






## APPLICATION

### Reedy Creek to Wallumbilla Pipeline

#### Supporting Information – Regional Interests Development Application for SCA

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## 1. Introduction

APA Reedy Creek Wallumbilla Pty Ltd (APA), as the holder of Petroleum Pipeline Licence 2023 (PPL 2023), has prepared this supporting information report to accompany an application under Section 28 of the *Regional Planning Interests Act 2014* (RPI Act) to the Department of Infrastructure Local Government and Planning (DILGP).

APA intends to carry out a resource activity (construction and operation of the pipeline) in an area of regional interest (ARI). The ARI relevant to this application is Strategic Cropping Area (SCA).

This application relates to the construction and operation of the Reedy Creek to Wallumbilla Pipeline (RCWP) (refer to **Figure 1** in Appendix B). The proposed RCWP is a high pressure underground gas transmission pipeline which will transport gas between Australia Pacific LNGs (APLNGs) Reedy Creek gas processing plant (which is connected to the APLNGs export pipeline system) and APA's existing facility at Wallumbilla, located in southern Queensland.

### 1.1 Purpose and Scope

The purpose of this report is to provide sufficient detail to support the RPI Act Development Application for disturbance to SCA for the RCWP and provide the administering authority with a high level of certainty regarding the ability of APA to mitigate any impacts associated with the construction and operation of the pipeline and to assist in the development of approval conditions.

The application is made by APA Reedy Creek Wallumbilla Pty Ltd. APA Reedy Creek Wallumbilla Pty Ltd forms part of the APA group of companies (the APA Group).

The application comprises:

- Attachment 1 - DILGP Application Form;
- Attachment 2 - Supporting Information Document (this document);
- Attachment 3 - Pipeline Route Maps (Q-03-101-MAP-L-0041);
- Attachment 4 - Reedy Creek to Wallumbilla Soil Assessment Report by Amec Foster Wheeler (652490-PLN-0002);
- Attachment 5 - Title Searches for land parcels subject to this application;
- Attachment 6 – Contact details for Landholders & status of discussions (Commercial in Confidence)

The scope of the application includes all activities reasonably necessary for the construction and operation of the RWP on land mapped as SCA including:

- Construction and operation of high pressure gas pipeline and associated pipeline infrastructure;
- Construction & operation of temporary pipe laydown areas and associated construction work areas; and
- Associated ancillary activities necessary for the construction and operation of the pipeline.

The scope of the application applies to land parcels where mapped SCA will be impacted and where no voluntary agreement has been reached, as detailed in **Table 1**. The pipeline alignment, proposed disturbance area and extent of mapped SCA is illustrated on the Pipeline Route Maps which accompany this application.

**Table 1 : Land Parcels included within Scope of Application**

Property Description	Owner	Within Scope of Application
29SP248282	AUSTRALIA PACIFIC LNG PTY LIMITED	No Voluntary Agreement reached. Refer to Appendix A
4RP82691	SABRINA BYRNE BENSON	Yes
5RP82691	SABRINA BYRNE BENSON	Yes
1RP200573	COLIN WILLIAM MAUNDER	No Conduct and Compensation Agreement agreed. Refer to Appendix A
	Unnamed Road reserve between 1RP200573 & 3RP200573	Yes
3RP200573	COLIN WILLIAM MAUNDER	No Conduct and Compensation Agreement agreed. Refer to Appendix A
160WV550	COLIN WILLIAM MAUNDER	No Conduct and Compensation Agreement agreed. Refer to Appendix A
161WV552	COLIN WILLIAM MAUNDER	No Conduct and Compensation Agreement agreed. Refer to Appendix A
162WV799	STEPHEN G CORMACK	No Conduct and Compensation Agreement agreed. Refer to Appendix A
163WV799	STEPHEN G CORMACK	No Conduct and Compensation Agreement agreed. Refer to Appendix A
164WV1353	NOEL WILLIAM YORK & BEVERLEY EDNA	Yes

Property Description	Owner	Within Scope of Application
	YORK	
19WV623	CECIL R CLELAND	Yes
6WAL5395	CECIL ROY CLELAND & PATRICIA CLELAND	Yes
	Kangaroo Creek Road	Yes
21WAL5395	CECIL ROY CLELAND & PATRICIA CLELAND	Yes
638WV1528	SANTOS GLNG P/L KGLNG LIQUEFACTION P/L, TOTAL GLNG AUSTRALIA PAPL (DOWNSTREAM) P/L	No Voluntary Agreement reached. Refer to Appendix A
633WV891	DONNA MAREE WEBER	Yes
	Warrego Highway	Yes
51SP113919	Western Railway	No Conduct and Compensation Agreement agreed. Refer to Appendix A
	Unnamed Road Reserve between 51SP113919 & 421WV898	Yes
421WV898	GEOFFREY ROBERT SCOTT	Yes
	Seawrights Road	Yes
426WAL53597	JASON ANDREW CHASELING	Yes
427WAL53708	OWEN CHARLES YORK & JANINE MAY YORK	Yes
	1AP9006 - Temporarily Closed Road between 427WAL53708 & 8WAL53372	Yes
8WAL53372	OWEN CHARLES AND JANINE MAY YORK	Yes
481WAL53298	OWEN CHARLES AND JANINE MAY YORK	Yes
9WAL53378	OWEN CHARLES AND JANINE MAY	Yes

Property Description	Owner	Within Scope of Application
	YORK	
482WAL53378	OWEN CHARLES AND JANINE MAY YORK	Yes
653WV235	BERYL ELIZABETH & NEIL WILLIAM YORK	Yes
	1RL875 - Temporarily Closed Road between 653WV235 & 653WV454	Yes
653WV454	NEIL WILLIAM YORK & BERYL ELIZABETH YORK	Yes
	Yarrowonga Road	Yes
1SP200055	LYNETTE RHODA & ANTHONY GEOFFREY BATES	No Conduct and Compensation Agreement agreed. Refer to Appendix A
2SP200055	PETER GEOFFREY STEPHEN BATES	No Conduct and Compensation Agreement agreed. Refer to Appendix A
1SP216096	GLENYS MICHELLE HUGHES	Yes
2SP216096	OIL INVESTMENTS PTY LTD	Yes
	Wallumbilla South Road	Yes
2CP899219	EPIC ENERGY PTY LTD	No Voluntary Agreement reached. Refer to Appendix A

Title searches for the impacted land parcels have been undertaken and copies of these title searches accompany this application. A statutory declaration from the Access and Approvals Manager for the RCWP has been included in Appendix A in regards to voluntary agreements and CCA's that have reached with landholders.

## 1.2 Terms & Abbreviations

**Table 2 : Terms and Abbreviations**

Item	Definition
APLNG	Australia Pacific LNG
ARI	Area of Regional Interest
CCA	Conduct and Compensation Agreement pursuant to the P&G Act
DILGP	Department of Infrastructure Local Government and Planning
EA	Environmental Authority
EHP	Department of Environment and Heritage Protection
<i>EP Act</i>	<i>Environmental Protection Act 1994</i>
EWS	Extra Work Space
FA	Financial Assurance
GPP	Gas Processing Plant
Ha	Hectare
HDD	Horizontal Directional Drill
P&G Act	Petroleum and Gas (Production and Safety) Act 2004
PPL	Petroleum Pipeline Licence
RCWP	Reedy Creek Wallumbilla Pipeline
RIDA	Regional Interests Development Approval
ROW	Right of Way
RPI Act	Regional Planning Interests Act 2014
SCA	Strategic Cropping Area
SCL	Strategic Cropping Area

## 2. APPLICATION FORM INFORMATION

This section of the document provides additional details which were unable to be included on the application form. If required, reference to the relevant section of this document has been included.

### 2.1 Property Details and Proposed Activity

A summary of the proposed activities, location and proposed disturbance area is provided in Table 3. The area of disturbance (site area) will be located within the temporary construction area as illustrated on the Figures provided in Appendix C. Additional information regarding the proposed activities is provided in Section 3.

**Table 3 : Property Details and Proposed Activities**

Land Parcel	Land Holder	Whole/Part	Activity	Area of Disturbance
4RP82691	SABRINA BYRNE BENSON	Part	ROW, EWS, Pipeline Operations	3.54
5RP82691	SABRINA BYRNE BENSON	Part	ROW, EWS, Pipeline Operations	3.76
	Unnamed Road reserve between 1RP200573 & 3RP200573	Part	ROW, Pipeline Operations	0.14
164WV13 53	NOEL WILLIAM YORK & BEVERLEY EDNA YORK	Part	ROW, EWS, Pipeline Operations	13.89
19WV623	CECIL R CLELAND	Part	ROW, EWS, Pipeline Operations	11.15
6WAL539 5	CECIL ROY CLELAND & PATRICIA CLELAND	Part	ROW, EWS, Pipeline Operations	4.75
	Kangaroo Creek Road	Part	ROW, EWS, Pipeline Operations	0.17
21WAL53 95	CECIL ROY CLELAND & PATRICIA CLELAND	Part	ROW, EWS, Pipeline Operations	3.11

Land Parcel	Land Holder	Whole/Part	Activity	Area of Disturbance
633WV89 1	DONNA MAREE WEBER	Part	ROW, EWS, Access Track, Pipeline Operations	1.48
	Warrego Highway	Part	ROW, EWS, Pipeline Operations	0.55
	Unnamed Road Reserve between 51SP113919 & 421WV898	Part	ROW, EWS, Pipeline Operations	0.29
421WV89 8	GEOFFREY ROBERT SCOTT	Part	ROW, EWS, Pipeline Operations	12.5
	Seawrights Road	Part	ROW, EWS, Pipeline Operations	0.09
426WAL5 3597	JASON ANDREW CHASELING	Part	ROW, EWS, Pipeline Operations	1.34
427WAL5 3708	OWEN CHARLES YORK & JANINE MAY YORK	Part	ROW, EWS, Pipeline Operations	0.53
	1AP9006 - Temporarily Closed Road between 427WAL53708 & 8WAL53372	Part	ROW, EWS, Pipeline Operations	0.59
8WAL533 72	OWEN CHARLES AND JANINE MAY YORK	Part	ROW, EWS, Pipeline Operations	0.91
481WAL5 3298	OWEN CHARLES AND JANINE MAY YORK	Part	ROW, EWS, Pipeline Operations	0.99
9WAL533 78	OWEN CHARLES AND JANINE MAY YORK	Part	ROW, EWS, Pipeline Operations	1.11
482WAL5 3378	OWEN CHARLES AND JANINE MAY YORK	Part	ROW, EWS, Pipeline Operations	1.01

Land Parcel	Land Holder	Whole/Part	Activity	Area of Disturbance
			Operations	
653WV235	BERYL ELIZABETH & NEIL WILLIAM YORK	Part	ROW, EWS, Pipeline Operations	0.84
	1RL875 - Temporarily Closed Road between 653WV235 & 653WV454	Part	ROW, Pipeline Operations	0.06
653WV454	NEIL WILLIAM YORK & BERYL ELIZABETH YORK	Part	ROW, EWS, Pipeline Operations	8.68
	Yarrowonga Road	Part	ROW, EWS, Pipeline Operations	0.47
1SP216096	GLENYS MICHELLE HUGHES	Part	ROW, Cathodic Protection (outside of ROW), EWS, Pipeline Operations	11.85
2SP216096	OIL INVESTMENTS PTY LTD	Part	ROW, EWS, Pipeline Operations	1.42
	Wallumbilla South Road	Part	ROW, EWS, Pipeline Operations	0.11
			<b>Total</b>	<b>85.33ha</b>

## 2.2 Land Use

The existing land uses on and adjacent the alignment is predominantly rural farmland and grazing areas, native scrublands and resource exploration and production (refer to the Pipeline Route Maps which accompany this application). The land use along the northern section of the pipeline alignment is predominately grazing of native and improved pastures for beef cattle production. The first 6 km is also a mix of forest and regrowth vegetation. The country has been more consistently cleared south of this apart from isolated areas and low hills between KPs 11-12 and 16-17. An area of old cultivation is evident around KP10, but cropping really doesn't start to occur until south of KP18. South of this point, cropping and grazing are the dominant land uses. The extent of mining and petroleum tenures are illustrated on Figures 3 & 4 (refer to Appendix B).



## 2.3 Other Relevant Information to Accompany this Application

### 2.3.1 Resource Authorities & Environmental Authorities

Resource Authorities (granted and applications) exist over varying parts of the proposed pipeline as outlined in [Table 4](#) and illustrated on Figures 3 & 4 (refer to Appendix B).

Each of the granted resource authorities will have a granted Environmental Authority. The applicant is not aware of any additional environmental authorities over any parts of the land the subject of this application.

**Table 4 : Overlapping Resource Authorities**

Tenure Type/Number	Holder	Application/Grant Date
PL 404	Australia Pacific LNG	7/9/2012
PL 413 (Application)		8/12/2010
PL 281 (Application)	Bronco Energy	10/2/2008
PL 282 (Application)		10/2/2008
PL 8	Santos CSG	4/3/1969
ATP 606	Australia Pacific LNG	28/10/1994
ATP 631	Bronco Energy	27/8/2001
PPL2	APT Petroleum Pipelines	21/12/1967
PPL 4	AGL Gas Storage	15/12/1977
PPL 3	Armour Energy (Surat Basin)	8/5/1976
PPL 123	APA Pipeline Investments (BWP)	30/8/2008
PPL 124	Hunter Gas Pipeline	5/1/2007
PPL 134	Origin Energy Wallumbilla Transmissions	9/8/2008
PPL 2020	Santos CSG	17/1/2017
PPL 2021		17/1/2017
EPC 1763	Wanbei Coal Electricity International Mining (Australia)	11/11/2009
EPC 2509	Australia China Corporation of Coal Geology Engineering	21/10/2013

### 2.3.2 SCL Protection Decisions

APA has not identified any SCL Protection Decisions over all or part of the land subject to this application.

### 2.3.3 Easements

Details of the easements that are intersected by the pipeline alignment on land subject to this application are summarised in [Table 5](#).

**Table 5 : Easements**

Land Parcel	Easement	Purpose
1SP216096	ESP219065 & EMTWV1375	Easement associated with the Roma Brisbane Pipeline (PPL 2)
	DSP226767	Easement associated with the Wallumbilla to Walloons Gas Pipeline (PPL 134)
	LSP225710	Easement associated with the Berwyndale to Wallumbilla Pipeline (PPL 123)
	BWV1724	Easement associated with the Silversprings Pipeline (PPL 4)

### 2.3.4 Current Title Searches

Copies of titles searches for land parcels subject to this application accompany this application.

## 3. DESCRIPTION OF RESOURCE ACTIVITIES

### 3.1 Background

The pipeline will commence at the RCWP Reedy Creek Facility located adjacent to the APLNG Reedy Creek Gas Processing Facility, approximately 65 km south west of Wandoan. The pipeline travels in a southerly direction for approximately 49km through rural land, crossing the Warrego Highway, Western rail line and Wallumbilla creek before terminating at APA's Wallumbilla Gas Hub located approximately 11km south of Wallumbilla (refer to Figure 1 in Appendix A).

### 3.2 Resource Activities

The following section provides a description of the activities as identified in Section 2.1.

#### 3.2.1 Right of Way (ROW)

Pipeline construction is linear production-line-work with construction activities occurring within the construction right of way (ROW). Construction activities within the ROW will include:

- Survey of the Right of Way (ROW) and temporary construction area;
- Access for construction activities along the ROW;
- Installation of temporary gates in property boundary fences for construction;
- Clearing & stockpiling of vegetation and grading of the right of way (ROW) to prepare a safe construction working area. Standard ROW will be 30m wide;
- Separation and stockpiling of topsoil and subsoil to protect and preserve topsoil and to ensure the soil profile is reinstated during backfill and rehabilitation;
- Setting up of temporary facilities such as work areas for equipment and pipe delivery and storage, borrow pits and access tracks;
- Crossing watercourses, roads and rail lines by open cut, boring or horizontal directional drilling methods (depending upon the type and nature of the crossing, and geotechnical conditions). Refer following section for additional details;
- Stringing the pipe lengths along the ROW;
- Welding the pipe lengths together;
- Non-destructive testing of pipeline welds;
- Coating pipeline joints;
- Excavation of a trench in which to lay the pipeline;
- Placing the pipeline into the trench;
- Placing sand or screened trench sub-soil (padding and shading) into the trench to protect the pipe coating from external damage;
- Returning the subsoil and topsoil to their original horizons;
- Testing the integrity of the pipeline by filling it with water and pressurising it to above maximum operating pressure(hydrotest); and
- Reinstating and rehabilitating the construction ROW and temporary extra work space.

The proposed construction ROW will be nominally 30m.

The construction activities described previously may be undertaken by different crews. The series of crews are referred to as a 'spread'. Each crew in a spread will typically achieve progress of 2-3 km per day depending on the terrain (e.g. weather conditions or rocky

ground may slow work down). To enable the crews to work safely and efficiently operate there is often a delay between the arrival dates of each crew. Typically it would take up to 12 weeks for all the crews in a spread to pass through an area and complete their tasks. During this time there would be interruptions to some land uses (e.g. no crop growing or limited grazing over the ROW). The appropriate mitigations and compensation matters related to this will be negotiated with each individual landowner.

During construction, construction crews will access the ROW via approved access points and travel along the construction ROW as required. Construction of the RCWP is scheduled to commence in mid to late 2017, subject to obtaining all required approvals and consents.

### ***Watercourse Crossings***

Watercourse crossings will be constructed using the method most appropriate to the crossing, having regard to the protection of the riparian zone, erosion potential and construction difficulty. . Crossing methods will include:

- Minor watercourses, ephemeral streams and gullies will be crossed using an open cut construction method.
- Watercourses with standing or flowing water will be crossed by open cut methods, or if required by open cut methods with water flow controls.

In addition to pipe laying, temporary vehicle crossings will be constructed to facilitate the movement of construction vehicles over watercourses.

To minimise the period of construction and subsequent environmental disturbance, the construction contractor will complete watercourse crossings within the shortest period practicable.

### ***Road/Rail Crossings***

The Western Rail Line and paved and sealed road crossings will be bored to reduce impacts on traffic flow and ensuring no damage to rail line or road pavement integrity. Boring is a low impact technique involving drilling short distances from below ground within an enlarged trench area (borepit) either side of the road or rail within the ROW. The feasibility of using a bore is limited by site conditions including depth required, width of crossing, geology, landform, soil type and service / infrastructure. Soil measures for removal, stockpiling and reinstatement for the bore pits will follow the same protocols as for the ROW.

Minor roads (including where permitted, minor roads that are paved) will be crossed using open cut construction methods.

## **3.2.2 Extra Workspace (EWS)**

Areas of additional work spaces adjacent to the ROW will be required to provide additional construction areas for a range of activities including truck turn around areas, equipment storage areas, areas for in-field pipe bending, soil & vegetation stockpiles and space for installation of bore pits for bored crossings. The ROW will be narrowed in areas of identified environmental constraint, subject to other construction constraints. The ROW, including proposed areas of narrowing and additional workspaces, is illustrated on the Pipeline Route Maps which accompany this application and the Property Maps included in Appendix C.

## **3.2.3 Access Track**

Access to the pipeline ROW will occur via existing access tracks located both on and off SCL. One new access track on SCL will be required, in part, on 633WV891. The track will be approximately 6m wide gravel track, which will be temporary for construction only. The

track will be removed and the area reinstated post construction consistent with the measures for the ROW.

#### 3.2.4 Cathodic Protection (outside of ROW)

On 1SP216096 a buried anode bed and cable is required to be located outside of the ROW. The bed and cable will be buried at sufficient depth to enable existing above ground activities to continue during pipeline operations. Depending on conditions, the sacrificial anode will be required to be replaced every 8 to 10 years. Soil treatment for the installation and any subsequent replacement will be as per the pipeline ROW as outlined in Section 7. Refer to the following section for additional details of the cathodic protection system.

#### 3.2.5 Pipeline Operations and Maintenance

Given that the pipeline will be buried, land users are able to resume previous land use activities on top of the pipeline provided that the use does not include excavation activities or interfere with cathodic protection infrastructure. Whilst deep-rooted vegetation cannot be re-established directly across the pipeline (approx. 10m wide area due to the potential to damage the pipeline) shallow root cropping and grassland re-establishment is encouraged and no long-term impacts would be expected to such areas. In addition to the end of pipeline facilities, above ground infrastructure will include cathodic protection test points (single pole located adjacent access and fencelines) and intervisible pipeline marker signs.

Typical operational activities are:

**General Operations** - The routine operation and maintenance program includes ground and aerial patrols, facility inspection and overhauls, repair of the pipeline/equipment (which may include excavation of the pipeline), pigging and cleaning of the pipeline, corrosion monitoring and remediation, and easement and lease area maintenance including access tracks and signage. Aerial and/or ground inspections will include detection of third party activities on or near the ROW, detection of erosion, monitoring of rehabilitation success and detection and control of weed species or vegetation impeding line of site between pipeline markers, or associated with fire breaks.

APA will seek to use existing landholder infrastructure for access during operations. Inspections will primarily be via aerial patrol, which may trigger the need for on ground access. Where access outside of existing landholder infrastructure is necessary, this will be off formed roads. It is not proposed to install formed tracks along the ROW.

**Prevention of Pipeline Damage** - Prevention of damage due to third party activity will be achieved through appropriate depth of cover, signposting of the pipeline, one call "Dial Before You Dig" programs, regular inspection of the pipeline ROW to spot any construction or earthmoving activities in the area, and third party education on the potential dangers of carrying out activities in proximity to the pipeline. In some areas such as crossings, marker tape or concrete slabs may be buried above the pipeline to reduce risk of third party interference. Security fencing, gates and locks will be provided around all major above ground facilities (end of pipeline facilities) to inhibit accidental or unauthorised tampering.

**Cathodic Protection** - Pipeline corrosion will be prevented by the protective external coating and cathodic protection systems. The cathodic protection system will include buried sacrificial anode beds and above ground test points which will be checked regularly to ensure that the protection voltages are within limits and to monitor any likely areas of corrosion activity. Anode beds are generally located within the ROW, however on 1SP216096 it is necessary to locate the bed outside of the ROW. Test points have been located adjacent existing access tracks and fencelines to minimise the need to access

private property for cathodic protection monitoring activities. The cathodic protection system and external coating system work independently to protect the pipeline from corrosion.

## 4. Legislative Context

### 4.1 RPI Act Requirements

Section 7 of the RPI Act states what is considered an area of regional interest under the RPI Act:

Each of the following is an area of regional interest—

- a. a priority agricultural area;
- b. a priority living area;
- c. the strategic cropping area;
- d. a strategic environmental area.

Section 12(2) of the RPI Act states that:

A resource activity is –

- a. an activity for which a resource authority is required to lawfully carry out; or
- b. for a provision about a resource authority or proposed resource authority – an authorised activity for the authority or proposed authority (if granted) under the relevant resource Act.

Under section 12(1) of the RPI Act, a Resource Act includes the P&G Act. Section 13(e) of the RPI Act provides that a resource authority includes a petroleum pipeline licence granted under that Act.

### 4.2 Areas of Regional Interest

Areas of Regional Interest (ARIs) are listed under Section 7 of the RPI Act.

The location of the proposed pipeline is mapped as a Strategic Cropping Area (SCA). Section 11 of this report addresses the SCA Required Outcomes as detailed in Schedule 2 Part 4 of the RPI Regulation.

The location of the proposed pipeline is not mapped as :

- Priority Agricultural Area;
- Priority Living Area; or
- Strategic Environmental Area.

Therefore no further action or assessment is required for these ARI's.

### 4.3 Owners of the Land

The owners of land mapped as SCA that are interested by the RCWP have been detailed in [Table 1](#). Current title searches for the land parcels subject to this application accompany this application.

## 5. Route Selection

### 5.1 Route History

The initial stages of route selection for the RCWP were completed by Origin Energy and involved a desktop assessment of topographical and ecological mapping, preliminary landholder discussions and field scouting where access to the alignment was available. The field scouting, undertaken in May and July 2016, identified a number of areas of unmapped Brigalow Threatened Ecological Communities (TEC) (both remnant and regrowth), endangered and of concern remnant vegetation. The pipeline alignment was further refined and provided to APA for confirmation and validation.

APA commenced investigation of the pipeline alignment in mid-2016, which has involved:

- Ecological constraint and constructability field review;
- Ecological assessment;
- Soil and Strategic Cropping Land assessment;
- Detailed landholder discussions; and
- Cultural heritage review.

Route options investigated and the current alignment are illustrated on Figure 2 in Appendix B. A more eastern alignment was discounted in the initial constraints analysis due to the extent of remnant vegetation, Yuleba Creek floodplain, knowledge of landholder requirements and consideration of overall pipeline length and therefore overall disturbance footprint.

The current alignment has taken into account the competing interests of stakeholders, environmental and cultural values, cropping land and landholders whilst selecting a route that is feasible, safe and cost-effective. Engineering, constructability, environment, cultural heritage, overlapping tenure holders and landholders have all been considered during the route selection process.

In the initial stages of route refinement a number of alternative routes were considered based on the investigation and constraints identified by Origin. Following this desktop review the alternative route options were subject to field investigations in September and October 2016. Key revisions to the pipeline alignment have been undertaken to:

- Avoid areas of significant topographical constraint and refine the alignment where avoidance was not possible;
- Refine the approach and crossing location of existing infrastructure and major watercourses;
- Minimise impacts to key cropping areas and associated farm infrastructure;
- Align the pipeline with property and/or paddock boundaries where possible; and
- Avoid patches of EPBC listed Brigalow and minimise impacts to ecological constraints identified during field assessments.

Further minor refinements to the alignment may be required in response to design and engineering work and negotiations with landholders. Any proposed refinements that may arise from the aforementioned activities will be subject to internal APA assessment via route realignment processes. This change process requires input and acceptance from each discipline is obtained before a change is formally adopted. If necessary, a meeting will be convened to workshop the various issues that may arise from the proposed change in an effort to generate an acceptable solution.



## 5.2 Pipeline Refinement

A number of pipeline route refinements have been undertaken to minimise impacts to landholders, infrastructure and current land activities in accordance with landholder requests. This has included:

- KP 0 – 3 – locating the alignment adjacent a fenceline to avoid SCL and utilise areas or existing disturbance;
- KP 7.5 – 11 – locating pipeline in the eastern area of the property, adjacent fencelines wherever possible, which is east of areas of high agricultural activities / cropping;
- KP 14 – 15 – moving pipeline slightly west to avoid farm water infrastructure;
- KP 15 – 27 – aligning pipeline to be adjacent to fencelines and property boundary where possible;
- KP 31 – 38 – aligning pipeline to be adjacent to fence lines and property boundary where possible;
- KP 38 – 40 – aligning pipeline away from fenceline to be located west of cropping area;
- KP 40 – 42 – aligning pipeline on edge of cropped area, to preserve vegetated area on property boundary associated with managing water flows on the property;
- KP 42.5 to end – aligning pipeline adjacent existing pipeline infrastructure & disturbance.



## 6. Landholder Consultation

Consultation with both private and public landowners has commenced and will continue throughout the duration of the project.

The owners of the land traversed by the pipeline alignment have been identified and the land parcels intersected by the current alignment, where mapped SCA will be impacted, are listed in [Table 1](#).

APA has appointed a Land Liaison Officer to liaise with landholders along the route. The landholder engagement process has involved:

- the Land Liaison Officer being the landholders single point of contact;
- Obtaining access to properties in accordance with APT's Petroleum Survey Licence, Petroleum Pipeline Licence (PPL) and associated Environmental Authority and legislative requirements;
- Accessing land in accordance with access requirements requested by the landholder. There are no formal access agreements, all entries have been made in consultation with landholders with prior advice
- Collection of property specific information regarding land use, future plans, constraints and infrastructure to determine the alignment of the pipeline through the property;
- Discussion regarding potential impact of the proposed alignment and refinement of the alignment to mitigate identified issues;
- Discussion of the expected impact of the pipeline construction and operation on the land and proposed measures to mitigate these impacts including discussion on soil management and restoration practices;
- Maintaining contact and provision of updated information in regards to the Project, including alignment, through:
  - Project brochures and information sheets;
  - Individual letters;
  - Property visits to ascertain the conditions
  - Meetings with landholders ;
  - Dedicated contact to take phone enquiries and answer questions; and
  - Public Notice of the PPL Application.
- Presentation of Options for Easement document (including the proposed Easement Terms and Conditions) for the purpose of constructing and operating the pipeline, including discussions regarding compensation and arrangement for access during and after construction. These documents together are a Conduct and Compensation Agreement (CCA) for the purposes of the *Petroleum and Gas (Production and Safety) Act 2004* and including provision for Strategic Cropping Land (SCL) consent.
- Where requested, ongoing discussions have been undertaken with the landholders legal representative.

Records of all contact have and will be maintained. A sample of initial project records and in field behaviours were recently pro-actively audited by DNRM's Gas Field Compliance Unit and found to be of a high degree of compliance with the Land Access Code.

APA have sought to reach voluntary agreement with ordinary landholders in respect to SCL in the form of a CCA pursuant to the P&G Act. As SCL is only one component of the terms and conditions of the CCA, voluntary agreement in regards to SCL cannot be finalised until

landholders reach agreement with APA on all arrangements for construction and operation of the pipeline.

A summary of the steps undertaken versus the DILGP's guideline to meet the prescribed solution is provided in [Table 6](#). Additional information is presented in [Table 7](#).

**Table 6 : Consultation against Guideline**

Guideline	Activity
<i>To demonstrate compliance, the applicant should carry out the following steps:-</i>	
<p>1) write to the landowner seeking a meeting to:-</p> <p>a. explain the nature and extent of the proposed activity and the likely impacts from the proposed activity</p> <p>b. discuss the nature of the activities conducted by the landowner on the land and the nature of the landowner's concerns</p>	<p>October 2016</p> <p>Initial introduction of the project by APA.</p> <p>Provision of Notice of Entry (under P&amp;G Act).</p> <p>Discussion regarding pipeline alignment and identification of any particular issues.</p> <p>November 2016</p> <p>Option for easement documentation (CCA) hand delivered and discussed.</p> <p>Proposed alignment provided on a property map.</p> <p>Open discussion of issues and concerns with landholders and their representatives.</p>
<p>2) consider the information provided by the landowner and provide the landowner with a written strategy for addressing the landowner's concerns</p>	<p>Negotiations for reaching agreement on the CCA's are occurring via the nominated legal representatives for all bar one landholder.</p> <p>Agreed changes to the alignment and construction methodologies have been undertaken and various changes have been made as a result of these discussions. This has included the strip depth of soil, the amelioration of soil and the species used for rehabilitation after construction. Landholders have been advised of updates through updated Property Maps and Property Use Plans (PUPs) which form part of the CCA.</p> <p>Amendments to CCAs are provided in writing via legal representatives.</p>
<p>3) provide sufficient time for the landowner to consider the strategy (i.e. a minimum of 20 business days)</p>	<p>APA has and will continue to provide sufficient time for the landholder (and/or nominated legal representative) to consider updates and changes to the CCA and associated documentation. Initial discussions regarding the project were undertaken in October / November 2016. Since then, APA has retained a dedicated full-time Land Liaison Officer to be</p>

Guideline	Activity
	point of contact with landholders. This has included ongoing
4) consider and respond in writing to any concerns raised by the landowner in relation to the strategy	Negotiations for reaching agreement on the CCA's are occurring via the nominated legal representatives for all bar one landholder. Amendments to CCA documentation , including PUP and Property Maps are provided in writing via legal representatives
5) provide the landowner with sufficient time to consider the revised strategy (i.e. a minimum of 10 business days).	APA has and will continue to provide sufficient time for the landholder (and/or nominated legal representative) to consider updates and changes to the CCA.

Based on the formal nature of the negotiations to reach agreement with landholders on the CCA and key issues relating to the terms and conditions of the CCA (not proposed mitigation measures), APA identified the need for additional discussion direct with landholders outside of this process. A summary of the steps and consultation timeline undertaken by APA in regards to SCL (and broader impacts on landholder activities) is provided in [Table 7](#).

Due to the number and variable availability of landholders, more than one month was often required to complete contact with all landholders. A summary of the status of negotiations with each landholder (of land included within the scope of this application) is provided with this application (Attachment 6). Land parcels where agreement has been reached are not included within the scope of this application (refer to Table 1).

**Table 7 : Consultation**

When	Activity
October 16	Initial introduction of the project by APA. Provision of Notice of Entry (under P&G Act). Discussion regarding pipeline alignment and identification of any particular issues. Information presented regarding the pipeline construction process and potential impacts. Feedback was taken into account and the pipeline route refined to address issues identified (refer to Section 4 Route Selection History) – generally associated with moving alignment further east to avoid areas of higher intensity farming.
November 16	Option for easement documentation hand delivered and discussed. Proposed alignment provided on a property map. Open discussion of issues and concerns.

When	Activity
	Further refinement of the pipeline route occurred to address issues identified (refer to Section 4 Route Selection History) – generally associated with locating alignment in areas as preferred to minimise potential impacts on ongoing property management.
October / November 16	Detailed discussions with landholders in regards to landholder activities and potential for interaction with the pipeline during construction and operations. Discussion regarding potential impacts from pipeline construction and operation and design elements to minimise the impacts. Information collated included identification of individual farm enterprises, cropping habits, nature and scale of farm machinery and equipment, access requirements, crossings, property infrastructure, access tracks, gates. This information was utilised in the pipeline design to determine specific property requirements for depth of cover, temporary and permanent access across the pipeline, infrastructure crossings, gate & fencing requirements.
October/November/December 16	Access, where required, to properties for the purpose of completing field surveys including ecological surveys, cultural heritage surveys and soils assessment.
January 17	Access to properties to complete accurate survey of the pipeline alignment, including alignment changes, and to accurately identify the location of landholder infrastructure and key features including water pipes and infrastructure, stock crossings, contour banks, existing erosion.
February/March 17	Meeting with landholders to discuss and develop the Construction Line List, which details the landholder specific requirements during construction. This included discussion regarding location and requirements for maintaining landholder access during construction, stock watering, temporary facilities, fencing, temporary and permanent gates, construction access. In addition, the proposed soil management and restoration measures were discussed including construction methodology, topsoil stripping & stockpiling, use of ameliorants (gypsum or lime) and fertilizer, reinstatement of soil profiles, use of cover crops and reseedling. Key concerns raised were in regards to rehabilitation and potential for subsidence. Two landholders provided details of their specific requirements for topsoil stripping, ameliorants and fertilizer, which differed from APA's proposed measures. APA undertook to review these requests in consultation

When	Activity
	with specialist soil consultants engaged by APA.
May/June 17	Meeting with landholders to discuss the construction summary – which details site specific measures proposed for managing soils (and SCL) on each property. This included details of the topsoil stripping depths, topsoil management, trench spoil management, type and quantities of ameliorants, topsoil and subsoil reinstatement, type and quantities of fertilizer, cover crop proposal and reseedling proposal. In addition, the site specific requirements contained within the Construction Line List were discussed, to ensure that requirements had been addressed.
December 16 – ongoing	Discussions with nominated legal representatives to agree the process for negotiation of the CCA, mechanism for addressing and resolving amendments to the Agreement Documents.

Options for Easement and Conduct and Compensation Agreements were provided to landholders in November 2016 and are presently subject to ongoing legal discussions (where appointed by the landholder) and directly with landholders.

As agreements are reached with landholders, APA will provide additional notice to DILGP of these agreements, and request that the relevant land parcels be removed from the scope of this application.

## 7. Management of Mitigation Measures

### 7.1 Nature of Surface Impacts

The nature of surface impact to SCL will involve disturbance of up 85.33 ha (Lots combined) to the existing land use, consisting of up to 49km of pipeline construction ROW and extra work space on SCL. The scale of impact to SCL on each land parcel is illustrated on the Property Maps in Appendix C and summarised in [Table 3](#).

Following completion of the construction and reinstatement phases of the pipeline, normal agricultural activities will recommence without impact, with existing agricultural activities, including cropping activities, able to re-establish over the pipeline. The minimum depth of cover for the pipeline will be 900mm, however activities requiring significant excavation or establishment of permanent infrastructure are restricted above the pipeline.

The activity will not result in a material impact on SCL on the property or on the SCL in the area due to the implementation of mitigation measures described in this section and the small percentage of disturbance comparable to the mapped SCL of impacted properties (refer to Appendix C). Through implementation of these measures, the land can be restored to pre-existing land condition and pre-existing land use.

A soils assessment land associated with the Project has been undertaken and is documented within the AMEC RCWP Soil Assessment Report which accompanies this application. This report provides a characterisation of the current condition of the land and soils, evaluation of the potential impact of the proposed activity on SCL and recommendations in regards to management measures to minimise any predicted impacts to SCL.

### 7.2 Extent and Duration of Impact

Pipeline construction is scheduled to be completed within approximately 4 months. The installation of the pipeline is scheduled to be completed within two (2) months. Backfilling of trenches and reinstatement of topsoils will occur within three (3) months after pipe installation in accordance with the RCWP EA requirements.

Following decommissioning, it is proposed that the infrastructure will be left in the ground to minimise further disturbance to land. However, legislation at the time may have changed and it is recommended that this is addressed at the time with the relevant government department.

### 7.3 Avoid and Minimise Impacts

Due to the north-easterly / south-westerly alignment of the pipeline and extensive areas of SCL, avoidance of SCL is not possible. A summary of the route selection process, taking into consideration identified constraints including SCL, is provided in Section 5.

APA has undertaken extensive consultation with landholders to identify existing and future agricultural activities, location of farm infrastructure and property management logistics and develop an alignment to minimise potential impacts.

The construction and operational footprint of the activity and potential impacts to SCL have been minimised through:



- Reducing the number and location of extra work space (EWS) to the minimum necessary to safely construct the pipeline in compliance with EA requirements. This has taken into consideration the extra work area required to construct watercourse crossing & infrastructure crossings, areas for stockpiling of heavy vegetation, areas of side slope and additional stockpile areas adjacent areas of ROW narrowing. Refer to Pipeline Route Maps for the location of EWS.
- Increasing the minimum depth of cover above the pipeline to 900mm, to enable pre-existing landholder activities to continue post construction;
- Alignment the pipeline adjacent to land parcel and/or property boundaries where ever possible and in consultation with the landholder;
- Aligning the pipeline around the boundary of cropped areas or within areas of properties with less intensive agricultural activity;
- Placement of end of pipeline infrastructure adjacent to existing petroleum infrastructure;
- Alignment of the pipeline adjacent to existing pipeline infrastructure;
- Utilisation of existing disturbance/infrastructure for access tracks and laydown areas (refer to Appendix D);
- Prompt reinstatement of the ROW to enable cropping activities to re-establish post construction and continue during pipeline operation;
- Implementation of soil management measures as detailed in the following sections.

## 7.4 Restoration Measures

The following sections contain the management measures proposed for soils located in the project area. The general soil management requirements for the proposed works will comply with the RCWP EA and follow the Australian Pipeline Industry Association (APIA) 'Code of Environmental Practice: Onshore Pipelines' (2013) standards and requirements. Refer to the AMEC RCWP Soil Assessment Report, which accompanies this application, for additional information regarding a characterisation of the current condition of the land and soils and an evaluation of the potential impact of the proposed activity on SCL.

The main objective of the soil management approach is to reinstate disturbed areas to as near as practical to pre-existing environmental conditions by:

- Avoiding, minimising or mitigating impacts to soils;
- Maintaining topsoil quantity and quality;
- Restoring land to its pre-activity use but that it is also returned to its pre-activity productive capacity or potential productive capacity;
- Returning the land to a stable landform (i.e. no subsidence or major erosion) with no greater management inputs than those required prior to land disturbance.

## 7.5 Topsoil Management

The objective of topsoil management is to:

- Preserve as much of the topsoil as possible;
- Ensure topsoil is not degraded during construction and following reinstatement;
- Ensure topsoil is not contaminated with other soil and spoil materials;
- Preserve productive capacity of soil.

Topsoil management measures include:

- Contractor Site Environmental Advisor to identify, record and indicate (to plant operators) the stripping depth;

- Where available, topsoil will be stripped across the ROW to a minimum depth of 100 mm, extending deeper where suitable reserves are available to a maximum depth of 150mm;
- Stripped topsoil along the ROW will be stored in a stockpile separately from woody material and subsoil stockpiles;
- Stripped topsoil for extra work space will be stockpiled separately from woody material and subsoil stockpiles;
- Soil ameliorant (lime or gypsum where required) (refer to Section 7.7) will be incorporated into the topsoil stockpile where required;
- Care will be taken during stripping, stockpiling and/or re-spreading to ensure that structural degradation/soil compaction of the soil is minimal;
- Gaps will be left between stockpiles at appropriate intervals to allow for drainage, and permit the movement of vehicles and fauna;
- Stockpiles will be placed away from water discharge zones where they are not disturbed by other activities; topsoil should not be stockpiled against fences or vegetation and should be retained separately from mulch (apart from a surface layer);
- Weeds on the stockpiles should be monitored and controlled to prevent establishment and spread control should not reduce vegetative cover such that the stockpile erodes due to exposure of the soil;
- Topsoil stockpiles (particularly silty soil materials) may be sprayed with a soil binding agent to stabilise the surface against rain or wind erosion;
- Effort should be made to reduce the time between excavation and backfill with stockpiles preferably not be stored for periods greater than 3 months;
- Control of weeds on the stockpiles needs to be carefully managed so as to prevent significantly reducing vegetative cover and exposing stockpiled soils to erosion;
- Topsoil will be placed following subsoil reinstatement and will be re-spread to the topsoil strip depth so that there is no exposed sub-surface material;
- The topsoil will be respread to a minimum depth of 0.1 m of cover over the entire disturbed area to be reinstated;
- Soil compaction will be removed by cultivation prior to spreading topsoil and following spreading topsoil.

## 7.6 Subsoil Management

The objective of subsoil management is to:

- Prevent contamination of topsoil
- Prevent degradation of the subsoil structure
- Avoid or ameliorate subsoil constraints immediately below topsoils
- Ensure reinstatement of soil horizons in the correct order and depths.

Subsoil management measures include:

- Subsoil will be removed and stockpiled separately from topsoil to prevent mixing with topsoil and, ideally, stockpiles should be located close to where they are sourced;
- Subsoil material reinstated will be adequately compacted within the trench to ensure minimal subsidence;
- Ripping or cultivation of the reinstated subsoil may be required to overcome any compaction that occurs during stockpiling and the reinstatement procedure;
- Ameliorant (refer to Section 7.7) will be incorporated into the subsoil prior to backfilling into the trench.



- High intensity of trench breakers may be required on sloping land where rocky/highly permeable or strongly sodic subsoil material.

## 7.7 Soil Amelioration and Fertilisers

The proposed soil amelioration and fertiliser rates to mitigate potential impacts to soils during the Project construction activities are presented in [Table 8](#). Gypsum or lime is to be applied prior to topsoil stripping and above the trench line after backfill – unless alternate management has been specifically requested by the landholder.

**Table 8 : Soil Management Recommendations**

Soil unit	ASC	Topsoil amelioration	Rate (t/ha)	Subsoil amelioration	Rate (t/ha)	Fertiliser	Rate (kg/ha)
Qa-TE	Tenosols and Rudosols	Gypsum	1	Nil	-	MAP or equivalent	60
Qa-DE	Dermosols	Gypsum	1	Gypsum	2	MAP or equivalent	80
C-SO	Sodosols	Gypsum	1	Gypsum	3	MAP or equivalent	80
C-DEal	Dermosols	Gypsum	2	Gypsum	5	MAP or equivalent	100
C-DEac	Dermosols	Lime	2	Lime	2	MAP or equivalent	100
C-DEka	Dermosols	Lime	1	Lime	1	MAP or equivalent	80
C-KU	Kurosols	Lime	2	Lime	2	MAP or equivalent	80
C-VE	Vertosols	Gypsum	1	Gypsum	4	MAP or equivalent	100
C-RU	Rudosols	Gypsum	1	Nil	-	MAP or equivalent	60

### 7.7.1 Fertiliser Application

Fertiliser is used to provide a readily-available source of nutrients to supplement the natural soil fertility to maximise the growth of seeded areas following reinstatement. Fertiliser rates have been developed based on the laboratory results of topsoil fertility. Fertiliser should be applied at the time of seeding to limit the amount of nutrient loss associated with leaching, loss to atmosphere, or uptake by undesirable plant species. The proposed fertilizer application rates for the project are detailed in [Table 8](#), however, variation to the standard may occur upon specific request from the landholder.

### 7.7.2 Gypsum and Lime Application

Gypsum is used to ameliorate sodic soil material which has been disturbed or exposed during construction activities. The amelioration is required to facilitate effective erosion and sediment control and the successful rehabilitation of disturbed land.

The calculated rate for the Project uses a target Exchangeable Sodium Percentage (ESP) of 5%, 75% gypsum purity and an 80% efficiency factor (these values are toward the low end of recommended ranges). The method used to determine the subsoil gypsum rate involves the calculation of the individual gypsum treatment rate for each sampled depth down the subsoil profile for a particular sample site, then averaging these rates to determine an overall treatment rate for the subsoil at a site (this assumes the mixing of the full subsoil profile).

The gypsum treatment rate for each soil type is based on the maximum gypsum application rate for sites within specific soil groups. Gypsum treatment rates have only been calculated based on ameliorating sodicity. Proposed gypsum application rates for the soil units occurring within the Project area are presented in [Table 8](#) and have been calculated using laboratory analysis results for all sites across the Project area.

The use of lime is used to ameliorate highly acid soils where the pH may limit rehabilitation outcomes. The liming rate is estimated for each soil type is based on the texture and chemical characteristics of the soils. Proposed lime application rates for the soil units occurring within the Project area are presented in [Table 8](#).

Variation to the standard application rates may occur upon specific request from the landholder.

Gypsum is to be applied to:

- Topsoil prior to stripping (where required) unless agricultural lime is specified;
- Reinstated subsoil on trench ROW;
- Any areas of disturbed subsoil.

## 7.8 Post Construction Reinstatement and Clean-up

Reinstatement will be undertaken in accordance with the RCWP EA, the RIDA (once granted) and in consultation with landholders including:

- Compaction relief shall be undertaken, as required, by ripping or scarifying soils along the contours
- As necessary, the pipeline corridor shall be re-profiled to original or stable contours, re-establishing surface drainage lines and other land features;
- Where topsoil has been removed, it shall be respread, or clean topsoil imported where there are insufficient stockpiles. Biosecurity measures shall be applied to imported topsoil
- Erosion and sediment control measures shall be installed as necessary to manage the disturbed area whilst revegetation occurs ;
- Seed stock should be respread or sown in accordance with the rehabilitation plan to assist natural regeneration. Surface roughness is encouraged when spreading topsoil in order to trap water and seeds;
- The cleared ROW will be re-profiled to a stable landform consistent with the surrounding area by establishing drainage lines and slopes with low erosive potential, replacing topsoil evenly over subsoil and establishing a protective vegetative cover by seeding with grass species;

- Reinstatement of the ROW will not result in permanent settlement mounds being left. Temporary raised profile (camber) over the trench may be present temporarily between backfilling and compaction and will be levelled off during compaction.

Establishing vegetation as an effective ground cover is a key element of stabilising soils and landscapes. Grasses are particularly effective because of their fibrous root systems. Progressive rehabilitation is standard following pipeline construction, generally commencing as soon as all pipeline infrastructure is in place and continuous access along the easement is no longer required.

All waste materials will be removed from the work area, and recycled, or disposed of.

Areas required to remain open for ongoing operational access for project operations (area immediately above pipelines) will be revegetated with pasture grasses (where grazing and cropping is the final land use), or native grasses and ground cover species (where native vegetation is the final land use).

#### 7.8.1 Seeding at Reinstatement

Seeding requirements are to be selected based on the final land use and may be subject to change by the landholders. The seeding mixes included in this plan have been chosen based on the following:

- Species adapted to local soils and rainfall
- Range of species to allow flexibility depending on seed availability
- Legumes included to improve long term growth
- Mix of species to encourage persistence
- Species include stoloniferous and tussock grasses to provide good cover
- Species are desirable for the land use
- Cover crop with seasonal specific species for quick cover establishment.

The following seed mixes, cover crops and associated application rates are to be applied when rehabilitating disturbed areas. The cover crops are to be applied to all seed mixes taking into consideration seasonality:

- Summer – Japanese millet or French millet at 20 kg/ha
- Winter – Barley, oats, wheat or rye grass (Italian or perennial) at 20 kg/ha

Pasture heavy soils (Vertosols and Dermosols)

- Seed mix – Biloela Buffel (30%), Creeping Blue Grass (Bissett Hatch) (20%), Katambora Rhodes (20%), Indian Blue Grass (10%), Bambatsii Panic (10%), Burgundy Bean (10%)
- Application rate – 10 kg/ha

Pasture light soils (Tenosols, Rudosols, Sodosols, Kandosols)

- Seed mix – USA buffel (25%), Gayndah buffel (25%), Creeping Blue Grass (Bissett Hatch) (10%), Indian Blue Grass (10%), Siran stylo (10%), Amiga stylo (10%), Wynn Cassia (10%).
- Application rate – 10 kg/ha

Remnant vegetation

- Natural regeneration is the preferred option.
- If there is insufficient mulch, seed with cover crop.

Cultivated areas

- Cover crop or as directed by landholder (depending on timing, landholder likely to be planting or preparing to plant a crop).

## 7.9 Operational Activities

All impacted land will be returned to its pre-project landform and land use in accordance with RCWP EA conditions and requirements for SCL. Rehabilitation will be undertaken progressively following the completion of construction of pipeline sections to achieve a landform that is:

- safe to humans and wildlife;
- non-polluting;
- stable; and
- able to sustain an appropriate land use after rehabilitation or restoration. This includes the continuation of many agricultural activities, in particular cropping and grazing.
- On SCL, land is to be returned to its pre-existing capacity.

Shallow root cropping and grasslands re-establishment are encouraged and no long term impacts would be expected to land uses that rely on cropping and grazing primary production.

## 7.10 Decommissioning

The pipeline will be decommissioned and left buried to a minimum depth of 900mm. Decommissioning will be undertaken in accordance with relevant legislation at the time of decommissioning. Significantly disturbed land will be rehabilitated in accordance with the final acceptance criteria as required by the RCWP EA.

# 8. Financial Assurance

APA are required by the RCWP EA to provide financial assurance for the RCWP (PPL 20 23) prior to any disturbance. This FA provides for the rehabilitation of land back to its original landform.

# 9. Assessment Application Fee

The expected area of impact relating to this application is greater than 100 ha, therefore in accordance with RPI Regulation, Schedule 4, Part 4, the application fee for this application is \$24,194.00. Details of payment of the application fee is included on the Application Form.

# 10. Resource Activity Approvals

The RCWP will be constructed and operated in accordance with:

- Petroleum Pipeline Licence 2023 (PPL 2023) and the requirements of the P&G Act;
- Environmental Authority (EA BRPG003) and the requirements of the EP Act;
- RIDA (once granted).

## 11. Required Assessment Outcomes

The required outcomes and prescribed solutions for activities carried out in an SCA are detailed in Schedule 2, Part 4 of the RPI Regulation 2014. The evidence/response for Outcomes 1 to 3 for the RCWP are provided in Tables 6 – 8.

**Table 9 : SCA Assessment Criteria – Required Outcome 1**

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

**Table 10 : SCA Assessment Criteria – Required Outcome 2**

<b>Required Outcome 2 – Managing impacts on strategic cropping land on property (SCL) in the strategic cropping area</b>	
<p>(1) This section applies if the activity—</p> <ul style="list-style-type: none"> <li>(a) does not meet required outcome 1; and</li> <li>(b) is being carried out on a property (SCL) in the strategic cropping area.</li> </ul> <p>(2) The activity will not result in a material impact on strategic cropping land on the property (SCL).</p>	
<b>Prescribed Solution</b>	<b>Evidence / Response</b>
<b>PS2</b> : (1) The application demonstrates all of the following	The application does not seek to demonstrate that the area of SCA to be impacted by the activity is not SCL.
(a) if the applicant is not the owner of the land and has not entered into a voluntary agreement with the owner—the applicant has taken all reasonable steps to consult and negotiate with the owner of the land about the expected impact of carrying out the activity on strategic cropping land	The applicant is not the owner of land. A summary of landholder consultation undertaken is provided in Section 6. Voluntary agreements and CCA's reached with landholders are summarised in Table 1).
(b) the activity can not be carried out on land that is not strategic cropping land, including, for example, land elsewhere on the property (SCL), on adjacent land or at another nearby location	<p>The pipeline is aligned in a south-westerly direction due to the location of the pipeline end points. The vast majority of land between these two points is mapped as SCL and could not be avoided.</p> <p>Origin (initially) and APA have undertaken a</p>

	<p>comprehensive route selection process which included provision for SCL.</p> <p>The pipeline cannot be entirely carried out on land that is not strategic cropping land due to the extent SCL on the pipeline alignment and consideration of other constraints as detailed in Section 4.</p>
(c) the construction and operation footprint of the activity on strategic cropping land on the property (SCL) is minimised to the greatest extent possible;	<p>The construction and operation of the footprint activity on SCL is minimised to the greatest extent possible (maximum 30m ROW) to allow for the safe installation of the pipeline while also ensuring good environmental outcomes through separation and stockpiling of topsoils and subsoils during construction for use in restoration. Refer to Section 5 &amp; 7.3 for additional information.</p>
(d) if the activity will have a permanent impact on strategic cropping land on a property (SCL)—no more than 2% of the strategic cropping land on the property (SCL) will be impacted.	<p>Impacted SCL will be returned to pre-activity use and productive capacity through implementation of the soil management measures detailed in Section 7.</p>

**Table 11 : SCA Assessment Criteria – Required Outcome 3**

Required Outcome 3 – Managing impacts on strategic cropping land for a region	
<p>(1) This section applies if the activity—</p> <ul style="list-style-type: none"> <li>(a) does not meet required outcome 1; and</li> <li>(b) is being carried out on two or more properties (SCL) in the strategic cropping area.</li> </ul> <p>(2) The activity will not result in a material impact on strategic cropping land in an area in the strategic cropping area.</p>	
Prescribed Solution	Evidence / Response
<b>PS3</b> : (1) The application demonstrates all of the following	
(a) the activity cannot be carried out on other land in the area that is not strategic cropping land, including, for example, land elsewhere on the property (SCL), on adjacent land or at another nearby location;	<p>The pipeline is aligned in a south-westerly direction due to the location of the pipeline end points. The vast majority of land between these two points is mapped as SCL and could not be avoided.</p> <p>Origin (initially) and APA have undertaken a comprehensive route selection process which included provision for SCL.</p> <p>The pipeline cannot be entirely carried out on land that is not strategic cropping land due to the extent SCL on the pipeline alignment and consideration of other constraints as detailed in Section 5.</p>

<p>(b) if there is a regional plan for the area in which the activity is to be carried out—the activity will contribute to the regional outcomes, and be consistent with the regional policies, stated in the regional plan</p>	<p>The RCWP is located in the Maranoa Regional Council which forms part of the <b>Maranoa-Balonne Regional Plan</b>. The Maranoa-Balonne Regional Plan sets out desired regional outcomes, which identify aspirations for ecological sustainability for the region. Regional Outcomes relevant to the pipeline development are outlined below</p> <p><u>Regional Outcome – Natural Environment:</u> <i>The region's natural assets are valued and managed to sustain a healthy, functioning natural environment, resilient to the impacts of climate change.</i></p> <p><u>Objective – Protecting Biodiversity &amp; Ecological Processes :</u> <i>To protect, manage and enhance the extent, diversity, condition and connectivity of the region's natural areas to maintain ecological integrity and processes, reverse biodiversity decline and increase resilience to the expected impacts of climate change.</i></p> <p>The RCWP has been located to avoid areas of ecological sensitivity as far as possible. Disturbance to remnant vegetation has been minimised and unavoidable residual impacts have been offset in accordance with EA requirements.</p> <p><u>Regional Outcome – Natural Resource Management</u> <i>The productive capacity and social and cultural values of the region's landscapes and supporting ecosystems are maintained through the stewardship of informed resource managers.</i></p> <p>Development and assessment of the RCWP has involved the completion of field studies which have assessed the ecological, cultural and soil/cropping land values of the proposed alignment and informed the refinement of the alignment and measures to minimise impacts to local values.</p> <p><u>Objective – Water Access and Sustainable Use :</u> <i>To ensure that the use of surface water and groundwater resources for urban and non-urban purposes is sustainable, thereby maintaining aquatic ecosystems, protecting environmental values and responding to climate change impacts.</i></p> <p>Temporary water requirements for construction of the pipeline will be via reuse of produced water from a local gas production facility and from existing bores, which will not adversely impact</p>
---	---



	<p>aquatic values.</p> <p><u>Objective – Primary Production Sustainability</u> : To ensure the long-term prosperity and sustainability of primary production while maintaining environmental values.</p> <p>Impacts to cropping land have been avoided and minimised as outlined in Section 7 of this document.</p> <p><u>Objective – Pest Management</u> : To manage known animal and plant pests for the protection of present and future land use and economic opportunities.</p> <p>Comprehensive pest management measures will be implemented throughout project development and will include: weed surveys and treatment ahead of construction, vehicle and equipment washdowns, control of access, ongoing monitoring and control if outbreaks occur – to protect present and future land uses.</p> <p><u>Regional Outcome - Economic Development</u> : A robust, dynamic regional economy building on historic strengths, operating within the limits of natural systems and responding to new opportunities, so that balanced economic, social and environmental dividends accrue from sound business investments.</p> <p><u>Objective – Primary Production Prosperity</u> : To strengthen rural industries in a sustainable manner by increasing adaptability and productivity, value adding and expanding market access.</p> <p>The RCWP has been designed to ensure that impacts on rural activities are temporary and that activities can recommence upon completion of construction and will not impact on the ability to achieve the desired objective.</p> <p><u>Objective – To broaden Maranoa–Balonne’s economic base, employment and business investment, by taking advantage of the opportunities afforded by development of the oil, mineral and gas extraction industry. Energy and Mineral Resource Development.</u></p> <p>The RCWP will provide a vital connection between Australia Pacific LNGs (APLNGs) Reedy Creek gas processing plant (which is connected to the APLNGs export pipeline system) and APA’s existing Wallumbilla Gas Hub, thereby supporting the development of the gas extraction industry in the region.</p>
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	<p><u>Regional Outcome – Infrastructure</u> : <i>A coordinated, safe and efficient network of all facets of infrastructure, which is well maintained and underpins the social, economic and environmental health of the region.</i></p> <p><u>Objective – Delivering Regional Infrastructure</u> : <i>To provide and maintain all facets of infrastructure in a transparent, coordinated and planned manner. The RCWP will provide a vital connection between Australia Pacific LNGs (APLNGs) Reedy Creek gas processing plant (which is connected to the APLNGs export pipeline system) and APA's existing Wallumbilla Gas Hub. The pipeline alignment has been developed via extensive consultation with existing infrastructure owners in the area consistent with the above objective.</i></p> <p><u>Objective – Transport Networks</u> : <i>To maintain at its current standard, or develop to a better standard, a transport network that supports economic development, healthy lifestyle choices and demographic needs, and allows people and goods to move in a safe, efficient and sustainable manner.</i></p> <p>The proposed pipeline will not impact on the ability of the transport network to achieve this objective.</p> <p>The RCWP is located in the Maranoa Regional Council which also forms part of the Darling Downs Region. The <b>Darling Downs Regional Plan</b> identifies regional outcomes for the Darling Downs and the regional policies for achieving the regional outcomes.</p> <p><u>Regional Outcome 1:</u> <i>Agriculture and resources industries within the Darling Downs region continue to grow with certainty and investor confidence.</i></p> <p><u>Regional policy 1:</u> <i>Protect Priority Agricultural Land Uses within Priority Agricultural Areas.</i></p> <p><u>Regional policy 2:</u> <i>Maximise opportunities for co-existence of resource and agricultural land uses within Priority Agricultural Areas.</i></p> <p>The RCWP will provide a vital connection between Australia Pacific LNGs (APLNGs) Reedy Creek gas processing plant (which is connected to the APLNGs export pipeline system) and APA's existing Wallumbilla Gas Hub. APA's Wallumbilla Gas Hub is a strategic point in the east coast gas market, providing connection to APA's 7,500-kilometre East Coast Grid of interconnected gas transmission pipelines.</p> <p>The proposed activity does not impact on the</p>
--	---

	<p>Darling Downs Regional Policies 1 and 2 as it not located within a Priority Agricultural Area.</p> <p><u>Regional outcome 2:</u>  <i>The growth potential of towns within the Darling Downs region is enabled through the establishment of Priority Living Areas. Compatible resource activities within these areas which are in the communities' interest can be supported by local governments.</i></p> <p><u>Regional policy 3:</u> Safeguard the areas required for the growth of towns through establishment of Priority Living Areas (schedule 1).</p> <p><u>Regional policy 4:</u> Provide for resource activities to locate within a Priority Living Area where it meets the communities' expectations as determined by the relevant local government.</p> <p>The proposed activity does not impact on Regional Outcome 2 or Regional Policies 3 or 4 as it not located within a Priority Living Area.</p>
(c) the construction and operation footprint of the activity on strategic cropping land is minimised to the greatest extent possible	<p>The construction and operation of the footprint activity on SCL is minimised to the greatest extent possible (maximum 30m ROW) to allow for the safe installation of the pipeline while also ensuring good environmental outcomes through separation and stockpiling of topsoils and subsoils during construction for use in restoration. Refer to Section 5 &amp; 7.3 for additional information.</p>
<p>(d) either—</p> <p>(i) the activity will not have a permanent impact on the strategic cropping land in the area; or</p> <p>(ii) the mitigation measures proposed to be carried out if the chief executive decides to grant the approval and impose an SCL mitigation condition</p>	<p>Impacted SCL will be returned to pre-activity use and productive capacity through implementation of the soil management measures detailed in Section 7.</p>
(2) Subsection (3) applies for each property (SCL) on which the activity is to be carried out if the applicant is not the owner of the land and has not entered into a voluntary agreement with the owner.	<p>Refer to Table 10 : SCA Assessment Criteria – Required Outcome 2</p>
(3) The application must demonstrate the matters listed in this schedule, section 11 or a prescribed solution for required outcome 2 for the property (SCL).	

## Application

RCWP Supporting Information – RIDA for SCA



# Appendix A Statutory Declaration regarding Voluntary Agreements

## Statutory Declaration

QUEENSLAND  
TO WIT

I, Warren Twist

of Level 1, 121 Wharf Street Spring Hill Qld 4000

in the State of Queensland

do solemnly and sincerely declare that

Voluntary Agreement with the land owners of the following land parcels has been reached pursuant to Section 22 of the Regional Planning Interests Act for the construction and operation of the Reedy Creek Wallumbilla Pipeline :

29SP248282  
1RP200573  
3RP200573  
160WV550  
161WV552  
162WV799  
163WV799  
638WV1528  
51SP113919  
1SP200055  
2SP200055  
2CP899219

And I make this solemn declaration conscientiously believing the same to be true, and by virtue of the provisions of the Oaths Act 1867.



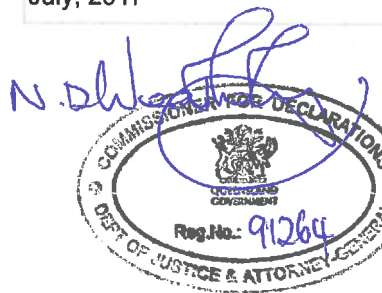
Signature of declarant/deponent

Taken and declared before me at

Brisbane

this third

day of July, 2017



A Justice of the  
Peace/Commissioner for  
Declarations.

**Neil David WEATHERLY**

Com. for Declarations No. 91264

21 Nigella Circuit  
Drewvale Qld. 4116

## Appendix B      FIGURES

**Figure 1 : Pipeline Route**

Q-03-101-MAP-L-0113

**Figure 2 : Route History**

Q-03-101-MAP-L-0114

**Figure 3 : Overlapping Petroleum Resource Authorities**

Q-03-101-MAP-L-0040

**Figure 4 : Overlapping Coal Resource Authorities**

Q-03-101-MAP-L-0039





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**PROJECT:** REEDY CREEK WALLUMBILLA PIPELINE

**TITLE:** Pipeline Route

**SUBTITLE:** Figure 1

**DATE:** 23/06/2017

**DATA SOURCE:**  
 ESRI, APA Group, State of Queensland 2016-2017 (DNRM)

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

**SCALE:** 1:180,000 @ A3 GDA 1994 MGA Zone 55

Kilometres

**LEGEND:**

- Populated Places
- Transport Pipeline - Current Alignment (Rev 0.4)
- APA - Pipelines
- Railway
- Major Watercourse
- DCDB - Lot
- DCDB - Road
- Strategic Cropping Land

**TENURE**

- Lands Lease
- Freehold

**DOCUMENT NUMBER:** Q-03-101-MAP-L-0113

Revision	Description	Drawn	Checked	QC	Approved	Date
0.1	ISSUED FOR INFORMATION	JRB	KD	SA	WT	23/06/17

**AREA OF DETAIL:**

NT QLD SA NSW

MORANBAH GLADSTONE ROMA BRISBANE

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Template Version B

\\pelinetrustapps\GIS\Projects\Wallumbilla\_Reedy\_Creek\Maps\Q-03-101-MAP-L-0113\_RWP\_Pipeline\_Route\_v0\_1.mxd - 23 Jun 2017 - jasbal







149°10'0"E

149°15'0"E

149°20'0"E

26°35'0"S

26°35'0"S

26°40'0"S

26°40'0"S

149°10'0"E

149°15'0"E

149°20'0"E



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**PROJECT:** REEDY CREEK WALLUMBILLA PIPELINE

**TITLE:** Route History

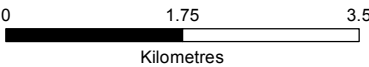
**SUBTITLE:** Figure 2 - Map 2 of 2

**DATE:** 23/06/2017

**DATA SOURCE:**  
ESRI, APA Group, State of Queensland 2016-2017 (DNRM)

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

**SCALE:** 1:75,000 @ A3 GCS GDA 1994



**LEGEND:**

- RWP KPs
- Populated Places
- Facility
- RWP - Current Alignment (Rev 0.4)
- Other Alignments Considered
- Principal Road
- Secondary Road
- Minor Road
- Railway
- Watercourse
- DCDB
- Strategic Cropping Land
- Essential Habitat
- EHP Protected Area
- Mapped Regional Ecosystems**
- Biodiversity Status**
- No Concern
- Of Concern
- Endangered

**DOCUMENT NUMBER:** Q-03-101-MAP-L-0114

Revision	Description	Drawn	Checked	QC	Approved	Date
1.0	ISSUED FOR USE	JRB	KD	SA	WT	23/06/17

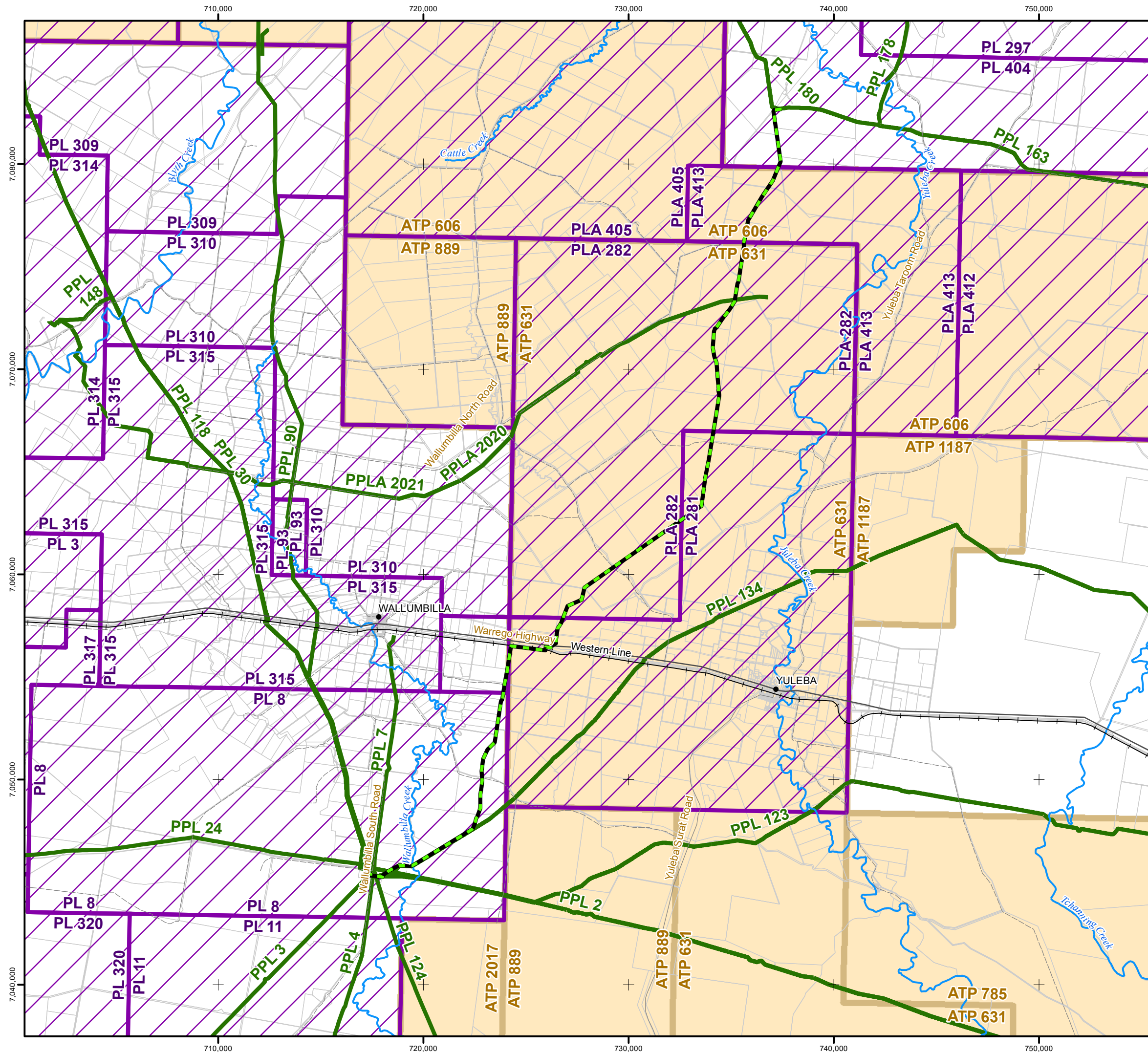
**AREA OF DETAIL:**



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\\pplnetrustapps\GIS\Projects\Wallumbilla\_Reedy\_Creek\Maps\Q-03-101-MAP-L-0114\_RWP\_Route\_History\_v0\_1.mxd - 23 Jun 2017 - jasbal





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**PROJECT:** REEDY CREEK WALLUMBILLA PIPELINE

<b>TITLE:</b>	Overlapping EPP, PL & PPL
---------------	---------------------------

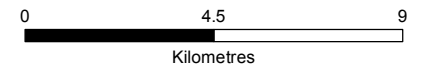
**SUBTITLE:** Figure 3

**DATE:** 26/06/2017

**DATA SOURCE:**  
ESRI, APA Group, State of Queensland 2016 (DNRM)

Service Layer Credits:

**SCALE:** 1:180,000 @ A3 GDA 1994 MGA Zone 55



**LEGEND:**

- Populated Places
- RWP Transport Pipeline - Current Alignment
- +— Railway
- Principal Road
- Secondary Road
- - - Minor Road
- Major Watercourse
- PPL
- EPP
- PL
- DCDB

**DOCUMENT NUMBER: Q-03-101-MAP-L-0040**

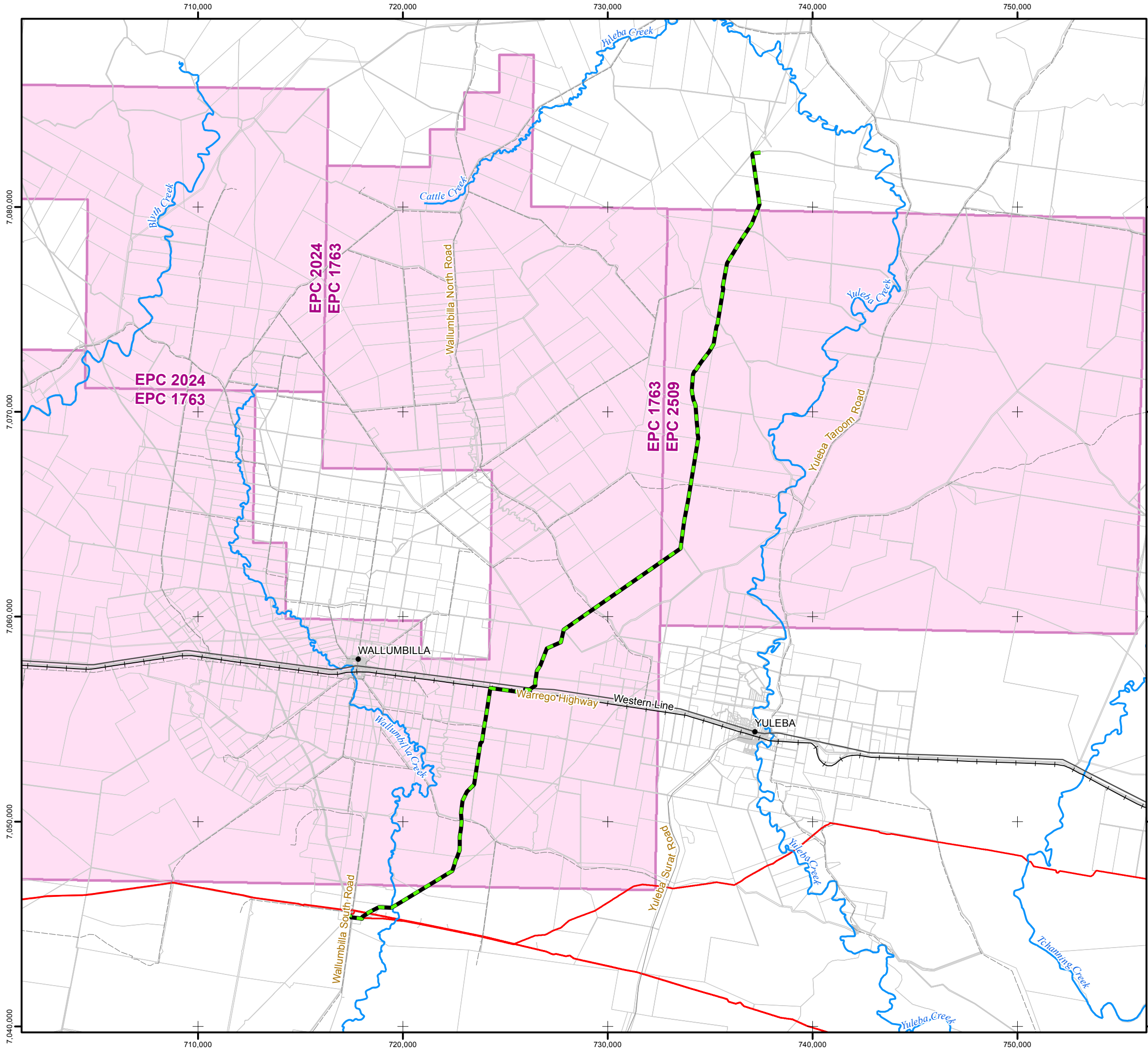
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0.3	ISSUED FOR INFORMATION	JRB	KD	SA	WT	04/11/16
0.2	ISSUED FOR INFORMATION	JRB	KD	SA	PK	26/10/16
0.1	ISSUED FOR REVIEW	JRB	KD	SA	PK	25/10/16
Revision	Description	Drawn	Checked	QC	Approved	Date

**AREA OF DETAIL:**



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**PROJECT:** REEDY CREEK WALLUMBILLA PIPELINE

**TITLE:** Overlapping EPC

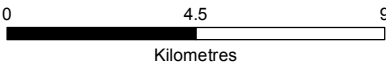
**SUBTITLE:** Figure 4

**DATE:** 26/06/2017

**DATA SOURCE:**  
ESRI, APA Group, State of Queensland 2016 (DNRM)

Service Layer Credits:

**SCALE:** 1:180,000 @ A3 GDA 1994 MGA Zone 55



**LEGEND:**

- Populated Places
- Transport Pipeline - Current Alignment
- APA - Pipelines
- Railway
- Principal Road
- Secondary Road
- Minor Road
- Major Watercourse
- EPC
- DCDB

**DOCUMENT NUMBER:** Q-03-101-MAP-L-0039

0.4	ISSUED FOR INFORMATION	JRB	KD	AT	WT	26/06/17
0.3	ISSUED FOR INFORMATION	JRB	KD	SA	WT	04/11/16
0.2	ISSUED FOR INFORMATION	JRB	KD	SA	PK	26/10/16
0.1	ISSUED FOR REVIEW	JRB	KD	SA	PK	25/10/16
Revision	Description	Drawn	Checked	QC	Approved	Date

**AREA OF DETAIL:**



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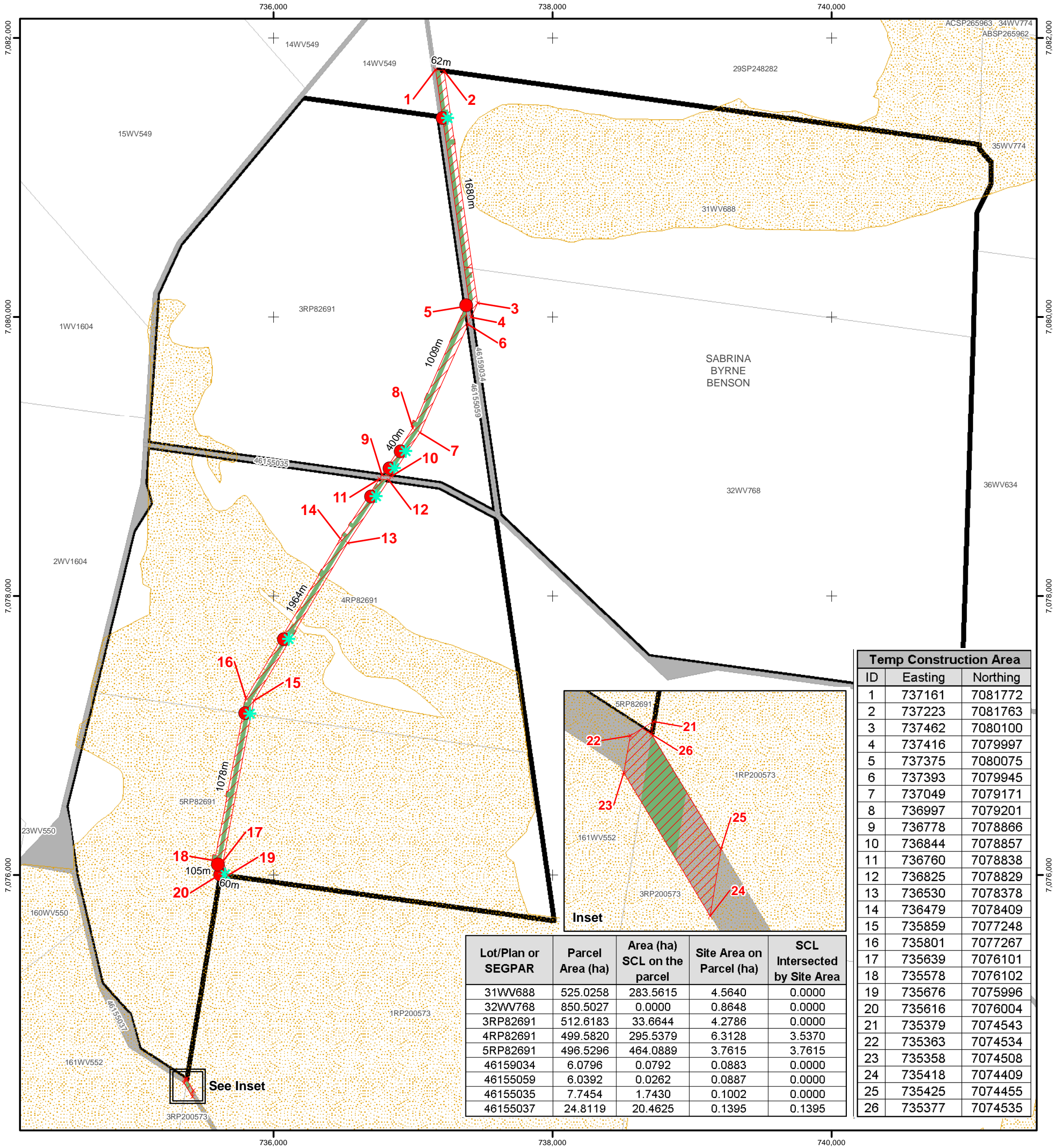
## Appendix C Property Figures

Table 12 : List of Property Figures

Property Description	Owner	Figure Reference
4RP82691, 5RP82691	SABRINA BYRNE BENSON	Q-03-101-MAP-L-0100
	Unnamed Road reserve between 1RP200573 & 3RP200573	Q-03-101-MAP-L-0100
164WV1353	NOEL WILLIAM YORK & BEVERLEY EDNA YORK	Q-03-101-MAP-L-0101
19WV623	CECIL R CLELAND	Q-03-101-MAP-L-0102
6WAL5395, 21WAL5395	CECIL ROY CLELAND & PATRICIA CLELAND	Q-03-101-MAP-L-0103
	Kangaroo Creek Road	Q-03-101-MAP-L-0103
633WV891	DONNA MAREE WEBER	Q-03-101-MAP-L-0104
	Warrego Highway	Q-03-101-MAP-L-0105
	Unnamed Road Reserve between 51SP113919 & 421WV898	Q-03-101-MAP-L-0105
421WV898	GEOFFREY ROBERT SCOTT	Q-03-101-MAP-L-0105
	Seawrights Road	Q-03-101-MAP-L-0106
426WAL53597	JASON ANDREW CHASELING	Q-03-101-MAP-L-0106
	1AP9006 - Temporarily Closed Road between 427WAL53708 & 8WAL53372	Q-03-101-MAP-L-0107
427WAL53708, 8WAL53372, 481WAL53298, 9WAL53378, 482WAL53378	OWEN CHARLES AND JANINE MAY YORK	Q-03-101-MAP-L-0107
653WV235, 653WV454	BERYL ELIZABETH & NEIL WILLIAM YORK	Q-03-101-MAP-L-0108
	1RL875 - Temporarily Closed Road between 653WV235 & 653WV454	Q-03-101-MAP-L-0108

Property Description	Owner	Figure Reference
	Yarrawonga Road	Q-03-101-MAP-L-0108
1SP216096	GLENYS MICHELLE HUGHES	Q-03-101-MAP-L-0111
2SP216096	OIL INVESTMENTS PTY LTD	Q-03-101-MAP-L-0112
46179017	Wallumbilla South Road	Q-03-101-MAP-L-0112





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LEGEND:

- Heavy Vehicle Crossing Post Construction
- Stock/Vehicle Crossing During Construction
- Temporary Construction Area
- Site Area
- Property Boundary
- Road
- Strategic Cropping Land

SCALE:

1:26,300 @ A3

GDA 1994 MGA Zone 55



PROJECT: REEDY CREEK WALLUMBILLA PIPELINE

TITLE: Strategic Cropping Land Site Plan

SUBTITLE: 3RP82691,4RP82691,5RP82691,31WV688,32WV768

DATE: 14/07/2017

DATA SOURCE:

ESRI, APA Group, State of Queensland 2016-2017 (DNRM)

Property boundaries adjusted based on APA survey.

DOCUMENT NUMBER: Q-03-101-MAP-L-0100

Revision	Description	Drawn	Checked	QC	Approved	Date
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0.2	ISSUED FOR INFORMATION	JRB	KD	AT	WT	05/07/17
0.1	ISSUED FOR REVIEW	JRB	KD	SA	WT	09/06/17

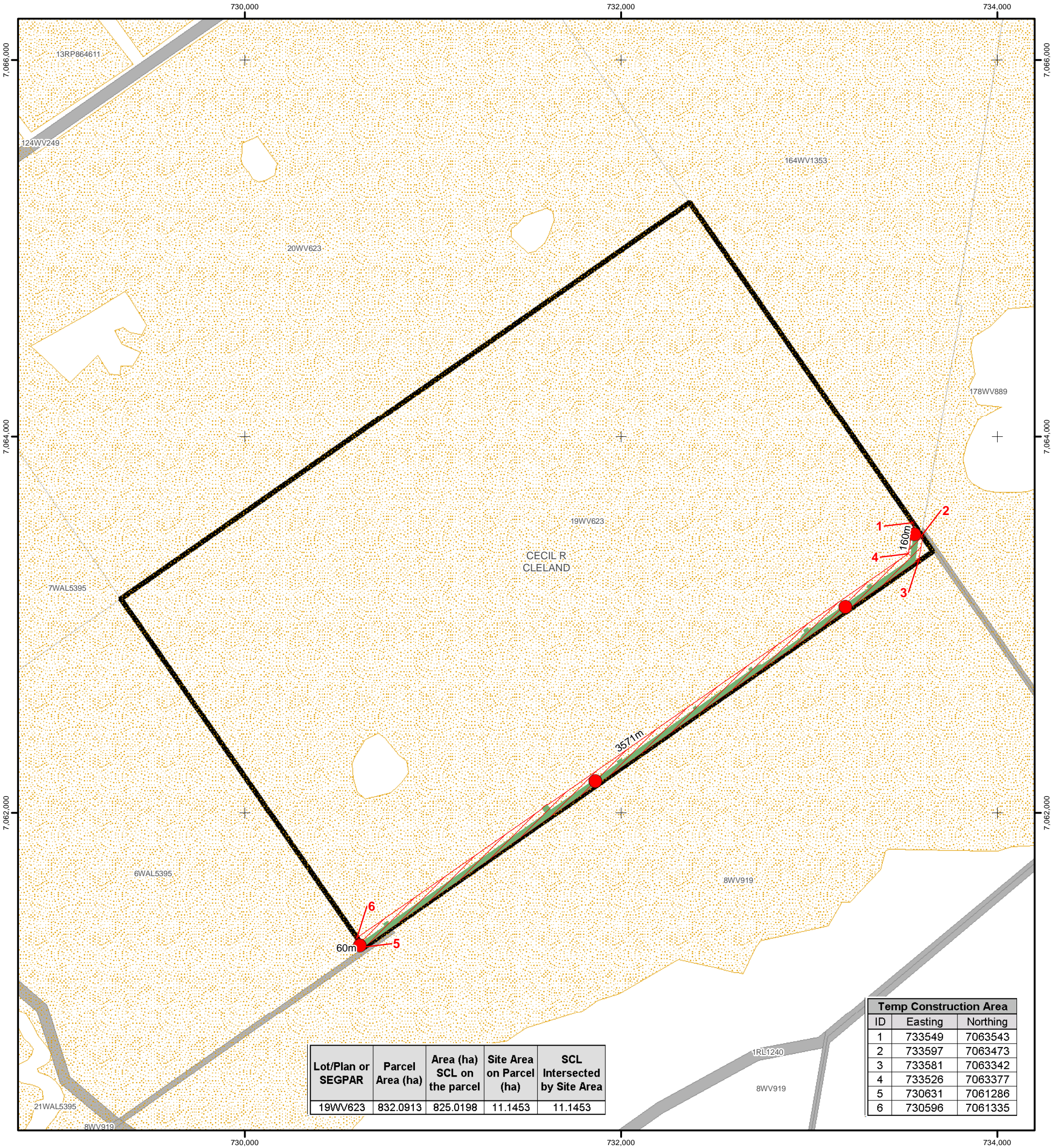
LANDHOLDER: SABRINA BYRNE BENSON

ROAD PARCELS: 46159034, 46155059, 46155035



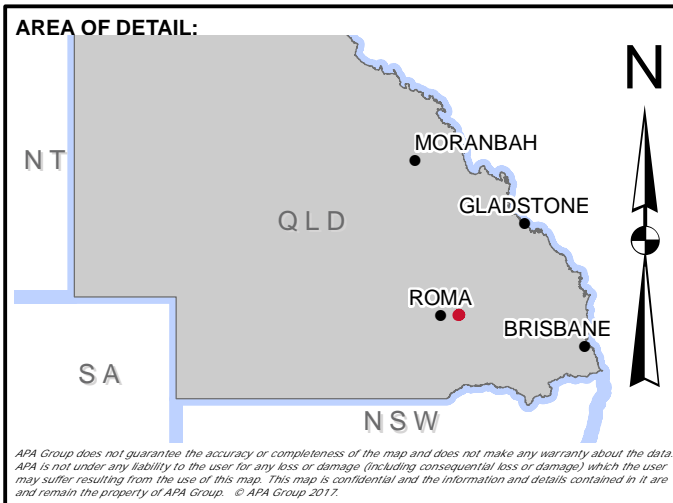






Lot/Plan or SEGPAR	Parcel Area (ha)	Area (ha) SCL on the parcel	Site Area on Parcel (ha)	SCL Intersected by Site Area
19WV623	832.0913	825.0198	11.1453	11.1453

Temp Construction Area		
ID	Easting	Northing
1	733549	7063543
2	733597	7063473
3	733581	7063342
4	733526	7063377
5	730631	7061286
6	730596	7061335



**LEGEND:**

- Heavy Vehicle Crossing Post Construction
- Stock/Vehicle Crossing During Construction
- Temporary Construction Area
- Site Area
- Property Boundary
- Road
- Strategic Cropping Land

**SCALE:** 1:19,500 @ A3 GDA 1994 MGA Zone 55

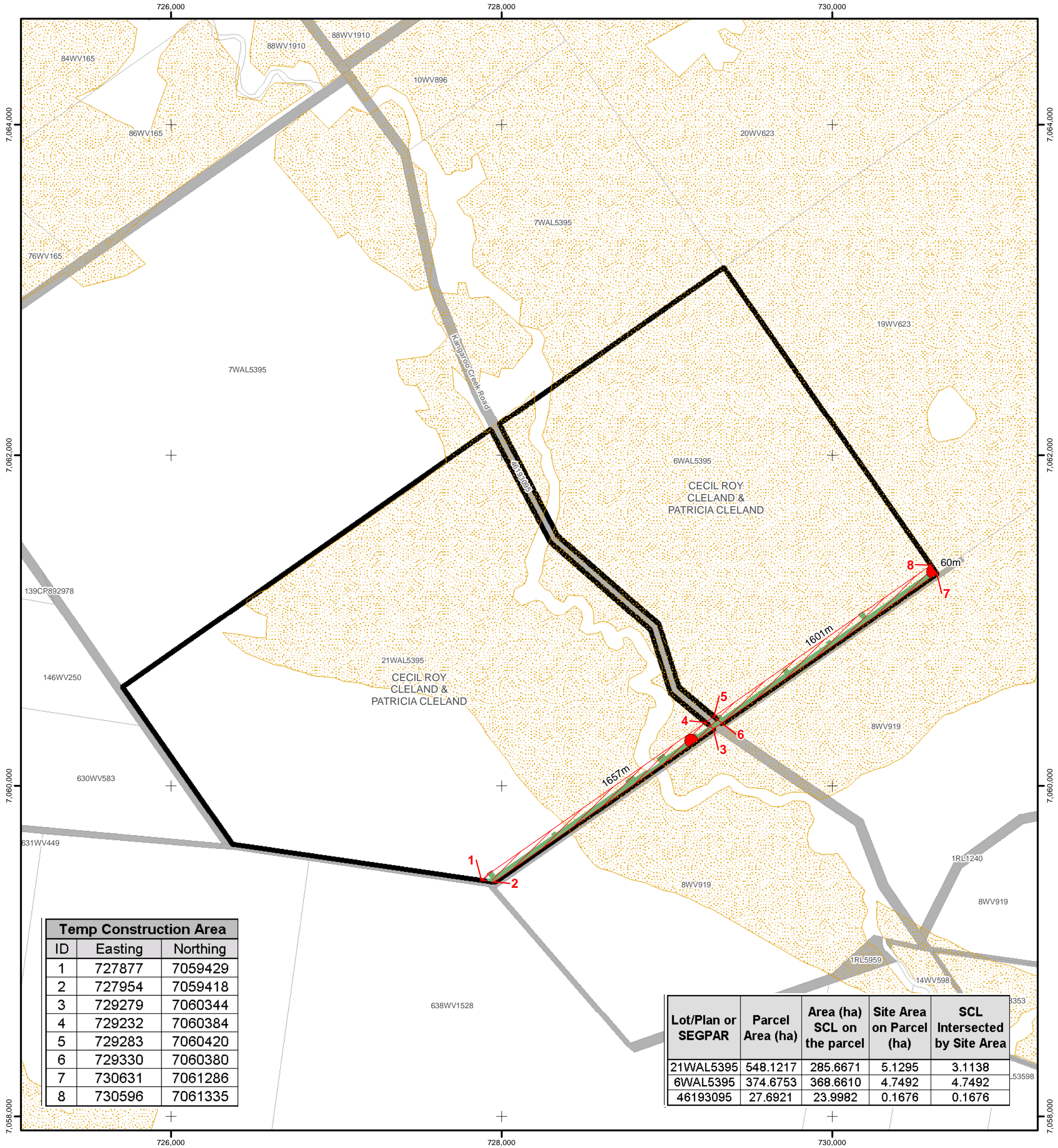
0 0.5 1 Kilometres

<b>PROJECT:</b> REEDY CREEK WALLUMBILLA PIPELINE						
<b>TITLE:</b> Strategic Cropping Land Site Plan						
<b>SUBTITLE:</b> 19WV623						
<b>DATE:</b> 5/07/2017						
<b>DATA SOURCE:</b> ESRI, APA Group, State of Queensland 2016-2017 (DNRM)  Property boundaries adjusted based on APA survey.						
<b>DOCUMENT NUMBER:</b> Q-03-101-MAP-L-0102						
0.2	ISSUED FOR INFORMATION	JRB	KD	AT	WT	05/07/17
0.1	ISSUED FOR REVIEW	JRB	KD	SA	WT	09/06/17
Revision	Description	Drawn	Checked	QC	Approved	Date
<b>LANDHOLDER:</b>		CECIL R CLELAND				
<b>ROAD PARCELS:</b>		NONE				

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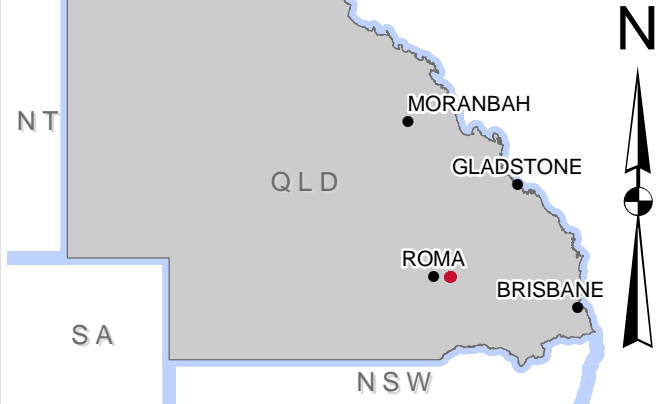




Temp Construction Area		
ID	Easting	Northing
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2	727954	7059418
3	729279	7060344
4	729232	7060384
5	729283	7060420
6	729330	7060380
7	730631	7061286
8	730596	7061335

Lot/Plan or SEGP	Parcel Area (ha)	Area (ha) SCL on the parcel	Site Area on Parcel (ha)	SCL Intersected by Site Area
21WAL5395	548.1217	285.6671	5.1295	3.1138
6WAL5395	374.6753	368.6610	4.7492	4.7492
46193095	27.6921	23.9982	0.1676	0.1676

AREA OF DETAIL:



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LEGEND:

- Heavy Vehicle Crossing Post Construction
- Stock/Vehicle Crossing During Construction
- Temporary Construction Area
- Site Area
- Property Boundary
- Road
- Strategic Cropping Land

PROJECT: REEDY CREEK WALLUMBILLA PIPELINE

TITLE: Strategic Cropping Land Site Plan

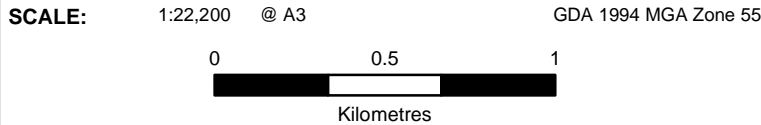
SUBTITLE: 6WAL5395,21WAL5395

DATE: 5/07/2017

DATA SOURCE:  
ESRI, APA Group, State of Queensland 2016-2017 (DNRM)  
Property boundaries adjusted based on APA survey.

DOCUMENT NUMBER: Q-03-101-MAP-L-0103

Revision	Description	Drawn	Checked	QC	Approved	Date
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0.1	ISSUED FOR REVIEW	JRB	KD	SA	WT	09/06/17



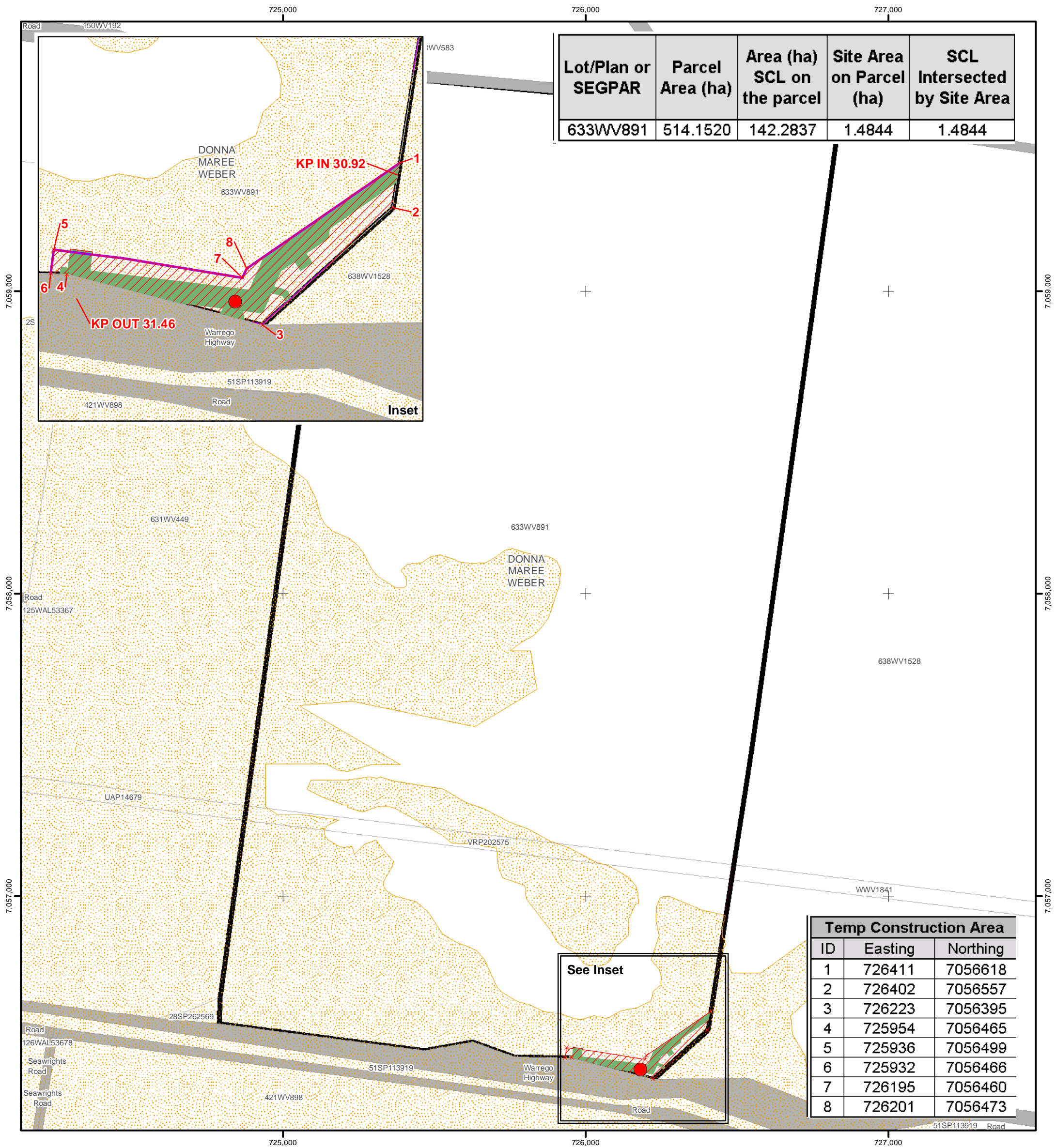
LANDHOLDER: CECIL ROY CLELAND & PATRICIA CLELAND

ROAD PARCELS: 46193095 (Kangaroo Creek Road)

APA Group  
Phone: +61 7 3323 6100  
Web: [www.apa.com.au](http://www.apa.com.au)  
Email: [Warren.Twist@apa.com.au](mailto:Warren.Twist@apa.com.au)

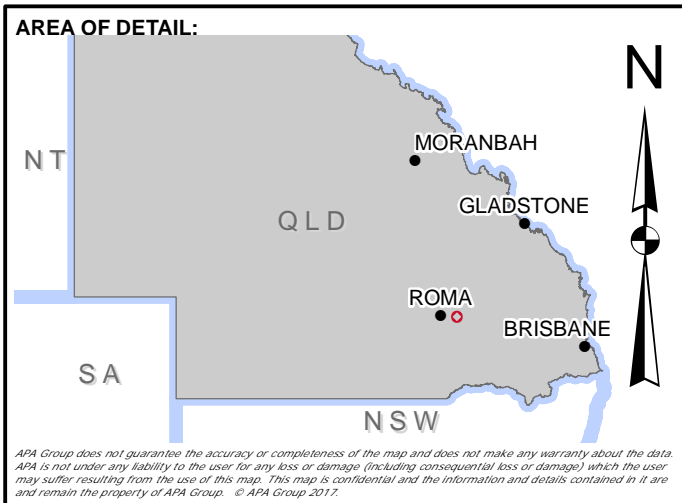






Lot/Plan or SEGP	Parcel Area (ha)	Area (ha) SCL on the parcel	Site Area on Parcel (ha)	SCL Intersected by Site Area
633WV891	514.1520	142.2837	1.4844	1.4844

Temp Construction Area		
ID	Easting	Northing
1	726411	7056618
2	726402	7056557
3	726223	7056395
4	725954	7056465
5	725936	7056499
6	725932	7056466
7	726195	7056460
8	726201	7056473



**LEGEND:**

- Heavy Vehicle Crossing Post Construction
- Stock/Vehicle Crossing During Construction
- Temporary Construction Area
- Site Area
- Property Boundary
- Road
- Strategic Cropping Land

**SCALE:** 1:12,100 @ A3 GDA 1994 MGA Zone 55

0 0.425 0.85 Kilometres

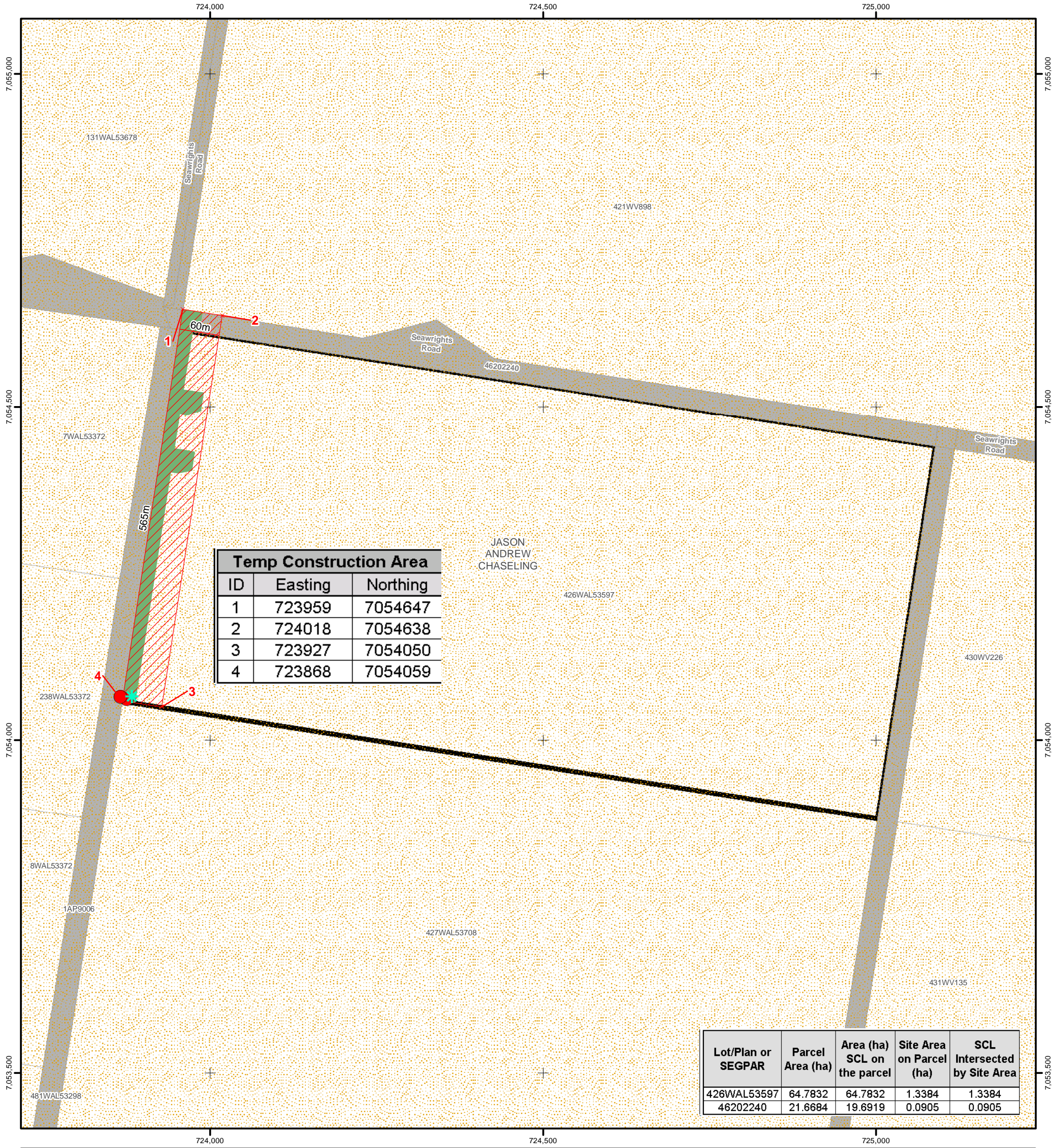
<b>PROJECT:</b> REEDY CREEK WALLUMBILLA PIPELINE						
<b>TITLE:</b> Strategic Cropping Land Site Plan						
<b>SUBTITLE:</b> 633WV891						
<b>DATE:</b> 5/07/2017						
<b>DATA SOURCE:</b> ESRI, APA Group, State of Queensland 2016-2017 (DNRM)						
Property boundaries adjusted based on APA survey.						
<b>DOCUMENT NUMBER:</b> Q-03-101-MAP-L-0104						
0.2	ISSUED FOR INFORMATION	JRB	KD	AT	WT	05/07/17
0.1	ISSUED FOR REVIEW	JRB	KD	SA	WT	09/06/17
Revision	Description	Drawn	Checked	QC	Approved	Date

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Email: [Warren.Twist@apa.com.au](mailto:Warren.Twist@apa.com.au)

**LANDHOLDER:** DONNA MAREE WEBER

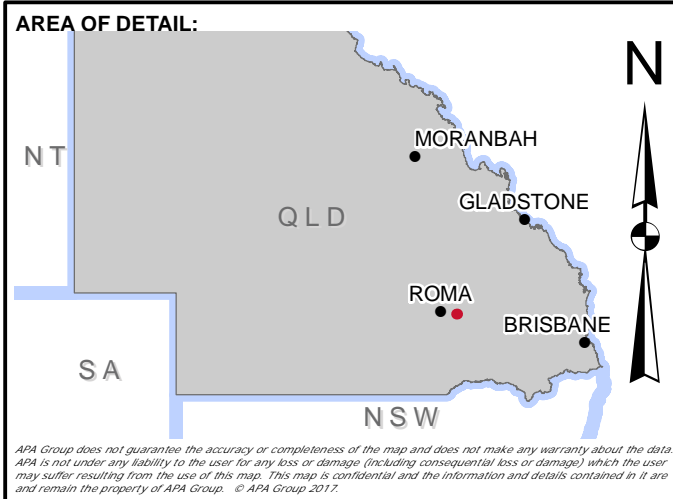
**ROAD PARCELS:** NONE





Temp Construction Area		
ID	Easting	Northing
1	723959	7054647
2	724018	7054638
3	723927	7054050
4	723868	7054059

Lot/Plan or SEGP	Parcel Area (ha)	Area (ha) SCL on the parcel	Site Area on Parcel (ha)	SCL Intersected by Site Area
426WAL53597	64.7832	64.7832	1.3384	1.3384
46202240	21.6684	19.6919	0.0905	0.0905



**LEGEND:**

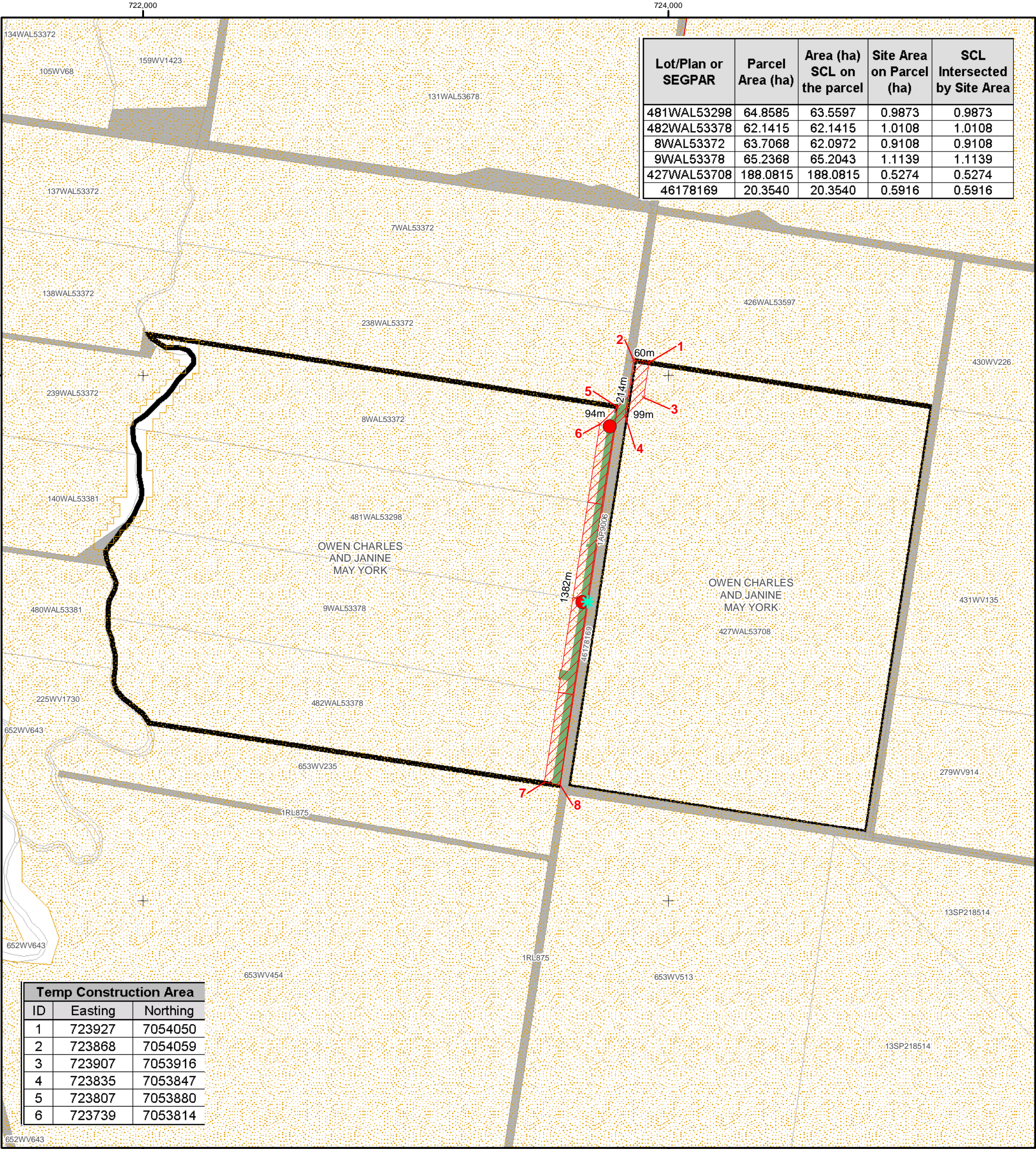
- Heavy Vehicle Crossing Post Construction
- Stock/Vehicle Crossing During Construction
- Temporary Construction Area
- Site Area
- Property Boundary
- Road
- Strategic Cropping Land

**SCALE:** 1:5,500 @ A3 GDA 1994 MGA Zone 55

0 250 500 Metres

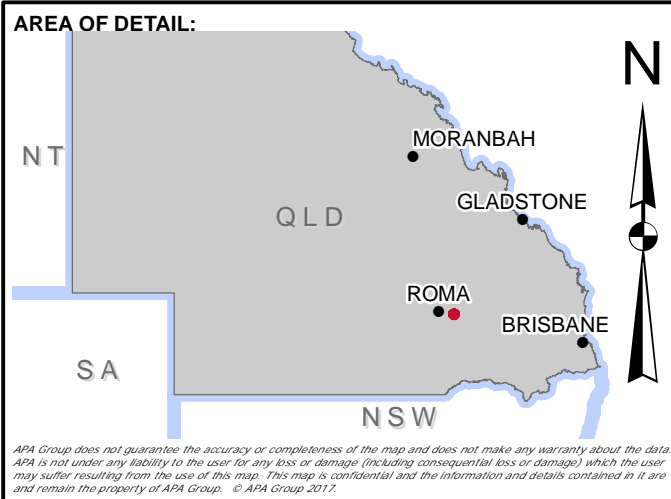
PROJECT: REEDY CREEK WALLUMBILLA PIPELINE						
TITLE: Strategic Cropping Land Site Plan						
SUBTITLE: 426WAL53597						
DATE: 5/07/2017						
<b>DATA SOURCE:</b> ESRI, APA Group, State of Queensland 2016-2017 (DNRM)  Property boundaries adjusted based on APA survey.						
DOCUMENT NUMBER: Q-03-101-MAP-L-0106						
0.2	ISSUED FOR INFORMATION	JRB	KD	AT	WT	05/07/17
0.1	ISSUED FOR REVIEW	JRB	KD	SA	WT	12/06/17
Revision	Description	Drawn	Checked	QC	Approved	Date
LANDHOLDER:		JASON ANDREW CHASELING				
ROAD PARCELS:		46202240 (Seawrights Road)				





Lot/Plan or SEGP	Parcel Area (ha)	Area (ha) SCL on the parcel	Site Area on Parcel (ha)	SCL Intersected by Site Area
481WAL53298	64.8585	63.5597	0.9873	0.9873
482WAL53378	62.1415	62.1415	1.0108	1.0108
8WAL53372	63.7068	62.0972	0.9108	0.9108
9WAL53378	65.2368	65.2043	1.1139	1.1139
427WAL53708	188.0815	188.0815	0.5274	0.5274
46178169	20.3540	20.3540	0.5916	0.5916

Temp Construction Area		
ID	Easting	Northing
1	723927	7054050
2	723868	7054059
3	723907	7053916
4	723835	7053847
5	723807	7053880
6	723739	7053814



**LEGEND:**

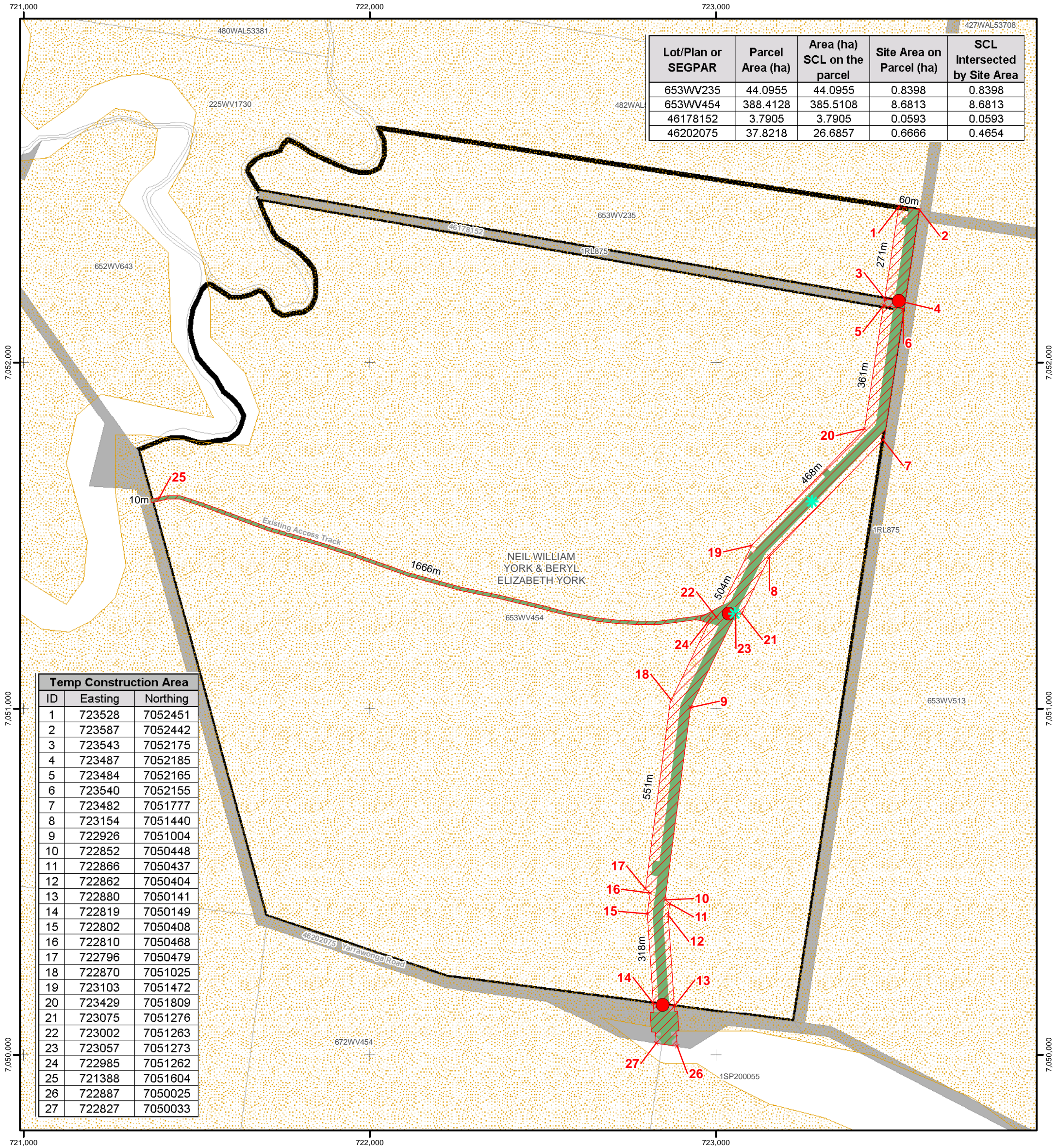
- Heavy Vehicle Crossing Post Construction
- Stock/Vehicle Crossing During Construction
- Temporary Construction Area
- Site Area
- Property Boundary
- Road
- Strategic Cropping Land

**SCALE:** 1:14,200 @ A3 GDA 1994 MGA Zone 55

0 0.5 1  
Kilometres

<b>PROJECT:</b> REEDY CREEK WALLUMBILLA PIPELINE						
<b>TITLE:</b> Strategic Cropping Land Site Plan						
<b>SUBTITLE:</b> 8WAL53372,9WAL53378,9WAL53378,427WAL53708,481WAL53298						
<b>DATE:</b> 5/07/2017						
<b>DATA SOURCE:</b> ESRI, APA Group, State of Queensland 2016-2017 (DNRM)  Property boundaries adjusted based on APA survey.						
<b>DOCUMENT NUMBER:</b> Q-03-101-MAP-L-0107						
0.2	ISSUED FOR INFORMATION	JRB	KD	AT	WT	05/07/17
0.1	ISSUED FOR REVIEW	JRB	KD	SA	WT	12/06/17
Revision	Description	Drawn	Checked	QC	Approved	Date
<b>LANDHOLDER:</b>		OWEN CHARLES AND JANINE MAY YORK				
<b>ROAD PARCELS:</b>		46178169				





AREA OF DETAIL:

NT  
QLD  
SA  
NSW

MORANBAH  
GLADSTONE  
ROMA  
BRISBANE

LEGEND:

- Heavy Vehicle Crossing Post Construction
- Stock/Vehicle Crossing During Construction
- Temporary Construction Area
- Site Area
- Strategic Cropping Land
- Property Boundary
- Road

PROJECT: REEDY CREEK WALLUMBILLA PIPELINE

TITLE: Strategic Cropping Land Site Plan

SUBTITLE: 653WV235,653WV454

DATE: 5/07/2017

DATA SOURCE: ESRI, APA Group, State of Queensland 2016-2017 (DNRM)

Property boundaries adjusted based on APA survey.

DOCUMENT NUMBER: Q-03-101-MAP-L-0108

Revision	Description	Drawn	Checked	QC	Approved	Date
0.2	ISSUED FOR INFORMATION	JRB	KD	AT	WT	05/07/17
0.1	ISSUED FOR REVIEW	JRB	KD	SA	WT	13/06/17

LANDHOLDER: NEIL WILLIAM YORK & BERYL ELIZABETH YORK

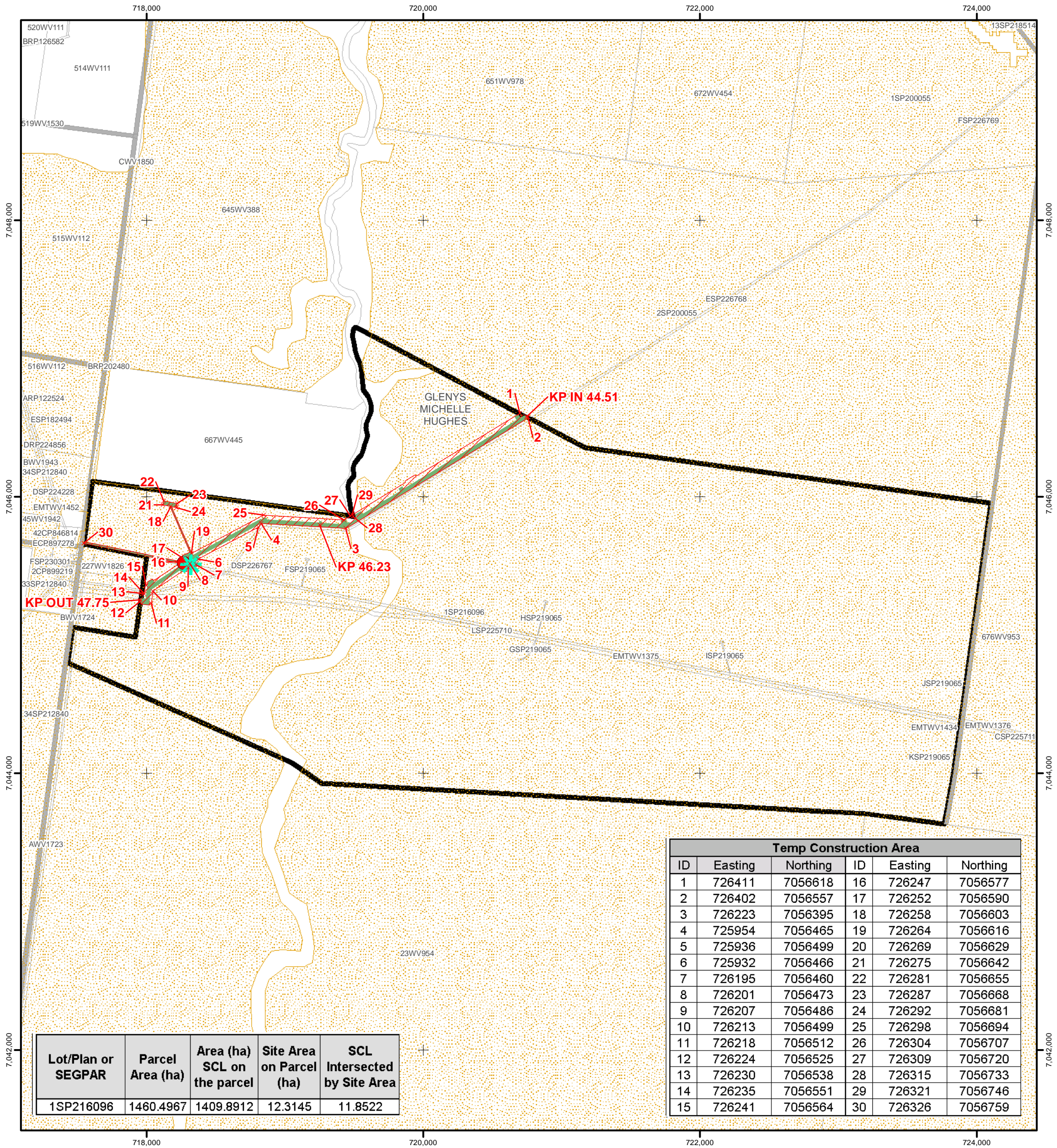
ROAD PARCELS: 46178152, 46202075 (Yarrowonga Rd)

SCALE: 1:10,600 @ A3 GDA 1994 MGA Zone 55

0 0.5 1 Kilometres

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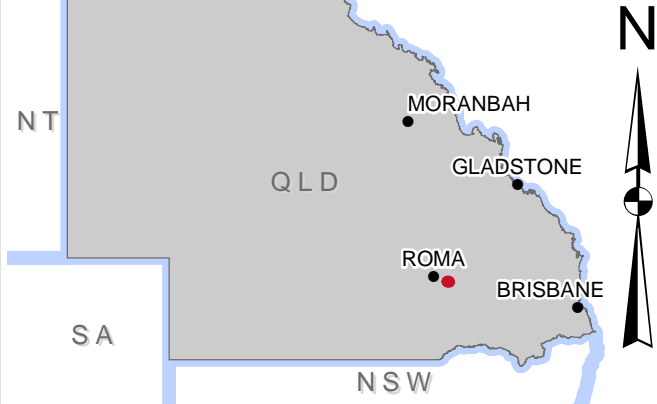




Lot/Plan or SEGP	Parcel Area (ha)	Area (ha) SCL on the parcel	Site Area on Parcel (ha)	SCL Intersected by Site Area
1SP216096	1460.4967	1409.8912	12.3145	11.8522

Temp Construction Area					
ID	Easting	Northing	ID	Easting	Northing
1	726411	7056618	16	726247	7056577
2	726402	7056557	17	726252	7056590
3	726223	7056395	18	726258	7056603
4	725954	7056465	19	726264	7056616
5	725936	7056499	20	726269	7056629
6	725932	7056466	21	726275	7056642
7	726195	7056460	22	726281	7056655
8	726201	7056473	23	726287	7056668
9	726207	7056486	24	726292	7056681
10	726213	7056499	25	726298	7056694
11	726218	7056512	26	726304	7056707
12	726224	7056525	27	726309	7056720
13	726230	7056538	28	726315	7056733
14	726235	7056551	29	726321	7056746
15	726241	7056564	30	726326	7056759

AREA OF DETAIL:

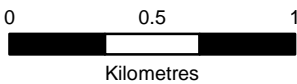


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LEGEND:

- Heavy Vehicle Crossing Post Construction
- Stock/Vehicle Crossing During Construction
- Strategic Cropping Land
- Temporary Construction Area
- Site Area
- Property Boundary
- Road

SCALE: 1:26,500 @ A3 GDA 1994 MGA Zone 55



PROJECT: REEDY CREEK WALLUMBILLA PIPELINE

TITLE: Strategic Cropping Land Site Plan

SUBTITLE: 1SP216096

DATE: 5/07/2017

DATA SOURCE: ESRI, APA Group, State of Queensland 2016-2017 (DNRM)

Property boundaries adjusted based on APA survey.

DOCUMENT NUMBER: Q-03-101-MAP-L-0111

Revision	Description	Drawn	Checked	QC	Approved	Date
0.2	ISSUED FOR INFORMATION	JRB	KD	AT	WT	05/07/17
0.1	ISSUED FOR REVIEW	JRB	KD	SA	WT	14/06/17

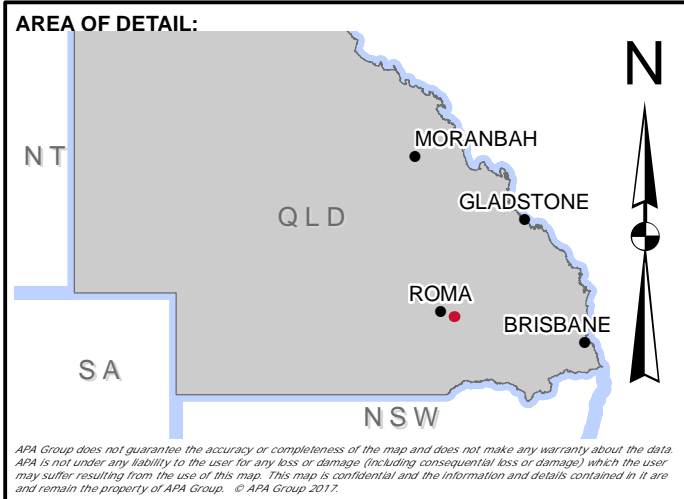
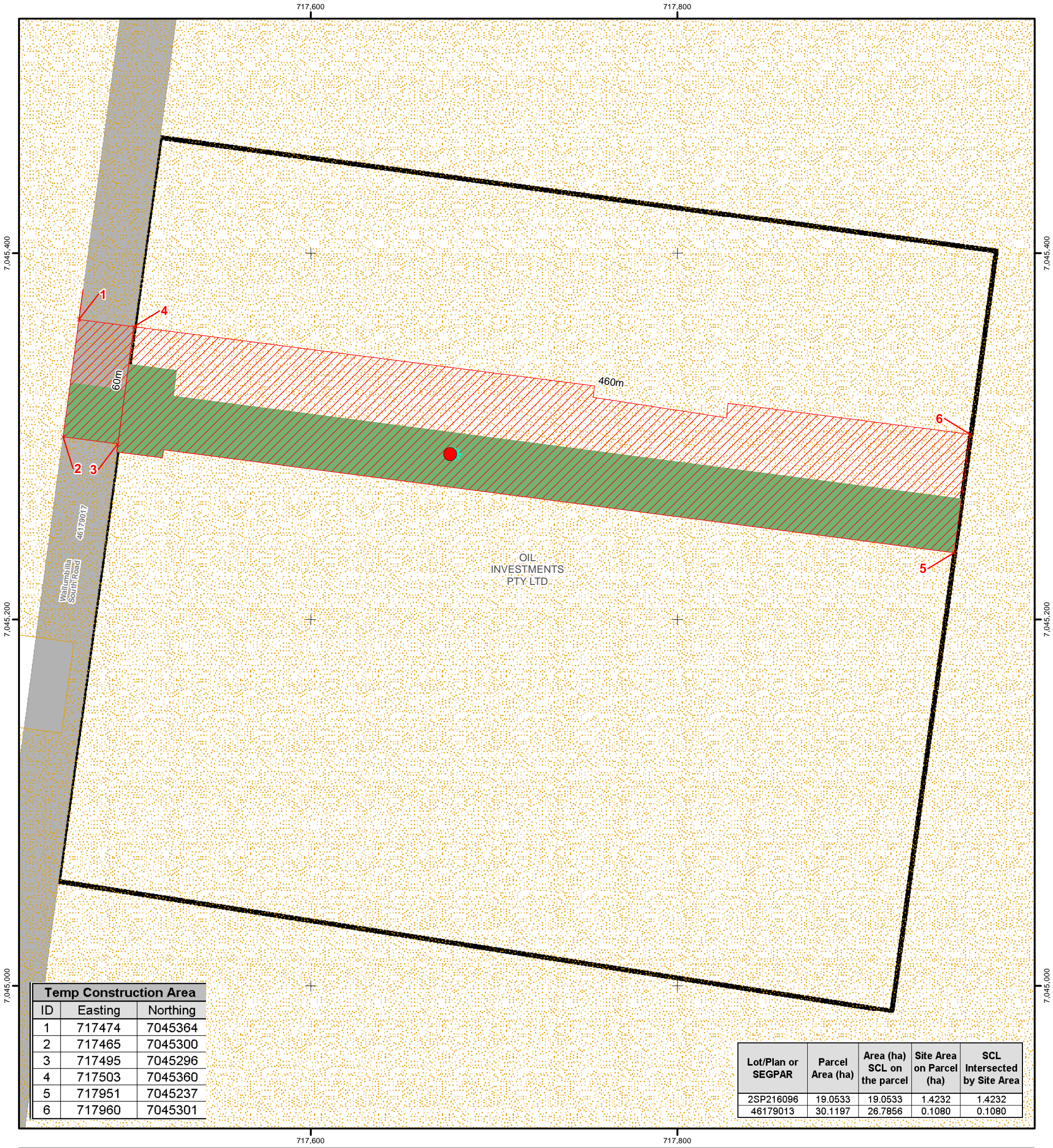
LANDHOLDER: GLENYS MICHELLE HUGHES

ROAD PARCELS: NONE

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Web: www.apa.com.au  
Email: Warren.Twist@apa.com.au







**LEGEND:**

- Heavy Vehicle Crossing Post Construction
- Stock/Vehicle Crossing During Construction
- Temporary Construction Area
- Site Area
- Strategic Cropping Land
- Property Boundary
- Road

**SCALE:** 1:2,000 @ A3 GDA 1994 MGA Zone 55

0 0.075 0.15 Kilometres

PROJECT: REEDY CREEK WALLUMBILLA PIPELINE						
TITLE: Strategic Cropping Land Site Plan						
SUBTITLE: 2SP216096						
DATE: 5/07/2017						
<b>DATA SOURCE:</b> ESRI, APA Group, State of Queensland 2016-2017 (DNRM)  Property boundaries adjusted based on APA survey.						
<b>DOCUMENT NUMBER:</b> Q-03-101-MAP-L-0112						
0.2	ISSUED FOR INFORMATION	JRB	KD	AT	WT	30/06/17
0.1	ISSUED FOR REVIEW	JRB	KD	SA	WT	14/06/17
Revision	Description	Drawn	Checked	QC	Approved	Date
<b>LANDHOLDER:</b>		OIL INVESTMENTS PTY LTD				
<b>ROAD PARCELS:</b>		46179013				

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Email: [Warren.Twist@apa.com.au](mailto:Warren.Twist@apa.com.au)

## Appendix D UTILISATION OF DISTURBANCE / INFRASTRUCTURE

## PRE-EXISTING

### Pipe Laydown

- Reedy Creek Gas Plant
- On Quarry

### Access tracks

- From Cottage Creek Road
- From Yarrawonga Road
- From Wallumbilla South Road
- From Warrego Highway

#### **Utilisation of Pre-existing Disturbance / Infrastructure**

A summary of the areas where APA will be utilising pre-existing disturbed areas/infrastructure for access and pipe laydown is provided in the following section. Utilisation of these areas has not been included within the scope of this application, as no disturbance to SCL will occur.

The figures included in this section are provided to illustrate the extent of the pre-existing disturbance / infrastructure. Details of the date of the imagery is provided on the image and repeated below the caption for clarity.

Reference has been provided to the relevant Pipeline Route Map, which illustrates the extent of the proposed access/laydown, the extent of SCL and the property boundaries.





**Figure 5 : Location of Laydown at Reedy Creek**

*Image © 2017 DigitalGlobe. Imagery Date 25/05/2014.*

**Pipe Laydown** will be located within the area marked in yellow. Access will be via existing access to and within the Reedy Creek Gas Plant Facility. Laydown is within an area mapped as SCL - refer to Pipeline Route Map - Map 1 of 9 (Q-03-101-MAP-L-0041).



**Figure 6 : Laydown within Existing Quarry**

*Image © 2017 DigitalGlobe, © 2017 Google. Imagery Date 25/05/2014.*

**Pipe Laydown** will be located within the area marked in yellow. Access will be via an existing access track off Kangaroo Creek Road. The access track between the yellow stars is mapped as SCL, while the remainder of the access track and proposed laydown area is not. Refer to Pipeline Route Map - Map 6 of 9 (Q-03-101-MAP-L-0041).

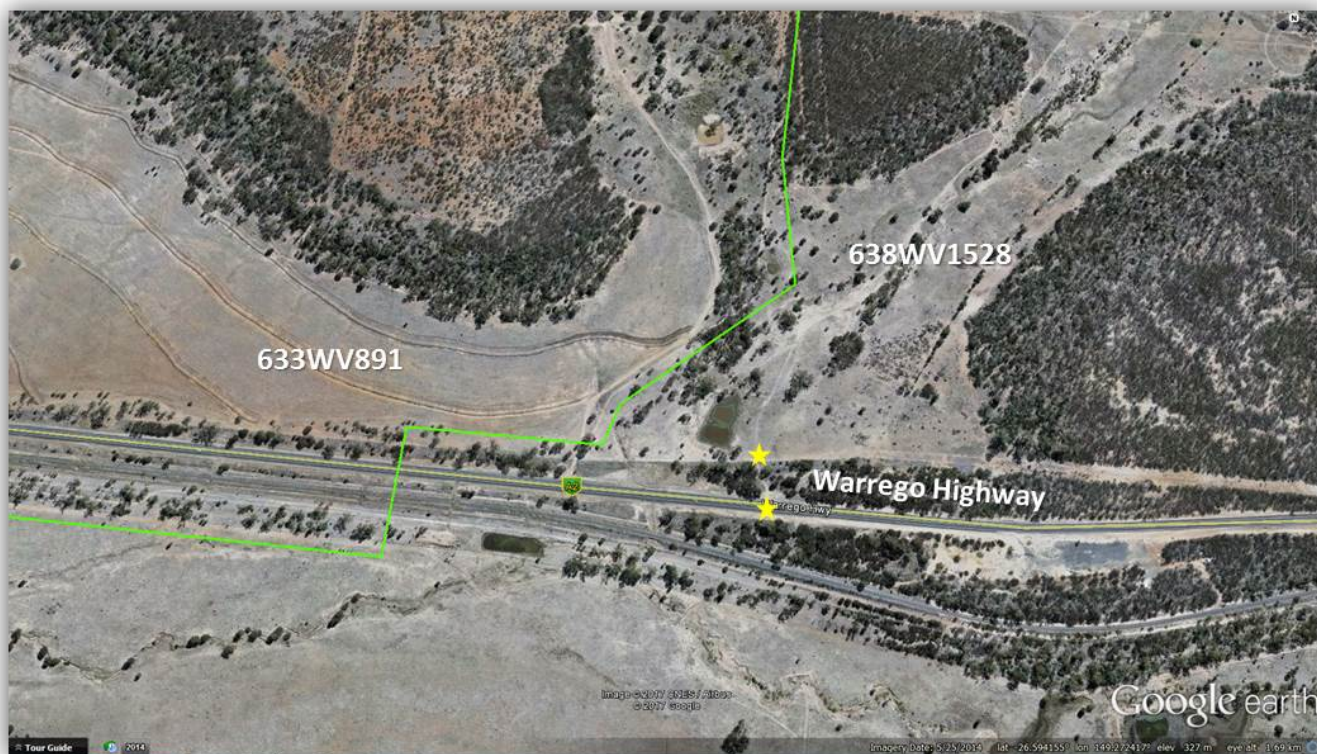




**Figure 7 : Access from Cottage Creek Road**

Image © 2017 CNES/Airbus, © 2017 Google. Imagery Date 25/05/2014.

**Access** from Cottage Creek Road will be via an existing access track through 160WV550 & 161WV552. Both parcels are mapped as SCL. Refer to Pipeline Route Map - Map 3 of 9 (Q-03-101-MAP-L-0041).



**Figure 8 : Access from Warrego Highway**

Image © 2017 CNES/Airbus, © 2017 Google. Imagery Date 25/05/2014.

**Access** from the Warrego Highway will be via an existing access track within the road reserve, through WV638WV1528 (APA has voluntary agreement) and 633WV891 (subject of this application). These parcels are mapped as SCL. Refer to Pipeline Route Map - Map 6 of 9 (Q-03-101-MAP-L-0041).





**Figure 9 : Access from Yarrawonga Road**

Image © 2017 CNES/Airbus, © 2017 Google. Imagery Date 25/05/2014

**Access** from Yarrawonga Road will be via an existing access track through 653WV454, which is mapped as SCL. Refer to Pipeline Route Map - Map 8 of 9 (Q-03-101-MAP-L-0041).



**Figure 10 : Access from Wallumbilla South Road**

Image © 2017 CNES/Airbus, © 2017 Google. Imagery Date 25/05/2014

**Access** from Wallumbilla South Road will be via an existing access track through 1SP216096, which is mapped as SCL. Refer to Pipeline Route Map - Map 9 of 9 (Q-03-101-MAP-L-0041).