North Surat – Collingwood Project Initial Advice Statement

9 February 2012

Level 2, 66 Hunter Street, Sydney NSW Australia 2000 **Phone** +61 2 9300 3333 **Fax** +61 2 9221 6333

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- Revision H - Final
- 9 February 2012

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Sinclair Knight Merz
ABN 37 001 024 095
710 Hunter Street
Newcastle West NSW 2302 Australia
Postal Address
PO Box 2147 Dangar NSW 2309 Australia
Tel: +61 2 4979 2600
Fax: +61 2 4979 2666
Web: http://www.globalskm.com

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1. Introduction

1.1. Background

Cockatoo Coal Limited (Cockatoo) proposes to expand its coal mining operations in the Surat Basin, Queensland, through the development of the North Surat Coal Projects (the Projects) which includes the following two elements:

- Collingwood Coal Project (hereafter referred to as “Collingwood”).
- Taroom Coal Project (hereafter referred to as “Taroom”).

The Projects would be located approximately 400 kilometres (km) north-west of Brisbane and 320 km south-west of Rockhampton, between the Central Queensland towns of Taroom and Wandoan on the Leichhardt Highway as depicted in **Figure 1-1**.

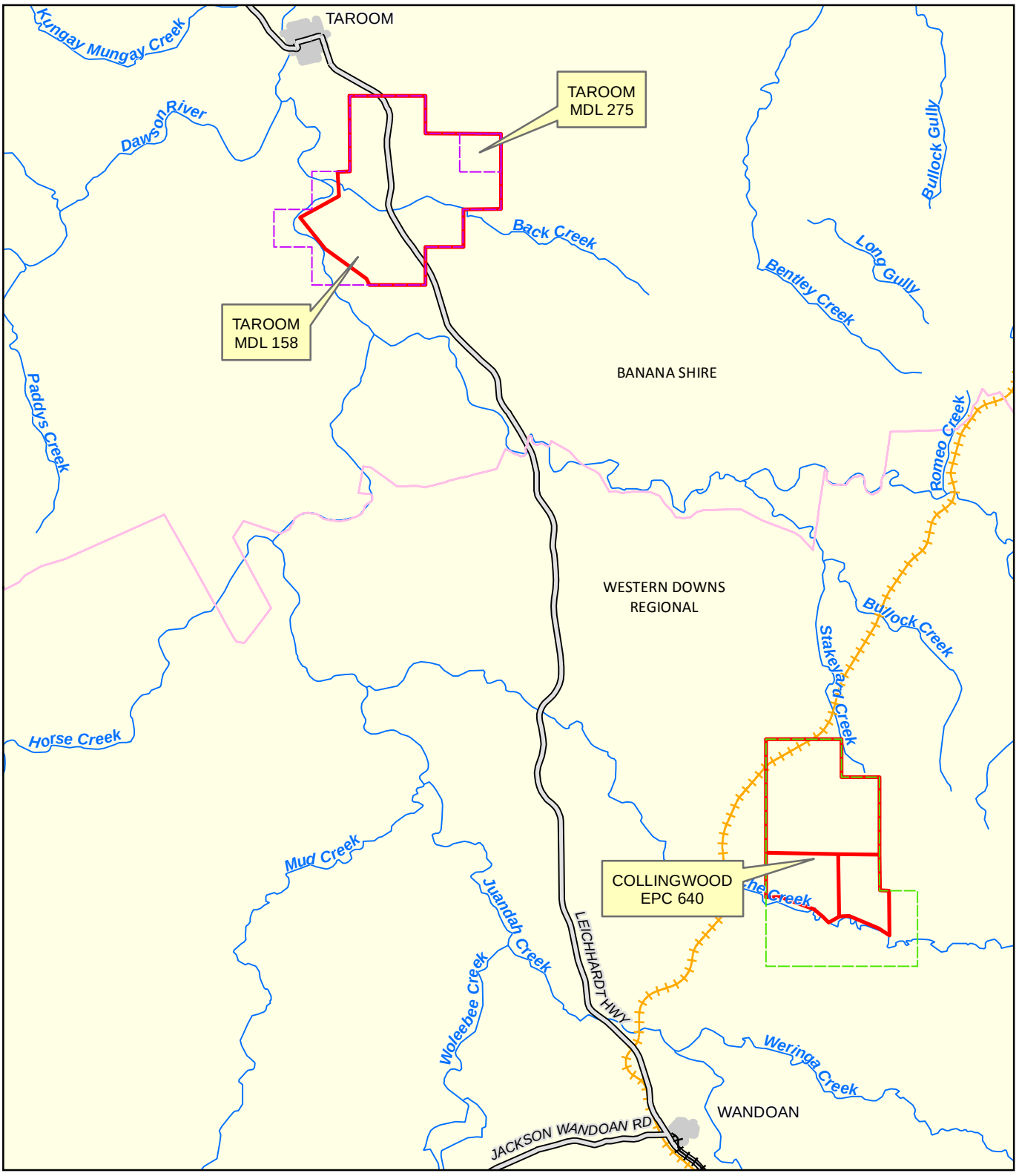
The development of the two greenfield open-cut coal mines would collectively deliver an additional 14 million tonnes per annum (Mtpa) of thermal coal to Australia’s export market based on a seven day per week, 24 hour per day operation. The expected mine life at Collingwood and Taroom is 20 and 25 years respectively. Each operation would include coal extraction by conventional methods, coal handling and processing infrastructure, associated Mine Infrastructure Areas (MIA) and off site infrastructure that links to key regional infrastructure such as power, rail, road and water networks.

The Projects would require new regional infrastructure and services to support operations. These services include water supply pipelines, transmission lines, rail connections and associated infrastructure, and workers accommodation.

The Projects will require capital expenditure of approximately A$1.8 billion (B) to bring it to full production with an expectation of further expenditure for replacement capital over the life of the Projects. In addition, $135 million (M) has already been invested in exploration and project development activities and $113M has been invested in Surat Basin Rail (SBR) and Wiggins Island Coal Export Terminal (WICET) infrastructure. Cockatoo would also contribute a further $1.4B in debt/equity positions for the development of the associated SBR and WICET, which are critical elements in getting the coal from Collingwood and Taroom to market.

Whilst acknowledging the synergies Collingwood and Taroom would have during the construction and operation phases, the complexity of statutory planning requirements for both projects necessitate the preparation of a separate Initial Advice Statement (IAS) for each project and their associated supporting infrastructure. This IAS specifically covers Collingwood.

TAROOM AND COLLINGWOOD SITE LOCATIONS



LEGEND

- River/Creek
- Major Highway
- Existing Rail
- Proposed Surat Basin Rail
- Built Up Area
- Taroom Mineral Development Licence
- Collingwood Exploration Permit Coal
- Mining Lease Application
- Local Government Authority Boundary

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Cockatoo Coal Limited

Surat Coal Alliance

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1.2. Purpose and Scope of the IAS

This IAS has been prepared by the Proponent to provide information to:

- Enable the Coordinator-General to determine whether Collingwood meets the criteria for declaration as a 'Significant Project' under section 26(1)(a) of the *State Development and Public Works Organisation Act 1971* (SDPWO Act).
- Provide sufficient detail to enable advisory agencies and other stakeholders to have effective input into establishing Terms of Reference (ToR) for the Environmental Impact Statements (EIS) to be developed for Collingwood.

If the Coordinator-General declares 'Significant Project' status for Collingwood pursuant to Section 27 of the SDPWO Act, the Proponent will prepare an Environmental Impact Statement (EIS) under the Act.

The IAS provides an overview of Collingwood and potential environmental impacts. The scope of the Collingwood project is detailed in **Section 3** and includes:

- Open-cut mining operation and mine infrastructure.
- Supporting local and regional infrastructure (e.g. road, rail, power and water).
- Overall accommodation strategy.

In summary, this IAS includes:

- Background and project description.
- A brief description of the existing socio-economic and environmental conditions.
- Potential environmental and social-economic impacts.
- An outline of the approach to environmental management practices.
- Community and stakeholder engagement.

1.3. The Proponent

Project proponent: Cockatoo Coal Limited

ACN: 112 682 158

Registered Address: Level 2, 66 Hunter Street, Sydney, NSW 2000 Australia.

Cockatoo is an emerging Pulverised Coal Injection (PCI) and thermal coal production company, with operations in Queensland and development projects in Queensland and New South Wales.

Cockatoo was (Australian Securities Exchange) ASX-listed in 2005 and is expanding production with the aim of becoming a major independent coal company, suited to contributing to the supply and ongoing growth in global demand for Pulverised Coal Injection (PCI) and thermal coal, particularly from Asia.

Cockatoo's Mining Lease Application (MLA) for the Taroom project was submitted on the 21st December 2011 by Cockatoo Coal Limited on behalf of the Taroom Joint Venture. The Collingwood (MLAs) are anticipated to be made in early 2012. Cockatoo Coal currently has two joint ventures in place with Mitsui for the Taroom and Collingwood projects, these being the Taroom Joint Venture and the Collingwood and Ownaview Joint Venture. Mitsui is a 49% stakeholder in both the Taroom and Collingwood projects. Cockatoo Coal and Mitsui are currently amalgamating the joint ventures into the North Surat Joint Venture with the Taroom Joint Venture and the Collingwood and Ownaview Joint Venture being dissolved.

Among Cockatoo's major assets, as of 1st September 2011, were:

- The Baralaba PCI coal mine, which is commencing a major expansion.
- Surat projects – four major development projects in the Surat Basin including Taroom, Collingwood, Woori and Tin Hut Creek.
- Shareholdings and management rights for the Bylong and Hume coal projects in NSW.
- 1,826 million tonnes (Mt) in JORC resources under management.
- 4,300 km^2 portfolio of coal exploration rights across the Bowen and Surat Basins.

Currently the company plans an increase in coal production at the Baralaba Mine to approximately 750,000 tonnes per annum (tpa) in the next 12 to 24 months, then 3.5 Mtpa in 2014.

In addition to the Baralaba Mine, Cockatoo has a number of projects in Queensland and New South Wales. Part of the expansion of the Cockatoo portfolio has involved the purchase of Anglo American's Australian thermal coal development projects which included 51% of Collingwood and Taroom.

The projects within the Surat Basin include:

- Taroom.
- Collingwood.
- Woori.
- Tin Hut Creek.

- Davies.
- Bottle Tree.
- Bushranger.

The projects within the Bowen Basin include:

- Baralaba South.
- Baralaba North.
- Dingo.
- Middle Creek.

Cockatoo's existing operations provide socio-economic benefits to the local community of Baralaba, as well as the broader Queensland region by providing various opportunities for employment. Cockatoo currently provides employment for, in the order of, 200 people and would require up to 3,000 jobs through the construction and operation of all projects, contributing to the State's economy.

1.4. Project Need

The Projects would help to meet future seaborne demand for thermal coal in the traditional North Asia Japan-Korea-Taiwan (JKT) market as well as in emerging markets such as China, India and south-east Asia. Cockatoo believes that the existing strong demand for this product will continue into the future. In response to increasing demand, Cockatoo is strengthening its growth options and has identified quality coal reserves associated with the Collingwood and Taroom sites.

Coal is Queensland's largest export commodity in terms of income (Commonwealth of Australia, 2010). The Queensland Government benefits from the contribution of revenue from the minerals and energy sector, including $2.3B in mineral royalties and $981M in dividends from government-owned rail, port and energy enterprises (Commonwealth of Australia, 2010).

The Projects would contribute to the State's economy and employment opportunities. It is anticipated that the Projects would generate revenue of approximately A$33.6B for coal export sales over the life of the Projects (based on a fixed coal price of $105 per tonne and available reserves), and deliver an estimated $2,755M in state royalties over the same period. The Projects will create employment opportunities in both the construction period and over the 20 to 25 year mining life. Mining activities would also deliver flow-on benefits to supplementary industries, creating additional income and employment opportunities.

The strategic significance of the Projects is also connected to the WICET and SBR projects. In order to meet projected demand for the export of coal from the Surat and Bowen Basins, Cockatoo, in a consortium with seven other Stage 1 owners, have funded the construction of the WICET located in Gladstone Harbour.

The potential for development of a significant export coal industry from the Surat Basin will be enhanced by the planned development of the SBR, connecting the region to the port of Gladstone by developing a new rail freight corridor from Wandoan northwards to the existing Moura-Gladstone rail line, joining at the township of Banana.

Cockatoo has committed to the development of WICET Stages 2/3 and the SBR to support the development of the Surat Basin projects. Both WICET Stages 2/3 and SBR are proposed to be constructed by mid 2015.

The Projects meet key Queensland and Federal government objectives for resource management and economic development of coal resources through the:

- Utilisation of existing resources to the fullest potential.
- Building of investment and trade opportunities.
- Development and expansion of existing markets.

1.5. 'No Project' Option

The alternative option to Collingwood is to do nothing (i.e. continuation of existing land use, especially grazing).

The consequences of not proceeding with the Projects would be the non-realisation of benefits, to the detriment of the local, regional, state and national economies. Increased competition in the coal supply market would not be achieved, potential export markets would not be reached and the direct economic benefit from construction expenditure and the longer term benefits of mining operation would be lost.

Forecast demand growth for seaborne traded thermal coal, particularly in Asia, is expected to grow substantially over the next decade. This demand is driven mainly by increased urbanisation and improvements to quality of life for people in this part of the world. If Australia or Queensland were unable to meet this need, it would likely be fulfilled by increased exports from Indonesia, Southern Africa or Eastern Russia. The supply of coal from other sources would represent a significant lost opportunity for Queensland's economy and the people who benefit from it.

Project partners, Mitsui and Co, are already receiving significant interest from UMPP/IPP proponents for Surat Coal to supply projects in India, south coastal China and various other Southeast Asian countries.

2. Regulatory Process and Project Approvals

This section describes the project approval framework and the relevant legislation to be addressed by the Proponent. Due to the location, scale and nature of the project there will be a need for various approvals from Commonwealth, State and local government. The likely approvals required for Collingwood are summarised below. However, Cockatoo acknowledges that some components of the Collingwood project cannot (at this point in time) be fully defined and that further detailed investigations will be undertaken as part of the feasibility studies. A complete assessment of Collingwood, including supporting infrastructure, will be presented in the EIS, along with identification of the various development approvals required for the project under Commonwealth and State Acts and their subordinate legislation.

2.1. Commonwealth Government

Table 2-1 outlines the approvals required from the Commonwealth government.

Table 2-1 Commonwealth Approvals

Legislation	Administering Authority	Approval trigger	Relevance to Collingwood
Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)	Commonwealth Minister for the Environment. Department of Sustainability, Environment, Water, Population and Communities (SEWPAC)	Matters protected by Part 3 of the EPBC Act, being matters of National Environmental Significance (NES), on Commonwealth land and/or by Commonwealth agencies.	The following matters of NES have been identified and may be impacted: • Listed threatened species communities. • Listed migratory species. • National heritage places. However, although within the catchment of the Fitzroy River, which drains into the Great Barrier Reef, impacts are considered to be unlikely. A referral to SEWPAC is in preparation and will be submitted for determination as to whether the Project is a Controlled Action. If determined to be a controlled action, the Minister will decide on the appropriate process of assessment. This would likely be under the Bilateral Agreement with the Queensland Government whereby the Australian Government has accredited the Queensland *SDPWO Act* EIS process to meet the impact assessment requirements under both Commonwealth and State legislation. In addition, a Historical Heritage Management Plan (technical report) will be prepared.

Legislation	Administering Authority	Approval trigger	Relevance to Collingwood
Native Title Act 1993 (NT Act)	The Attorney-General's Department and Minister for Housing, Community and Indigenous Affairs	Development of an Indigenous Land Use Agreement (ILUA)	Land tenure searches have indicated that parts of the Collingwood MLA have existing tenure that means Native Title has not been extinguished. The Iman Group has a Native Title Claim (IMAN #2 QC97/055) over the MLA area and will be the parties with whom an ILUA will be developed.

2.2. State Government

Table 2-2 outlines the approvals required from the Queensland government.

Table 2-2 State Approvals

Legislation	Administering Authority	Approval trigger	Relevance to Collingwood
State Development and Public Works Organisation Act 1971 (SDPWO Act)	Coordinator General's (CG) Office. Department of Employment, Economic Development and Innovation (DEEDI)	Section 27 declaration as a Significant Project.	Cockatoo is seeking declaration from the CG of Collingwood as a "significant project" and has prepared this IAS in support of this application. If declared a significant project, Cockatoo will follow the EIS process as defined by the SDPWO Act and the CG will manage the EIS process. The EIS will address matters required by the Project's Terms of Reference (ToRs).
		Surat Basin Infrastructure Corridor State Development Area (SBIC SDA) declared under section 77.	Elements of the supporting infrastructure situated within the SBIC SDA may require CG approval for a Material Change of Use (MCU). These include: • Rail spur. • Transmission line and easement. • Water pipeline and easement. • Workforce accommodation.
Mineral Resources Act 1989 (MR Act)	DEEDI	Issue of Mining Lease (ML) for mining purposes	Cockatoo will apply for a ML for the mining activities at Collingwood.

Legislation	Administering Authority	Approval trigger	Relevance to Collingwood
Environmental Protection Act 1994 (EP Act) *Environmental Protection Regulation 2008* (EP Regulation)	Department of Environmental Resource Management (DERM)	Granting of a non standard environmental authority (mining activities). Various Environmentally Relevant Activities (ERAs) associated with mining activities.	Collingwood is likely to involve a range of ERAs, depending on final construction and operation requirements. These will require permitting by the DERM. Cockatoo will prepare the necessary documentation as part of the EIS process. Cockatoo will need to obtain approval of Environmental Authorities (EA) for Collingwood.
Water Act 2000 (Water Act)	DERM	Take water and/or interfere with flow within a watercourse. Excavating, placing fill and /or destroying vegetation in a watercourse.	A Development Permit would be required for taking or interfering with the flow of surface or groundwater (e.g. dams, diversions, watercourse pumping). A Riverine Protection Permit would be required for excavating or placing of fill, or removing vegetation with a watercourse. However, these are exempt if the works are authorised under the EA (mining activities).
Aboriginal Cultural Heritage Act 2003 (ACH Act)	DERM	Compliance with the project's cultural heritage duty of care to avoid harm to or manage cultural heritage.	A Cultural Heritage Management Plan (CHMP) or an ILUA containing a cultural heritage management schedule is required to provide the project's cultural heritage duty of care. A CHMP or ILUA will provide all directions required to avoid harm or manage Aboriginal cultural heritage found in the Collingwood MLA.
Queensland Heritage Act 1992 (QH Act)	DERM	Appropriate study, analysis and management of sites and places of state heritage significance, (including archaeological places).	A Historical Heritage Management Plan (technical report) and EIS will be prepared to address heritage matters required under the QHR, and matters required by the Project's ToR.
Nature Conservation Act 1992 (NC Act)	DERM	Taking or destruction of listed flora and fauna species.	Collingwood would require a permit to take protected plants and/or animals existing within the project area.
Vegetation Management Act 1999 (VM Act)	DERM	Clearing of vegetation regulated under this Act.	Vegetation clearing permit for clearing of native vegetation associated with supporting infrastructure.

Legislation	Administering Authority	Approval trigger	Relevance to Collingwood
Strategic Cropping Land Act 2011	DERM	Trigger maps identifying strategic cropping land (SCL)	The majority of Collingwood site (including supporting infrastructure) has been mapped as an area of potential strategic cropping land within the Western Cropping Zone. On-ground verification of the extent of SCL may be completed by Cockatoo, with impacts to be confirmed SCL assessed as part of the EIS.
Fisheries Act 1994	DEEDI	Operational works for constructing or raising waterway barrier works.	Collingwood would require barriers across creeks, which may limit fish movement.
Transport Infrastructure Act 1994 (TI Act)	Department of Transport and Main Roads (DTMR)	Impacts on State-roads.	Approval for road closure and realignment of State controlled roads. Approvals under the TI Act for the transportation of oversized plant, equipment and materials during construction and operation would be sought on an as-needs basis during design, construction and operational phases.
	CG / DTMR	Connection to railway/interfere with railway	Connection to the SBR.
Electricity Act 1994	DEEDI	Connection to / interference with electricity infrastructure	Approval for connection to / interference with the Wandoan Substation and transmission of power to Collingwood.
Explosives Act 1999	Chief Inspector, as designated under the Act	Storage, use, transportation, possession of explosives	Mining methods will include blasting of overburden.
Dangerous Goods Safety Management Act 2001 (DGSM Act)	Workplace Health and Safety Queensland, Department of Justice and Attorney-General	Storage and handling of dangerous goods and combustible liquids and the safe operation of major hazard facilities	Collingwood is exempt from certain parts of the Act for activities pertaining to mining on a mining tenure. However, obligations exist in relation to prevention or control of certain hazards for activities associated with the supporting infrastructure (e.g. construction).

2.3. Local Government

Table 2-3 outlines the approvals required from the Western Downs Regional Council.

Table 2-3 Local Government Approvals

Legislation	Administering Authority	Approval trigger	Relevance to the Projects
Sustainable Planning Act 2009 (SP Act) *Sustainable Planning Regulation 2009* (SP Regulation)	Western Downs Regional Council	Approval for MCU and operational works for supporting infrastructure not on ML. Schedule 4, SP Regulation exempts activities authorised under the MR Act and all aspects of development for a mining activity to which an EA (mining activities) applies under the EP Act from assessment under the planning scheme.	Elements of the supporting infrastructure not located on the ML may require assessment and approval under the Taroom Shire Planning Scheme in accordance with the Integrated Development Assessment System (IDAS). Supporting infrastructure includes: • Rail spur. • Transmission line and easement. • Water pipeline and easement. • Access roads. • Workforce accommodation.
Building Act 1975	Western Downs Regional Council	Buildings works off ML (not otherwise made self-assessable or exempt)	Supporting infrastructure includes: • Rail spur. • Transmission line and easement. • Water pipeline and easement. • Access roads. • Workforce accommodation.
Local Government Act 1993	Western Downs Regional Council / DERM	Road closures / alterations	Permits for road closures and alterations would be required.
Dangerous Goods Safety Management Act 2001 *(DGSM Act)*	Western Downs Regional Council	Storage and handling of dangerous goods and combustible liquids and the safe operation of major hazard facilities	Collingwood is exempt from certain parts of the Act for activities pertaining to mining on a mining tenure. However, obligations exist in relation to prevention or control of certain hazards for activities associated with the supporting infrastructure (e.g. construction). Depending on quantities, Council may licence the storage of fuel and combustible liquids.

3. Project Description

3.1. Overview

This section provides the project description of the proposed development at Collingwood and is divided as follows:

- Location.
- Tenure.
- Geology.
- Resources and reserves.
- Coal handling and preparation
- Spoil waste management.
- Mine infrastructure.
- Supporting infrastructure.
- Regional infrastructure.

3.2. Location

Collingwood is located approximately 400 kilometres (km) north-west of Brisbane and 320 km south-west of Rockhampton, between the Central Queensland towns of Taroom and Wandoan on the Leichhardt Highway as depicted in **Figure 1-1**. Wandoan and Taroom are approximately 12 km south-west and 40 km north-west of the site respectively.

Coal resources to be extracted at Collingwood lie within the Exploration Permit Coal (EPC) Number 640 (EPC 640) and the MLA as shown in **Figure 3-1**.

3.3. Tenure

Land areas covered by the Collingwood EPC, MLA and supporting infrastructure easements are outlined in **Table 3-1**.

Table 3-1 Areas covered by EPC, MLA and supporting infrastructure

Tenement	Area (hectares)[1]
EPC 640	5,964
Project components[2]	
Collingwood MLA	4,005
Transmission line (based on 30 metre easement)	65
Pipeline (based on 100 metre easement)	47
Rail spur (based on 100 metre easement)	63

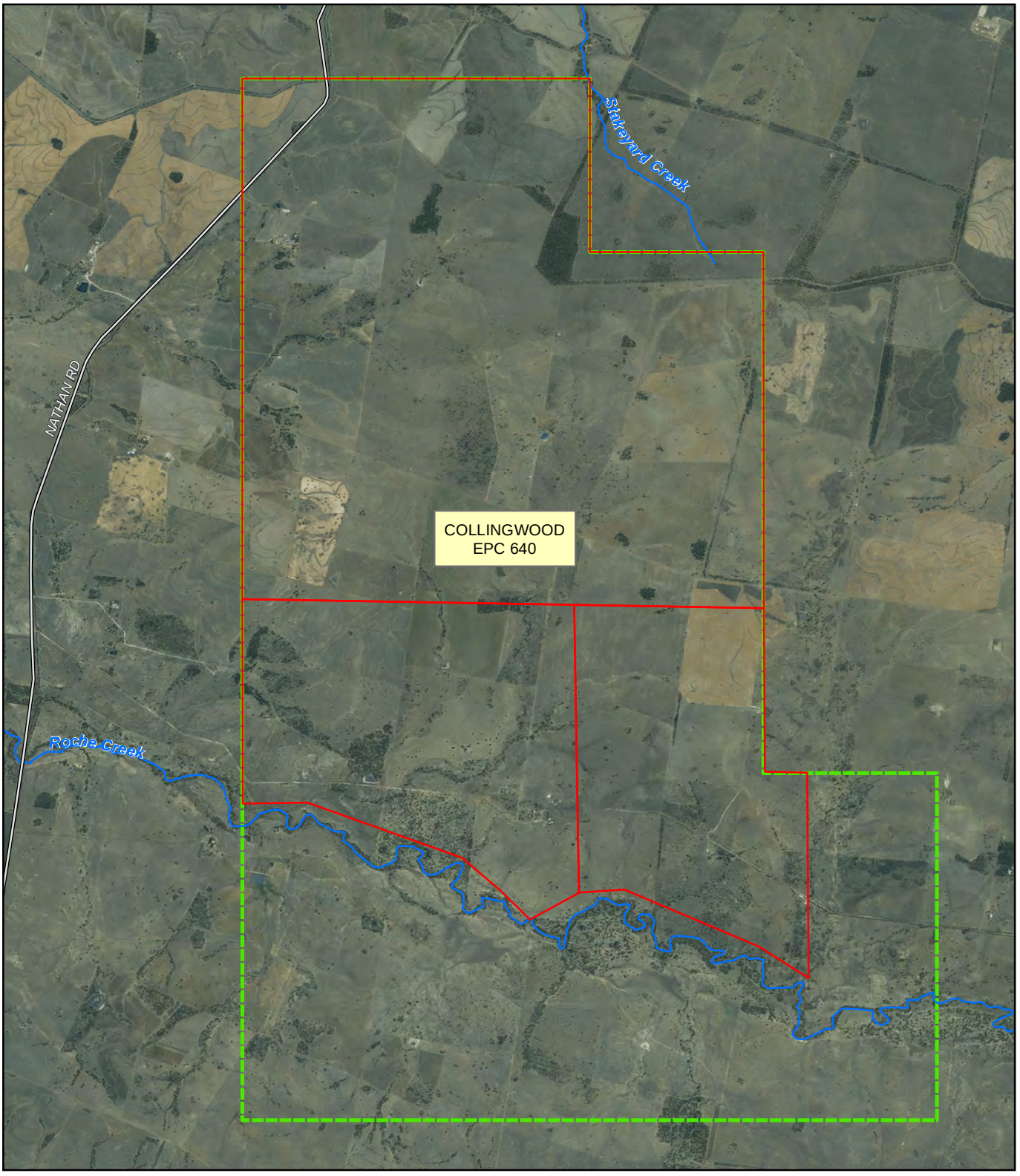
[1] Areas have been calculated using the conic Lambert projection, GDA 94. Area and distance calculations will be generated using GDA 94, MGA Zone 55 projection in the EIS.
[2] Note that area calculations have been based on conservative easement widths. Refinement through detailed design of supporting infrastructure will result in a decrease in area affected.

The land in EPC 640 is mostly cleared and is predominantly used for grazing. There are 14 separate properties that are within the MLA for Collingwood. Real Property Descriptions for properties that lie wholly or partly within the MLA are provided in **Table 3-2**. The JV owns one property (Acacia Downs) which is covered by the tenure of EPC 640, and is currently discussing the acquisition of other affected properties with landowners.

Table 3-2 Real Property Descriptions for Properties on the MLA

Lot	Plan	Tenure
102	FT328	Leasehold
102	FT328	Reserve
22	FT801	Freehold
4	FT835681	Freehold
41	FT603	Freehold
44	FT328	Freehold
46	FT120	Freehold
47	FT120	Freehold
48	FT815	Freehold
5	FT1004	Leasehold
6	FT801	Freehold
63	FT960	Freehold
66	FT517	Freehold
99	FT815	Freehold

COLLINGWOOD



LEGEND

- Road
- River/Creek
- Collingwood Exploration Permit Coal
- Collingwood Mining Lease Application

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Similarly, land along the proposed supporting infrastructure corridors is cleared and grazed. Real Property Descriptions for properties that lie wholly or partly within the preliminary alignments are provided in **Table 3-3.** However, it should be noted that the location of the proposed infrastructure and services will be reviewed as part of the EIS process. Tenure will be confirmed through this process.

Table 3-3 Real Property Descriptions for Supporting Infrastructure Properties

Lot	Plan	Lot	Plan
Rail Spur and Pipeline			
44	FT328	41	FT603
99	FT815		
Transmission Line			
58	W64137	1	W64112
1	AP14260	102	FT328
2	AP14260	44	FT328
159	SP184938	44	FT328
01	AP14260	0102	FT328
102	W6415	22	FT746
3	W64139	2	RP170076
4	W64139	50	FT991
98	W6415	2	RP170076
98	W6415	5	FT349
59	W64126	160	FT990
58	W64126	140	FT981
27	W64126	36	FT981
28	W64126	35	FT349
29	W64126	23	CP900888
19	W64130	168	CP909136
1	RP203544	1	SP130877
2	RP203544	01	SP130877
96	W6415	40	FT329
4	W64137	41	FT603
3	W64131	41	FT603
5	W64134	38	FT72
6	W64136	31	FT146

Tenure of the Collingwood deposit is held jointly by Cockatoo Coal (Taroom) Pty Limited (51%) and MCH Surat Basin Investments Pty Ltd (49%). EPC 640, which covers all of the deposit, is current until the 15th of February 2013.

Three mining lease applications (MLAs) will be submitted for Collingwood due to the overlapping petroleum tenure. These are named Collingwood #1, #2, and #3. The area of EPC 640 not within the MLAs will have an MDL application submitted. The MLAs for Collingwood are slightly smaller than the footprint of the EPC, as shown in **Figure 3-1**.

3.4. Geology

The Collingwood deposit is located on the eastern limb of the Mimosa Syncline in the north of the Surat Coal Basin in south-east Queensland. The Surat Basin's flat-lying sedimentary sequence unconformably overlies the Permian-Triassic Bowen Basin. The principal coal bearing sequence in the Surat Basin is the Middle Jurassic age Walloon Sub Group. The Walloon Sub Group is composed of the Taroom Coal Measures, Tangalooma Sandstone and Juandah Coal Measures, in stratigraphic order.

Collingwood would target the Taroom Coal Measures which are approximately 150 m thick. The coal occurs within sequences of grey, fine to medium grained sandstone, siltstone and mudstones. The coal seams at Collingwood are typically thinly bedded and lensoidal in shape as the seams formed in pod shaped swamp deposits between coarser fluvial channel deposits.

3.5. Resources and Reserves

The Collingwood resource within EPC 640 totals approximately 230 Mt of measured, indicated and inferred tonnes.

The Collingwood deposit contains at least 13 coal plies that can be grouped into six main intervals. In descending stratigraphic order, these intervals are named Y, X, A, B, C and D. The coal intervals exhibit the extensive splitting and rapid variation in ply thickness typical of the Surat Basin. A typical stratigraphic column of the Collingwood resource is shown in **Figure 3-2**.

The deposit contains a relatively high proportion of thin seams and thin interburdens, which suggests that operations would be suited to a selective mining strategy.

Mine planning indicates that an operation producing up to 9 Mtpa of ROM coal which would be processed to yield 6 Mtpa of marketable product is appropriate for the deposit. The operation would deliver approximately 120 Mt of product coal over an expected mine life of 20 years.

Pit shell design is constrained by crop lines to the east, Roche Creek to the south, strip ratio to the west, and a combination of tenement boundaries and strip ratios to the north. The proposed Surat Basin Rail (SBR) Line also crosses the north-western corner of EPC 640 and sterilises approximately 11 Mt of resource coal, as shown in **Figure 3-3**.

A strip ratio of less than 6:1 bank cubic metres/tonne (bcm/t) has been used to identify the potential open-cut resources and provides a mining target in excess of 140 Mt at an average strip of 4.1:1 bcm/t. The main pit shell, located to the north of Roche Creek, would reach a maximum depth of approximately 80 m, with an overall average depth of 50 m.

3.6. Mining

Mining would be conducted for up to 24 hours per day, seven days per week using conventional truck and shovel methods. ROM coal would be processed on-site yielding 6 Mtpa of product coal suited to export markets. Lower specification coal more suited for domestic power generators would also be produced in small quantities. Over the mine life, Collingwood would produce a total of 120 Mt of product coal.

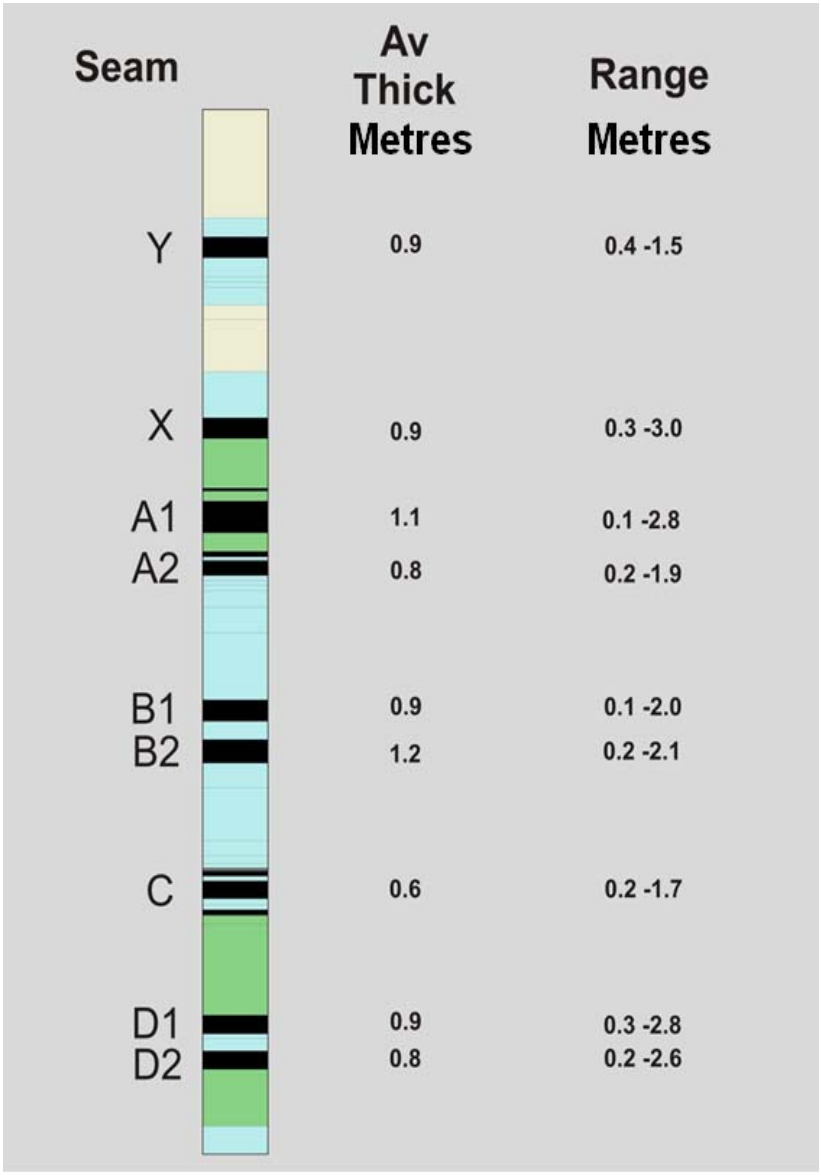
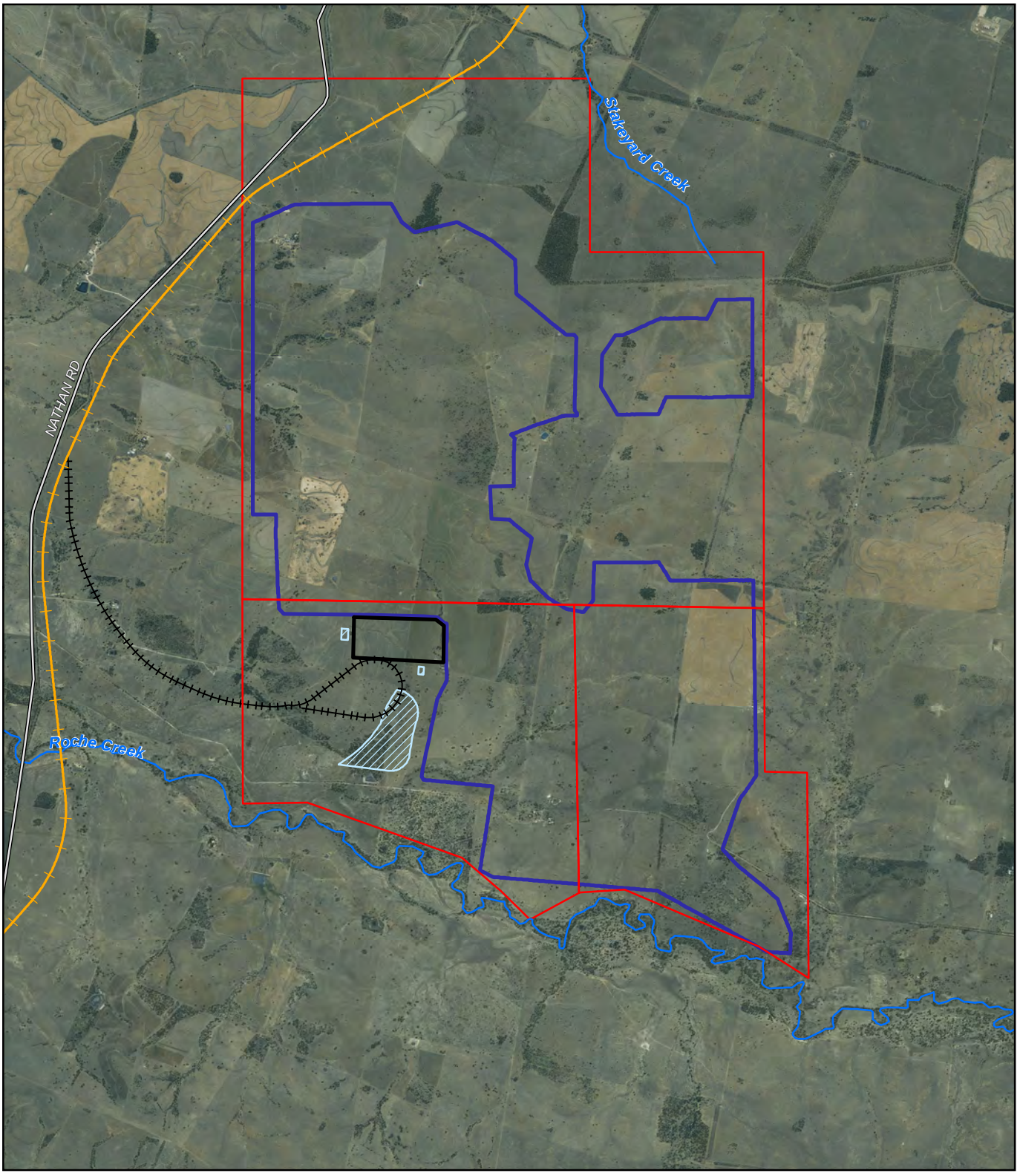


Figure 3-2 Indicative Collingwood Stratigraphic Column

COLLINGWOOD SITE INFRASTRUCTURE



LEGEND

- Road
- Rail
- Proposed Surat Basin Rail
- River/Creek
- Collingwood Mining Lease Application
- Proposed Pit Shell Boundary
- Proposed Dam
- Proposed CHPP

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The main elements of the open-cut mining operation would be:

- Clearing of vegetation ahead of mining and selective stripping of available topsoil to be stockpiled for later use in the rehabilitation program.
- Drilling and blasting of overburden prior to excavation.
- Loading, hauling and placement of overburden.
- Mining of ROM coal from the six major seam groups of the Taroom Coal Measures.
- Processing of ROM coal through a Coal Handling and Preparation Plant (CHPP) to be constructed for Collingwood.
- Disposal of CHPP rejects and tailings initially into co-disposal storages (that is, disposal of coarse and fine rejects together) away from the open-cut excavation, followed by co-disposal within the mined out areas once there is suitable space for the spoil/tailings.
- Progressive reshaping of spoil dumps, replacement of topsoil and revegetation of the mined and backfilled areas.
- Development of infrastructure, including a rail spur and loop, train load-out facilities, water storages, and office and workshop facilities.
- Construction of on-site water management structures.
- Transport of product coal by rail to Gladstone for export.

The open-cut mining fleet would consist of two independently operating fleets, each comprised of one large shovel or excavator removing overburden, supported by smaller excavators and wheel loaders for parting removal and coal mining. Operations would commence as a box cut in the central part of the deposit and the pit would develop along two faces, and progressively shift to the north-west and the south-east respectively. The two mining strips would both be oriented in a north-east to south-west direction each operated by a separate mining fleet.

Overburden would be transported to in-pit or out-of-pit emplacement areas while ROM coal would be transported to a new CHPP. Product coal would be loaded onto trains for transport off the mining lease via a Cockatoo-constructed rail loop that would connect to the proposed SBR.

The Surat Basin Rail Joint Venture proposes to construct the SBR by mid 2015. This would tie into the Moura Railway system near Banana providing a direct link to the Port of Gladstone.

3.7. Coal Handling and Preparation

At this stage, the CHPP and rail load-out facilities would be located to the west of the deposit, as shown in **Figure 3-3**. The CHPP would have a capacity of 1,300 tonnes per hour (t/h) ROM feed, to yield 900 t/h of product. The CHPP would be capable of processing up to 9 Mtpa of ROM coal, operating seven days per week, and 24 hours per day.

The CHPP's infrastructure would primarily comprise a ROM pad, ROM coal delivery system, coal washery module, coal waste delivery system (tailings and coarse rejects), clean coal delivery system, product stockpile, offices, fuel farm and workshops. Waste streams would include coal tailings, coarse rejects and water which are currently being assessed in a Reject Management Study. The coal flow process design, CHPP design, and Reject Management are currently being developed for the Project's Feasibility Study.

3.8. Spoil Waste Management

The preliminary mine plan envisages mining from two faces located on either side of an initial box cut. After approximately five years of operation, east-west oriented mining strips would develop and proceed down the flanks of an anticline, forming a north and south pit. It is proposed that overburden would initially be placed in an out-of-pit dump east of the partial box cut. Mining wastes would be dumped into previously mined areas as mining progression permits and in accordance with approved mine planning. Progressive rehabilitation would aim to re-establish a combination of productive grazing land and native scrub similar to remnant vegetation populations in the area.

The waste materials from this mining operation would comprise three streams:

- Topsoil and subsoil. This material would be stockpiled for future land rehabilitation and revegetation.
- Overburden and interburden.
- Coal washery reject, both coarse reject (gravel-sized crushed stone bands) and fine tailings (predominantly sand-sized and finer).

The mine would require approximately 10 million cubic metres (Mm^3) of tailings capacity. The life-of-mine (LOM) tailings impoundment structure would be constructed for in-pit tails/reject disposal.

3.9. Mine Infrastructure

Mine infrastructure to be developed within the mining lease as part of Collingwood would consist of:

- Site access to main road.
- Diversion of local roads.
- Light vehicle access roads.
- Heavy vehicle haul roads.
- Communications infrastructure i.e. towers, cabling.
- Offices and administration facilities.
- Ablutions and crib room facilities.
- Water Management System.
- Wastewater treatment facilities.
- Fuel and oil storage facilities.
- Power lines/poles and reticulation.
- Maintenance workshop and associated amenities.
- CHPP.
- Coal stockpiling and blending facility.
- Fines recovery system.
- Train loading installation.
- Dams (e.g. raw water, tailings, sediment, mine runoff/pit water).

The principal design requirements that would drive the site surface infrastructure would be the location of the CHPP, the railway spur loop and the mine plan. The CHPP would be located in close proximity to the open-cut voids to facilitate co-disposal of CHPP rejects within the voids. The MIA would be positioned to the west of the deposit, to minimise sterilisation of the resource and to reduce the distance between the CHPP and the proposed rail connection to the SBR.

3.10. Supporting Infrastructure

Supporting infrastructure and services located off the mining lease to be developed by Cockatoo as part of Collingwood will include:

- Site access from Nathan Road.

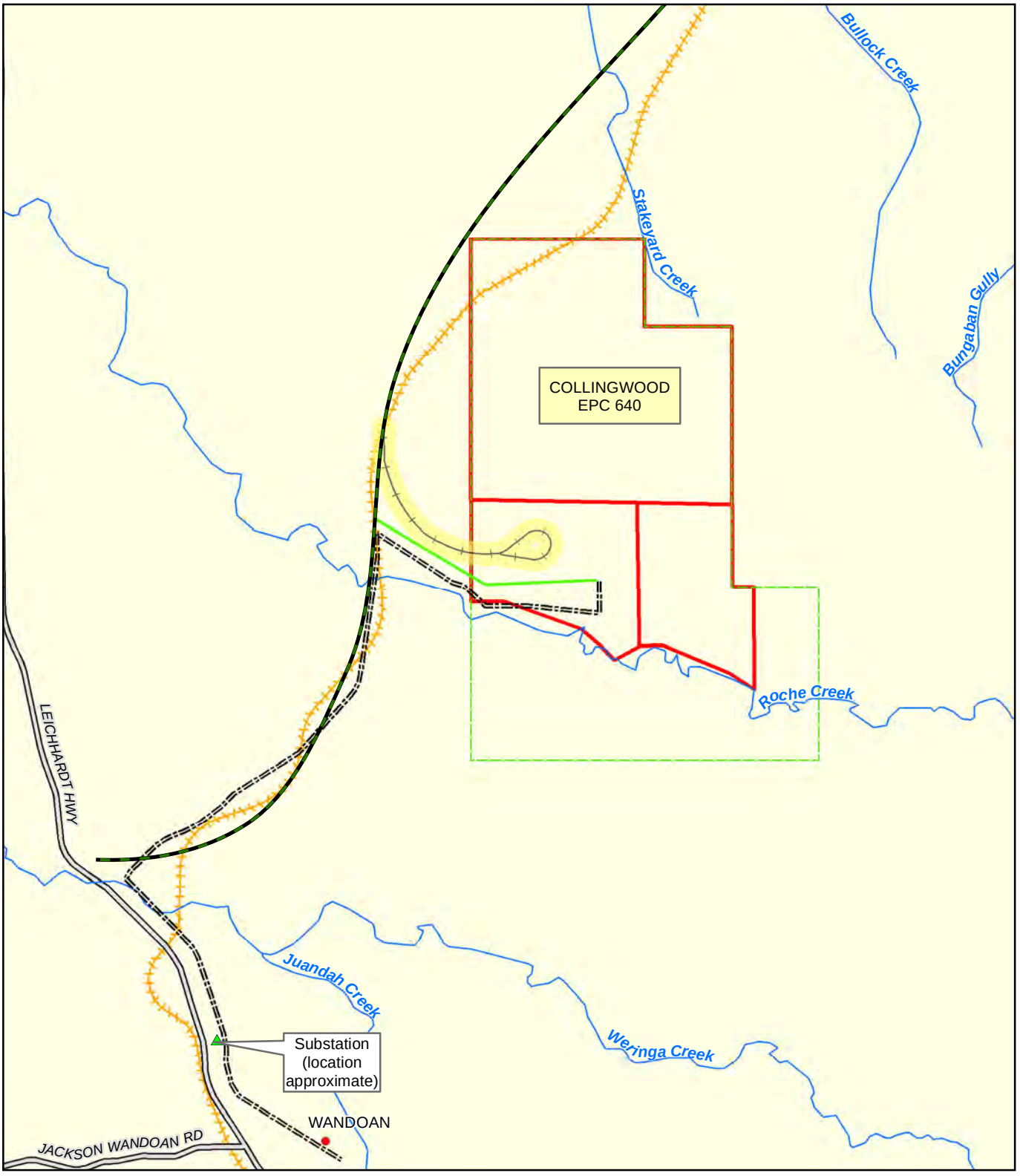
- A rail spur approximately 7 km in length that transports coal off lease and connects to the SBR line to the west of Collingwood.
- A high voltage transmission line (66 kV) and easement approximately 23 km in length that connects to the Wandoan Power substation.
- A water pipeline and easement approximately 5 km in length that would run between the transmission line and the rail spur to join the proposed Nathan Dalby pipeline (proposed to be constructed by SunWater).

Indicative locations and extents of the rail spur, high voltage transmission line and water pipeline are shown in **Figure 3-4**. To the extent practicable, to minimise potential environmental and social impacts, the alignment of the supporting infrastructure follows existing, approved/constructed infrastructure corridors.

A workers accommodation village will be located between the Collingwood and Taroom sites to house the construction workforce. Cockatoo is currently undertaking an options assessment study to identify the preferred options for the accommodation of the construction and operational workforce. The preferred option will be assessed in detail within the EIS.

A land agreement / acquisition strategy would be developed to ensure that land access and acquisition associated with supporting infrastructure would be undertaken. Cockatoo would undertake this later in the ML approval process.

PROPOSED SERVICES FOR COLLINGWOOD



LEGEND

- River/Creek
- Major Highway
- Proposed Surat Basin Rail
- Collingwood Exploration Permit Coal
- Mining Lease Application
- Proposed Cockatoo Coal Rail Alignments with 100m buffer
- Proposed Pipelines (Conceptual)
- Proposed Power Line Easements (Conceptual)
- Approximate route of Nathan Dalby Pipeline

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3.11. Local and Regional Infrastructure

The major regional infrastructure located within proximity to the Collingwood site includes:

- Roads – The Leichhardt Highway is located approximately 9 km to the west of the Collingwood site and runs in a north-south direction from the town of Taroom in the north to the town of Wandoan in the south. Access to the Collingwood site is currently via publically gazetted roads, namely Nathan Road. However, other transport options are currently being investigated to minimise the impact to the neighbouring landowners and the environment. The impacts to local roads would be assessed by Cockatoo through the EIS and feasibility assessments.
- Rail – The SBR will stretch 214 km from Wandoan to connect with the Moura Railway System, near Banana (130 km west of Gladstone).
- Power – The proposed power supply is the Wandoan Substation.
- Water – The Glebe Weir (a small water resource located north of Taroom), the proposed Nathan Dam, Dawson River water allocations, groundwater and Coal Seam Gas (CSG) extraction wastewater are all possible sources of water for Collingwood. These options would be assessed by Cockatoo through the EIS and mine feasibility assessments. This assessment will determine the approvals required for water infrastructure and usage.
- Workers accommodation – Cockatoo Coal is currently investigating options to position a workers construction camp half way between the proposed Taroom and Collingwood mine sites, close to the Number 4 Road. Further assessment of requirements for construction and operation accommodation will be undertaken as part of the EIS.

3.11.1. Road Diversions

Collingwood would directly impact on two local roads, namely, Walshes Road and Number Four Road. These roads may need to be diverted or closed (where redundant) to accommodate the mine footprint, potentially increasing travel time if the alternative route increases travelling distance.

3.11.2. Rail

The SBR will stretch 214 km from a new rail siding just south of the Wandoan township to connect with the Moura Railway system near Banana (130 km west of Gladstone). The SBR will support 22 to 24 train movements per day of trains up to 2.5 km in length. The railway will have the capacity to transport up to 42 Mt of coal per year, unlocking approximately 6.3 billion tonnes of coal reserves in the Surat Basin.

The proposed SBR rail alignment passes through the north-western corner of the Collingwood site, thereby sterilising in the order of 11 Mt of resource.

A separate rail spur would be constructed by Cockatoo to link the Collingwood site with the SBR. This spur line would be approximately 7 km in length and located both on and off tenement.

3.11.3. Power Supply

It is estimated the power demand for Collingwood would be approximately 15 Mega Watts (MW), based on 9 Mtpa ROM CHPP plus electric rope shovels. Infrastructure capable of providing sufficient power to meet projected demand, primarily through the Wandoan Substation, is planned to be in place by mid 2013.

Cockatoo would develop a 66 kV transmission line and easement for the purpose of connecting to the regional power supply. The transmission line would be approximately 23 km in length (including 8 km of alignment common to both Collingwood and Taroom).

An alternate option would be direct connection to Collingwood by a high voltage overhead feeder from a Coal Seam Gas (CSG) fired generation turbine at a nearby production field.

3.11.4. Water Supply

Typical industry water usage for open-cut mining operations is estimated to be in the order of 350 million litres per annum (ML/a) per 1 Mtpa ROM coal. On this basis, water usage for Collingwood is estimated at 3,150 ML/a, (or 8.6 ML/day) being for 9 Mtpa ROM coal. A water demand study is currently being undertaken as part of the Pre-Feasibility Study.

As noted in **Section 3.10**, there are a number of potential sources of water for Collingwood, namely:

- Glebe Weir.
- Nathan Dam.
- Dawson River Allocations.
- Groundwater.
- CSG extraction wastewater (from adjacent but separate developments).

Given the close proximity of the Collingwood site to Glebe Weir and the proposed Nathan Dam, these water sources would be the most likely scenario. However CSG extraction wastewater could also be utilised, depending on quality, and agreement with CSG

producers. The options would be assessed by Cockatoo through the EIS and mine feasibility assessments.

Cockatoo would aim to reduce the dependence on the off-site water supply over time through strategies to increase water conservation and recycling measures.

Collingwood would include the development of a water pipeline and easement that would run between the transmission line and the rail spur to join the proposed Nathan Dalby pipeline (proposed to be constructed by SunWater). The pipeline would be approximately 5 km in length. The assessment to be undertaken as part of the EIS will determine the approvals required for water infrastructure and usage.

3.12. Employment Opportunities

Collingwood would employ up to 1,000 full-time equivalent personnel over the 18 month construction period and approximately 400 personnel during operation.

The EIS for Collingwood would include a Social Impact Management Plan, which amongst other things would review accommodation options, housing issues and workforce transportation to and from the site.

3.13. Project Timeline

An indicative timeline for the project is summarised in **Table 3-4**.

Table 3-4 Indicative Project Timeline

Description	Indicative Timing
Construction commencing	Second Quarter 2014
Mining commencing	Fourth Quarter 2014
Commissioning	Third Quarter 2015
Construction completion	Fourth Quarter 2015
Mine decommissioning	2037

Construction commencement dates for Collingwood and Taroom have been offset by six months to capitalise on workforce opportunities and cost benefits associated with construction synergies between Collingwood and Taroom, including longevity of contracts and management of workforce accommodation. Once operational, Cockatoo will be required to meet contractual production requirements with SBR and WICET. Cockatoo will therefore require both mines to operate simultaneously as soon as possible.

4. Existing Environment and Potential Impacts

The following section provides a summary of the existing environment and potential impacts at Collingwood and includes:

- Socio-economic factors.
- Land use, resource and landform.
- Surface water resources.
- Groundwater.
- Terrestrial flora and fauna.
- Noise and vibration.
- Air quality.
- Greenhouse gases.
- Cultural heritage values and native title.
- Infrastructure and transport.
- Waste management.
- Fuels, oils and chemicals.

4.1. Socio-Economic Factors

The area surrounding the Collingwood site is within the Western Downs Regional Local Government Area (LGA) and generally supports broad-acre agricultural activities. The closest town is Wandoan, approximately 12 km to the south-west of the site. The town of Taroom is located approximately 40 km to the north-west and is located within the Banana Shire LGA. Wandoan has a population of 386 and Taroom a population of 629.

According to the Australian Bureau of Statistics (ABS) there was a 1.5% increase in population in the Western Downs Regional LGA between 2006 and 2010 which is lower than the State's average of 2.5% population growth for that same period. In comparison, there was a 0.3% increase in population in the Banana Shire LGA between 2006 and 2010, which is relatively low growth compared to other shires in the State for that period. These data would be used for further analysis in the EIS.

Local and other appropriately experienced workers would be sought to service the mine. It is anticipated that the local towns of Wandoan, Taroom and surrounding regional towns such as Dalby, Toowoomba and Biloela would provide some of the operational workforce, with the remainder being sourced from further afield. It is also anticipated that, due to the

short-term nature of construction activities and requirement for specialist skills, much of the construction workforce would live remotely and travel to site for duties.

Cockatoo is exploring options for providing employees with accommodation during the operational phase of the mine, including local accommodation and roster commute. As a result, this is expected to lead to an increase in local employment opportunities.

Facilities to house the construction and operations workforces would be evaluated as part of the feasibility studies and assessed further as part of the EIS. However, Cockatoo is committed to working with Local and State governments to develop strong communities.

4.2. Land Use, Resource and Landform

The landscape in the vicinity of Collingwood comprises gently undulating plains, with a dominant soil type classified as vertosols. The Collingwood site is located at an elevation of between 280 and 320 m, Australian Height Datum (AHD). Vegetation has been extensively cleared to allow for the sowing of improved pastures mostly for grazing and to a lesser extent for pasture-cropping lands. Pockets of remnant native vegetation exist in riparian zones on the northern and southern banks of Roche Creek, as shown in **Figure 4-1**.

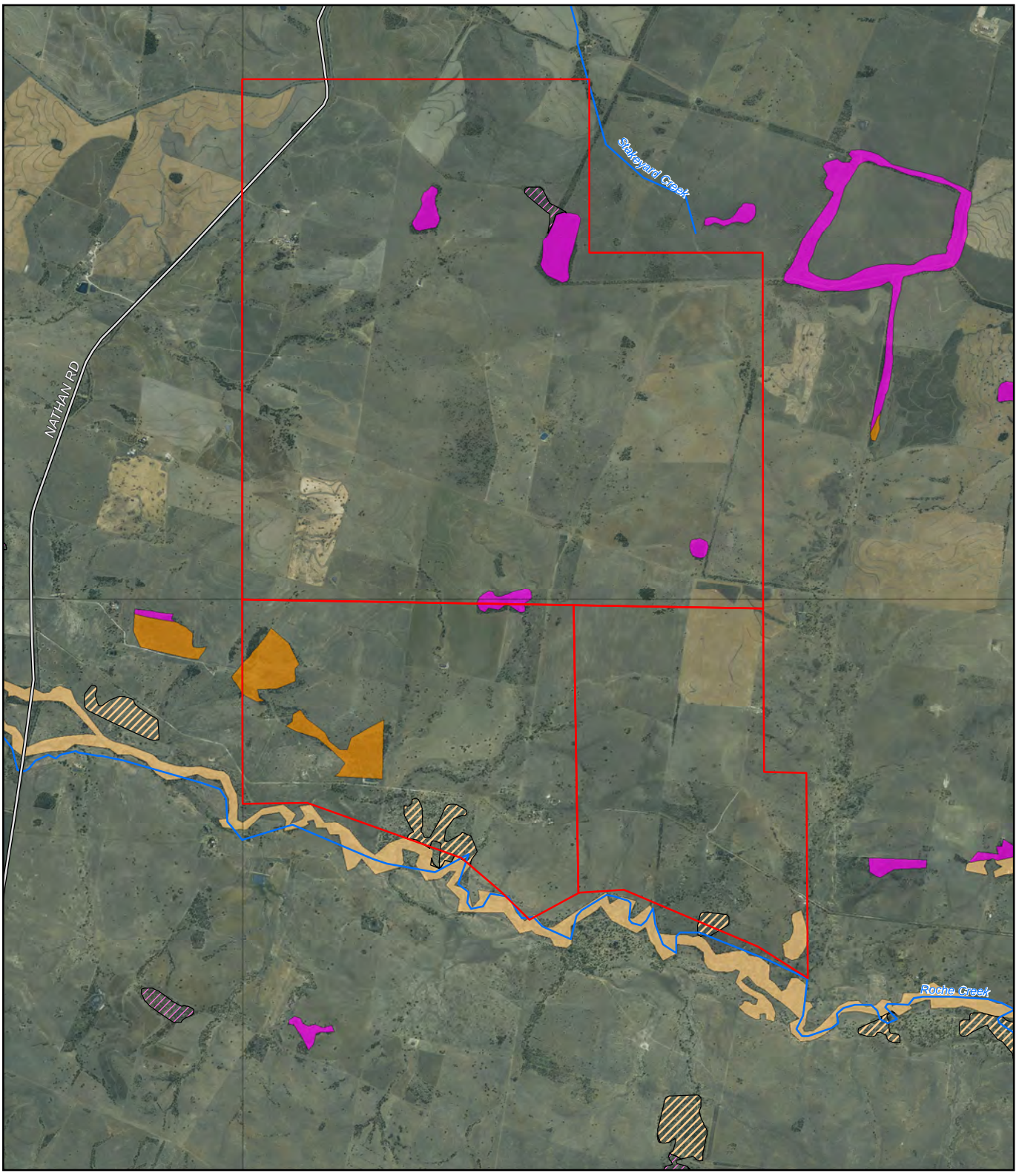
Approximately seven hectares of land located in the north-west section of the site has been classified as being of value for conservation purposes according to the Queensland Land Use Mapping Program (QLUMP) spatial dataset (Department of Environment and Resource Management (DERM), 1999). However, although usage has been defined as conservation, this land is not a protected area according to the Protected Areas of Queensland spatial dataset (DERM, 2011). The Land Resource Area is classified as 'Wandoan' according to the Department of Natural Resources and Water/CSIRO (1999) Lands of the Dawson-Fitzroy Area spatial dataset.

Good Quality Agricultural Land (GQAL) is protected by State Planning Policy 1/92 (SPP 1/92) from developments which lead to alienation or reduced productivity of the land. Class A GQAL comprises the majority of the Collingwood site, with some Class B land located in the southern portion of the site. Class A land is classified as being land that is suitable for current and potential crops with limitations to production which range from none to moderate levels (DPI/DHLGP, 1993).

The *Protecting Queensland's Strategic Cropping Land* policy framework was released by DERM in August 2010, and the *Strategic Cropping Land Bill 2011* was released in October, 2011. The *Strategic Cropping Land Act 2011* was given assent in December 2011, and is expected to commence on 30 January 2012. A search of the on-line trigger

maps has identified that areas of potential strategic cropping land may exist within the Collingwood site. These areas are illustrated in **Figure 4-2**.

REGIONAL ECOSYSTEMS AT COLLINGWOOD



LEGEND

- Road
- River/Creek
- Collingwood Mining Lease Application

High Value Regrowth (ver 2.1)

- Endangered RE
- Of Concern RE
- Least Concern RE

Regional Ecosystems (ver 6.1)

- Endangered - Dominant (11.9.5)
- Endangered - Sub-dominant
- Of Concern - Dominant (11.3.2, 11.3.3, 11.9.10)
- Of Concern - Sub-dominant (11.3.25/11.3.2/11.3.3)
- Not of Concern (11.3.25, 11.3.39)
- Non-remnant / Regrowth

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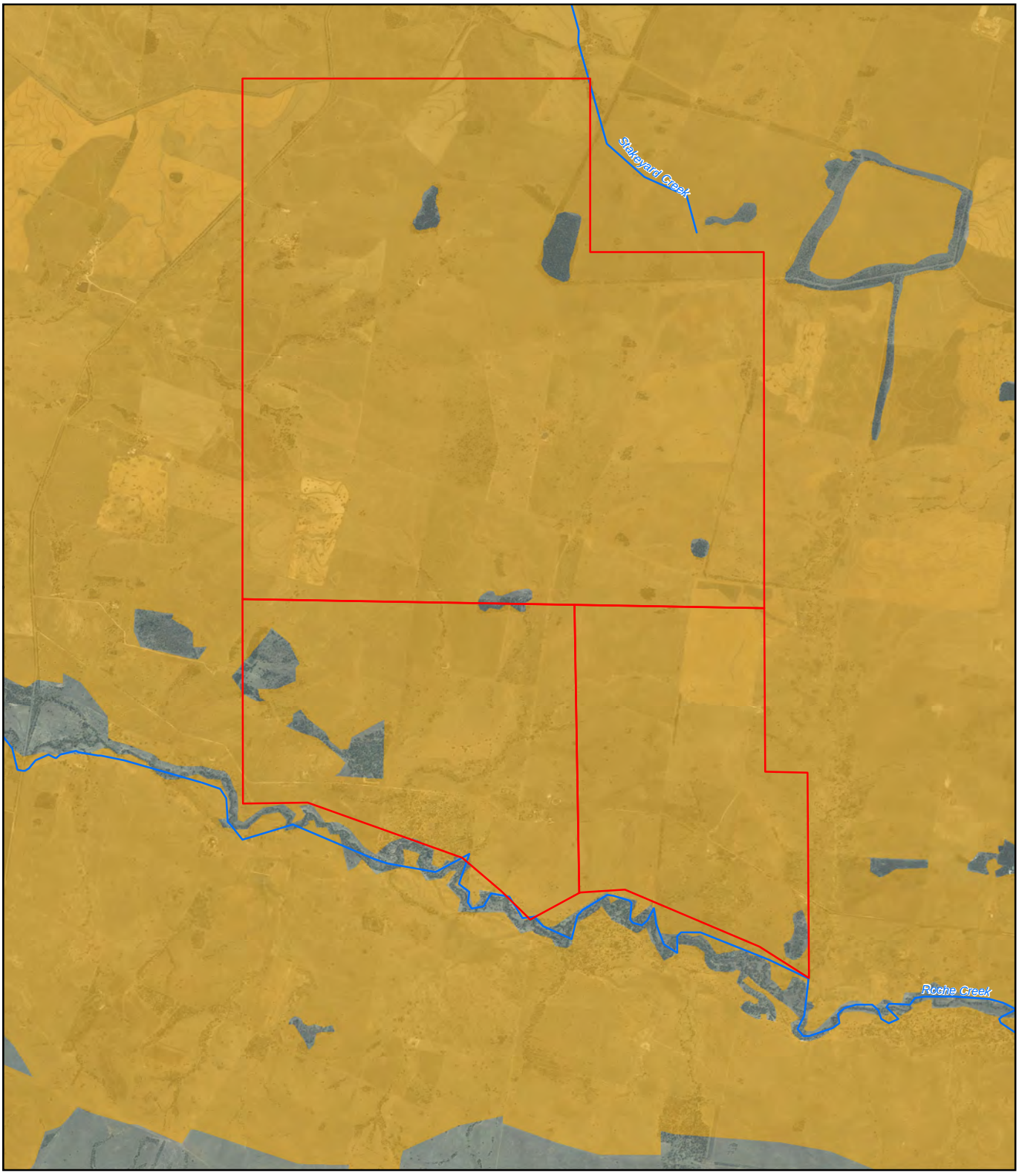
POTENTIAL STRATEGIC CROPPING LAND



LEGEND

- Major Roads
- River/Creek
- Collingwood Mining Lease Application
- Potential Strategic Cropping Land

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DATA SOURCES:
GeoEye1 Satellite Imagery
Qld State Govt Datasets

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The likely impacts on land resources from Collingwood include changes to:

- Landform.
- Drainage patterns.
- Land suitability.
- Land uses.

Impacts to land resources would be considered further in the EIS. This includes consideration of implications to and approvals for potential impacts to GQAL and strategic cropping land. A detailed soil investigation would be undertaken for the EIS.

The designs of the out-of-pit waste dumps and the topsoiling and revegetation measures that would be applied would be considered in the EIS. Consideration of the factors that may impact on the long-term stability of the spoil dumps (for example, climatic, geotechnical, chemical and geomorphological factors) would be included. Assessment of these factors will assist in determining the associated rehabilitation design parameters and the most appropriate post-mine landform and land use. Much of this information would be determined during the EIS process and through studies undertaken during the rehabilitation program. Proposed monitoring of rehabilitated areas would also be outlined in the EIS and Environmental Management Plan (EM Plan).

The degree to which each property is impacted upon by Collingwood will be assessed during the EIS. The EIS process will include further consultation with landholders and the wider community to better understand these impacts and develop appropriate mitigation measures.

4.3. Surface Water Resources

Watercourses in the vicinity of the Collingwood site are generally ephemeral in nature.

Collingwood drains into Roche Creek, which flows in a westerly direction into Juandah Creek and then flows downstream to the Dawson River. Roche Creek forms part of the upper reaches of the Dawson River Catchment, a sub-basin of the larger Fitzroy River Catchment, which drains into the Pacific Ocean (i.e. Great Barrier Reef) north of Gladstone. The Fitzroy River Basin catchment is legislated under the *Water Resource (Fitzroy Basin) Plan 1999* such that any taking or interfering with water would need to be approved by the DERM.

Collingwood is located approximately 760 km upstream from the mouth of the Fitzroy River and Great Barrier Reef Marine Park.

The mining activities that may affect surface waters include changes in the landform, run-off from disturbed areas (including the infrastructure areas) and voids left after mining ceases. Mitigation strategies would be implemented to reduce potential impacts on surface water flows and quality. These strategies would be developed as part of the EIS and would include:

- The development of a management plan for Roche Creek.
- Implementation of a "clean water – dirty water" system to divert clean run-off around disturbed areas and direct run-off from disturbed areas to retention dams for treatment.
- The development of a detailed water management plan to ensure that the water released from site (if any) is within the licensed discharge limits in the Environmental Authority.

Sedimentation and contamination of surface water runoff from Collingwood (including supporting infrastructure) will be strictly managed and is therefore not expected to adversely impact on surface water quality downstream. Consequently, potential indirect impacts to the Great Barrier Reef are unlikely.

The supply of water for mine activities has been discussed in **Section 3.10**.

4.4. Groundwater

The main aquifers of the Great Artesian Basin (GAB) underlie the Walloon Coal Measures at the Collingwood site. Locally, the primary source of groundwater for beneficial use is from the Hutton Aquifer, the shallowest of the major sandstone aquifers of the GAB regionally. Further investigation would take place to better understand the connectivity between the Walloon Coal Measures and the underlying Hutton aquifer.

An alluvial aquifer is present on the southern site of the mine lease area. Further investigation will help delineate the alluvial aquifer extent and connectivity with the Walloon Coal Measures. Outcomes of this investigation would be provided in the EIS.

Pit inflows are estimated to be low due to the relatively shallow depth of the pits, an estimated depth to water table between 15 and 30 m below ground surface, and the low conductivity of the Walloon Coal Measures. Any inflow to the pit is expected to be brackish to saline.

4.5. Terrestrial Flora and Fauna

4.5.1. Flora

There are no protected areas (parks, forests, reserves) located within the site. The majority of the site has been cleared of remnant vegetation and is predominantly used for cattle grazing.

A review of the EPBC Act Protected Matters database, DERM Wildlife Online database and Queensland Herbarium HERBRECS databases were undertaken to identify any federally listed threatened species or ecological communities potentially occurring within the Collingwood area. The species and communities identified in this preliminary assessment will be reviewed and updated as part of the EIS.

Remnant vegetation is restricted to isolated patches scattered around the MLA and areas adjacent to Roche Creek. DERM desktop mapping indicates that in total, six Regional Ecosystems (REs) are mapped within the site. These REs range in status from Least Concern to Endangered as outlined in **Table 4-1** . Note that these REs have been digitised at a scale of 1:100,000 with an accuracy of 100 metres, and have not been ground-truthed.

Table 4-1 Regional Ecosystems at MLA and supporting infrastructure

RE Code	Short Description	VM Act Status[1]	Biodiversity Status[2]
11.3.25 / 11.9.10 / 11.9.7	*Eucalyptus tereticornis* or *E. camaldulensis* woodland fringing drainage lines / *Acacia harpophylla, Eucalyptus populnea* open forest on fine-grained sedimentary rocks / *Eucalyptus populnea, Eremophila mitchellii* shrubby woodland on fine-grained sedimentary rocks	Least concern	Of concern
11.9.5	*Acacia harpophylla* and/or *Casuarina cristata* open forest on fine-grained sedimentary rocks	Endangered	Endangered
11.9.7 / 11.9.10	*Eucalyptus populnea, Eremophila mitchellii* shrubby woodland on fine-grained sedimentary rocks / *Acacia harpophylla, Eucalyptus populnea* open forest on fine-grained sedimentary rocks	Of concern	Of concern
11.3.25/11.3 .19/11.3.2	*Eucalyptus tereticornis* or *E. camaldulensis* woodland fringing drainage lines / *Callitris glaucophylla*, *Corymbia* spp. and/or *Eucalyptus melanophloia* woodland on Cainozoic alluvial plains / *Eucalyptus populnea* woodland on alluvial plains	Of concern	Of concern
11.3.25 / 11.9.10 / 11.9.7	*Eucalyptus tereticornis* or *E. camaldulensis* woodland fringing drainage lines / *Acacia harpophylla, Eucalyptus populnea* open forest on fine-grained sedimentary rocks / *Eucalyptus populnea, Eremophila mitchellii* shrubby woodland on fine-grained sedimentary rocks	Least concern	Of concern

RE Code	Short Description	VM Act Status[1]	Biodiversity Status[2]
11.9.5	*Acacia harpophylla* and/or *Casuarina cristata* open forest on fine-grained sedimentary rocks	Endangered	Endangered

[1] Status under the *Vegetation Management Act 1999* (QLD)
[2] Biodiversity Status used to determine environmentally sensitive areas that are used for regulation of the mining industry through provisions in the *Environmental Protection Act1994* (QLD)

The EPBC protected matters search identified three EPBC listed threatened ecological communities that may exist at the Collingwood, see **Table 4-2**. The Brigalow ecological community is considered likely to occur within the site in REs 11.9.1, 11.9.5, 11.9.6 and 11.9.10. The EPBC listed Weeping Myall woodlands is unlikely to occur in the six REs listed in **Table 4-1** and were not recorded during a recent ecological survey of the site.

Table 4-2 Threatened Ecological Communities – MLA and supporting infrastructure

Ecological Community Name	EPBC Status	Type of Presence
Brigalow (*Acacia harpophylla* dominant and co-dominant)	Endangered	The Brigalow ecological community is considered likely to occur within the site in Regional Ecosystems (REs) 11.9.1 and 11.9.5, (refer to **Figure 4-1** Regional Ecosystems at Collingwood).
Weeping Myall Woodlands	Endangered	Weeping Myall woodlands is considered unlikely to occur and was not recorded during a recent ecological survey of the site.
Coolibah - Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions	Endangered	This community is considered possible to occur within the associated infrastructure alignments, however no REs that are a part of this TEC are mapped within the MLA or infrastructure and services alignments.

The database searches also identified two threatened flora species that may be present at the site. The likelihood of occurrence in the study area has been evaluated based on the preferred habitats of the species and knowledge of the type and condition of habitats present at the site. The species, their status and likelihood of occurrence are listed in **Table 4-3**.

Table 4-3 Threatened Flora Species Likely to Occur at MLA and supporting infrastructure

Species Name	EPBC Status	NC Status	Habitat	Likelihood of Occurrence	Source
Commersonia argentea	V		Recorded from north of Chinchilla on stony ridges in eucalypt forest (Stanley and Ross, 1986).	Possible in eucalypt forest on stony ridges.	EPBC

Species Name	EPBC Status	NC Status	Habitat	Likelihood of Occurrence	Source
Homopholis belsonii Belson's Panic	V	E	Known from near Gurulmundi (Stanley and Ross, 1989). Occurs in elevated gently sloping areas on brown soil in Poplar Box / *Geijera parviflora* woodland.	Possible. Poplar Box woodland occurs within site.	NC

Status: E= Endangered, V= Vulnerable, NT=Near Threatened
EPBC= *Environmental Protection and Biodiversity Conservation Act 1999* (C'wlth)
NC = *Nature Conservation (Wildlife) Regulation 2004* (Qld)

A preliminary assessment of potential impacts on EPBC threatened species occurring and likely to occur within the Collingwood MLA and proposed supporting infrastructure locations is presented in **Table 4-4**. Assessment of potential impacts on state-listed threatened species would be undertaken in the EIS.

Table 4-4 Potential Impacts on likely EPBC listed species and ecological communities (MLA and proposed supporting infrastructure locations).

Species Name	Potential Impacts
Ecological Community	
Brigalow (*Acacia harpophylla* dominant and co-dominant)	Brigalow is mapped as occurring within the Collingwood site as small isolated patches of REs 11.9.5 and 11.9.5/11.9.1/11.9.5. Flora surveys will confirm if these REs meet the EPBC listing criteria for the Brigalow ecological community. Collingwood has the potential to impact on up to 38.6 ha* of Brigalow on the MLA. This will be minimised by avoidance where possible. No Brigalow communities are mapped within the proposed infrastructure and services alignments.
Plants	
Commersonia argentea	*C. argentea* was recorded from north of Chinchilla on stony ridges in eucalypt forest (Stanley and Ross, 1986). It is considered possible to occur in Brigalow and eucalypt forest at the site. Flora surveys will investigate the potential presence of this species. Any impacts would be minimised by avoidance and translocation of populations.
Homopholis belsonii Belson's Panic	Belson's Panic occurs in the southern Brigalow Belt and is known from near Gurulmundi and between Miles and Roma. It occurs in dry woodland habitats on poor soils (TSSC, 2008abi). It is considered possible to occur in Popular Box and shadier areas of Brigalow woodlands at the site. Flora surveys will investigate the potential presence of this species. Any impacts would be minimised by avoidance and translocation of populations.

* Area calculation has been undertaken using the Lambert conic projection, GDA 94.

The Collingwood site would be ground-truthed during the field work programme for the EIS. Ground-truthing would involve seasonal flora surveys and vegetation mapping at a scale of 1:20,000 in accordance with the *Methodology for Survey and Mapping of*

Regional Ecosystems and Vegetation Communities in Queensland (Neldner et al. 2005). Targeted searches for threatened flora species would also be undertaken. Mine infrastructure would be designed to minimise the impact on remnant vegetation and threatened ecological communities and species.

4.5.2. Fauna

There are no protected areas (parks, forests, or reserves) located at Collingwood. There are no Biodiversity Planning Assessment (BPA) ecological corridors at Collingwood.

The database searches returned 14 threatened fauna species that may be present at the site. The likelihood of occurrence at the site has been evaluated based on the preferred habitats of the species and knowledge of the type and condition of habitats present at the site. The species type, status, habitat and likelihood of occurrence are listed in **Table 4-5**. The species identified in this preliminary assessment will be reviewed and updated as part of the EIS.

Table 4-5 Likelihood of Occurrence of Threatened Fauna Species

Species Name	EPBC Status	NC Status	Habitat	Likelihood of Occurrence	Source
Reptiles					
Egernia rugosa Yakka Skink	V	V	The species usually occurs in dry sclerophyll open forest or woodland including poplar box, ironbark, brigalow with dense ground cover. Populations have been recorded in the Brigalow Belt North Bioregion (TSN, 2008).	Unlikely. Usually occurs in dry sclerophyll open forest or woodland including Poplar Box, Ironbark, Brigalow with dense ground cover (Cogger, 2000; SEWPAC, 2011). There is some Poplar Box and Brigalow woodland at the site, however these are small, isolated patches which are heavily grazed and are unlikely to support the Yakka Skink.	EPBC
Furina dunmalli Dunmall's Snake	V	V	The species occurs primarily in the Brigalow Belt region in the south-eastern interior of Queensland, also extending into the inland regions of north-east NSW. Known to occur in areas dominated by Brigalow, wattles and blue spotted gums, typically sheltering under fallen timber and ground litter.	Unlikely. Occurs in Brigalow woodland on cracking black clay and clay loams (SEWPAC, 2011). The Brigalow woodland at the site comprises small, isolated patches on sedimentary soils and is unlikely to support the Dunmall's Snake.	EPBC

Species Name	EPBC Status	NC Status	Habitat	Likelihood of Occurrence	Source
Paradelma orientalis Brigalow Scaly-foot	V	V	The species is endemic to Queensland, but may extend just over the border into NSW. Occurs mostly within the Brigalow Belt South bioregion found in a wide variety of remnant and non-remnant open forest to woodland habitats. Known to persist in highly disturbed vegetation types, for example those areas invaded by Buffel Grass (*Cenchrus ciliaris*), Parthenium (*Parthenium hysterophorus*) and other weeds.	Possible in Brigalow and eucalypt woodlands at the site. This species was recorded in the Nathan Dam study area approximately 40 km to the north.	EPBC
Delma torquata Collared Delma	V	V	Occurs in eucalypt and acacia dominated woodland and open forest in association with exposed rocky outcrops on slopes or ridge tops, often with a westerly aspect. Prefers deep leaf litter and a sparse understorey of native grasses, shrubs or vine thicket. Microhabitat consists of weathered loose rocks, flattish bedrock outcroppings, logs or mats of leaf litter, or in cracks and crevices among tussock grasses.	Possible. Occurs in eucalypt-dominated woodlands and open-forests in REs 11.3.2 and 11.9.10.	EPBC
Denisonia maculata Ornamental Snake	V	V	Deep-cracking clay soils and adjacent slightly elevated ground of clayey and sandy loams. Also found in woodland and shrub land, including some Brigalow Acacia harpophylla, and also riverside woodland and open forest, particularly on natural levees.	Unlikely. Most commonly found on land zone 4 in REs 11.4.3, 11.4.6, 11.4.8 and 11.4.9, none of which occur in the Project area.	EPBC
Rheodytes leukops Fitzroy River	V	V	Found only in the drainage of the Fitzroy River in creeks and	Unlikely there are no permanent waterways within the site.	EPBC

Species Name	EPBC Status	NC Status	Habitat	Likelihood of Occurrence	Source
Turtle			rivers with large deep pools with rocky, gravelly or sandy substrates, connected by shallow riffles.		
Birds					
Erythrotriorchis radiates Red Goshawk	V	V	Occurs in large, contiguous woodlands and open forests in coastal and sub coastal regions, often along major river systems. This species may utilise riparian vegetation along river systems.	Possible occurrence along riparian vegetation at Roche Creek.	EPBC
Geohaps scripta scripta Southern Squatter Pigeon	V	V	Occurs in grassy eucalypt woodlands and disturbed habitats. It has an affinity for woodlands and natural grasslands close to water.	Likely in grassy woodlands and pastures across the site. Recorded in the Nathan Dam study area approximately 40 km to the north.	EPBC
Neochmia ruficauda ruficauda Star Finch	E	E	Grasslands and grassy woodlands located close to fresh bodies of water dominated by *Eucalyptus coolabah, E. tereticornis, C. tessellaris, Melaleuca leucadendra, E. camaldulensis* and *Casuarina cunninghamii* (TSSC 2008cu).	Possible in riparian vegetation along Roche Creek and woodland fringing dams.	EPBC
Rostratula australis Australian Painted Snipe	V	V	Inhabits shallow vegetated wetlands (freshwater or brackish) including temporary and permanent lakes, swamps and claypans.	Possible in vegetated dams (wetlands) at the site.	EPBC
Turnix melanogaster Black-breasted Button-quail	V	V	Inhabits dry rainforest, vine scrub and lantana thickets (Marchant and Higgins 1993).	Unlikely. No suitable habitat (dry rainforest, vine scrub and lantana thickets) present.	EPBC
Mammals					
Chalinolobus dwyeri Large-eared Pied Bat	V	V	Roosts in sandstone outcrops. Known from Carnarvon National Park.	Possible. May forage across the site, but not roost (roosts in sandstone outcrops which are not present at the site).	EPBC

Species Name	EPBC Status	NC Status	Habitat	Likelihood of Occurrence	Source
Dasyurus hallucatus Northern Quoll	E	E	Inhabits a range of habitats, but prefers rocky areas and eucalypt forests with hollow trees and logs. The species only occurs in a number of localised sites in Queensland, NT and Kimberley region.	Possible along riparian corridor of Roche Creek which is connected to large tracts of remnant habitat in Barakula State Forest.	EPBC
Nyctophilus corbeni South-eastern Long Eared Bat	V	V	Occurs in callitris/ironbark/box open forest and buloke woodland in southern Queensland (EPA, 2002a).	Unlikely. Lack of suitable habitat (callitris/ironbark/box open forest and buloke woodland) within the site.	EPBC

Status: E= Endangered, V= Vulnerable, NT=Near Threatened, EPBC= *Environment Protection and Biodiversity Conservation Act 1999* (C'wlth), NC = *Nature Conservation (Wildlife) Regulation 2004* (Qld)

A preliminary assessment of potential impacts on fauna occurring and likely to occur within Collingwood and within supporting infrastructure easements is presented in **Table 4-6**. A detailed assessment of the potential impact to individual species (EPBC and state-listed) will be provided as part of the EIS. Measures that would be taken to prevent or ameliorate any potential adverse environmental impaacts on fauna would be described in the EIS.

Table 4-6 Potential Impacts on likely EPBC listed species including migratory species

Species Name	Potential Impacts
Birds	
Erythrotriorchis radiatus Red Goshawk	The Red Goshawk is considered possible to occur along the Roche Creek riparian corridor. This corridor is located outside Collingwood and will not be impacted by the Project. Indirect impacts from surface water contamination, noise and dust will be managed through the Project Environmental Management Plan (EMP). Therefore impacts to potential habitat for the Red Goshawk are considered to be unlikely.
Geohaps scripta scripta Southern Squatter Pigeon	The Squatter Pigeon remains common in heavily-grazed country north of the Tropic of Capricorn (TSSC 2008fp) and is likely to occur in grassy woodlands and pastures across the site. Recorded in the Nathan Dam study area approximately 40 km to the north. Collingwood will impact on potential habitat for this across the site, including 52 ha* of Popular Box woodland. This is unlikely to have a significant impact on this species, as suitable habitat in the vicinity is abundant and the Squatter Pigeon is expected to continue to use disturbed habitats in the vicinity of grassy woodlands.
Neochmia ruficauda ruficauda Star Finch	The Star Finch is considered possible to occur along the Roche Creek riparian corridor. This corridor is located outside Collingwood and will not be impacted by the Project. Indirect impacts from surface water contamination, noise and dust will be managed through the Project Environmental Management Plan (EMP). Therefore impacts to potential habitat for the Star Finch are considered to be unlikely.

Species Name	Potential Impacts
Rostratula australis Australian Painted Snipe	The Australian Painted Snipe is considered possible to occur at a large dam with fringing aquatic vegetation in the south east section of the site. Other dams across the site have limited vegetative cover and do not provide suitable habitat. If present, the Australian Painted snipe is likely to be a nomadic visitor to the site and the dam is unlikely to support an important population. Therefore significant impacts on this species are unlikely.
Mammals	
Chalinolobus dwyeri Large-eared Pied Bat	The Large-eared Pied Bat roosts in sandstone outcrops (Churchill, 2008). The closest sandstone outcrops are possibly located in Barakula State Forest 20 km to the south east of the site. There is potential for the Large-eared Piet Bat to forage across the site, at dams and along the Roche Creek riparian corridor. The Roche Creek riparian corridor will not be impacted by the Project, and loss of foraging habitat (dams) is unlikely to have a significant impact on this species, as suitable foraging habitat is abundant in the vicinity.
Dasyurus hallucatus Northern Quoll	The Northern Quoll prefers rocky areas and eucalypt forests with hollow trees and logs. It is possible to inhabit large tracts of remnant vegetation at Barakula State Forest located 20 km to the south east of the site, and may forage along the Roche Creek riparian corridor which is connected to Barakula State Forest. The Roche Creek riparian corridor will not be impacted by Collingwood, therefore impacts on this species are considered to be unlikely.
Reptiles	
Paradelma orientalis Brigalow Scaly-foot	The Brigalow Scaly-foot inhabits a wide variety of open forest habitat types and possible to occur in Brigalow and eucalypt woodlands at the site. Fauna surveys will investigate the potential presence of this species.
Migratory Marine Birds	
Apus pacificus Fork-tailed Swift	Possible. Aerial habitat over inland regions.
Ardea alba Great Egret	Possible in vegetated dams (wetlands) in the project area.
Ardea ibis Cattle Egret	Possible in vegetated dams (wetlands) and pastures in the project area.
Migratory Terrestrial Species	
Haliaeetus leucogaster White-bellied Sea-eagle	Unlikely. Inhabits large rivers including inland, fresh and saline lakes, coastal seas and shoreline, islands. No suitable habitat in the project area.
Hirundapus caudacutus White-throated Needletail	Possible. Aerial habitat over coastal regions and mountain ranges.
Merops ornatus Rainbow Bee-eater	Likely in open woody areas across the site.
Migratory Wetland Species	
Ardea alba Great Egret	As above
Ardea ibis Cattle Egret	As above

Species Name	Potential Impacts
Gallinago hardwickii Latham's Snipe	Possible in vegetated dams (wetlands) at the site.
Naettapus coromandelianus albipennis Australian Cotton-pygmy Goose	Possible in farm dams with combination of floating aquatic vegetation and open water at the site.
Rostratula benghalensis s. lat Painted Snipe	Possible in vegetated dams (wetlands) at the site.
Anseranas semipalmata Magpie Goose	Possible in vegetated dams (wetlands) at the site.

* Area calculation has been undertaken using the Lambert conic projection, GDA 94.

Baseline seasonal fauna surveys would be undertaken across the Collingwood site in accordance with best practice fauna survey guidelines including, the Brisbane City Council (BCC) Ecological Assessment Guidelines, and the EPBC Act survey guidelines to detect any nationally threatened fauna species. Searches in suitable habitats would be undertaken at the site to enable appropriate surveying of threatened fauna species. The results of these studies would be included in the EIS to advise environmental approvals.

4.5.3. Declared Weeds and Pests

Vegetation has been extensively cleared to allow for the sowing of improved pastures mostly for grazing and to a lesser extent for cropping lands. Degradation consistent with historical clearing and grazing practices is evident within the Collingwood site.

Database searches returned three weed species and six pest animal species as potentially occurring at the Collingwood site and listed as declared pests under the Queensland Land Protection (Pest and Stock Route Management) Act 2002 (LP Act) or Weeds of National Environmental Significance (WONS) (**Table 4-7**).

Table 4-7 Declared Weeds and Pest Animals Potentially Occurring at Collingwood

Scientific Name	Common Name	WONS1	Declared2	Source
Acacia nilotica subsp. indica	Prickly Acacia	Yes	Class 2	EPBC
Alternanthera philoxeroides	Alligator weed	Yes	Not declared	EPBC
Parthenium hysterophorus	Parthenium	Yes	Class 2	EPBC, WL
Capra hircus	Feral Goat	NA	Class 2	EPBC, WL
Felis catus	Feral Cat	NA	Class 2	EPBC, WL
Lepus capensis	Brown Hare	NA	Class 2	EPBC, WL
Oryctolagus cuniculus	Rabbit	NA	Class 2	EPBC
Sus scrofa	Feral Pig	NA	Class 2	EPBC
Vulpes vulpes	Red Fox	NA	Class 2	EPBC

WONS = Weeds of National Significance
Declared status under the *Land Protection (Pest and Stock Route Management) Act 2002*:

- Class 1 Not generally established in Queensland and has potential to cause an adverse economic, environmental or social impact;
- Class 2 Established in Queensland and can cause significant adverse economic, environmental or social impact; or
- Class 3 Established in Queensland and has or could have adverse economic, environmental or social impact.

4.6. Noise and Vibration

The proximity of mining operations to sensitive receivers influences the potential for adverse noise and vibration impacts on the community. Although the Collingwood site is within a rural setting, the eastern extents of the town of Wandoan are located approximately 5 km from the southern sections of the proposed mine and may be affected in some circumstances.

The main noise and vibration sources during construction and operation would include:

- Overburden blasting and removal.
- Coal preparation plant operations.
- Coal haulage, preparation and loading of trains.
- Rail traffic.
- Road and haul transport movements in and around the mine-site vicinity.

The EIS would assess the potential impact of noise and vibration on nearby sensitive receivers. The proposed operations would be required to meet noise and vibration objectives in accordance with the *Environmental Protection Act 1994* (EP Act) and the *Environmental Protection (Noise) Policy 2008*. As such, detailed noise and vibration studies would be undertaken as part of the EIS process.

4.7. Air Quality

Air quality in the region is mainly influenced by agricultural, pastoral and cropping activities, and also by vehicles travelling on nearby unsealed roads. Airborne particulate matter is generally the primary pollutant, generated as a result of mining activities during both the construction and operational stages. Emissions of particulate matter are generated from land clearing, excavation, coal extraction and processing activities, as well as from wind erosion of exposed areas of land.

The principal dust sources from Collingwood include topsoil stripping, heavy mining equipment movements, coal handling and transport of coal via rail. Exhaust emissions from locomotives, vehicles, plant and equipment will be generated.

During operations, dust generation would be managed by the use of water carts for road watering, water sprays on crushers and conveyor transfer points, progressive rehabilitation, limiting disturbance to what is required for safe and continuous operations and, if appropriate, changing work practices during adverse meteorological conditions.

Assessment of the existing air quality, the potential effects from the Project and identifying suitable mitigation methods to ameliorate impacts of Collingwood would be outlined in the EIS. The project would be required to meet air quality standards for dust levels under the *EP Act* and any subordinate legislation. Refer to **Section 2** for the legislation and approvals relevant to the project.

4.8. Greenhouse Gases

Coal mining activities and operation of supporting infrastructure as part of Collingwood would result in the emission of some greenhouse gases (GHG) to the atmosphere. The total quantity of greenhouse gases (including direct and indirect emissions) attributable to the mine and supporting infrastructure would be estimated within the EIS. This GHG estimate would be used to identify suitable mitigation strategies in the EIS and to provide an appropriate context for actions that are being undertaken by Cockatoo at a corporate level.

The EIS would also examine the contribution that the mine makes to the cumulative greenhouse gas emissions from the region.

4.9. Visual Amenity

The visual landscape within the vicinity of the Collingwood site and supporting infrastructure corridors are characterised as a rural landscape with open views of low-gradient, undulating landforms that are mostly comprised of cleared paddocks with some cropping lands. Along Roche Creek there are some road verges and fence lines, and small pockets of remnant vegetation exist in other areas. Outside of the township of Wandoan, properties are scattered throughout the landscape.

The physical features associated with Collingwood that may result in changes to landscape character and visual amenity include out-of-pit overburden dumps, mine site infrastructure (including the CHPP, power lines, rail line link and administration buildings) and associated traffic on surrounding roads. The impact on the existing landscape character and visual amenity in the vicinity of Collingwood would be assessed in the EIS.

4.10. Cultural Heritage Values and Native Title

Land tenure searches have indicated that parts of the Collingwood MLA have existing tenure that means Native Title has not been extinguished. The Iman Group has a Native Title Claim (IMAN #2 QC97/055) over the MLA area and will be the parties with whom an Indigenous Land Use Agreement (ILUA) will be developed.

An investigation of local Aboriginal cultural heritage objects and places would be undertaken in consultation with the relevant Traditional Owners, the Iman #2 People. The methods for managing any identified Indigenous places or objects would be developed and included in the EIS.

A Cultural Heritage Management Plan (CHMP) or an ILUA containing a cultural heritage management schedule is required to provide the project's cultural heritage duty of care to avoid harm to or manage cultural heritage. A CHMP or ILUA will provide all directions required to avoid harm or manage Aboriginal cultural heritage found in the Collingwood MLA and supporting infrastructure corridors.

Work would also be undertaken to evaluate if there would be any impact to any remnants of European settlement. No European heritage items were identified in a preliminary search of the Register of National Estate; however more detailed investigations would be carried out for the EIS, including a Historical Heritage Management Plan (technical report).

4.11. Infrastructure and Transport

Collingwood would necessitate the use and development of infrastructure in the region, including:

- Realignment of sections of two local roads, namely, Walshs Road and Number Four Road.
- Power (new connections to the grid, with the possibility of supplementary on-site generation).
- Water (as outlined in **Section 3.10**).
- Road access for staff and equipment accessing the site.
- Rail transport corridor used to access the site and link to SBR for transport of product coal to the Gladstone coal port.
- Workers accommodation to house the construction and operation workforce.

The Feasibility Study would quantify the scale of infrastructure use and impacts on the region. The outcomes of the study would be summarised within the EIS.

The EIS would also include a Road and Transport Impact Assessment to address potential increases in traffic, during both the construction and operations phases of the Project, on both road and rail infrastructure. The Road and Transport Impact Assessment for the Project would be developed in consultation with the Department of Transport and Main Roads during the EIS process.

The larger scale impacts resulting from the operational rail transport of coal have been considered as part of the proposed SBR Project EIS which was assessed under the *SDPWO Act*. Potential impacts of the proposed port handling of coal at Gladstone have been assessed as part of the Wiggins Island Coal Export Terminal (WICET) Project EIS which has also been declared a significant project under section 26(1)(a) of the *SDPWO Act.*

4.12. Waste Management

4.12.1. Industrial and General Waste

Solid and liquid wastes likely to be generated from construction of Collingwood include:

- General wastes from early works, including cleared vegetation.
- General building and plant materials.
- Waste fuels, oils and lubricants.
- Sewage collected from sanitary areas.
- Run-off from washdown areas.
- Tyres from dump trucks and other machinery.
- Other materials potentially including metals, timber, plasterboard, sealants, resin and paint from fitting out buildings, workshops and plant areas.

Wastes that would be produced during operation of Collingwood include:

- Machinery replacements including conveyor belts.
- General waste from staff working on the site (e.g. paper, cans, cardboard and other general consumables).
- Scrap metal, batteries, tyres and green waste from land cleared for coal recovery.
- Waste water residues and associated materials from effluent treatment.

A general construction and operational waste management strategy for Collingwood would be prepared and included in the EIS. The Water Management System would include provision for capture of mine area run off and pit water for re-use within the mine operations.

4.12.2. Mining Waste Management

The preliminary mine plan envisages mining from two faces located on either side of an initial box cut. It is proposed that overburden would initially be placed in an out-of-pit dump east of the box cut. Spoil would be dumped in-pit when the extent and progression of the mining void permits.

Key matters for the mining waste management chapter of the EIS to consider would therefore include:

- The proposed waste disposal options, especially the balance between in-pit and out-of-pit dumping, and the location of out-of-pit dumps.
- Management of tailings.
- Emplacement methods and staging, including compaction and progressive shaping and rehabilitation procedures.
- Water diversion measures around waste dumps, groundwater monitoring measures and leachate collection.
- The volume and dry tonnage of each element of the waste stream, and any special dumping and encapsulation requirements.
- The physical properties of the overburden, including rock type, strength, likely particle size distribution and bulking factors.
- The weathering or slaking characteristics of the overburden, and the erodibility of the weathering products.
- The chemical composition of the overburden, in particular its sulphide content and hence acid-generating potential.
- Proposed final waste emplacement shaping, sealing and revegetation.

- Placement of coaly and carbonaceous wastes, including interburden and washery rejects.
- The final waste dump landform geometry and maintenance provisions.

4.12.3. Fuels, Oils and Chemicals

Fuels and oils for plant and machinery, and detergents for cleaning would be required during the construction and operational phases of Collingwood. These substances would need to be stored on-site during construction and operation. The storage of any hazardous materials such as batteries and hydrocarbon materials would be in accordance with regulatory requirements and standards. Standard operating procedures including an emergency response plan would be implemented for Collingwood.

The development of a hazardous materials management strategy would be undertaken and included in the EM Plan for Collingwood.

5. Environmental Management

Cockatoo is committed to acting in an environmentally and socially responsible manner during the design, construction and operation of Collingwood. Cockatoo seeks to manage environmental matters through committing to:

- Minimising environmental impacts.
- Complying with legislative requirements.
- Communicating effectively with stakeholders.

Cockatoo recognises that the above commitments are critical throughout the Project life cycle and is therefore seeking to understand and minimise the potential environmental impacts of each project through the environmental assessment process. As part of this project, Cockatoo is undertaking an EIS under the SDPWO Act as well as undertaking a referral to the Commonwealth Government under the EPBC Act for matters of national environmental significance.

In preparation for the successful implementation of the Collingwood, the EIS would describe and explain the measures that would be undertaken to prevent or ameliorate any potential impacts on the environment. Potential environmental impacts to be examined include: water quality (surface water and groundwater), land resources and land use changes, air quality, noise, flora and fauna, vibration, visual amenity and cultural heritage. The EIS would also address various social impacts, such as housing, change from agricultural to industrial work opportunities, and increased number of transient workers. Mitigation strategies to manage and reduce any potentially adverse impacts would be provided in the EIS.

The mitigation measures outlined in the EIS would be incorporated into the regulatory documents that are prepared as part of the approvals process prior to mining. This would include the EM Plan, the Environmental Authority, and the Plan of Operations. Regulation of environmental management and compliance with the ToR during mining would be managed by the DERM.

6. Community and Stakeholder Engagement

Cockatoo has adopted the International Association of Public Participation (IAP2) principles to engagement across all of our projects. Methods of interacting with the community range from informing to partnering.

Ongoing engagement will be conducted with the local community, potentially affected and directly impacted landowners, and other relevant stakeholders including but not limited to:

- Regional Councils (Western Downs Regional Council & Banana Shire Council).
- Power and water providers (for example, SunWater, Ergon and Powerlink).
- The Gladstone Port.
- Other resource companies.

Cockatoo Coal's definition of a stakeholder is anyone affected by Cockatoo Coal's actions or can affect Cockatoo Coal's actions. Public notification of the EIS will be undertaken to provide all relevant stakeholders with the opportunity to comment on issues of relevance to them in accordance with statutory requirements (section 33 of the SDPWO Act) and the Collingwood ToR.

A specific community and stakeholder engagement strategy regarding Collingwood will also be developed as part of the EIS assessment process, in line with Cockatoo Coal's overall community and stakeholder engagement framework. The objectives of this community and stakeholder engagement strategy will be to:

- Develop and maintain a relationship between Cockatoo and the community and stakeholders that is based on trust and mutual respect.
- Facilitate open communication with the community and stakeholders through the EIS process.
- Identify community and stakeholder issues and concerns in relation to Collingwood .
- Proactively respond to and work with the community and stakeholders to develop appropriate solutions and strategies to minimise negative impacts associated with Collingwood.
- Address relevant community and stakeholder issues through the EIS process.

7. Contact Details

For further information regarding the North Surat Coal Projects, please contact:

Name	Elisha Hempel
Position	Environmental Planner (Surat)
Company	Cockatoo Coal
Phone	(07) 3640 4700
Email	ehempel@cockatoocoal.com.au

For further information about Cockatoo, including the North Surat Coal Projects, please refer to:

www.suratcoal.com.au or www.cockatoocoal.com.au

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Appendix A Interested and Affected Parties

A list of interested and affected parties is as follows:

- Taroom land owners directly affected by Collingwood mine
- Wandoan land owners directly affected by Collingwood mine
- Grosmont residents
- Industrial neighbours
- Local businesses
- Banana Shire Council
- Western Downs Regional Council
- State Member for Callide
- QLD Environment Minister
- QLD Premier
- QLD Treasurer and Minister for State Development and Trade
- Minister for Energy and Water Utilities
- Minister for Agriculture, Food and Regional Economies
- Minister for Finance, Natural Resources and The Arts
- Minister for Employment, Skills and Mining
- QLD Treasury Department
- Department of Local Government and Planning
- Office of the Coordinator General
- Department of Transport and Main roads QLD
- Department of Environment and Resource Management (DERM)
- Department of Mines and Energy
- Federal Member for Flynn
- Federal Member for Maranoa
- Minister for Sustainable Population, Communities Environment and Water
- Minister for Resources and Energy
- Minister for Regional Australia, Regional Development
- Local community groups
- Queensland Urban Utilities
- Ergon Energy

- Queensland Rail
- Wubagul Train Station
- Wandoan Train Station
- Local emergency services