

Stanwell Corporation Pty Ltd  
**Meandu Mine Surface Rights Extension  
Regional Interest Development Approval  
Assessment Application Report**

26 February 2015






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# Glossary and acronyms

ALUM	Australian Land Use and Management
DEHP	Queensland Department of Environment and Heritage Protection
DNRM	Queensland Department of Natural Resources and Mines
DSDIP	Queensland Department of State Development and Infrastructure Planning
EA	Environmental Authority as issued under the EP Act
EP Act	Queensland <i>Environmental Protection Act 1994</i>
ha	Hectares
JORC	The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ('the JORC Code') is a professional code of practice that sets minimum standards for Public Reporting of minerals Exploration Results, Mineral Resources and Ore Reserves. The JORC Code provides a mandatory system for the classification of minerals Exploration Results, Mineral Resources and Ore Reserves according to the levels of confidence in geological knowledge and technical and economic considerations in Public Reports.
km	kilometres
ML	Mining Lease
Mtpa	Million tonnes per annum
PAA	Priority agricultural area
PALU	Priority agricultural land use
PLA	Priority living area
RIDA	Regional Interests Development Approval
ROM	Run-of-mine
RPI Act	Queensland <i>Regional Planning Interests Act 2014</i>
RPI Regulation	Queensland Regional Planning Interests Regulation 2014
RTCA	Rio Tinto Coal Australia
SCA	Strategic cropping area
SEA	Strategic environmental area
SRE	Surface rights extension (the Project)

# 1. Introduction

## 1.1 Purpose

This report has been prepared on behalf of TEC Coal Pty Ltd, a wholly owned subsidiary of Stanwell Corporation Limited (Stanwell), in support of a Regional Interest Development Approval (RIDA) under the *Regional Planning Interests Act 2014* (RPI Act) for the extension of surface mining rights (the Project) within the current Meandu Mine Mining Lease (ML) 6674.

The report has been prepared to provide supporting information for the RIDA and has been prepared in accordance with the *RPI Act Guideline: 01/14 How to make an assessment application for a regional interests development approval under the Regional Planning Interests Act 2014* (DSDIP 2014). In particular, it provides:

- a description of the Project
- identification of previous and current land uses undertaken on the Project site
- an assessment of the Project's compliance with the criteria detailed in the Regional Planning Interests Regulation 2014 (RPI Regulation).

A minor amendment application of the Meandu Mine Environmental Authority (EA) (EPML00709113) has also been prepared by Parsons Brinckerhoff in parallel to this application, under Section 226 of the *Environmental Protection Act 1994*.

## 1.2 Background

The Meandu Mine has been supplying coal to the adjacent Tarong Power Station since 1983 and the Tarong North Power Station since 2003. During the period 1983 to 2007, Rio Tinto Coal Australia (RTCA) owned and operated the mine and supplied coal to the Tarong Power Stations under various agreements. Stanwell purchased the Meandu Mine and the Kunioon deposit in 2008 to secure the long-term coal supply for the Tarong Power Stations.

Initially Stanwell planned to transition to the Kunioon deposit by 2012, but subsequent reviews of the remaining coal resources at the Meandu Mine suggested additional economic coal remained in the ground. The result of the review lead to the Kunioon transition being deferred in 2010 and further exploration work being carried out within ML 6674 both inside and outside the existing surface rights area.

The results of the exploration work conducted between 2010 and 2012 were brought together in early 2013 to revise the Life of Mine Plan for Meandu Mine. The results of the 2013 Life of Mine Plan were that:

- sufficient economic coal remained within the Meandu ML 6674 to supply the Tarong Power Stations until 2037 (which aligns with the anticipated life of the Tarong Power Stations)
- a SRE and additional exploration work within ML 6674 would be required to provide access to the coal underpinning the Life of Mine Plan.

The SRE sought by Stanwell is adjacent to the extension area secured in 2007 by RTCA prior to Stanwell's purchase of the mine.

Approval for the SRE is being sought to allow the continuation of existing open pits. The mining in the SRE area will be conducted using current mining methods (i.e. strip mining with a dragline and truck and shovel fleets) and will be accessed using extensions to existing mine haul roads. It is predicted that the coal within the SRE area will be used to supply the Tarong Power Stations until mid to late 2025.

The coal within the SRE area is a measured resource under the JORC code and there is sufficient confidence to progress to securing approval for the approximately 130 hectare (ha) area. This represents a 5.2% increase in the surface rights area of Meandu Mine.

## 1.3 Proponent

TEC Coal Pty Ltd (ABN 55 119 063 900) is the proponent for the Project. TEC Coal Pty Ltd is a wholly owned subsidiary of Stanwell Corporation Limited (Stanwell). Stanwell is a Queensland Government Owned Corporation under the *Government Owned Corporations Act 1993* and registered under the *Corporations Act 2001*. Stanwell is the largest electricity generator in Queensland. Stanwell owns a number of coal, gas and water assets for the purposes of generating electricity, including the Meandu Mine and Tarong and Tarong North Power Stations. Through these and other assets, Stanwell has a generation capacity of 4,200 megawatts.

TEC Coal Pty Ltd owns the Meandu Mine and is the holder of ML 6674 and EA EMPL00709113. The registered address for the proponent is:

**Table 1.1 Proponent details**

Proponent details:	TEC Coal Pty Ltd
Address:	Level 13, 42 Albert Street, Brisbane, Queensland, Australia, 4001
Contact:	Scott Cullen
Phone number:	(07) 3228 4174
Email address:	Scott.Cullen@Stanwell.com
Our reference:	MIN3361

TEC Coal contracts all mining services at Meandu to a mining contractor. Between 2008 and 2012 this was Thiess Mining Services Pty Ltd. From 2013 mining services have been contracted to Downer EDI Mining Pty Ltd.

## 1.4 Project location

ML 6674 for the Meandu Mine is located within both the South Burnett Regional Council and Toowoomba Regional Council local government areas. Apart from a few small areas, the majority of the existing surface rights area of the mine is within the South Burnett Regional Council. The area of the proposed SRE is entirely within the Toowoomba Regional Council. The allotment subject to the application is detailed in Table 1.2.

**Table 1.2 Site details**

Site	Address	Lot area (ha)	Land tenure	Land owners, trustee or lessee
Lot 289 on FTY1859	Yarraman State Forest, Yarraman, Queensland, 4614	6,970 ha (Disturbance area is 130 ha)	State Forest	The State of Queensland (Represented by Department of Environment and Resource Management – Forestry Act).  (Please note: Forestry Act is now administered by the Department of National Parks, Sport and Racing).

A copy of the current title search confirming the land owner and registered lessee or land trustee is provided in Appendix A.

The Meandu Mine is located adjacent to the Yarraman State Forest, approximately 14 kilometres (km) south-west of the township of Nanango (population approximately 4,000 persons) and 30 km south of Kingaroy (population approximately 10,000 persons) in the South Burnett Region of South-east Queensland. The nearest town to the mine site is Yarraman, which is located approximately 4 km south-south-east of ML 6674 and approximately 6 km from mining activities. The Tarong and Tarong North Power Stations are located immediately to the north of the mine. The location of the Meandu Mine is shown in Figure 1.1.

The Meandu Mine is wholly within ML 6674, which was granted on 19 February 1981. ML 6674 occupies an area of 4,267 ha, of which existing surface rights are held for 2,510 ha. The proposed SRE will extend the surface rights area by 130 ha. This proposed SRE will be undertaken to the south-east of the existing surface rights area. The location of ML 6674, the existing surface rights area and the proposed SRE is shown in Figure 1.2.

#### 1.4.1 Existing tenure

The proposed SRE area is located on Lot 289 on FTY 1859, which is 'State Forest' tenure and is characterised by a Hoop Pine (*Araucaria cunninghamii*) plantation used for forestry. Lot 289 on FTY 1859 is owned by the State of Queensland. The forestry is managed by HQ-Plantations Pty Ltd (HQ-Plantations) under a 99 year Plantation Licence which allows for the right to manage, harvest and re-grow plantation timber of Government owned land (HQ-Plantations 2014).

Two dedicated road corridors (Ridge Road and Tarong-Yarraman Road) also dissect the proposed SRE area. Additionally, there is a 275 kV transmission line oriented in a north-west to south-east direction adjacent to the north-eastern corner of the SRE area.





Figure 1.1 Regional location of the Meandu Mine

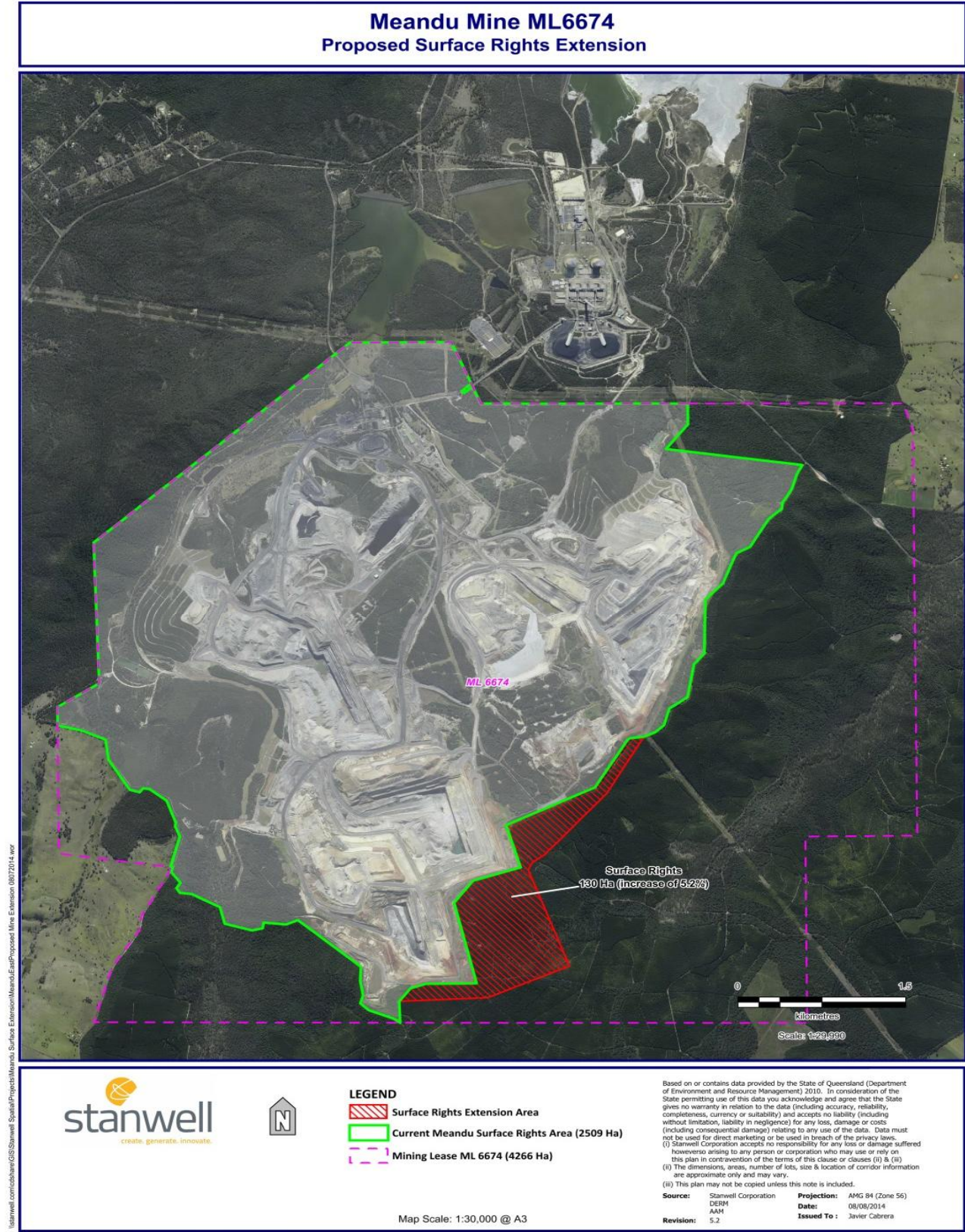


Figure 1.2 Meandu Mine Mining Lease and proposed SRE



## 1.5 Mining operations

The mining in the proposed SRE area will be conducted using the current strip mining method and the existing dragline and truck and shovel fleet. The current Meandu Mining fleet includes:

- 5 hydraulic excavators
- 11 dozers
- 4 graders
- 2 track-mounted drill rigs
- 11 Komatsu 830E rear dump trucks
- 9 Hitachi EH5000 rear dump trucks
- 1 dragline.

No increase to these fleet numbers is proposed as result of the Project.

The SRE area will be accessed using extensions to existing mine haul roads in the King 4 East and King 4 South pits. Overburden will be removed and emplaced using a combination of truck and shovel and dragline methods. Extraction of coal will be undertaken by truck and shovel. All material at the mine will be blasted, with the exception of the uppermost Tertiary sediments, which will be free dug with hydraulic excavators. The most common explosives used will be Heavy ANFO and ammonium nitrate emulsion blends, which will be mixed on-site (at existing explosives facilities) and loaded into blast pattern drill holes. Blasted and free-dug spoil material will be transported to in-pit or out-of-pit overburden emplacement areas in accordance with the approved Meandu Mine Plan of Operations. In the SRE out of pit overburden emplacement areas will only represent 3% of the overburden emplacement areas.

Coal will be transported to existing ROM stockpiles or the existing ROM bin at the CHPP in large capacity rear dump trucks. It will then be processed by the CHPP to reduce the ash content to 28% or less. Product coal will then be transported via overland conveyor to the Tarong and Tarong North Power Stations.

The Meandu Mine (incorporating the SRE) is capable of producing approximately 7.5 million tonnes per annum (Mtpa) of bituminous streaming coal from up to 11 Mtpa of run-of-mine (ROM) coal. The indicative annual pit progression for the entire Meandu Mine (including the area covered by the SRE) up to 2025 is illustrated in Figure 1.3. As shown, mining will be focussed in the central and southern pits and involve a gradual progression of the pit crest from west to east.

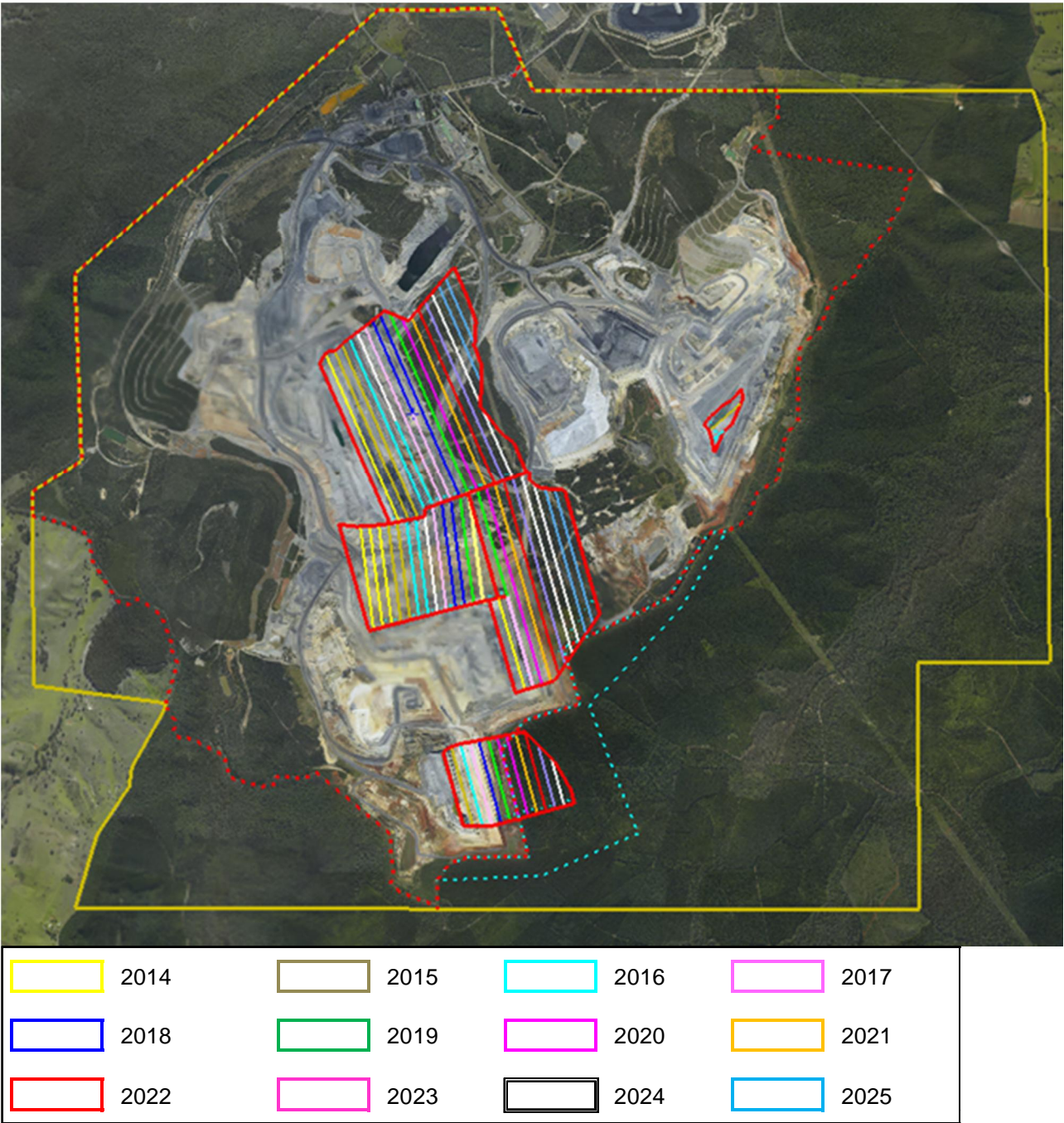


Figure 1.3 Indicative life of mine pit progression

## 1.6 Rehabilitation and post-mining land use

Stanwell's rehabilitation objectives for the SRE will generally be consistent with those for the current Meandu Mine operations as outlined below.

Rehabilitation of disturbed land (spoil dumps) begins with re-profiling to meet design grade and drainage requirements. The mine has set a maximum of 17% slopes with contours of maximum 70 m separation. The maximum spoil height on site has been capped at 600 mRL (reduced level) to reduce the aesthetic impact on the surrounding landscape.

Slopes greater than 17% (but less than 25%) are restricted to specific, isolated areas following geotechnical assessment. Generally, the average slopes designed for rehabilitation areas will be kept to 15% or less. The landform designs of spoil dumps are based on the optimised cut and fill volumes to achieve the desired grades. For example, the pattern of spoil peaks and valleys may be retained to allow for internal pondage and to minimise cut and fill activity.

After re-profiling, rehabilitation continues with top-soiling before seeding with native species to achieve the self-sustaining native ecosystem post-mining outcome. This process is followed to achieve a landform that is:

- (a) safe to humans and wildlife
- (b) non-polluting
- (c) stable
- (d) able to sustain the post-mining land-use
- (e) absent of active rill and gully erosion.

Rehabilitation progresses according to the mine plan and availability of equipment. The completion of mining activities, triggers rehabilitation planning. Rehabilitation begins within one year of an area becoming available (that is, the coal resource is mined and the area is no longer required for material placement or infrastructure, such as haul roads). A detailed program, specific to the activities planned for each financial year is described within the Rehabilitation Program.

The rehabilitation process is in two parts. Initially the spoil is profiled (reggraded) and contoured to achieve effective and stable slopes and drainage. The second part of the rehabilitation process involves the placement of topsoil, ripping and then seeding to establish the vegetation cover.

The post mining land use for the spoil piles and some infrastructure areas is native bushland, or alternative land use (such as forestry) if agreed by relevant parties according to the EA. The remainder is to be retained for infrastructure, such as voids for water storage.

Rehabilitation monitoring and evaluation of the success of rehabilitation at Meandu Mine is normally undertaken every two years.



## 2. Regional interests

### 2.1 Regional interests defined by the Regional Planning Interests Act 2014

The RPI Act was passed on 20 March 2014 and commenced on 30 June 2014. The RPI Act identifies and protects areas in Queensland that are of regional interest. Four areas of regional interest are identified:

- a priority agricultural area (PAA)
- a priority living area (PLA)
- the strategic cropping area (SCA)
- a strategic environmental area (SEA).

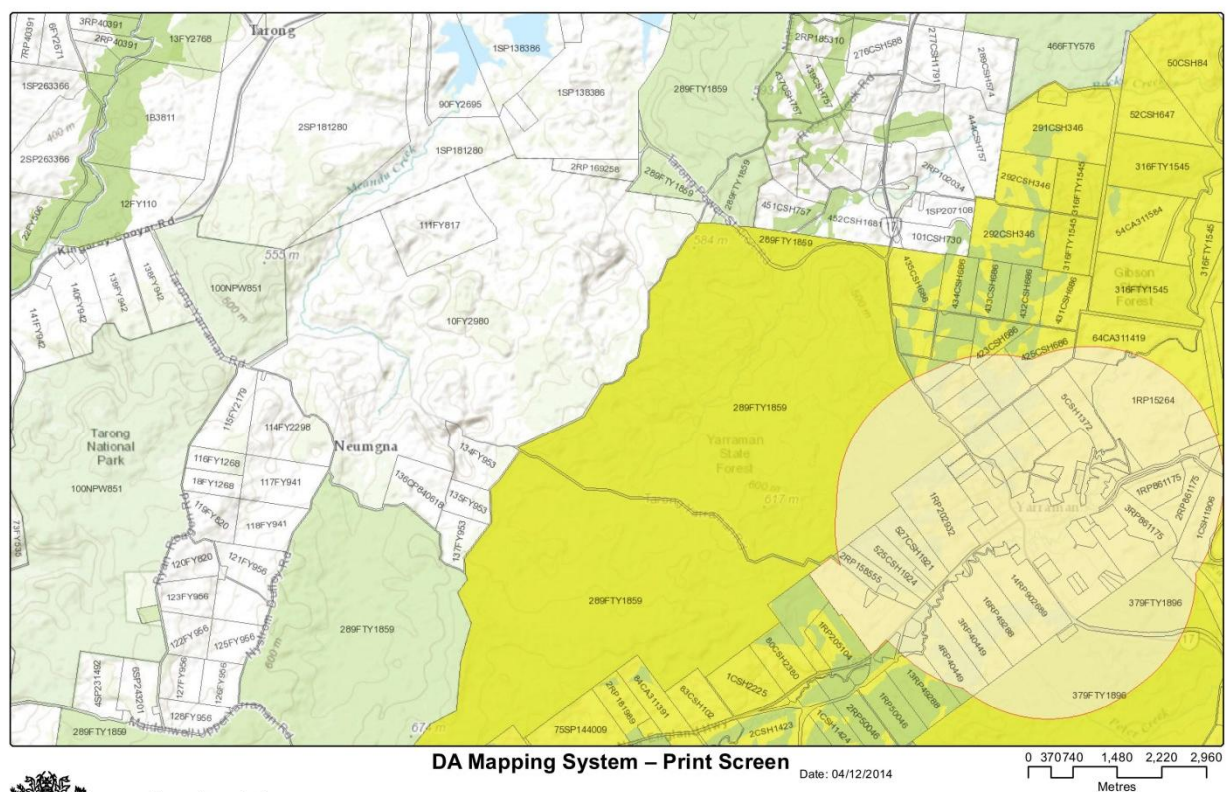
The RPI Act is supported by the RPI Regulation.

The RPI Act creates the requirement for a RIDA for resource activities carried out in areas of regional interest other than exempt resource activities.

#### 2.1.1 Regional interests affected by the SRE

The DA Mapping identifies areas of regional interest. This mapping (reproduced as Figure 2.1 of this report) identifies that the SRE is located within a PAA under the Darling Downs Regional Plan 2013 (Regional Plan). The township of Yarraman is also identified in this mapping as being a PLA. The SRE is located approximately 6 km from Yarraman. No SCAs or SEAs are mapped as occurring within the SRE. SCAs are identified as occurring in the vicinity of the SRE.

The areas of regional interest in the vicinity of the SRE are illustrated in Figure 2.1.



Queensland  
Government

Department of  
State Development  
Infrastructure and Planning  
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### DA Mapping System – Print Screen

Date: 04/12/2014

0 370 740 1,480 2,220 2,960

Metres

**Disclaimer:**  
This map has been generated from the information supplied to the Department of State Development, Infrastructure and Planning for the purposes of Development Assessment Mapping Online but is a print screen only and should not be used for development application (DA) purposes. For DA purposes the user should use the Print Report function to obtain a list of DA triggers. The map generated has been prepared with due care based on the best available information at the time of publication. The State of Queensland holds no responsibility for any errors, inconsistencies or omissions within this document. Any decisions made by other parties based on this document are solely the responsibility of those parties.

### Legend

- Cadastre (100k)**  
 Cadastre (100k)
- Priority Living Area (PLA)**  
 Priority Living Area (PLA)
- Strategic Environmental Area (SEA)**  
 Strategic Environmental Area  
 Strategic Environmental Area - Designated Precinct
- Strategic Cropping Area (SCA)**  
 Strategic Cropping Area (SCA)
- Priority Agricultural Area (PAA)**  
 Priority Agricultural Area

**Figure 2.1      DA Mapping Areas of Regional Interest**

## 2.2 Current land use designation

### 2.2.1 Darling Downs Regional Plan 2013

The SRE is identified as being a PAA on Map 1 of the Regional Plan (refer Figure 2.2). The Regional Plan specifies that PAAs recognise land that contains highly productive agricultural land uses (PALUs). PALUs are recognised as the primary / priority land use in the area (DSDIP 2013, p16). The Regional Plan notes (DSDIP 2013, p7) that the PAA may change over time and submissions making representations for that purpose can be lodged to the Regional Planning Minister.

The intent of the Regional Plan is to protect PALUs in PAA (Regional Policy 1), while ensuring that the co-existence of resource and agricultural land uses is maximised in the PAA. PAA Area co-existence criteria were established to protect PALUs from incompatible resource uses (DSDIP 2013, p 17). These criteria are detailed in Part 2 of the RPI Regulation.

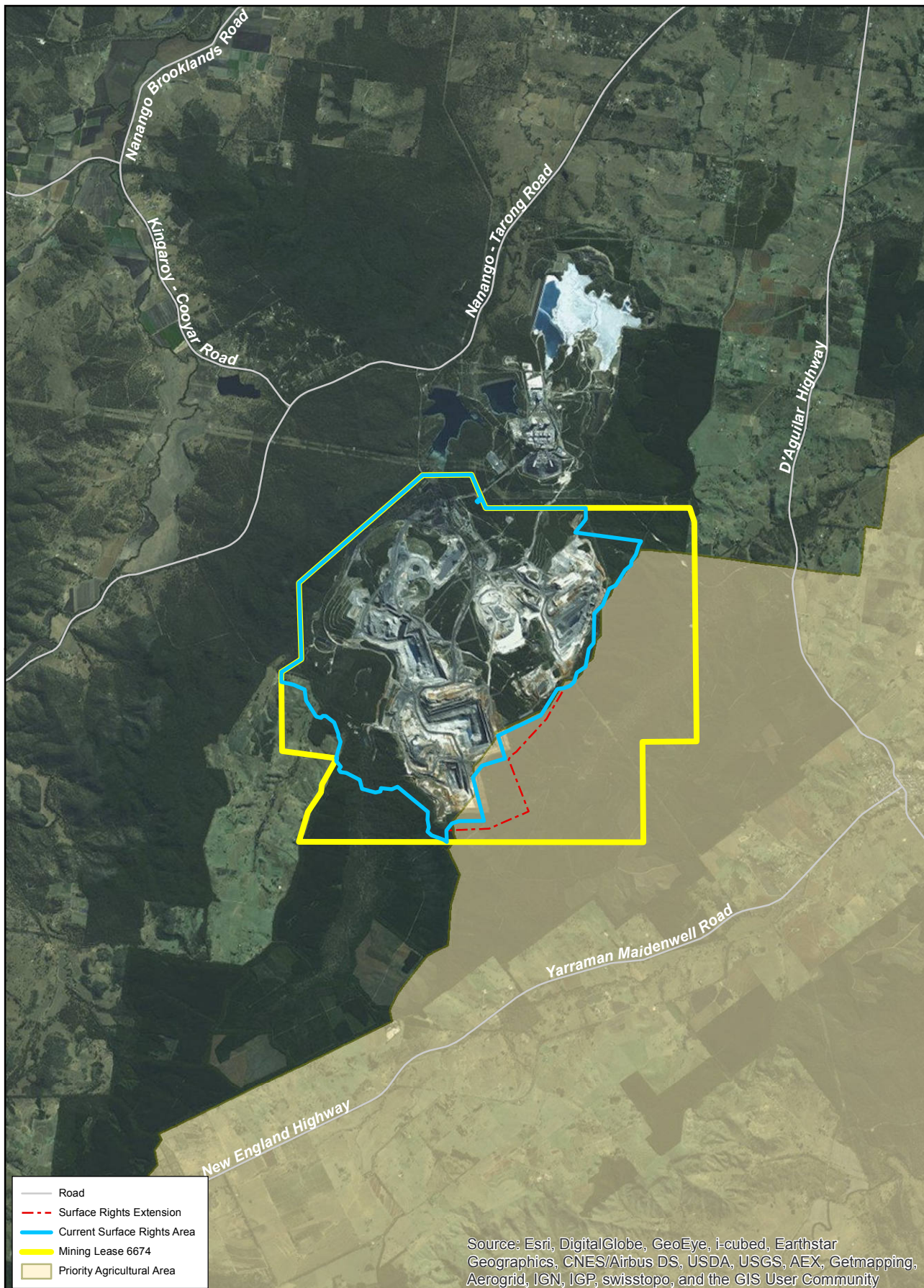
### 2.2.2 Queensland land use mapping

A search was carried out under the Department of Science, Information Technology, Innovation and the Arts' Queensland Land Use Mapping. This search identified the relevant allotment as Plantation Forestry (The State of Queensland 2014). A copy of this mapping is included as Figure 2.3.

### 2.2.3 Soils and land systems mapping

The Soils and Land Systems mapping (DNRM 2014) identifies the SRE as Agricultural Land Class Crop Land. This land is defined as suitable for current and potential crops; limitations to production range from none up to moderate levels; all crop land is considered to be good quality agricultural land.





Data source: ML and mining boundaries from client (2014)  
 Sensitive Receptor locations from PB field work (2014)  
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 Author: GL  
 Approved by: JMcD  
 Date: 27/01/2015



1:100,000  
 Scale ratio correct when printed at A4

Projection: Transverse Mercator  
 Coord sys: AGD 1984 AMG Zone 56

**Meandu Mine Regional Interests  
 Development Approval  
 Figure 2.2  
 Priority Agricultural Areas  
 (Darling Downs Regional Plan)**





23/10/2014 16:53:22  
Lot: '289' Plan: 'FTY1859'

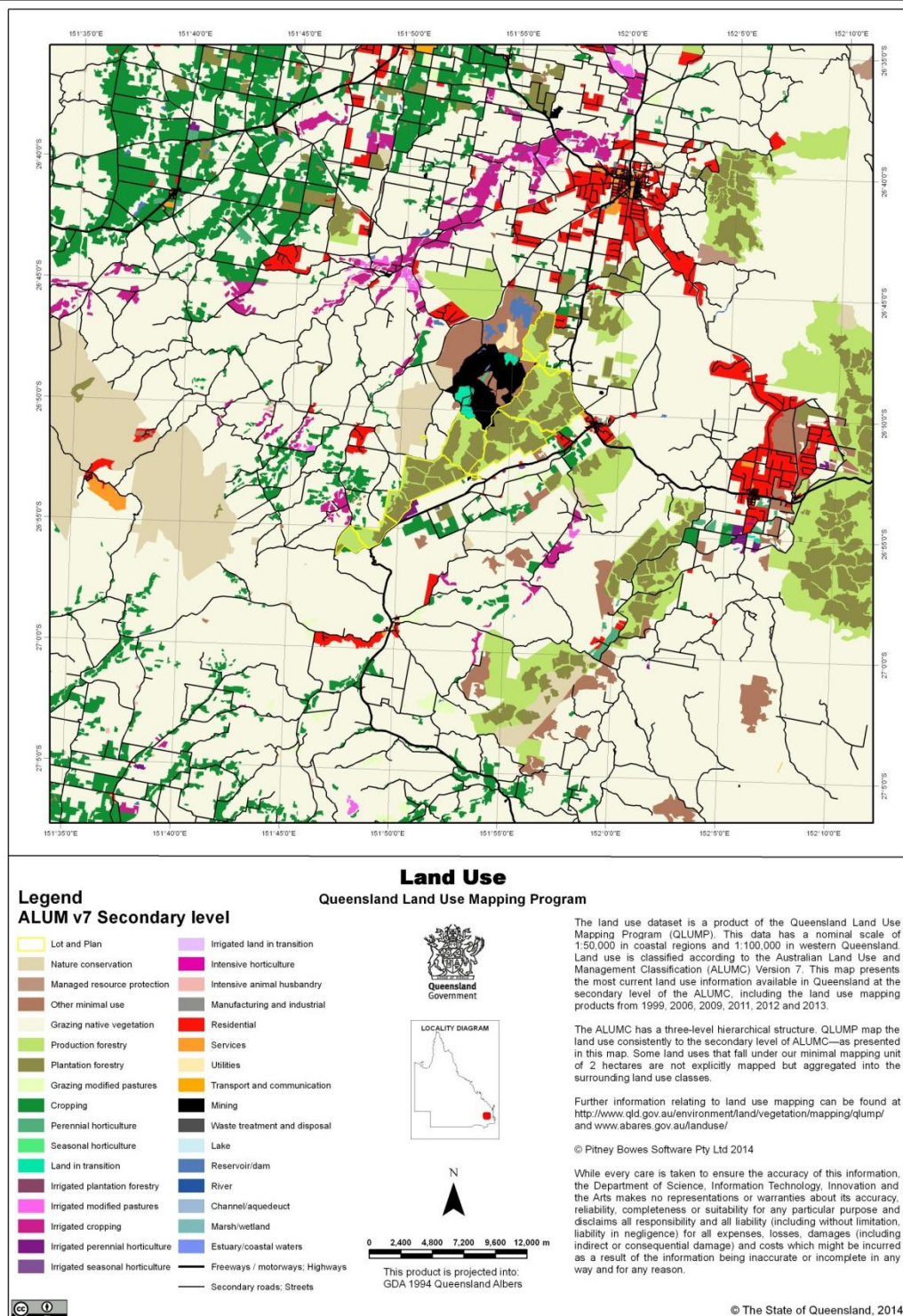


Figure 2.3 Queensland Land Use Mapping for the Project area



## 2.3 Priority agricultural land uses

PALUs specific to the PAAs mapped in the Regional Plan are defined as land uses and practices associated with the land uses included in:

- Class 3.3 (Cropping)
- Class 3.4 (Perennial horticulture)
- Class 3.5 (Seasonal horticulture)
- Class 4 (Production from Irrigated Agriculture and Plantations)
- Class 5.1 (Intensive horticulture).

Table 2.1 outlines the land uses that comprise each of these classes in accordance with the Australian Land Use and Management (ALUM) classification (Version 7).

**Table 2.1 Australian Land Use and Management Classifications**

Class	Land uses
<b>Class 3. Production from dryland agriculture and plantations</b>	<b>3.3.0 Cropping</b> 3.3.1 Cereals; 3.3.2 Beverage & spice crops; 3.3.3 Hay & silage; 3.3.4 Oil seeds; 3.3.5 Sugar; 3.3.6 Cotton; 3.3.7 Alkaloid poppies; 3.3.8 Pulses
	<b>3.4.0 Perennial horticulture</b> 3.4.1 Tree fruits; 3.4.2 Oleaginous fruits; 3.4.3 Tree nuts; 3.4.4 Vine fruits; 3.4.5 Shrub nuts, fruits & berries; 3.4.6 Perennial flowers & bulbs; 3.4.7 Perennial vegetables & herbs; 3.4.8 Citrus; 3.4.9 Grapes
	<b>3.5.0 Seasonal horticulture</b> 3.5.1 Seasonal fruits; 3.5.2 Seasonal nuts; 3.5.3 Seasonal flowers & bulbs; 3.5.4 Seasonal vegetables & herbs
<b>Class 4 Production from irrigated agriculture and plantations</b>	4.1.0 Irrigated plantation forestry; 4.1.1 Irrigated hardwood plantation; 4.1.2 Irrigated softwood plantation; 4.1.3 Irrigated other forest plantation; 4.1.1 Irrigated environmental forest plantation 4.2.0 Grazing irrigated modified pastures; 4.2.1 Irrigated woody fodder plants; 4.2.2 Irrigated legumes; 4.2.3 Irrigated legume/grass mixtures; 4.2.4 Irrigated sown grasses 4.3.0 Irrigated cropping; 4.3.1 Irrigated cereals; 4.3.2 Irrigated beverage & spice crops; 4.3.3 Irrigated hay & silage; 4.3.4 Irrigated oil seeds; 4.3.5 Irrigated sugar; 4.3.6 Irrigated cotton; 4.3.7 Irrigated alkaloid poppies; 4.3.8 Irrigated pulses; 4.3.9 Irrigated rice 4.4.0 Irrigated perennial horticulture; 4.4.1 Irrigated tree fruits; 4.4.2 Irrigated oleaginous fruits; 4.4.3 Irrigated tree nuts; 4.4.4 Irrigated vine fruits; 4.4.5 Irrigated shrub nuts, fruits & berries; 4.4.6 Irrigated perennial flowers & bulbs; 4.4.7 Irrigated perennial vegetables & herbs; 4.4.8 Irrigated citrus; 4.4.9 Irrigated grapes 4.5.0 Irrigated seasonal horticulture; 4.5.1 Irrigated seasonal fruits; 4.5.2 Irrigated seasonal nuts; 4.5.3 Irrigated seasonal flowers & bulbs; 4.5.4 Irrigated seasonal vegetables & herbs; 4.5.5 Irrigated turf farming 4.6.0 Irrigated land in transition; 4.6.1 Degraded irrigated land; 4.6.2 Abandoned irrigated land; 4.6.3 Irrigated land under rehabilitation; 4.6.4 No defined use (irrigation); 4.6.5 Abandoned irrigated perennial horticulture
<b>Class 5 Intensive uses</b>	<b>5.1.0 Intensive horticulture</b> 5.1.1 Shadehouses; 5.1.2 Glasshouses; 5.1.3 Glasshouses (hydroponic); 5.1.4 Abandoned intensive horticulture

Source: Department of Agriculture 2010, Version 7

## 3. Assessment criteria

The proposed SRE is located within a PAA under the Regional Plan. The RPI Act Guideline acknowledges that not all land within a PAA is used for a PALU. As such, the PAA Assessment Criteria are to be addressed where an activity is to be located in a PAA.

Schedule 2, Part 2 of the RPI Regulation identifies the PAA required outcomes that are to be addressed as part of this application.

### 3.1 Required outcome

The following required outcomes are identified under the PAA Assessment Criteria:

#### Required Outcome 1:

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

#### Required Outcome 2:

*The activity will not result in a material impact on the region because of the activity's impact on the use of the land in the PAA for 1 or more PALUs*

The RPI Act Guideline requires that the Project demonstrate compliance with **one** of the above required outcomes. Required Outcome 1 is applicable to projects where the application is located over one allotment, while Required Outcome 2 applies where the application is over more than one allotment.

#### 3.1.1 Comment

The proposed SRE is located over one allotment, being wholly within Lot 289 on FTY 1859. As such, assessment of the Project's compliance with Required Outcome 1 is required.

### 3.2 Prescribed solutions for Required Outcome 1

The RPI Act Guideline states that the prescribed solutions for assessing the proposed SRE against the Required Outcome 1 are contained in Table 2 and Table 3. These are provided below.

#### Prescribed Solution 1:

**The application demonstrates the activity will not be located on land in a PAA that is used for a PALU**

To establish compliance with the Prescribed Solution 1, the RPI Act Guideline states that evidence is required to determine that the allotment is not currently or has not recently been used as a PALU.

## Prescribed Solution 2:

The application demonstrates:

- a) If the applicant is not the owner of the land and has not entered into a voluntary agreement with the owner:
  - i) The applicant has taken all reasonable steps to consult and negotiate with the owner about the expected impact of carrying out the activity on each PALU for which the land is used; and
  - ii) Carrying out the activity on the property will not result in a loss of more than 2 per cent of both:
    - a. The land on the property used for a PALU; and
    - b. The productive capacity of any PALU on the property.
- b) The activity cannot be carried out on other land that is not used for a PALU, including for example, land elsewhere on the property or at another nearby location.
- c) The construction and operation footprint of the activity on the part of the property used for a PALU is minimised to the greatest extent possible.
- d) The activity will not constrain, restrict or prevent the ongoing conduct on the property of a PALU, including for example, everyday farm practices and an activity or infrastructure essential to the operation of a PALU on the property.
- e) The activity is not likely to have a significant impact on the PAA.
- f) The activity is not likely to have an impact on the land owned by a person other than the applicant or the land owner mentioned in (a).

In order to meet Prescribed Solution 2, evidence must be provided that the activity would not have an impact of greater than 2 per cent of the areas of the PALU and 2 per cent of the productive capacity of the PALU.

### 3.2.1 Comment

An assessment of the development against the Prescribed Solution 1 has been provided in Section 4 of this report.

## 4. Assessment against Prescribed Solution 1

### 4.1 Prescribed Solution 1

**The application demonstrates the activity will not be located on land in a PAA that is used for a PALU**

The RPI Act Guideline details the criterion for establishing that the proposed activity will not be carried out on land that is considered a PALU. Under Prescribed Solution 1 an assessment must determine the PALU status by considering whether *the land or property has, for at least three years during the 10 years immediately before an assessment application in relation to the land is made, has been used for a PALU.*

As described previously, the proposed SRE area is identified as PAA under the Regional Plan where PALUs are to be supported as a priority. Under the Regional Plan PALUs refer to a land use included in the following Australian Land Use and Management Classifications:

- Class 3.3 (Cropping)
- Class 3.4 (Perennial horticulture)
- Class 3.5 (Seasonal horticulture)
- Class 4 (Production from irrigated agriculture and plantations)
- Class 5.1 (Intensive horticulture).

As the proposed SRE is currently designated as State Forest and used for plantation forestry (Hoop Pine plantation) the most relevant of these classes is Class 4 Production from irrigated agriculture and plantations, particularly 4.1.0 Irrigated plantation forestry (refer Table 2.1). Plantation forestry is classified Class 3.1 in the ALUM classification.

Other potential land uses that could occur within State Forest areas that have been considered in this assessment are grazing on irrigated pastures (4.2.0). From preliminary discussions with representatives from DSDIP, consideration has also been given to apiary activities.

To establish whether a PALU has occurred on the proposed SRE the focus of the assessment has been to determine whether:

- the existing plantation forestry has been irrigated (and therefore falls under the land use category of Class 4.1.0)
- the land has been used for any other PALU in the last 10 years.

## 4.2 Plantation

The Yarraman State Forest was declared in 1901 (DNPRSR 2013) and has been protected as State Forest since that time. Although plantation pine is milled at the Yarraman State Forest, the area subject to the proposed SRE area continues to be undisturbed and is considered dryland plantation (DNPRSR 2013). Figure 4.1 along with Photographs 4.1 and 4.2 (both of which were taken in 2014 for studies associated with the Meandu Mine EA amendment application) confirms that the proposed SRE area is extensively covered by well-established vegetation in the form of Hoop Pine plantation.



Source: ArcGIS World Imagery Service

**Figure 4.1** Aerial of proposed SRE area illustrating undisturbed vegetation coverage





**Photo 4.1** Hoop pine plantation along forestry trail within proposed SRE (2014)



**Photo 4.2** Hoop pine plantation next to groundwater monitoring bores (2014)

Historical aerial photography of the proposed SRE area for the years 1999, 2002, 2004 and 2005 supplied by Stanwell is provided in Figures 4.2 to 4.5 respectively. This aerial photography illustrates that in 1999 the northern section of the proposed SRE area contained well-established plantation forestry and the southern section containing a relatively newly established plantation. These aerial photographs illustrate that the proposed SRE area has been used for plantation forestry since (at least) 1999.

The Hoop Pine species is identified as being a long rotation crop of between 40 and 50 years. HQ-Plantations have advised that planting dates for the current crop range from 1970 to 2001 as evidenced in the aerial photographs (Figures 4.2 to 4.6) which show differences in the age of the plantation. Written correspondence from HQ-Plantation on this matter is provided in Appendix B.

The *Forest Stewardship Plan* February 2014 (HQ-Plantations 2014) details the operational procedures for managing State Forests. Section 8 of the plan does not state that irrigation is a component of the process and this supports a conclusion that the Yarraman State Forest is a dryland plantation. HQ-Plantations has also confirmed that the Hoop Pine plantation within the Yarraman State Forest is not, and has never been irrigated (refer to Appendix B).

Based on this it is concluded the proposed SRE area has been used for dryland plantation (Hoop Pine) for at least the last 10 years.





**Figure 4.2** Meandu Mine proposed SRE – 1999 aerial photography





**Figure 4.3** Meandu Mine proposed SRE – 2002 aerial photography





**Figure 4.4** Meandu Mine proposed SRE – 2004 aerial photography





**Figure 4.5** Meandu Mine proposed SRE – 2005 aerial photography





**Figure 4.6** Meandu Mine proposed SRE – 2014 aerial photography

## 4.3 Apiary

The Queensland Government issues apiary permits to undertake beekeeping activities in State Forests under Section 35(1) of the *Forestry Act 1959*. The Queensland Government mapping relating to apiary sites does not identify the Yarraman State Forest as being subject to any permits (Queensland Government 2014). Furthermore, while Table 2 of The Guideline for Rural Beekeeping in Queensland confirms that the Darling Downs region is a major beekeeping area in Queensland, it notes that the main species used to produce honey and pollen are Mountain Coolibah, Sunflower, Ironbark, Yellow Box and agricultural weeds (DPIF 2014). Preferred apiary sites also comprise of a variety of floral sources (as opposed to a species monoculture).

In recent years a number of land use and ecological surveys have been undertaken within the area of the proposed SRE to support the assessment undertaken for the EA amendment application, the most recent undertaken by PW Baker & Associates Pty Ltd 2014 (and submitted to the Department of Environment and Heritage Protection (DEHP) as part of the EA amendment application). None of these surveys identified bee hives within the SRE area or its immediate surrounds.

It is therefore considered highly unlikely that the Hoop Pine monoculture within the proposed SRE and Yarraman State Forest would support apiary activities.

## 4.4 Grazing

The proposed SRE area is extensively covered by Hoop Pine plantation with a dense understorey of Lantana. Grazing has been noted as occurring outside the SRE area, but not within the SRE area itself. The density of the Lantana understorey suggests that grazing activities have not occurred in this area in recent times. With respect to PALUs, no areas of irrigated pasture occur within the SRE area.

## 4.5 Cropping

Soils and Land Systems mapping (DNRM 2014) identifies the SRE area as Agriculture land Class Crop Land. An assessment of soils and land undertaken by PW Baker & Associates Pty Ltd as part of studies supporting an EA amendment application found that the site overlies characteristically red and red brown Ferrosols formed on deeply weathered and laterised basalt (land zone 5). The red soils at the SRE area are generally well drained quite friable light clays with a gradual increase in clay content and rigidity, becoming massive at depth. Prior to clearing for the development of the Hoop Pine plantation, the deep red basaltic soils would have supported native vine scrub and *Araucaria cunninghamii*. The assessment undertaken by PW Baker & Associates also concluded that the SRE area cannot be considered to form part of Good Quality Agricultural Land because of severe limiting factors, including excessive slope and undulating topography and poor fertility. Thus aside from commercial forestry or cattle grazing, the site is considered to have no significant agronomic potential.

## 5. Public notification

Division 4 of the RPI Act outlines the requirements for public notification of Regional Interest Assessment Applications. The RPI Act requires a Regional Interest Assessment Application to be publically notified if:

- prescribed by a regulation as notifiable (and no exemption exists); or
- the Chief Executive has given the applicant a notice advising the activity is notifiable.

Section 34 (3) of the RPI Act provides for an exemption from notification if the Chief Executive is satisfied that there has been sufficient notification of the activity under another Act or law.

Prior to the submission of the Additional Surface Area application to the Department of Natural Resources and Mines and the Environmental Authority amendment application for the SRE to DEHP, Stanwell representatives attended a number of meetings with various affected persons and parties to discuss the details of the SRE. Meeting have been held with:

- HQ-Plantations Pty Ltd
- Department of Environment and Heritage Protection
- Department of Natural Resources and Mines
- Department of Agriculture, Fisheries and Forestry
- Department of National Parks, Recreation, Sport and Racing
- Toowoomba Regional Council
- South Burnett Regional Council
- the South Burnett community (through Stanwell's regular contacts with opinion leaders of the community)
- near neighbours and downstream stakeholders
- representatives of the Traditional Owners (via Indigenous Land Use Agreement Committee; Cultural Heritage Coordinating Committee; Agreement Implementation Group).

The SRE project proposes two public notification processes outside of the RPI Act:

- notification by print advertisement in a locally circulating newspaper of the Additional Surface Area and Environmental Authority Amendment under the *Mineral Resources Act 1989* (Queensland) and the *Environmental Protection Act 1994* (Queensland).
- notification by print advertisement placed in a locally circulating newspaper, government gazette and individual notices to stakeholders in relation to the *Native Title Act 1993* (Commonwealth) Right to Negotiate process.

Given the two notification processes above, the applicant seeks and exemption form public notification for the assessment application under section 34(3) of the RPI Act.

## 6. Conclusion

The SRE area is designated as PAA under the Regional Plan. The Regional Plan identifies land uses included in the following ALUM classifications as PALU:

- Class 3.3 (Cropping)
- Class 3.4 (Perennial horticulture)
- Class 3.5 (Seasonal horticulture)
- Class 4 (Production from Irrigated Agriculture and Plantations)
- Class 5.1 (Intensive horticulture).

The proposed SRE is located within the Yarraman State Forest and has been under current plantation forest (Hoop Pine) since at least 2001 as evidenced by correspondence with HQ-Plantations and historical aerial photography of the site. Based on this evidence, the most relevant PALU would be Class 4.1.0 irrigation plantation forestry.

In reviewing the Project against Prescribed Solution 1, it is concluded that the land the subject of this application has not been used as a PALU for at least three years during the last 10 years for the following reasons:

- Queensland Land Use Mapping identifies the proposed SRE as dryland plantation.
- The aerial photography over the last 15 years illustrates that the SRE area is located in the Yarraman State Forest and is considered undisturbed dryland plantation (Hoop Pine). In addition, the long rotation crop of 40 to 50 years for the well-established Hoop Pine further demonstrates that the land use has been in existence for an extended period.
- HQ-Plantations has also confirmed that the Hoop Pine plantation has not been subject to irrigation practices.
- The SRE area also has a dense understorey of Lantana, which further demonstrates that grazing activities have not recently occurred in this area.
- An assessment of the land within the SRE area found it to be subject to severe limiting factors (i.e. excessive slope, undulating topography and poor soil fertility) which support a conclusion that the land is not considered Good Quality Agricultural Land.

The evidence provided in support of this assessment application demonstrates that the SRE area is not currently being used for a PALU nor has it been used for a PALU in the last 10 years. It is considered that the PAA designation under the Regional Plan does not reflect current or recent land use of the SRE area.

The assessment of the Project against Required Outcome 1 and Prescribed Solution 1 demonstrates that the SRE area would not be located on land in a PAA that is used for a PALU.



## 7. References

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2014, <http://www.parliament.qld.gov.au/documents/tableOffice/TabledPapers/2003/5003T7043.pdf> [http://www.daff.gov.au/ABARES/aclump/Documents/ALUM\\_Classification\\_V7\\_May\\_2010\\_summary.pdf](http://www.daff.gov.au/ABARES/aclump/Documents/ALUM_Classification_V7_May_2010_summary.pdf)

Department of National Parks, Recreation, Sport and Racing, 2013. *Nature, Culture and History*, viewed at 3 November 2014, <http://www.nprsr.qld.gov.au/parks/yarraman/culture.html>

Department of Natural Resources and Mines, 2014. *Vegetation Management Layers*. Queensland Government.

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Department of State Development, Infrastructure and Planning 2014, *RPI Act Guideline 01/14: How to make an assessment application for a regional interests development approval under the Regional Planning Interests Act 2014*, 20 October 2014

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HQ-Plantations, 2014. *Forest Stewardship Plan February 2014*, viewed at 4 November 2014, <http://www.hqplantations.com.au/Links/hqplantationsforeststewardshipplan.pdf>

The State of Queensland, 2014. *Land Use Queensland Land Use Mapping Program*. The Department of Science, Information Technology, Innovation and the Arts.

Toowoomba Regional Council 2014, Online Mapping Service, viewed 2 December 2014, <http://www.toowoombarc.qld.gov.au/payments-and-self-service/mapping/6733-trc-online-mapping-services>

# Appendix A

Title Search



CURRENT STATE TENURE SEARCH  
DEPT OF NATURAL RESOURCES AND MINES, QUEENSLAND  
Request No: 20435760  
Search Date: 26/02/2015 14:14

Title Reference: 47542223  
Date Created: 14/08/2007

Opening Ref:  
Purpose: STATE FOREST  
Local Name: YARRAMAN STATE FOREST

OWNER

THE STATE OF QUEENSLAND  
(REPRESENTED BY DEPARTMENT OF ENVIRONMENT AND RESOURCE  
MANAGEMENT - FORESTRY ACT)

ESTATE

Estate in Forest Estate

LOT 289 CROWN PLAN FTY1859  
County of (Not Recorded) Parish of (Not Recorded)  
Local Government: SOUTH BURNETT  
Local Government: TOOWOOMBA

EASEMENTS AND ENCUMBRANCES

1. NOTING No 602823642 (3) 02/07/1996 at 12:27  
20/08/1985  
EXPIRY OF S.L. DEPT OF FORESTRY  
ADVISED LANDS THAT UPON EXPIRY OF  
S.L. 39921, THE FORESTRY DEPT CONSIDERS  
THAT THE LAND WOULD BE BEST DEALT WITH  
UNDER SECTION 35 (1)(2) OF THE FORESTRY  
ACT. THE LESSEES WILL BE OFFERED A  
STOCK GRAZING PERMIT OVER THE AREA.  
THEIR REF: S.L. 39921 (AE7).  
13/01/1988  
LEASING DEPT OF FORESTRY  
FORESTRY HAVE ADVISED THAT A STOCK GRAZI  
NG PERMIT HAS ISSUED OVER STATE FOREST  
289, PARISH OF COOYAR AND THAT A RENEWAL  
OF SPECIAL LEASE 41367 WILL NOT BE  
NECESSARY
2. STATE LEASE No 712871015 17/11/2009 at 14:01  
A State Lease has been created see Title Reference  
40056845
3. PLANTATION LICENCE No 713331865 05/07/2010 at 14:10  
A Plantation Licence has been issued see Title Reference  
45000002

CURRENT STATE TENURE SEARCH

DEPT OF NATURAL RESOURCES AND MINES, QUEENSLAND

Request No: 20435760

Search Date: 26/02/2015 14:14

Title Reference: 47542223

Date Created: 14/08/2007

ADMINISTRATIVE ADVICES

Dealing	Type	Lodgement Date	Status
712155179	RT NOTING	12/01/2009 13:31	CURRENT
LAND TITLE ACT 1994			
UNREGISTERED DEALINGS - NIL			

CERTIFICATE OF TITLE ISSUED - No

Caution - Charges do not necessarily appear in order of priority

\*\* End of Current State Tenure Search \*\*

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

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Requested By: D APPLICATIONS SAI GLOBAL



## Appendix B

### HQ-Plantations Correspondence



## Cullen, Scott

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**From:** Jarick, Lester <Lester.Jarick@hqplantations.com.au>  
**Sent:** Tuesday, 6 January 2015 9:20 AM  
**To:** Cabrera, Javier  
**Subject:** FW: Meandu Mine surface rights extension - questions regarding forestry activities

Javier,

HQPlantations can confirm that the area in question is not or has not had any irrigation in the past.

The original plantations in this section were planted in the 1930's to the 1940's. Planting dates for the current crop range from 1970 to 2001.

Lot 289 was forested land prior to Araucaria plantation establishment in the 1930's.

The total plantation area managed in the Yarraman State Forest is 3,976ha. Hoop Pine Plantations in South East Qld managed by HQPlantations total 37,419ha (Imbil, Jimna, Yarraman Areas).

Lester Jarick | Regional Forest Manager | **HQPlantations Pty Ltd** | Ph: +61 7 (07)54844201 | Fx: +61 7 (07)54845220 | Mob: 0428734103 | Em: [lester.jarick@hqplantations.com.au](mailto:lester.jarick@hqplantations.com.au) | 371 Yabba Creek Road, Imbil Q 4750 | PO Box 37, Imbil Q 4570 | [www.hqplantations.com.au](http://www.hqplantations.com.au) | Profitable sustainable plantation forests

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**From:** Cabrera, Javier [<mailto:Javier.Cabrera@stanwell.com>]  
**Sent:** Friday, 19 December 2014 7:38 AM  
**To:** Jarick, Lester; Moir, John; West, David  
**Cc:** Warren, Rachael; Cullen, Scott; Ferdinands, Nathan; Orbell, Jacob  
**Subject:** Meandu Mine surface rights extension - questions regarding forestry activities

Hi Lester

One of the approvals applications we are preparing for the Meandu Mine surface rights extension is a Regional Interest Development Approval. For that application we are seeking some information on the forestry activity in the area of the surface rights extension. We would appreciate if HQPlantations could provide answers and/or confirmation to the following questions:

- Can you confirm if Lot 289 on FTY1859 is irrigated or not and if it hasn't been irrigated how long has that been the case?
- In what year were hoop pine trees planted on the part of Lot 289 on FTY 1859 covered by the Surface Rights Extension ?
- Prior to the planting of these trees was this part of Lot 289 on FTY1859 used for any other land uses other than forestry operations and if so what?
- What is the total area of Hoop Pine plantation in the Yarraman State Forest, compared to the area of Hoop Pine plantation managed by HQP as a broader unit/agricultural enterprise, and a clear understanding of what that broader unit is.

I'll send a general project update separately before Christmas. Let me know if you have any dates in mind for next year for a meeting regarding compensation agreement and road design

Regards

**Javier Cabrera**  
Manager Environment (Corporate)



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