



AN EMERGING COAL BASED ENERGY COMPANY FOCUSED ON THE SURAT BASIN REGION

MetroCoal Limited ABN 45 117 763 443

INITIAL ADVICE STATEMENT BUNDI COAL MINE PROJECT



Table of Contents

1. Introduction	3
1.1 Background	3
1.2 Proponent	3
1.3 Project Assessment	3
1.4 Purpose of the Initial Advice Statement	3
2. Project Description	5
2.1 The Resource	5
2.2 Land Tenure	6
2.3 Mining Process	7
2.3.1 Underground Mine	7
2.4 Coal Handling and Preparation Plant	7
2.5 Transport Infrastructure	7
2.6 Additional Infrastructure	10
2.6.1 Power Supply	10
2.6.2 Water Supply	10
2.7 Project Access	11
2.8 Post Mine Rehabilitation	11
2.9 Project Approvals	12
2.10 Workforce	12
2.11 Affected and Interested parties	12
3. Existing Environment and Potential Impacts	13
3.1 Climate	13
3.2 Land Resources	13
3.2.1 Soils	13
3.2.2 Topography	13
3.3 Water Resources	15
3.3.1 Surface Water	15
3.3.2 Groundwater	15
3.4 Nature Conservation	17
3.4.1 Regional Ecosystems	17
3.4.2 Flora	20
3.4.3 Fauna	20
3.5 Noise	21
3.6 Air Quality	21
3.7 Waste Management	22
3.8 Safety and Health	22

3.9	European and Cultural Heritage	22
3.10	Socio – Economics	23
3.11	Traffic and Transportation	23
4.	<i>Stakeholder Engagement</i>	24
5.	<i>References</i>	25

List of Figures

Figure 1.	Project Location	4
Figure 2.	Stratigraphic Column for the Bundi Deposit.	6
Figure 3.	EPC 1164 – Land Tenure	9
Figure 4.	EPC 1664 – Soils	14
Figure 5.	EPC 1664 – Hydrology	16
Figure 6.	EPC 1164 – Regional Ecosystems	19

List of Tables

Table 1.	Regional Ecosystems present within EPC 1164	17
Table 2.	Potential EPBC Act listed rare and threatened flora that may occur in EPC 1164	20
Table 3.	Potential EPBC Act listed rare and threatened fauna that may occur in EPC 1164	20

1. INTRODUCTION

1.1 Background

MetroCoal limited (the Proponent) proposes to develop the Bundi Coal Mine (the Project). The Project site is located approximately 20 km to the southwest of Wandoan (see **Figure 1**).

The Project involves the development and operation of a new underground mine and associated infrastructure to produce up to 6.5 million tonnes per annum (Mtpa) of run-of-mine (ROM) coal and 5 Mtpa of product coal. The Project is expected to commence construction in 2013, operations in 2015 and continue operating for approximately 20 years.

1.2 Proponent

The Project will be developed and operated by MetroCoal Limited. MetroCoal is an Australian owned public company, listed on the Australian Securities Exchange's and has a market capitalisation of approximately A\$55 million as at 16 December 2010. MetroCoal has been undertaking exploration activities since May 2009 and has over 620 million tonnes of inferred and indicated Resources.

The contact details for MetroCoal are:

MetroCoal
Cnr Lytton Rd & Stafford St,
EAST BRISBANE QLD 4169

1.3 Project Assessment

MetroCoal are seeking 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 has been prepared to support 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) to the Commonwealth Department of Sustainability, Environment, Water, Population and Communities (DSEWPC) will be made after the completion of further studies to determine if there are any controlling provisions for the project.

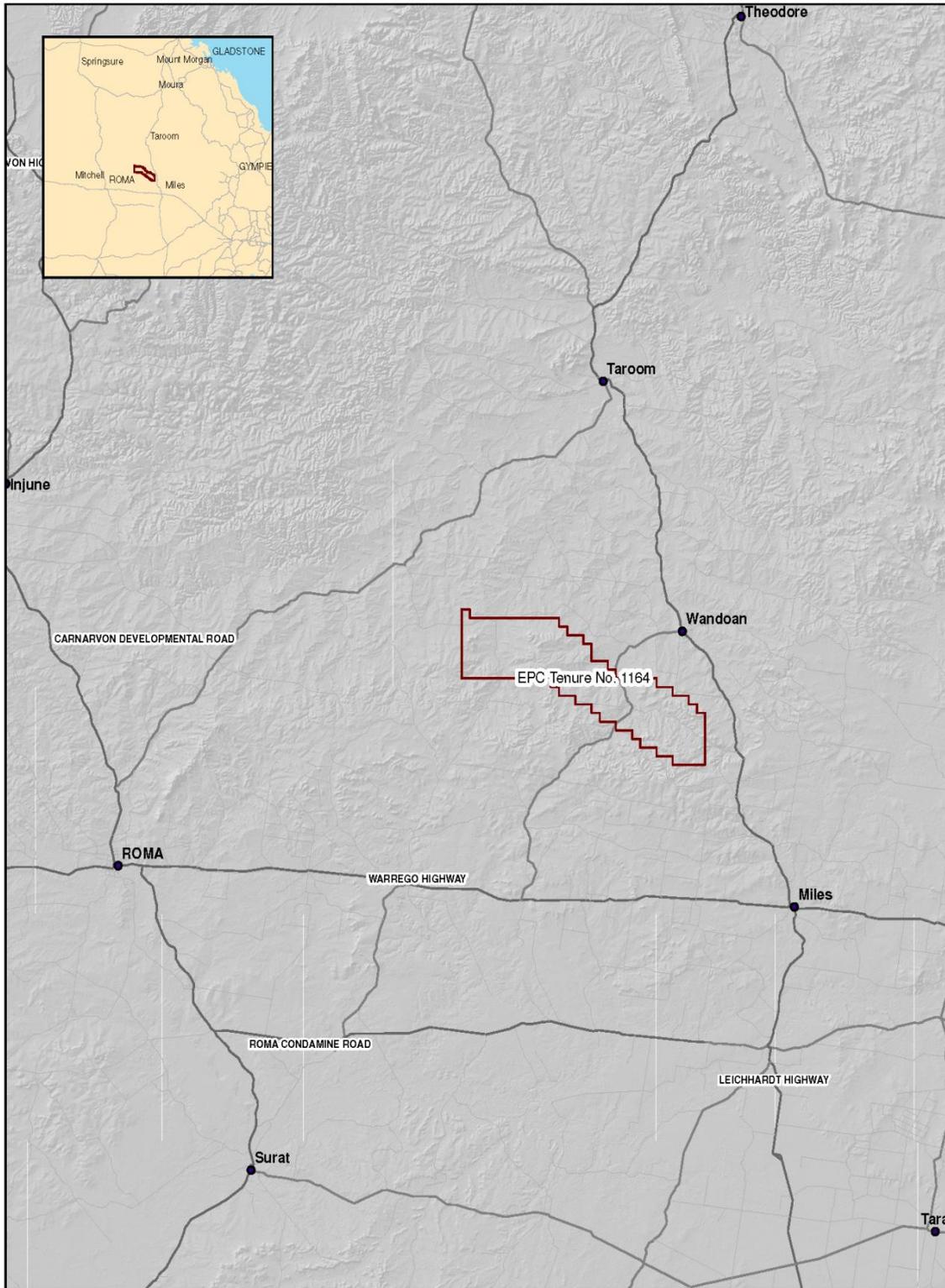
Terms of Reference (ToR) for the Voluntary EIS will be developed based on the outcomes of this IAS and the requirements of relevant State government agencies and submissions of stakeholders and the community.

1.4 Purpose of the Initial Advice Statement

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

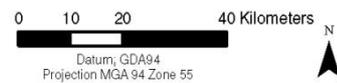
- the Queensland Government Department of Environment and Resource Management (DERM) to assess the Proponent's application to prepare a voluntary EIS for the Project; and
- the Commonwealth DEWPC to assist with the assessment of the Project Referral Application pursuant to the requirements of the EPBC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

Figure 1. Project Location



EPC 1164 Project Location

Data Sources:
EPC Data; Mines and Energy QLD 2010



2. PROJECT DESCRIPTION

2.1 The Resource

The Bundi deposit is located in the Surat Basin. The coals of the broader project area region occur within a belt of sub-contiguous deposits which subcrop in an arc to the west and south of the Wandoan township, on the eastern limb of the Mimosa Syncline.

There are four major Jurassic sedimentary stratigraphic units in the project area. **Figure 2** shows a typical stratigraphic column of the local geology and the presence of coal seams.

The Injune Creek Group is the target stratigraphic unit and this consists of:

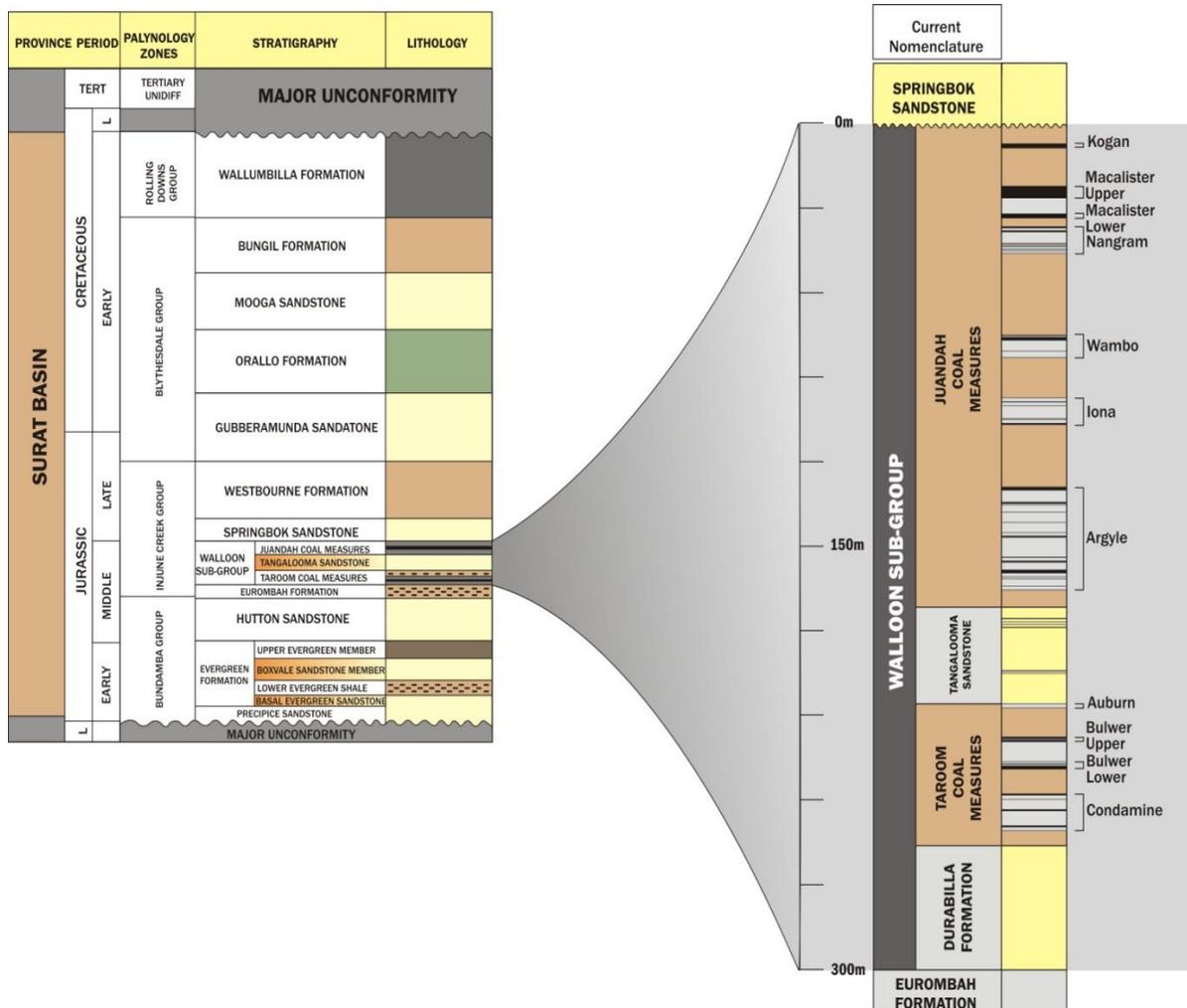
- the Westborne Formation (sandstone and mudstone with coal, about 140 m thick);
- the Springbok Sandstone (friable sandstone with beds of mudstone and thin coal seams near its base, about 90 m thick);
- the Walloon Sub Group (variable sandstone / siltstone / mudstone / coal lithology with thick banded coal seams, up to 510 m thick); and
- the Eurombah Formation (quartzose sandstone with some silt, mudstone and fine coal fragments).

Two distinct coal-bearing formations; the lower Taroom Coal Measures and the upper Juandah Coal Measures, are present within the Walloon Sub Group. These two coal measure sequences are separated by the Tangalooma Sandstone and contain the thermal coal resources of the Surat Basin. This project will involve the mining of the Juandah Coal measures which forms the major economic horizon within the area.

The Juandah Coal Measures contains, near the top of the Formation, a coal horizon which has been intensively drilled at a wide number of locations near the sub-crop. This seam is recognized geologically over a very wide area of the Basin, and is commonly referred to as the “Macalister Seam”.

MetroCoal has to date identified an inferred JORC resource of 381 million tonnes within EPC 1164.

Figure 2. Stratigraphic Column for the Bundi Deposit.



2.2 Land Tenure

The Project is located approximately 20 km southwest of Wandoan, in the Surat Basin central Queensland and consists of EPC 1164. EPC 1164 occurs on 99 separate allotments as shown at **Figure 3**. The land use within the area is predominantly grazing and agriculture, with a number of State Forests present within the tenement. Areas of land within the EPC may be declared Strategic Cropping Land under new State Government Policy; however, this can't be confirmed until the new threshold criteria have been endorsed by Government.

EPC 1164 lies within the Western Downs Regional Council Local Government area.

The proponent is continuing with its mine planning and will ultimately 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 discussions with potentially affected property owners prior to the submission of the MLA.

2.3 Mining Process

The Project involves the development of a new underground coal mine, rail spur, a Coal Handling and Preparation Plant (CHPP) and associated infrastructure. The current mine plan is based on construction commencing in Q2 2013, with first production to commence in Q4 2015 after a construction and development period of approximately 24 months. A production rate of 6.5 Mtpa ROM Coal is currently planned for the first phase of the mine development. Dependent on favourable exploration results; the proponent may seek a future expansion of the Bundi Coal Mine through the inclusion of EPC 1251. Any proposed expansion to the Bundi Coal Mine would be the subject of a separate approval process.

2.3.1 Underground Mine

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 indicates the proposed operation will use underground longwall operations. The feasibility assessment will; however, consider options in regard to augmenting the longwall operations by including 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 Project requires the construction of a 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 accommodate the initial 6.5 Mtpa ROM Coal. The design of the CHPP would allow for future optimisation of the CHPP to accommodate higher throughput volumes should the proponent seek to expand the Bundi Coal Mine.

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 confirmed during the mine planning studies that are in progress as part of the feasibility assessment.

2.5 Transport Infrastructure

Several options to transport product coal to the Wiggins Island Export Coal Terminal (WICET) are under consideration as part of the project feasibility studies. For both options, the Proponent is in advanced negotiations in regard to using the proposed Elimatta Project rail infrastructure.

The preferred option is to construct a haul road; approximately 60 m wide, within the proposed infrastructure corridor between the Bundi Project and the Elimatta Project train loadout infrastructure and rail balloon loop (see **Figure 3**). In this option, product coal would be transferred to the Elimatta Project Train Loadout Facility via haul truck and then loaded onto to trains and transported to the WICET. An alternative approach under consideration is product coal would be stockpiled at the product coal stockpile at the Bundi site and transported to the train loadout facilities at the Elimatta rail loop via an enclosed conveyor. In both scenarios

Initial Advice Statement Bundi Coal Mine Project



coal would be loaded into trains at the Elimatta Project rail balloon loop before being transported to the Moura Rail System via the new rail spur proposed as part of the Elimatta Project and then to the WICET.

The Proponent will need to reconsider its options should the Elimatta Project not progress the construction of the train loading infrastructure and spur line.

The proponent has submitted an Expression of Interest for a 5 Mtpa port allocation in the WICET Expansion development and this will be utilized as the desired coal export facilities for the Project. Additional increases to this initial allocation would be sought as part of the ongoing expansion of the WICET.

2.6 Additional Infrastructure

Various additional infrastructure will be required to support the mine operation and these include water management system structures such as environmental dams and diversion drains, potable water and sewerage treatment plants, workshop and warehouse facilities, administration facilities, lay down pads and vehicle wash facilities.

2.6.1 Power Supply

Power supply to mine would be obtained from the National electrical grid line planned from Columboola to the QGC site at Woleebee to the south of the Bundi project. This new transmission line is part of the plan by Ergon and Powerlink to upgrade the network to meet the future supply requirements of the Surat Basin North West Area. The proposed upgrade includes the following components and will be completed by winter 2014:

- establishing a new 132kV substation at Wandoan South, and construct a new 70 km 275kV double circuit line (initially operating at 132kV) from Columboola to Wandoan South Substation;
- install a 132/66kV transformer at Wandoan South, and construct a new 35km 66kV double circuit line (initially operating as a single circuit) from Wandoan South Substation to the existing Wandoan township zone substation together with two 66kV/22kV transformers;
- construct a new 60 km 275kV double circuit line from Columboola East to Western Downs Substation and establish connection to the 275kV bus at Wandoan South Substation and operate the 275kV double circuit line from Columboola East to Wandoan South at 275kV; and
- establish a new 275/132 kV substation at Columboola East, and connection to the existing Columboola 132 kV Substation together with fault rating upgrade.

Initial discussions undertaken with the power authorities have indicated that the proposed network upgrade has the capacity to supply the power demand required for the project. It is also confirmed that the current planned development meets the required timeframe for the mine development to occur. The connection point to the supply network has not yet been established; however, this will be identified during the feasibility assessment in conjunction with discussions with Powerlink and Ergon to determine an optimized solution that fits in with the planned network upgrade.

Power will likely be supplied to the site at 132 kV and then transformed down to 11 kV on the site for distribution. Once connected, power will be distributed across the site by various means including on overhead and underground powerlines. Pole or ground mounted transformers located close to the electrical loads are planned to be used to reduce the 11 kV down to 415 Volt AC.

2.6.2 Water Supply

The mine water supply requirements are estimated to be 1,000 to 1,500 ML per annum. Various water supply options current exist and each will be considered in detail as part of the projects feasibility assessment. These options include:

- reuse of water from the dewatering of the coal seams and using onsite overland flow containment as additional make up water;

- reuse of water from the dewatering of the coal seams and using groundwater as additional make up water
- using Coal Seam Gas (CSG) extraction water as a permanent or additional make up water source; and
- joining the foundation customer group for the proposed Nathan Dam and Nathan – Dalby Pipeline Projects.

The first two options are primarily localized options utilizing onsite waters and are not reliant on other proponents to deliver the water supply. Conversely, the remaining two options rely on other proponents projects. The supply of CSG water is expected to initially exceed demand from the coal industry; however, the reliability of the volumes is uncertain. Moreover, the volumes of extraction waters will ultimately diminish as the gas fields cease operations providing further uncertainty in the longevity of the secure supply. Additional uncertainties exist in relation to the use of CSG extraction water in regard to water quality. At present it is understood that the CSG companies are required to treat extraction waters prior to transporting waters offsite. However, this may be addressed in time for the project through the construction of the major water treatment plant proposed by QGC at Chinchilla and the transportation of treated waters to Chinchilla Weir for reuse.

The Nathan Dam option forms part of the Surat Dawson Integrated Water Project and when constructed will provide a long term reliable water supply. However, current construction scheduling does not realize secure water supplies until 2017 and subject to an initial fill. The use of treated CSG extraction water as a make up source until the dam has adequate supply is also under consideration.

The location and design of the connection point will be confirmed during the feasibility studies and in conjunction with water supply providers; however, the proposed infrastructure corridor between the Elimatta Project and the Bundi project is the preferred location for the pipeline entering into the mine infrastructure area. Once connected, it is expected that water will be transferred throughout the site via a polyethylene pipeline network, linked into the site water management system which will also include a network of onsite clean and dirty water dams.

Potable water will be sourced from external providers; however, the feasibility assessment will investigate the potential to treat the water sourced from the underground de-watering process using a desalinization system.

2.7 Project Access

Access will be via a purpose built access road to the site from the Jackson – Wandoan Road. The location of the primary access road will be confirmed during the completion of the feasibility and mine planning studies. Alternate access roads may be required and a range of options will be considered during feasibility assessment.

2.8 Post Mine Rehabilitation

Rehabilitation, decommissioning and closure activities will be part of the overall rehabilitation strategy for the 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; and
- annual review of disturbance footprint and liability.

2.9 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 likely to be required.

Separate approvals / agreements will be required from the relevant authorities for the connection onto the Surat Basin rail network, 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.

2.10 Workforce

The Project is expected to employ 300 employees during construction and 150 employees during operations. The likely staffing consist during operations is 15 % owners team and the balance shared between contract maintenance and operational staff. Onsite contractor numbers may; however, vary as a result of changes to maintenance and operational schedules.

Employees will comprise of a mixture of local personnel and contractors supplemented by a fly-in / fly-out (FIFO) contingent where vacancies cannot be filled by local personnel. The current accommodation strategy is for the local employees to be housed in existing accommodation at Wandoan or within the local region. The FIFO contingent will utilize accommodation camps at Wandoan and it is expected that that the new accommodation camp proposed to be constructed in Wandoan will be available to further meet project needs. An overflow capacity may be required at other regional centres such Taroom; however, this need will be further defined during workforce planning studies that are being undertaken as part of the projects feasibility studies.

A detailed social impact assessment (SIA) will be undertaken during the EIS process. This study will take into consideration the recent initiatives developed by Government in relation to the social impacts associated with resource projects the potential social issues associated with local and FIFO workforces. A key outcome of the SIA will be the development of a Social Impact Management Plan (SIMP). The SIMP will outline MetroCoal's approach to implementing management strategies to minimize potential social impacts and it will include processes to monitor the success of such measures.

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 of the project will be undertaken through undertaking the voluntary EIS process. 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 average daily maximum temperature range in summer is 29.1°C to 33.7°C and in winter is 17.4°C to 26.6°C. The extreme temperature range over the 47 years on record is -6.1°C (recorded at Miles) to 44°C (recorded at Taroom). The coldest months are June and July, with the warmer extremes occurring in December and January. Historical rainfall data (recorded at Taroom Post Office) shows that the general area received on average approximately 673.4 mm per year (based on rainfall data from 1870 to the present (BOM 2008a)). The majority of these falls occur between December and February. Winter and autumn have generally had the lowest total rainfalls across the local area.

3.2 Land Resources

3.2.1 Soils

The geology of the EPC 1164 mine lease area is dominated by Jurassic mudstone including the Injune Creek Group, Birkhead Formation and Westbourne formation and Jurassic Arenitic rocks including Precipice Sandstone, Evergreen Formation, Hutton Sandstone, Gubberamunda Sandstone, and Orallo Formation. Quaternary Alluvium associated with Jiandah Creek and Woleebee Creek is also present.

The predominant soil types within the proposed EPC 1164 project area mine lease area are Chromosols with Vertosol soils in the north west of the project area (see **Figure 4**).

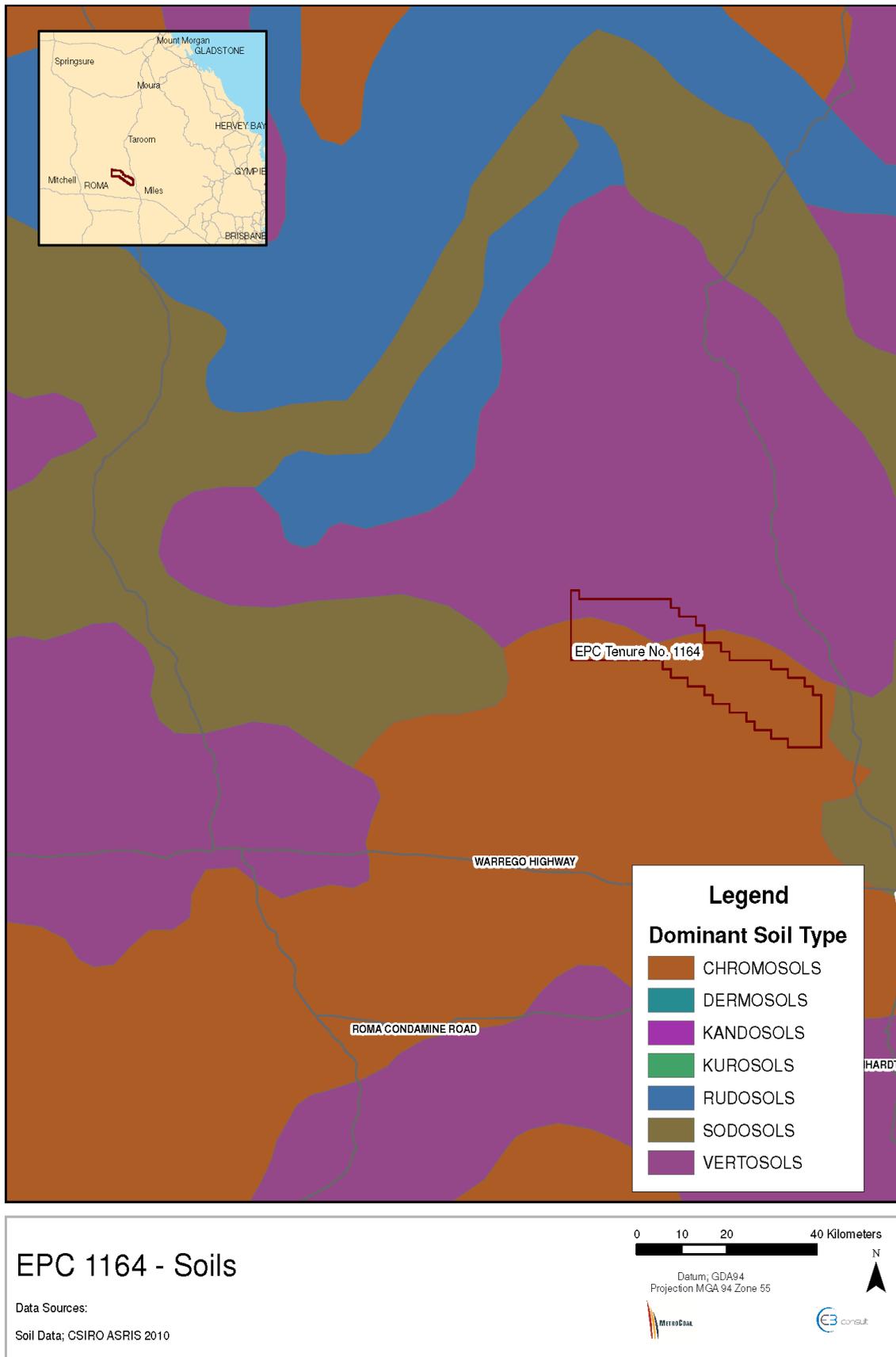
Chromosols are soils with an abrupt increase in clay from the A horizon to the B horizon, and where the B horizons of the soil are not strongly acidic or sodic. Chromosol soils are among the most widespread soils used for agriculture in Australia, particularly those with sub soils. These soils are commonly used for grazing or native pastures in the tropics and may develop hard setting surfaces from structural degradation caused by agriculture.

Vertosols, also known as black cracking clays or Black Earths, 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 of the soils within EPC 1164.

3.2.2 Topography

The topography of the EPC area is slightly undulating land with slopes of predominantly 0.1% to 2% rising to slopes of 5.1% to 12% in the southern sections of the EPC. Elevation ranges between 250 m to 300 m AHD with areas to the south of the project area rising between 400 m and 500 m AHD.

Figure 4. EPC 1664 – Soils



3.3 Water Resources

3.3.1 Surface Water

The Bundi Coal (EPC 1164) Project tenement area has a contributing catchment area of approximately 1,300 km² (see **Figure 5**). The tenement area and contributing catchment is located in the Western Downs Regional Council Local Government area in Queensland, and has a number of waterway systems intersecting the subject areas, all of which flow to the Fitzroy River Basin. Waterways intersecting the tenement area include:

- Horse Creek;
- Mud Creek;
- Wandoan Creek;
- Woleebee Creek;
- Barry Creek;
- Conloi Creek; and
- Frank Creek.

All the major and minor waterways influencing the tenement 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.

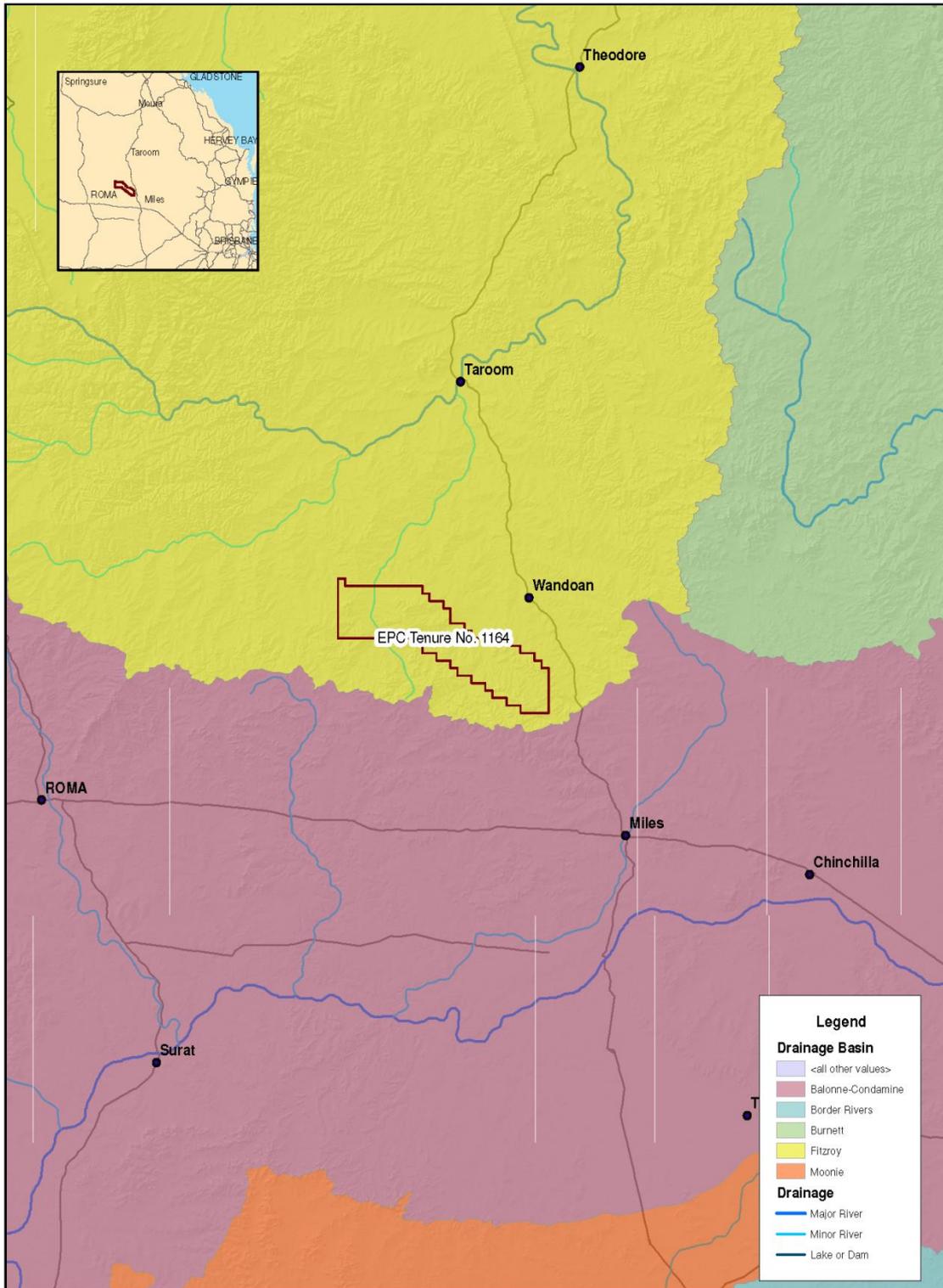
The minimum elevation at the catchment outlet is approximately 290 m AHD with an average slope through the majority of the catchment of 0.4%

3.3.2 Groundwater

Very little information exists with respect to groundwater within the coal seams on the Mine Area. As such a detailed assessment of the local and regional groundwater resources will be undertaken as part of the environmental impact assessment for the project. It is, however, recognized through groundwater studies associated with other resource projects in the area that groundwater occurs predominantly within the coal cleats and water strikes in the Juandah Coal Measures are highly variable, varying from 5 to 250 m in depth. The interbedded sandstones, siltstones and mudstones act as semi-confining/confining layers separating the water bearing zones within the coal seams.

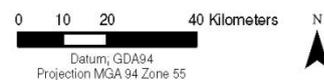
Water quality for the Juandah Coal Measures suggest that groundwaters from the coal seams are generally saline, with sodium-chloride being dominant the dominant analyte. Electrical Conductivity (EC), values up to 26,000 µS/cm have been observed in the shallow water bearing seams (up to 50 m depth) of the Kogan seams and with EC values are typically between 8,000 to 18,000 µS/cm for the deeper seams (of 50 to 100 m depth) of the Macalister and Wambo seams showing salinity decreases with depth. Conversely, pH is shown to increase with depth, being typically neutral in the shallower water bearing zones to slightly alkaline (up to nine) in the deeper zones.

Figure 5. EPC 1664 – Hydrology



EPC 1164 - Hydrology

Data Sources:
Drainage Data; Derm 2010



Datum, GDA94
Projection MGA 94 Zone 55



3.4 Nature Conservation

3.4.1 Regional Ecosystems

A substantial portion of the proposed mining lease area has been modified for agricultural and grazing purposes. Remnant vegetation exists along the riparian areas and continues to exist in areas less suited to agriculture or grazing. Regional Ecosystems present at EPC 1164 and their current conservation status are listed in **Table 1** and shown at **Figure 6**.

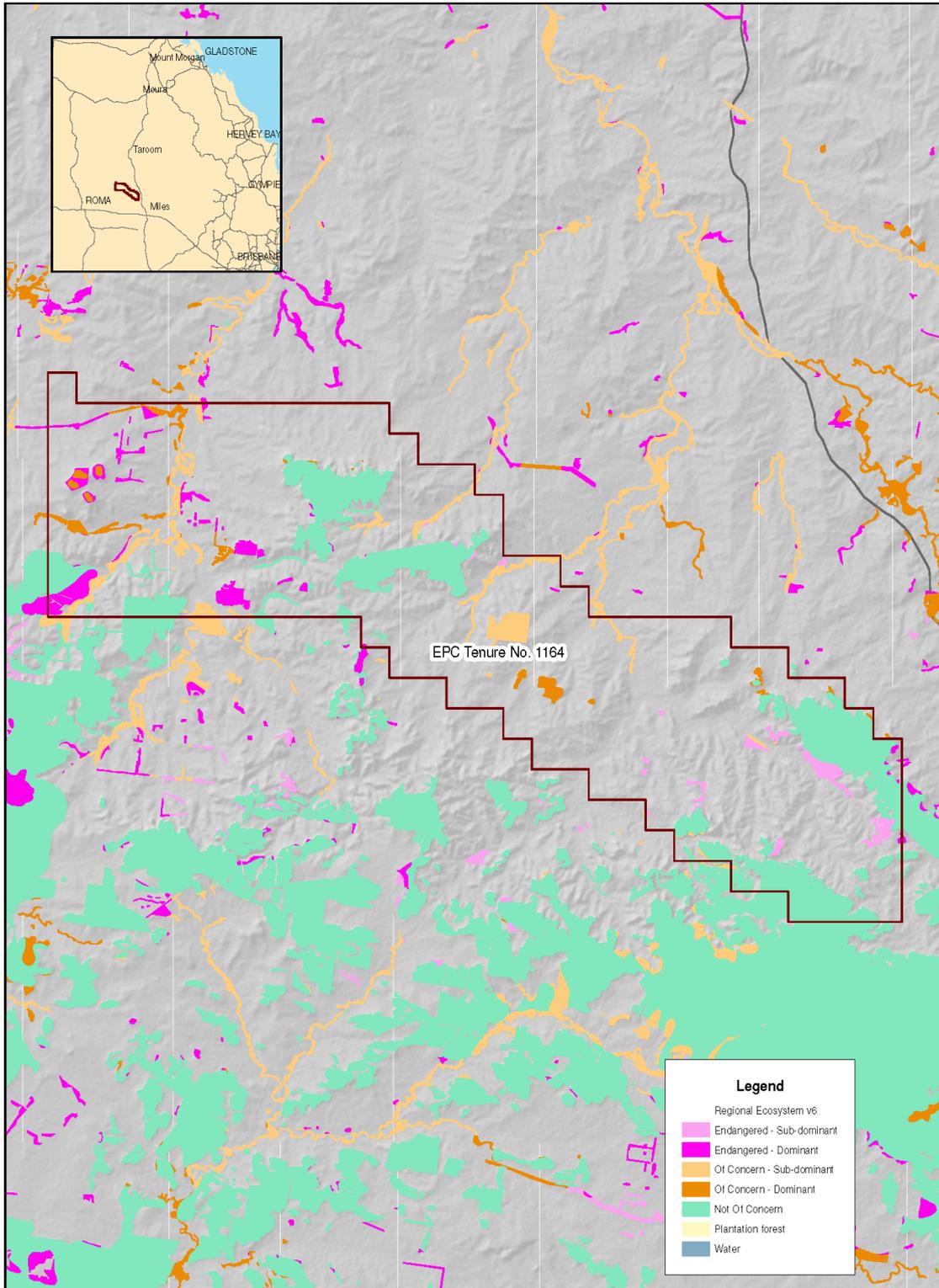
Table 1. Regional Ecosystems present within EPC 1164

RE Code	Description	Conservation Status ¹	Biodiversity Status	Conservation Status ²
11.10.1	<i>Corymbia citriodora</i> open forest on coarse-grained sedimentary rocks	Least concern	No concern at present	N/A
11.7.2	<i>Acacia</i> spp. woodland on Cainozoic lateritic duricrust. Scarp retreat zone	Least concern	No concern at present	N/A
11.10.9	<i>Callitris glaucophylla</i> woodland on coarse-grained sedimentary rocks	Least concern	No concern at present	N/A
11.5.1	<i>Eucalyptus crebra</i> , <i>Callitris glaucophylla</i> , <i>Angophora leiocarpa</i> , <i>Allocasuarina luehmannii</i> woodland on Cainozoic sand plains / remnant surfaces	Least concern	No concern at present	N/A
11.3.25	<i>Eucalyptus tereticornis</i> or <i>E. camaldulensis</i> woodland fringing drainage lines	Least concern	Of concern	N/A
11.3.19	<i>Callitris glaucophylla</i> , <i>Corymbia</i> spp. and / or <i>Eucalyptus melanophloia</i> open-forest to woodland on Cainozoic alluvial plains	Least concern	No concern at present	N/A
11.3.2	<i>Eucalyptus populnea</i> woodland on alluvial plains	Of concern	Of concern	N/A
11.9.10	<i>Eucalyptus populnea</i> , <i>Acacia harpophylla</i> open forest on fine-grained sedimentary rocks	Of concern	Endangered	N/A
11.7.6	<i>Corymbia citriodora</i> or <i>Eucalyptus crebra</i> woodland on Cainozoic lateritic duricrust	Least concern	No concern at present	N/A
11.9.7	<i>Eucalyptus populnea</i> , <i>Eremophila</i>	Of concern	Of concern	N/A

RE Code	Description	Conservation Status ¹	Biodiversity Status	Conservation Status ²
	<i>mitchellii</i> shrubby woodland on fine-grained sedimentary rocks			
11.5.5	<i>Eucalyptus melanophloia</i> , <i>Callitris glaucophylla</i> woodland on Cainozoic sand plains / remnant surfaces. Deep red sands	Least concern	No concern at present	N/A
11.9.5	<i>Acacia harpophylla</i> and/or <i>Casuarina cristata</i> open forest on fine-grained sedimentary rocks	Endangered	Endangered	Endangered
11.7.4	<i>Eucalyptus decorticans</i> and/or <i>Eucalyptus</i> spp., <i>Corymbia</i> spp., <i>Acacia</i> spp., <i>Lysicarpus angustifolius</i> on Cainozoic lateritic duricrust	Least concern	No concern at present	N/A
11.8.3	Semi-evergreen vine thicket on Cainozoic igneous rocks.	Of concern	Of concern	Endangered
11.9.6	<i>Acacia melvillei</i> +/- <i>A. harpophylla</i> open forest on fine-grained sedimentary rocks	Endangered	Endangered	Endangered

1. Status under the *Vegetation Management Act 1999*
2. Status under the EPBC Act

Figure 6. EPC 1164 – Regional Ecosystems



EPC 1164 - Regional Ecosystem

Data Sources:
Regional Ecosystem DERM 2010

0 2 4 8 Kilometers

Datum, GDA94
Projection MGA 94 Zone 55

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 1164

Scientific Name	Common Name	Conservation Status	Likelihood of Occurrence
<i>Acacia curranii</i>	Curly-bark Wattle	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
<i>Calytrix gurlmundensis</i>		Vulnerable	Species or species habitat likely to occur within area
<i>Commersonia argentea</i>	A shrub	Vulnerable	Species or species habitat likely to occur within area
<i>Homopholis belsonii</i>		Vulnerable	Species or species habitat may occur within area
<i>Tylophora linearis</i>		Endangered	Species or species habitat may 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 11 migratory and 10 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 1164

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			

Scientific Name	Common Name	Conservation Status	Likelihood of Occurrence
<i>Dasyurus hallucatus</i>	Northern Quoll	Endangered	Species or species habitat may occur within area
<i>Nyctophilus timoriensis</i> (<i>South-eastern form</i>)	Greater Long-eared Bat, South-eastern Long-eared Bat	Vulnerable	Species or species habitat may occur within area
<i>Chalinolobus dwyeri</i>	Large-eared Pied Bat, Large Pied 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>Delma torquata</i>	Collared Delma	Vulnerable	Species or species habitat likely to occur within area
<i>Furina dunmali</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 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 be minimal. The nearest landowner to the project area is located approximately 5 km away from the mine and the nearest town to the mine is Wandoan, located approximately 20 km to the northeast from the mine. Due to the mine being an underground operation, noise impacts would typically be associated with the operation of loading machinery and the CHPP.

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 township of Wandoan. Notwithstanding, a detailed noise assessment will be conducted as part of the EIS studies and 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 be minimal. Regional air quality is currently influenced by grazing and agricultural activities and climatic conditions. The construction and operation of the mine will result in dust emissions with these emissions typically occurring as a result of 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 studies and 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
- MetroCoal Limited standards.

3.9 European and Cultural Heritage

The Aboriginal Parties for the project area are the Iman People # 2 (QC97/55), Mandandanji (QC08/10) and Barunggam (previously registered claim (QC99/004)). In accordance with the *Aboriginal Cultural Heritage Act 2003*, MetroCoal will commence negotiations with the three groups in relation to the preparation of agreed Cultural Heritage Management Plans for the project. The CHMP will include provisions for a cultural heritage survey prior to the development of the mine 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 Taroom, Wandoan, Roma and Miles. 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 SIMP 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 Leichardt and Warrego Highways will be the major roads utilised to transport materials to the project area; however, various Local Authority roads will also be utilised to gain site access through the life of the mine.

At this stage of the feasibility assessment, 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.

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:

- explain the environmental impact assessment process and indicate how public input might influence the final recommendations for the project;
- seek an understanding of interest group concerns about the proposal;
- provide an understanding of the regulatory approval process;
- inform the different interest groups about the project proposal;
- 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 16 December 2010).

Department of Sustainability, Environment, Water, Population and Communities (2010). Environmental Reporting Tool (ERT) website (accessed 16 December 2010).