



# **Tubridgi Gas Storage Project – Flowlines**

**PUBLIC SUMMARY**

**To**

**ENVIRONMENTAL PLAN**

**E-PLN-043**

## DOCUMENT CONTROL

Rev	Date	Description
A	17/09/2023	Initial Submission to match TGSP Flowline EP (E-PLN-043)
B	15/11/2023	Amended to be in consistent with TGSP Flowline EP Rev 4 (E-PLN-043).
C	2/01/2024	Consistent with TGSP Flowline EP Rev 5 (E-PLN-043).
D	05/01/2024	Amended to be in consistent with TGSP Flowline EP Rev 6 (E-PLN-043).
E	30/01/2024	Updated Table 7.6 to reflect the updated TGSP Flowline EP Rev 7 (E-PLN-043).

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## 1. Introduction

### 1.1. Background

AGI Tubridgi Pty Limited (AGIT) operates and maintains the Tubridgi Gas Storage Project (TGSP), a subsurface gas injection and extraction facility with a nominal supply capacity of up to 120 TJ/d of natural gas. The storage facility is connected to the Dampier to Bunbury Natural Gas Pipeline (DBNGP) via the Wheatstone Ashburton West Pipeline (WAWP) allowing gas producers to store or withdraw gas from the TGSP. The TGSP benefits gas producers and customers alike who may require storage capacity to bank unused gas, smooth production profiles or to store gas to cover planned production outages.

The TGSP utilises a five well program (wells TGS1, TGS3, TGS5, TGS6 and TGS9) with associated flowlines back to the TGSP facility located at the previous Griffin Export Facility (GEF). The Department of Mines, Industry Regulation and Safety (DMIRS) under the *Petroleum and Geothermal Energy Resources Act 1967* have issued production Licence L9 for activities related to TGSP. It is now proposed to drill and flow test four new wells (TRW2, TRW8, TRW10 and TCW11) in the same area, based on increased forecast use. The new wells will require the construction and installation of two new flowlines to connect two of the new wells (specifically wells TRW8 and TRW2) into the existing flowline network. Well TRW10 will connect into an existing flowline, whilst TCW11 will be an exploratory well only, with no connection back into the TGSP.

The *Petroleum and Geothermal Energy Resources (Environment) Regulations 2012* require the development and implementation of an Environment Plan (EP) (this document) to the satisfaction of the the Department of Mines, Industry Regulation and Safety (DMIRS). This EP covers the construction of the two new flowlines. Once operational, the flowlines will be managed under the existing in-force *Tubridgi Gas Storage Project – Operations Environment Plan*.

Construction of the new wells will be addressed within a separate EP. Once approved and constructed, the new wells would also be managed under the *Tubridgi Gas Storage Project – Operations Environment Plan*.

### 1.2. Proponent

AGIT is the licence holder and nominated operator and exercises all rights and retains all obligations associated with production Licence L9.

AGIT is part of the Australian Gas Infrastructure Group (AGIG), which also includes the Dampier to Bunbury Natural Gas Pipeline (DBNGP). AGIT relies on the services of DBNGP (WA) Nominees Pty Limited (DBP), the owner of the DBNGP, for the provision of labour and equipment to undertake its business. In this regard AGIT adopts all AGIG and DBP policies and procedures across the operation of its business.

Public enquiries regarding the Tubridgi Gas Storage Project may be directed to AGIT via:

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### 1.3. Scope

The scope of this EP includes all activities associated with construction of the new flowlines, namely:

- Clearing, levelling and preparation of the flowline disturbance corridors, to facilitate the installation of new flowlines;
- Trenching;
- Installation of flowlines to connect into the existing flowline network, followed by backfilling; and
- Pressure testing and commissioning.

This plan does not include the operation of the four new wells.

The Tubridgi Operations EP will subsequently be revised to include the new flowlines following the completion of flowline construction activities.

Personnel involved in the flowline construction activities will utilise the existing Ashburton West (ASW) /Tubridgi Camp facility or locally available accommodation in the town of Onslow .

This EP is part of a suite of documents that will address environment and health and safety matters for the proposed activity, including the following:

- TGSP (Tubridgi Gas Storage) Field Management Plan (TSF-Z-PLN-001-01);
- TGSP Well Management Plan (TGS-WEL-DRILL-Well Management Plan);
- Drill Rig Safety Case;
- TGSP Emergency Response Procedure (TGS-Z-PRO-011-01);
- TGSP Safety Case for the operation of the assets defined in the Asset Management Plan; and
- TGSP Asset Management Plan.

### 1.4. Location

The TGSP facilities are situated at the previous GEF, located approximately 31 km southwest of Onslow. Construction of the two new flowlines will be in the immediate vicinity of the existing in situ wells and flowlines (see **Figure 1-1** and **Figure 1-2**). Approximate coordinates of the new flowlines and access roads are provided within **Table 1-1**.

Flowline 1 will connect existing well TGS6 with the new TRW8 well, comprising 2.15 km of new buried flowline. Flowline 2 (approximately 1.47 km) will connect existing flowline infrastructure immediately adjacent to Tubridgi 05 well, to the new TRW2 well. Both flowlines will retain an access road within part of their disturbance footprint, once completed.

A separate access road will be constructed to connect TRW8 to TCW11.

**Table 1-1 Approximate geographic coordinates of new flowlines**

Flowlines	Overview	Total Length	Eastings (GDA94 Z50)	Northings (GDA94 Z50)	Longitude	Latitude
Flowline 1 (western end point)	Connection of existing TGS6 well with new TRW8 well	2.15 km	274,390.90	7,586,636.90	114.81759	-21.80972
Flowline 1 (eastern end point)			276,261.27	7,587,729.93	114.835823	-21.800093
Flowline 2 (western end point)	Connection of existing flowline immediately adjacent to Tubridgi 5 well (the old Griffin line) to new TRW2 well	1.47 km	277,879.79	7,592,566.42	114.852121	-21.756631
Flowline 2 (eastern end point)			279,370.20	7,592,355.90	114.8665	-21.75872
Flowline 3 (western end point)	Connection of existing old Griffin line to new TRW10 well	0.05 km	278,671.50	7,590,353.70	114.859476	-21.776708
Flowline 3 (eastern end point)			278,715.45	7,590,378.89	114.859904	-21.776486



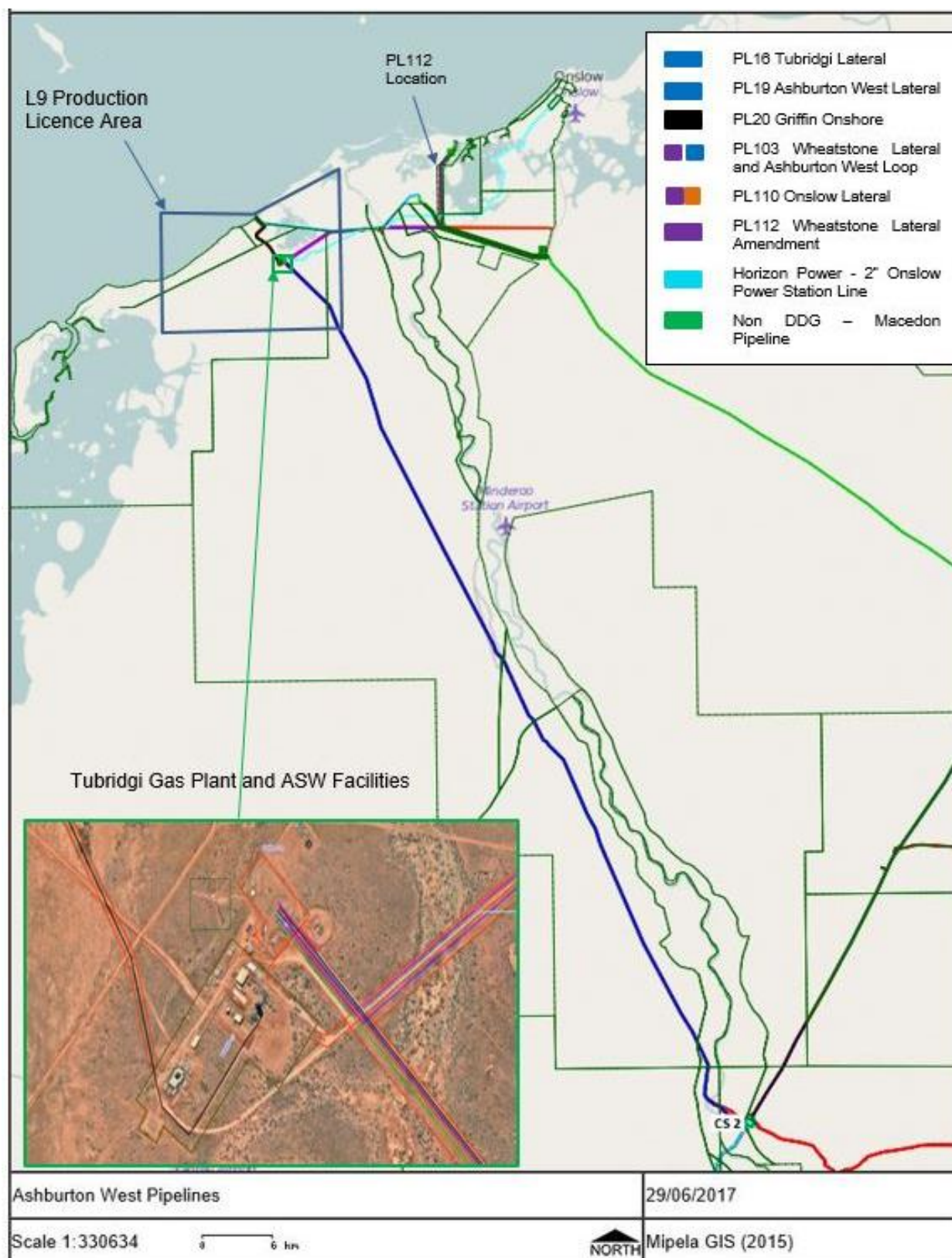


Figure 1-1 Overview map of Tubridgi Gas Storage Project Area

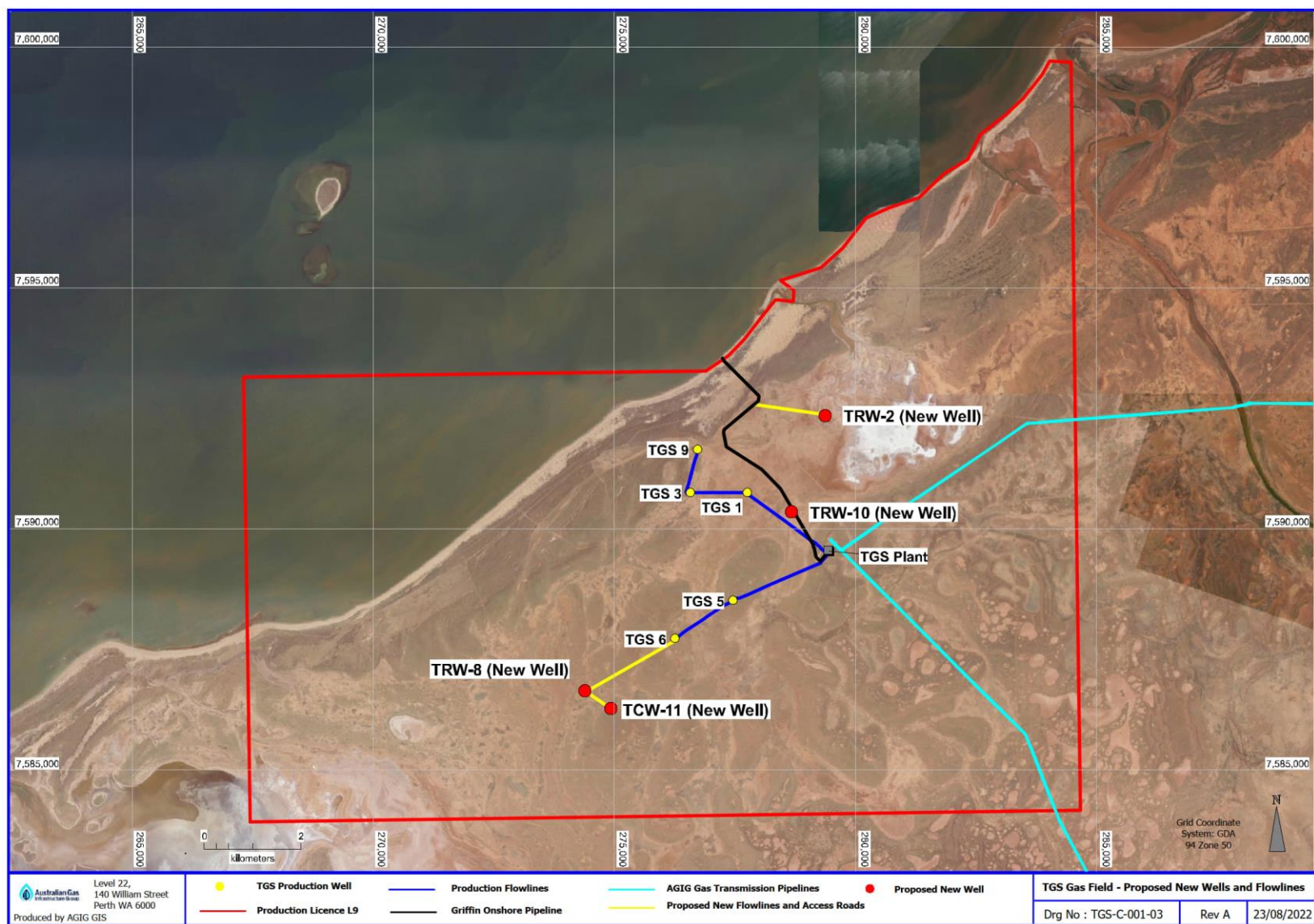


Figure 1-2 Location of flowlines (yellow lines) within Tubridgi Gas Storage Project Area



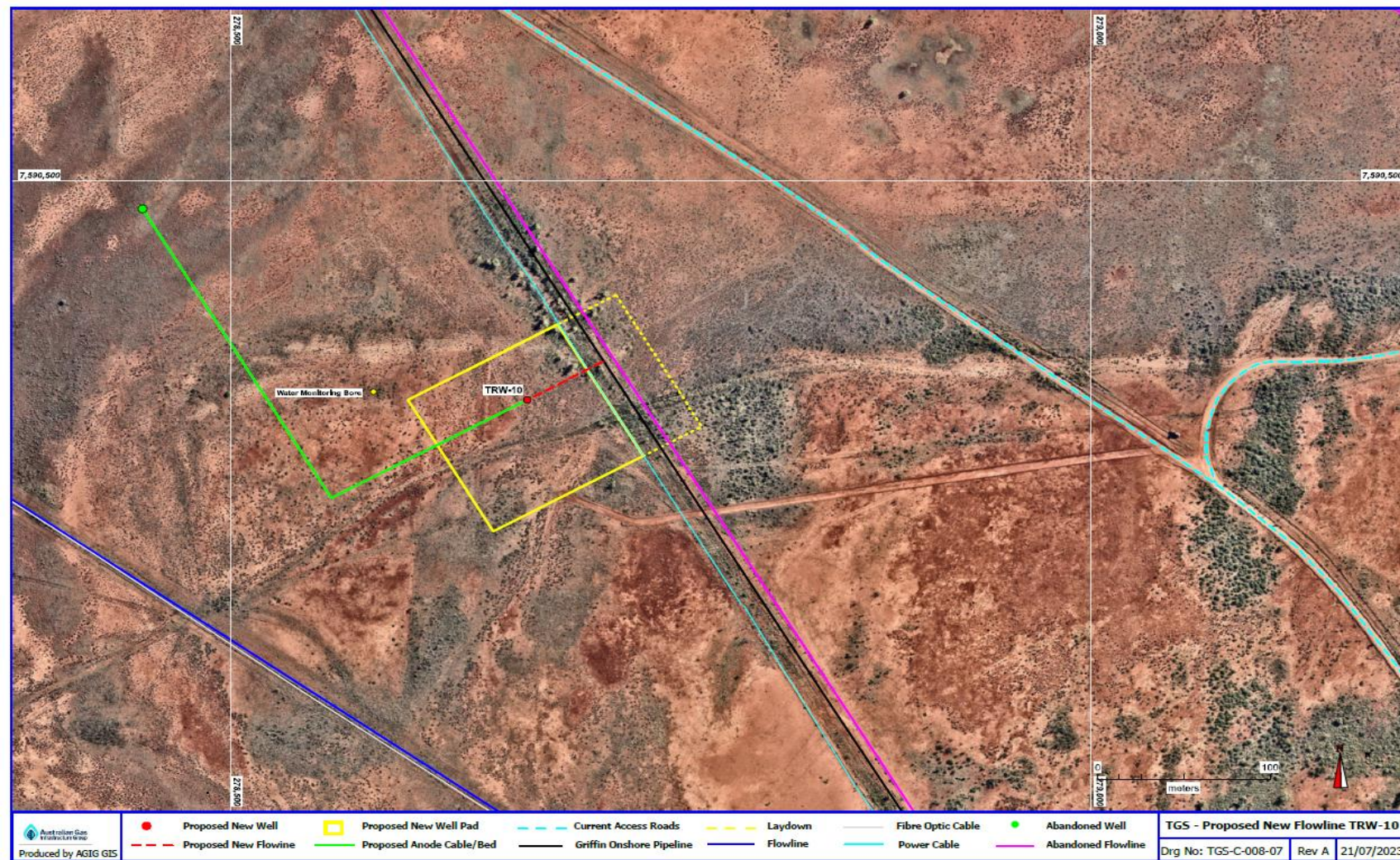


Figure 1-3 Proposed new flowline for TRW10 well



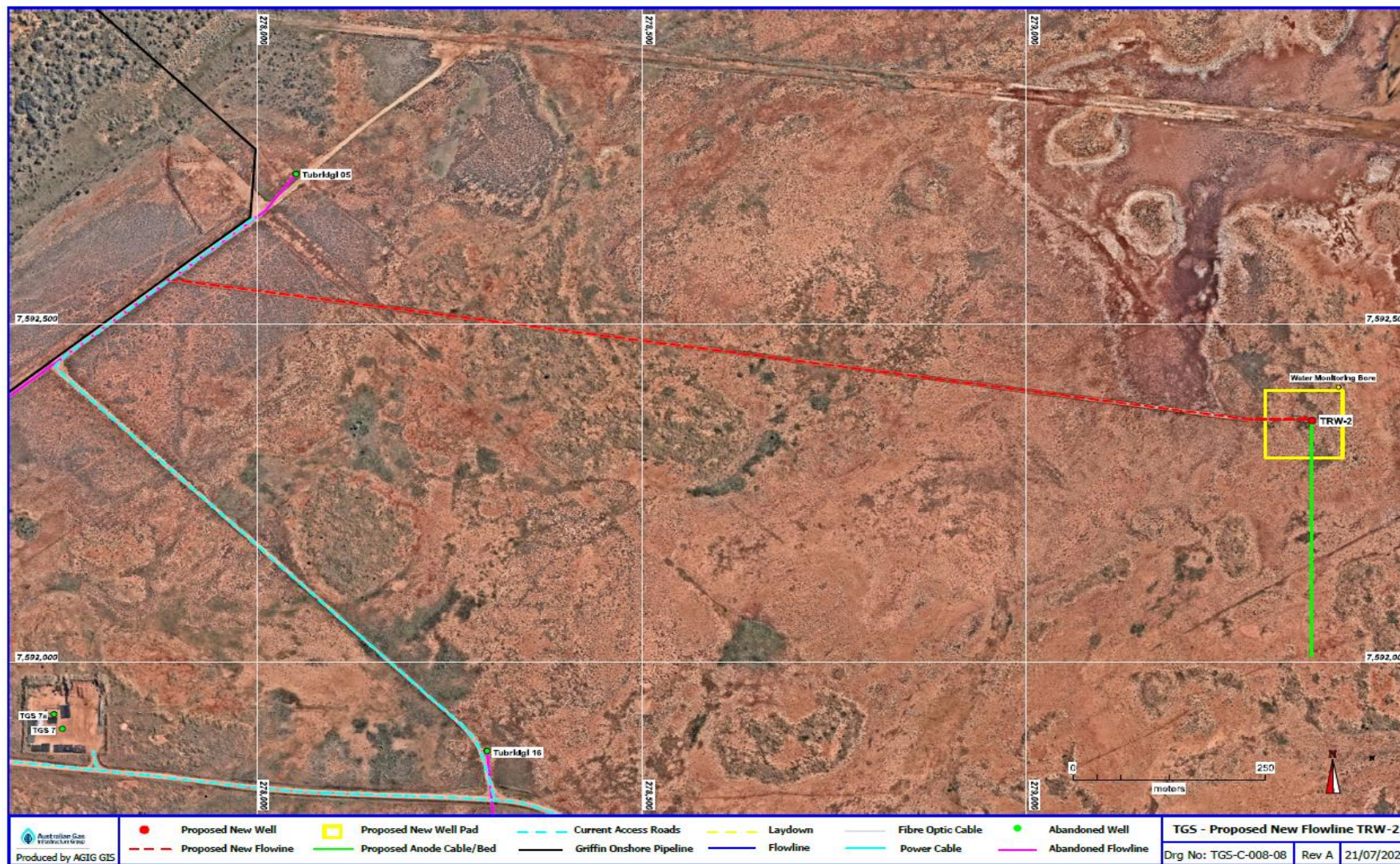


Figure 1-4 Proposed new flowline for TRW2 well



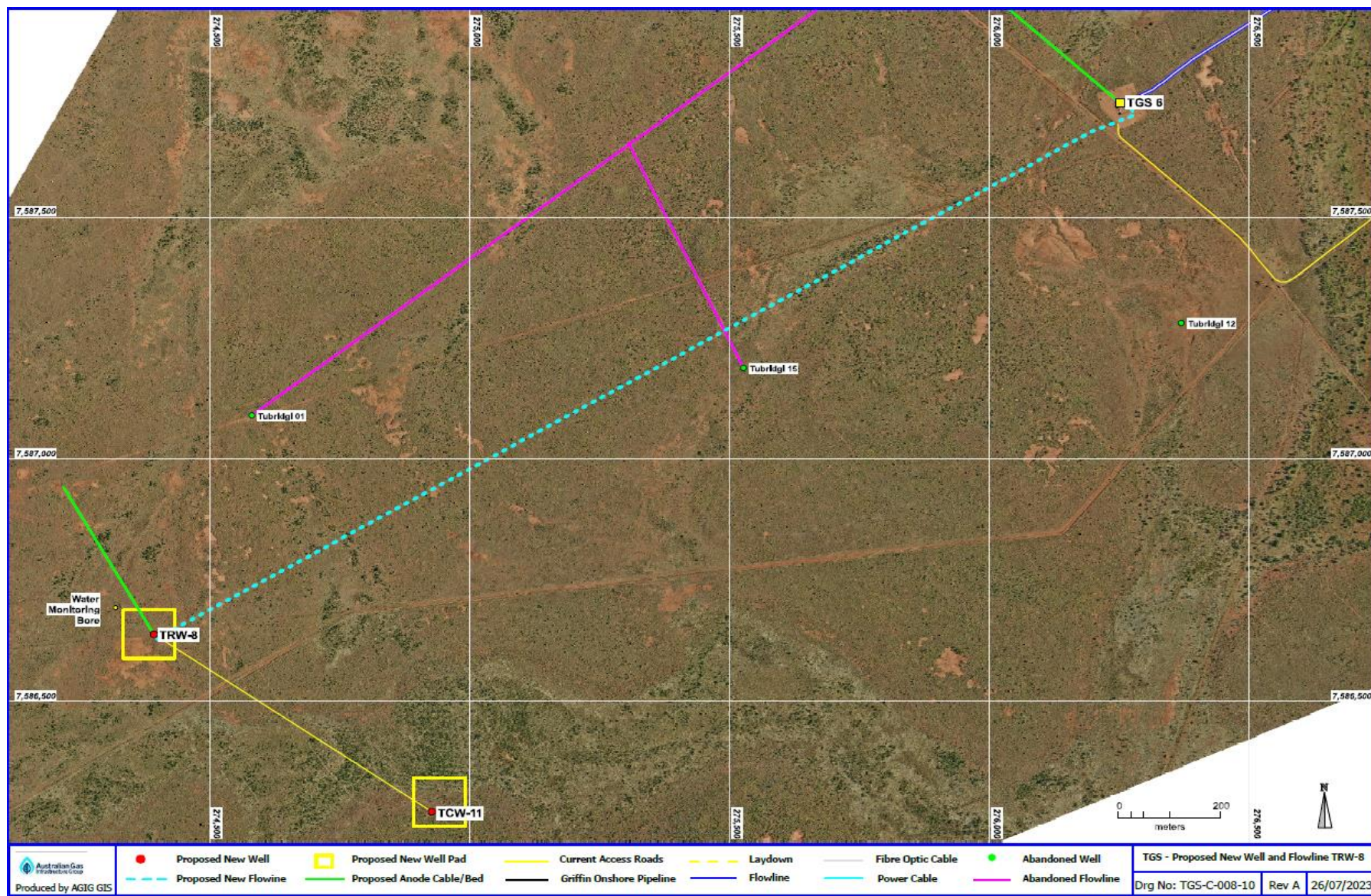


Figure 1-5 Proposed new flowline for TRW8 well





Figure 1-6 Location of additional amenities and accommodation

## **1.5. Schedule**

Construction of the two new flowlines is scheduled to commence in Quarter 3 2023. Access tracks shall already be in place as part of the Well Construction works covered by a separate EP.

Construction of each flowline will take approximately 6 weeks, with completion of both flowlines by Quarter 4 of 2023.

## 2. Environmental Management Framework

### 2.1. Policy

AGIT adopts all AGIG and DBP policies and procedures across the operation of its business.

DBP has a corporate culture which strives for Health, Safety and Environment (HSE) excellence, driven by a corporate commitment to protect people and the environment. Central to this is the AGIG Environmental Policy which is signed and endorsed by its CEO and a set of core principles, called Zero Harm Principles, which are aimed at establishing principles for undertaking activities that have been assessed as having the highest risk to DBP and its workforce.

The AGIG Environmental Policy is reviewed regularly, or when there is a significant change to the organisation or its activities, to ensure that the policy remains comprehensive and current. Employees are consulted during the review process through a number of mechanisms, including HSE Committees.

### 2.2. Structure and Responsibility

All personnel are responsible for the environmental performance of their activities and for reporting any environmental hazards and incidents. Overarching environmental roles are described in **Table 2-1** below and specific environmental responsibilities are addressed in **Section 6**.

**Table 2-1 Key Environmental Responsibilities**

Position Title	Environmental Responsibilities
Executive Management Team	<ul style="list-style-type: none"> <li>• Hold overall responsibility for environmental management;</li> <li>• Review, understand, approve and support implementation of the EP; and</li> <li>• Ensure adequate resources are provided for the implementation of the EP.</li> </ul>
Executive General Manager Transmission Asset Management (TAM)	<ul style="list-style-type: none"> <li>• Ensure that environmental obligations are embedded into design, systems and processes for satisfying compliance and due diligence requirements;</li> <li>• Ensure that proposed project additions and alterations obtain all necessary environmental approvals; and</li> <li>• Coordinate emergency response in accordance with the TGSP Emergency Response Procedure (TGS-Z-PRO-011-01).</li> </ul>
Executive General Manager Transmission Operations (TO)	<ul style="list-style-type: none"> <li>• Ensure that environmental obligations are embedded into AGIT's systems and processes for satisfying compliance and due diligence requirements;</li> <li>• Ensure maintenance personnel are adequately trained to carry out their environmental duties;</li> <li>• Facilitate the implementation of this plan in relation to field maintenance activities;</li> <li>• Ensure the requirements of the Master Obligations Register (including modifications and updates) are communicated to the managers as appropriate;</li> <li>• Ensure incident reporting protocols are communicated and adhered to;</li> <li>• Respond to environmental incidents as required; and</li> <li>• Remediation of contaminated sites.</li> </ul>
Executive General Manager Commercial	<ul style="list-style-type: none"> <li>• Ensure environmental obligations are embedded into the operation and dispatching of the facility, wells and flowlines;</li> <li>• Control Room Operators are adequately trained to carry out emergency and everyday operations to minimise environmental impacts;</li> <li>• Manage and coordinate the emergency response from the control room in support of the ERP and CMT; and</li> <li>• Drive fuel efficiency with a focus on fuel gas minimisation of compressors including blowdown minimisation.</li> </ul>
Superintendents / Managers: <ul style="list-style-type: none"> <li>• Facilities;</li> <li>• Mainline;</li> <li>• Engineering and Operational Project;</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure personnel training plans reflect the environmental duties and the training is carried out;</li> <li>• Ensure this plan is embedded in the asset management tool (Maximo);</li> <li>• Review and understand the Master Obligations Register (including modifications and updates) and that these are reflected in work instructions relative to activities;</li> <li>• Ensure incident reporting protocols are followed and that the maintenance personnel report Events/Hazards and near misses; and</li> <li>• Respond to environmental incidents as required.</li> </ul>



Position Title	Environmental Responsibilities
<ul style="list-style-type: none"> <li>Project Management Office; and</li> <li>Planning and Supply.</li> </ul>	
Manager, Environment	<ul style="list-style-type: none"> <li>Monitor implementation of and compliance with this Flowlines EP and environmental risk assessment recommendations;</li> <li>Facilitate and monitor EP reviews;</li> <li>Review audit reports and monitor completion of required corrective actions;</li> <li>Report significant environmental non-compliances with EP and legislation internally to the AGIG Executive Management Team and externally to regulatory authorities, as required; and</li> <li>Ensure all environmental obligations are added to the Master Obligations Register and are kept current in that register.</li> </ul>
HSE Advisor	<ul style="list-style-type: none"> <li>Identify changes during operation and update the EP to address and manage any new environmental risks;</li> <li>Provide assistance and/or advice regarding implementation of the EP and any other environmental management concern;</li> <li>Liaise with government agencies regarding environmental issues;</li> <li>Assess environmental incidents to determine regulatory reporting requirements;</li> <li>Report on, and address as required, existing and emerging Native Title and Cultural Heritage issues; and</li> <li>Undertake planned external reporting.</li> </ul>
Head of Land Management	<ul style="list-style-type: none"> <li>Liaise with landholders, traditional owners, community representatives, contractors, councils, planning and local government authorities as well as utilities and infrastructure owners on land management and environmental matters as required.</li> </ul>
Training and Development Manager	<ul style="list-style-type: none"> <li>Facilitate the maintenance, implementation and ongoing improvement of training and induction programs.</li> </ul>
Project Manager	<ul style="list-style-type: none"> <li>Ensure construction related environmental impacts are managed as per this EP;</li> <li>Manage and monitor environmental aspects;</li> <li>Assist and provide resourcing to achieve environmental controls;</li> <li>Assist in environmental inspections, incident investigations and action close out;</li> <li>Ensure all construction personnel are aware and abide by environmental legislative requirements and obligations;</li> <li>Report on and address any environmental hazards; and</li> <li>Promote environmental initiatives.</li> </ul>
Person in Charge (PIC)	<ul style="list-style-type: none"> <li>Provide onsite incident management response;</li> <li>Provide onsite leadership and management of construction operations including Site Coordinator and Permit Issuing roles;</li> <li>Manage site security and stakeholder communications from a site perspective;</li> <li>Ensure application of work management system to meet requirements of Safety Case, Asset Management Plan and this EP;</li> <li>Ensure the management and reporting of all hazards, incidents and near misses (events);</li> <li>Participate in event investigations;</li> <li>Ensure ongoing resource competency for personnel and contractors conducting work in the field with assistance from Training and Development Manager; and</li> <li>Provide assistance and reviews of monitoring and reporting data including collection, sampling and provision of records to meet reporting requirements.</li> </ul>
All Personnel	<ul style="list-style-type: none"> <li>Read, understand and implement the control measures detailed within Section 6 of this plan;</li> <li>Report all observed non compliances to a supervisor;</li> <li>Report all observed incidents, hazards and near misses;</li> <li>Continually seek to identify areas for improvement of environmental management; and</li> <li>Conduct HSE inspections as required across the plant.</li> </ul>

## 2.3. Legislation

Key environmental legislation and other requirements that may apply to the TGSP facilities are presented in **Table 2-2** below.

**Table 2-2 Associated Environmental Legislation and Other Requirements**

<b>Commonwealth Legislation</b>	
<b><i>Aboriginal and Torres Straits Islander Heritage Protection Act 1984</i></b>	An Act to ensure the protection of Cultural Heritage which requires that any new development in previously undisturbed areas is reviewed to assess potential heritage impacts and ensure appropriate approvals are in place prior to commencing works. Any modifications or enhancements (projects) include a heritage impact assessment. Awareness of the requirements under this Act and the State Act ensure knowledge of assessment requirements and identification of heritage artefacts.
<b><i>Environment Protection and Biodiversity Conservation Act 1999</i></b>	An Act to identify and ensure the protection of Matters of National Environmental Significance (MNES). Approval requirements are set out for any new developments either undertaken on Commonwealth Land or considered to have potential to impact upon MNES. While TGSP has no specific MNES identified, any future works are assessed against MNES impacts.
<b><i>National Greenhouse and Energy Reporting Act 2007</i></b>	This Act requires the monitoring and if required, reporting of greenhouse gas and energy production / consumption. This is completed annually and relates to fuel gas use, gas venting and diesel fuel use.
<b><i>Native Title Act 1993</i></b>	An Act to ensure Native Title holders' rights are protected throughout development within proclaimed areas. Any modifications or enhancements (projects) include a heritage impact assessment.
<b>Western Australian Legislation and Associated Regulations</b>	
<b><i>Aboriginal Heritage Act 1972</i></b>	All sites of Aboriginal archaeology are protected and will require pre-clearance survey and permit if materials are to be disturbed. Declared heritage places are protected and will need to be avoided or consent obtained if site is to be disturbed. Any modifications or enhancements (projects) include a heritage impact assessment as well as ensuring personnel are aware of their requirements to protect any heritage identified.  Immediately prior to any clearing activities, Traditional Owner Monitors or an Anthropologist shall inspect the area to ensure no cultural heritage items or areas are impacted.
<b><i>Aboriginal Cultural Heritage Act 2021 (from July 2023)</i></b>	An Act which provides a framework for the recognition, protection, conservation and preservation of Aboriginal cultural heritage. The act will replace the outdated <i>Aboriginal Heritage Act 1972</i> and associated Section 18 approval process. A transition period of 12 months is currently in effect, before the Act comes into operation (to enable new Aboriginal cultural heritage management systems to be fully developed). The <i>Aboriginal Heritage Act 1972</i> will remain in force during the transition period.
<b><i>Biodiversity Conservation Act 2016</i></b>	Supersedes the <i>Wildlife Conservation Act 1950</i> and requires management of impacts to threatened species, ecological communities, and conservation reserves. Includes requirements under regulations for licensing to take or impact native flora and fauna. Level 1 flora surveys will be completed prior to the flowline construction activities, to confirm no declared flora or threatened ecological communities are present within the disturbance footprint.
<b><i>Biodiversity Conservation Regulations 2018</i></b>	Fauna licensing for any fauna handling required as part of constructing the new flowlines. Additionally includes threatened flora and communities licensing requirements for impacts to conservation significant species. AGIT maintains a Fauna Licence.
<b><i>Biosecurity and Agriculture Management Act 2007</i></b>	Includes obligations for the management of declared weeds within WA and the need for the identification and management of weed species. Declared weeds such as mesquite occur are known to occur within the TGSP area and require management and landholder consultation for best management practices.
<b><i>Bushfires Act 1954</i></b>	Sets out requirements for fire protection matters including firebreaks around compounds and fire ban controls. Total Fire Ban exemptions and conditions for work have been built into hot works and other fire prevention controls. Recent updates to the regulations also include no hot works during catastrophic fire rating days.

<b><i>Environmental Protection Act 1986</i></b>	Act to ensure the protection of the Environment. Includes requirements for referral of projects, licensing of scheduled activities and obligation to prevent pollution and minimise impacts to the environment. This includes the reporting of any pollution.
<b>Environmental Protection Regulations 1987</b>	Regulations (including sub regulations) in terms of the management of noise, clearing of native vegetation, controlled wastes, unauthorised discharges and litter is managed on site. Main interaction is the Clearing Permit used for initial clearing of each flowline disturbance footprint. Management of noise and discharge of wastes is also required under this Act to ensure no negative impacts to receptors.
<b>Environmental Protection (Abrasive Blasting) Regulations 1988</b>	Management of environmental risks relating to abrasive blasting activities including noise, dust and waste management.
<b>Environmental Protection (Clearing of Native Vegetation) Regulations 2004</b>	Regulations specific to the clearing of native vegetation and includes potential exemptions under Petroleum related legislation and activities. Permits for clearing are currently held for the project.
<b>Environmental Protection (Noise) Regulations 1997</b>	Controls in relation to noise levels at environmental receptors. Includes management of activities that could breach levels including timing of activity, duration, notification to stakeholders and noise monitoring.
<b><i>Dangerous Goods Safety Act 2004</i></b>	The transport, handling and storage of dangerous goods will need to conform to the requirements of the Act. This includes contractor's delivering and removing hydrocarbons from site and the transport of odorant. This also includes training requirements for certain personnel as well as storage and segregation requirements. The site currently holds a Dangerous Goods Licence.
<b><i>Petroleum Pipelines Act 1969</i></b>	Manages the pipeline license area and includes pipeline safety and Safety Case obligations and the obligation to minimise environmental impacts.
<b>Petroleum and Geothermal Energy Resources Act 1967</b>	Provide for the licensing, development and operation of oil and gas facilities
<b>Petroleum and Geothermal Energy Resources (Environment) Regulations 2012</b>	Sets out specific requirements including the development and approval of the EP for wells, flowlines and other facilities and the need to manage environmental impacts.
<b>Petroleum Pipelines (Environment) Regulations 2012</b>	Sets out specific requirements including the development and approval of pipelines EPs and the need to manage environmental impacts.
<b><i>Rights in Water and Irrigation Act 1914</i></b>	Requirements for management of impacts to water bodies including surface and ground water.
<b>Rights in Water and Irrigation Regulations 2000</b>	Includes the licensing and management requirements for the abstraction of water and any impacts to beds and banks.
<b>International Conventions</b>	
<b>Convention on Biological Diversity</b>	International agreement which obliges the Australian Government to have policies and procedures to protect biodiversity and plan for biological conservation outcomes.
<b>Migratory Birds – China</b>	International agreement to provide an important mechanism for pursuing conservation outcomes for migratory bird species with China.
<b>Migratory Birds – Japan</b>	International agreement to provide an important mechanism for pursuing conservation outcomes for migratory bird species with Japan.
<b>Migratory Birds – Republic of Korea</b>	International agreement to provide an important mechanism for pursuing conservation outcomes for migratory bird species with the Republic of Korea.
<b>Standards</b>	
<b>AS2885 Pipelines – Gas and Liquid Petroleum</b>	Pipeline design requirements as well as specific to line of sight clearing requirements (vegetation maintenance) and pigging requirements.
<b>AS1940:2017 The storage and handling of flammable and combustible liquids</b>	Ensure the bunding of hydrocarbons and odorant on site is managed according to this standard.
<b>AS1697: 2005 Installation and maintenance of steel pipe gas systems</b>	Installation and maintenance of steel pipe systems including design criteria to ensure containment.
<b>AS1692:2006 Tanks for flammable and combustible liquids</b>	Pressure vessel requirements for waste oil, oil and the odorant tanks to ensure design and maintenance to ensure containment.

<b>AS3780:2008 The storage and handling of corrosive substances</b>	Any minor storage of corrosives on site will meet this standard.
<b>AS2507 :1998 The storage and handling of pesticides</b>	Any minor / temporary storage of pesticides and herbicides will meet this standard.
<b>Codes and Guidelines</b>	
<b>Australian Pipeline and Gas Association (APGA) Code of Environmental Practice</b>	Code for the implementation of environmental controls during construction and operations of pipelines.
<b>Australian Dangerous Goods Code</b>	Code that defines what is a Dangerous Good and requirements for the transport, storage and handling applicable to chemicals and odorant utilised for this operation.
<b>Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2000) ANZECC</b>	Guideline that provides values for water discharge levels to the environment under the National Water Quality Strategy.
<b>Guideline – Treatment and Management of soil and water in ASS landscapes (DER, 2015a).</b>	Department of Water and Environmental Regulation (DWER) Guideline in relation to management and treatment of Acid Sulphate Soils (ASS).
<b>Identification and investigation of acid sulphate soils and acidic landscapes (DER, 2015b)</b>	Guidelines that sets out the requirements for assessing ASS presence, likelihood of impacts and triggers for treatment. This links to the above Guideline in developing an ASS Management Plan.
<b>Water Quality Protection Note 13 – Dewatering of soils at construction sites</b>	DWER Guidance Note on how to minimise impacts from dewatering and outlines approval requirements, discharge management and sets out an indicative water quality for discharge.

## 2.4. Project Approvals

AGIT is the licence holder of production Licence L9 issued by DMIRS under the *Petroleum and Geothermal Energy Resources Act 1967* for the operation of the Tubridgi Gas Storage Facility. The *Petroleum and Geothermal Energy Resources (Environment) Regulations 2012* require the development and implementation of an Environment Plan (EP) to the satisfaction of the DMIRS. This EP has been prepared to satisfy this requirement for the proposed construction of the two new flowlines.

Part IV of the WA *Environmental Protection Act 1986* (EP Act) requires a proponent to refer any proposal that is likely, if implemented, to have a significant effect on the environment. Under this legislation, the original Tubridgi Gas Field and Griffin Oil Field developments were assessed and approved via the release of Ministerial Statement (MS) 112. Continued consultation with the Department of Water and Environmental Regulation (DWER) confirms that the proposed flowline activities described in this EP are in accordance with works approved under MS 112.

In August 2023, a s46 application to amend Condition 1 of MS 112 was completed as AGID conducted a risk assessment associated with the proposed change, with the key impacts identified as potential impacts to heritage locations or environmentally sensitive sites. As a result, MS 1209 now supersedes Condition 1 of MS 112. The proposed flowline activities described in this EP will also be conducted in accordance with MS 1209.

### **3. Existing Environment**

The objective of this section is to provide a description of the existing natural, social and cultural environment that may be affected by the construction of the new flowlines.

#### **3.1. Climate**

The proposed works are located in a sub-tropical arid zone with temperatures varying slightly throughout the region, mainly due to distance from the coast and elevation. Typical temperatures for the site(s) can be taken from the nearest town of Onslow, which has a mean monthly maximum of 36.5°C in January and 25.6°C in July. Corresponding mean monthly minimums are 25.1°C and 13.1°C (BOM, 2022).

Mean evaporation figures are very high, often exceeding 300 mm/month in summer and varying between 150 and 200 mm/month during winter. Humidity is relatively high with maximum mean monthly relative humidity (9am) being approximately 42% in October and 63% in June. Rainfall is generally low and erratic, with mean monthly rainfalls ranging from 0.8mm in October to 70 mm in February. The average annual total rainfall for Onslow is 303.8 mm (BOM, 2022).

The Summer season is characterised by prolonged dry periods created by anti-cyclonic activities to the south. Thunderstorms may develop as a result of convective activity, with tropical cyclones occurring regularly in the area. Tropical cyclones often produce large amounts of rainfall, which can cause widespread flooding and the temporary isolation of regional population centres (BOM, 2022).

During winter, moderate to strong south easterlies and easterlies prevail, while in summer, moderate southerly and westerly winds dominate. Spring and autumn tend to be transitional periods during which both summer and winter winds can occur. Periods of light winds (less than 11 km/hr) prevail for approximately 43% of the year.

The region experiences on average two cyclones per year, with the 'cyclone season' extending from December to April. Cyclones typically approach from the north east and either remain offshore or turn southwards to cross the mainland coast between Dampier and the North West Cape.

#### **3.2. Geology**

The proposed works are situated within the Coastal Plains Geomorphic Province which is characterised by extensive sandy plains with north-west or north trending longitudinal dunes, broad clay-pans and circular grassy depressions. Natural relief across the province rarely exceeds 40 m above the surrounding plains and occurs in the form of dune crests and isolated hills.

The Coastal Plains Geomorphic Province is dominated by the Coastal Plains Soil Region. This soil region consists of eight broad units including skeletal soils, stony plains, sandy plains, sand dunes, drainage floors, clay-pans, swamps and depressions, and coastal mud flats.

Soils are generally red-brown with poorly developed profiles. Soils are commonly alkaline as a result of accumulation of sodium and calcium ions at shallow depths. Rangeland surveys carried out indicate soils on the Onslow Coastal Plain tend to be low in nitrogen and phosphorus (Payne et al., 1988, in DDG, 2013).

No areas of acid sulphate soils (ASS) with moderate or higher risk were encountered when the TGSP was initially constructed. A review of Pilbara ASS maps via the DataWA website (DWER-053) confirms that the two new flowlines would not be located within elevated ASS risk areas (ie. moderate or high risk).

### 3.3. Flora

#### Regional Context

The Interim Biogeographic Regionalisation for Australia (IBRA) currently recognises 89 bioregions and 419 subregions (DoE, 2013). The proposed works are located within the Carnarvon Bioregion, specifically within the Cape Range Subregion. The vegetation units within proximity of the proposed works include:

- Coastal Dunes:
  - Beach (very open grass <5%);
  - Dunes (open low scrub over open grass);
  - Berm with freshwater ponds (Mid dense *Acacia* heath over mixed hummock and tussock grass); and
  - Backslopes (with Buffel Grass and *Acacia* scrub).
- Saline Flats;
- Sand Plains and Calcrete Ridges;
- Drainage Zones; and
- Grassed Floodplains (BHP, 2006b).

Vegetation that occurs in area of the proposed works is associated with the Carnarvon Botanical District (Beard, 1975). Vegetation is eremaeian in character, reflecting the semi-arid environment and consists of sparse to moderate mixed *Acacia* scrub over dense hummock *Triodia pungens* grassland. *Acacia* species include *A. tetragonophylla*, *A. synchronicia*, *A. sclerosperma* and *A. farnesiana*. A sparse dwarf scrub *Senna* species, *Stylobasium spathulatum* and *Psoralea* species occurs. Calcrete ridges outcropping from the surrounding sand plains support *Hakea subarea*, *A. coriacea* and *A. sclerosperma* with the dwarf shrub *Adriana tomentosa* (Beard, 1975).

#### Detailed Site Assessments

Using information from past Matiske Consulting Pty Ltd flora surveys undertaken in 2013, as well as a Matiske rehabilitation assessment report of old flowlines completed in December 2020, the following three vegetation communities were identified within the TGSP area (inclusive of the proposed locations for construction of the new flowlines):

- *Tecticornia* spp. low sparse chenopod shrubland with *Sporobolus mitchellii*, *Eriachne helmsii*, low isolated tussock grasses on clayey plains;
- *Acacia tetragonophylla* low scattered shrubs over *Triodia epactia* low hummock grassland with *Cenchrus ciliaris* low open tussock grassland on clayey plains; and
- *Eucalyptus victrix* low open woodland over *Acacia tetragonophylla*, *Acacia synchronicia*, *Cullen leucanthum* mid sparse shrubland over *Eriachne helmsii*, *Eulalia aurea*, *Cenchrus ciliaris* low sparse tussock grassland.

Four introduced weed species have previously been identified in the area as part of the 2020 rehabilitation assessment (Matiske, 2020), namely:

- \**Aerva javanica* (Kapok bush);
- \**Cenchrus ciliaris* (Buffel grass);
- \**Cenchrus setiger* (Birdwood grass); and
- \**Vachellia farnesiana* (Mimosa bush).



A total of 73 species and 20 families were recorded within the previous rehabilitation assessment report (Mattiske, 2020). Given the proximity of this survey area and the same representative vegetation communities, plant species are considered representative of the proposed new flowlines. The majority of the taxa recorded were from Poaceae (17 taxa), Chenopodiaceae (11 taxa), and Fabaceae (9 taxa).

### Threatened and Priority Flora

No declared threatened flora species as listed by the Department of Parks and Wildlife (Parks and Wildlife) have previously been recorded within the TGSP area during surveys in 2016 and 2020 (Mattiske, 2016, Mattiske, 2020).

Mattiske (2016) assessed one Priority flora species as being likely to occur in the TGSP area (as part of a Level 1 vegetation survey for new drill pads and access tracks) and another as possibly occurring, namely:

- *Eremophila forrestii* subsp. *viridis* (Priority 3): Likely to occur; and
- *Triumfetta echinata* (Priority 3): Possible occurrence.

During vegetation rehabilitation monitoring of old TGSP trunklines in 2020, only one Priority flora species, *Abutilon* sp. *Pritzelianum* (S. van Deeuwen 5095) (Priority 3) was identified (Mattiske 2020). The species was associated with the *Acacia tetragonophylla* low shrubland vegetation community.

### Threatened and Priority Ecological Communities

No Threatened or Priority Ecological Communities were recorded or inferred to occur within the TGSP area (Mattiske, 2016).

### Vegetation community and condition

Vegetation condition was based on the ranking scale developed by Trudgen (1988). Vegetation condition throughout the TGSP area was previously recorded by Mattiske (2016) as excellent. A more recent 2020 vegetation and flora survey for the proposed Ashburton Salt Project (Biota Environmental Sciences, 2020), whose survey extent partially included the new flowline locations, noted the following vegetation communities and conditions:

- Flowline 1 (from existing TGS6 well, to new TRW8 well) – *Acacia tetragonophylla*, *A. synchronicia*, *A. sclerosperma* subsp. *sclerosperma*, (*A. coriacea* subsp. *coriacea*) scattered tall shrubs to tall open shrubland over *A. stellaticeps* scattered low shrubs to low shrubland over *Triodia epactia* hummock grassland with *\*Cenchrus ciliaris* very open tussock grassland. Also crosses a small area of *Acacia tetragonophylla*, (*A. synchronicia*) tall shrubland over *Eriachne benthamii/flaccida* open to very open tussock grassland with *Triodia epactia* scattered hummock grasses to very open hummock grassland. Very Good and Good condition; and
- Flowline 2 (from existing Tubridgi 5 well to TRW2) – outside of survey extent.

### Conservation Reserves

The Cane River Conservation Park is the closest gazetted conservation reserve to the proposed works. The Park is located approximately 70 km south-east of the proposed works.

### 3.4. Fauna

The TGSP area traverses a broad range of fauna habitats, the majority of which are widespread throughout the Pilbara region. This ranges from shrublands on red sand dunes and swales, to bare claypans. These areas provide habitat to a number of fauna species, particularly migratory bird species. A total of 244 fauna species have the potential to occur in the TGSP area including 20 mammal, 7 amphibian, 77 reptile, 133 bird and 7 introduced species.

A number of conservation significant species have been identified as potentially occurring within the TGSP area. Conservation significant species identified on the databases as having a moderate to high likelihood of occurring within the vicinity of the TGSP include:

- Northern Quoll (*Dasyurus hallucatus*)
- Greater Bilby (*Macrotis lagotis*)
- Oriental Plover (*Charadrius veredus*)
- Eastern Great Egret (*Ardea modesta*)
- Rainbow Bee-eater (*Merops ornatus*)
- Pilbara Leaf-nosed Bat (*Rhinonictis aurantia*)
- Barn Swallow (*Hirundo rustica*)
- Fork-tailed Swift (*Apus pacificus*)
- Woma (*Aspidites ramsayi*)
- Western Pebblemound (*Pseudomys chapmani*)
- Common Greenshank (*Tringa nebularia*)
- Australian Bustard (*Ardeotis australis*)
- Pilbara Olive Python (*Liasis olivaceus*)
- Common Sandpiper (*Actitis hypoleucos*)
- Oriental Pratincole (*Glareola maldivarum*)
- Little North-western Mastiff Bat (*Mormopterus loriae cobourgiana*)
- Osprey (*Pandion haliaetus*)
- White-bellied Sea-eagle (*Haliaeetus leucogaster*)
- Peregrine Falcon (*Falco peregrinus*)

It is considered highly unlikely that vegetation clearing required for constructing the new flowlines will impact conservation significant fauna given the small areal extent (approximately 7.45 ha) and proximity to existing disturbance footprints of existing wells, the plant and pastoral operations. Any clearing activities would be undertaken via an internal approval system to ensure clearing is minimised and in line with MS112 requirements.

Initial civil earthworks and installation of the new flowlines would be undertaken during day shift only. Given the significant distance from the nearby beaches (closest well: TRW2 situated 2.8 km from the beach) and absence of night working, there is no credible risk from lighting impacting upon nearby beaches (potential turtle activity) or other local habitat.

### 3.5. Hydrology and Hydrogeology

The Ashburton River, situated approximately 7km north-east of the nearest new flowline (Flowline 2), is an intermittent watercourse that travels in a northwest direction and meanders through extensive flood plains between Nanutarra and Onslow. The river is characterised by long dry periods and with irregular significant flow events resulting from high intensity rainfall events. The magnitude of stream flow is predominantly determined by the Average Rainfall Interval (ARI) of the rainfall events. On average, flows occur in the Ashburton River every one to three years. River flows predominantly occur during the wet season (October to March) and are typically short-lived (AECOM, 2010). The region usually experiences a dry season during the months of March to September.

The TGSP facilities operational footprint and new flowlines do not encroach within 100 m of any surface water bodies, nor does they intersect any conservation significant wetlands or drainage lines.

There are no public drinking water sources or aboriginal community water sources in the project area with the closest public access being Ashburton River greater than 5km away.



### 3.6. Contamination

The TGSP facility and Ashburton West location were previously the subject of remediation works from contamination caused by a previous proponent. One site was located at the old GEF and this is being managed under the ASW EP. The current status of the location under the *Contaminated Site Act 2003* is '**remediated for restricted use**'.

AGIT does not expect any additional contaminated areas to be identified across the new flowline locations. Previous due diligence studies by GHD on Urala Station in 2015 found no contamination along previous flowlines (across the Tubridgi Gas Field), old wellheads or any other signs of contamination across areas that may have been impacted by the TGSP.

#### 3.6.1. Previous disturbance

The Tubridgi Gas Field has had previous work completed between 1990 and 2005, when production was ceased. Previous disturbance included installation of the Griffin Pipeline, Tubridgi well installation, flow line and access track installation. While the former production wells have been plugged and abandoned, the flow lines are currently filled with low pressure nitrogen gas to preserve the assets for future use.

Where possible, and to avoid additional disturbance, these flowlines and associated infrastructure may be targeted for reuse in future projects. This will require a specific review of capability and to ensure they are fit for purpose. Any new projects will require a Construction Environmental Plan or associated approval from DMIRS.

### 3.7. Community

The TGSP falls within the Shire of Ashburton Local Government Area, which spans approximately 105,647 km<sup>2</sup> and has a population of approximately 13,026 (ABS, 2016). Onslow is the closest major town located 31 km north of the project. Major industries include mining, pastoralism and fishing.

### 3.8. Cultural heritage

Previous cultural heritage surveys have been undertaken in the area, however in consultation with the local Traditional Owners (Thalanyji) a further survey may be conducted in regards to ethnographical and archaeological aspects in the project area.

AGIT commissioned Horizon Heritage to conduct an assessment of potential heritage areas in line with existing well sites, access tracks and flowlines. This identified that two potential areas (TGS2 and associated access track) were medium to high risk in terms of potential heritage locations and one high risk area (TGS3 to TGS2 flowline). Overall the TGSF was deemed to be a medium risk with all other locations being low risk.

Immediately prior to any clearing activities, Traditional Owner Monitors or an Anthropologist shall inspect the area to ensure no cultural heritage items or areas are impacted. If any artefacts are found requirements under the *Aboriginal Heritage Act 1972* and *Aboriginal Cultural Heritage Act 2021* shall be implemented.

## **4. Activity Description**

### **4.1. Overview**

The key planned activities are summarised below:

- Clearing, levelling and preparation of the flowline disturbance corridors, to facilitate the installation of new flowlines (pipelines) (access to these areas via existing tracks)
- Trenching
- Installation of flowlines to connect into the existing flowline network, followed by backfilling
- Pressure testing and commissioning.

A more detailed description of these activities and the related equipment is provided in the subsequent sections.

### **4.2. Civil Works**

#### **4.2.1. Access and disturbance footprints**

AGIT will utilise existing access tracks on Urala Station to access TGSP. AGIT will maintain the existing tracks in consultation with the Urala sublessee as well as any required maintenance on access tracks used in consultation with Minderoo Station and the Shire of Ashburton.

Flowline disturbance corridors will initially be cleared of vegetation using heavy machinery. Each flowline corridor will be cleared to approximately 25 m wide, to facilitate construction equipment access, pipe layout areas, trench excavation and stockpiles. Vegetation, topsoil and subsoil will be stripped and stockpiled in low heaps immediately adjacent to the cleared footprint, for use in future rehabilitation.

Access tracks (including existing tracks) may be built up to ensure ongoing access.

### **4.3. Installation of the Flowlines**

Construction widths for the flowlines are anticipated to be approximately 25m wide and in a straight alignment to connect the new wells into existing flowline infrastructure adjacent to the access tracks for the wellheads (existing under a separate EP). Alignments of the trench would only be deviated in the event of encountering a sub-surface obstruction (not anticipated, given the underlying geology).

Excavation of a trench will occur, with all excavated spoil temporarily stockpiled immediately alongside the trench. Trench width will be approximately 2m deep and 1m wide. Trenches will undergo daily checks for the presence of any native fauna prior to the commencement of each day shift. Lengths of flowline pipeline will be placed alongside the trench, prior to installation, with end caps in place prior to install (to prevent ingress by native fauna).

Sections of flowline (comprising carbon steel that is externally coated) will be field joined (welded), prior to lowering into the trench. Joints will be grit blasted, prior to the application of a primer and application of an inner and outer tape wrap system as part of pipeline protection. Padding of the trench will then occur with screened trench spoil placed back over the piping, prior to the trench being backfilled with the remainder of excavated spoil and compacted.

To ensure the newly installed flowlines are structurally sound and meet required design requirements, hydrostatic testing will then be completed. Hydrotesting will use potable water and this will be disposed of via tanks and utilised for dust suppression. If available water may also be stored in the well mud sumps depending on quantity, freeboard management.

#### **4.4. Accommodation and Amenities**

Personnel will be accommodated within the permanent accommodation block. An additional five temporary buildings (3 person per building) will be installed consisting of 15 additional rooms. The total number of rooms with the additional temporary rooms will be 29 in total. The permanent accommodation is located in the south western corner of the TGS and has a permanent kitchen with catering staff engaged to service all personnel accommodated at the main camp. It is intended to use this facility to support personnel involved in constructing the new flowlines.

These existing accommodation facilities are already approved under the existing Operational EP.

A construction site office for the TGS expansion project will be established with three buildings, including an ablutions building with a self contained potable water and waste tank.

## **5. Environmental Risk Identification and Assessment**

AGIT ensures the effective management of risk across its business through implementation of the AGIG Risk Management Policy. The AGIG Risk Management Policy makes a commitment to ensure that: the systematic identification, assessment, control and ongoing management of hazards and risks.

To identify, understand and manage all environmental sources of risk and consequent impacts associated with the construction of the new flowlines, an Environmental Hazard Identification (ENVID) was completed (Appendix A). This followed the process below:

- Outline of key operational activities;
- Identify, analyse and evaluate associated hazards and corresponding environmental impacts;
- Where necessary, establish suitable controls; and
- Systematically assess any residual associated environmental risks.

The approach was aligned with:

- AS/NZS ISO 31000:2018 process; and
- Guidelines for the Development of Petroleum and Geothermal EPs in WA (DMP, 2016).

## 6. Implementation Strategy

The Environment Plan sets out hazards and associated impacts identified during the ERA. These are listed with a summary of controls to manage and minimise these impacts.

Within each environmental aspect, each group of impacts and risks has been addressed with an objective to:

- Define the environmental performance objectives that will be required to be achieved in order to ensure environmental protection;
- Define the environmental performance standards that relate to the quality of the performance; and
- Define the measurement criteria for determining whether the objectives and standards have been met for the activity.

### **Soils and Sediment**

- Erosion management;
- Native Vegetation Clearing procedure conditions;
- Acid sulphate soil (ASS) management (limited interaction with any identified ASS sites onsite);
- Dust suppression management; and
- Regular inspection of erosion controls.

### **Flora**

- Native Vegetation Clearing procedure conditions;
- Delineation of areas approved for clearing;
- Separation of topsoil and subsoil stockpiles;
- Access track alignment and well sites location to minimise requirement for clearing of conservation significant flora, including utilising existing cleared roads/tracks or well sites (where available); and
- Rehabilitation of non-operational areas.

### **Weeds and Pathogens**

- Targeted and frequent weed management;
- Declared weeds management in conjunction with pastoral leasees;
- Clean on Entry procedure, including use of washdown bays;
- Vehicle and machinery movements to utilise existing tracks; and
- GIS review of known weed species within Project area.

### **Bushfire**

- Management of hot works and potential fire risk under Permits;
- Management of flammable material build up;
- Firebreaks and management of ignition sources; and
- Firefighting equipment located at well site and personnel trained in its use.

### **Fauna**

- Trench management;
- Identification of potential fauna habitat in the Project area and disturbance footprints designed accordingly;
- Boundary of drilling sump will be fenced and gated at the completion of construction operations, to prevent fauna (including cattle) from entering open excavations;
- Fauna controls including egress and fences;
- Fauna handling training;
- Frequent inspections; and
- Waste management (lidded bins, frequent servicing).

### **Cultural Heritage**

- Consultation with Traditional Owners;
- Use of Traditional Owner monitors, prior any clearing occurring;
- Heritage surveys for planned disturbance areas; and
- Registered heritage site reviews (GIS).

### **Land Users**

- Minimum annual consultation on activities and planned interactions; and
- Local council communication and consultation (especially in relation to road closures).

### **Dust and Air Emissions**

- Use of watercarts/dust suppressants for access tracks;
- Minimise dust generated through activities;
- Stabilisation of topsoil/subsoil stockpiles including dust suppression;
- Completion of flaring using closed loop flare system (fully contained); and
- Regular maintenance of vehicles and equipment.

### **Noise**

- Regular maintenance of vehicles and equipment;
- Use of electric drill rig, powered by a generator that would be located within a soundproof shipping container; and
- Compliance with regulatory requirements.

### **Surface and Ground Water**

- Abstraction under licensed approval conditions only;
- Blow out preventer present on rig. Blow out preventer closed in the event of a blow out during well cleanup or drilling to shut-in well;
- Management of evaporation pond (dual lined with leak detection);
- Periodic well integrity testing and inspection;
- Management of chemicals (as per below) to avoid contamination; and
- Implementation of Erosion Risk Areas procedure.

### **Hazardous Materials Storage and Handling**

- Bunded areas for liquid storage;
- Use of drip trays under refuelling points;
- Capture or removal of contaminated material (i.e. soil);
- Minimise amount of chemicals stored onsite; and
- Groundwater monitoring program including monitoring bores installation and frequent sampling.

### **Waste**

- Frequent servicing and provision of bins, with all bins appropriately labelled;
- Waste segregation;
- Covering of bins (except scrap metal), to prevent fauna interaction;
- Disposal of waste at a licenced waste disposal facility; and
- All drilling muds and cuttings to be contained within a bunded sump, with a freeboard of 500mm to prevent overtopping.

### **Rehabilitation**

- Rehabilitation completion criteria and ongoing monitoring (until completion criteria are achieved);
- Vehicle and machinery movements to utilise existing tracks; and
- Rehabilitation areas appropriately signed, with vehicle and personnel access prohibited.

## 7. Environmental Management System

This chapter describes the documented systems and processes of the Environmental Management System (EMS) used for operational existing TGSP facilities as well as construction of the new flowlines. AGIT adopts all AGIG and DBP policies and procedures across the operation of its business. Implementation of AGIG's EMS ensures that hazards are identified and assessed to eliminate or minimise the risk ALARP throughout construction of the new flowlines.

### 7.1. Consultation

AGIT is committed to ongoing consultation with all stakeholders that will be impacted during construction of the new flowlines. The purpose of consultation is to:

- Keep key stakeholders up to date on the closure of actions from the implementation of the project during flowline construction operations;
- Obtain appropriate input into the ongoing improvement of activities;
- Ensure timely response to landholder issues (noting that AGIG is the Pastoral Lease holder); and
- Maintain dialogue with regulatory authorities.

The consultation conducted to date, related to construction of the new flowlines with key stakeholders, is outlined in **Table 7-1**.



**Table 7-1 Stakeholder consultation progressed to date**

Stakeholder	Date of Consultation	Items Discussed/proposed to be discussed	Outcomes
<b>Commonwealth, State and Local Government</b>			
Department of Water and Environmental Regulation (DWER)	Jan 2022	Use of MS112 for Expansion	Approved ensuring that all conditions are complied with including new DWER EP submitted for approval prior to any site works commencing.
DWER	21 February 2022	S46 Application for Condition 1 of MS112 Progress Update	Still in progress.
	16 March 2022	Meeting held with DWER to discuss BTAC agreement	Cultural Heritage Management Plan will be required as part of the s46
	17 November 2022	DWER sent draft conditions to AGIT for the s46.	AGIT agreed to draft conditions
	11 January 2023	Additional request for information from EPA for the s46	AGIT met and discussed the request for information. AGIT provided a narrative on 19 February 2023.
	15 August 2023	MS1209 superceding Condition 1 of the MS112 was released by DWER.	MS1209 received.
Department of Energy, Mines, Industry Regulation and Safety (DEMIRS)	<ul style="list-style-type: none"> <li>• July 2022; and</li> <li>• Ongoing.</li> </ul>	<ul style="list-style-type: none"> <li>• Submission of new Operations EP;</li> <li>• Field Management Plan and Flowline Management Plan Updates;</li> <li>• Production gas capability identified and project plan.</li> </ul>	<ul style="list-style-type: none"> <li>• Pending approval;</li> <li>• Approval of updated gas field documentation; and</li> <li>• Deed approval to produce gas.</li> </ul>

Stakeholder	Date of Consultation	Items Discussed/proposed to be discussed	Outcomes
Shire of Ashburton	Ongoing	<ul style="list-style-type: none"> <li>• High level overview of activity provided;</li> <li>• Lot 226 works;</li> <li>• Road closures;</li> <li>• Road maintenance, traffic management, potential impacts of simultaneous operations during project;</li> <li>• Waste Management (Nov 2021); and</li> <li>• Accommodation including permanent location and since 2016 drill camp location and use.</li> <li>• Planning approval is not required for the flowline construction activities (same with the drilling of the gas new wells).</li> </ul>	<ul style="list-style-type: none"> <li>• Shire has full awareness of project including the approvals relating to road use and operational matters;</li> <li>• Camp building operational approval discussions;</li> <li>• Road closure and road condition consultation (Old Onslow Road, Twitchen Road) ongoing and ad hoc as needed;</li> <li>• Commitment that AGIG access roads used by the Project will be maintained to the current or better standard;</li> <li>• New waste disposal location near Onslow for potential use. Ongoing as still being built for potential waste use. Reduce transport to Karratha and promote local focus; and</li> <li>• Accommodation and drill camp awareness by Shire personnel to ensure compliance and management of building codes as per Shire requirements.</li> <li>• On 26 July 2023, the Shire of Ashburton has confirmed that planning approval is not required for the activities associated with drilling the new gas wells and construction of the flowlines, correspondence through email was sent to DEMIRS on 8 August 2023.</li> </ul>
Department of Biodiversity Conservation and Attraction (DBCA)	Annual (as part of DBP license)	Fauna Licensing	Fauna Handling License returns.

Stakeholder	Date of Consultation	Items Discussed/proposed to be discussed	Outcomes
<b>Native Title Claimant group</b>			
Thalanyji (BTAC)	Ongoing	<ul style="list-style-type: none"> <li>Heritage Agreement and Surveys;</li> <li>Survey of potential sites in 2021;</li> <li>Organise and complete survey in October 2022; and</li> <li>Forward notification of requirement for Traditional Owners needing to be present, prior to clearing activities commencing.</li> </ul>	<ul style="list-style-type: none"> <li>As per Heritage Agreement ongoing consultation including annual update;</li> <li>Surveys completed and any issues rectified (no specific issues raised in survey report); and</li> <li>Secondary survey report received with no changes to flowline locations required.</li> </ul>
<b>Local Landowners and Other Stakeholders</b>			
Leaseholders for:			
Minderoo Station – Crown Lease 56/1967 (as sub-leasee of Urala Station)	Annual	<ul style="list-style-type: none"> <li>Access arrangements and camp locations and new locations (flowlines)</li> <li>Road maintenance, traffic management, potential impacts of simultaneous operations during project.</li> </ul>	<ul style="list-style-type: none"> <li>Commitment that AGIG access roads used by the Project will be maintained to the current or better standard;</li> <li>Stock movement planning during works; and</li> <li>Crossing of any services (i.e. water line) determined and agreed.</li> </ul>
	16 March 2023	<ul style="list-style-type: none"> <li>AGIT Land Management Team sent an email to Minderoo Station advising the TGS Expansion Project has commenced.</li> </ul>	<ul style="list-style-type: none"> <li>Minderoo Station acknowledged the additional vehicles and earthmoving equipment movements across the pastoral area.</li> </ul>

## **8. Decommissioning and Rehabilitation**

To ensure continual ongoing improvement, targeted progressive rehabilitation of areas no longer required for operational use shall occur. This progressive rehabilitation including old/unused flowline sites is targeted to eliminate any potential ongoing impacts.

The Project proposes to rehabilitate most of the disturbance footprint, with only access roads remaining. Rehabilitation closure objectives shall include providing the land back to consulted post activity land use. It shall also include rehabilitation of land to an acceptable and approved level (including drainage and surface water reinstated to natural levels) Rehabilitation monitoring shall occur for a minimum of three years or until such time as the completion criteria are met. If vegetation regrowth is off trend then a comprehensive study will be undertaken to assess the wider area and ecosystem to examine if this is consistent in the wider ecological community. A management program will be developed with new rehabilitation criteria proposed and endorsed by DMIRS.

## 9. References

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## **APPENDIX A – TGSP Flowlines Environmental Impact Risk Register**