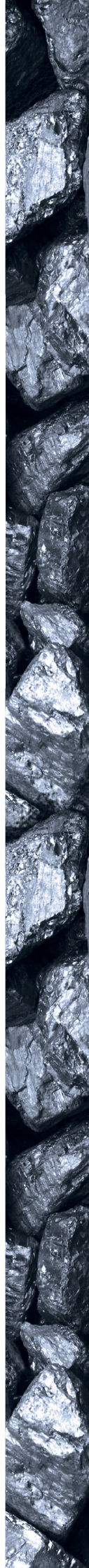


# Initial Advice Statement

## Springsure Creek Coal Mine Project



[www.bandannaenergy.com.au](http://www.bandannaenergy.com.au)



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## 1. INTRODUCTION

### 1.1 Background

Springsure Creek Coal Pty Ltd (the Proponent) proposes to develop the Springsure Creek Coal Mine (the Project). The Project site is located approximately 40 km south of Emerald and approximately 60 km to the southwest of the township of Blackwater (see **Figure 1**).

The Project involves the development and operation of a new underground mine and associated infrastructure to produce up to 9 million tonnes per annum (Mtpa) of run-of-mine (ROM) coal. The Project is expected to commence in construction 2012 and continue for approximately 30 years.

### 1.2 Proponent

The Project will be developed and operated by Springsure Creek Coal Pty Ltd, a wholly owned subsidiary of Bandanna Energy. Bandanna Energy is an Australian owned public company which listed on the Australian Securities Exchange's in 2008. Bandanna Energy has a market capitalisation of A\$514 million as at 18 November 2010. Bandanna Energy has been in operation since 2008 and has over 1,300 million tonnes of JORC compliant Resources and Reserves.

The contact details for Springsure Creek Coal are:

Springsure Creek Coal  
Level 12, 410 Queen Street  
Brisbane Qld 4000.

### 1.3 Project Assessment

The Proponent will seek to have the Project assessed through an Environmental Impact Statement (EIS) prepared under Chapter 3 of the *Environmental Protection Act 1994* (EP Act). This IAS is submitted in support of the Proponents application to prepare a Voluntary EIS in accordance with section 71 of the EP Act.

A referral under the *Environment Protection and Biodiversity Conservation 1999* (EPBC Act) will be made to the Commonwealth Department of Sustainability, Environment, Water, Population and Communities (DSEWPC) to determine if there are any controlling provisions for the project. A review of the EPBC Act Significant Impact threshold triggers has been undertaken and it is assessed the project may impact Matters of National Environmental Significance. As such it is expected the project will be declared a "controlled action" and therefore approval for the project will be required from the Commonwealth.

Should the project be declared a controlled action, it is expected the project will be assessed using an accredited environmental assessment process under the EP Act in accordance with the bilateral agreement between the Australian and Queensland governments. Terms of Reference (ToR) for the EIS will be developed based on the outcomes of this IAS and the requirements of relevant Commonwealth and State government agencies and submissions of stakeholders and the community.

### 1.4 Purpose of the Initial Advice Statement

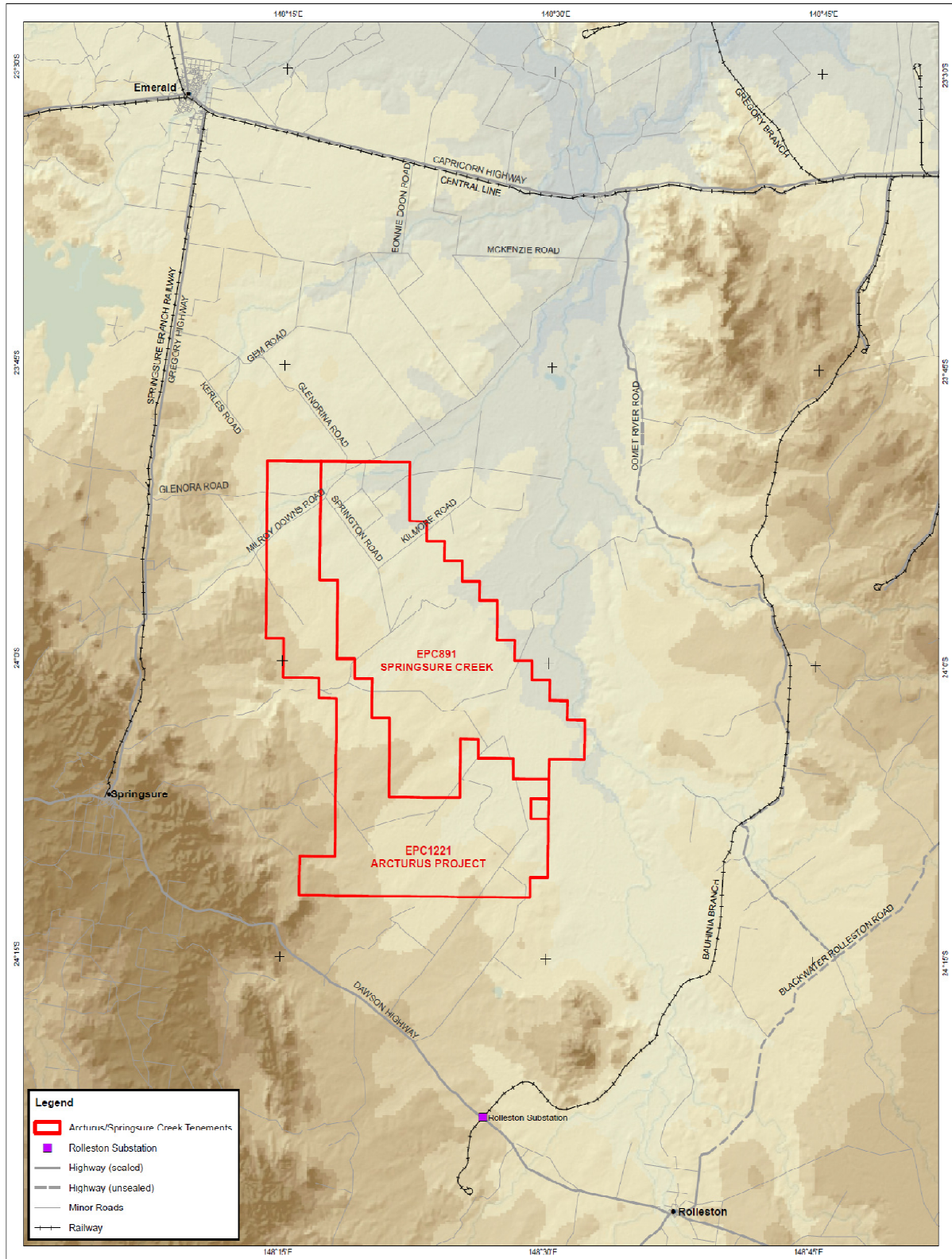
The purpose of this Initial Advice Statement (IAS) is to provide sufficient information to:

- the Queensland Government Department of Environment and Resource Management (DERM) to assess the Proponent's application to prepare a voluntary EIS for the Project; and
- the Commonwealth DEWPC to assist with the assessment of the Project Referral Application pursuant to the requirements of the EPBC Act.

**INITIAL ADVICE STATEMENT  
SPRINGSURE CREEK COAL MINE PROJECT**

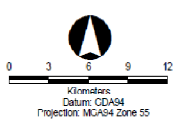


**Figure 1. Project Location**



**NOTES:**  
Issue Date: 14/06/2010  
Termination Date: Dept. Mines & Energy, Sept 2010.

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CLIENT: BANDANNA COAL  
PROJECT: ARCTURUS/SPRINGSURE CREEK COAL TENEMENTS  
TITLE: LOCALITY  
DATE: NOVEMBER 2010



## 2. PROJECT DESCRIPTION

### 2.1 The Resource

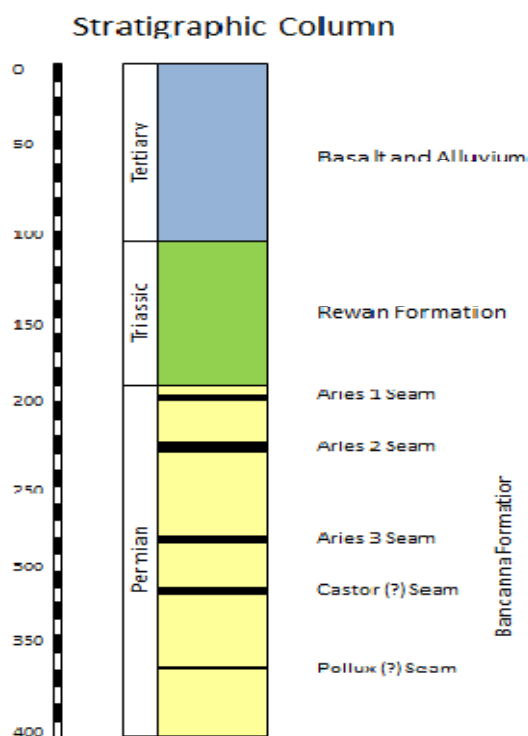
The Springsure Creek deposit is part of the northwest trending Denison Trough. The trough lies along the western margin of the Bowen Basin and comprises coal seams within the Bandanna Formation, the correlative equivalent to the Rangal Coal Measures to the north and east.

Conformably overlain by the Triassic Rewan Formation, the Bandanna Formation contains up to seven coal seams within the area (see Figure 2). The overlying Rewan Formation is generally capped with Tertiary basalts, unconsolidated sands and or clays.

The tenement is characterized by a series of broad, en echelon anticlines, shallowly dipping to the east and west, and bound to the northeast and southwest by regionally extensive basement faults. The primary targets for exploration within the tenement are in the areas proximal to these anticlines.

Springsure Creek Coal has to date identified total resources of 324.2 million tonnes including 252 million tonnes of INFERRED RESOURCE and 72.2 million tonnes of INDICATED RESOURCE within EPC 891. Additionally 49.2 million tonnes of marketable reserve has been identified.

**Figure 2. Stratigraphic Column for the Springsure Creek Deposit.**



### 2.2 Land Tenure

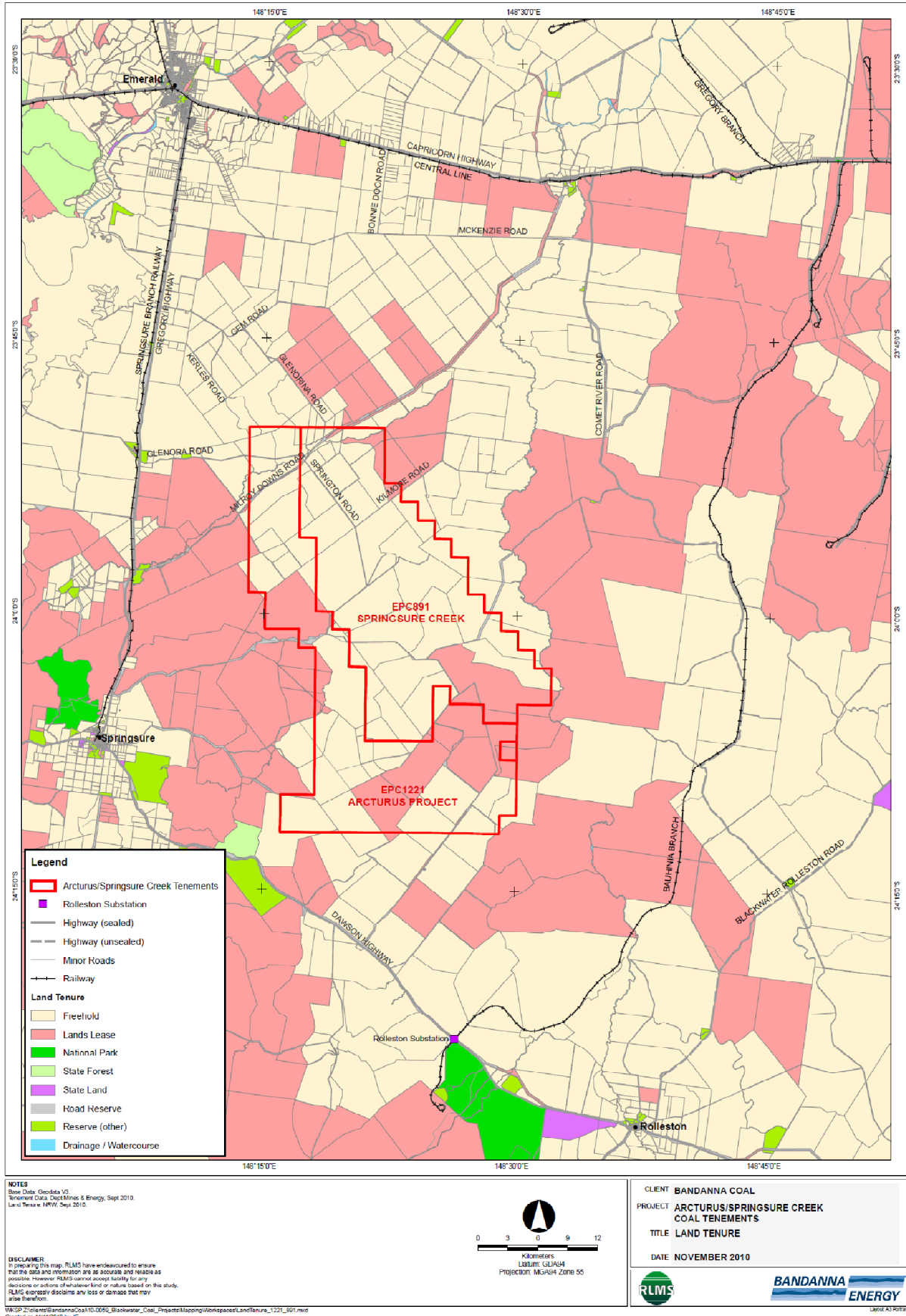
The Project is located approximately 40 km south of Emerald and approximately 60 km to southwest of Blackwater, in the Bowen Basin central Queensland and consists of Exploration Permit Coal (EPC) 891. EPC 891 occurs on 56 separate allotments as shown at **Figure 3**.

EPC 891 lies within the Central Highlands Regional Council Local Government area.

**INITIAL ADVICE STATEMENT  
SPRINGSURE CREEK COAL MINE PROJECT**



**Figure 3. EPC 891 Springsure Creek – Land tenure**



The proponent is currently planning to submit a Mining Lease Application (MLA) pursuant to the requirements of the *Mineral Resources Act 1989*, and Voluntary EIS and draft Environmental Authority (mining lease) (EA(ml)) pursuant to the EP Act in Q2 2011. The proponent will commence negotiations with the property owners for acquisition of the properties within the project area on submission of the MLA.

## **2.3 Mining Process**

The Project involves the development of a new underground coal mine and associated infrastructure. The current mine plan is based on construction commencing in 2012, with first production to commence in 2013 after a construction and development period of 12 months. A production rate of 3 - 5 Mtpa is currently planned for the first phase of the mine development; however, future expansion may occur dependent on favourable exploration results.

The proponent is currently evaluating a range of methods to establish the most cost effective and efficient design for the underground mine and resource extraction process as part of feasibility assessment currently in progress.

Current planning to date indicates the proposed operation will use underground longwall operations; however, further development of the mine plan may include the use of board and pillar methods. Coal will be delivered to the surface via conveyors and then transferred to a raw coal stock pile. A ventilation system for the underground mine using shafts and tunnels will be incorporated into the design.

## **2.4 Coal Handling and Preparation Plant**

The Proponent has, at this stage, determined that the ROM coal forthcoming from both the underground mine would be subject to a simple crushing and screening process and delivered to market as a raw product. Should the market change to require a higher quality product then a "washed" product may be considered.

If then, the Project requires the construction of a Coal Handling and Preparation Plant (CHPP) and a co-disposal facility onsite. The CHPP would include a ROM coal delivery system and pad, coal washery module, coal waste delivery system, product coal delivery system and stockpiles. The CHPP would be designed to support the initial 5 Mtpa; however, the modularisation would allow for future optimisation of the CHPP to accommodate higher throughput volumes.

Typically ROM coal would be dumped on a ROM pad and pushed by either dozer or front end loader into a feeder as part of the delivery system. The ROM coal would then be crushed in three stages and fed to the CHPP at a 40 mm top size. The CHPP is comprised of a dense medium cyclone and a spiral circuit with the fines (<0.1 mm) discarded.

Reject and tailings management would be required as the ROM coal would require washing on-site. Plant water consumption and water availability are the major considerations in the selection of the most appropriate method of tailings disposal. The method of reject and tailings disposal will be ascertained in conjunction with the water resource study that is currently in progress as part of the feasibility assessment.

The product coal would be transported and stockpiled at the Product Coal Stockpile / Rail Loadout Facility prior to loading into the Train Loading Bin via an enclosed conveyor. Coal would then be loaded into trains via the surge bin before being transported via a new balloon loop and rail spur to the existing Rolleston rail line then on to the existing Blackwater to Gladstone rail line to take the coal to the Wiggins Island Export Coal Terminal (WICET). The proponent has secured a 4 Mtpa port allocation in the WICET Stage 1 development and this will be utilized as the desired coal export facilities for the Project. Increases to this initial allocation would be sought as part of the WICET expansion.

## **2.5 Infrastructure Requirements**

Additional infrastructure to be constructed at the site will include administration facilities, workshop and warehouse facilities, potable water and sewerage treatment plants, a fuel farm, laydown pads and vehicle wash facilities, water management system structures such as environmental dams and diversion drains.

The mine power supply would be sourced from the National electrical grid line which runs to the east of the proposed mine site. Initial discussions undertaken with the power authorities have indicated that the local network has the capacity to supply the power demand required for the project. The connection point to the supply network has not yet been established and will be identified in the feasibility study and in consultation with the power authorities.

Currently planning has the power supplied to the site at 132 kV transformed down to 11 kV on the site for distribution. Power will be distributed across the site on overhead powerlines, buried conductors and on above ground cable ladder. Pole or ground mounted transformers located close to the electrical loads will be used to reduce the 11 kV down to 415 Volt AC. Further voltage reduction requirements will be addressed via above ground cable ladder, buried conductors and overhead power lines.

The mine water supply would be sourced from existing Government distribution network. Initial discussions undertaken with the water authorities have indicated that the local network should provide adequate water capacity for the Project. The connection point to the supply network has not yet been established and will be identified in the feasibility study and in consultation with the water authorities. Water will be piped across the site from the connection via polyethylene pipeline. Water will also be sourced from a raw water dam or dams and used primarily for dust suppression.

Potable water will either be sourced from external providers or produced by treating the water sourced from the underground de-watering using an off-the-shelf desalinization system.

## **2.6 Project Access**

Access will be via a purpose built access road to the site from either the Dawson or Gregory Highway or upgrades to the existing access roads. The actual location of the primary access road will be confirmed during the completion of the feasibility and mine planning studies. Additional access roads may be required and these will also be confirmed during the later stages of the project design.

## **2.7 Post Mine Rehabilitation**

Rehabilitation, decommissioning and closure activities will be part of the overall rehabilitation strategy for the Springsure Creek Project. The objectives outlined in the EA(ml) and EM Plan for the Project will be complied with during the progressive rehabilitation of the site. Typical strategies that will be incorporated into the final rehabilitation plan include:

- landform designs for out of pit dumps, co-disposal facilities and final voids;
- subsidence management;
- revegetation and landscape restoration programs and monitoring consistent with the requirements for strategic cropping land; and
- annual review of disturbance footprint and liability.

## **2.8 Project Approvals**

The proponent is seeking to have the MLA approved by the Queensland Department of Employment, Economic Development and Innovation (DEEDI) under the MR Act, and the EA(ml) approved by DERM under the EP Act. The proponent is seeking to have the project assessed via a Voluntary EIS and approval under the EPBC Act is expected to be required.

Separate approvals / agreements will be required from the relevant authorities for the connection onto the Rolleston and Blackwater rail systems, and from the relevant authorities for the power and water supply connections.

In addition to the EA(ml) it is likely that approval for the following environmentally relevant activities (ERA) will be required for the project:

- ERA8 – Chemical Storage;
- ERA56 – Regulated Waste Storage; and
- ERA63 – Sewage Treatment.

## **2.9 Workforce**

The Project is expected to employ 300 employees during construction and 150 employees during operations. Employees will likely comprise of a mixture of local personnel and contractors. A fly-in / fly-out contingent may be necessary where vacancies cannot be filled by local personnel.

## **2.10 Native Title**

Native Title is extinguished over the subject land.

The Registered Cultural Heritage Body for the area is the Yumba Burin Heritage Association Inc..

## **2.11 Affected and Interested parties**

In accordance with the requirements of the EP Act, Interested and Affected Person have been identified and their contact details have been provided to DERM with the application for assessment via Voluntary EIS.

### 3. EXISTING ENVIRONMENT AND POTENTIAL IMPACTS

Technical studies on the environmental aspects (e.g. water, soils, flora and fauna etc) of the project will be undertaken through the preparation of the voluntary EIS. These assessments will be used to identify the environmental values of the project area and the potential impacts on those values as a consequence of the construction and operation of the proposed Project. The following sections summarises the receiving environment within the proposed study area.

#### 3.1 Climate

The mean temperature range is between 6.2° and 34.2° with the coldest month being June and the hottest being December. The Rainfall in the Springsure region is variable, with most rainfall in the warmer months. On average, most of the annual rainfall is received between December and March. Rainfall is lowest between June and September (Bureau of Meteorology Comet street, Springsure: Site number 035065). Winds occur predominantly from the east during spring and summer, often between 21-30 km/h (data collected from the Comet Street, Springsure Station). These continue through to mid autumn and in late autumn are generally more south easterly. The cooler, drier air is characteristic of the dominant southeast winds of moderate strength, usually with long calm periods in the winter.

#### 3.2 Land Resources

##### 3.2.1 Soils

The underlying geology of the EPC 891 is dominated by basalt, conglomerate sandstone and clay, soil, sand and gravel. The predominant mapped soil types within the proposed Springsure Creek mine lease area are Vertosols with some areas of Chromosols in the western section of the EPC (see **Figure 4**).

Vertosols are soils that exhibit shrink / swell characteristics and strong cracking when dry. Vertosols are highly productive soils which require very little cultivation due to the soils' self cracking / mulching characteristics. Vertosols most commonly exist in areas with flat to slightly undulating topography and are often derived from alluvium and other sedimentary deposits as is likely to be the case within the EPC.

Chromosols are soils with a clear or abrupt textural B horizon where the major half of the B2 horizon is not strongly acid and non-sodic. These soils may have favourable physical and chemical properties but many now have hardsetting surface layers with structural degradation caused by long-term cultivation. Chromosols are generally associated with Riverine plains as they appear to be in this region.

The mapped landscape units present within the EPC indicate that the dominant soils in the area are shallow to moderately dark clays often with linear gilgai microrelief on slopes with lowers sites on level plains having deeper soils.

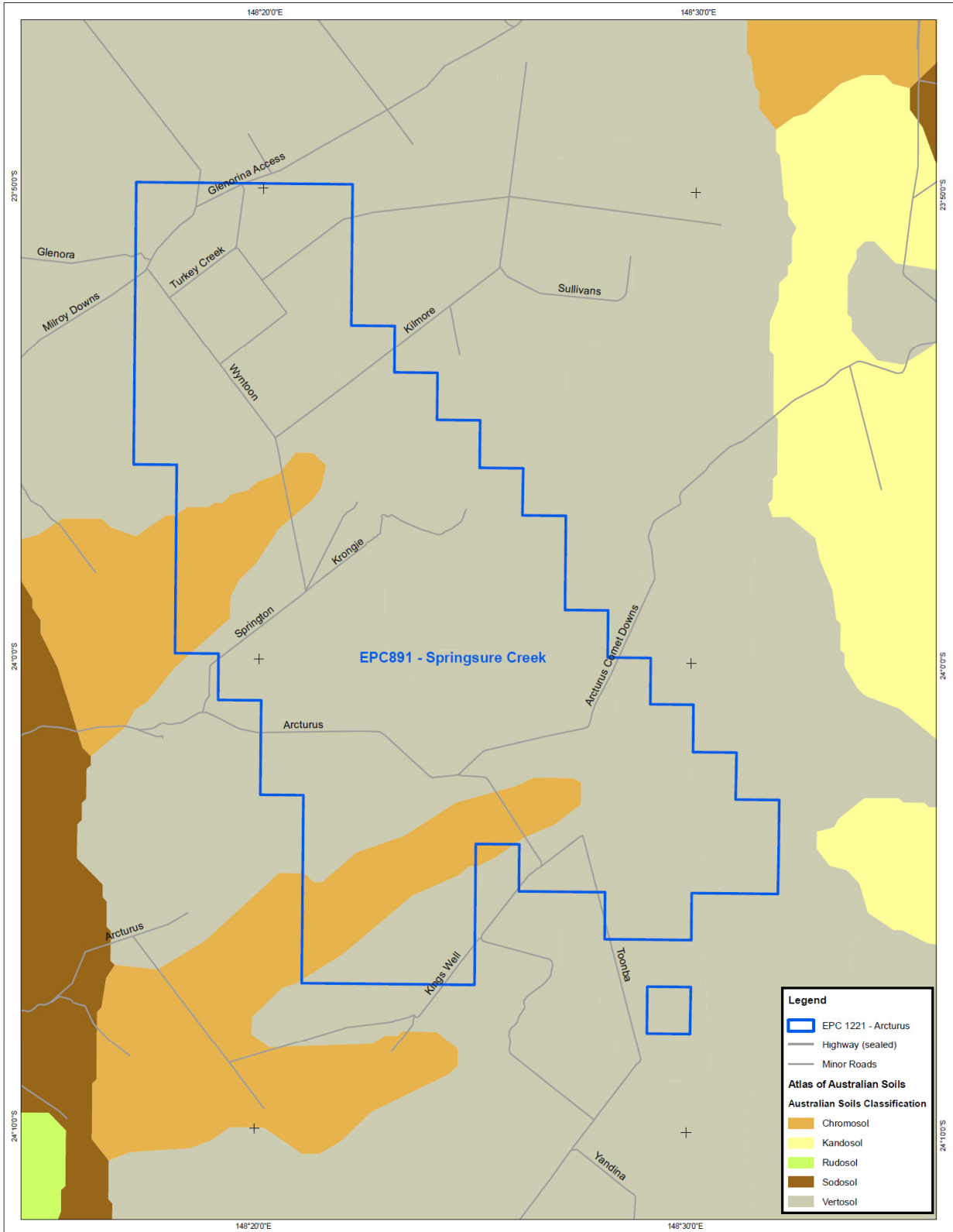
##### 3.2.2 Topography

The topography of the Springsure Creek mine lease area is dominated by a flat to gently undulating alluvial fan associated with outwash from the Sandhurst, Sirius, and Orion Creeks. West of the proposed mine site the topography changes dramatically associated with the Great Dividing Range.

**INITIAL ADVICE STATEMENT  
SPRINGSURE CREEK COAL MINE PROJECT**



**Figure 4. EPC 891 Springsure Creek - Soils**



**Legend**

- EPC 1221 - Arcturus
- Highway (sealed)
- Minor Roads

**Atlas of Australian Soils**

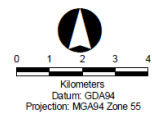
**Australian Soils Classification**

- Chromosol
- Kandosol
- Rudosol
- Sodosol
- Vertosol

**NOTES**  
 State Data: Geodata V3  
 Tenement Data: Dept Mines & Energy, Sept 2010.  
 Soils Data: ASRIS, Sept 2010.

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CLIENT **BANDANNA COAL**  
 PROJECT **EPC 891 - SPRINGSURE CREEK**  
 TITLE **SOILS - USING AUSTRALIAN SOILS CLASSIFICATION**  
 DATE **NOVEMBER 2010**



Subsidence can lead to changes in the landscape appearance within the impact zone above longwall activities. As such the proponent will undertake a detailed assessment of potential impacts associated with subsidence as part of the EIS. Subsidence typically occurs over the mined section of the longwall panels and can result in an undulating or corrugated surficial appearance. The extent to which subsidence affects the land surface is driven by factors such as the width and thickness of the coal seams being mined, the thickness and physical attributes of the overlying strata and the number and timeframe of the mined coal seams.

The results of the detailed assessment will be used to better understand potential impacts from subsidence and to develop a range of mitigation measures to return the site to the previous land uses (i.e. cropping). Options associated with rehabilitation of subsidence areas will also be assessed during the detailed studies and modeling. Final mitigation strategies will be included in the Post Mining Rehabilitation Plan.

### **3.2.3 Land Suitability**

The Springsure Creek mine is located within an area mapped as “strategic cropping land” under the framework policy - *Protecting Queensland’s strategic cropping land: A policy framework*. The area within EPC 891 that the Mining Lease will be sought has historically been used for cropping purposes. Land disturbed by the project will be returned to agriculture where practical. Notable exceptions of disturbance categories that will not be returned to agriculture include voids, dams, co-disposal emplacements and remaining infrastructure such as buildings. A comprehensive land suitability survey will be conducted during the mine planning studies to confirm pre-disturbance land condition. The mine and infrastructure will be designed with the intent to minimizing the extent of cropping land that is disturbed to the point that it cannot be returned to the pre-disturbance use.

## **3.3 Water Resources**

### **3.3.1 Surface Water**

The Project area is located in a significant contributing catchment area of approximately 14,000km<sup>2</sup> which is predominately associated with the Comet River. The project area and contributing catchments are located in the Central Highlands Regional Council Local Government area in Queensland, and have a number of waterway systems intersecting the subject areas, all of which flow to the Fitzroy River Basin. Waterways intersecting the tenements are shown at **Figure 5** and include:

- Comet River;
- Orion Creek;
- Wyanda Creek;
- Satellite Creek;
- Station Creek;
- Springsure Creek;
- Turkey Creek;
- Nine Mile Creek; and
- Minerva Creek.

All the major and minor waterways influencing the Project area are described as non-perennial and therefore flow only during intense periods of rainfall. The typical land use in these catchment areas is described as production from relatively natural environments, production from dry land agriculture, with some areas of conservation and natural environments.

The minimum elevation at the catchment outlet is approximately 140 m with an average slope through the majority of the mid to lower catchment of 0.53%. Steeper catchments located in the upper highlands are shown to have catchment slopes of approximately 0.90%.

### **3.3.2 Groundwater**

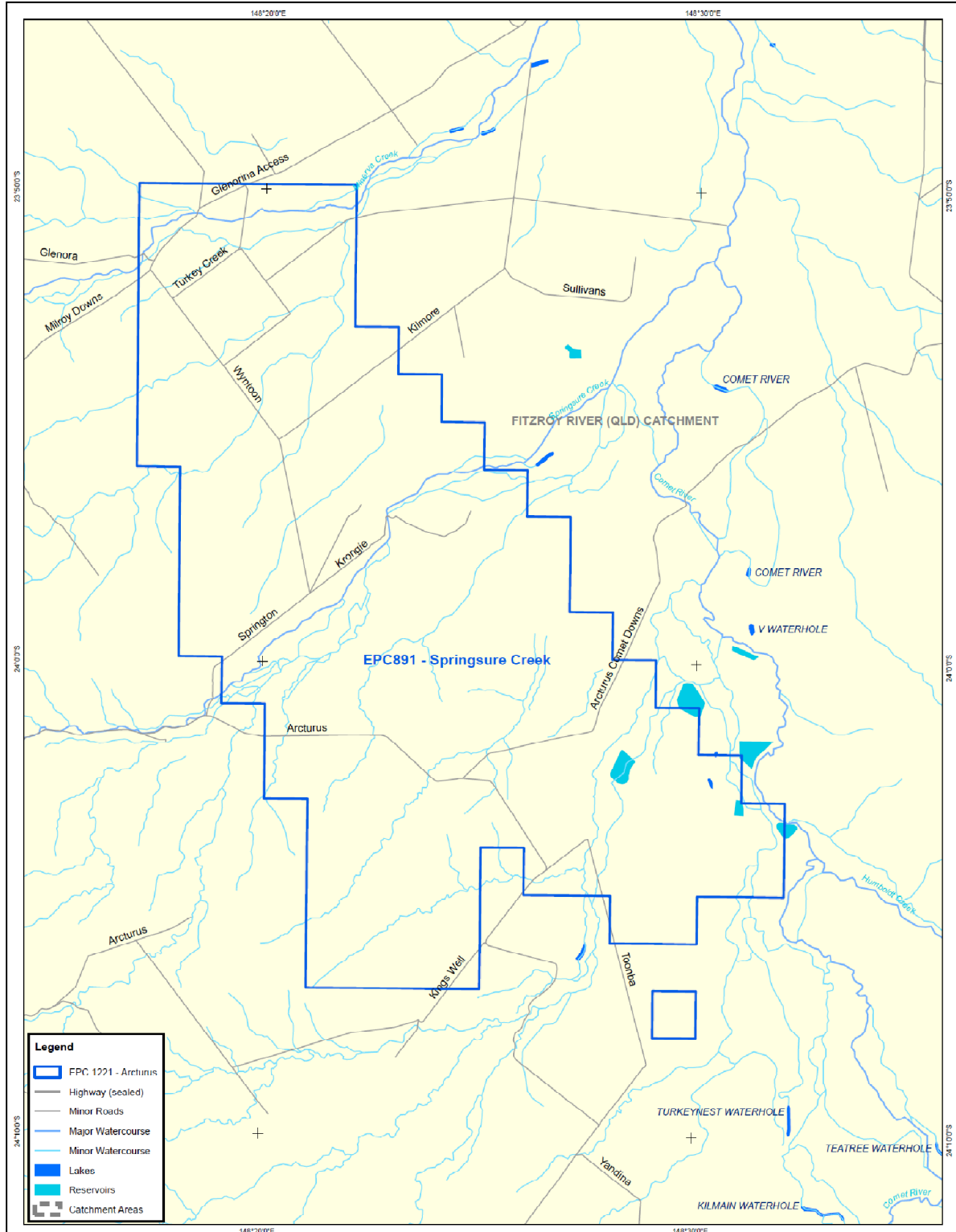
The Project is located within the Bowen Basin in Central Queensland. The groundwater flow directions within the Bowen basin are likely to loosely follow topographic gradients and generally flow from west to east. The aquifer lithology underlying the area is dominated by basic volcanic and sedimentary strata including sandstone, shale, and conglomerates. Bore yields are typically low (<5 L/s), and range in salinity from 500 – 1500 mg/L Total Dissolved Ions (TDI). These waters can be considered suitable for most purposes, however are not recommended for human consumption.

The proponent will undertake detailed studies and modeling to define the groundwater at the site as part of the detailed feasibility assessment. These studies will look at the baseline environment and various options for the mine development. This will assist the proponent in predicting potential localised and regional impacts to current and potential groundwater users. In addition the detailed assessments will be used to develop mitigation measures to minimize potential impacts associated with groundwater extraction associated with mine development and operations.

**INITIAL ADVICE STATEMENT  
SPRINGSURE CREEK COAL MINE PROJECT**



**Figure 5. EPC 891 Springsure Creek - Hydrology**



**Legend**

- EPC 1221 - Arcturus
- Highway (sealed)
- Minor Roads
- Major Watercourse
- Minor Watercourse
- Lakes
- Reservoirs
- Catchment Areas

**NOTES**  
 Scape Data: Geodata V3  
 Tenement Data: Dept Mines & Energy, Sept 2010.  
 Lakes and Reservoir Data: Geodata V3

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 Kilometers  
 Datum: GDA94  
 Projection: MGA94 Zone 55

CLIENT **BANDANNA COAL**  
 PROJECT **EPC 891 - SPRINGSURE CREEK**  
 TITLE **HYDROLOGY**  
 DATE **NOVEMBER 2010**



## 3.4 Nature Conservation

### 3.4.1 Regional Ecosystems

A substantial portion of the proposed mining lease area has been cleared for agricultural purposes. Remnant vegetation exists along the riparian areas and continues to exist in areas less suited to agriculture. A list of Regional Ecosystems present at EPC 891 and their current conservation status are listed in **Table 1** and shown at **Figure 6**.

**Table 1. Regional Ecosystems present within EPC 891**

RE Code	Description	Conservation Status <sup>1</sup>	Biodiversity Status	Conservation Status <sup>2</sup>
11.3.1	<i>Acacia harpophylla</i> and / or <i>Casuarina cristata</i> open forest on alluvial plains	Endangered	Endangered	Threatened
11.3.25	<i>Eucalyptus tereticornis</i> or <i>E. camaldulensis</i> woodland fringing drainage lines	Least Concern	Of Concern	N/A
11.3.3	<i>Eucalyptus coolabah</i> woodland on alluvial plains	Of Concern	Of Concern	N/A
11.4.9	<i>Acacia harpophylla</i> shrubby open forest to woodland with <i>Terminalia oblongata</i> on Cainozoic clay plains	Endangered	Endangered	Threatened
11.8.5	<i>Eucalyptus orgadophila</i> open woodland on Cainozoic igneous rocks	Least Concern	No Concern	N/A
11.8.11	<i>Dichanthium sericeum</i> grassland on Cainozoic igneous rocks	Of Concern	Of Concern	N/A

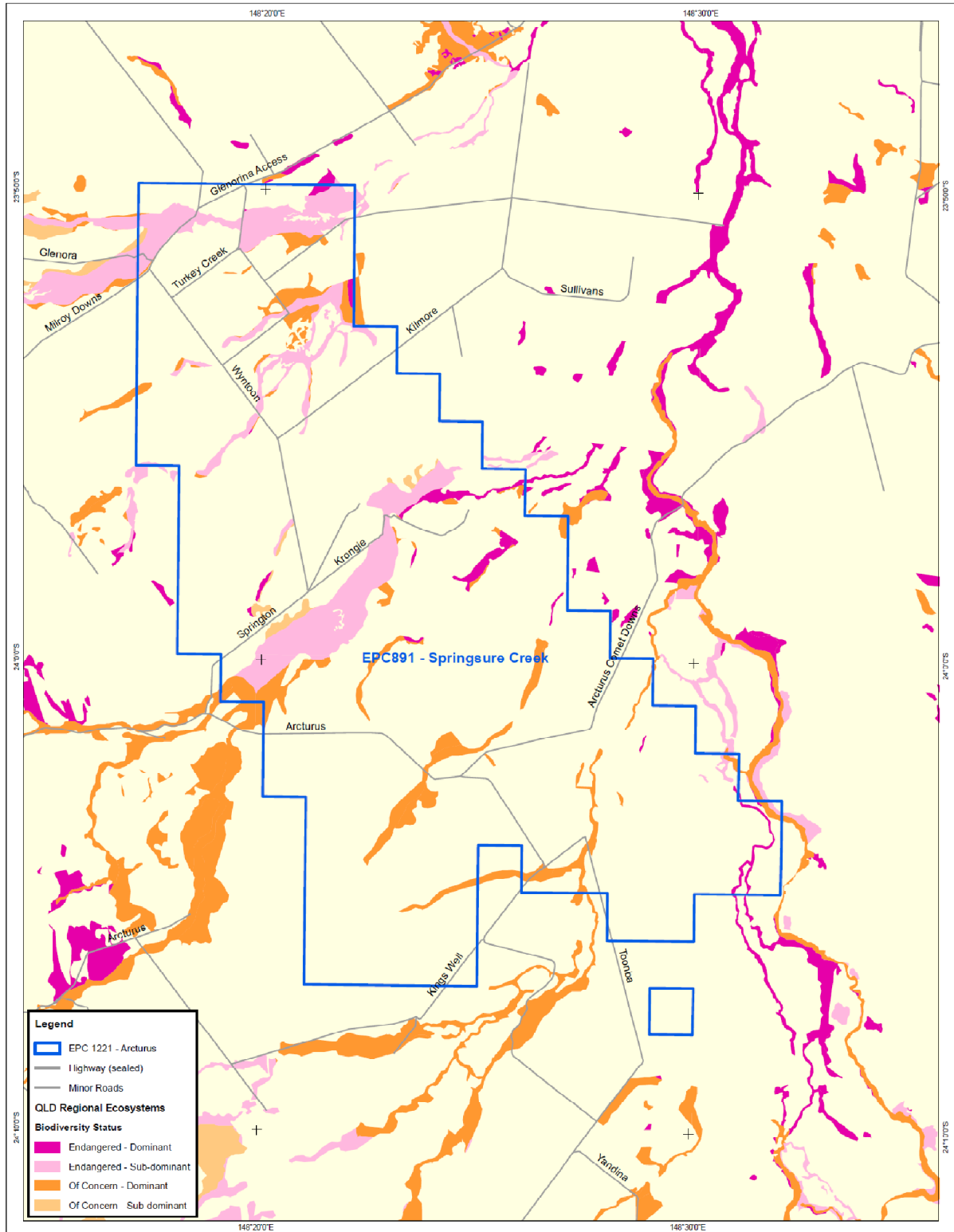
1. Status under the *Vegetation management Act 1999*

2. Status under the EPBC Act

**INITIAL ADVICE STATEMENT  
SPRINGSURE CREEK COAL MINE PROJECT**



**Figure 6. EPC 891 Springsure Creek - Regional Ecosystems**



**Legend**

- EPC 1221 - Arcturus
- Highway (sealed)
- Minor Roads

**QLD Regional Ecosystems**

**Biodiversity Status**

- Endangered - Dominant
- Endangered - Sub-dominant
- Of Concern - Dominant
- Of Concern - Sub-dominant

**NOTES**  
 Base Data: Geoscience QLD  
 Boundary Data: Dept Mines & Energy, Sept 2010.  
 Regional Ecosystem Data: NRW, March 2010

0 1 2 3 4  
 Kilometers  
 DATUM: GDA94  
 PROJECT: NGA04 Zone 55

CLIENT: BANDANNA COAL  
 PROJECT: EPC 891 - SPRINGSURE CREEK  
 TITLE: REGIONAL ECOSYSTEMS  
 DATE: NOVEMBER 2010

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### 3.4.2 Flora

A detailed floristic survey will be undertaken as part of the EIS to assess the site for species listed under the *Nature Conservation Act 1992* (NC Act) and the EPBC Act. Rare and threatened species listed under the EPBC Act that potentially occur within the Project area and their conservation status are shown in **Table 2**.

**Table 2. Potential EPBC Act listed rare and threatened flora that may occur in EPC 891**

Scientific Name	Common Name	Conservation Status	Likelihood of Occurrence
<i>Aristida annua</i>	A grass Sp.	Vulnerable	Species or species habitat likely to occur within area
<i>Cadellia pentastylis</i>	Ooline	Vulnerable	Species or species habitat likely to occur within area

### 3.4.3 Fauna

A detailed fauna survey will be undertaken as part of the EIS to assess the site for species listed under the NC Act and the EPBC Act. Rare and threatened species listed under the EPBC Act that potentially occur within the Project area and their conservation status are shown in **Table 3**. A further 12 migratory and 11 marine species listed under the EPBC Act that may occur at the site or habitat may be present at the site.

**Table 3. Potential EPBC Act listed rare and threatened fauna that may occur in EPC 891**

Scientific Name	Common Name	Conservation Status	Likelihood of Occurrence
Birds			
<i>Erythrotriorchis radiatus</i>	Red Goshawk	Vulnerable	Species or species habitat likely to occur within area
<i>Geophaps scripta scripta</i>	Squatter Pigeon (southern)	Vulnerable	Species or species habitat likely to occur within area
<i>Neochmia ruficauda ruficauda</i>	Star Finch (eastern), Star Finch (southern)	Endangered	Species or species habitat likely to occur within area
<i>Rostratula australis</i>	Australian Painted Snipe	Vulnerable	Species or species habitat may occur within area
Mammals			
<i>Dasyurus hallucatus</i>	Northern Quoll	Endangered	Species or species habitat may occur within area
<i>Nyctophilus timoriensis (South-eastern form)</i>	Greater Long-eared Bat, South-eastern Long-eared Bat	Vulnerable	Species or species habitat may occur within area
Reptiles			
<i>Egernia rugosa</i>	Yakka Skink	Vulnerable	Species or species habitat likely to occur within area
<i>Furina dunmalli</i>	Dunmall's Snake	Vulnerable	Species or species habitat may occur within area
<i>Paradelma orientalis</i>	Brigalow Scaly-foot	Vulnerable	Species or species habitat likely to occur

Scientific Name	Common Name	Conservation Status	Likelihood of Occurrence
			within area
<i>Rheodytes leukops</i>	Fitzroy River Turtle, Fitzroy Tortoise, Fitzroy Turtle	Vulnerable	Species or species habitat may occur within area

### 3.5 Noise

Impacts from noise generated by the project are expected to minimal. The nearest landowner to the project area is located approximately 2 km away from the underground mine and the nearest town to the mine is Springsure, located approximately 25 km from the mine. Noise impacts would typically be associated with the operation of loading machinery and the CHPP (if required).

Noise impacts associated with the project would vary as a consequence of prevailing climatic conditions. However, it is not expected that noise from the construction or operational phases will adversely affect the property owners in the vicinity of the mine or the Springsure township. Notwithstanding, a detailed noise assessment will be conducted as part of the EIS. The results of the assessment will be used to develop noise mitigation strategies in the EM Plan and to form conditions in the EA(ml).

### 3.6 Air Quality

Similar to noise, impacts to air quality generated by the project are expected to minimal. Regional air quality is typically influenced by grazing activities and climatic conditions. The construction and operation of the mine will result in dust emissions. Mine site emissions typically occur from mobile equipment movements, operation of the CHPP, coal stockpiles and waste disposal stockpiles.

It is not expected that air quality in the region will be adversely affected by the construction and operation of the mine. A detailed air quality assessment will be conducted as part of the EIS. The results of the assessment will be used to develop air quality mitigation strategies in the EM Plan and to form conditions in the EA(ml). Mitigation measures that will be considered include the use of water trucks for road watering, progressive rehabilitation, water sprays on crushers and conveyor transfer points.

### 3.7 Waste Management

Construction and operation activities associated within the project will increase the volume of waste materials from the project area. Waste materials have the potential to impact the receiving environment through contaminating soil, habitat and water resources, in addition to having the potential to harm or injure neighbouring communities and fauna and flora species.

While waste produced during the construction phase will be of a relatively short duration (in comparison to the operational phase of the project), waste will continue to be produced during the operation and decommissioning phases of the Project. The management of wastes generated by the project will be addressed in the project EM Plan, which will be developed during the EIS process. The EM Plan will identify controls, which target the reduction of generated wastes and ensure that onsite wastes do not enter the environment and minimise subsequent impacts.

To manage project related waste in accordance with Government Policies, the following measures will be put in place:

- a waste management strategy will be developed along with processes and procedures that form a suitable environmental management framework allowing the incorporation of waste management

into daily operations and will develop efficient practices throughout the lifecycle of the project. These principles will ensure early identification of anticipated waste streams and quantities, and allow effective implementation of appropriate management and mitigation measures to reduce the potential for impacts to occur;

- generated waste will be managed and disposed of by licenced contractors in accordance with the waste's classification i.e. regulated wastes (e.g. hydrocarbons, solvents, asbestos, contaminated soil) will be tracked and recorded prior to being removed from site; and
- a proactive rather than reactive approach to waste generation and minimisation will assist in reducing the volume of waste generated due to the project.

Despite an overall increase in waste compared to baseline conditions, the impacts associated with waste generation are considered to be minor due to the implementation of best practice protocols and a responsible waste management approach.

### **3.8 Safety and Health**

A Safety and Health Management System will be established for the project to ensure all activities that potentially have an impact on safety and health are carried out in a manner that complies with:

- relevant legislation, standards and codes of practice; and
- Bandanna Energy standards.

### **3.9 European and Cultural Heritage**

A Cultural Heritage Management Plan (CHMP) will be developed between the Proponent and the nominated aboriginal party. The CHMP will include provisions for a cultural heritage survey prior to the development of the mine pit, haul road and associated infrastructure.

Surveys of non-indigenous cultural heritage database i.e. the EPBC Protected Matters Search Tool and the Register of National estate will be undertaken as part of the detailed EIS for the project.

### **3.10 Socio – Economics**

The resource sector is the main employer in the immediate area of the proposed mine, with a number of mines already operating in the area. The majority of employees are expected to come from the nearby towns of Springsure and Emerald. An accommodation camp will be built to cater for employees. The exact location of the camp will be determined during feasibility studies.

The Project will positively contribute to the local and regional areas with increased direct employment opportunities and indirect opportunities through the ongoing requirement for services and support.

The Project will require the hiring of 300 and 150 full time employees during construction and operations respectively. Given the small scale of the project, and considering the majority of employees will be local it is not expected that adverse social impacts will arise from the Project. A Social Impact Management Strategy will be developed as part of the EIS process.

### **3.11 Traffic and Transportation**

Transport and traffic issues associated with the project will include the transport of heavy and oversize loads, plant and equipment, construction materials and camp accommodation, together with workforce movements. The Capricorn, Dawson and Gregory Highways will be the major roads utilised to transport materials to the

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project area; however, Local Authority roads will also be utilised to gain site access through the life of the mine.

At this stage of the project design, no estimates are available for the likely number and type of transport trips required for the project. Procedures for the movement and transport of vehicles and personnel during the construction and operation of the mine will be prepared to ensure that these traffic movements do not cause unnecessary damage to local or regional roads. Traffic movement on regional and local roads will be minimised where practicable and restricted in areas of high sensitivity where practical.

The ability of the existing infrastructure in the region to meet project transport needs will be examined as part of future project design activities and the EIS.

## 4. STAKEHOLDER ENGAGEMENT

The proponent is committed to a consultation program as part of the project approvals process, which provides opportunities for active community involvement and education through an inclusive program.

The public consultation process would identify broad issues of concern to local community and interest groups at all stages including project planning, construction, commissioning, operations and final decommissioning.

The public consultation program would include public meetings, interest group meetings, production of regular summary information and updates and other consultation mechanisms for encouraging and facilitating active public consultation. A list of affected persons and interested stakeholders would be developed.

The key objectives of the developed consultation program will be to:

- inform the different interest groups about the project proposal;
- seek an understanding of interest group concerns about the proposal;
- explain the environmental impact assessment process and indicate how public input might influence the final recommendations for the project;
- provide an understanding of the regulatory approval process;
- seek local information and input into the project; and
- provide the community with a sense of ownership in the project.

## 5. REFERENCES

Australian Soils Resource Information Centre (2010). Website (accessed 17 November 2010).

Department of Sustainability, Environment, Water, Population and Communities (2010). Environmental Reporting Tool (ERT) website (accessed 17 November 2010).