

Tipton Gathering & Wells

Regional Planning Interests Act 2014 Assessment
Application Report

Tipton West CGPF Site (Lot 1 on SP194537)

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1. Purpose

The Applicant proposes to undertake petroleum activities within an Area of Regional Interest including Priority Agricultural Area (PAA) and Strategic Cropping Area (SCA). This report provides the required supporting information for an application for a Regional Interest Development Approval (RIDA) under the *Regional Planning Interests Act 2014* (RPI Act).

1.1 Scope

The Applicant is undertaking a project described as “Tipton Gathering and Wells” within PL198. This application’s scope describes the petroleum activities proposed to occur at the Tipton West Central Gas Processing Facility (CGPF) on Lot 1 on SP194537 owned by Arrow (Tipton) Pty Ltd and Arrow (Tipton Two) Pty Ltd (“the Land”). The proposed works occur wholly within Petroleum Lease (PL) 198 and have an associated Environmental Authority (EA) EPPG00972513.

Part of the Tipton Gathering and Wells project is occurring on PAA and SCA, located on private properties where the Applicant has Conduct and Compensation Agreements (CCAs) with relevant landholders. In such circumstances, the proposed works on private properties are considered an *exempt resource activity* pursuant to Section 22 of the RPI Act (see Schedule 1 – Surrounding Landholders (commercial in confidence) for further details).

1.2 Context

Section 29 of the RPI Act requires that a RIDA be accompanied by a report that:

- Assesses the resource activity or regulated activity’s impact on the area of regional interest; and
- Identifies any constraints on the configuration or operation of the activity.

The *RPI Act Guideline 01/14 - How to make an assessment application for a regional interests development approval under the Regional Planning Interests Act 2014* and supplemental guidelines describe the matters to be addressed by an assessment application report. Table 1-1-1 lists these requirements and a reference to the sections of this report where they are addressed.

Table 1-1 - Assessment Report Information Requirements

Information Requirement	Where Addressed
The location, nature, extent (in hectares) and duration of the surface impacts of the proposed activity.	Sections 2, 3, 4
A description of the impact of the proposed activities on the feature, quality, characteristic or other attribute of the area.	Sections 3, 4
Include a table identifying the location and surface area of	2-2

Information Requirement	Where Addressed
each of the proposed activities.	
The report must also include an explanation of how the proposed activity will meet the required outcome/s and address the prescribed solution/s contained in the assessment criteria for the area of regional interest.	Section 9

1.3 Applicant

The Applicant for this assessment application is the resource authority holder for PL198, Arrow CSG (Australia) Pty Ltd ABN 54 054 260 650; Arrow (Tipton Two) Pty Ltd ABN 36 117 853 755 and Arrow (Tipton) Pty Ltd ABN 17 114 927 507 (see Appendix A).

The owner of the Land that is subject to this application is Arrow (Tipton) Pty Ltd ACN 114 927 507 and Arrow (Tipton Two) Pty Ltd ABN 36 117 853 755 (also described as Arrow (Tipton) Pty Ltd ABN 17 114 927 507, (“the Landowner”)) (see Appendix B).

1.4 Arrow activities

Arrow Energy produces CSG from fields in the Surat Basin in southern Queensland and the Bowen Basin in central Queensland. It has been safely and sustainably developing CSG since 2000 and supplying it commercially since 2004.

Arrow owns one of Queensland's largest power stations, Braemar 2 near Dalby, and has interests in a further two, providing enough generation capacity to power around 800,000 homes.

Arrow's first Surat Basin tenure was granted in March 2000 and drilled its first exploration well in the Surat Basin in June 2001.

1.5 Applicant's Co-existence Commitments

The Applicant (“Arrow”) considers coexistence to mean allowing Australia to enjoy the full benefits from both agricultural and resource industries. Arrow has made 12 commitments to coexistence on Intensively Farmed Land (“IFL”) in the Surat Basin:

1. No permanent alienation
2. Minimised operational footprint – less than 2% of total IFL area
3. Flexibility on CSG well locations, but all wells located by edge of farm paddocks
4. Pad drilling (up to 8 wells from a single pad) used where coal depth and geology allows

5. Spacing between wells maximised (average of between 800m – 1500m)
6. Pitless drilling only
7. No major infrastructure facilities on IFL (dams, compression stations, gas gathering stations, water treatment)
8. Treated CSG water used to substitute existing users' allocations on IFL
9. No brine/salt treatment or disposal on IFL
10. Flexibility on power supply option – above or below ground
11. Fair compensation – including elements of 'added value'
12. Continued proactive engagements with community and transparency on coexistence field activities

*Commitment 8 refers to the area of greatest predicted drawdown on the Condamine Alluvium resulting from CSG extraction by Arrow Energy.

1.6 Area wide planning

Area Wide Planning (AWP) is a unique program developed by Arrow to incorporate landholders' knowledge into its field development plans. Landholders and Arrow staff work together to identify locations for infrastructure, such as well pads, gathering lines and access tracks, across farming districts and on flood plains. The process strengthens Arrow's ability to coexist with agricultural activities. Planning occurs one-on-one with landholders and, where appropriate, in local area meetings with neighbouring landholders. Specific landholder agreements are then formalised in Conduct and Compensation Agreements ("CCAs"). The program demonstrates a commitment to genuine engagement and a commitment to preserving the values that are important to landholders.

The Area Wide Planning process has been incorporated into CCA negotiations with surrounding Landholders in support of the Tipton Gathering and Wells project. It has also been used to incorporate consultation with those same Landholders regarding this Application.

The Area Wide Planning process has also been used to consider the location of infrastructure in the CCA between the Applicant and the Landholder for the Land the subject of this application.

2. Proposed Works

2.1 Description of Work Activities

Arrow, in support of the Tipton Gathering and Wells project, is proposing to expand the capacity of the existing Tipton West CGPF to increase delivery of gas from the Tipton West CGPF by 48 TJ/day with a gas production plateau of 77 TJ/day.

The Tipton Gathering and Wells project includes the following new plant and equipment at the Tipton West CGPF:

- Four (4) gas fired compressor engines(to drive the additional CGPF compressors and associated coolers);
- Four (4) additional CGPF compressors and associated coolers;
- One (1) triethylene glycol (TEG) gas dehydration unit; and
- One (1) inlet fuel gas compression engine to power the inlet fuel compressor.

The installation of additional processing capacity at the Tipton West CGPF does not involve new disturbance to land. The works will be carried out on an existing cleared footprint of hardstand for the purposes of the existing CGPF.

The majority of the proposed petroleum activities for the Tipton Gathering and Wells are not subject to a RIDA. This includes proposed petroleum activities on surrounding properties which are therefore exempt from a RIDA under section 22 (2) (a) (ii) of the RPI Act applies in this instance. See Appendix H – Surrounding Landholders (commercial in confidence) for further details.

2.2 Definition of Work Activities

The table below outlines the definition of work activities:

Table 2-1 – Definitions

Activity	Definition
<p>Construction Construction of additional engines and plant at the Tipton West CGPF</p>	<p>Construction of:</p> <ul style="list-style-type: none"> - Four additional gas fired engines - Four additional compressors - One (1) triethylene glycol (TEG) gas dehydration unit - One gas fired engine to provide power to an inlet fuel gas screw compressor - Associated connection pipes, plant and equipment <p>Construction is to occur within the ROW identified in Map Site Plan Appendix E, on existing disturbed land within the existing site footprint.</p>
<p>Post-construction Inspect, operate and maintain the Tipton West CGPF facility.</p>	<p>Inspect, operate and maintain the Tipton West CGPF facility.</p>

2.3 The Land

The Land is described in Table 2-2:

Table 2-2 – The Land

Item	Description
Land	Lot 1 on SP194537
Address	1 Broadwater Road, Grassdale, QLD 4405
Area of Land	4.047 ha
Property Name	Tipton West CGPF
Land Owner	Arrow (Tipton) Pty Ltd ABN 17 114 927 507 and Arrow (Tipton Two) Pty Ltd ABN 36 117 853 755
Land Purchased	Lot 1 on SP194537 – May 2007
Local Government	Toowoomba Regional Council
Zoning	Rural
Regional Plan	Darling Downs Regional Plan
Area of Regional Interest	Priority Agricultural Area (PAA)
Subject Land	Portion of Lot 1 on SP194537
Expected Area of Impact on the Subject Land	4.047 ha (Noting this is the existing Tipton West CGPF Land area (already disturbed land))

2.3.1 Current Land Use

The current land use of the Land is for petroleum activities and includes infrastructure related to the existing Tipton West CGPF:

- Six (6) gas fired compressor engines to drive the CGPF compressors and associated coolers;
- One (1) triethylene glycol (TEG) gas dehydration unit;
- Office facility;
- CGPF pipeworks (including gas and water); and
- Associated plant and equipment.

2.3.2 Surrounding Land Uses

The existing surrounding land uses comprise areas used for productive rural purposes, such as cropping, grazing of beef cattle, cattle feedlot and ongoing operation of existing petroleum activities. Refer to Appendix I – Surrounding Land Uses.

2.4 Existing Authorities

The Land is subject to existing authorities described in Table 2.3 below:

Table 2-3: Existing authorities

Tenure	PL198
Tenure granted	09.12.2004
Tenement Holder	Arrow (Tipton) Pty Ltd – 42% Arrow (Tipton Two) Pty Ltd – 28% Arrow CSG (Australia) Pty Ltd – 30%
Environmental Authority	Permit No: EPPG00972513 (effective 10 May 2018)

Arrow has made application to the relevant authority for a suitable amendment to the Environmental Authority.

2.5 Location of Tipton West CGPF

Please see the following Appendices in relation to the Locality Map and Site Plan:

Appendix D – Locality Plan – Tipton West CGPF – showing the Land the subject of the assessment application.

Appendix E - Site Plan – Tipton West CGPF – showing the location of the Tipton West CGPF with an expected area of construction impact of **4.047 ha**.

3. Areas of Regional Interest

3.1 Priority Agricultural Area

PAAs are strategic areas, identified on a regional scale, that contain significant clusters of the regions' high value intensive agricultural land uses. The PAA to the North and East of the Land does include areas of high value intensive agricultural land uses, in particular areas of dry land and irrigated cropping.

3.1.1 Assessment of Priority Agricultural Land Use

The RPI Act Guideline 07/14: *How to identify a priority agricultural land use (PALU)* was consulted to determine if the Land within the Darling Downs Regional Plan is, or has been, utilised as PALU. This is summarised in Section 3.1.4.

3.1.2 Australian Land Use Management

A search at the secondary level of the Australian Land Use Management (ALUM) classification for the Land generally identifies the area within the cropping and irrigated cropping classes.

The Land is located within Toowoomba Regional Planning Scheme.

3.1.3 Frequency of Agricultural Activity

Schedule 2 of the RPI Regulation states that:

For land or property in relation to PALU, means the land or property has been used for a PALU for at least 3 years during the 10 years immediately before an assessment application is made in relation to the land.

To determine the frequency of agricultural activity, Forage Crop Frequency Reports (Reports) (see Appendix F) were obtained for the Land. The results of the Reports conclude the following:

- Lot 1 on SP194537: Approximately <2 crops were recorded between 2008 and 2016

However, the Land that is the subject of this assessment application has not been cropped whilst within the ownership of the Applicant (i.e. since 2007) as it has been used for the purposes of the Tipton West CGPF since that time. There is no evidence pre-2007 to indicate that historical activities on the Land were on land identified as PALU.

Specifically, Lot 1 on SP194537 has little evidence of previous cropping activity, with existing infrastructure on the Lot as described in Section 2.3.1. No cropping or rural activity occurs in this Lot.

Queensland Land Use Mapping (“Qlump”) assessments have been undertaken as follows:

- 1999– see Appendix H - Queensland Land Use Mapping – showing a predominant land use of Production from Relatively Natural Environments
- 2006 – see Appendix H - Queensland Land Use Mapping – showing a predominant land use of Intensive Use
- 2012 – see Appendix H - Queensland Land Use Mapping – showing a predominant land use of Production from Relatively Natural Environments

The historical Qlump maps show a transition of the land use for Lot 1 on SP194537 from Production from Relatively Natural Environments (in this case likely scrub or grazing) to intensive uses in 2006 which would correlate with the change in land use to support CSG infrastructure such as the CGPF and dams. However the 2012 Qlump data shows a reversion of Lot 1 on SP194537 to Production from Relatively Natural Environments which is incorrect for that particular site given the CGPF was constructed at that time. Interestingly, the 2012 Qlump data does show the surrounding land uses of dams. In any event, the Qlump mapping shows the land use back to 1999 for Lot 1 on SP194537 and the immediate surrounds does not include cropping, PALU or SCL.

3.1.4 Conclusions on PALU

The proposed petroleum activities will not impact on PALU, as defined under the RPI Act, in relation to Lot 1 on SP194537 as it is not utilised for a PALU.

3.2 Strategic Cropping Area

The area of Lot 1 on SP194537 is not mapped for Strategic Cropping.

4. Extent and Duration of Disturbance

Generally, land within the Tipton area is used for rural purposes, including cropping and grazing of beef cattle and cattle feedlot as well as for existing petroleum activities. However, the Land that is the subject of this application has no recent history of being grazed or cropped and no mid-term history back to 1999 of being cropped.

Therefore, the proposed activities will result in no additional disturbance of cropping and grazing lands during construction or operation.

The extent and duration of the proposed petroleum activities is as follows:

Expected Area of Impact

Priority Agricultural Area – Construction and Operation **4.046ha** (noting the area is already fully disturbed given current land use)

4.1 Expected Duration of Disturbance

The Tipton West CGPF activities will be in operation for approximately 30 years, prior to being decommissioned and rehabilitated in accordance with the Environmental Authority and relevant legislation.

Refer to Section 5 for further details on the management of mitigation measures.

5. Management of Mitigation Measures

5.1 Assessment of Alternatives

The Applicant chose to locate the new activities within the existing disturbed Tipton West CGPF site rather than expand the site to disturb additional rural areas.

5.2 Construction Activities

Construction activities will occur on the existing Tipton West CGPF site, keeping within the existing area of disturbance on the Land. Construction activities will occur in compliance with the Environmental Authority (as amended).

5.3 Reinstatement & Rehabilitation

At the completion of construction activities for the Tipton West CGPF, the Land will be returned to an operational state appropriate for the petroleum activities.

At the conclusion of petroleum activities on the site (potentially 30 years' time), the site will be restored to previous land uses in accordance with the requirements under the Environmental Authority.

All reinstatement and rehabilitation will be carried out in accordance with the Environmental Authority requirements. Generally, this will include:

- Segregation of topsoil to ensure topsoil integrity
- Reinstatement of the land contours/land surface and drainage
- Reinstatement of topsoils
- Implementation of stabilisation measures.

6. Commissioning

Commissioning of the new plant and equipment will commence at the completion of construction.

6.1 Operational Activities

Operational maintenance activities will ensure that the integrity of the infrastructure is maintained over the life of the project. Skilled staff will be deployed to undertake scheduled or unscheduled maintenance activities. The Operational Area of the Tipton West CGPF site is shown in Appendix G.

6.2 Decommissioning

Any decommissioning of the infrastructure will be undertaken in accordance with the requirements of the relevant Environmental Authority and industry code of practice.

7. Public Notification

The subject land is not mapped as Priority Living Area (PLA). Accordingly this assessment application does not meet the definition of a notifiable application pursuant to Section 34(2) of the RPI Act. Whilst notification is not triggered under the RPI Act, Arrow will voluntarily undertake notification in accordance with s.35 of the RPI Act.

Arrow has also undertaken consultation with the relevant landholders as part of an Area-Wide planning process and negotiations related to those agreements executed and referenced in Section 2.1

8. Assessment Application Fees

This assessment application is accompanied by the fee prescribed under the RPI Regulation 2014.

Schedule 4 of the RPI Regulation provides a definition of the expected area of impact for an assessment application, which means the area in which:

- The activity is proposed to be carried out; and
- Carrying out the activity is likely to have an impact

Given the proposed petroleum activities and the expected area of impact (**4.047 ha**), the following assessment application fees have been calculated.

Area of Regional Interest	Nature of assessment application	Fee
Priority Agricultural Area	Complies with the prescribed solution for required outcome 1	\$3131.00

9. Required Outcome Assessment

9.1 Priority Agricultural Area

The PAA Assessment Criteria provides two required outcomes for activities in PAAs; one that deals with impacts on a property level, and a second that deals with impacts on a regional level. As the proposed petroleum activities are limited to the Subject Land, impacts on a regional level (Required Outcome 2) are not applicable for the purposes of this assessment application.

Schedule 2, Part 2 of the RPI Regulation sets out the Required Outcome and prescribed solutions for activities carried out in a PAA. Please refer to

Table 9-1 for evidence associated with the prescribed solution of Required Outcome 1.

Table 9-1 - PAA Assessment Criteria – Required Outcome 1

Required Outcome 1 - Managing impacts on use of property for priority agricultural land use in a priority agricultural area	
The activity will be carried out on a property in a priority agricultural area and will not result in a material impact on the use of the property for a priority agricultural land use.	
Prescribed Solution	Evidence/Response
The application demonstrates the activity will not be located on land that is used for a priority agricultural land use	

<p>a) If the applicant is not the owner of the land and has not entered into a voluntary agreement with the owner:</p> <p>i. The applicant has taken all reasonable steps to consult and negotiate with the owner about the expected impact of carrying out the activity on each priority agricultural land use for which the land is used; and</p> <p>ii. Carrying out the activity on the property will not result in a loss of more than 2% of both:</p> <p>A. The land on the property used for a priority agricultural land use; and</p> <p>B. The productive capacity of any priority agricultural land use on the property</p>	<p>Not applicable - the applicant is the owner of the land and has entered into a voluntary Conduct and Compensation Agreement in relation to the proposed petroleum activities between Arrow (Tipton) Pty Ltd A.C.N 114 927 507), Arrow (Tipton Two) Pty Ltd ABN 36 117 853 755, Arrow CSG (Australia) Pty Ltd 54 054 260 650 and Arrow (Tipton) Pty Ltd A.C.N 114 927 507, Arrow (Tipton Two) Pty Ltd ABN 36 117 853 755 101604 CNT dated 27 August 2012 and as amended 101604 CNT dated 18 October 2013.</p>
<p>b) the activity cannot be carried out on other land that is not used for a priority agricultural land use, including for example, land elsewhere on the property, on an adjacent property or at another nearby location;</p> <p>c) the construction and operation footprint of the activity on the part of the property used for a priority agricultural land use is minimised to the greatest extent possible.</p>	<p>As evidenced by Section 3.1 the land is not currently being used as PALU. In any case, the expected area of impact is minimised to the greatest extent possible. Further, by locating the activity on the Land the subject of this application, the Applicant is minimising the area required for the activities and not creating new impacts on surrounding PALU.</p>
<p>d) the activity will not constrain, restrict or prevent the ongoing conduct on the property of a priority agricultural land use, including, for example, everyday farm practices and an activity or infrastructure essential to the operation of a priority agricultural land use on the property</p>	<p>As evidenced by Section 3.1 the land is not currently being used as PALU therefore it does not constrain or prevent the ongoing conduct of PALU.</p> <p>Further, the nearest PALU is 2.65km away and will not be impacted from the activities within this application.</p> <p>Refer to Appendix I – Surrounding Land Uses</p>

<p>e) the activity is not likely to have a significant impact on the priority agricultural area</p>	<p>As evidenced by Section 3.1 the land is not currently being used as PALU. Although it is identified within the PAA, the proposed petroleum activities will not increase the impact on PAA given the existing use of the Land for petroleum activities and the length of time this land use has been in place.</p>
<p>f) the activity is not likely to have an impact on land owned by a person other than the applicant or the land owner mentioned in paragraph (a).</p>	<p>The proposed petroleum activities, due to the nature and extent of the expected area of impact, will not have an impact upon the adjoining landowners.</p> <p>One adjoining landowner has existing petroleum activities on their land which are subject to an existing voluntary Conduct and Compensation Agreement as detailed in Appendix H.</p>

10. Abbreviations and Acronyms

Definitions of terms used in this report:

Term	Definition
Applicant	Arrow (Tipton) Pty Ltd A.C.N. 114 927 507
CGPF	Central Gas Processing Facility
EHP	Department of Environment and Heritage Protection
EP Act	<i>Environmental Protection Act 1994</i>
ha	Hectare
IFL	Intensively farmed land is a subset of the Queensland Government's Strategic Cropping Land. It is premium cropping land that is being actively used for broad acre cropping with either dry land or irrigated farming practices, and having been altered to suit those cropping purposes (e.g. laser leveled, irrigation channels and existing dams).
PAA	Priority Agricultural Area
PALU	Priority Agricultural Land Use
PALU 3.3.0	Primary Production from Dryland Agriculture and Plantations
PALU 4.3.0	Primary Production from Irrigated Agriculture and Plantations
PL	Petroleum Lease
Proposed petroleum activities	Please see Section 2.
Reports	Forage Crop Frequency Reports
RIDA	Regional Interests Development Approval
ROW	Right of Way
RPI Act	<i>Regional Planning Interests Act 2014</i>
RPI Regulation	Regional Planning Interests Regulation 2014
SCA	Strategic Cropping Area
SCL	Strategic Cropping Land
Land	Lot 1 on SP194537

Appendix A – Resource Authority

Appendix B – Title Search

Appendix C – Survey Plan

Appendix D - Locality Plan

Appendix E – Site Plan

Appendix F – Forage Crop Frequency Reports

Appendix G – Operational Area

Appendix H – Queensland Land Use Mapping 1999, 2006, 2012

Appendix I – Surrounding Land Uses

Schedule 1 – Surrounding Landholders**Commercial in Confidence – not for publication**

The following CCAs were negotiated with surrounding Landholders:

Landholder	Land	CCA Infrastructure	Negotiations
D.W. McConnell, A.J. McConnell, P.M. Klaehn, R.A. McConnell and C.D. McConnell	Lot 27 SP253612 Lot 28 CP DY22	<p>CCA Reference 101098CNT dated 04.10.2012 And as amended on 02.08.2013, 13.03.2014, 09.08.2014, 09.08.2009, 04.11.2015, 19.01.2016 and 10.11.2016</p> <p>Infrastructure:</p> <ul style="list-style-type: none"> • Access Tracks • 400ML dam; • Reverse Osmosis facility • Site office • 400ML Treated Water Dam • 960ML Brine Dam • Utility Dam • Pump stations • Power Circuit 	

		<ul style="list-style-type: none">• Radio Tower• Battery Limit Fence• Reservoir monitoring well• Re-injection Well• 3 Deep Water Monitoring Bores• 9 Shallow Water Monitoring Bores• Gathering lines• High point vents• Treated water pipeline• Gravel Pit• 56 CSG Wells	
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