference source or source location.
method or methodology	means the science of method, especially dealing with the logical principles underlying the organisation of the various special sciences, and the conduct of scientific inquiry.
mix-bury-cover method	means the stabilisation of residual drilling solids in the bottom of a sump by mixing with subsoil and which occurs in accordance with the following methodology: • the base of the subsoil and residual solid mixture must be separated from the groundwater table by at least one metre of a continuous layer of impermeable subsoil material (kw=10–8m/s) or subsoil with a clay content of greater than 20 percent and • the residual solids is mixed with subsoil in the sump and cover and • the subsoil and residual solids is mixed at least three parts subsoil to one part waste (v/v) and • a minimum of one metre of clean subsoil must be placed over the subsoil and residual solids mixture and • topsoil is replaced.
month	has the meaning in the *Acts Interpretation Act 1954* and means a calendar month and is a period starting at the beginning of any day of one (1) of the 12 named months and ending— • immediately before the beginning of the corresponding day of the next named month or • if there is no such corresponding day—at the end of the next named month.
NATA accreditation	means accreditation by the National Association of Testing Authorities Australia.
petroleum activity	for this environmental authority means an authorised resource activity listed under the heading "Petroleum activities" in *Schedule A, General, Table 1—Authorised Resource Activities.*
petroleum well	has the meaning in Schedule 2 of the *Petroleum and Gas (Safety and Production) Act 2004*.
pipeline wastewater	means hydrostatic testing water, flush water or water from low point drains.
pre-disturbed land use	means the function or use of the land as documented prior to significant disturbance occurring at that location.
predominant species	has the meaning in the *Methodology for Surveying and Mapping of Regional Ecosystems and Vegetation Communities in Queensland (Version 3.2 August 2012)* and means a species that contributes most to the overall above-ground biomass of a particular stratum.

prescribed contaminant	has the meaning in section 440ZD of the *Environmental Protection Act 1994* and means: a) earth or b) a contaminant prescribed under section 440ZF.
primary protection zone	means an area within 200 metres from the boundary of any Category A, B or C Environmentally Sensitive Area.
produced water	has the meaning in Section 15A of the *Petroleum and Gas (Production and Safety) Act 2004* and means coal seam gas water or associated water for a petroleum tenure.
Prohibited and restricted pest species	means any pest that is: (a) a plant or animal, other than a native species of plant or animal, that is (i) invasive biosecurity matter under the Biosecurity Act 2014 (Qld); or Notes— 1 See the Biosecurity Act 2014, schedule 1, part 3 or 4 or schedule 2, part 2; and 2 See the note to the Biosecurity Act 2014, schedules 1 and 2. (ii) controlled biosecurity matter or regulated biosecurity matter under the Biosecurity Act 2014 (Qld) (iii) tramp ants listed in schedule 1 and schedule 2 of the Biosecurity Act 2014 (Qld) a pest declared under a local law by the local government for the Land to be a pest because the pest is causing, or has the potential to cause, an adverse environmental, economic or social impact in all or part of the local government area.
project area	for this environmental authority, means the area located within the boundaries of Petroleum Lease 94.
protection zone	means the primary protection zone of any Category A, B or C Environmentally Sensitive Area or the secondary protection zone of any Category A or B Environmentally Sensitive Area.
regional ecosystem	has the meaning in the *Methodology for Surveying and Mapping of Regional Ecosystems and Vegetation Communities in Queensland (Version 3.2 August 2012)* and means a vegetation community in a bioregion that is consistently associated with a particular combination of geology, landform and soil. Regional ecosystems of Queensland were originally described in Sattler and Williams (1999). The *Regional Ecosystem Description Database (Queensland Herbarium 2013)* is maintained by Queensland Herbarium and contains the current descriptions of regional ecosystems.

Register of Regulated Structures	includes**:** a) date of entry in the register b) name of the dam, its purpose and intended/actual contents c) the consequence category of the dam as assessed using the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)* d) dates, names, and reference for the design plan plus dates, names, and reference numbers of all document(s) lodged as part of a design plan for the dam e) name and qualifications of the suitably qualified and experienced person who certified the design plan and 'as constructed' drawings f) for the regulated dam: i. the dimensions (metres) and surface area (hectares) of the dam measured at the footprint of the dam ii. coordinates (latitude and longitude in GDA94) within five metres at any point from the outside of the dam including its storage area iii. dam crest volume (megalitres) iv. spillway crest level (metres AHD). v. maximum operating level (metres AHD) vi. storage rating table of stored volume versus level (metres AHD) vii. design storage allowance (megalitres) and associated level of the dam (metres AHD) viii. mandatory reporting level (metres AHD) g) the design plan title and reference relevant to the dam h) the date construction was certified as compliant with the design plan i) the name and details of the suitably qualified and experienced person who certified that the constructed dam was compliant with the design plan j) details of the composition and construction of any liner k) The system for the detection of any leakage through the floor and sides of the dam l) dates when the regulated dam underwent an annual inspection for structural and operational adequacy, and to ascertain the available storage volume for 1 November of any year

	m) dates when recommendations and actions arising from the annual inspection were provided to the administering authority n) dam water quality as obtained from any monitoring required under this authority as at 1 November of each year.
regulated dam	means any dam in the significant or high consequence category as assessed using the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)*, published by the administering authority, as amended from time to time.
regulated structure	includes land-based containment structures, levees, bunds and voids, but not a tank or container designed and constructed to an Australian Standard that deals with strength and structural integrity.
rehabilitation or rehabilitated	means the process of reshaping and revegetating land to restore it to a stable landform and in accordance with the acceptance criteria set out in this environmental authority and, where relevant, includes remediation of contaminated land
reinstate or reinstatement	for pipelines, means the process of bulk earth works and structural replacement of pre-existing conditions of a site (i.e. soil surface typography, watercourses, culverts, fences and gates and other landscape(d) features) and is detailed in the *Australian Pipeline Industry Association (APIA) Code of Environmental Practice: Onshore Pipelines (2013)*.
reporting limit	means the lowest concentration that can be reliably measured within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes, the reporting limit is selected as the lowest non-zero standard in the calibration curve. Results that fall below the reporting limit will be reported as "less than" the value of the reporting limit. The reporting limit is also referred to as the practical quantitation limit or the limit of quantitation. For polycyclic aromatic hydrocarbons, the reporting limit must be based on super-ultra trace methods and, depending on the specific polycyclic aromatic hydrocarbon, will range between 0.005 ug/L–0.02 ug/L.
residual drilling material	means waste drilling materials including muds and cuttings or cement returns from well holes and which have been left behind after the drilling fluids are pumped out.
restoration	means the replacement of structural habitat complexity, ecosystem processes, services and function from a disturbed or degraded site to that of a pre-determined or analogue site. For the purposes of pipelines, restoration applies to final rehabilitation after pipeline decommissioning.
restricted stimulation fluid	has the meaning in section 206 of the *Environmental Protection Act 1994* and means fluids used for the purpose of stimulation, including fracturing, that contain the following chemicals in more than the maximum amount prescribed under a regulation—

	a) petroleum hydrocarbons containing benzene, ethylbenzene, toluene or xylene b) chemicals that produce, or are likely to produce, benzene, ethylbenzene, toluene or xylene as the chemical breaks down in the environment.
revegetation, revegetating or revegetate	means to actively re-establish vegetation through seeding or planting techniques in accordance with site specific management plans.
secondary protection zone	in relation to a Category A or Category B Environmentally Sensitive Area means an area within 100 metres from the boundary of the primary protection zone.
secondary treated class B standards	means treated sewage effluent or greywater which meets the following standards: • total phosphorous as P, maximum 20mg/L • total nitrogen as N, maximum 30mg/L • 5-day biochemical oxygen demand (inhibited) (e.g. release pipe from sewage treatment plant), maximum 20mg/L • suspended solids, maximum 30mg/L • pH, range 6.0 to 8.5 • e-coli, 80th percentile based on at least 5 samples with not less than 30 minutes between samples, 1000cfu per 100mL, maximum 10 000cfu per 100mL.
secondary treated class C standards	means treated sewage effluent or greywater which meets the following standards: • total phosphorous as P, maximum 20mg/L • total nitrogen as N, maximum 30mg/L • 5-day biochemical oxygen demand (inhibited) (e.g. Release pipe from sewage treatment plant), maximum 20mg/L • suspended solids, maximum 30mg/L • pH, range 6.0 to 8.5 • e-Coli, 80th percentile based on at least 5 samples with not less than 30 minutes between samples, 10 000cfu per 100mL, maximum 100 000cfu per 100mL.
sensitive place	means:

	• a dwelling (including residential allotment, mobile home or caravan park, residential marina or other residential premises, motel, hotel or hostel) • a library, childcare centre, kindergarten, school, university or other educational institution • a medical centre, surgery or hospital • a protected area • a public park or garden that is open to the public (whether or not on payment of money) for use other than for sport or organised entertainment • a work place used as an office or for business or commercial purposes, which is not part of the authorised resource activity(ies) and does not include employees accommodation or public roads • for noise, a place defined as a sensitive receptor for the purposes of the *Environmental Protection (Noise) Policy 2019*.
sensitive receptor	is defined in Schedule 2 of the *Environmental Protection (Noise) Policy 2019*, and means an area or place where noise is measured.
short term noise event	is a noise exposure, when perceived at a sensitive receptor, persists for an aggregate period not greater than eight hours and does not re-occur for a period of at least seven (7) days. Re-occurrence is deemed to apply where a noise of comparable level is observed at the same receptor location for a period of one hour or more, even if it originates from a different source or source location.
significantly disturbed or significant disturbance or significant disturbance to land or areas	means Land is *significantly disturbed* if– (a) it is contaminated land; or (b) it has been disturbed and human intervention is needed to rehabilitate it– (i) to a condition required under the relevant environmental authority; or (ii) if the environmental authority does not require the land to be rehabilitated to a particular condition–to the condition it was in immediately before the disturbance. Without limiting subsection (1)(b), land requires human intervention to rehabilitate it if– (a) the disturbance has made the land more susceptible to erosion; or (b) the land use capability or suitability of the land is diminished; or

	(c) the quality of water in a watercourse downstream of the land has been significantly reduced. i.
significant residual impact	has the meaning in section 8 *Environmental Offsets Act 2014* and includes impacts specified as a significant residual impact in *Schedule F, Protecting Biodiversity Values, Table 3—Matters of State Environmental Significance.*
species richness	means the number of different species in a given area.
specified relevant activity	for this environmental authority means an activity that: a) but for being carried out as a resource activity, would otherwise be a prescribed ERA b) stimulation activities c) point source discharge of treated produced water to surface waters d) storing waste that is not regulated waste (including coal seam gas water) in a regulated dam e) storing coal seam gas water that is not regulated waste in a low consequence dam; or f) borrow pits or quarries that extract more than 5000 tonnes of material in the project area.
spring	means the land to which water rises naturally from below the ground and the land over which the water then flows.
stable	means the rehabilitation and restoration of the site is enduring or permanent so that the site is unlikely to collapse, erode or subside.
stimulation	means a technique used to increase the permeability of natural underground reservoir that is undertaken above the formation pressure and involves the addition of chemicals. It includes hydraulic fracturing / hydrofraccing, fracture acidizing and the use of proppant treatments. Explanatory note: This definition is restricted from that in the *Petroleum and Gas (Production and Safety) Act 2004* in order to only capture the types of stimulation activities that pose a risk to environmental values of water quality in aquifers.
stimulation fluid	means the fluid injected underground to increase permeability. For clarity, the term stimulation fluid only applies to fluid injected down well post-perforation.
stimulation impact zone	means a 100m maximum radial distance from the stimulation target location within a gas producing formation.
structure	means a dam or levee.

suitably qualified and experienced person	in relation to regulated structures means a person who is a Registered Professional Engineer of Queensland (RPEQ) under the provisions of the *Professional Engineers Act 2002*, and has demonstrated competency and relevant experience: • for regulated dams, an RPEQ who is a civil engineer with the required qualifications in dam safety and dam design. • for regulated levees, an RPEQ who is a civil engineer with the required qualifications in the design of flood protection embankments. Note: It is permissible that a suitably qualified and experienced person obtain subsidiary certification from an RPEQ who has demonstrated competence and relevant experience in either geomechanics, hydraulic design or engineering hydrology.
suitably qualified person	means a person who has professional qualifications, training or skills or experience relevant to the nominated subject matters and can give authoritative assessment, advice and analysis about performance relevant to the subject matters using relevant protocols, standards, methods or literature.
suitably qualified third party	means a person who: a) has qualifications and experience relevant to performing the function including but not limited to: i. a bachelor's degree in science or engineering and ii. 3 years' experience in undertaking soil contamination assessments and b) is a member of at least one organisation prescribed in Schedule 14 of the Environmental Protection Regulation 2019; and c) not be an employee of, nor have a financial interest or any involvement which would lead to a conflict of interest with the holder(s) of the environmental authority.
sump	means a pit in which waste residual drilling material or drilling fluids are stored only for the duration of drilling activities.
synthetic based drilling mud	means a mud where the base fluid is a synthetic oil, consisting of chemical compounds which are artificially made or synthesised by chemically modifying petroleum components or other raw materials rather than the whole crude oil.
system design plan	means a plan that manages an integrated containment system that shares the required design storage allowance and/or extreme storm storage volume across the integrated containment system.
top soil	means the surface (top) layer of a soil profile, which is more fertile, darker in colour, better structured and supports greater biological activity than underlying layers. The surface layer

	may vary in depth depending on soil forming factors, including parent material, location and slope, but generally is not greater than about 300 millimetres in depth from the natural surface.
total density of course woody material	means the total length of logs on the ground greater than or equal to 10 centimetres diameter per hectare and number of logs on the ground greater than or equal to 10 centimetres diameter per hectare.
transmissivity	means the rate of flow of water through a vertical strip of aquifer which is one unit wide and which extends the full saturated depth of the aquifer.
trenchless methods	means construction methods for the installation of pipelines and cables below the ground with minimal excavation. Trenchless methods can include, but not necessarily be limited to: • moling • pipe ramming method • horizontal directional drilling • utility tunneling, pipe jacking, auger boring • microtunnelling and pipe jacking • on-line replacement.
valid complaint	means all complaints unless considered by the administering authority to be frivolous, vexatious or based on mistaken belief.
underground gas storage	means evaluating, developing and using natural underground reservoirs for petroleum storage or to store prescribed storage gases, including, for example, to store petroleum or prescribed storage gases for others.
void	means any constructed, open excavation in the ground.
waste and resource management hierarchy	has the meaning provided in section 9 of the *Waste Reduction and Recycling Act 2011* and is the following precepts, listed in the preferred order in which waste and resource management options should be considered— a) AVOID unnecessary resource consumption b) REDUCE waste generation and disposal c) RE-USE waste resources without further manufacturing d) RECYCLE waste resources to make the same or different products

	e) RECOVER waste resources, including the recovery of energy f) TREAT waste before disposal, including reducing the hazardous nature of waste g) DISPOSE of waste only if there is no viable alternative.
waste and resource management principles	has the meaning provided in section 4(2)(b) of the *Waste Reduction and Recycling Act 2011* and means the: a) polluter pays principle b) user pays principle c) proximity principle d) product stewardship principle.
waste fluids	has the meaning in section 13 of the *Environmental Protection Act 1994* in conjunction with the common meaning of "fluid" which is "a substance which is capable of flowing and offers no permanent resistance to changes of shape". Accordingly, to be a waste fluid, the waste must be a substance which is capable of flowing and offers no permanent resistance to changes of shape.
watercourse	has the meaning in Schedule 4 of the *Environmental Protection Act 1994* and means 1) a river, creek or stream in which water flows permanently or intermittently— a) in a natural channel, whether artificially improved or not or b) in an artificial channel that has changed the course of the watercourse. 2) Watercourse includes the bed and banks and any other element of a river, creek or stream confining or containing water.
waters	includes all or any part of a creek, river, stream, lake, lagoon, swamp, wetland, spring, unconfined surface water, unconfined water in natural or artificial watercourses, bed and bank of any waters, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off, and underground water.
wellhead	Means the casing head, and includes any casing hanger or spool, or tubing hanger, and any flow control equipment up to and including the wing valves.
well integrity	the ability of a well to contain the substances flowing through it.
wetland	for the purpose of this environmental authority, wetland means: an area shown as a wetland on the map of Queensland Wetland Environmental Values.

	Note: The Environmental Protection (Water and Wetland Biodiversity) Policy 2019 Schedule 2, Map of Queensland Wetland Environmental Values means the document 'Map of Queensland Wetland Environmental Values' made by the Chief Executive and published on the website. *Environmental values in section 8 of the Environmental Protection (Water and Wetland Biodiversity) Policy 2019 apply to wetland areas on the map, which are categorised as wetlands of high or general ecological significance.*

Permit

Environmental Protection Act 1994

Environmental authority EA0002230

This environmental authority is issued by the administering authority under Chapter 5 of the Environmental Protection Act 1994.

Environmental authority number: EA0002230

Environmental authority takes effect on 26 March 2021

Environmental authority holder(s)

Name(s)	Registered address
Westside Mungi Pty Limited	Hsbc Level 17 300 Queen St BRISBANE CITY QLD 4000 Australia
Mitsui E&P Australia Pty Limited	Level 22 2 The Esplanade PERTH WA 6000
Harcourt (Queensland) LLC	Level 10, 345 Queen Street BRISBANE CITY QLD 4000 Australia

Environmentally relevant activity and location details

Environmentally relevant activity/activities	Location(s)
Schedule 3 08: A petroleum or GHG storage activity, other than items 1 to 7, that includes an activity from Schedule 2 with an AES Ancillary 62 - Resource recovery and transfer facility operation 1: Operating a facility for receiving and sorting, dismantling, baling or temporarily storing- (c) category 2 regulated waste	PL1049
Non-Scheduled Petroleum Activity Petroleum Lease - PL	PL1048

Additional information for applicants

Environmentally relevant activities

The description of any environmentally relevant activity (ERA) for which an environmental authority (EA) is issued is a restatement of the ERA as defined by legislation at the time the EA is issued. Where there is any inconsistency between that description of an ERA and the conditions stated by an EA as to the scale, intensity or manner of carrying out an ERA, the conditions prevail to the extent of the inconsistency.

An EA authorises the carrying out of an ERA and does not authorise any environmental harm unless a condition stated by the EA specifically authorises environmental harm.

A person carrying out an ERA must also be a registered suitable operator under the *Environmental Protection Act 1994* (EP Act).

Contaminated land

It is a requirement of the EP Act that an owner or occupier of contaminated land give written notice to the administering authority if they become aware of the following:

- the happening of an event involving a hazardous contaminant on the contaminated land (notice must be given within 24 hours); or
- a change in the condition of the contaminated land (notice must be given within 24 hours); or
- a notifiable activity (as defined in Schedule 3) having been carried out, or is being carried out, on the contaminated land (notice must be given within 20 business days);

that is causing, or is reasonably likely to cause, serious or material environmental harm.

For further information, including the form for giving written notice, refer to the Queensland Government website www.qld.gov.au, using the search term ‘duty to notify’.

Take effect

Please note that, in accordance with section 200 of the EP Act, an EA has effect:

a) if the authority is for a prescribed ERA and it states that it takes effect on the day nominated by the holder of the authority in a written notice given to the administering authority-on the nominated day; or

b) if the authority states a day or an event for it to take effect-on the stated day or when the stated event happens; or

c) otherwise-on the day the authority is issued.

However, if the EA is authorising an activity that requires an additional authorisation (a relevant tenure for a resource activity, a development permit under the *Sustainable Planning Act 2009* or an SDA Approval under the

State Development and Public Works Organisation Act 1971), this EA will not take effect until the additional authorisation has taken effect.

If this EA takes effect when the additional authorisation takes effect, you must provide the administering authority written notice within 5 business days of receiving notification of the related additional authorisation taking effect.

If you have incorrectly claimed that an additional authorisation is not required, carrying out the ERA without the additional authorisation is not legal and could result in your prosecution for providing false or misleading information or operating without a valid environmental authority.

Tristan Roberts
Department of Environment and Science
Delegate of the administering authority
Environmental Protection Act 1994

Date issued: 30 March 2021

Enquiries:
Energy and Extractive Resources
Department of Environment and Science
GPO Box 2454
Brisbane QLD 4001
Phone: (07) 3330 5715
Email: energyandextractive@des.qld.gov.au

Obligations under the *Environmental Protection Act 1994*

In addition to the requirements found in the conditions of this environmental authority, the holder must also meet their obligations under the EP Act, and the regulations made under the EP Act. For example, the holder must comply with the following provisions of the Act:

- general environmental duty (section 319)
- duty to notify environmental harm (section 320-320G)
- offence of causing serious or material environmental harm (sections 437-439)
- offence of causing environmental nuisance (section 440)
- offence of depositing prescribed water contaminants in waters and related matters (section 440ZG)
- offence to place contaminant where environmental harm or nuisance may be caused (section 443)

Conditions of environmental authority

This environmental authority consists of the following parts and schedules:

Part 1- conditions applicable to PL1048

Environmentally relevant activity	Location
Non-Scheduled Petroleum Activity Petroleum Lease - PL	PL1048

SCHEDULE A – GENERAL

Authorised Activities[1]

A 1

This environmental authority authorises the carrying out of the following resource activities:

a) The petroleum activities[2] and specified relevant activities listed in *General, Table 1 - Authorised Petroleum Activities* to the extent they are carried out in accordance with the activity's corresponding scale and intensity (or both, where applicable); and

b) Incidental activities[3] that are not otherwise specified relevant activities.

General, Table 1 – Authorised Petroleum Activities

Petroleum activities and infrastructure	Scale	
	Total Number of Authorised Petroleum Activities	Intensity (ha)
Well-Pads	26 wells over 13 multi-well pads	2 ha for each multi-well pad
Gas and Water Gathering Pipelines	23 Km	20 m Right-of-Way width
Stimulation of Gas Wells	As Required for Vertical Wells	

[1] Advice statements for the environmental authority:

a) It is an offence under section 426 of the Act for a person to carry out an environmentally relevant activity unless the person holds, or is acting under, an environmental authority for the activity.
b) The environmental authority does not authorise a relevant act to occur in carrying out an authorised relevant activity unless a condition of this environmental authority expressly authorises the relevant act to occur.
c) The environmental authority does not authorise environmental harm unless a condition contained within the authority explicitly authorises that harm. Where there is no condition, the absence of a condition shall not be construed as authorising harm.

[2] The petroleum activities are authorised petroleum activities for the purposes of the Petroleum and Gas (Production and Safety) Act 2004 and the Petroleum Act 1923.

[3] Words underlined are currently defined in **Schedule K – Definitions** and the *Environmental Protection Act 1994* and/or its subordinate legislation.

A 2	This environmental authority does not authorise environmental harm unless a condition contained in this environmental authority explicitly authorises that harm. Where there is no condition, the lack of a condition shall not be construed as authorising harm.
Monitoring Standards	
A 3 (PESCD[4] 1)	All monitoring must be undertaken by a suitably qualified person.
A 4	If requested by the administering authority in relation to investigating a complaint, monitoring must be commenced within 10 business days.
A 5	All laboratory analyses and tests must be undertaken by a laboratory that has NATA accreditation for such analyses and tests.
A 6	Notwithstanding condition (A 5), where there are no NATA accredited laboratories for a specific analyte or substance, then duplicate samples must be sent to at least two separate laboratories for independent testing or evaluation.
A 7	Monitoring and sampling must be carried out in accordance with the requirements of the following documents (as relevant to the sampling being undertaken), as amended from time to time: (a) for waters and aquatic environments, the Queensland Government's Monitoring and Sampling Manual 2018 – *Environmental Protection (Water) Policy 2009* (b) for groundwater, *Groundwater Sampling and Analysis – A Field Guide* (2009:27 GeoCat #68901) (c) for noise, the *Environmental Protection Regulation 2008* (d) for air, the *Queensland Air Quality Sampling Manual* and/or Australian Standard 4323.1:1995 (R2014) *Stationary source emissions method 1: Selection of sampling positions*, as appropriate for the relevant measurement (e) for soil, the *Guidelines for Surveying Soil and Land Resources, 2nd edition* (McKenzie *et al.* 2008), and/or the *Australian Soil and Land Survey Handbook, 3rd edition* (National Committee on Soil and Terrain, 2009) (f) for dust, Australian Standard AS3580.
Notification	

[4] Conditions that include 'SC' are an existing approved and published standard condition.

A 8	In addition to the requirements under Chapter 7, Part 1, Division 2 of the *Environmental Protection Act 1994*, the administering authority must be notified through the Pollution Hotline and in writing, as soon as possible, but within 48 hours of becoming aware of any of the following events: (a) any unauthorised significant disturbance to land (b) potential or actual loss of well integrity (c) when the seepage trigger action response procedure required under condition (G 11(g)) is or should be implemented (d) unauthorised releases of any volume of prescribed contaminants to waters (e) unauthorised releases of volumes of contaminants, in any mixture, to land greater than: i. 200 L of hydrocarbons; or ii. 200 L of stimulation additives; or iii. 500 L of stimulation fluids; or iv. 5 000 L of untreated coal seam gas water; or (f) the use of restricted stimulation fluids (g) groundwater monitoring results from a landholder's active groundwater bore monitored under the stimulation impact monitoring program which is a 10% or greater increase from a previous baseline value for that bore and which renders the water unfit for its intended use (h) monitoring results where two out of any five consecutive samples do not comply with the relevant limits in the environmental authority.
Contingency Procedures for Emergency Environmental Incidents	

A 9	Petroleum activities involving significant disturbance to land cannot commence until the development of written contingency procedures for emergency environmental incidents which include, but are not necessarily limited to: (a) a clear definition of what constitutes an environmental emergency incident or near miss for the petroleum activity. (b) consideration of the risks caused by the petroleum activity including the impact of flooding and other natural events on the petroleum activity. (c) response procedures to be implemented to prevent or minimise the risks of environmental harm occurring. (d) the practices and procedures to be employed to restore the environment or mitigate any environmental harm caused. (e) procedures to investigate causes and impacts including impact monitoring programs for releases to waters and/or land. (f) training of staff to enable them to effectively respond. (g) procedures to notify the administering authority, local government and any potentially impacted landholder.
Maintenance of Plant and Equipment	
A 10 (PESCC 4)	All plant and equipment must be maintained and operated in their proper and effective condition.
A 11	The following infrastructure must be signed with a unique reference name or number in such a way that it is clearly observable: (a) development wells (b) any chemical storage facility
A 12	Measures to prevent fauna being harmed from entrapment must be implemented during the construction and operation of well infrastructure and pipeline trenches.
Erosion and Sediment Control	

A 13	For activities involving significant disturbance to land, control measures that are commensurate to the site-specific risk of erosion, and risk of sediment release to waters must be implemented to: (a) allow stormwater to pass through the site in a controlled manner and at non-erosive flow velocities (b) minimise soil erosion resulting from wind, rain, and flowing water (c) minimise the duration that disturbed soils are exposed to the erosive forces of wind, rain, and flowing water (d) minimise work-related soil erosion and sediment runoff; and (e) minimise negative impacts to land or properties adjacent to the activities (including roads).
Complaints	
A 14	Petroleum activities must not cause environmental nuisance at a sensitive place, other than where an alternative arrangement is in place.
Documentation	
A 15	A certification must be prepared by a suitably qualified person within 30 business days of completing every plan, procedure, program and report required to be developed under this environmental authority, which demonstrates that: (a) relevant material, including current published guidelines (where available) have been considered in the written document (b) the content of the written document is accurate and true; and (c) the document meets the requirements of the relevant conditions of the environmental authority.
A 16	All plans, procedures, programs, reports and methodologies required under this environmental authority must be written and implemented.
A 17	All documents required to be developed under this environmental authority must be kept for five years.
A 18	All documents required to be prepared, held or kept under this environmental authority must be provided to the administering authority upon written request within the requested timeframe.

A 19	A record of all complaints must be kept including the date, complainant's details, source, reason for the complaint, description of investigations and actions undertaken in resolving the complaint.

SCHEDULE B – WASTE	
General Waste Management	
B 1 (PESCC 24)	Measures must be implemented so that waste is managed in accordance with the waste and resource management hierarchy and the waste and resource management principles.
B 2	Waste, including waste fluids, but excluding waste used in closed-loop systems, must be transported off-site for lawful re-use, remediation, recycling or disposal, unless the waste is specifically authorised by the conditions of this environmental authority to be disposed of or used on site.
B 3	Waste fluids, other than flare precipitant stored in flare pits, or residual drilling material or drilling fluids stored in sumps, must be contained in either: (a) an above ground container; or (b) a structure which contains the wetting front.
B 4	Green waste may be used on-site for either rehabilitation or sediment and erosion control, or both.
B 5	Vegetation waste may be burned if it relates to a state forest, timber reserve or forest entitlement area administered by the *Forestry Act 1959* and a permit has been obtained under the *Fire and Rescue Service Act 1990*.
Pipeline Wastewater	
B 6	Pipeline waste water, may be released to land provided that it: (a) can be demonstrated it meets the acceptable standards for release to land; and (b) is released in a way that does not result in visible scouring or erosion or pooling or run-off or vegetation die-off.
Authorised Uses of Produced Water for Petroleum Activities	
B 7	Produced water may be re-used in: (a) drilling and well hole activities; or (b) stimulation activities.
B 8	Produced water may be used for dust suppression provided the following criteria are met:

	(a) the amount applied does not exceed the amount required to effectively suppress dust; and (b) the application: i. does not cause on-site ponding or runoff ii. is directly applied to the area being dust suppressed iii. does not harm vegetation surrounding the area being dust suppressed; and iv. does not cause visible salting.
B 9	Produced water may be used for construction purposes provided the use: (a) does not result in negative impacts on the composition and structure of soil or subsoils (b) is not directly or indirectly released to waters (c) does not result in runoff from the construction site; and does not harm vegetation surrounding the construction site.
B 10	If there is any indication that any of the circumstances in condition (B 8)(b)(i) to (B 8(b)(iv)) or (B 9)(a) to (B 9(d)) is occurring the use must cease immediately and the affected area must be remediated without delay.
Residual Drilling Material	
B 11	If sumps are used to store residual drilling material or drilling fluids, they must only be used for the duration of drilling activities.
B 12	Residual drilling material can only be disposed of on-site: (a) by mix-bury-cover method if the residual drilling material meets the approved quality criteria; or if it is certified by a suitably qualified third party as being of acceptable quality for disposal to land by the proposed method and that environmental harm will not result from the proposed disposal.
B 13	Records must be kept to demonstrate compliance with condition (B 11) and (B 12).

SCHEDULE C – NOISE

C 1

Notwithstanding condition (A 14), emission of noise from the petroleum activity(ies) at levels less than those specified in **Protecting acoustic values, Table 1—Noise nuisance limits** are not considered to be environmental nuisance.

Protecting acoustic values, Table 1—Noise nuisance limits

Time period	Metric	Short term noise event	Medium term noise event	Long term noise event
7:00am—6:00pm	$L_{Aeq,adj,15\ min}$	45 dBA	43 dBA	40 dBA
6:00pm—10:00pm	$L_{Aeq,adj,15\ min}$	40 dBA	38 dBA	35 dBA
10:00pm—6:00am	$L_{Aeq,adj,15\ min}$	28 dBA	28 dBA	28 dBA
	Max $L_{pA,\ 15\ mins}$	55 dBA	55 dBA	55 dBA
6:00am—7:00am	$L_{Aeq,adj,15\ min}$	40 dBA	38 dBA	35 dBA

1. The noise limits in Table 1 have been set based on the following deemed background noise levels (L_{ABG})*:*

7:00am—6:00 pm: 35 dBA
6:00pm—10:00 pm: 30 dBA
10:00pm—6:00 am: 25 dBA
6:00am—7:00 am: 30 dBA

C 2

If the noise subject to a valid complaint is tonal or impulsive, the adjustments detailed in **Protecting acoustic values, Table 2—Adjustments to be added to noise levels at sensitive receptors** are to be added to the measured noise level(s) to derive $L_{Aeq,\ adj,\ 15\ min}$.

Protecting acoustic values, Table 2—Adjustments to be added to noise levels at sensitive receptors

Noise characteristic	Adjustment to noise
Tonal characteristic is just audible	+ 2 dBA
Tonal characteristic is clearly audible	+ 5 dBA
Impulsive characteristic is detectable	+ 2 to + 5 dBA

C 3

Notwithstanding condition (C 1), emission of any low frequency noise must not exceed either (C 3(a)) and (C 3(b)), or (C 3(c)) and (C 3(d)) in the event of a valid complaint about low frequency noise being made to the administering authority:

(a) 60 dB(C) measured outside the sensitive receptor; and

(b) the difference between the external A-weighted and C-weighted noise levels is no greater than 20 dB; or

(c) 50 dB(Z) measured inside the sensitive receptor; and

	(d)	the difference between the internal A-weighted and Z-weighted (Max $L_{pZ,\ 15\ min}$) noise levels is no greater than 15 dB.

SCHEDULE D – AIR	
Venting and Flaring	
D 1	Unless venting is authorised under the *Petroleum and Gas (Production and Safety) Act 2004* or the *Petroleum Act 1923*, waste gas must be flared in a manner that complies with all of (D 1(a)) and (D 1(b)) and (D 1(c)), or with (D 1(d)): (a) an automatic ignition system is used, and (b) a flame is visible at all times while the waste gas is being flared, and (c) there are no visible smoke emissions other than for a total period of no more than 5 minutes in any 2 hours, or (d) it uses an enclosed flare.

SCHEDULE E – LAND	
General	
E 1	Contaminants must not be directly or indirectly released to land.
Top Soil Management	
E 2	Top soil must be managed in a manner that preserves its biological and chemical properties.
Land Management	
E 3	Land that has been significantly disturbed by the petroleum activities must be managed to ensure that mass movement, gully erosion, rill erosion, sheet erosion and tunnel erosion do not occur on that land.
Chemical Storage	
E 4	Chemicals and fuels stored, must be effectively contained and where relevant, meet Australian Standards, where such a standard is applicable.
Pipeline Operation and Maintenance	
E 5	Pipeline operation and maintenance must be in accordance, to the greatest practicable extent, with the relevant section of the APIA Code of Environmental Practice: Onshore Pipelines - Revision 4 (2017).
Pipeline Reinstatement and Revegetation	
E 6 (PPSCE 17)	Pipeline trenches must be backfilled and topsoils reinstated within three months after pipe laying.
E 7	Reinstatement and revegetation of the pipeline right of way must commence within 6 months after cessation of petroleum activities for the purpose of pipeline construction.
E 8	Backfilled, reinstated and revegetated pipeline trenches and right of ways must be: (a) a stable landform (b) re-profiled to a level consistent with surrounding soils

	(c) re-profiled to original contours and established drainage lines; and (d) vegetated with groundcover which is not a prohibited or restricted pest species, and which is established and growing.

SCHEDULE F – BIODIVERSITY	
Confirming Biodiversity Values	
F 1	Prior to undertaking activities that result in significant disturbance to land in areas of native vegetation, confirmation of on-the-ground biodiversity values of the native vegetation communities at that location must be undertaken by a suitably qualified person.
F 2	A suitably qualified person must develop and certify a methodology so that condition (F 1) can be complied with and which is appropriate to confirm on-the-ground biodiversity values.
F 3	For conditions (F 4) to (F 6), where mapped biodiversity values differ from those confirmed under conditions (F 1) and (F 2), petroleum activities may proceed in accordance with the conditions of the environmental authority based on the confirmed on-the-ground biodiversity value.
Planning for Land Disturbance	
F 4	The location of the petroleum activity(ies) must be selected in accordance with the following site planning principles: (a) maximise the use of areas of pre-existing disturbance (b) in order of preference, avoid, minimise or mitigate any impacts, including cumulative impacts, on areas of native vegetation or other areas of ecological value (c) minimise disturbance to land that may result in land degradation (d) in order of preference, avoid then minimise isolation, fragmentation, edge effects or dissection of tracts of native vegetation; and (e) in order of preference, avoid then minimise clearing of native mature trees.
Planning for Land Disturbance—Linear Infrastructure	
F 5	Linear infrastructure construction corridors must: (a) maximise co-location (b) be minimised in width to the greatest practicable extent; and (c) for linear infrastructure that is an essential petroleum activity authorised in an environmentally sensitive area or its protection zone, be no greater than 40m in total width.

Authorised Disturbance to Environmentally Sensitive Areas

F 6

Where petroleum activities are to be carried out in environmentally sensitive areas or their protection zones, the petroleum activities must be carried out in accordance with **Protection of Biodiversity Values, Table 1—Authorised petroleum activities in environmentally sensitive areas and their protection zones**.

Protecting biodiversity values, Table 1—Authorised petroleum activities in environmentally sensitive areas and their protection zones

Environmentally sensitive area	**Within the environmentally sensitive area**	**Primary protection zone of the environmentally sensitive area**	**Secondary protection zone of the environmentally sensitive area**
Category A environmentally sensitive areas	No petroleum activities permitted.	Only low impact petroleum activities permitted.	Only essential petroleum activities permitted.
Category B environmentally sensitive areas that are other than 'endangered' regional ecosystems	Only low impact petroleum activities permitted.	Only low impact petroleum activities permitted.	Only essential petroleum activities permitted.
Category B environmentally sensitive areas that are 'endangered' regional ecosystems	Only low impact petroleum activities permitted.	Only essential petroleum activities permitted.	Only essential petroleum activities permitted.
Category C environmentally sensitive areas that are 'nature refuges' or 'koala habitat'	Only low impact petroleum activities permitted.	Only low impact petroleum activities permitted.	
Category C environmentally sensitive areas that are 'essential habitat', 'essential regrowth habitat', or 'of concern' regional ecosystems	Only low impact petroleum activities permitted	Only essential petroleum activities permitted.	
Category C environmentally sensitive areas that are 'regional parks' (previously known as 'resources reserves')	Only essential petroleum activities permitted.	Only essential petroleum activities permitted.	
Category C environmentally sensitive areas that are 'state forests' or 'timber reserves'	Only essential petroleum activities permitted.	Petroleum activities permitted.	

	<table><tr><td>Areas of vegetation that are ‘critically limited’</td><td>Only low impact petroleum activities permitted.</td><td>Only essential petroleum activities permitted.</td><td></td></tr></table>
Impacts to Prescribed Environmental Matters	
F 7	Significant residual impacts to prescribed environmental matters are not authorised under this environmental authority or the *Environmental Offsets Act 2014*.
F 8	Records demonstrating that each impact to a prescribed environmental matter did not, or is not likely to, result in a significant residual impact to that matter must be: (a) completed by an appropriately qualified person; and (b) kept for the life of the environmental authority.

SCHEDULE G – WATER	
Authorised Impacts to Wetlands	
G 1	The extraction of groundwater as part of the petroleum activity(ies) from underground aquifers must not directly or indirectly cause environmental harm to a wetland.
Authorised Activities in Waters	
G 2	Petroleum activities must not occur in or within 200m of a: (a) wetland of high ecological significance (b) Great Artesian Basin Spring (c) subterranean cave GDE.
G 3	Only construction or maintenance of linear infrastructure is permitted in or within any wetland of other environmental value or in a watercourse.
G 4	The construction or maintenance of linear infrastructure in a wetland of other environmental value must not result in the: (a) clearing of riparian vegetation outside of the minimum area practicable to carry out the works; or (b) ingress of saline water into freshwater aquifers; or (c) draining or filling of the wetland beyond the minimum area practicable to carry out the works.
G 5	After the construction or maintenance works for linear infrastructure in a wetland of other environmental value are completed, the linear infrastructure must not: (a) drain or fill the wetland (b) prohibit the flow of surface water in or out of the wetland (c) lower or raise the water table and hydrostatic pressure outside the bounds of natural variability that existed before the activities commenced (d) result in ongoing negative impacts to water quality (e) result in bank instability; or (f) result in fauna ceasing to use adjacent areas for habitat, feeding, roosting or nesting.

<table>
<tr><td>G 6</td><td>The construction or maintenance of linear infrastructure activities in a watercourse must be conducted in the following preferential order:
(a) firstly, in times where there is no water present
(b) secondly, in times of no flow
(c) thirdly, in times of flow, providing a bankfull situation is not expected and that flow is maintained.</td></tr>
<tr><td>G 7</td><td>The construction or maintenance of linear infrastructure authorised under condition (G 3) must comply with the water quality limits as specified in Protecting water values, Table 1—Release limits for construction or maintenance of linear infrastructure.
Protecting water values, Table 1—Release limits for construction or maintenance of linear infrastructure
<table>
<tr><th>Water quality parameters</th><th>Units</th><th>Water quality limits</th></tr>
<tr><td rowspan="2">Turbidity</td><td rowspan="2">Nephelometric Turbidity Units (NTU)</td><td>For a wetland of other environmental value, if background water turbidity is above 45 NTU, no greater than 25% above background water turbidity measured within a 50m radius of the construction or maintenance activity.
For a watercourse, if background water turbidity is above 45 NTU, no greater than 25% above background water turbidity measured within 50m downstream of the construction or maintenance activity.</td></tr>
<tr><td>For a wetland of other environmental value, if background water turbidity is equal to, or below 45 NTU, a turbidity limit of no greater than 55 NTU applies, measured within a 50m radius of the construction or maintenance activity.
For a watercourse, if background water turbidity is equal to, or below 45 NTU, a turbidity limit of no greater than 55 NTU applies, measured within 50m downstream of the construction or maintenance activity.</td></tr>
<tr><td>Hydrocarbons</td><td>-</td><td>For a wetland of other environmental value, or watercourse, no visible sheen or slick</td></tr>
</table></td></tr>
<tr><td>G 8</td><td>Monitoring must be undertaken at a frequency that is appropriate to demonstrate compliance with condition (G 7).</td></tr>
<tr><td colspan="2">Register of Activities in Wetlands and Watercourses</td></tr>
<tr><td>G 9</td><td>A register must be kept of all linear infrastructure construction and maintenance activities in a wetland of other environmental value and watercourses, which must include:
(a) location of the activity (e.g. GPS coordinates (GDA94) and watercourse name)</td></tr>
</table>

	(b) estimated flow rate of surface water at the time of the activity (c) duration of works, and (d) results of impact monitoring carried out under condition (G 8).
Seepage Monitoring Program	
G 10	A seepage monitoring program must be developed by a suitably qualified person which is commensurate with the site-specific risks of contaminant seepage from containment facilities, and which requires and plans for detection of any seepage of contaminants to groundwater as a result of storing contaminants within three months of the environmental authority taking effect.
G 11	The seepage monitoring program required by condition (G 10) must include but not necessarily be limited to: (a) identification of the containment facilities for which seepage will be monitored (b) identification of trigger parameters that are associated with the potential or actual contaminants held in the containment facilities (c) identification of trigger concentration levels that are suitable for early detection of contaminant releases at the containment facilities (d) installation of background seepage monitoring bores where groundwater quality will not have been affected by the petroleum activities authorised under this environmental authority to use as reference sites for determining impacts (e) installation of seepage monitoring bores that: i. are within formations potentially affected by the containment facilities authorised under this environmental authority (i.e. within the potential area of impact) ii. provide for the early detection of negative impacts prior to reaching groundwater dependent ecosystems, landholder's active groundwater bores, or water supply bores iii. provide for the early detection of negative impacts prior to reaching migration pathways to other formations (i.e. faults, areas of unconformities known to connect two or more formations) (f) monitoring of groundwater at each background and seepage monitoring bore at least quarterly for the trigger parameters identified in condition (G 11(b)) (g) seepage trigger action response procedures for when trigger parameters and trigger levels identified in conditions (G 11(b)) and (G 11(c)) trigger the early

	detection of seepage, or upon becoming aware of any monitoring results that indicate potential groundwater contamination (h) a rationale detailing the program conceptualisation including assumptions, determinations, monitoring equipment, sampling methods and data analysis; and (i) provides for annual updates to the program for new containment facilities constructed in each annual return period.
Seepage Monitoring Bore Drill Logs	
G 12	A bore drill log must be completed for each seepage monitoring bore in condition (G 11) which must include: (a) bore identification reference and geographical coordinate location (b) specific construction information including but not limited to depth of bore, depth and length of casing, depth and length of screening and bore sealing details (c) standing groundwater level and water quality parameters including physical parameter and results of laboratory analysis for the possible trigger parameters (d) lithological data, preferably a stratigraphic interpretation to identify the important features including the identification of any aquifers; and (e) target formation of the bore.

SCHEDULE H - REHABILITATION	
Rehabilitation Planning	
H 1	A Rehabilitation Plan must be developed by a suitably qualified person and must include the: (a) rehabilitation goals; and (b) procedures to be undertaken for rehabilitation that will: i. achieve the requirements of conditions (H 2) to (H 4), inclusive; and ii. provide for appropriate monitoring and maintenance.
Transitional Rehabilitation	
H 2	Significantly disturbed areas that are no longer required for the on-going petroleum activities, must be rehabilitated within 12 months (unless an exceptional circumstance in the area to be rehabilitated (e.g. a flood event) prevents this timeframe being met) and be maintained to meet the following acceptance criteria: (a) contaminated land resulting from petroleum activities is remediated and rehabilitated (b) the areas are: i. non-polluting ii. a stable landform iii. re-profiled to contours consistent with the surrounding landform (c) surface drainage lines are re-established (d) top soil is reinstated; and (e) either: i. groundcover, that is not a prohibited or restricted pest species, is growing; or ii. an alternative soil stabilisation methodology that achieves effective stabilisation is implemented and maintained.
Final Rehabilitation Acceptance Criteria	

H 3	All significantly disturbed areas caused by petroleum activities which are not being or intended to be utilised by the landholder or overlapping tenure holder, must be rehabilitated to meet the following final acceptance criteria measured either against the highest ecological value adjacent land use or the pre-disturbed land use: (a) greater than or equal to 70% of native ground cover species richness (b) greater than or equal to the total per cent of ground cover (c) less than or equal to the per cent species richness of prohibited or restricted pest species; and (d) where the adjacent land use contains, or the pre-clearing land use contained, one or more regional ecosystem(s), then at least one regional ecosystem(s) from the same broad vegetation group, and with the equivalent biodiversity status or a biodiversity status with a higher conservation value as any of the regional ecosystem(s) in either the adjacent land or pre-disturbed land, must be present.
Continuing Conditions	
H 4	Conditions (H 2) and (H 3) continue to apply after this environmental authority has ended or ceased to have effect.

SCHEDULE I - WELL CONSTRUCTION, MAINTENANCE AND STIMULATION ACTIVITIES	
Drilling Activities	
I 1	Oil based or synthetic based drilling muds must not be used in the carrying out of the petroleum activity(ies).
I 2	Drilling activities must not result in the connection of the target gas producing formation and another aquifer.
I 3	Practices and procedures must be in place to detect, as soon as practicable, any fractures that have or may result in the connection of a target formation and another aquifer as a result of drilling activities.
Stimulation Activities	
I 4	Polycyclic aromatic hydrocarbons or products that contain polycyclic aromatic hydrocarbons must not be used in stimulation fluids in concentrations above the reporting limit.
I 5	Stimulation activities must not negatively affect water quality, other than that within the stimulation impact zone of the target gas producing formation.
I 6	Stimulation activities must not cause the connection of the target gas producing formation and another aquifer.
I 7	The internal and external mechanical integrity of the well system prior to and during stimulation must be ensured such that there is: (a) no significant leakage in the casing, tubing, or packer; and (b) there is no significant fluid movement into another aquifer through vertical channels adjacent to the well bore hole.
I 8	Practices and procedures must be in place to detect, as soon as practicable, any fractures that cause the connection of a target gas producing formation and another aquifer.
Stimulation Risk Assessment	
I 9	Prior to undertaking stimulation activities, a risk assessment must be developed to ensure that stimulation activities are managed to prevent environmental harm.

I 10	The stimulation risk assessment must be carried out for every well to be stimulated prior to stimulation being carried out at that well and address issues at a relevant geospatial scale such that changes to features and attributes are adequately described and must include, but not necessarily be limited to: (a) a process description of the stimulation activity to be applied, including equipment and a comparison to best international practice (b) provide details of where, when and how often stimulation is to be undertaken on the tenures covered by this environmental authority (c) a geological model of the field to be stimulated including geological names, descriptions and depths of the target gas producing formation(s) (d) naturally occurring geological faults (e) seismic history of the region (e.g. earth tremors, earthquakes) (f) proximity of overlying and underlying aquifers (g) description of the depths that aquifers with environmental values occur, both above and below the target gas producing formation (h) identification and proximity of landholder' active groundwater bores in the area where stimulation activities are to be carried out (i) the environmental values of groundwater in the area (j) an assessment of the appropriate limits of reporting for all water quality indicators relevant to stimulation monitoring in order to accurately assess the risks to environmental values of groundwater (k) description of overlying and underlying formations in respect of porosity, permeability, hydraulic conductivity, faulting and fracture propensity (l) consideration of barriers or known direct connections between the target gas producing formation and the overlying and underlying aquifers (m) a description of the well mechanical integrity testing program (n) process control and assessment techniques to be applied for determining extent of stimulation activities (e.g. microseismic measurements, modelling etc.) (o) practices and procedures to ensure that the stimulation activities are designed to be contained within the target gas producing formation (p) groundwater transmissivity**,** flow rate, hydraulic conductivity and direction(s) of flow (q) a description of the chemical compounds used in stimulation activities (including estimated total mass, estimated composition, chemical abstract service numbers and properties), their mixtures and the resultant compounds that are formed after stimulation

	(r) a mass balance estimating the concentrations and absolute masses of chemical compounds that will be reacted, returned to the surface or left in the target gas producing formation subsequent to stimulation (s) an environmental hazard assessment of the chemicals used including their mixtures and the resultant chemicals that are formed after stimulation including: i. toxicological and ecotoxicological information of chemical compounds used ii. information on the persistence and bioaccumulation potential of the chemical compounds used; and iii. identification of the chemicals of potential concern in stimulation fluids derived from the risk assessment (t) an environmental hazard assessment of use, formation of, and detection of polycyclic aromatic hydrocarbons in stimulation activities (u) identification and an environmental hazard assessment of using radioactive tracer beads in stimulation activities (v) an environmental hazard assessment of leaving chemical compounds in stimulation fluids in the target gas producing formation for extended periods subsequent to stimulation (w) human health exposure pathways to operators and the regional population (x) risk characterisation of environmental impacts based on the environmental hazard assessment (y) potential impacts to landholder bores as a result of stimulation activities (z) an assessment of cumulative underground impacts, spatially and temporally of the stimulation activities to be carried out on the tenures covered by this environmental authority; and (aa) potential environmental or health impacts which may result from stimulation activities including but not limited to water quality, air quality (including suppression of dust and other airborne contaminants), noise and vibration.
Water Quality Baseline Monitoring	

I 11	Prior to undertaking any stimulation activity, a baseline bore assessment must be undertaken of the water quality of: (a) all landholder's active groundwater bores (subject to access being permitted by the landholder) that are spatially located within a two (2) kilometre horizontal radius from the location of the stimulation initiation point within the target gas producing formation; and (b) all landholders' active groundwater bores (subject to access being permitted by the landholder) in any aquifer that is within 200m above or below the target gas producing formation and is spatially located with a two (2) kilometre radius from the location of the stimulation initiation point; and (c) any other bore that could potentially be adversely impacted by the stimulation activities in accordance with the findings of the risk assessment required by conditions (I 9) and (I 10).
I 12	Prior to undertaking stimulation activities at a well, there must be sufficient water quality data to accurately represent the water quality in the well to be stimulated. The data must include as a minimum the results of analyses for the parameters in condition (I 13).
Water Quality Baseline Monitoring	

I 13	Baseline bore and well assessments must include relevant analytes and physico-chemical parameters to be monitored in order to establish baseline water quality and must include, but not necessarily be limited to: (a) pH (b) electrical conductivity [µS/m] (c) turbidity [NTU] (d) total dissolved solids [mg/L] (e) temperature [ºC] (f) dissolved oxygen [mg/L] (g) dissolved gases (methane, chlorine, carbon dioxide, hydrogen sulfide) [mg/L] (h) alkalinity (bicarbonate, carbonate, hydroxide and total as $CaCO_3$) [mg/L] (i) sodium adsorption ratio (SAR) (j) anions (bicarbonate, carbonate, hydroxide, chloride, sulphate) [mg/L] (k) cations (aluminium, calcium, magnesium, potassium, sodium) [mg/L] (l) dissolved and total metals and metalloids (including but not necessarily being limited to: aluminium, arsenic, barium, borate (boron), cadmium, total chromium, copper, iron, fluoride, lead, manganese, mercury, nickel, selenium, silver, strontium, tin and zinc) [µg/L] (m) total petroleum hydrocarbons [µg/L] (n) BTEX (as benzene, toluene, ethylbenzene, ortho-xylene, para- and meta-xylene, and total xylene) [µg/L] (o) polycyclic aromatic hydrocarbons (including but not necessarily being limited to: naphthalene, phenanthrene, benzo[a]pyrene) [µg/L] (p) sodium hypochlorite [mg/L] (q) sodium hydroxide [mg/L] (r) formaldehyde [mg/L] (s) ethanol [mg/L]; and (t) gross alpha + gross beta or radionuclides by gamma spectroscopy [Bq/L].
Stimulation Impact Monitoring Program	

I 14	A stimulation impact monitoring program must be developed prior to the carrying out of stimulation activities which must be able to detect adverse impacts to water quality from stimulation activities and must consider the findings of the risk assessment required by conditions (I 9) and (I 10) that relate to stimulation activities and must include, as a minimum, monitoring of: (a) the stimulation fluids to be used in stimulation activities at sufficient frequency and which sufficiently represents the quantity and quality of the fluids used (b) flow back waters from stimulation activities at sufficient frequency and which sufficiently represents the quality of that flow back water (c) flow back waters from stimulation activities at sufficient frequency and accuracy to demonstrate that 150% of the volume used in stimulation activities has been extracted from the stimulated well; and (d) all bores in accordance with condition (I 11).
I 15	The stimulation impact monitoring program must provide for monitoring of: (a) analytes and physico-chemical parameters relevant to baseline bore and well assessments to enable data referencing and comparison including, but not necessarily being limited to the analytes and physico-chemical parameters in condition (I 13); and (b) any other analyte or physico-chemical parameters that will enable detection of adverse water quality impacts and the inter-connection with a non-target aquifer as a result of stimulation activities including chemical compounds that are actually or potentially formed by chemical reactions with each other or coal seam materials during stimulation activities.
I 16	The stimulation impact monitoring program must provide for monitoring of the bores in condition (I 14(d)) at the following minimum frequency: (a) monthly for the first six (6) months subsequent to stimulation activities being undertaken; then (b) annually for the first five (5) years subsequent to stimulation being undertaken or until analytes and physico-chemical parameters listed in conditions (I 13(a)) to (I 13(t)) inclusive, are not detected in concentrations above baseline bore monitoring data on two (2) consecutive monitoring occasions.
I 17	The results of the stimulation impact monitoring program must be made available to any potentially affected landholder upon request by that landholder.

SCHEDULE J- DEFINITIONS

Key terms and/or phrases underlined in this environmental authority are defined in this section. Where a term is not defined, the definition in the *Environmental Protection Act 1994*, its regulations or environmental protection policies must be used. If a word remains undefined it has its ordinary meaning.

Term	Definition
acceptable standards for release to land	means wastewater of the following quality as determined by monitoring results or by characterisation: (a) electrical conductivity (EC) not exceeding 3000µS/cm (b) sodium adsorption ratio (SAR) not exceeding 8 (c) pH between 6.0 and 9.0 (d) heavy metals (measured as total) meets the respective short term trigger value in section 4.2.6, Table 4.2.10—Heavy metals and metalloids in Australian and New Zealand Guidelines for Fresh and Marine Water Quality (e) does not contain biocides.
adjacent land use(s)	means the ecosystem function adjacent to an area of significant disturbance, or where there is no ecosystem function, the use of the land. An adjacent land use does not include an adjacent area that shows evidence of edge effect.
administering authority	means: (a) for a matter, the administration and enforcement of which has been devolved to a local government under section 514 of the *Environmental Protection Act 1994*—the local government; or (b) for all other matters—the Chief Executive of the Department of Environment and Heritage Protection; or (c) another State Government Department, Authority, Storage Operator, Board or Trust, whose role is to administer provisions under other enacted legislation.
alternative arrangement	means a written agreement about the way in which a particular environmental nuisance impact will be dealt with at a sensitive place, and may include an agreed period of time for which the arrangement is in place. An alternative arrangement may include, but is not limited to, a range of nuisance abatement measures to be installed at the sensitive place, or provision of alternative accommodation for the duration of the relevant nuisance impact.
analogue site(s)	means an area of land which contains values and characteristics representative of an area to be rehabilitated prior to disturbance. Such values must encompass land use,

<table>
<tr><td></td><td>topographic, soil, vegetation, vegetation community attributes and other ecological characteristics. Analogue sites can be the pre-disturbed site of interest where significant surveying effort has been undertaken to establish benchmark parameters.</td></tr>
<tr><td>annual return period</td><td>means the most current 12-month period between two anniversary dates.</td></tr>
<tr><td>appraisal well</td><td>means a petroleum well to test the potential of one (1) or more natural underground reservoirs for producing or storing petroleum. For clarity, an appraisal well does not include an exploration well.</td></tr>
<tr><td>appropriately qualified person / suitably qualified person</td><td>means a person who has professional qualifications, training or skills or experience relevant to the nominated subject matters and can give authoritative assessment, advice and analysis about performance relevant to the subject matters using relevant protocols, standards, methods or literature.</td></tr>
<tr><td>approved quality criteria</td><td>for the purposes of residual drilling materials, means the residual drilling material meet the following quality standards:

Part A In all cases:

<table><tr><th>Parameter</th><th>Maximum concentration</th></tr><tr><td>pH</td><td>6–10.5 (range)</td></tr><tr><td>Electrical Conductivity</td><td>20dS/m (20,000µS/cm)</td></tr><tr><td>Chloride*</td><td>8000mg/L</td></tr></table>
*Chloride analysis is only required if an additive containing chloride was used in the drilling process

The limits in Part A must be measured in the clarified filtrate of oversaturated solids prior to mixing.

Part B If any of the following metals are a component of the drilling fluids, then for that metal:

<table><tr><th>Parameter</th><th>Maximum concentration</th></tr><tr><td>Arsenic</td><td>20mg/kg</td></tr><tr><td>Selenium</td><td>5mg/kg</td></tr><tr><td>Boron</td><td>100mg/kg</td></tr><tr><td>Cadmium</td><td>3mg/kg</td></tr><tr><td>Chromium (total)</td><td>400mg/kg</td></tr><tr><td>Copper</td><td>100mg/kg</td></tr><tr><td>Lead</td><td>600mg/kg</td></tr></table>
The limits in Part B and Part C refer to the post soil/by-product mix.

Part C If a hydrocarbon sheen is visible, the following hydrocarbon fractions:</td></tr>
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<table>
<tr><td></td><td>
<table>
<tr><th>TPH</th><th>Maximum concentration</th></tr>
<tr><td>C6-C10</td><td>170mg/kg</td></tr>
<tr><td>C10-C16</td><td>150mg/kg</td></tr>
<tr><td>C16-C34</td><td>1300mg/kg</td></tr>
<tr><td>C34-C40</td><td>5600mg/kg</td></tr>
<tr><td>Total Polycyclic Aromatic Hydrocarbons (PAHs)</td><td>20mg/kg</td></tr>
<tr><td>Phenols (halogenated)</td><td>1mg/kg</td></tr>
<tr><td>Phenols (non-halogenated)</td><td>60mg/kg</td></tr>
<tr><td>Monocyclic aromatic hydrocarbons
(Total sum of benzene, toluene, ethyl benzene, xylenes (includes ortho, para and meta xylenes) and styrene)</td><td>7mg/kg</td></tr>
<tr><td>Benzene</td><td>1mg/kg</td></tr>
</table>
</td></tr>
<tr><td>areas of pre-existing disturbance</td><td>means areas where environmental values have been negatively impacted as a result of anthropogenic activity and these impacts are still evident. Areas of pre-disturbance may include areas where legal clearing, logging, timber harvesting, or grazing activities have previously occurred, where high densities of weed or pest species are present which have inhibited re-colonisation of native regrowth, or where there is existing infrastructure (regardless of whether the infrastructure is associated with the authorised petroleum activities). The term ‘areas of pre-disturbance’ does not include areas that have been impacted by wildfire/s, controlled burning, flood or natural vegetation die-back.</td></tr>
<tr><td>associated water</td><td>means underground water taken or interfered with, if the taking or interference happens during the course of, or results from, the carrying out of another authorised activity under a petroleum authority, such as a petroleum well, and includes waters also known as produced formation water. The term includes all contaminants suspended or dissolved within the water.</td></tr>
<tr><td>associated works</td><td>in relation to a dam, means:
(a) operations of any kind and all things constructed, erected or installed for that dam; and
(b) any land used for those operations.</td></tr>
<tr><td>Australian Standard 3580</td><td>means any of the following publications:
• AS3580.10.1 Methods for sampling and analysis of ambient air—Determination of particulate matter—Deposited matter—Gravimetric method.
• AS3580.9.6 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter—PM10 high volume sampler with size-selective inlet—Gravimetric method</td></tr>
</table>

	• AS3580.9.9 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter— PM10 low volume sampler—Gravimetric sampler.
background noise level	means the sound pressure level, measured in the absence of the noise under investigation, as the $L_{A90,T}$ being the A-weighted sound pressure level exceeded for 90% of the measurement time period T of not less than 15 minutes (or $\underline{L_{A\ 90,\ adj,\ 15\ mins}}$), using Fast response.
bankfull	means the channel flow rate that exists when the water is at the elevation of the channel bank above which water begins to spill out onto the floodplain. The term describes the condition of the channel relative to its banks (e.g. overbank, in-bank, bankfull, low banks, high bank).
bed	of any waters, has the meaning in Schedule 12 of the *Environmental Protection Regulation 2008* and— (a) includes an area covered, permanently or intermittently, by tidal or non-tidal waters; but (b) does not include land adjoining or adjacent to the bed that is from time to time covered by floodwater.
being or intended to be utilised by the landholder or overlapping tenure holder	for significantly disturbed land, means there is a written agreement (e.g. land and compensation agreement) between the landholder or the overlapping tenure holder and the holder of the environmental authority identifying that the landholder or the overlapping tenure holder has a preferred use of the land such that rehabilitation standards for revegetation by the holder of the environmental authority are not required.
biodiversity values	for the purposes of this environmental authority, means environmentally sensitive areas, prescribed environmental matters and wetlands.
BTEX	means benzene, toluene, ethylbenzene, ortho-xylene, para-xylene, meta-xylene and total xylene.
Category A Environmentally Sensitive Area	means any area listed in Schedule 12, Section 1 of the *Environmental Protection Regulation 2008*.
Category B Environmentally Sensitive Area	means any area listed in Schedule 12, Section 2 of the *Environmental Protection Regulation 2008*.
Category C Environmentally Sensitive Area	means any of the following areas: • nature refuges as defined in the conservation agreement for that refuge under the *Nature Conservation Act 1992*

	• koala habitat areas as defined under the Nature Conservation (Koala) Conservation Plan 2006 • state forests or timber reserves as defined under the *Forestry Act 1959* • regional parks (previously known as resource reserves) under the *Nature Conservation Act 1992* • an area validated as 'essential habitat' from ground-truthing surveys in accordance with the *Vegetation Management Act 1999* for a species of wildlife listed as endangered or vulnerable under the *Nature Conservation Act 1992* • 'of concern regional ecosystems' that are remnant vegetation and identified in the database called 'RE description database' containing regional ecosystem numbers and descriptions.
certified or certification	means, a Statutory Declaration by a suitably qualified person or suitably qualified third party accompanying the written document stating: • the person's qualifications and experience relevant to the function • that the person has not knowingly included false, misleading or incomplete information in the document • that the person has not knowingly failed to reveal any relevant information or document to the administering authority • that the document addresses the relevant matters for the function and is factually correct; and • that the opinions expressed in the document are honestly and reasonably held.
clearing	has the meaning in the dictionary of the *Vegetation Management Act 2000* and for vegetation— (a) means remove, cut down, ringbark, push over, poison or destroy in any way including by burning, flooding or draining; but (b) does not include destroying standing vegetation by stock, or lopping a tree.
closed-loop systems	means using waste on site in a way that does not release waste or contaminants in the waste to the environment.
control measure	has the meaning in section 47 of the *Environmental Protection Regulation 2008* and means a device, equipment, structure, or management strategy used to prevent or control the release of a contaminant or waste to the environment.
coal seam gas water	means underground water brought to the surface of the earth, or moved underground in connection with exploring for, or producing coal seam gas.

dam(s)	means a land-based structure or a void that contains, diverts or controls flowable substances, and includes any substances that are thereby contained, diverted or controlled by that land-based structure or void and associated works.
development wells	means a petroleum well which produces or stores petroleum. For clarity, a development well does not include an appraisal well.
document	has the meaning in the *Acts Interpretation Act 1954* and means: • any paper or other material on which there is writing; and • any paper or other material on which there are marks; and • figures, symbols or perforations having a meaning for a person qualified to interpret them; and • any disc, tape or other article or any material from which sounds, images, writings or messages are capable of being produced or reproduced (with or without the aid of another article or device).
ecosystem function	means the interactions between and within living and nonliving components of an ecosystem and generally correlates with the size, shape and location of the vegetation community.
enclosed flare	means a device where the residual gas is burned in a cylindrical or rectilinear enclosure that includes a burning system and a damper where air for the combustion reaction is admitted.
environmental harm	has the meaning in section 14 of the *Environmental Protection Act 1994* and means any adverse effect, or potential adverse effect (whether temporary or permanent and of whatever magnitude, duration or frequency) on an environmental value, and includes environmental nuisance. Environmental harm may be caused by an activity— (a) whether the harm is a direct or indirect result of the activity; or (b) whether the harm results from the activity alone or from the combined effects of the activity and other activities or factors.
environmental nuisance	has the meaning in section 15 of the *Environmental Protection Act 1994 and means* unreasonable interference or likely interference with an environmental value caused by— (a) aerosols, fumes, light, noise, odour, particles or smoke; or (b) an unhealthy, offensive or unsightly condition because of contamination; or (c) another way prescribed by regulation.

environmentally sensitive area	means Category A, B or C environmentally sensitive areas (ESAs)
essential petroleum activities	means activities that are essential to bringing the resource to the surface and are only the following: • low impact petroleum activities • geophysical, geotechnical, geological, topographic and cadastral surveys (including seismic, sample /test / geotechnical pits, core holes) • single well sites not exceeding 1 hectare disturbance and multi-well sites not exceeding 1.5 hectare disturbance • well sites with monitoring equipment (including monitoring bores): o for single well sites, not exceeding 1.25 hectares disturbance o for multi-well sites, not exceeding 1.75 hectares disturbance • well sites with monitoring equipment (including monitoring bores) and tanks (minimum 1 ML) for above ground fluid storage: o for single well sites, not exceeding 1.5 hectares disturbance o for multi-well sites, not exceeding 2.0 hectares disturbance • associated infrastructure located on a well site necessary for the construction and operations of wells: o water pumps and generators o flare pits o chemical / fuel storages o sumps for residual drilling material and drilling fluids o tanks, or dams which are not significant or high consequence dams to contain wastewater (e.g. stimulation flow back waters, produced water) o pipe laydown areas o soil and vegetation stockpile areas o a temporary camp associated with a drilling rig that may involve sewage treatment works that are no release works o temporary administration sites and warehouses o dust suppression activities using water that meets the quality and operational standards approved under the environmental authority • communication and power lines that are necessary for the undertaking of

	petroleum activities and that are located within well sites, well pads and pipeline right of ways without increasing the disturbance area of petroleum activities • supporting access tracks • gathering / flow pipelines from a well head to the initial compression facility • activities necessary to achieve compliance with the conditions of the environmental authority in relation to another essential petroleum activity (e.g. sediment and erosion control measures, rehabilitation).
exploration well	means a petroleum well that is drilled to: • explore for the presence of petroleum or natural underground reservoirs suitable for storing petroleum; or • obtain stratigraphic information for the purpose of exploring for petroleum. For clarity, an exploration well does not include an appraisal or development well.
flare pit	has the meaning in the Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635), and means containment area where any hydrocarbon that is discovered in an over-pressured reservoir during a drilling operation is diverted to, and combusted, The flare pit is only used during the drilling and work over process on a petroleum well.
flare precipitant	means waste fluids which result from the operation of a flare.
flowable substance	means matter or a mixture of materials which can flow under any conditions potentially affecting that substance. Constituents of a flowable substance can include water, other liquids fluids or solids, or a mixture that includes water and any other liquids fluids or solids either in solution or suspension.
GDA	means Geocentric Datum of Australia.
Great Artesian Basin (GAB) spring	means an area protected under the *Environment Protection and Biodiversity Conservation Act 1999* because it is considered to be a Matter of National Environmental Significance and identified as a: • community of native species dependent on natural discharge of groundwater from the Great Artesian Basin; or • Great Artesian Basin spring; or • Great Artesian Basin discharge spring wetland.

	A GAB spring includes a spring vent, spring complex or watercourse spring and includes the land to which water rises naturally from below the ground and the land over which the water then flows. *Note: The Australian Government's Protected Matters Search Tool should be used to get an indication of whether the area of interest may contain an MNES spring.* *Note: The GAB springs dataset can be requested from the Queensland Government Herbarium*
green waste	means waste that is grass cuttings, trees, bushes, shrubs, material lopped from trees, untreated timber or other waste that is similar in nature but does not include declared pest species.
groundwater dependent ecosystem (GDE)	means ecosystems which require access to groundwater on a permanent or intermittent basis to meet all or some of their water requirements so as to maintain their communities of plants and animals, ecological processes and ecosystem services. For the purposes of the environmental authority, groundwater dependent ecosystems do not include those mapped as "unknown".
growing	means to increase by natural development, as any living organism or part thereof by assimilation of nutriment; increase in size or substance.
hydraulic integrity	refers to the capacity of a dam to contain or safely pass flowable substances based on its design.
impulsive (for noise)	means sound characterised by brief excursions of sound pressure (acoustic impulses) that significantly exceed the background sound pressure. The duration of a single impulsive sound is usually less than one second.
incidental activity	for this environmental authority means an activity that is not a specified relevant activity and is necessary to carry out the activities listed in *Schedule A, Table 1 – Authorised Petroleum Activities.*
$L_{A\ 90,\ adj,\ 15\ mins}$	means the A-weighted sound pressure level, adjusted for tonal character that is equal to or exceeded for 90% of any 15 minutes sample period equal, using Fast response.
$L_{Aeq,\ adj,\ 15\ mins}$	means the A-weighted sound pressure level of a continuous steady sound, adjusted for tonal character, that within any 15 minute period has the same square sound pressure as a sound level that varies with time.
land degradation	has the meaning in the *Vegetation Management Act 1999* and means the following: • soil erosion

	• rising water tables • the expression of salinity • mass movement by gravity of soil or rock • stream bank instability • a process that results in declining water quality.
landholder's active groundwater bore	means bores that are able to continue to provide a reasonable yield of water in terms of quantity for the bores authorised purpose or use. This term does not include monitoring bores owned by the administering authority of the *Water Act 2000*.
linear infrastructure	means powerlines, pipelines, flowlines, roads and access tracks.
liquid	means a substance which is flowing and offers no permanent resistance to changes of shape.
long term noise event	means a noise exposure, when perceived at a sensitive receptor, persists for a period of greater than five (5) days, even when there are respite periods when the noise is inaudible within those five (5) days.
low consequence dam	means any dam that is not classified as high or significant as assessed using the Manual for Assessing Consequence Categories and Hydraulic Performance of Structures, published by the administering authority, as amended from time to time.
low impact petroleum activities	means petroleum activities which do not result in the clearing of native vegetation, cause disruption to soil profiles through earthworks or excavation or result in significant disturbance to land which cannot be rehabilitated immediately using hand tools after the activity is completed. Examples of such activities include but are not necessarily limited to soil surveys (excluding test pits), topographic surveys, cadastral surveys and ecological surveys, may include installation of monitoring equipment provided that it is within the meaning of low impact and traversing land by car or foot via existing access tracks or routes or in such a way that does not result in permanent damage to vegetation.
Map of referable wetlands	has the meaning in Schedule 12 of the *Environmental Protection Regulation 2008* and means the 'Map of referable wetlands', a document approved by the chief executive on 4 November 2011 and published by the department, as amended from time to time by the chief executive under section 144D.
Max $L_{pA,\ 15\ min}$	means the absolute maximum instantaneous A-weighted sound pressure level, measured over 15 minutes.

Max $L_{pZ, 15\ min}$	means the maximum value of the Z-weighted sound pressure level measured over 15 minutes.
maximum extent of impact	means the total, cumulative, residual extent and duration of impact to a prescribed environmental matter that will occur over a project's life after all reasonable avoidance and reasonable on-site mitigation measures have been, or will be, undertaken.
medium term noise event	is a noise exposure, when perceived at a sensitive receptor, persists for an aggregate period not greater than five (5) days and does not re-occur for a period of at least four (4) weeks. Re-occurrence is deemed to apply where a noise of comparable level is observed at the same receptor location for a period of one hour or more, even if it originates from a difference source or source location.
methodology	means the science of method, especially dealing with the logical principles underlying the organisation of the various special sciences, and the conduct of scientific inquiry.
mix-bury-cover method	means the stabilisation of residual drilling solids in the bottom of a sump by mixing with subsoil and which occurs in accordance with the following methodology: • the base of the subsoil and residual solid mixture must be separated from the groundwater table by at least one metre of a continuous layer of impermeable subsoil material (kw=10–8m/s) or subsoil with a clay content of greater than 20%; and • the residual solids is mixed with subsoil in the sump and cover; and • the subsoil and residual solids is mixed at least three parts subsoil to one part waste (v/v); and • a minimum of one metre of clean subsoil must be placed over the subsoil and residual solids mixture; and • topsoil is replaced.
month	has the meaning in the *Acts Interpretation Act 1954* and means a calendar month and is a period starting at the beginning of any day of one (1) of the 12 named months and ending— • immediately before the beginning of the corresponding day of the next named month; or • if there is no such corresponding day—at the end of the next named month.
NATA accreditation	means accreditation by the National Association of Testing Authorities Australia.

prescribed contaminants	has the meaning in section 440ZD of the *Environmental Protection Act 1994* and means: (a) earth; or (b) a contaminant prescribed under section 440ZF of the *Environmental Protection Act 1994*.
prescribed environmental matters	has the meaning in section 10 of the *Environmental Offsets Act 2014*, limited to the matters of State environmental significant listed in schedule 2 of the Environmental Offsets Regulation 2014.
Prohibited or restricted pest species	means any pest that is: (a) a plant or animal, other than a native species of plant or animal, that is (i) invasive biosecurity matter under the Biosecurity Act 2014 (Qld); or Notes— 1 See the Biosecurity Act 2014, schedule 1, part 3 or 4 or schedule 2, part 2; and 2 See the note to the Biosecurity Act 2014, schedules 1 and 2. (ii) controlled biosecurity matter or regulated biosecurity matter under the Biosecurity Act 2014 (Qld) (iii) tramp ants listed in schedule 1 and schedule 2 of the Biosecurity Act 2014 (Qld) (b) a pest declared under a local law by the local government for the Land to be a pest because the pest is causing, or has the potential to cause, an adverse environmental, economic or social impact in all or part of the local government area.
pipeline waste water	means hydrostatic testing water, flush water or water from low point drains.
pre-disturbed land use	means the function or use of the land as documented prior to significant disturbance occurring at that location.
prescribed contaminants	has the meaning in section 440ZD of the *Environmental Protection Act 1994* and means:
primary protection zone	means an area within 200m from the boundary of any Category A, B or C ESA.

produced water	has the meaning in Section 15A of the *Petroleum and Gas (Production and Safety) Act 2004* and means CSG water or associated water for a petroleum tenure.
protection zone	means the primary protection zone of any Category A, B or C ESA or the secondary protection zone of any Category A or B ESA.
regional ecosystem	has the meaning in the Methodology for Surveying and Mapping of Regional Ecosystems and Vegetation Communities in Queensland (Version 3.2 August 2012) and means a vegetation community in a bioregion that is consistently associated with a particular combination of geology, landform and soil. Regional ecosystems of Queensland were originally described in Sattler and Williams (1999). The Regional Ecosystem Description Database (Queensland Herbarium 2013) is maintained by Queensland Herbarium and contains the current descriptions of regional ecosystems.
rehabilitation or rehabilitated	means the process of reshaping and revegetating land to restore it to a stable landform and in accordance with acceptance criteria and, where relevant, includes remediation of contaminated land. For the purposes of pipeline rehabilitation, rehabilitation includes reinstatement, revegetation and restoration.
reinstate or reinstatement	for pipelines, means the process of bulk earth works and structural replacement of pre-existing conditions of a site (i.e. soil surface typography, watercourses, culverts, fences and gates and other landscape(d) features) and is detailed in the Australian Pipeline Industry Association (APIA) Code of Environmental Practice: Onshore Pipelines Revision 4 (2017).
reporting limit	means the lowest concentration that can be reliably measured within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes, the reporting limit is selected as the lowest non-zero standard in the calibration curve. Results that fall below the reporting limit will be reported as “less than” the value of the reporting limit. The reporting limit is also referred to as the practical quantitation limit or the limit of quantitation. For polycyclic aromatic hydrocarbons, the reporting limit must be based on super-ultra trace methods and, depending on the specific polycyclic aromatic hydrocarbon, will range between 0.005 ug/L–0.02 ug/L.
residual drilling material	means waste drilling materials including muds and cuttings or cement returns from well holes and which have been left behind after the drilling fluids are pumped out.
restoration	means the replacement of structural habitat complexity, ecosystem processes, services and function from a disturbed or degraded site to that of a pre-determined or analogue site. For the purposes of pipelines, restoration applies to final rehabilitation after pipeline decommissioning.

restricted stimulation fluids	has the meaning in section 206 of the *Environmental Protection Act 1994* and means fluids used for the purpose of stimulation, including fracturing, that contain the following chemicals in more than the maximum amount prescribed under a regulation— (a) petroleum hydrocarbons containing benzene, ethylbenzene, toluene or xylene (b) chemicals that produce, or are likely to produce, benzene, ethylbenzene, toluene or xylene as the chemical breaks down in the environment.
revegetation or revegetating or revegetate	means to actively re-establish vegetation through seeding or planting techniques in accordance with site specific management plans.
secondary protection zone	in relation to a Category A or Category B ESA means an area within 100 metres from the boundary of the primary protection zone.
sensitive place	means: • a dwelling (including residential allotment, mobile home or caravan park, residential marina or other residential premises, motel, hotel or hostel) • a library, childcare centre, kindergarten, school, university or other educational institution • a medical centre, surgery or hospital • a protected area • a public park or garden that is open to the public (whether or not on payment of money) for use other than for sport or organised entertainment • a work place used as an office or for business or commercial purposes, which is not part of the petroleum activity(ies) and does not include employees accommodation or public roads • for noise, a place defined as a sensitive receptor for the purposes of the Environmental Protection (Noise) Policy 2008.
sensitive receptor	is defined in Schedule 2 of the Environmental Protection (Noise) Policy 2008, and means an area or place where noise is measured.
short term noise event	is a noise exposure, when perceived at a sensitive receptor, persists for an aggregate period not greater than eight hours and does not re-occur for a period of at least seven (7) days. Re-occurrence is deemed to apply where a noise of comparable level is observed at the same receptor location for a period of one hour or more, even if it originates from a different source or source location.

significant residual impact	has the meaning in section 8 *Environmental Offsets Act 2014*.
significantly disturbed or significant disturbance or significant disturbance to land or areas	has the meaning in Schedule 12, section 4 of the *Environmental Protection Regulation 2008*. Land is significantly disturbed if— (i) to a condition required under the relevant environmental authority; or (ii) if the environmental authority does not require the land to be rehabilitated to a particular condition—to the condition it was in immediately before the disturbance.
species richness	means the number of different species in a given area.
stable	has the meaning in Schedule 5 of the *Environmental Protection Regulation 2008* and, for a site, means the rehabilitation and restoration of the site is enduring or permanent so that the site is unlikely to collapse, erode or subside.
stimulation	means a technique used to increase the permeability of natural underground reservoir that is undertaken above the formation pressure and involves the addition of chemicals. It includes hydraulic fracturing / hydrofraccing, fracture acidizing and the use of proppant treatments. **Explanatory note:** This definition is restricted from that in the *Petroleum and Gas (Production and Safety) Act 2004* in order to only capture the types of stimulation activities that pose a risk to environmental values of water quality in aquifers.
stimulation fluid	means the fluid injected underground to increase permeability. For clarity, the term stimulation fluid only applies to fluid injected down well post-perforation.
stimulation impact zone	means a 100m maximum radial distance from the stimulation target location within a gas producing formation.
structure	means a dam or levee.
subterranean cave GDE	• means an area identified as a subterranean cave in the mapping produced by the Queensland Government and identified in the Queensland Government Information System, as amended from time to time; and • means a cave ecosystem which requires access to groundwater on a permanent or intermittent basis to meet all or some of their water requirements so as to maintain its communities of plants and animals, ecological processes and ecosystem services. Subterranean cave GDEs are caves dependent on the subterranean presence of groundwater. Subterranean cave GDEs have some degree of groundwater connectivity and are indicated by either high moisture levels or the

	presence of stygofauna, or both, referred to in the Queensland Government WetlandsInfo mapping program, as amended from time to time. *Note: the Subterranean GDE (caves) dataset can be displayed through the Queensland Government WetlandInfo mapping program.* *Note: the Subterranean GDE (caves) dataset can be obtained from the Queensland Government Information System.*
suitably qualified person	means a person who has professional qualifications, training or skills or experience relevant to the nominated subject matters and can give authoritative assessment, advice and analysis about performance relevant to the subject matters using relevant protocols, standards, methods or literature.
suitably qualified third party	means a person who: (a) has qualifications and experience relevant to performing the function including but not limited to: i. a bachelor's degree in science or engineering; and ii. 3 years' experience in undertaking soil contamination assessments; and (b) is a member of at least one organisation prescribed in Schedule 8 of the *Environmental Protection Regulation 2008*; and (c) not be an employee of, nor have a financial interest or any involvement which would lead to a conflict of interest with the holder(s) of the environmental authority.
sump	means a pit in which waste residual drilling material or drilling fluids are stored only for the duration of drilling activities.
synthetic based drilling mud	means a mud where the base fluid is a synthetic oil, consisting of chemical compounds which are artificially made or synthesised by chemically modifying petroleum components or other raw materials rather than the whole crude oil.
top soil	means the surface (top) layer of a soil profile, which is more fertile, darker in colour, better structured and supports greater biological activity than underlying layers. The surface layer may vary in depth depending on soil forming factors, including parent material, location and slope, but generally is not greater than about 300mm in depth from the natural surface.
transmissivity	means the rate of flow of water through a vertical strip of aquifer which is one unit wide and which extends the full saturated depth of the aquifer.
valid complaint	means all complaints unless considered by the administering authority to be frivolous, vexatious or based on mistaken belief.

void	means any constructed, open excavation in the ground.
waste and resource management hierarchy	has the meaning provided in section 9 of the *Waste Reduction and Recycling Act 2011 and* is the following precepts, listed in the preferred order in which waste and resource management options should be considered— (a) AVOID unnecessary resource consumption (b) REDUCE waste generation and disposal (c) RE-USE waste resources without further manufacturing (d) RECYCLE waste resources to make the same or different products (e) RECOVER waste resources, including the recovery of energy (f) TREAT waste before disposal, including reducing the hazardous nature of waste (g) DISPOSE of waste only if there is no viable alternative.
waste and resource management principles	has the meaning provided in section 4(2)(b) of the *Waste Reduction and Recycling Act 2011* and means the: (a) polluter pays principle (b) user pays principle (c) proximity principle (d) product stewardship principle.
waste fluids	has the meaning in section 13 of the *Environmental Protection Act 1994* in conjunction with the common meaning of "fluid" which is "a substance which is capable of flowing and offers no permanent resistance to changes of shape". Accordingly, to be a waste fluid, the waste must be a substance which is capable of flowing and offers no permanent resistance to changes of shape.
watercourse	has the meaning in Schedule 4 of the *Environmental Protection Act 1994* and means: 1) a river, creek or stream in which water flows permanently or intermittently— (a) in a natural channel, whether artificially improved or not; or (b) in an artificial channel that has changed the course of the watercourse. 2) Watercourse includes the bed and banks and any other element of a river, creek or stream confining or containing water.
waters	includes all or any part of a creek, river, stream, lake, lagoon, swamp, wetland, spring, unconfined surface water, unconfined water in natural or artificial watercourses, bed and

	bank of any waters, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off, and underground water.
well integrity	the ability of a well to contain the substances flowing through it.
wetland	for the purpose of this environmental authority, wetland means: ▪ areas shown on the Map of referable wetlands which is a document approved by the chief executive on 4 November 2011 and published by the department, as amended from time to time by the chief executive under section 144D of the Environmental Protection Regulation 2008; and ▪ areas defined under the Queensland Wetlands Program as permanent or periodic / intermittent inundation, with water that is static or flowing fresh, brackish or salt, including areas of marine water, the depth of which at low tide does not exceed six (6) metres, and possess one or more of the following attributes: o at least periodically, the land supports plants or animals that are adapted to and dependent on living in wet conditions for at least part of their life cycle, or o the substratum is predominantly undrained soils that are saturated, flooded or ponded long enough to develop anaerobic conditions in the upper layers, or o the substratum is not soil and is saturated with water, or covered by water at some time. The term wetland includes riverine, lacustrine, estuarine, marine and palustrine wetlands; and it does not include a Great Artesian Basin Spring or a subterranean wetland that is a cave or aquifer
wetland of high ecological significance	means a wetland that meets the definition of a wetland and that is shown as a wetland of 'high ecological significance' or wetland of 'high ecological value' on the Map of referable wetlands.
wetland of other environmental value	means a wetland that meets the definition of a wetland and that is shown as a wetland of 'general environmental significance' or wetland of 'other environmental value' on the Map of referable wetlands.

Part 2- conditions applicable to PL1049

Environmentally relevant activities	Location
Schedule 3 08: A petroleum or GHG storage activity, other than items 1 to 7, that includes an activity from Schedule 2 with an AES	1049
Resource activity, ancillary 62(1)(c) Resource recovery and transfer facility operations	1049

Conditions of environmental authority

SCHEDULE A – GENERAL

Authorised Resource Activities

(A1) This environmental authority[5] authorises the carrying out of the following resource activities:

a) the petroleum activities and specified relevant activities listed in *Schedule A, General, Table 1—Authorised Resource Activities* to the extent they are carried out in accordance with the activity's corresponding scale or intensity or both (where applicable); and

b) incidental activities that are not otherwise specified relevant activities.

(A2) The authorised resource activities area authorised subject to the conditions of this environmental authority.

Schedule A, General, Table 1-Authorised Resource Activities

Authorised Resource Activities	Scale		Intensity (Maximum)
	Maximum size	Location	
Petroleum activities			
Coal seam gas exploration and production	Within PL1049	PL1049	375 well heads

[5] This environmental authority does not authorise a relevant act to occur in carrying out an authorised resource activity unless a condition expressly authorises that relevant act to occur. Where there is no condition, the lack of a condition must not be construed as authorising the relevant act.

	Operating fuel burning equipment (permanent, in isolation or combined in operation, or interconnected) capable of burning more than 500kg/hr	6 Compressors	PL1049	60TJ/day
	Specified relevant activities			
	Stimulation activities	Nil	PL1049	375 well heads
(A3)	This environmental authority does not authorise environmental harm unless a condition contained in this environmental authority explicitly authorises that harm. Where there is no condition, the lack of a condition must not be construed as authorising harm.			
Monitoring Standards				
(A4)	All monitoring must be undertaken by a suitably qualified person.			
(A5)	If requested by the administering authority in relation to investigating a complaint, monitoring must be commenced within 10 business days.			
(A6)	All laboratory analyses and tests must be undertaken by a laboratory that has NATA accreditation for such analyses and tests.			
(A7)	Notwithstanding condition (A6), where there are no NATA accredited laboratories for a specific analyte or substance, then duplicate samples must be sent to at least two separate laboratories for independent testing or evaluation.			
(A8)	Monitoring and sampling must be carried out in accordance with the requirements of the following documents (as relevant to the sampling being undertaken), as amended from time to time: (g) for waters and aquatic environments, the Queensland Government's Monitoring and Sampling Manual 2009 – *Environmental Protection (Water) Policy 2019* (h) for groundwater, *Groundwater Sampling and Analysis – A Field Guide* (2009:27 GeoCat #6890.1) (i) for noise, the *Environmental Protection Regulation 2019*			

	(j) for air, the *Queensland Air Quality Sampling Manual* and/or Australian Standard 4323.1:1995 *Stationary source emissions method 1: Selection of sampling positions*, as appropriate for the relevant measurement (k) for soil, the *Guidelines for Surveying Soil and Land Resources, 2nd edition* (McKenzie *et al.* 2008), and/or the *Australian Soil and Land Survey Handbook, 3rd edition* (National Committee on Soil and Terrain, 2009) (l) for dust, Australian Standard AS3580.
Notification	
(A9)	In addition to the requirements under Chapter 7, Part 1, Division 2 of the *Environmental Protection Act 1994*, the administering authority must be notified through the Pollution Hotline and in writing, as soon as possible, but within 48 hours of becoming aware of any of the following events: (i) any unauthorised significant disturbance to land (j) potential or actual loss of structural or hydraulic integrity of a dam (k) when the level of the contents of any regulated dam reaches the mandatory reporting level (l) when a regulated dam will not have available storage to meet the design storage allowance on 1 November of any year (m) potential or actual loss of well integrity (n) when the seepage trigger action response procedure required under condition (Water 14(g)) is or should be implemented (o) unauthorised releases of any volume of prescribed contaminants to waters (p) unauthorised releases of volumes of contaminants, in any mixture, to land greater than: v. 200 L of hydrocarbons; or vi. 200 L of stimulation additives; or vii. 500 L of stimulation fluids; or viii. 1 000 L of brine; or ix. 5 000 L of untreated coal seam gas water; or x. 5 000 L of raw sewage; or xi. 10 000 L of treated sewage effluent.

	(q) the use of restricted stimulation fluids (r) groundwater monitoring results from a landholder's active groundwater bore monitored under the stimulation impact monitoring program which is a 10% or greater increase from a previous baseline value for that bore and which renders the water unfit for its intended use (s) monitoring results where two out of any five consecutive samples do not comply with the relevant limits in the environmental authority.
Contingency Plan for Emergency Events and Environmental Incidents	
(A10)	Petroleum activities involving significant disturbance to land cannot commence until the development of written contingency procedures for emergency environmental incidents which include, but are not necessarily limited to: (h) a clear definition of what constitutes an environmental emergency incident or near miss for the petroleum activity. (i) consideration of the risks caused by the petroleum activity including the impact of flooding and other natural events on the petroleum activity. (j) response procedures to be implemented to prevent or minimise the risks of environmental harm occurring. (k) the practices and procedures to be employed to restore the environment or mitigate any environmental harm caused. (l) procedures to investigate causes and impacts including impact monitoring programs for releases to waters and/or land. (m) training of staff to enable them to effectively respond. (n) procedures to notify the administering authority, local government and any potentially impacted landholder.
Maintenance of plant and equipment	
(A11)	All plant and equipment must be maintained and operated in their proper and effective condition.
(A12)	The following infrastructure must be signed with a unique reference name or number in such a way that it is clearly observable: (c) regulated dams and low consequence dams

	(d) exploration, appraisal and development wells (e) water treatment facilities (f) brine encapsulation facilities (g) landfill cells (h) sewage treatment facilities (i) specifically authorised discharge points to air and waters (j) any chemical storage facility associated with the environmentally relevant activity of chemical storage (k) field compressor stations (l) central compressor stations (m) gas processing facilities; and (n) pipeline compressor stations.
(A13)	Measures to prevent fauna being harmed from entrapment must be implemented during the construction and operation of well infrastructure, dams and pipeline trenches.
Erosion and sediment control	
(A14)	For activities involving significant disturbance to land, control measures that are commensurate to the site-specific risk of erosion, and risk of sediment release to waters must be implemented to: (f) allow stormwater to pass through the site in a controlled manner and at non-erosive flow velocities (g) minimise soil erosion resulting from wind, rain, and flowing water (h) minimise the duration that disturbed soils are exposed to the erosive forces of wind, rain, and flowing water (i) minimise work-related soil erosion and sediment runoff; and (j) minimise negative impacts to land or properties adjacent to the activities (including roads).
(A15)	The control measures required by condition A14 must be in accordance, to the greatest practicable extent, with the International Erosion Control Association (IECA) Best Practice Erosion and Sediment Control (BPESC) document and/or the Australian Pipeline Industry

	Association (APIA) Code of Environmental Practice: Onshore Pipelines (2017) as amended from time to time.
Complaints	
(A16)	Petroleum activities must not cause environmental nuisance at a sensitive place, other than where an alternative arrangement is in place.
Documentation	
(A17)	A certification must be prepared by a suitably qualified person within 30 business days of completing every plan, procedure, program and report required to be developed under this environmental authority, which demonstrates that: (d) relevant material, including current published guidelines (where available) have been considered in the written document (e) the content of the written document is accurate and true; and (f) the document meets the requirements of the relevant conditions of the environmental authority.
(A18)	All plans, procedures, programs, reports and methodologies required under this environmental authority must be written and implemented.
(A19)	All documents required to be developed under this environmental authority must be kept for five years.
(A20)	All documents required to be prepared, held or kept under this environmental authority must be provided to the administering authority upon written request within the requested timeframe.
(A21)	A record of all complaints must be kept including the date, complainant's details, source, reason for the complaint, description of investigations and actions undertaken in resolving the complaint.

SCHEDULE B – WASTE MANAGEMENT General	
(B1)	Measures must be implemented so that waste is managed in accordance with the waste and resource management hierarchy and the waste and resource management principles.
(B2)	Waste fluids, other than flare precipitant stored in flare pits, or residual drilling material or drilling fluids stored in sumps, must be contained in either: (a) an above ground container; or (b) a structure which contains the wetting front.
(B3)	Green waste may be used on-site for either rehabilitation or sediment and erosion control, or both.
(B4)	Vegetation waste may be burned if it relates to a state forest, timber reserve or forest entitlement area administered by the *Forestry Act 1959* and a permit has been obtained under the *Fire and Rescue Service Act 1990*.
Pipeline wastewater	
(B5)	Pipeline waste water, may be released to land provided that it: (a) can be demonstrated it meets the acceptable standards for release to land; and (b) is released in a way that does not result in visible scouring or erosion or pooling or run-off or vegetation die-off.
Authorised uses of produced water for authorised petroleum activities	
(B6)	Produced water may be re-used in: (a) drilling and well hole activities; or (b) stimulation activities.
(B7)	Produced water may be used for dust suppression provided the following criteria are met: (a) the amount applied does not exceed the amount required to effectively suppress dust; and (b) the application:

	i. does not cause on-site ponding or runoff ii. is directly applied to the area being dust suppressed iii. does not harm vegetation surrounding the area being dust suppressed; and iv. does not cause visible salting.
(B8)	Produced water may be used for construction purposes provided the use: (d) does not result in negative impacts on the composition and structure of soil or subsoils (e) is not directly or indirectly released to waters (f) does not result in runoff from the construction site; and (g) does not harm vegetation surrounding the construction site.
(B9)	If there is any indication that any of the circumstances in condition (B7)(b)(i) to (B7(b)(iv)) or (B8)(a) to (B8(d)) is occurring the use must cease immediately and the affected area must be remediated without delay.
(B10)	Irrigation of produced water is authorised providing it ensures: (a) Ensure that soil structure, stability and productive capacity can be maintained or improved; (b) Toxic effects to crops do not result; and (c) Yields and produce quality area maintained or improved.
(B11)	Irrigation of produced water is authorised providing a written report is provide to the chief executive which: (a) Certifies that the outcomes in condition (B10) will be achieved (b) States water quality criteria, which has been determined in accordance with the assessment procedures outlines in **Waste Schedule, Table 1–Assessment procedures for water quality criteria** (c) Includes a water monitoring program to monitor that the outcomes listed in condition (B10) are being achieved. **Waste Schedule, Table 1–Assessment procedures for water quality criteria**

	Water quality criteria	**Assessment procedure**
	Electrical conductivity Sodium adsorption ratio pH	Salinity Management Handbook, with reference to Chapter 11; and/or Australian and New Zealand Guidelines for Fresh and Marine Water Quality, with reference to Volume 1 Chapter 4 and Volume 3 Chapter 9. The assessment should consider: • Soil properties within the root zone to e irrigated (e.g. clay content, cation exchange capacity, exchangeable sodium percentage) • Water quality of the proposed resource (e.g. salinity, sodicity) • Climate conditions (e.g. rainfall) • Leaching factions • Average root zone salinity (calculated) • Crop salt tolerance (e.g. impact threshold and yield decline) • Management practices and objectives (e.g. irrigation application rate, amelioration techniques) • Broader landscape issues (e.g. land use depth to groundwater) • Any additional modelling and tests undertaken to support the varied water quality parameters.
	Heavy metals	Australian and New Zealand Guidelines for Fresh and Marine Water Quality, with reference to Volume 1 Chapters 3 and 4 and Volume 3 Chapter 9. The assessment should aim to derive site specific trigger values (e.g. cumulative contaminant loading limit) based on the methodology provided in the above mentioned procedure.
Residual drilling material		

(B12)	If sumps are used to store residual drilling material or drilling fluids, they must only be used for the duration of drilling activities.
(B13)	Residual drilling material can only be disposed of on-site: (a) by mix-bury-cover method if the residual drilling material meets the approved quality criteria; or (b) if it is certified by a suitably qualified third party as being of acceptable quality for disposal to land by the proposed method and that environmental harm will not result from the proposed disposal.
(B14)	Records must be kept to demonstrate compliance with condition (B12) and (B13).

SCHEDULE C – PROTECTING ACOUSTIC VALUES

General

(C1) Notwithstanding condition (A18), emission of noise from the petroleum activity(ies) at levels less than those specified in **Protecting acoustic values, Table 1—Noise nuisance limits** are not considered to be environmental nuisance.

Protecting acoustic values, Table 1—Noise nuisance limits

Time period	Metric	Short term noise event	Medium term noise event	Long term noise event
7:00am—6:00pm	$L_{Aeq,adj,15\ min}$	45 dBA	43 dBA	40 dBA
6:00pm—10:00pm	$L_{Aeq,adj,15\ min}$	40 dBA	38 dBA	35 dBA
10:00pm—6:00am	$L_{Aeq,adj,15\ min}$	28 dBA	28 dBA	28 dBA
	Max $L_{pA,\ 15\ mins}$	55 dBA	55 dBA	55 dBA
6:00am—7:00am	$L_{Aeq,adj,15\ min}$	40 dBA	38 dBA	35 dBA

Note 1. The noise limits in Table 1 have been set based on the following deemed background noise levels (L_{ABG}):

7:00am—6:00 pm: 35 dBA

6:00pm—10:00 pm: 30 dBA

10:00pm—6:00 am: 25 dBA

6:00am—7:00 am: 30 dBA

(C2) If the noise subject to a valid complaint is tonal or impulsive, the adjustments detailed in **Protecting acoustic values, Table 2—Adjustments to be added to noise levels at sensitive receptors** are to be added to the measured noise level(s) to derive $L_{Aeq,\ adj,\ 15\ min}$.

Protecting acoustic values, Table 2—Adjustments to be added to noise levels at sensitive receptors

Noise characteristic	Adjustment to noise

<table>
<tr><td></td><td><table>
<tr><td>Tonal characteristic is just audible</td><td>+ 2 dBA</td></tr>
<tr><td>Tonal characteristic is clearly audible</td><td>+ 5 dBA</td></tr>
<tr><td>Impulsive characteristic is detectable</td><td>+ 2 to + 5 dBA</td></tr>
</table></td></tr>
<tr><td>(C3)</td><td>Notwithstanding condition (C1), emission of any low frequency noise must not exceed either (C3(a)) and (C3(b)), or (C3(c)) and (C3(d)) in the event of a valid complaint about low frequency noise being made to the administering authority:
(a) 60 dB(C) measured outside the sensitive receptor; and
(b) the difference between the external A-weighted and C-weighted noise levels is no greater than 20 dB; or
(c) 50 dB(Z) measured inside the sensitive receptor; and
(d) the difference between the internal A-weighted and Z-weighted (Max $L_{pZ, 15\ min}$) noise levels is no greater than 15 dB.</td></tr>
</table>

SCHEDULE D – PROTECTING AIR VALUES

Fuel Burning or combustion equipment – authorised point source

(D1)	Unless venting is authorised under the *Petroleum and Gas (Production and Safety) Act 2004* or the *Petroleum Act 1923*, waste gas must be flared in a manner that complies with all of (D1(a)) and (D1(b)) and (D1(c)), or with (D1(d)): (e) an automatic ignition system is used, and (f) a flame is visible at all times while the waste gas is being flared, and (g) there are no visible smoke emissions other than for a total period of no more than 5 minutes in any 2 hours, or (h) it uses an enclosed flare.
(D2)	A fuel burning or combustion facility must not be operated unless it is listed in **Protecting air values, Table 1–Authorised point sources**.
(D3)	If a fuel burning or combustion facility is listed in **Protecting air values, Table 1—Authorised point sources**, the fuel burning or combustion facility must be operated so that the releases to air do not exceed the limits specified in **Protecting air values, Table 1—Authorised point sources** at the specified release point reference.

Protecting air values, Table 1—Authorised point sources

Resource Authority	Facility	Release Point Reference	Equipment Description	Minimum Release Height (m)	Minimum Efflux Velocity (m / sec)	NOx as Nitrogen Dioxide		Carbon Monoxide	
						Maximum concentration (mg / Nm^3)	Maximum Mass emission rate (g / sec)	Maximum concentration (mg / Nm^3)	Maximum Mass emission rate (g / sec)
PL1049	MWCH	A1	Compressor 1	8	10	650 @ 5% O_2	1.7	1500 @ 5% O_2	3.5

PL1049	MWCH	A2	Compressor 2	8	10	650 @ 5% O_2	1.7	1500 @ 5% O_2	3.5
PL1049	MWCH	A3	Compressor 3	8	10	650 @ 5% O_2	1.7	1500 @ 5% O_2	3.5
PL1049	MWCH	A4	Compressor 4	8	10	650 @ 5% O_2	1.7	1500 @ 5% O_2	3.5
PL1049	MWCH	A5	Compressor 5	8	10	650 @ 5% O_2	1.7	1500 @ 5% O_2	3.5
PL1049	MWCH	A6	Compressor 6	8	10	650 @ 5% O_2	1.7	1500 @ 5% O_2	3.5
PL1049	MWCH	A7	Generator 1	8	12	450 @ 5% O_2	3.1	700 @ 5% O_2	5.0
PL1049	MWCH	A8	Generator 2	8	12	450 @ 5% O_2	3.1	700 @ 5% O_2	5.0
PL1049	MWCH	A9	Generator 3	8	12	450 @ 5% O_2	3.1	700 @ 5% O_2	5.0
PL1049	MWCH	A10	Generator 4	8	12	450 @ 5% O_2	3.1	700 @ 5% O_2	5.0
PL1049	MWCH	A11	Generator 5	8	12	450 @ 5% O_2	3.1	700 @ 5% O_2	5.0
PL1049	MWCH	A12	Flare	20	N/A	N/A	N/A	N/A	N/A

(D4)	Point source air monitoring for each fuel burning or combustion facility listed in **Protecting air values, Table 1—Authorised point sources** must: (a) be undertaken once**:** i. in the first three months after each facility is first commissioned, and then ii. every year thereafter; (b) be carried out when the facility the subject of the sampling is operating under maximum operating conditions for the annual period; and

<table>
<tr><td></td><td>(c) demonstrate compliance with the limits listed in Protecting air values, Table 1—Authorised point sources at each release point reference.</td></tr>
<tr><td>(D5)</td><td>The operation of fuel burning or combustion facilities must not result in ground level concentrations of contaminants exceeding the maximum limits specified in Protecting air values, Table 2—Maximum ground level concentration of contaminants to air.
Protecting air values, Table 2—Maximum ground level concentration of contaminants to air
<table>
<tr><th>Contaminant</th><th>EPP Air Quality Objective / Maximum ground level concentration at 0° Celsius</th><th>Units</th><th>Averaging time</th></tr>
<tr><td>Nitrogen Dioxide</td><td>250</td><td>µg/m^3</td><td>1 hour</td></tr>
<tr><td>Nitrogen Dioxide</td><td>62</td><td>µg/m^3</td><td>1 year</td></tr>
<tr><td>Sulphur Dioxide</td><td>570</td><td>µg/m^3</td><td>1 hour</td></tr>
<tr><td>Carbon Monoxide</td><td>11</td><td>mg/ m^3</td><td>8 hours</td></tr>
</table></td></tr>
<tr><td>(D6)</td><td>An air receiving environment monitoring program (AREMP) must be developed to demonstrate compliance with the limits in Protecting Air Values, Table 2—Maximum ground level concentration of contaminants to air.</td></tr>
<tr><td>(D7)</td><td>The AREMP must include, but not necessarily be limited to:
(a) the delineation of the relevant air shed(s);
(b) the identification of background reference sites and impact monitoring sites within the relevant air shed(s), including sensitive places;
(c) a monitoring program to be carried out annually that:
i. includes background reference and impact monitoring sites;
ii. includes an assessment of meteorological conditions (wind speed and direction);
iii. is sufficient to determine compliance with the limits listed in Protecting Air Values, Table 2—Maximum ground level concentration of contaminants to air</td></tr>
</table>

	iv. identifies the effects of the authorised contaminants released to air in the relevant air shed(s); v. is representative of when the fuel burning or combustion facilities are operating under maximum operating conditions for the annual period; (d) an assessment of the condition of each fuel burning or combustion facility; and (e) a description of other significant point sources in the air shed and surrounding land use including sensitive places.
(D8)	An AREMP report must be written annually which includes the information required by condition (D7) and an assessment of the extent to which monitoring data for ground level concentrations complies with the air contaminant limits listed in **Protecting air values, Table 2—Maximum ground level concentration of contaminants to air**.
(D9)	Where monitoring data indicates that ground level concentrations listed in **Protecting air values, Table 2—Maximum ground level concentration of contaminants to air** have not been met, the AREMP report required by condition (D8) must also include an assessment of: (a) the extent to which the values of the air environment in the relevant air shed(s) are being protected (b) an assessment of whether contaminant releases to the air environment are consistent with the air management hierarchy in the *Environmental Protection (Air) Policy 2019*, and (c) any corrective actions that have been implemented or proposed to be implemented to become consistent with the air management hierarchy and achieve compliance with **Protecting air values, Table 2—Maximum ground level concentration of contaminants to air**.
(D10)	A statement of compliance prepared by a suitably qualified person must accompany each AREMP report required by condition (D8) and if applicable, condition (D9) stating: (a) whether the AREMP as most recently implemented complies with the requirements of conditions (A3), condition (A7(d)), (D6) and (D7) (b) that, to the best of the suitably qualified person's knowledge, the assessment required by condition (D8) and if applicable, condition (D9) is true, correct and complete, and

	(c) that, to the best of the suitably qualified person's knowledge, all information provided as part of the statement of compliance, including attachments, is true, correct and complete.
(D11)	Where condition (D9) applies, the documents required by conditions (D8), (D9) and (D10) must be given to the administering authority within 5 business days after the AREMP report is written.

SCHEDULE E – PROTECTING LAND VALUES General	
(E1)	Contaminants must not be directly or indirectly released to land.
Top soil management	
(E2)	Top soil must be managed in a manner that preserves its biological and chemical properties.
Chemical Storage	
(E3)	Chemicals and fuels on the relevant tenure must be stored in an effective containment system that meets Australian Standards, where such a standard is relevant.
Pipeline operation and maintenance	
(E4)	Pipeline operation and maintenance must be in accordance, to the greatest practicable extent, with the relevant section of the APIA Code of Environmental Practice: Onshore Pipelines (2017) and amended from time to time.
Pipeline reinstatement and revegetation	
(E5)	Pipeline trenches must be backfilled and topsoils reinstated within three months after pipe laying.
(E6)	Reinstatement and revegetation of the pipeline right of way must commence within 6 months after cessation of petroleum activities for the purpose of pipeline construction.
(E7)	Backfilled, reinstated and revegetated pipeline trenches and right of ways must be: (e) a stable landform (f) re-profiled to a level consistent with surrounding soils (g) re-profiled to original contours and established drainage lines; and (h) vegetated with groundcover which is not a declared pest species, and which is established and growing.

SCHEDULE F – PROTECTING BIODIVERSITY VALUES **Confirming biodiversity values**	
(F1)	Prior to undertaking activities that result in significant disturbance to land in areas of native vegetation, confirmation of on-the-ground biodiversity values of the native vegetation communities at that location must be undertaken by a suitably qualified person.
(F2)	A suitably qualified person must develop and certify a methodology so that condition (F1) can be complied with and which is appropriate to confirm on-the-ground biodiversity values.
(F3)	For conditions (F4) to (F8), where mapped biodiversity values differ from those confirmed under conditions (F1) and (F2), petroleum activities may proceed in accordance with the conditions of the environmental authority based on the confirmed on-the-ground biodiversity value.
Planning for land disturbance	
(F4)	The location of the petroleum activity(ies) must be selected in accordance with the following site planning principles: (a) maximise the use of areas of pre-existing disturbance (b) in order of preference, avoid, minimise or mitigate any impacts, including cumulative impacts, on areas of native vegetation or other areas of ecological value (c) minimise disturbance to land that may result in land degradation (d) in order of preference, avoid then minimise isolation, fragmentation, edge effects or dissection of tracts of native vegetation; and (e) in order of preference, avoid then minimise clearing of native mature trees.
(F5)	Linear infrastructure construction corridors must: (c) maximise co-location (d) be minimised in width to the greatest practicable extent; and (e) for linear infrastructure that is an essential petroleum activity authorised in an environmentally sensitive area or its protection zone, be no greater than 40m in total width.

(F6)	Petroleum activities are not permitted in Category A, B or C environmentally sensitive areas.
(F7)	Essential petroleum activities may be undertaken in areas of pre-existing disturbance in the primary protection zones of Category B environmentally sensitive areas that are 'endangered' regional ecosystems and Category C environmentally sensitive areas other than 'nature refuges' or 'koala habitat' areas, providing those activities do not have a measurable negative impact on the adjacent environmentally sensitive area.
(F8)	A report must be prepared for each annual return period for all petroleum activities that involved clearing of any environmentally sensitive area or protection zone which includes: (a) records able to demonstrate compliance with conditions (F4) and (F5); (b) a description of the works (c) a description of the area and its pre-disturbance values (which may include maps or photographs, but must include GPS coordinates for the works); and (d) based on the extent of environmentally sensitive areas and primary protection zones on the relevant resource authority(ies), the proportion of native vegetation cleared per environmentally sensitive area and primary protection zone, including regional ecosystem type, over the annual return period.
(F9)	Significant residual impacts to prescribed environmental matters are not authorised under this environmental authority or the *Environmental Offsets Act 2014*.
(F10)	Records demonstrating that each impact to a prescribed environmental matter did not, or is not likely to, result in a significant residual impact to that matter must be: (c) completed by an appropriately qualified person; and (d) kept for the life of the environmental authority.

SCHEDULE G – PROTECTING WATER VALUES **Authorised activities in watercourses, wetlands and springs**	
G1	The extraction of groundwater as part of the petroleum activity(ies) from underground aquifers must not directly or indirectly cause environmental harm to a wetland.
Authorised activities in waters	
G2	Petroleum activities must not occur in or within 200m of a: (d) wetland of high ecological significance (e) Great Artesian Basin Spring (f) subterranean cave GDE.
G3	Only construction or maintenance of linear infrastructure is permitted in or within any wetland of other environmental value or in a watercourse.
G4	The construction or maintenance of linear infrastructure in a wetland of other environmental value must not result in the: (d) clearing of riparian vegetation outside of the minimum area practicable to carry out the works; or (e) ingress of saline water into freshwater aquifers; or (f) draining or filling of the wetland beyond the minimum area practicable to carry out the works.
G5	After the construction or maintenance works for linear infrastructure in a wetland of other environmental value are completed, the linear infrastructure must not: (g) drain or fill the wetland (h) prohibit the flow of surface water in or out of the wetland (i) lower or raise the water table and hydrostatic pressure outside the bounds of natural variability that existed before the activities commenced (j) result in ongoing negative impacts to water quality (k) result in bank instability; or (l) result in fauna ceasing to use adjacent areas for habitat, feeding, roosting or nesting.

<table>
<tr><td>G6</td><td>The construction or maintenance of linear infrastructure activities in a watercourse must be conducted in the following preferential order:
(d) firstly, in times where there is no water present
(e) secondly, in times of no flow
(f) thirdly, in times of flow, providing a bankfull situation is not expected and that flow is maintained.</td></tr>
<tr><td>G7</td><td>The construction or maintenance of linear infrastructure authorised under condition (G3) must comply with the water quality limits as specified in Protecting water values, Table 1—Release limits for construction or maintenance of linear infrastructure.
Protecting water values, Table 1—Release limits for construction or maintenance of linear infrastructure
<table>
<tr><th>Water quality parameters</th><th>Units</th><th>Water quality limits</th></tr>
<tr><td rowspan="2">Turbidity</td><td rowspan="2">Nephelometric Turbidity Units (NTU)</td><td>For a wetland of other environmental value, if background water turbidity is above 45 NTU, no greater than 25% above background water turbidity measured within a 50m radius of the construction or maintenance activity.
For a watercourse, if background water turbidity is above 45 NTU, no greater than 25% above background water turbidity measured within 50m downstream of the construction or maintenance activity.</td></tr>
<tr><td>For a wetland of other environmental value, if background water turbidity is equal to, or below 45 NTU, a turbidity limit of no greater than 55 NTU applies, measured within a 50m radius of the construction or maintenance activity.
For a watercourse, if background water turbidity is equal to, or below 45 NTU, a turbidity limit of no greater than 55 NTU applies, measured within 50m downstream of the construction or maintenance activity.</td></tr>
<tr><td>Hydrocarbons</td><td>Nil</td><td>For a wetland of other environmental value, or watercourse, no visible sheen or slick</td></tr>
</table></td></tr>
</table>

G8	Monitoring must be undertaken at a frequency that is appropriate to demonstrate compliance with condition (G7).
Register of activities in wetlands and watercourses	
G9	A register must be kept of all linear infrastructure construction and maintenance activities in a wetland of other environmental value and watercourses, which must include: (e) location of the activity (e.g. GPS coordinates (GDA94) and watercourse name) (f) estimated flow rate of surface water at the time of the activity (g) duration of works, and (h) results of impact monitoring carried out under condition (G8).
Activities in river improvement areas	
G10	Measures must be taken to minimise negative impacts to, or reversal of, any river improvement works carried out in River Improvement Areas by Queensland's River Improvement Trusts.
Activities in river improvement areas	
G11	Petroleum activity(ies) on floodplains must be carried out in a way that does not: (a) concentrate flood flows in a way that will or may cause or threaten a negative environmental impact; or (b) divert flood flows from natural drainage paths and alter flow distribution; or (c) increase the local duration of floods; or (d) increase the risk of detaining flood flows.
G12	A seepage monitoring program must be developed by a suitably qualified person which is commensurate with the site-specific risks of contaminant seepage from containment facilities, and which requires and plans for detection of any seepage of contaminants to groundwater as a result of storing contaminants by 1 July 2020.
G13	The seepage monitoring program required by condition (G12) must include but not necessarily be limited to: (j) identification of the containment facilities for which seepage will be monitored

	(k) identification of trigger parameters that are associated with the potential or actual contaminants held in the containment facilities (l) identification of trigger concentration levels that are suitable for early detection of contaminant releases at the containment facilities (m) installation of background seepage monitoring bores where groundwater quality will not have been affected by the petroleum activities authorised under this environmental authority to use as reference sites for determining impacts (n) installation of seepage monitoring bores that: iv. are within formations potentially affected by the containment facilities authorised under this environmental authority (i.e. within the potential area of impact) v. provide for the early detection of negative impacts prior to reaching groundwater dependent ecosystems, landholder's active groundwater bores, or water supply bores vi. provide for the early detection of negative impacts prior to reaching migration pathways to other formations (i.e. faults, areas of unconformities known to connect two or more formations) (o) monitoring of groundwater at each background and seepage monitoring bore at least quarterly for the trigger parameters identified in condition (G13(b)) (p) seepage trigger action response procedures for when trigger parameters and trigger levels identified in conditions (G13(b)) and (G13(c)) trigger the early detection of seepage, or upon becoming aware of any monitoring results that indicate potential groundwater contamination (q) a rationale detailing the program conceptualisation including assumptions, determinations, monitoring equipment, sampling methods and data analysis; and (r) provides for annual updates to the program for new containment facilities constructed in each annual return period.
G14	A bore drill log must be completed for each seepage monitoring bore in condition (G13) which must include: (f) bore identification reference and geographical coordinate location (g) specific construction information including but not limited to depth of bore, depth and length of casing, depth and length of screening and bore sealing details

	(h)	standing groundwater level and water quality parameters including physical parameter and results of laboratory analysis for the possible trigger parameters
	(i)	lithological data, preferably a stratigraphic interpretation to identify the important features including the identification of any aquifers; and
	(j)	target formation of the bore.

SCHEDULE H – REHABILITAITON Rehabilitation planning	
(H1)	A Rehabilitation Plan must be developed by a suitably qualified person and must include the: (c) rehabilitation goals; and (d) procedures to be undertaken for rehabilitation that will: iii. achieve the requirements of conditions (H2) to (H8), inclusive; and iv. provide for appropriate monitoring and maintenance.
Transitional rehabilitation	
(H2)	Significantly disturbed areas that are no longer required for the on-going petroleum activities, must be rehabilitated within 12 months (unless an exceptional circumstance in the area to be rehabilitated (e.g. a flood event) prevents this timeframe being met) and be maintained to meet the following acceptance criteria: (f) contaminated land resulting from petroleum activities is remediated and rehabilitated (g) the areas are: iv. non-polluting v. a stable landform vi. re-profiled to contours consistent with the surrounding landform (h) surface drainage lines are re-established (i) top soil is reinstated; and (j) either: i. groundcover, that is not a declared pest species, is growing; or ii. an alternative soil stabilisation methodology that achieves effective stabilisation is implemented and maintained.
Final rehabilitation acceptance criteria	
(H3)	All significantly disturbed areas caused by petroleum activities which are not being or intended to be utilised by the landholder or overlapping tenure holder, must be rehabilitated

	to meet the following final acceptance criteria measured either against the highest ecological value adjacent land use or the pre-disturbed land use: (e) greater than or equal to 70% of native ground cover species richness (f) greater than or equal to the total per cent of ground cover (g) less than or equal to the per cent species richness of declared plant pest species; and (h) where the adjacent land use contains, or the pre-clearing land use contained, one or more regional ecosystem(s), then at least one regional ecosystem(s) from the same broad vegetation group, and with the equivalent biodiversity status or a biodiversity status with a higher conservation value as any of the regional ecosystem(s) in either the adjacent land or pre-disturbed land, must be present.
Final rehabilitation acceptance criteria in Environmentally Sensitive Areas	
(H4)	Where significant disturbance to land has occurred in an environmentally sensitive area, the following final rehabilitation criteria as measured against the pre-disturbance biodiversity values assessment (required by conditions (H1) and (H2)) must be met: (a) greater than or equal to 70% of native ground cover species richness (b) greater than or equal to the total per cent ground cover (c) less than or equal to the per cent species richness of declared plant pest species (d) greater than or equal to 50% of organic litter cover (e) greater than or equal to 50% of total density of coarse woody material; and (f) all predominant species in the ecologically dominant layer, that define the pre-disturbance regional ecosystem(s) are present.
Continuing conditions	
(H5)	Conditions (H2), (H3) and (H4) continue to apply after this environmental authority has ended or ceased to have effect.
(H6)	Prior to relinquishing all or part of an authority to prospect area, a rehabilitation report must be prepared which specifically relates to the area to be relinquished and demonstrates condition (H2), (H3) and (H4) has been met.

(H7)	The report required under condition (H 6) must be submitted to the administering authority at least 40 business days prior to the relinquishment notice being lodged with the administering authority for the *Petroleum and Gas (Production and Safety) Act 2004*.

SCHEDULE I – Well construction, maintenance and stimulation activities **Drilling activities**	
(I1)	Oil based or synthetic based drilling muds must not be used in the carrying out of the petroleum activity(ies).
(I2)	Drilling activities must not result in the connection of the target gas producing formation and another aquifer.
(I3)	Practices and procedures must be in place to detect, as soon as practicable, any fractures that have or may result in the connection of a target formation and another aquifer as a result of drilling activities.
Stimulation activities	
(I4)	Polycyclic aromatic hydrocarbons or products that contain polycyclic aromatic hydrocarbons must not be used in stimulation fluids in concentrations above the reporting limit.
(I5)	Stimulation activities must not negatively affect water quality, other than that within the stimulation impact zone of the target gas producing formation.
(I6)	Stimulation activities must not cause the connection of the target gas producing formation and another aquifer.
(I7)	The internal and external mechanical integrity of the well system prior to and during stimulation must be ensured such that there is: (c) no significant leakage in the casing, tubing, or packer; and (d) there is no significant fluid movement into another aquifer through vertical channels adjacent to the well bore hole.
(I8)	Practices and procedures must be in place to detect, as soon as practicable, any fractures that cause the connection of a target gas producing formation and another aquifer.
Stimulation Risk Assessment	
(I9)	Prior to undertaking stimulation activities, a risk assessment must be developed to ensure that stimulation activities are managed to prevent environmental harm.

(I10)	A summary of each stimulation risk assessment must be submitted to the administering authority upon request.
(I11)	The stimulation risk assessment must be carried out for every well to be stimulated prior to stimulation being carried out at that well and address issues at a relevant geospatial scale such that changes to features and attributes are adequately described and must include, but not necessarily be limited to: (t) a process description of the stimulation activity to be applied, including equipment and a comparison to best international practice (u) provide details of where, when and how often stimulation is to be undertaken on the tenures covered by this environmental authority (v) a geological model of the field to be stimulated including geological names, descriptions and depths of the target gas producing formation(s) (w) naturally occurring geological faults (x) seismic history of the region (e.g. earth tremors, earthquakes) (y) proximity of overlying and underlying aquifers (z) description of the depths that aquifers with environmental values occur, both above and below the target gas producing formation (aa) identification and proximity of landholder' active groundwater bores in the area where stimulation activities are to be carried out (bb) the environmental values of groundwater in the area (cc) an assessment of the appropriate limits of reporting for all water quality indicators relevant to stimulation monitoring in order to accurately assess the risks to environmental values of groundwater (dd) description of overlying and underlying formations in respect of porosity, permeability, hydraulic conductivity, faulting and fracture propensity (ee) consideration of barriers or known direct connections between the target gas producing formation and the overlying and underlying aquifers (ff) a description of the well mechanical integrity testing program (gg) process control and assessment techniques to be applied for determining extent of stimulation activities (e.g. microseismic measurements, modelling etc.) (hh) practices and procedures to ensure that the stimulation activities are designed to be contained within the target gas producing formation

	(ii) groundwater transmissivity**,** flow rate, hydraulic conductivity and direction(s) of flow (jj) a description of the chemical compounds used in stimulation activities (including estimated total mass, estimated composition, chemical abstract service numbers and properties), their mixtures and the resultant compounds that are formed after stimulation (kk) a mass balance estimating the concentrations and absolute masses of chemical compounds that will be reacted, returned to the surface or left in the target gas producing formation subsequent to stimulation (ll) an environmental hazard assessment of the chemicals used including their mixtures and the resultant chemicals that are formed after stimulation including: iv. toxicological and ecotoxicological information of chemical compounds used v. information on the persistence and bioaccumulation potential of the chemical compounds used; and vi. identification of the chemicals of potential concern in stimulation fluids derived from the risk assessment (t) an environmental hazard assessment of use, formation of, and detection of polycyclic aromatic hydrocarbons in stimulation activities (u) identification and an environmental hazard assessment of using radioactive tracer beads in stimulation activities (v) an environmental hazard assessment of leaving chemical compounds in stimulation fluids in the target gas producing formation for extended periods subsequent to stimulation (w) human health exposure pathways to operators and the regional population (x) risk characterisation of environmental impacts based on the environmental hazard assessment (y) potential impacts to landholder bores as a result of stimulation activities (z) an assessment of cumulative underground impacts, spatially and temporally of the stimulation activities to be carried out on the tenures covered by this environmental authority; and (aa) potential environmental or health impacts which may result from stimulation activities including but not limited to water quality, air quality (including suppression of dust and other airborne contaminants), noise and vibration.

Water quality baseline monitoring	
(I12)	Prior to undertaking any stimulation activity, a baseline bore assessment must be undertaken of the water quality of: (d) all landholder's active groundwater bores (subject to access being permitted by the landholder) that are spatially located within a two (2) kilometre horizontal radius from the location of the stimulation initiation point within the target gas producing formation; and (e) all landholders' active groundwater bores (subject to access being permitted by the landholder) in any aquifer that is within 200m above or below the target gas producing formation and is spatially located with a two (2) kilometre radius from the location of the stimulation initiation point; and (f) any other bore that could potentially be adversely impacted by the stimulation activities in accordance with the findings of the risk assessment required by conditions (I9) and (I10).
(I13)	Prior to undertaking stimulation activities at a well, there must be sufficient water quality data to accurately represent the water quality in the well to be stimulated. The data must include as a minimum the results of analyses for the parameters in condition (I13).
(I14)	Baseline bore and well assessments must include relevant analytes and physico-chemical parameters to be monitored in order to establish baseline water quality and must include, but not necessarily be limited to: (a) pH (b) electrical conductivity [μS/m] (c) turbidity [NTU] (d) total dissolved solids [mg/L] (e) temperature [ºC] (f) dissolved oxygen [mg/L] (g) dissolved gases (methane, chlorine, carbon dioxide, hydrogen sulfide) [mg/L] (h) alkalinity (bicarbonate, carbonate, hydroxide and total as $CaCO_3$) [mg/L] (i) sodium adsorption ratio (SAR) (j) anions (bicarbonate, carbonate, hydroxide, chloride, sulphate) [mg/L]

	(k) cations (aluminium, calcium, magnesium, potassium, sodium) [mg/L] (l) dissolved and total metals and metalloids (including but not necessarily being limited to: aluminium, arsenic, barium, borate (boron), cadmium, total chromium, copper, iron, fluoride, lead, manganese, mercury, nickel, selenium, silver, strontium, tin and zinc) [μg/L] (m) total petroleum hydrocarbons [μg/L] (n) BTEX (as benzene, toluene, ethylbenzene, ortho-xylene, para- and meta-xylene, and total xylene) [μg/L] (o) polycyclic aromatic hydrocarbons (including but not necessarily being limited to: naphthalene, phenanthrene, benzo[a]pyrene) [μg/L] (p) sodium hypochlorite [mg/L] (q) sodium hydroxide [mg/L] (r) formaldehyde [mg/L] (s) ethanol [mg/L]; and (t) gross alpha + gross beta or radionuclides by gamma spectroscopy [Bq/L].
Stimulation Impact Monitoring Program	
(I15)	A stimulation impact monitoring program must be developed prior to the carrying out of stimulation activities which must be able to detect adverse impacts to water quality from stimulation activities and must consider the findings of the risk assessment required by conditions (I9) and (I10) that relate to stimulation activities and must include, as a minimum, monitoring of: (e) the stimulation fluids to be used in stimulation activities at sufficient frequency and which sufficiently represents the quantity and quality of the fluids used (f) flow back waters from stimulation activities at sufficient frequency and which sufficiently represents the quality of that flow back water (g) flow back waters from stimulation activities at sufficient frequency and accuracy to demonstrate that 150% of the volume used in stimulation activities has been extracted from the stimulated well; and (h) all bores in accordance with condition (I11).
(I16)	The stimulation impact monitoring program must provide for monitoring of:

	(c) analytes and physico-chemical parameters relevant to baseline bore and well assessments to enable data referencing and comparison including, but not necessarily being limited to the analytes and physico-chemical parameters in condition (I13); and (d) any other analyte or physico-chemical parameters that will enable detection of adverse water quality impacts and the inter-connection with a non-target aquifer as a result of stimulation activities including chemical compounds that are actually or potentially formed by chemical reactions with each other or coal seam materials during stimulation activities.
(I17)	The stimulation impact monitoring program must provide for monitoring of the bores in condition (I4(d)) at the following minimum frequency: (c) monthly for the first six (6) months subsequent to stimulation activities being undertaken; then (d) annually for the first five (5) years subsequent to stimulation being undertaken or until analytes and physico-chemical parameters listed in conditions (I13(a)) to (I13(t)) inclusive, are not detected in concentrations above baseline bore monitoring data on two (2) consecutive monitoring occasions.
(I18)	The results of the stimulation impact monitoring program must be made available to any potentially affected landholder upon request by that landholder.

Schedule J- Definitions

Key terms and/or phrases underlined in this environmental authority are defined in this section. Where a term is not defined, the definition in the *Environmental Protection Act 1994*, its regulations or environmental protection policies must be used. If a word remains undefined it has its ordinary meaning.

Term	Definition
acceptable standards for release to land	means wastewater of the following quality as determined by monitoring results or by characterisation: (f) electrical conductivity (EC) not exceeding 3000µS/cm (g) sodium adsorption ratio (SAR) not exceeding 8 (h) pH between 6.0 and 9.0 (i) heavy metals (measured as total) meets the respective short term trigger value in section 4.2.6, Table 4.2.10—Heavy metals and metalloids in Australian and New Zealand Guidelines for Fresh and Marine Water Quality (j) does not contain biocides.
acid sulfate soil(s)	means a soil or soil horizon which contains sulfides or an acid soil horizon affected by oxidation of sulfides.
adjacent land use(s)	means the ecosystem function adjacent to an area of significant disturbance, or where there is no ecosystem function, the use of the land. An adjacent land use does not include an adjacent area that shows evidence of edge effect.
administering authority	means: (d) for a matter, the administration and enforcement of which has been devolved to a local government under section 514 of the *Environmental Protection Act 1994*—the local government; or (e) for all other matters—the Chief Executive of the Department of Environment and Heritage Protection; or (f) another State Government Department, Authority, Storage Operator, Board or Trust, whose role is to administer provisions under other enacted legislation.
alternative arrangement	means a written agreement about the way in which a particular environmental nuisance impact will be dealt with at a sensitive place, and may include an agreed period of time for which the arrangement is in place. An alternative arrangement may include, but is not limited to, a range of nuisance abatement measures to be installed at the sensitive place,

<table>
<tr><td></td><td>or provision of alternative accommodation for the duration of the relevant nuisance impact.</td></tr>
<tr><td>analogue site(s)</td><td>means an area of land which contains values and characteristics representative of an area to be rehabilitated prior to disturbance. Such values must encompass land use, topographic, soil, vegetation, vegetation community attributes and other ecological characteristics. Analogue sites can be the pre-disturbed site of interest where significant surveying effort has been undertaken to establish benchmark parameters.</td></tr>
<tr><td>annual return period</td><td>means the12 month period from 1 January to 31 December in a calendar year.</td></tr>
<tr><td>appraisal well</td><td>means a petroleum well to test the potential of one (1) or more natural underground reservoirs for producing or storing petroleum. For clarity, an appraisal well does not include an exploration well.</td></tr>
<tr><td>appropriately qualified person / suitably qualified person</td><td>means a person who has professional qualifications, training or skills or experience relevant to the nominated subject matters and can give authoritative assessment, advice and analysis about performance relevant to the subject matters using relevant protocols, standards, methods or literature.</td></tr>
<tr><td>approved quality criteria</td><td>for the purposes of residual drilling materials, means the residual drilling material meet the following quality standards:
Part A In all cases:
<table>
<tr><th>Parameter</th><th>Maximum concentration</th></tr>
<tr><td>pH</td><td>6–10.5 (range)</td></tr>
<tr><td>Electrical Conductivity</td><td>20dS/m (20,000µS/cm)</td></tr>
<tr><td>Chloride*</td><td>8000mg/L</td></tr>
</table>
*Chloride analysis is only required if an additive containing chloride was used in the drilling process
The limits in Part A must be measured in the clarified filtrate of oversaturated solids prior to mixing.
Part B If any of the following metals are a component of the drilling fluids, then for that metal:
<table>
<tr><th>Parameter</th><th>Maximum concentration</th></tr>
<tr><td>Arsenic</td><td>20mg/kg</td></tr>
<tr><td>Selenium</td><td>5mg/kg</td></tr>
</table></td></tr>
</table>

	<table><tr><td>Boron</td><td>100mg/kg</td></tr><tr><td>Cadmium</td><td>3mg/kg</td></tr><tr><td>Chromium (total)</td><td>400mg/kg</td></tr><tr><td>Copper</td><td>100mg/kg</td></tr><tr><td>Lead</td><td>600mg/kg</td></tr></table> The limits in Part B and Part C refer to the post soil/by-product mix. Part C If a hydrocarbon sheen is visible, the following hydrocarbon fractions: <table><tr><th>TPH</th><th>Maximum concentration</th></tr><tr><td>C6-C10</td><td>170mg/kg</td></tr><tr><td>C10-C16</td><td>150mg/kg</td></tr><tr><td>C16-C34</td><td>1300mg/kg</td></tr><tr><td>C34-C40</td><td>5600mg/kg</td></tr><tr><td>Total Polycyclic Aromatic Hydrocarbons (PAHs)</td><td>20mg/kg</td></tr><tr><td>Phenols (halogenated)</td><td>1mg/kg</td></tr><tr><td>Phenols (non-halogenated)</td><td>60mg/kg</td></tr><tr><td>Monocyclic aromatic hydrocarbons (Total sum of benzene, toluene, ethyl benzene, xylenes (includes ortho, para and meta xylenes) and styrene)</td><td>7mg/kg</td></tr><tr><td>Benzene</td><td>1mg/kg</td></tr></table>
areas of pre-existing disturbance	means areas where environmental values have been negatively impacted as a result of anthropogenic activity and these impacts are still evident. Areas of pre-disturbance may include areas where legal clearing, logging, timber harvesting, or grazing activities have previously occurred, where high densities of weed or pest species are present which have inhibited re-colonisation of native regrowth, or where there is existing infrastructure (regardless of whether the infrastructure is associated with the authorised petroleum

	activities). The term 'areas of pre-disturbance' does not include areas that have been impacted by wildfire/s, controlled burning, flood or natural vegetation die-back.
associated water	means underground water taken or interfered with, if the taking or interference happens during the course of, or results from, the carrying out of another authorised activity under a petroleum authority, such as a petroleum well, and includes waters also known as produced formation water. The term includes all contaminants suspended or dissolved within the water.
associated works	in relation to a dam, means: (c) operations of any kind and all things constructed, erected or installed for that dam; and (d) any land used for those operations.
Australian Standard 3580	means any of the following publications: • AS3580.10.1 Methods for sampling and analysis of ambient air—Determination of particulate matter—Deposited matter—Gravimetric method. • AS3580.9.6 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter—PM10 high volume sampler with size-selective inlet—Gravimetric method • AS3580.9.9 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter— PM10 low volume sampler—Gravimetric sampler.
background noise level	means the sound pressure level, measured in the absence of the noise under investigation, as the $L_{A90,T}$ being the A-weighted sound pressure level exceeded for 90% of the measurement time period T of not less than 15 minutes (or $\underline{L_{A\ 90,\ adj,\ 15\ mins}}$), using Fast response.
bankfull	means the channel flow rate that exists when the water is at the elevation of the channel bank above which water begins to spill out onto the floodplain. The term describes the condition of the channel relative to its banks (e.g. overbank, in-bank, bankfull, low banks, high bank).
bed	of any waters, has the meaning in Schedule 12 of the Environmental Protection Regulation 2008 and— (a) includes an area covered, permanently or intermittently, by tidal or non-tidal waters; but (b) does not include land adjoining or adjacent to the bed that is from time to time covered by floodwater.

being or intended to be utilised by the landholder or overlapping tenure holder	for significantly disturbed land, means there is a written agreement (e.g. land and compensation agreement) between the landholder or the overlapping tenure holder and the holder of the environmental authority identifying that the landholder or the overlapping tenure holder has a preferred use of the land such that rehabilitation standards for revegetation by the holder of the environmental authority are not required. For dams, means there is a written agreement (e.g. land and compensation agreement) between the landholder or the overlapping tenure holder and the holder of the environmental authority identifying that the landholder or the overlapping tenure holder has a preferred use for the dam such that rehabilitation standards for revegetation by the holder of the environmental authority are not required.
biodiversity values	for the purposes of this environmental authority, means environmentally sensitive areas, prescribed environmental matters and wetlands.
BTEX	means benzene, toluene, ethylbenzene, ortho-xylene, para-xylene, meta-xylene and total xylene.
Category A Environmentally Sensitive Area	means any area listed in Schedule 19, Part 1, section 1 of the *Environmental Protection Regulation 2019.*
Category B Environmentally Sensitive Area	means any area listed in Schedule 19, Part 1, section 2 of the *Environmental Protection Regulation 2019.*
Category C Environmentally Sensitive Area	means any of the following areas: • nature refuges as defined in the conservation agreement for that refuge under the *Nature Conservation Act 1992* • koala habitat areas as defined under the Nature Conservation (Koala) Conservation Plan 2006 • state forests or timber reserves as defined under the *Forestry Act 1959* • regional parks (previously known as resource reserves) under the *Nature Conservation Act 1992* • an area validated as 'essential habitat' from ground-truthing surveys in accordance with the *Vegetation Management Act 1999* for a species of wildlife listed as endangered or vulnerable under the *Nature Conservation Act 1992* • *'*of concern regional ecosystems' that are remnant vegetation and identified in the database called 'RE description database' containing regional ecosystem numbers and descriptions.

certified or certification	in relation to any matter other than a design plan, 'as constructed' drawings or an annual report regarding dams means, a Statutory Declaration by a suitably qualified person or suitably qualified third party accompanying the written document stating: • the person's qualifications and experience relevant to the function • that the person has not knowingly included false, misleading or incomplete information in the document • that the person has not knowingly failed to reveal any relevant information or document to the administering authority • that the document addresses the relevant matters for the function and is factually correct; and • that the opinions expressed in the document are honestly and reasonably held.
clearing	has the meaning in the dictionary of the *Vegetation Management Act 2000* and for vegetation— (c) means remove, cut down, ringbark, push over, poison or destroy in any way including by burning, flooding or draining; but (d) does not include destroying standing vegetation by stock, or lopping a tree.
closed-loop systems	means using waste on site in a way that does not release waste or contaminants in the waste to the environment.
control measure	has the meaning in section 32 of the *Environmental Protection Regulation 2019* and means a device, equipment, structure, or management strategy used to prevent or control the release of a contaminant or waste to the environment.
critically limited regional ecosystem	means the regional ecosystems defined and listed in Appendix 5 of the Queensland Biodiversity Offset Policy.
coal seam gas water	means underground water brought to the surface of the earth, or moved underground in connection with exploring for, or producing coal seam gas.
daily peak design capacity	for sewage treatment works, has the meaning in Schedule 2, section 63(4) of the *Environmental Protection Regulation 2019* as the higher equivalent person (EP) for the works calculated using each of the formulae found in the definition for EP.
dam(s)	means a land-based structure or a void that contains, diverts or controls flowable substances, and includes any substances that are thereby contained, diverted or controlled by that land-based structure or void and associated works.

Prohibited and restricted pest species	means any pest that is: (a) a plant or animal, other than a native species of plant or animal, that is (i) invasive biosecurity matter under the Biosecurity Act 2014 (Qld); or Notes— 1 See the Biosecurity Act 2014, schedule 1, part 3 or 4 or schedule 2, part 2; and 2 See the note to the Biosecurity Act 2014, schedules 1 and 2. (ii) controlled biosecurity matter or regulated biosecurity matter under the Biosecurity Act 2014 (Qld) (iii) tramp ants listed in schedule 1 and schedule 2 of the Biosecurity Act 2014 (Qld) a pest declared under a local law by the local government for the Land to be a pest because the pest is causing, or has the potential to cause, an adverse environmental, economic or social impact in all or part of the local government area.
designated precinct	has the meaning in Part 5 section 15(3) of the Regional Planning Interests Regulation 2014 and means: • for a strategic environmental area mentioned in section 4(1) – the area identified as a designated precinct on the strategic environmental area map for the strategic environmental are; or • if a strategic environmental area is shown on a map in a regional plan – the area identified on the map as a designated precinct for the strategic environmental area.
design storage allowance or DSA	means an available volume, estimated in accordance with the Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635), published by the administering authority, as amended from time to time, that must be provided in a dam to an annual exceedance probability specified in that Manual.
development wells	means a petroleum well which produces or stores petroleum. For clarity, a development well does not include an appraisal well.
document	has the meaning in the *Acts Interpretation Act 1954* and means: • any paper or other material on which there is writing; and • any paper or other material on which there are marks; and • figures, symbols or perforations having a meaning for a person qualified to interpret them; and • any disc, tape or other article or any material from which sounds, images, writings or messages are capable of being produced or reproduced (with or without the aid of another article or device).

ecologically dominant layer	has the meaning in the Methodology for Surveying and Mapping of Regional Ecosystems and Vegetation Communities in Queensland (Version 3.2 August 2012) and means the layer making the greatest contribution to the overall biomass of the site and the vegetation community (NLWRA 2001). This is also referred to as the ecologically dominant stratum or the predominant canopy in woody ecosystems.
ecosystem function	means the interactions between and within living and nonliving components of an ecosystem and generally correlates with the size, shape and location of the vegetation community.
enclosed flare	means a device where the residual gas is burned in a cylindrical or rectilinear enclosure that includes a burning system and a damper where air for the combustion reaction is admitted.
environmental harm	has the meaning in section 14 of the *Environmental Protection Act 1994* and means any adverse effect, or potential adverse effect (whether temporary or permanent and of whatever magnitude, duration or frequency) on an environmental value, and includes environmental nuisance. Environmental harm may be caused by an activity— (c) whether the harm is a direct or indirect result of the activity; or (d) whether the harm results from the activity alone or from the combined effects of the activity and other activities or factors.
environmental nuisance	has the meaning in section 15 of the *Environmental Protection Act 1994 and means* unreasonable interference or likely interference with an environmental value caused by— (d) aerosols, fumes, light, noise, odour, particles or smoke; or (e) an unhealthy, offensive or unsightly condition because of contamination; or (f) another way prescribed by regulation.
environmental offset	has the meaning in section 7 of the *Environmental Offsets Act 2014.*
environmentally sensitive area	means Category A, B or C environmentally sensitive areas (ESAs)
equivalent person or EP	has the meaning under section 3 of the Planning Guidelines For Water Supply and Sewerage, 2005, published by the Queensland Government. It is calculated in accordance with Schedule 2, Section 63 of the Environmental Protection Regulation 2019 where: • EP = V/200 where V is the volume, in litres, of the average dry weather flow of

	sewage that can be treated at the works in a day; or • EP = M/2.5 where M is the mass, in grams, of phosphorus in the influent that the works are designed to treat as the inlet load in a day.
essential petroleum activities	means activities that are essential to bringing the resource to the surface and are only the following: • low impact petroleum activities • geophysical, geotechnical, geological, topographic and cadastral surveys (including seismic, sample /test / geotechnical pits, core holes) • single well sites not exceeding 1 hectare disturbance and multi-well sites not exceeding 1.5 hectare disturbance • well sites with monitoring equipment (including monitoring bores): o for single well sites, not exceeding 1.25 hectares disturbance o for multi-well sites, not exceeding 1.75 hectares disturbance • well sites with monitoring equipment (including monitoring bores) and tanks (minimum 1 ML) for above ground fluid storage: o for single well sites, not exceeding 1.5 hectares disturbance o for multi-well sites, not exceeding 2.0 hectares disturbance • associated infrastructure located on a well site necessary for the construction and operations of wells: o water pumps and generators o flare pits o chemical / fuel storages o sumps for residual drilling material and drilling fluids o tanks, or dams which are not significant or high consequence dams to contain wastewater (e.g. stimulation flow back waters, produced water) o pipe laydown areas o soil and vegetation stockpile areas o a temporary camp associated with a drilling rig that may involve sewage treatment works that are no release works o temporary administration sites and warehouses o dust suppression activities using water that meets the quality and operational standards approved under the environmental authority

	• communication and power lines that are necessary for the undertaking of petroleum activities and that are located within well sites, well pads and pipeline right of ways without increasing the disturbance area of petroleum activities • supporting access tracks • gathering / flow pipelines from a well head to the initial compression facility • activities necessary to achieve compliance with the conditions of the environmental authority in relation to another essential petroleum activity (e.g. sediment and erosion control measures, rehabilitation).
existing authority	has the meaning in section 94 of the *Environmental Offsets Act 2014*.
exploration well	means a petroleum well that is drilled to: • explore for the presence of petroleum or natural underground reservoirs suitable for storing petroleum; or • obtain stratigraphic information for the purpose of exploring for petroleum. For clarity, an exploration well does not include an appraisal or development well.
flare pit	has the meaning in the Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635), and means containment area where any hydrocarbon that is discovered in an over-pressured reservoir during a drilling operation is diverted to, and combusted, The flare pit is only used during the drilling and work over process on a petroleum well.
flare precipitant	means waste fluids which result from the operation of a flare.
floodplains	has the meaning in the *Water Act 2000* and means an area of reasonably flat land adjacent to a watercourse that— • is covered from time to time by floodwater overflowing from the watercourse; and • does not, other than in an upper valley reach, confine floodwater to generally follow the path of the watercourse; and • has finer sediment deposits than the sediment deposits of any bench, bar or in-stream island of the watercourse.
flowable substance	means matter or a mixture of materials which can flow under any conditions potentially affecting that substance. Constituents of a flowable substance can include water, other liquids fluids or solids, or a mixture that includes water and any other liquids fluids or solids either in solution or suspension.

fuel burning or combustion facility	means a permanent fuel burning or combustion equipment which in isolation, or combined in operation, or which are interconnected, is, or are capable of burning more than 500 kg of fuel in an hour.
GDA	means Geocentric Datum of Australia.
Great Artesian Basin (GAB) spring	means an area protected under the *Environment Protection and Biodiversity Conservation Act 1999* because it is considered to be a Matter of National Environmental Significance and identified as a: • community of native species dependent on natural discharge of groundwater from the Great Artesian Basin; or • Great Artesian Basin spring; or • Great Artesian Basin discharge spring wetland. A GAB spring includes a spring vent, spring complex or watercourse spring and includes the land to which water rises naturally from below the ground and the land over which the water then flows. *Note: The Australian Government's Protected Matters Search Tool should be used to get an indication of whether the area of interest may contain an MNES spring.* *Note: The GAB springs dataset can be requested from the Queensland Government Herbarium*
green waste	means waste that is grass cuttings, trees, bushes, shrubs, material lopped from trees, untreated timber or other waste that is similar in nature but does not include declared pest species.
greywater	means wastewater generated from domestic activities such as laundry, dishwashing, and bathing. Greywater does not include sewage.
groundwater dependent ecosystem (GDE)	means ecosystems which require access to groundwater on a permanent or intermittent basis to meet all or some of their water requirements so as to maintain their communities of plants and animals, ecological processes and ecosystem services. For the purposes of the environmental authority, groundwater dependent ecosystems do not include those mapped as "unknown".
growing	means to increase by natural development, as any living organism or part thereof by assimilation of nutriment; increase in size or substance.
hydraulic integrity	refers to the capacity of a dam to contain or safely pass flowable substances based on its design.

impulsive (for noise)	means sound characterised by brief excursions of sound pressure (acoustic impulses) that significantly exceed the background sound pressure. The duration of a single impulsive sound is usually less than one second.
$L_{A\ 90,\ adj,\ 15\ mins}$	means the A-weighted sound pressure level, adjusted for tonal character that is equal to or exceeded for 90% of any 15 minutes sample period equal, using Fast response.
$L_{Aeq,\ adj,\ 15\ mins}$	means the A-weighted sound pressure level of a continuous steady sound, adjusted for tonal character, that within any 15 minute period has the same square sound pressure as a sound level that varies with time.
Land	Means the solid substance of the earth's surface.
land degradation	has the meaning in the *Vegetation Management Act 1999* and means the following: • soil erosion • rising water tables • the expression of salinity • mass movement by gravity of soil or rock • stream bank instability • a process that results in declining water quality.
landholder's active groundwater bore	means bores that are able to continue to provide a reasonable yield of water in terms of quantity for the bores authorised purpose or use. This term does not include monitoring bores owned by the administering authority of the *Water Act 2000*.
linear infrastructure	means powerlines, pipelines, flowlines, roads and access tracks.
liquid	means a substance which is flowing and offers no permanent resistance to changes of shape.
long term noise event	means a noise exposure, when perceived at a sensitive receptor, persists for a period of greater than five (5) days, even when there are respite periods when the noise is inaudible within those five (5) days.
low consequence dam	means any dam that is not classified as high or significant as assessed using the Manual for Assessing Consequence Categories and Hydraulic Performance of Structures, published by the administering authority, as amended from time to time.

low impact petroleum activities	means petroleum activities which do not result in the clearing of native vegetation, cause disruption to soil profiles through earthworks or excavation or result in significant disturbance to land which cannot be rehabilitated immediately using hand tools after the activity is completed. Examples of such activities include but are not necessarily limited to soil surveys (excluding test pits), topographic surveys, cadastral surveys and ecological surveys, may include installation of monitoring equipment provided that it is within the meaning of low impact and traversing land by car or foot via existing access tracks or routes or in such a way that does not result in permanent damage to vegetation.
Max $L_{pA, 15\ min}$	means the absolute maximum instantaneous A-weighted sound pressure level, measured over 15 minutes.
Max $L_{pZ, 15\ min}$	means the maximum value of the Z-weighted sound pressure level measured over 15 minutes.
maximum extent of impact	means the total, cumulative, residual extent and duration of impact to a prescribed environmental matter that will occur over a project's life after all reasonable avoidance and reasonable on-site mitigation measures have been, or will be, undertaken.
medium term noise event	is a noise exposure, when perceived at a sensitive receptor, persists for an aggregate period not greater than five (5) days and does not re-occur for a period of at least four (4) weeks. Re-occurrence is deemed to apply where a noise of comparable level is observed at the same receptor location for a period of one hour or more, even if it originates from a difference source or source location.
methodology	means the science of method, especially dealing with the logical principles underlying the organisation of the various special sciences, and the conduct of scientific inquiry.
mix-bury-cover method	means the stabilisation of residual drilling solids in the bottom of a sump by mixing with subsoil and which occurs in accordance with the following methodology: • the base of the subsoil and residual solid mixture must be separated from the groundwater table by at least one metre of a continuous layer of impermeable subsoil material (kw=10–8m/s) or subsoil with a clay content of greater than 20%; and • the residual solids is mixed with subsoil in the sump and cover; and • the subsoil and residual solids is mixed at least three parts subsoil to one part waste (v/v); and • a minimum of one metre of clean subsoil must be placed over the subsoil and residual solids mixture; and • topsoil is replaced.

month	has the meaning in the *Acts Interpretation Act 1954* and means a calendar month and is a period starting at the beginning of any day of one (1) of the 12 named months and ending— • immediately before the beginning of the corresponding day of the next named month; or • if there is no such corresponding day—at the end of the next named month.
NATA accreditation	means accreditation by the National Association of Testing Authorities Australia.
notice of election	has the meaning in section 18(2) *Environmental Offsets Act 2014*.
prescribed environmental matters	has the meaning in section 10 of the *Environmental Offsets Act 2014*, limited to the matters of State environmental significant listed in schedule 2 of the *Environmental Offsets Regulation 2014*.
pipeline waste water	means hydrostatic testing water, flush water or water from low point drains.
pre-disturbed land use	means the function or use of the land as documented prior to significant disturbance occurring at that location.
predominant species	has the meaning in the Methodology for Surveying and Mapping of Regional Ecosystems and Vegetation Communities in Queensland (Version 3.2 August 2012) and means a species that contributes most to the overall above-ground biomass of a particular stratum.
prescribed contaminants	has the meaning in section 440ZD of the *Environmental Protection Act 1994* and means:
primary protection zone	means an area within 200m from the boundary of any Category A, B or C ESA.
produced water	has the meaning in Section 15A of the *Petroleum and Gas (Production and Safety) Act 2004* and means CSG water or associated water for a petroleum tenure.
protection zone	means the primary protection zone of any Category A, B or C ESA or the secondary protection zone of any Category A or B ESA.
regional ecosystem	has the meaning in the Methodology for Surveying and Mapping of Regional Ecosystems and Vegetation Communities in Queensland (Version 3.2 August 2012) and means a vegetation community in a bioregion that is consistently associated with a particular combination of geology, landform and soil. Regional ecosystems of Queensland were

	originally described in Sattler and Williams (1999). The Regional Ecosystem Description Database (Queensland Herbarium 2013) is maintained by Queensland Herbarium and contains the current descriptions of regional ecosystems.
regulated dam	means any dam in the significant or high consequence category as assessed using the Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635), published by the administering authority, as amended from time to time.
rehabilitation or rehabilitated	means the process of reshaping and revegetating land to restore it to a stable landform and in accordance with acceptance criteria and, where relevant, includes remediation of contaminated land. For the purposes of pipeline rehabilitation, rehabilitation includes reinstatement, revegetation and restoration.
reinstate or reinstatement	for pipelines, means the process of bulk earth works and structural replacement of pre-existing conditions of a site (i.e. soil surface typography, watercourses, culverts, fences and gates and other landscape(d) features) and is detailed in the Australian Pipeline Industry Association (APIA) Code of Environmental Practice: Onshore Pipelines (2017).
reporting limit	means the lowest concentration that can be reliably measured within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes, the reporting limit is selected as the lowest non-zero standard in the calibration curve. Results that fall below the reporting limit will be reported as “less than” the value of the reporting limit. The reporting limit is also referred to as the practical quantitation limit or the limit of quantitation. For polycyclic aromatic hydrocarbons, the reporting limit must be based on super-ultra trace methods and, depending on the specific polycyclic aromatic hydrocarbon, will range between 0.005 ug/L–0.02 ug/L.
residual drilling material	means waste drilling materials including muds and cuttings or cement returns from well holes and which have been left behind after the drilling fluids are pumped out.
restoration	means the replacement of structural habitat complexity, ecosystem processes, services and function from a disturbed or degraded site to that of a pre-determined or analogue site. For the purposes of pipelines, restoration applies to final rehabilitation after pipeline decommissioning.
restricted stimulation fluids	has the meaning in section 206 of the *Environmental Protection Act 1994* and means fluids used for the purpose of stimulation, including fracturing, that contain the following chemicals in more than the maximum amount prescribed under a regulation— (c) petroleum hydrocarbons containing benzene, ethylbenzene, toluene or xylene (d) chemicals that produce, or are likely to produce, benzene, ethylbenzene, toluene or xylene as the chemical breaks down in the environment.

revegetation or revegetating or revegetate	means to actively re-establish vegetation through seeding or planting techniques in accordance with site specific management plans.
secondary protection zone	in relation to a Category A or Category B ESA means an area within 100 metres from the boundary of the primary protection zone.
secondary treated class A standards	means treated sewage effluent or greywater which meets the following standards: • total phosphorous as P, maximum 20mg/L • total nitrogen as N, maximum 30mg/L • 5-day biochemical oxygen demand (inhibited) (e.g. release pipe from sewage treatment plant), maximum 20mg/L • suspended solids, maximum 30mg/L • pH, range 6.0 to 8.5 • e-coli, 80th percentile based on at least 5 samples with not less than 30 minutes between samples, 100cfu per 100mL, maximum 1000cfu per 100mL.
secondary treated class B standards	means treated sewage effluent or greywater which meets the following standards: • total phosphorous as P, maximum 20mg/L • total nitrogen as N, maximum 30mg/L • 5-day biochemical oxygen demand (inhibited) (e.g. release pipe from sewage treatment plant), maximum 20mg/L • suspended solids, maximum 30mg/L • pH, range 6.0 to 8.5 • e-coli, 80th percentile based on at least 5 samples with not less than 30 minutes between samples, 1000cfu per 100mL, maximum 10 000cfu per 100mL.
secondary treated class C standards	means treated sewage effluent or greywater which meets the following standards: • total phosphorous as P, maximum 20mg/L • total nitrogen as N, maximum 30mg/L • 5-day biochemical oxygen demand (inhibited) (e.g. Release pipe from sewage treatment plant), maximum 20mg/L • suspended solids, maximum 30mg/L • pH, range 6.0 to 8.5

	• e-Coli, 80th percentile based on at least 5 samples with not less than 30 minutes between samples, 10 000cfu per 100mL, maximum 100 000cfu per 100mL.
sensitive place	means: • a dwelling (including residential allotment, mobile home or caravan park, residential marina or other residential premises, motel, hotel or hostel) • a library, childcare centre, kindergarten, school, university or other educational institution • a medical centre, surgery or hospital • a protected area • a public park or garden that is open to the public (whether or not on payment of money) for use other than for sport or organised entertainment • a work place used as an office or for business or commercial purposes, which is not part of the petroleum activity(ies) and does not include employees accommodation or public roads • for noise, a place defined as a sensitive receptor for the purposes of the *Environmental Protection (Noise) Policy 2019*.
sensitive receptor	is defined in Schedule 2 of the *Environmental Protection (Noise) Policy 2019*, and means an area or place where noise is measured.
short term noise event	is a noise exposure, when perceived at a sensitive receptor, persists for an aggregate period not greater than eight hours and does not re-occur for a period of at least seven (7) days. Re-occurrence is deemed to apply where a noise of comparable level is observed at the same receptor location for a period of one hour or more, even if it originates from a different source or source location.
significant residual impact	has the meaning in section 8 *Environmental Offsets Act 2014*.
significantly disturbed or significant disturbance or significant disturbance to land or areas	means Land is *significantly disturbed* if– (a) it is contaminated land; or (b) it has been disturbed and human intervention is needed to rehabilitate it– (i) to a condition required under the relevant environmental authority; or

	(ii) if the environmental authority does not require the land to be rehabilitated to a particular condition–to the condition it was in immediately before the disturbance. Without limiting subsection (1)(b), land requires human intervention to rehabilitate it if– (a) the disturbance has made the land more susceptible to erosion; or (b) the land use capability or suitability of the land is diminished; or (c) the quality of water in a watercourse downstream of the land has been significantly reduced.
species richness	means the number of different species in a given area.
stable	means the rehabilitation and restoration of the site is enduring or permanent so that the site is unlikely to collapse, erode or subside.
statement of compliance	for a condition in an environmental authority has the meaning in section 208 of the *Environmental Protection Act 1994* and is a condition that requires the holder to give the administering authority a statement of compliance about a document or work relating to a relevant activity. The condition must also state— (a) the criteria (the compliance criteria) the document or work must comply with; and (b) that the statement of compliance must state whether the document or work complies with the compliance criteria; and (c) the information (the supporting information) that must be provided to the administering authority to demonstrate compliance with the compliance criteria; and (d) when the statement of compliance and supporting information must be given to the administering authority.
stimulation	means a technique used to increase the permeability of natural underground reservoir that is undertaken above the formation pressure and involves the addition of chemicals. It includes hydraulic fracturing / hydrofraccing, fracture acidizing and the use of proppant treatments. Explanatory note: This definition is restricted from that in the *Petroleum and Gas (Production and Safety) Act 2004* in order to only capture the types of stimulation activities that pose a risk to environmental values of water quality in aquifers.
stimulation fluid	means the fluid injected underground to increase permeability. For clarity, the term stimulation fluid only applies to fluid injected down well post-perforation.

stimulation impact zone	means a 100m maximum radial distance from the stimulation target location within a gas producing formation.
strategic environmental area	has the meaning in section 11(1) of the *Regional Planning Interest Act 2014.*
structure	means a dam or levee.
subterranean cave GDE	• means an area identified as a subterranean cave in the mapping produced by the Queensland Government and identified in the Queensland Government Information System, as amended from time to time; and • means a cave ecosystem which requires access to groundwater on a permanent or intermittent basis to meet all or some of their water requirements so as to maintain its communities of plants and animals, ecological processes and ecosystem services. Subterranean cave GDEs are caves dependent on the subterranean presence of groundwater. Subterranean cave GDEs have some degree of groundwater connectivity and are indicated by either high moisture levels or the presence of stygofauna, or both, referred to in the Queensland Government WetlandsInfo mapping program, as amended from time to time. *Note: the Subterranean GDE (caves) dataset can be displayed through the Queensland Government WetlandInfo mapping program.* *Note: the Subterranean GDE (caves) dataset can be obtained from the Queensland Government Information System.*
suitably qualified person	means a person who has professional qualifications, training or skills or experience relevant to the nominated subject matters and can give authoritative assessment, advice and analysis about performance relevant to the subject matters using relevant protocols, standards, methods or literature.
suitably qualified third party	means a person who: (a) has qualifications and experience relevant to performing the function including but not limited to: iii. a bachelor's degree in science or engineering; and iv. 3 years' experience in undertaking soil contamination assessments; and (b) is a member of at least one organisation prescribed in Schedule 14 of the Environmental Protection Regulation 2019; and (c) not be an employee of, nor have a financial interest or any involvement which would lead to a conflict of interest with the holder(s) of the environmental authority.

sump	means a pit in which waste residual drilling material or drilling fluids are stored only for the duration of drilling activities.
synthetic based drilling mud	means a mud where the base fluid is a synthetic oil, consisting of chemical compounds which are artificially made or synthesised by chemically modifying petroleum components or other raw materials rather than the whole crude oil.
top soil	means the surface (top) layer of a soil profile, which is more fertile, darker in colour, better structured and supports greater biological activity than underlying layers. The surface layer may vary in depth depending on soil forming factors, including parent material, location and slope, but generally is not greater than about 300mm in depth from the natural surface.
total density of coarse woody material	means the total length of logs on the ground greater than or equal to 10cm diameter per hectare and number of logs on the ground greater than or equal to 10cm diameter per hectare.
transmissivity	means the rate of flow of water through a vertical strip of aquifer which is one unit wide and which extends the full saturated depth of the aquifer.
valid complaint	means all complaints unless considered by the administering authority to be frivolous, vexatious or based on mistaken belief.
void	means any constructed, open excavation in the ground.
waste and resource management hierarchy	has the meaning provided in section 9 of the *Waste Reduction and Recycling Act 2011 and* is the following precepts, listed in the preferred order in which waste and resource management options should be considered— (a) AVOID unnecessary resource consumption (b) REDUCE waste generation and disposal (c) RE-USE waste resources without further manufacturing (d) RECYCLE waste resources to make the same or different products (e) RECOVER waste resources, including the recovery of energy (f) TREAT waste before disposal, including reducing the hazardous nature of waste (g) DISPOSE of waste only if there is no viable alternative.
waste and resource	has the meaning provided in section 4(2)(b) of the *Waste Reduction and Recycling Act 2011* and means the: (a) polluter pays principle

management principles	(b) user pays principle (c) proximity principle (d) product stewardship principle.
waste fluids	has the meaning in section 13 of the *Environmental Protection Act 1994* in conjunction with the common meaning of "fluid" which is "a substance which is capable of flowing and offers no permanent resistance to changes of shape". Accordingly, to be a waste fluid, the waste must be a substance which is capable of flowing and offers no permanent resistance to changes of shape.
watercourse	has the meaning in Schedule 4 of the *Environmental Protection Act 1994* and means: 1) a river, creek or stream in which water flows permanently or intermittently— (a) in a natural channel, whether artificially improved or not; or (b) in an artificial channel that has changed the course of the watercourse. 2) Watercourse includes the bed and banks and any other element of a river, creek or stream confining or containing water.
waters	includes all or any part of a creek, river, stream, lake, lagoon, swamp, wetland, spring, unconfined surface water, unconfined water in natural or artificial watercourses, bed and bank of any waters, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off, and underground water.
well integrity	the ability of a well to contain the substances flowing through it.
wetland	for the purpose of this environmental authority, wetland means: an area shown as a wetland on the map of Queensland Wetland Environmental Values. *Note: The Environmental Protection (Water and Wetland Biodiversity) Policy 2019 Schedule 2, Map of Queensland Wetland Environmental Values means the document 'Map of Queensland Wetland Environmental Values' made by the Chief Executive and published on the website.* *Environmental values in section 8 of the Environmental Protection (Water and Wetland Biodiversity) Policy 2019 apply to wetland areas on the map, which are categorised as wetlands of high or general ecological significance.*
wetland of high ecological significance	means a wetland that meets the definition of a wetland and that is shown as a wetland of 'high ecological significance' or wetland of 'high ecological value' on the Map of Queensland wetland environmental values

wetland of general environmental significance	means a wetland that meets the definition of a wetland and that is shown as a wetland of 'general environmental significance' or wetland of 'other environmental value' on the Map of Queensland wetland environmental values.

END OF ENVIRONMENTAL AUTHORITY

Appendix C – Title Searches

Current Title Search

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	**50304785**	**Search Date:**	30/08/2022 11:24
Date Title Created:	21/03/2000	**Request No:**	42117605
Previous Title:	50228982		

ESTATE AND LAND

Estate in Fee Simple

LOT 2 SURVEY PLAN 122581
Local Government: BANANA

REGISTERED OWNER — INTEREST

Dealing No: 711674035 26/05/2008

GERALD ROSS AUSTIN JILL MEREDITH AUSTIN	JOINT TENANTS INTER SE	7/10
MARK PATRICK LORIMER NICOLE JAYNE LORIMER	JOINT TENANTS INTER SE AS TENANTS IN COMMON	3/10

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Deed of Grant No. 30595010 (Lot 21 on CP FN553)
2. EASEMENT No 703873580 15/02/2000 at 12:38
benefiting the land over
EASEMENT F ON SP122581
3. EASEMENT No 703989250 11/04/2000 at 12:16
burdening the land to
LOT 1 ON SP122581 OVER
EASEMENT G ON SP122581
4. MORTGAGE No 716283099 28/01/2015 at 15:49
RABOBANK AUSTRALIA LIMITED A.C.N. 001 621 129

ADMINISTRATIVE ADVICES

NIL

UNREGISTERED DEALINGS

NIL

Corrections have occurred - Refer to Historical Search

Caution - Charges do not necessarily appear in order of priority

** End of Current Title Search **

Requested by: D-ENQ CITEC CONFIRM

Current Title Search

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	**50931868**	**Search Date:**	30/08/2022 11:20
Date Title Created:	25/11/2013	**Request No:**	42117509
Previous Title:	50572417		

ESTATE AND LAND

Estate in Fee Simple

LOT 2 SURVEY PLAN 252890
Local Government: BANANA

REGISTERED OWNER — INTEREST

Dealing No: 715436473 19/11/2013

WARREN REGINALD LUHRS	1/2
TERESA ANNE LUHRS	1/2

AS TENANTS IN COMMON

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Deed of Grant No. 30557026 (Lot 1 on CP FN523)

2. EASEMENT IN GROSS No 702360776 27/11/1997 at 09:51
burdening the land
CONOCO AUSTRALIA PIPELINES PTY LIMITED A.C.N. 072 109 865
over
EASEMENT R ON RP908022

3. TRANSFER No 713551928 04/11/2010 at 10:20
EASEMENT IN GROSS: 702360776
WESTSIDE CSG A PTY LTD A.C.N. 138 989 358
TENANT IN COMMON 51/200
WESTSIDE CSG D PTY LTD A.C.N. 140 474 362
TENANT IN COMMON 51/200
MITSUI MOURA INVESTMENT PTY LTD A.C.N. 088 091 356
TENANT IN COMMON 49/100

4. TRANSFER No 713620044 10/12/2010 at 14:29
EASEMENT IN GROSS: 702360776
WESTSIDE CSG A PTY LTD A.C.N. 138 989 358
TENANT IN COMMON 51/200
WESTSIDE CSG D PTY LTD A.C.N. 140 474 362
TENANT IN COMMON 51/200
MITSUI E&P AUSTRALIA PTY LIMITED A.C.N. 108 437 529
TENANT IN COMMON 49/100

ADMINISTRATIVE ADVICES

Dealing	Type	Lodgement Date	Status
712820773	VEG NOTICE VEGETATION MANAGEMENT ACT 1999	26/10/2009 16:08	CURRENT
719515213	CON COM AGMT MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014	16/07/2019 10:58	CURRENT
719748350	CON COM AGMT MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014	21/11/2019 10:33	CURRENT
719830018	CON COM AGMT MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014	06/01/2020 10:27	CURRENT
720720292	CON COM AGMT MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014	13/04/2021 16:20	CURRENT

Requested by: D-ENQ CITEC CONFIRM

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference: 50931868

UNREGISTERED DEALINGS

NIL

Caution - Charges do not necessarily appear in order of priority

** End of Current Title Search **

Requested by: D-ENQ CITEC CONFIRM

Current Title Search

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	**50983437**	**Search Date:**	30/08/2022 11:24
Date Title Created:	20/03/2015	**Request No:**	42117596
Previous Title:	30573166, 50183911		

ESTATE AND LAND

Estate in Fee Simple

LOT 2 SURVEY PLAN 272409
Local Government: BANANA

REGISTERED OWNER

Dealing No: 716310722 12/02/2015

WARREN REGINALD LUHRS
TERESA ANNE LUHRS JOINT TENANTS

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Deed of Grant No. 30297117 (POR 5)

2. EASEMENT No 601307588 (C574835Y) 25/05/1989
benefiting
BENEFITING PART OF THE LAND FORMERLY LOT 21 ON RP911707
OVER EASEMENT A ON RP620201

3. EASEMENT No 716310743 12/02/2015 at 11:01
burdening the land to
LOT 1 ON SP272409 OVER
EASEMENT B ON SP272409

ADMINISTRATIVE ADVICES

Dealing	Type	Lodgement Date	Status
713321499	VEG NOTICE VEGETATION MANAGEMENT ACT 1999	29/06/2010 16:19	CURRENT
719515217	CON COM AGMT MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014	16/07/2019 10:59	CURRENT
719748352	CON COM AGMT MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014	21/11/2019 10:33	CURRENT
720720291	CON COM AGMT MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014	13/04/2021 16:20	CURRENT

UNREGISTERED DEALINGS

NIL

Caution - Charges do not necessarily appear in order of priority

** End of Current Title Search **

Requested by: D-ENQ CITEC CONFIRM

Current State Tenure Search

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	**47015345**	**Search Date:**	30/08/2022 11:27
Date State Tenure Created:	04/10/2006	**Request No:**	42117702
Creating Dealing:			

ESTATE

Estate in Unallocated State Land

LOT 3 CROWN PLAN FN563
Local Government: BANANA

LOT 61 CROWN PLAN FN563
Local Government: BANANA

OWNER

THE STATE OF QUEENSLAND
(REPRESENTED BY DEPARTMENT OF RESOURCES)

EASEMENTS AND ENCUMBRANCES

1. PERMIT TO OCCUPY No 713598156 30/11/2010 at 13:29
A Permit to Occupy has been created see Title Reference 40009121

ADMINISTRATIVE ADVICES

NIL

UNREGISTERED DEALINGS

NIL

Corrections have occurred - Refer to Historical Search

Caution - Charges do not necessarily appear in order of priority

** End of Current State Tenure Search **

Information provided under section 34 Land Title Act (1994) or section 281 Land Act (1994)

Requested by: D-ENQ CITEC CONFIRM

Current State Tenure Search

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	**47015345**	**Search Date:**	30/08/2022 11:27
Date State Tenure Created:	04/10/2006	**Request No:**	42117699
Creating Dealing:			

ESTATE

Estate in Unallocated State Land

LOT 3 CROWN PLAN FN563
Local Government: BANANA

LOT 61 CROWN PLAN FN563
Local Government: BANANA

OWNER

THE STATE OF QUEENSLAND
(REPRESENTED BY DEPARTMENT OF RESOURCES)

EASEMENTS AND ENCUMBRANCES

1. PERMIT TO OCCUPY No 713598156 30/11/2010 at 13:29
A Permit to Occupy has been created see Title Reference 40009121

ADMINISTRATIVE ADVICES

NIL

UNREGISTERED DEALINGS

NIL

Corrections have occurred - Refer to Historical Search

Caution - Charges do not necessarily appear in order of priority

** End of Current State Tenure Search **

Information provided under section 34 Land Title Act (1994) or section 281 Land Act (1994)

Requested by: D-ENQ CITEC CONFIRM

Current Title Search

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	**51190989**	**Search Date:**	30/08/2022 11:20
Date Title Created:	29/07/2019	**Request No:**	42117511
Previous Title:	50133222		

ESTATE AND LAND

Estate in Fee Simple

LOT 5 SURVEY PLAN 311690
Local Government: BANANA

REGISTERED OWNER

Dealing No: 719605197 05/09/2019

BALANCED PROPERTY PTY LTD A.C.N. 601 591 217 TRUSTEE
UNDER INSTRUMENT 719605197

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Deed of Grant No. 30512187 (POR 20)

2. EASEMENT IN GROSS No 601398863 (C615864W) 17/04/1991
BURDENING THE LAND
TO COUNCIL OF THE SHIRE OF BANANA
OVER LOT 20 ON CP FN494

ADMINISTRATIVE ADVICES

Dealing	Type	Lodgement Date	Status
712721669	VEG NOTICE VEGETATION MANAGEMENT ACT 1999	10/09/2009 14:50	CURRENT

UNREGISTERED DEALINGS

NIL

Caution - Charges do not necessarily appear in order of priority

** End of Current Title Search **

Requested by: D-ENQ CITEC CONFIRM

Current Reserve Search

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	**49003427**
Date Reserve Gazetted:	18/08/1995
Page:	1985

Search Date:	30/08/2022 11:27
Request No:	42117697

DETAILS

Opening Ref:	RES ROC13297
Purpose:	HISTORICAL
Sub-Purpose:	
Local Name:	MOURA HISTORICAL MUSEUM
Address:	DAWSON HIGHWAY, MOURA
County (R) No:	R185
File Ref:	RES 29391

LAND DESCRIPTION

LOT 6 CROWN PLAN 886963 GAZETTED ON 18/08/1995 PAGE 1985
Local Government: BANANA

Area: 1.282000 Ha. (SURVEYED)

TRUSTEES

MOURA/DIS HISTORICAL SOCIETY INCORPORATE GAZETTED ON 18/08/1995 PAGE 1985,91

EASEMENTS AND ENCUMBRANCES

NIL

ADMINISTRATIVE ADVICES

NIL

UNREGISTERED DEALINGS

NIL

** End of Current Reserve Search **

Requested by: D-ENQ CITEC CONFIRM

Current Title Search

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	**50245271**	**Search Date:**	30/08/2022 11:20
Date Title Created:	25/11/1998	**Request No:**	42117514
Previous Title:	40017829		

ESTATE AND LAND

Estate in Fee Simple

LOT 6 CROWN PLAN FN180
Local Government: BANANA

REGISTERED OWNER — INTEREST

Dealing No: 719388193 02/05/2019

CLAIRE JENNIE HOARE	1/2
BARRY STUART HOARE	1/2

AS TENANTS IN COMMON

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Deed of Grant No. 40017829 (Lot 6 on CP FN180)

2. EASEMENT IN GROSS No 702360766 27/11/1997 at 09:50
burdening the land
CONOCO AUSTRALIA PIPELINES PTY LTD A.C.N. 072 109 865
over
EASEMENT M ON CP907391

3. TRANSFER No 713551897 04/11/2010 at 10:17
EASEMENT IN GROSS: 702360766
WESTSIDE CSG A PTY LTD A.C.N. 138 989 358
TENANT IN COMMON 51/200
WESTSIDE CSG D PTY LTD A.C.N. 140 474 362
TENANT IN COMMON 51/200
MITSUI MOURA INVESTMENT PTY LTD A.C.N. 088 091 356
TENANT IN COMMON 49/100

4. TRANSFER No 713620041 10/12/2010 at 14:28
EASEMENT IN GROSS: 702360766
MITSUI E&P AUSTRALIA PTY LIMITED A.C.N. 108 437 529
TENANT IN COMMON 49/100
WESTSIDE CSG A PTY LTD A.C.N. 138 989 358
TENANT IN COMMON 51/200
WESTSIDE CSG D PTY LTD A.C.N. 140 474 362
TENANT IN COMMON 51/200

5. EASEMENT IN GROSS No 717108564 04/03/2016 at 10:45
burdening the land
QUEENSLAND NITRATES PTY LTD A.C.N. 079 889 268
over
EASEMENT G ON SP278354

6. MORTGAGE No 719388194 02/05/2019 at 15:20
BANK OF QUEENSLAND LIMITED A.C.N. 009 656 740

ADMINISTRATIVE ADVICES

Dealing	Type	Lodgement Date	Status
714022484	VEG NOTICE VEGETATION MANAGEMENT ACT 1999	23/08/2011 12:21	CURRENT

Requested by: D-ENQ CITEC CONFIRM

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference: 50245271

UNREGISTERED DEALINGS

NIL

Caution - Charges do not necessarily appear in order of priority

** End of Current Title Search **

Requested by: D-ENQ CITEC CONFIRM

Current Title Search

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	**51190990**	**Search Date:**	30/08/2022 11:20
Date Title Created:	29/07/2019	**Request No:**	42117506
Previous Title:	50133222		

ESTATE AND LAND

Estate in Fee Simple

LOT 6 SURVEY PLAN 311690
Local Government: BANANA

REGISTERED OWNER

Dealing No: 719542648 31/07/2019

RICHARD CHARLES STEPHENSON

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Deed of Grant No. 30512187 (POR 20)

2. EASEMENT IN GROSS No 601398863 (C615864W) 17/04/1991
BURDENING THE LAND
TO COUNCIL OF THE SHIRE OF BANANA
OVER LOT 20 ON CP FN494

ADMINISTRATIVE ADVICES

Dealing	Type	Lodgement Date	Status
712721669	VEG NOTICE VEGETATION MANAGEMENT ACT 1999	10/09/2009 14:50	CURRENT

UNREGISTERED DEALINGS

NIL

Caution - Charges do not necessarily appear in order of priority

** End of Current Title Search **

Requested by: D-ENQ CITEC CONFIRM

Current Title Search

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	**50287667**	**Search Date:**	30/08/2022 11:24
Date Title Created:	15/11/1999	**Request No:**	42117601
Previous Title:	50272695		

ESTATE AND LAND

Estate in Fee Simple

LOT 7 SURVEY PLAN 118855
Local Government: BANANA

REGISTERED OWNER — INTEREST

Dealing No: 717064264 11/02/2016

GARY JAMES STEPHENSON	1/4
JAMES KENNETH STEPHENSON	1/4
RICHARD CHARLES STEPHENSON	1/4
SANDRA GAIL WILLIAMSON	1/4

AS TENANTS IN COMMON

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Deed of Grant No. 30512097 (POR 7)

2. EASEMENT IN GROSS No 702360735 27/11/1997 at 09:45
burdening the land
CONOCO AUSTRALIA PIPELINES PTY LTD A.C.N. 072 109 865
over
EASEMENT N ON RP907392

3. TRANSFER No 713551903 04/11/2010 at 10:18
EASEMENT IN GROSS: 702360735
WESTSIDE CSG A PTY LTD A.C.N. 138 939 358
TENANT IN COMMON 51/200
WESTSIDE CSG D PTY LTD A.C.N. 140 474 362
TENANT IN COMMON 51/200
MITSUI MOURA INVESTMENT PTY LTD A.C.N. 088 091 356
TENANT IN COMMON 49/100

4. TRANSFER No 713620036 10/12/2010 at 14:28
EASEMENT IN GROSS: 702360735
MITSUI E&P AUSTRALIA PTY LIMITED A.C.N. 108 437 529
TENANT IN COMMON 49/100
WESTSIDE CSG A PTY LTD A.C.N. 138 989 358
TENANT IN COMMON 51/200
WESTSIDE CSG D PTY LTD A.C.N. 140 474 362
TENANT IN COMMON 51/200

ADMINISTRATIVE ADVICES

Dealing	Type	Lodgement Date	Status
712713387	VEG NOTICE VEGETATION MANAGEMENT ACT 1999	07/09/2009 16:14	CURRENT
717834052	CON COM AGMT MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014	10/02/2017 15:55	CURRENT
719594606	CON COM AGMT MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014	30/08/2019 09:52	CURRENT
721732079	CON COM AGMT MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014	02/06/2022 10:23	CURRENT

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference: 50287667

ADMINISTRATIVE ADVICES (Continued)

Dealing	Type	Lodgement Date	Status
721732080	CON COM AGMT MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014	02/06/2022 10:23	CURRENT

UNREGISTERED DEALINGS

NIL

Caution - Charges do not necessarily appear in order of priority

** End of Current Title Search **

Requested by: D-ENQ CITEC CONFIRM

Current Reserve Search

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	**49020273**
Date Reserve Gazetted:	30/06/1990
Page:	1133

Search Date:	30/08/2022 11:27
Request No:	42117695

DETAILS

Opening Ref:	RC 46416
Purpose:	LOCAL GOVERNMENT
Sub-Purpose:	REFUSE DISPOSAL
Local Name:	
Address:	DAWSON HIGHWAY
County (R) No:	R178
File Ref:	RES 26219

LAND DESCRIPTION

LOT 7 SURVEY PLAN 200916 Gazetted on 14/09/2007 Page 204-205
Local Government: BANANA

Area: 6.037000 Ha. (SURVEYED)

TRUSTEES

BANANA SHIRE COUNCIL GAZETTED ON 30/06/1990 PAGE 1133

EASEMENTS AND ENCUMBRANCES

NIL

ADMINISTRATIVE ADVICES

NIL

UNREGISTERED DEALINGS

NIL

** End of Current Reserve Search **

Requested by: D-ENQ CITEC CONFIRM

Current Title Search

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	**30516184**	**Search Date:**	30/08/2022 11:24
Date Title Created:	15/09/1983	**Request No:**	42117600
Creating Dealing:			

ESTATE AND LAND

Estate in Fee Simple

LOT 19 CROWN PLAN FN200
Local Government: BANANA

REGISTERED OWNER

Dealing No: 719605197 05/09/2019

BALANCED PROPERTY PTY LTD A.C.N. 601 591 217 TRUSTEE
UNDER INSTRUMENT 719605197

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Deed of Grant No. 30516184 (POR 19)

2. COVENANT No 719605280 05/09/2019 at 14:09
restricts dealings over
LOT 1 ON RL207790 AND LOT 19 ON FN200

ADMINISTRATIVE ADVICES

Dealing	Type	Lodgement Date	Status
712721671	VEG NOTICE VEGETATION MANAGEMENT ACT 1999	10/09/2009 14:50	CURRENT
713760213	ROAD LICENCE LAND ACT 1994	15/03/2011 15:58	CURRENT

UNREGISTERED DEALINGS

NIL

Caution - Charges do not necessarily appear in order of priority

** End of Current Title Search **

Requested by: D-ENQ CITEC CONFIRM

Current State Tenure Search

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	**40040380**	**Search Date:**	30/08/2022 11:20
Date State Tenure Created:	19/12/2003	**Request No:**	42117513
Creating Dealing:			

DESCRIPTION OF LAND

Tenure Reference: PPL 220121

Lease Type: PERPETUAL

LOT 22 CROWN PLAN 891300
Local Government: BANANA

LOT 1 SURVEY PLAN 108639
Local Government: BANANA

LOT 2 SURVEY PLAN 108639
Local Government: BANANA

LOT 36 SURVEY PLAN 114971
Local Government: BANANA

LOT 101 SURVEY PLAN 143375
Local Government: BANANA

LOT 102 SURVEY PLAN 143375
Local Government: BANANA

Area: 144.419400 Ha. (ABOUT)

No Land Description

No Forestry Entitlement Area

Purpose for which granted:

THE USE FLOW AND CONTROL OF WATER, AND ANCILLARY PURPOSES, COMMUNITY AND COMMERCIAL PURPOSES

REGISTERED LESSEE

SUNWATER A.B.N. 17 020 276 523

TERM OF LEASE

Day of beginning of lease

Lease in perpetuity commencing on 01/10/2000

CONDITIONS

A74 (1) The lessee must use the leased land for the use flow and control of water, and ancillary purposes, community and commercial purposes.

(2) This lease may be forfeited if not used for the purpose stated above.

(3) The annual rent must be paid in accordance with the Land Act 1994.

(4) The Parties acknowledge that GST may be payable in respect of a supply made under this lease. Where GST becomes payable in respect of a supply made under this lease, the State (lessor) may recover the GST from the lessee by increasing the consideration payable by the lessee to the State by an amount equal to that which the State is obliged to remit to the Commonwealth as GST on the supply and that amount may be recovered from the lessee as part of the money payable to the

CONDITIONS (Continued)

State under this lease. The State will upon request by the lessee, issue to the lessee a valid GST tax invoice in respect of any taxable supply made under this lease. (NOTE: For the purposes of this condition "GST" means the goods and services tax which results from the enactment of A New Tax System (Goods and Services Tax) Act 1999 and the related Acts which constitute the Commonwealth taxation reform (as amended from time to time)).

(5) The lessee must pay the cost of any required survey or re-survey of the leased land.

(6) The lessee must control pest plants and animals, on the leased land, in accordance with the Land Protection (Pest and Stock Route Management) Act 2002 and the Local Laws and requirements of the Banana Shire Council.

(7) The lessee has the responsibility for a duty of care, to take all reasonable and practicable measures to sustainably manage the leased land by conserving the physical, biological, productive and cultural values, either on the leased land or in areas affected by the management of the leased land.

(8) The lessee indemnifies and agrees to keep indemnified the State of Queensland, Crown Instrumentalities, local governments and other statutory bodies (the Indemnified) against all actions , suits, proceedings, claims, demands, costs, losses, damages and expenses (Claim) arising out of or in any way connected to or resulting from the State of Queensland granting this lease to the lessee and which is connected to or resulting from the lessee's use and occupation of the leased land (all referred to as the indemnified acts or omissions) save to the extent that the Claim arises as a result of any negligent act or omission of the State of Queensland. The lessee hereby releases and discharges the Indemnified from any Claim relating to the indemnified acts or omissions which may be made against the Indemnified.

(9) The lessee must ensure that the use and development of the leased land conforms to the Planning Scheme, Local Laws and requirements of the Banana Shire Council, binding on the lessee.

(10) The lessee must give the Minister administering the Land Act 1994, information about the lease, when requested.

(11) The lessee must not clear any vegetation on the leased land, unless in accordance with the Integrated Planning Act 1997.

(12) This lease is subject to the Land Act 1994 and all other relevant State and Commonwealth Acts.

ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by Lease No. 40040380

2. EASEMENT No 703515908 17/08/1999 at 11:44 benefiting
LOT 601 ON SP 107086 OVER
EASEMENT A ON SP 107086

ADMINISTRATIVE ADVICES

Dealing	Type	Lodgement Date	Status
719767646	EXEMPT CONS SEC 322AA LAND ACT 1994	02/12/2019 08:28	CURRENT

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference: 40040380

UNREGISTERED DEALINGS

NIL

Caution - Charges do not necessarily appear in order of priority

** End of Current State Tenure Search **

Information provided under section 34 Land Title Act (1994) or section 281 Land Act (1994)

Current Title Search

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	**50183912**	**Search Date:**	30/08/2022 11:24
Date Title Created:	22/08/1997	**Request No:**	42117592
Previous Title:	30573167		

ESTATE AND LAND

Estate in Fee Simple

LOT 22 REGISTERED PLAN 911707
Local Government: BANANA

REGISTERED OWNER

Dealing No: 702190657 03/09/1997

QUEENSLAND COTTON CORPORATION LIMITED A.C.N. 010 944 591

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Deed of Grant No. 30297117 (POR 5)

2. EASEMENT No 601307588 (C574835Y) 25/05/1989
BENEFITING THE LAND
OVER EASEMENT A ON RP620201

ADMINISTRATIVE ADVICES

Dealing	Type	Lodgement Date	Status
719409770	CON COM AGMT MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014	16/05/2019 10:36	CURRENT
719830020	CON COM AGMT MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014	06/01/2020 10:28	CURRENT
719830021	CON COM AGMT MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014	06/01/2020 10:28	CURRENT

UNREGISTERED DEALINGS

NIL

Caution - Charges do not necessarily appear in order of priority

** End of Current Title Search **

Requested by: D-ENQ CITEC CONFIRM

Current Title Search

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	**30438081**	**Search Date:**	30/08/2022 11:20
Date Title Created:	29/03/1977	**Request No:**	42117510
Creating Dealing:			

ESTATE AND LAND

Estate in Fee Simple

LOT 34 CROWN PLAN FN499
Local Government: BANANA

REGISTERED OWNER

Dealing No: 705614509 13/05/2002

GREGORY STEPHEN LANG

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Deed of Grant No. 30438081 (POR 34)
2. MORTGAGE No 705614511 13/05/2002 at 16:23
AUSTRALIA AND NEW ZEALAND BANKING GROUP LIMITED A.C.N. 005 357 522
3. MORTGAGE No 706676965 05/06/2003 at 16:55
AUSTRALIA AND NEW ZEALAND BANKING GROUP LIMITED A.C.N. 005 357 522

ADMINISTRATIVE ADVICES

NIL

UNREGISTERED DEALINGS

NIL

Caution - Charges do not necessarily appear in order of priority

** End of Current Title Search **

Requested by: D-ENQ CITEC CONFIRM

Current Reserve Search

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	**49006446**
Date Reserve Gazetted:	07/03/1964
Page:	809

Search Date:	30/08/2022 11:27
Request No:	42117703

DETAILS

Opening Ref:	SG 64-06625
Purpose:	SANITARY
Sub-Purpose:	
Local Name:	
Address:	MOURA
County (R) No:	R86
File Ref:	RES 8514

LAND DESCRIPTION

LOT 39 CROWN PLAN FN513 GAZETTED ON 30/05/1981 PAGE 1013
Local Government: BANANA

Area: 4.037000 Ha. (SURVEYED)

TRUSTEES

BANANA SHIRE COUNCIL GAZETTED ON 07/03/1964 PAGE 809

EASEMENTS AND ENCUMBRANCES

NIL

ADMINISTRATIVE ADVICES

NIL

UNREGISTERED DEALINGS

NIL

** End of Current Reserve Search **

Requested by: D-ENQ CITEC CONFIRM

Current State Tenure Search

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	**40065480**	**Search Date:**	30/08/2022 11:24
Date State Tenure Created:	28/11/2012	**Request No:**	42117599
Previous Title:	17594058		

DESCRIPTION OF LAND

Tenure Reference: TL 236217

Lease Type: TERM

LOT 51 CROWN PLAN FN275
Local Government: BANANA

Area: 25.460000 Ha. (SURVEYED)

No Land Description

No Forestry Entitlement Area

Purpose for which granted:
COMMERCIAL/BUSINESS

REGISTERED LESSEE

ELDERS RURAL SERVICES AUSTRALIA LIMITED A.C.N. 004 045 121

TERM OF LEASE

Term and day of beginning of lease

Term: 20 years commencing on 12/11/2012

Expiring on 11/11/2032

CONDITIONS

A78 (1) The lessee must use the leased land for commercial/business purposes namely saleyards complex.

(2) This lease may be forfeited if not used for the purpose stated above.

(3) The annual rent must be paid in accordance with the Land Act 1994.

(4) The Parties acknowledge that GST may be payable in respect of a supply made under this lease. Where GST becomes payable in respect of a supply made under this lease, the State (lessor) may recover the GST from the lessee by increasing the consideration payable by the lessee to the State by an amount equal to that which the State is obliged to remit to the Commonwealth as GST on the supply and that amount may be recovered from the lessee as part of the money payable to the State under this lease. The State will upon request by the lessee, issue to the lessee a valid GST tax invoice in respect of any taxable supply made under this lease. (NOTE: For the purposes of this condition "GST" means the goods and services tax which results from the enactment of A New Tax System (Goods and Services Tax) Act 1999 and the related Acts which constitute the Commonwealth taxation reform (as amended from time to time)).

(5) The lessee must pay the cost of any required survey or re-survey of the leased land.

(6) The lessee must control pest plants and animals, on the leased land, in accordance with the Land Protection (Pest and Stock Route Management) Act 2002 and the Local Laws and requirements

CONDITIONS (Continued)

of the Banana Shire Council.

(7) The lessee has the responsibility for a duty of care, to take all reasonable and practicable measures to sustainably manage the leased land by conserving the physical, biological, productive and cultural values, either on the leased land or in areas affected by the management of the leased land.

(8) The lessee must ensure that the use and development of the leased land conforms to the Planning Scheme, Local Laws and requirements of the Banana Shire Council, binding on the lessee.

(9) The lessee must give the Minister administering the Land Act 1994, information about the lease, when requested.

(10) The lessee must not clear any vegetation on the leased land, unless in accordance with the Sustainable Planning Act 2009.

(11) No compensation for improvements or developmental work is payable by the State at the forfeiture, surrender or expiry of the lease, but the lessee has the right to remove the lessee's moveable improvements within a period of three (3) months from the forfeiture, surrender or expiry of the lease, provided all money due by the lessee to the State on any account whatsoever has been paid, or be required to remove those improvements as specified in any further condition of lease.

(12) This lease is subject to the Land Act 1994 and all other relevant State and Commonwealth Acts.

A89 (1) The lessee must allow any person authorised under the Forestry Act 1959 access to the leased land for the purpose of cutting and removing timber or removing other forest products, or quarry material, or other material from the leased land.

(2) Except as hereinafter provided the lessee must not interfere with any forest products or remove any quarry material (including any stone, gravel, sand, earth, soil, rock, guano or clay which is not a mineral within the meaning of the Mineral Resources Act 1989) or other material upon the leased land without the permission of the Minister administering the Land Act 1994 except under the authority of and in compliance in every respect with the requirements or a permit, licence, agreement or contract granted or made under the Forestry Act 1959.

A90 Further to Condition A78(11), the lessee must remove all improvements and rehabilitate the area to the satisfaction of the Minister administering the Land Act 1994 within three (3) months from the date of surrender, forfeiture or expiry of the lease.

A91 If the lessee fails to remove the improvements and rehabilitate the area as detailed in Condition A90 above, the Minister administering the Land Act 1994 , can remove the improvements and rehabilitate the area and is hereby authorised to do whatever is necessary to effect the said removal and rehabilitation. The said Minister may recover from the lessee the total cost incurred in the said removal and rehabilitation.

C345 The Minister administering the Land Act 1994 may resume the whole or any part of the leased land, provided the said Minister gives the lessee six (6) months notice. Compensation to the lessee will be for lawful improvements only, as provided for under the Land Act 1994.

CONDITIONS (Continued)

I66 The lessee indemnifies and agrees to keep indemnified the Minister administering the Land Act 1994, and the State of Queensland, (the "Indemnified parties") against all actions, suits, proceedings, claims, demands, costs, losses, damages and expenses ("Claim") arising out of or in any way connected to or resulting from the granting of this lease to the lessee or which is connected to or resulting from the lessees' use and occupation of the leased land (all of which are referred to as "the indemnified acts or omissions") save to the extent that the Claim arises as a result of any negligent act or omission of the Indemnified parties, however, any negligent act or omission of one of the Indemnified parties does not negate the indemnity to any of the other Indemnified party/ies. The lessee hereby releases and discharges the Indemnified parties from any Claim relating to the indemnified acts or omissions which may be made against the Indemnified parties.

I69 (1) The lessee must effect a public liability insurance policy with an insurer authorised under the Insurance Act 1973 (Commonwealth) or, in any other case, to the satisfaction of the Minister administering the Land Act 1994, naming the lessee as the insured covering legal liability for any loss of, or damage to any property and for the injury (including death) to any person arising out of anything done or omitted on or about the leased land or any improvements thereon and against all claims, demands, proceedings, costs, charges and expenses whatsoever in respect thereof subject to the terms and conditions of the insurance policy. Such policy must:

(a) be for an amount of not less than $20,000,000.00 in respect of all claims arising out of a single event or such higher amounts as the Minister may reasonably require:

(b) be effected on a "claims occurring" basis so that any claim made by the lessee under the policy after expiration of the period of policy cover but relating to an event occurring during the currency of the policy will be covered by the policy subject to the claim meeting the policy's other terms and conditions;

(c) be effected on such other reasonable terms and conditions as may be required by the Minister; and

(d) be maintained at all times during the currency of the lease .

(2) The lessee must, as soon as practicable, inform the Minister administering the Land Act 1994, in writing, of the occurrence of any event that the lessee considers is likely to give rise to a claim under the policy of insurance effected and must ensure that the Minister is kept fully informed of subsequent actions and developments concerning the claim.

(3) The lessee must renew such policy, at the lessees' expense, each year during the currency of this lease and forward a certificate of currency to the Department of Natural Resources and Mines within 14 days of the commencement of each respective renewal period.

(4) Upon receipt of a Notice of Cancellation, the lessee must immediately effect another public liability policy in accordance with the provisions of this condition.

(5) Clause (1) of this condition will be satisfied if the lessee is the State of Queensland or a statutory authority eligible for cover under the Queensland Government Insurance Fund and is insured and continues to be insured by the Queensland Government Insurance Fund.

CONDITIONS (Continued)

(6) Clause (1) of this condition will be satisfied if the lessee is the Commonwealth of Australia or a statutory authority eligible for cover under the Comcover Insurance Fund and is insured and continues to be insured by Comcover.

L116 The lessee must not effect any structural improvements on the leased land, without the approval of the Minister administering the Land Act 1994 and any other relevant authority, having been first obtained.

ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by Lease No. 40065480

ADMINISTRATIVE ADVICES

Dealing	Type	Lodgement Date	Status
719767646	EXEMPT CONS SEC 322AA LAND ACT 1994	02/12/2019 08:28	CURRENT

UNREGISTERED DEALINGS

NIL

** End of Current State Tenure Search **

Information provided under section 34 Land Title Act (1994) or section 281 Land Act (1994)

Current Title Search

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	**30512164**	**Search Date:**	30/08/2022 11:20
Date Title Created:	15/06/1983	**Request No:**	42117507
Creating Dealing:			

ESTATE AND LAND

Estate in Fee Simple

LOT 57 CROWN PLAN FN275
Local Government: BANANA

For exclusions / reservations for public purposes refer to Plan CP FN275

REGISTERED OWNER

Dealing No: 708695864 30/05/2005

MICHAEL HENRY POKARIER

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Deed of Grant No. 30512164 (POR 57)

2. MORTGAGE No 708695865 30/05/2005 at 10:33
AUSTRALIA AND NEW ZEALAND BANKING GROUP LIMITED A.C.N. 005 357 522

3. MORTGAGE No 712558831 30/06/2009 at 12:14
AUSTRALIA AND NEW ZEALAND BANKING GROUP LIMITED A.B.N. 11 005 357 522

ADMINISTRATIVE ADVICES

NIL

UNREGISTERED DEALINGS

NIL

Caution - Charges do not necessarily appear in order of priority

** End of Current Title Search **

Requested by: D-ENQ CITEC CONFIRM

Current State Tenure Search

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	**40009121**	**Search Date:**	30/08/2022 11:27
Date State Tenure Created:	03/02/1997	**Request No:**	42117700
Creating Dealing:			

DESCRIPTION OF LAND

Tenure Reference: PO 208101

Lease Type: NO TERM

LOT 61 CROWN PLAN FN563
Local Government: BANANA

Area: 17.020000 Ha. (SURVEYED)

Area Description:
Lot 61 on plan FN563

No Forestry Entitlement Area

Purpose for which granted:
RECREATION

REGISTERED PERMITTEE

MOURA HACK & PONY CLUB INC	PERMITTEE

DATE OF COMMENCEMENT

Commencement Date: 01/01/1996

CONDITIONS

A34

(1) The permittee shall use the permit area for recreation purposes, namely horse paddock purposes and for purposes incidental thereto.

(2) In the event of the permittee ceasing to use the permit area as provided for in Condition A34 clause (1) above, the permit may be forfeited or cancelled.

(3) The annual rent shall be paid yearly in advance and shall be determined in accordance with the provisions of the Land Act 1994.

(4) The permittee shall pay the cost of any required survey.

(5) The permittee must keep any noxious plants, on the permit area, under control.

(6) The permittee has the responsibility for a duty of care for the permit area.

(7) The permittee shall ensure that the use and development of the permit area conforms to the Town Planning Scheme By-Laws and requirements of the Banana Shire Council.

(8) The permittee must give the Minister administering the Land Act 1994, the information the Minister administering the Land Act 1994 asks for about the permit .

(9) The permittee shall not destroy any trees on the permit area unless in accordance with a tree clearing permit under the provisions of the Land Act 1962 or the provisions relating to the clearing for routine management purposes as prescribed in the Land Regulations 1988. (NOTE:- Routine Management provisions of the Land Act do not apply on leases over State

CONDITIONS (Continued)

Forests and Timber Reserves)

(10) No compensation for improvements or developmental work shall be payable by the State at the cancellation of the permit but the permittee shall either have the right to remove moveable improvements within a period of three (3) months from the cancellation of the permit, provided all moneys due by the permittee to the State on any account whatsoever have been paid, or be required to remove those improvements as specified in any further condition of permit.

A35 (1) The permittee shall allow any person authorised under the Forestry Act 1959 access to the permit area for the purpose of cutting and removing timber or removing other forest products, or quarry material, or other material from the permit area.

(2) Except as hereinafter provided the permittee shall not interfere with any forest products or remove any quarry material (including any stone, gravel, sand, earth, soil, rock, guano or clay which is not a mineral within the meaning of the Mineral Resources Act 1989) or other material upon the permit area without the permission of the Minister administering the Land Act 1994 except under the authority of and in compliance in every respect with the requirements of a permit, licence, agreement or contract granted or made under the Forestry Act 1959.

C1 The right of resuming the whole or any part of the permit area at any time on giving six (6) months notice and compensating for improvements only shall be reserved to the State.

D175 The permittee shall within three (3) months from the commencement of the permit and to the satisfaction of the Minister administering the Land Act 1994 effect structural improvements in the nature of horse paddocks on the permit area in accordance with plans and specifications approved by the Banana Shire Council of a value of not less than $ (unspecified); construction of such improvements shall be commenced within three (3) months from the commencement of the permit and shall thereafter proceed at a rate of progress satisfactory to the Minister administering the Land Act 1994.

K22 The permittee shall within three (3) months from the commencement of the permit, eradicate to the satisfaction of the Minister administering the Rural Lands Protection Act 1985, all primary growth and any recurring growth of all /any declared plants growing upon the permit area and thereafter shall keep and maintain the area free from all /any noxious plants. The permittee must keep any other noxious plants on the permit area under control.

L80 The permittee shall not effect any structural improvements or carry out any developmental works or improvements on the permit area without the consent of the Minister administering the Land Act 1994 and any other relevant authority, having been first obtained.

L85 The permittee shall, to the satisfaction of the Minister, maintain all improvements on the permit area in a good and substantial state of repair.

L86 Further to Condition A34 clause (10) above, the permittee shall remove all improvements and rehabilitate the area to the satisfaction of the Minister administering the Land Act 1994 within three (3) months from the date of cancellation of the permit.

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference: 40009121

CONDITIONS (Continued)

M38 Should, in the opinion of an authorised officer responsible for the district, damage be caused or be likely to be caused to the permit area or to the tree growth on the permit area by the number of stock being grazed at any time, the permittee shall forthwith reduce the number of stock being grazed to a maximum number as specified by an authorised officer for the district by notice in writing to the permittee.

Z93 The permittee shall to the satisfaction of the Minister keep the permit area in a clean, orderly and sanitary condition.

ENDORSEMENTS

NIL

ADMINISTRATIVE ADVICES

NIL

UNREGISTERED DEALINGS

NIL

** End of Current State Tenure Search **

Information provided under section 34 Land Title Act (1994) or section 281 Land Act (1994)

Requested by: D-ENQ CITEC CONFIRM

Current State Tenure Search

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	**47015359**	**Search Date:**	30/08/2022 11:24
Date State Tenure Created:	04/10/2006	**Request No:**	42117603
Creating Dealing:			

ESTATE

Estate in Unallocated State Land

LOT 64 CROWN PLAN FN339
Local Government: BANANA

OWNER

THE STATE OF QUEENSLAND
(REPRESENTED BY DEPARTMENT OF RESOURCES)

EASEMENTS AND ENCUMBRANCES

NIL

ADMINISTRATIVE ADVICES

NIL

UNREGISTERED DEALINGS

NIL

Corrections have occurred - Refer to Historical Search

** End of Current State Tenure Search **

Information provided under section 34 Land Title Act (1994) or section 281 Land Act (1994)

Requested by: D-ENQ CITEC CONFIRM

Current State Tenure Search

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	**48007418**	**Search Date:**	30/08/2022 11:27
Date State Tenure Created:	24/10/2012	**Request No:**	42117696
Previous Title:	40008706		

LAND DESCRIPTION

Estate in PERPETUITY

LOT 97 CROWN PLAN FN488
Local Government: BANANA

REGISTERED LESSEE

Dealing No: 714739607 24/10/2012

THE STATE OF QUEENSLAND
(REPRESENTED BY DEPARTMENT OF TRANSPORT AND MAIN ROADS)

PERPETUAL TENURE INFORMATION

For Conditions, Primary Tenure information including Purpose and Term of Tenure, refer to title reference 40008706

ENCUMBRANCES, EASEMENTS AND INTERESTS

1. SUB LEASE No 701720343 18/12/1996 at 15:28
to
QUEENSLAND RAIL
OF THE WHOLE OF THE LAND
TERM COMMENCING 01/07/1995
TERMINATING 30/06/2095

2. AMENDMENT OF LEASE No 711947329 26/09/2008 at 09:55
SUB LEASE: 701720343
TERM: 01/07/1995 TO 30/06/2095 OPTION 100 YEARS

3. TRANSFER No 711997496 21/10/2008 at 11:17
SUB LEASE: 701720343
QR NETWORK PTY LTD A.C.N. 132 181 116

4. AMENDMENT OF LEASE No 713429413 26/08/2010 at 11:15
SUB LEASE: 701720343
TERM: 01/07/1995 TO 30/06/2109 OPTION AS THEREIN STATED

5. AMENDMENT OF LEASE No 713836456 05/05/2011 at 11:05
SUB LEASE: 701720343
TERM: 01/07/1995 TO 30/06/2109 OPTION AS THEREIN STATED

6. CHANGE OF NAME No 714964808 04/03/2013 at 16:05
SUB LEASE: 701720343
AURIZON NETWORK PTY LTD A.C.N. 132 181 116

ADMINISTRATIVE ADVICES

NIL

UNREGISTERED DEALINGS

NIL

Caution - Charges do not necessarily appear in order of priority

** End of Current State Tenure Search **

Information provided under section 34 Land Title Act (1994) or section 281 Land Act (1994)

Requested by: D-ENQ CITEC CONFIRM

Current State Tenure Search

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	**48002499**	**Search Date:**	30/08/2022 11:27
Date State Tenure Created:	27/02/2010	**Request No:**	42117701
Previous Title:	40008706		

LAND DESCRIPTION

Estate in PERPETUITY

LOT 107 CROWN PLAN FN513
Local Government: BANANA

REGISTERED LESSEE

Dealing No: 712575628 07/07/2009

THE STATE OF QUEENSLAND
(REPRESENTED BY DEPARTMENT OF TRANSPORT AND MAIN ROADS)

PERPETUAL TENURE INFORMATION

For Conditions, Primary Tenure information including Purpose and Term of Tenure, refer to title reference 40008706

ENCUMBRANCES, EASEMENTS AND INTERESTS

1. SUB LEASE No 701720343 18/12/1996 at 15:28
to
QUEENSLAND RAIL

2. AMENDMENT OF LEASE No 711947329 26/09/2008 at 09:55
SUB LEASE: 701720343
TERM: 01/07/1995 TO 30/06/2095 OPTION 100 YEARS

3. TRANSFER No 711997496 21/10/2008 at 11:17
SUB LEASE: 701720343
QR NETWORK PTY LTD A.C.N. 132 181 116

4. AMENDMENT OF LEASE No 713429413 26/08/2010 at 11:15
SUB LEASE: 701720343
TERM: 01/07/1995 TO 30/06/2109 OPTION AS THEREIN STATED

5. AMENDMENT OF LEASE No 713836456 05/05/2011 at 11:05
SUB LEASE: 701720343
TERM: 01/07/1995 TO 30/06/2109 OPTION AS THEREIN STATED

6. CHANGE OF NAME No 714964808 04/03/2013 at 16:05
SUB LEASE: 701720343
AURIZON NETWORK PTY LTD A.C.N. 132 181 116

ADMINISTRATIVE ADVICES

NIL

UNREGISTERED DEALINGS

NIL

Corrections have occurred - Refer to Historical Search

Caution - Charges do not necessarily appear in order of priority

** End of Current State Tenure Search **

Information provided under section 34 Land Title Act (1994) or section 281 Land Act (1994)

Requested by: D-ENQ CITEC CONFIRM

Current Reserve Search

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	**49015129**
Date Reserve Gazetted:	05/03/1983
Page:	834

Search Date:	30/08/2022 11:20
Request No:	42117512

DETAILS

Opening Ref:	RES 6423
Purpose:	RECREATION
Sub-Purpose:	
Local Name:	
Address:	DAWSON HIGHWAY, MOURA
County (R) No:	R159
File Ref:	RES 20466

LAND DESCRIPTION

LOT 109 CROWN PLAN FN524 GAZETTED ON 05/03/1983 PAGE 834
Local Government: BANANA

Area: 15.100000 Ha. (ABOUT)

TRUSTEES

BANANA SHIRE COUNCIL GAZETTED ON 05/03/1983 PAGE 834

EASEMENTS AND ENCUMBRANCES

1. TRUSTEE LEASE No 704212643 25/07/2000 at 11:46
MOURA ACTIVE RIDERS CLUB INCORPORATED
OVER PART OF THE LAND

ADMINISTRATIVE ADVICES

NIL

UNREGISTERED DEALINGS

NIL

Caution - Charges do not necessarily appear in order of priority

** End of Current Reserve Search **

Requested by: D-ENQ CITEC CONFIRM

Current Title Search

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	**50128373**	**Search Date:**	30/08/2022 11:24
Date Title Created:	14/06/1996	**Request No:**	42117602
Previous Title:	40005205		

ESTATE AND LAND

Estate in Fee Simple

LOT 110 CROWN PLAN 895858
Local Government: BANANA

REGISTERED OWNER

Dealing No: 706676964 05/06/2003

GREGORY STEPHEN LANG

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Deed of Grant No. 40005205 (Lot 110 on CP 895858)

2. MORTGAGE No 706676965 05/06/2003 at 16:55
AUSTRALIA AND NEW ZEALAND BANKING GROUP LIMITED A.C.N. 005 357 522

ADMINISTRATIVE ADVICES

Dealing	Type	Lodgement Date	Status
717923224	CON COM AGMT MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014	27/03/2017 12:19	CURRENT
721407790	CON COM AGMT MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014	14/01/2022 12:02	CURRENT

UNREGISTERED DEALINGS

NIL

Caution - Charges do not necessarily appear in order of priority

** End of Current Title Search **

Requested by: D-ENQ CITEC CONFIRM

Current State Tenure Search

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	**48002565**	**Search Date:**	30/08/2022 11:24
Date State Tenure Created:	27/02/2010	**Request No:**	42117597
Previous Title:	40008706		

LAND DESCRIPTION

Estate in PERPETUITY

LOT 151 SURVEY PLAN 119263
Local Government: BANANA

REGISTERED LESSEE

Dealing No: 712575628 07/07/2009

THE STATE OF QUEENSLAND
(REPRESENTED BY DEPARTMENT OF TRANSPORT AND MAIN ROADS)

PERPETUAL TENURE INFORMATION

For Conditions, Primary Tenure information including Purpose and Term of Tenure, refer to title reference 40008706

ENCUMBRANCES, EASEMENTS AND INTERESTS

NIL

ADMINISTRATIVE ADVICES

NIL

UNREGISTERED DEALINGS

NIL

Corrections have occurred - Refer to Historical Search

** End of Current State Tenure Search **

Information provided under section 34 Land Title Act (1994) or section 281 Land Act (1994)

Requested by: D-ENQ CITEC CONFIRM

Appendix D – Landholder Names and Postal Addresses

Lot/Plan	Landholder Name	Postal Address
Lot 6SP311690	Richard Charles Stephenson	PO Box 9, Moura Qld 4718
Lot 1SP272409	Jonathan Richard Haine, Ingrid Ellen Haine	3902 Theodore Moura Road, Kianga 4718
Lot 5SP311690, Lot 19FN200	Balanced Property Pty Ltd (Tte)	3 Moocooraba Road, Camboon 4719
Lot 2SP252890, Lot 2SP272409	Warren Reginald Luhrs, Teresa Anne Luhrs	PO Box 35, Moura, Qld 4718
Lot 1SP317555, Lot 2SP122581	Nicole Jayne Lorimer, Mark Patrick Lorimer, Jill Meredith Austin, Gerald Ross Austin	73 Herzog St, Moura Qld 4718
Lot 6FN180	Claire Jennie Hoare, Barry Stuart Hoare	250 Bindaree Road, Moura 4718
Lot 34FN499, Lot 110CP895858	Gregory Stephen Lang	PO Box 156, Moura Qld 4718
Lot 57FN275	Michael Henry Pokarier	`Hatari Park`, 84 Saleyards Rd, Moura Qld 4718
Lot 109FN524	Moura Active Riders Club Incorporated	PO Box 338, Moura Qld 4718
Lot 61FN563	Moura Hack and Pony Club Inc	C/- The Secretary, PO Box 200, Moura Qld 4718
Lot 7SP118855	Sandra Gail Williamson, Richard Charles Stephenson, James Kenneth Stephenson, Gary James Stephenson	PO Box 9, Moura Qld 4718
Lot 151SP119263	Keith Shoecraft	PO Box 103, Theodore, Qld 4719
Lot 51FN275	Elders Rural Services Australia Limited	PO Box 5, Moura Qld 4718
Lot 22RP911707	Queensland Cotton Corporation Ltd	PO Box 203, Moura Qld 4718
Lot 1SP252890	Wonbindi Coal Pty Ltd	Level 20, 10 Eagle Street Brisbane, Qld 4000
Lot 2FN563, Lot 107FN513	Aurizon Network Pty Ltd	GPO Box 456, Brisbane QLD 4001
Lot 2SP108639	Sunwater	PO Box 15536, City East Qld 4002
Lot 64FN339, Lot 7SP200916, Lot 97FN488, Lot 6CP886963, Lot 39FN513, Lot 3FN563	The State of Queensland (Represented by Department of Resources)	Level 1, 209 Bolsover Street, Rockhampton QLD 4700

Appendix E – GIS Data Files