WALTON COAL PROJECT

INITIAL ADVICE STATEMENT

Prepared by Walton Coal Pty Ltd November 2017

walton
COAL

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1 Introduction

1.1. BACKGROUND

The Walton Coal Project (the Project) is a greenfield project involving the construction and operation of a relatively small scale open cut coal mine. The Project is situated in the Bowen Basin coal field, Central Queensland 170 kilometres (km) west of Rockhampton, and 100 km to the east of Emerald, **FIGURE 1-1**. The Proponents intend to apply for Mining Leases (MLs) and an Environmental Authority (EA) to enable the development of the Project. The EA Application will be supported by an Environmental Impact Statement (EIS) which is to be undertaken voluntarily in accordance with the provisions of the Queensland *Environmental Protection Act 1994* (EP Act).

1.2. PURPOSE AND SCOPE OF THE IAS

This Initial Advice Statement (IAS) has been prepared to provide information to stakeholders and other interested parties about the Project and is current at the time of Draft Terms of Reference (ToR) Publication. This IAS includes information resulting from completion of the Project Pre-feasibility Study in early November 2017. This version supersedes an earlier IAS provided to the Department of Environment and Heritage Protection (EHP) in June 2017 supporting the application to prepare an EIS as described in Sections 70 and 71 of the EP Act.

1.3. THE PROPONENT

The Project is 100% owned by Walton Coal Pty Ltd (WC), a wholly owned subsidiary of Aquila Resources Pty Ltd (Aquila). Aquila is a privately owned exploration and mining company, with its corporate head office based in Perth, Western Australia. Aquila has 100 % ownership of seven Exploration Permits for Coal (EPC's) and six Mineral Development Licences (MDL's) in Queensland.

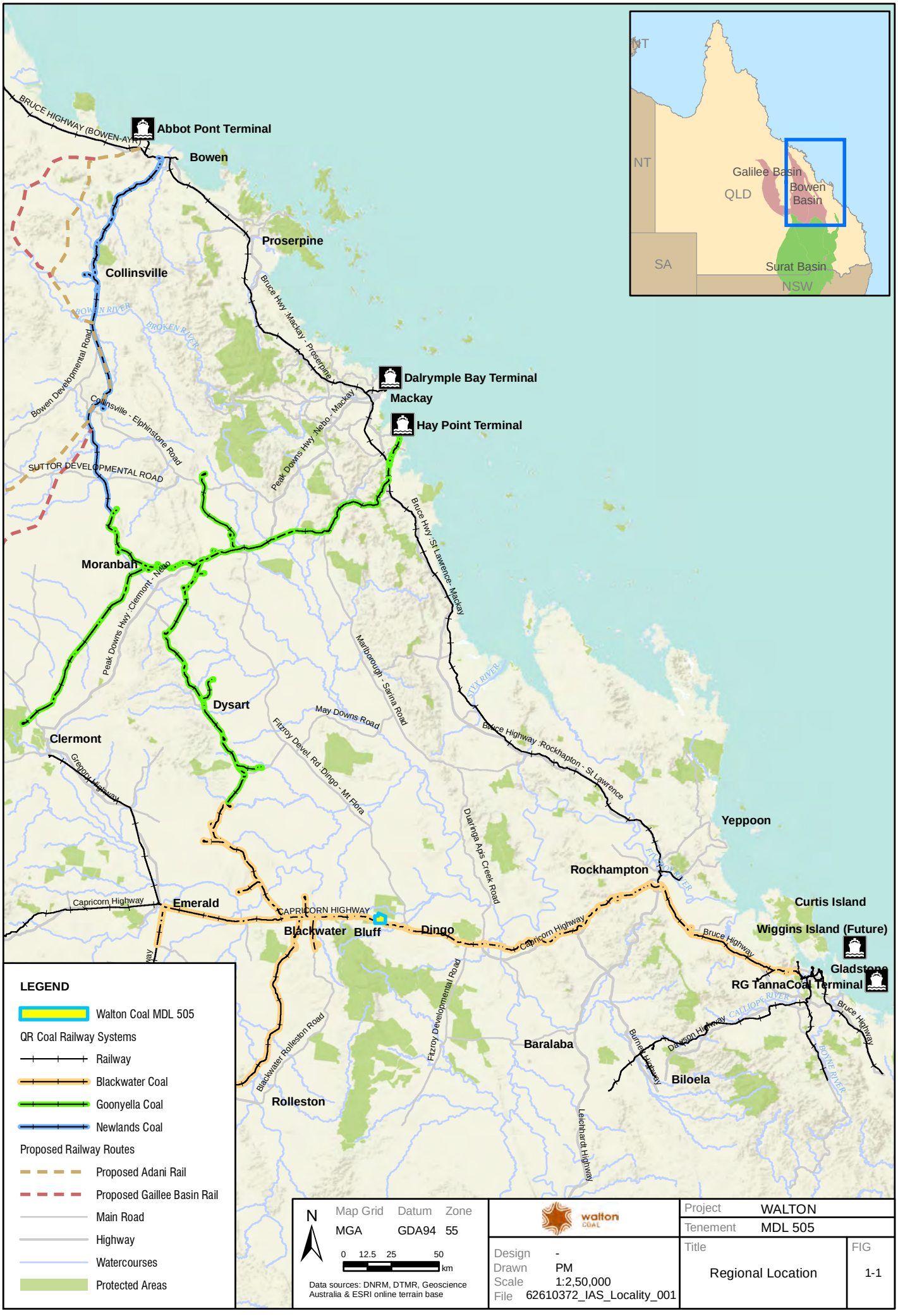
1.4. PROJECT OVERVIEW

The Project is a conventional small scale open cut mine with a target production of 1.6 Mtpa requiring the mining of between 1.9 – 2.2 Mtpa Run of Mine (ROM), nominally 2 Mtpa ROM. A mine life of approximately 8 years is anticipated and the mining operations will utilise conventional truck and shovel methods. The coal resource is situated in MDL 505, **FIGURE 1-1**. To the east, south and west, the Project is surrounded by mining tenements, including EPCs, MDLs and MLs, **FIGURE 1-2**. Previous exploration drilling and seismic programs have demonstrated a total estimated coal resource of 28.4 Million tonnes (Mt) within 200 metres (m) of the surface. The proposed site layout and potential ML area is shown, **FIGURE 1-3**. The mined coal will be selectively beneficiated at a new Coal Handling and Preparation Plant (CHPP) or bypassed directly to product stockpiles prior to being loaded onto trains. The product coal will be railed from the mine site via the Central and North Coast Rail Lines to the export market through the RG Tanna Coal Terminal (RGTCT) or alternatively Wiggins Island Coal Export Terminal (WICET) located at Gladstone in Central Queensland.

Key elements of the Project will include:

- open cut pit commencing in the north and developed towards the south and progressively backfilled;
- out of pit spoil dumps;
- progressive rehabilitation of the out of pit spoil dumps and backfilled sections of pit;
- haul road and ancillary access tracks;
- conventional Coal Handling and Preparation Plant (CHPP) and conveyor systems;
- ROM coal and product coal stockpiles;
- dedicated rail spur and loop for the Train Load Out (TLO) to enable coal transport to Gladstone for export via the RG Tanna Coal Terminal (RGTCT) or alternatively Wiggins Island Coal Export Terminal (WICET);
- water supply pipeline from Jellinbah Coal Mine (pipeline source point approximately 23 km northwest of the MDL505 boundary);
- water management infrastructure including dams, drains, levees and stream diversions;
- support infrastructure, including offices, workshops, warehousing and sewage treatment;
- site access road (partially off the MLs) and intersection with Capricorn Highway; and
- accommodation camp (off the MLs) for drive in and drive out (DIDO) component of the workforce.

The Project footprint involves approximately 940 hectares of disturbance within the MDL 505 component, see **FIGURE 1-3** and a limited amount of disturbance along the pipeline route, see **FIGURE 1-4**. Some of this disturbance has the potential to impact areas of "of concern" vegetation and or habitat of significance to conservation listed species. As a result of these potential impacts, offset areas may be applicable under the Queensland *Environmental Offsets Act 2014* and the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) Environmental Offsets Policy.


Abbot Pont Terminal
Bowen
Proserpine
Collinsville
Dalrymple Bay Terminal
Mackay
Hay Point Terminal
Moranbah
Dysart
Clermont
Emerald
Blackwater
Bluff
Dingo
Rockhampton
Yeppoon
Curtis Island
Wiggins Island (Future)
Gladstone
RG TannaCoal Terminal
Baralaba
Biloela
Rolleston
BRUCE HIGHWAY (BOWEN-AYR)
Bowen Developmental Road
Collinsville - Elphinstone Road
SUTTOR DEVELOPMENTAL ROAD
Bruce Hwy :Mackay - Proserpine
Peak Downs Hwy :Nebo - Mackay
Peak Downs Hwy :Clermont - Nebo
Bruce Hwy :St Lawrence- Mackay
Marlborough - Sarina Road
May Downs Road
Fitzroy Devel. Rd :Dingo - Mt Flora
Bruce Highway :Rockhampton - St Lawrence
Gregory Highway
Capricorn Highway
CAPRICORN HIGHWAY
Duaringa Aps Creek Road
Blackwater Rolleston Road
Fitzroy Developmental Road
Burnett Highway
Dawson Highway
Leichhardt Highway
Bruce Highway
BROKEN RIVER
FITZROY RIVER
CALLIOPE RIVER
DOWNS RIVER
NT
QLD
NSW
SA
Galilee Basin
Bowen Basin
Surat Basin
LEGEND
Walton Coal MDL 505
QR Coal Railway Systems
Railway
Blackwater Coal
Goonyella Coal
Newlands Coal
Proposed Railway Routes
Proposed Adani Rail
Proposed Gaillee Basin Rail
Main Road
Highway
Watercourses
Protected Areas
N
Map Grid MGA
Datum GDA94
Zone 55
0 12.5 25 50 km
Data sources: DNRM, DTMR, Geoscience Australia & ESRI online terrain base
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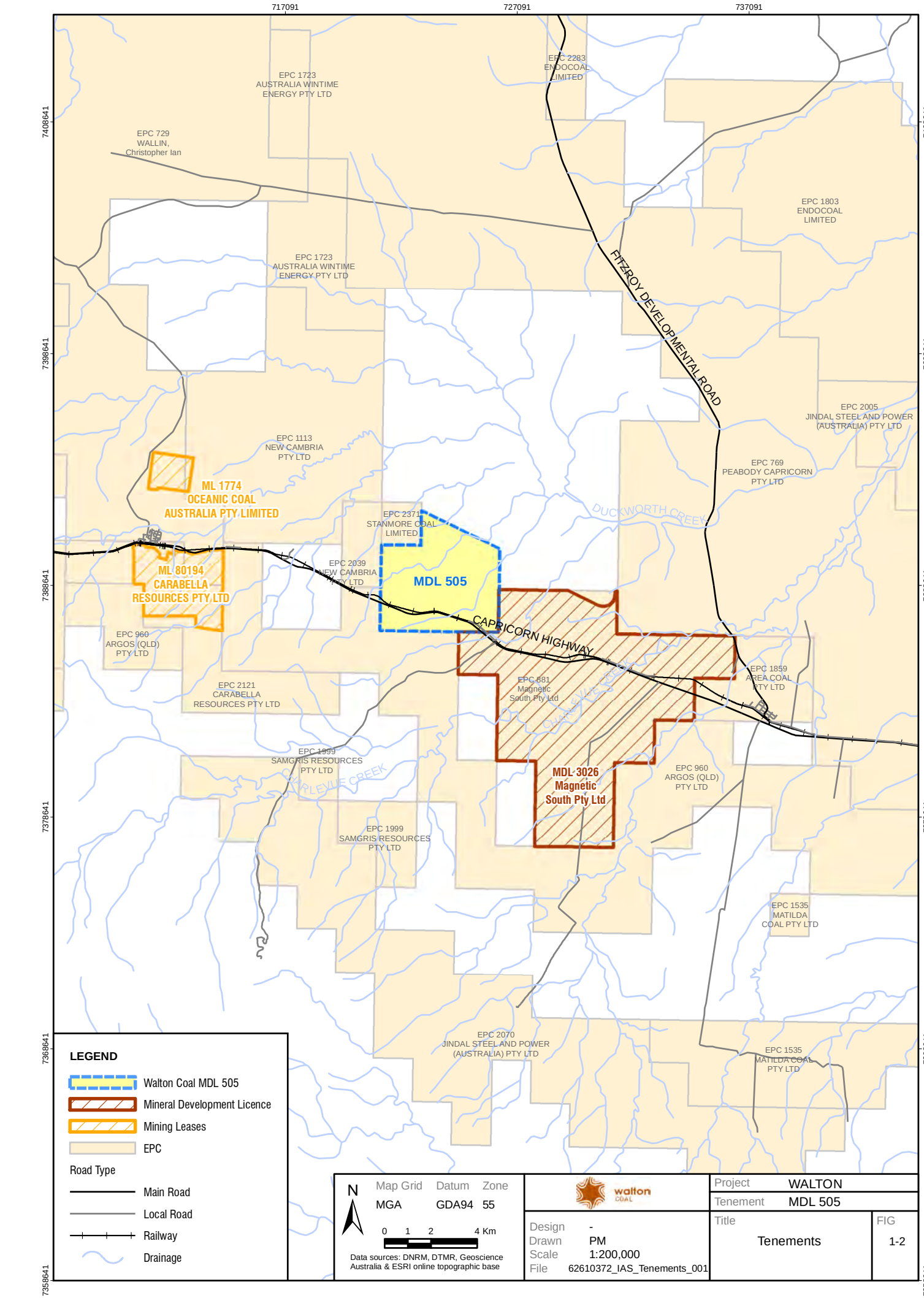
File 62610372_IAS_Locality_001
Project WALTON
Tenement MDL 505
Title Regional Location
FIG 1-1


717091
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737091
7408641
7398641
7388641
7378641
7368641
7358641
EPC 1723
AUSTRALIA WINTIME
ENERGY PTY LTD
EPC 2283
ENDOCOAL
LIMITED
EPC 729
WALLIN,
Christopher Ian
EPC 1803
ENDOCOAL
LIMITED
FITZROY DEVELOPMENTAL ROAD
EPC 1723
AUSTRALIA WINTIME
ENERGY PTY LTD
EPC 2005
JINDAL STEEL AND POWER
(AUSTRALIA) PTY LTD
EPC 1113
NEW CAMBRIA
PTY LTD
EPC 769
PEABODY CAPRICORN
PTY LTD
ML 1774
OCEANIC COAL
AUSTRALIA PTY LIMITED
DUCKWORTH CREEK
EPC 2371
STANMORE COAL
LIMITED
MDL 505
EPC 2039
NEW CAMBRIA
PTY LTD
ML 80194
CARABELLA
RESOURCES PTY LTD
CAPRICORN HIGHWAY
EPC 960
ARGOS (QLD)
PTY LTD
EPC 2121
CARABELLA
RESOURCES PTY LTD
EPC 881
Magnetic
South Pty Ltd
EPC 1859
AREA COAL
PTY LTD
EPC 1999
SAMGRIS RESOURCES
PTY LTD
CARLEVILLE CREEK
MDL 3026
Magnetic
South Pty Ltd
EPC 960
ARGOS (QLD)
PTY LTD
EPC 1999
SAMGRIS RESOURCES
PTY LTD
EPC 1535
MATILDA
COAL PTY LTD
EPC 2070
JINDAL STEEL AND POWER
(AUSTRALIA) PTY LTD
EPC 1535
MATILDA COAL
PTY LTD
LEGEND
Walton Coal MDL 505
Mineral Development Licence
Mining Leases
EPC
Road Type
Main Road
Local Road
Railway
Drainage
N
Map Grid MGA
Datum GDA94
Zone 55
0 1 2 4 Km
Data sources: DNRM, DTMR, Geoscience Australia & ESRI online topographic base
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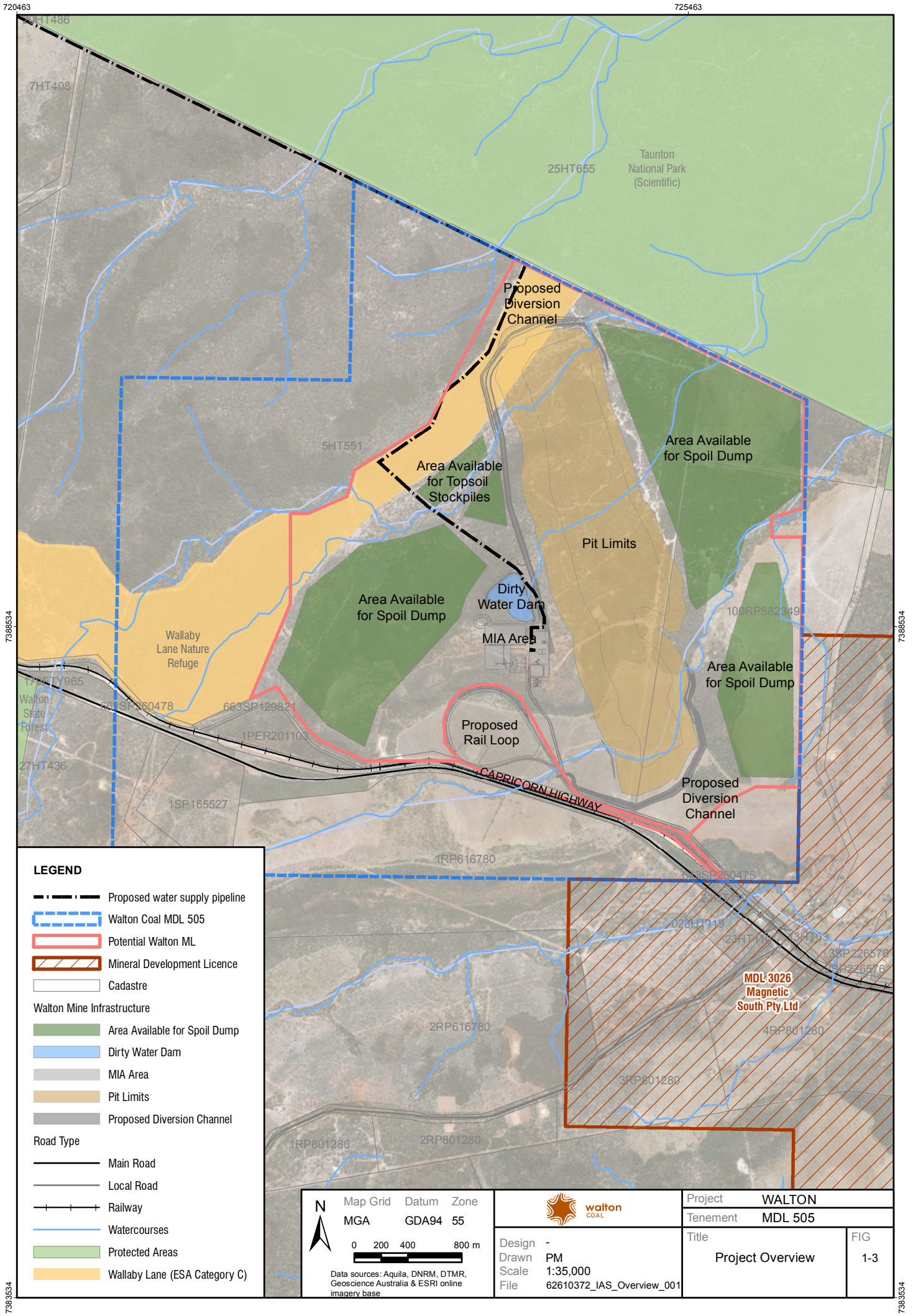
Project WALTON
Tenement MDL 505
Design -
Drawn PM
Scale 1:200,000
File 62610372_IAS_Tenements_001
Title
Tenements
FIG
1-2


720463
725463
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Taunton National Park (Scientific)
25HT655
7HT408
5HT551
Proposed Diversion Channel
Area Available for Topsoil Stockpiles
Area Available for Spoil Dump
Pit Limits
Dirty Water Dam
MIA Area
Wallaby Lane Nature Refuge
Walton State Forest
663SP129821
1PER201103
Proposed Rail Loop
CAPRICORN HIGHWAY
27HT436
1SP165527
1RP616780
2RP616780
3RP801280
4RP801280
1RP801280
2RP801280
MDL 3026 Magnetic South Pty Ltd
LEGEND
Proposed water supply pipeline
Walton Coal MDL 505
Potential Walton ML
Mineral Development Licence
Cadastre
Walton Mine Infrastructure
Area Available for Spoil Dump
Dirty Water Dam
MIA Area
Pit Limits
Proposed Diversion Channel
Road Type
Main Road
Local Road
Railway
Watercourses
Protected Areas
Wallaby Lane (ESA Category C)
N
Map Grid MGA
Datum GDA94
Zone 55
0 200 400 800 m
Data sources: Aquila, DNRM, DTMR, Geoscience Australia & ESRI online imagery base
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Project WALTON
Tenement MDL 505
Design -
Drawn PM
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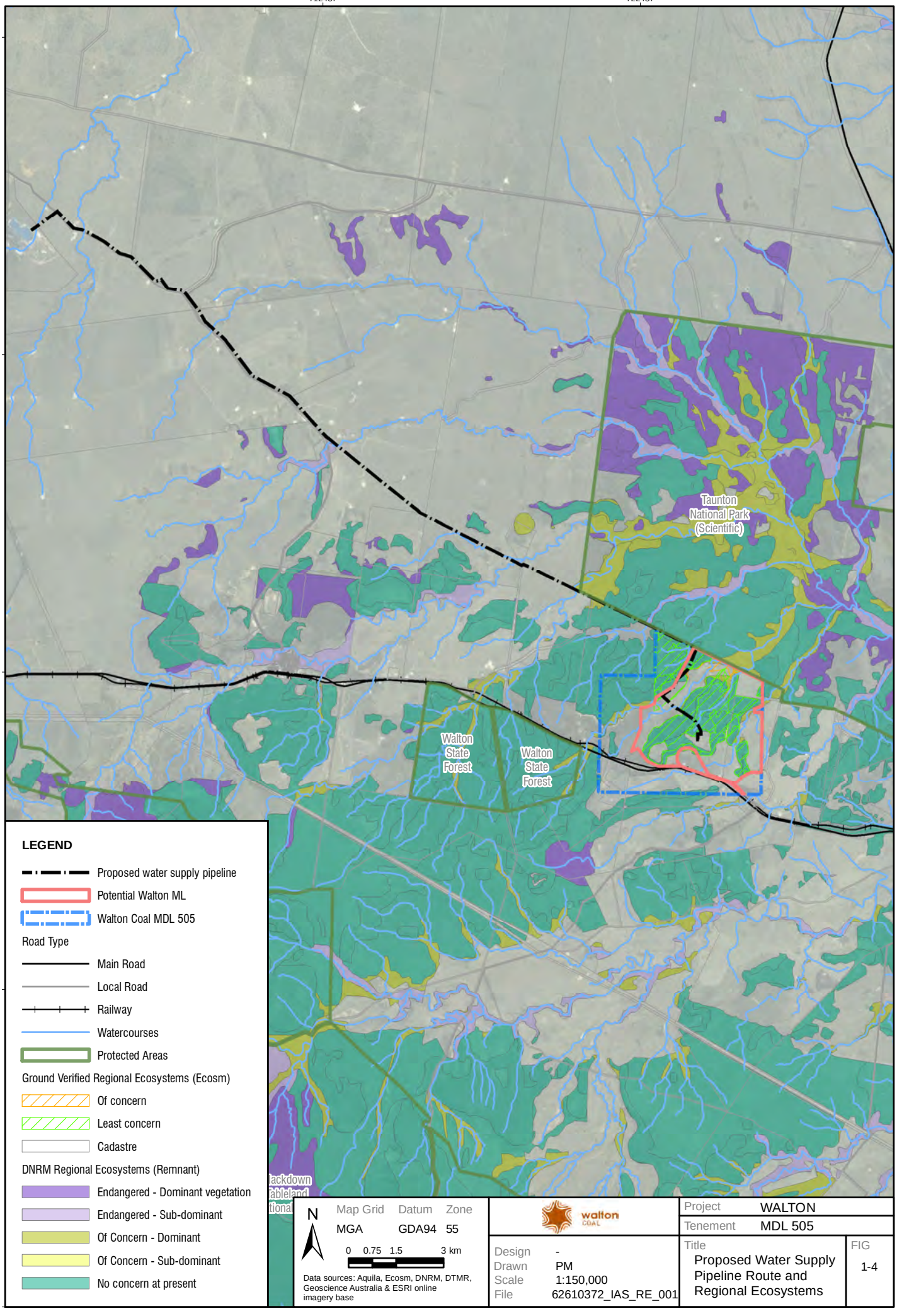
Title Project Overview
FIG 1-3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Taunton National Park (Scientific)
Walton State Forest
Walton State Forest
LEGEND
Proposed water supply pipeline
Potential Walton ML
Walton Coal MDL 505
Road Type
Main Road
Local Road
Railway
Watercourses
Protected Areas
Ground Verified Regional Ecosystems (Ecosm)
Of concern
Least concern
Cadastre
DNRM Regional Ecosystems (Remnant)
Endangered - Dominant vegetation
Endangered - Sub-dominant
Of Concern - Dominant
Of Concern - Sub-dominant
No concern at present
N
Map Grid MGA
Datum GDA94
Zone 55
0 0.75 1.5 3 km
Data sources: Aquila, Ecosm, DNRM, DTMR, Geoscience Australia & ESRI online imagery base
walton COAL
Project WALTON
Tenement MDL 505
Design -
Drawn PM
Scale 1:150,000
File 62610372_IAS_RE_001
Title
Proposed Water Supply Pipeline Route and Regional Ecosystems
FIG
1-4

1.5. PROJECT NEED

The business justification process has identified a demand for metallurgical coal products throughout international markets, resulting in the Project being deemed viable. The Project will generate up to 100 construction jobs and an average of 223 full time operational and management jobs in the production of metallurgical coal for export. The Project will provide businesses within the local area and broader Central Queensland region increased goods and services supply opportunities. A recruitment and supply strategy will be developed for the Project and will hierarchically preference local, regional and state resourcing.

The Queensland Government is a significant benefactor from coal mining royalties, with coal the largest export commodity in the State. Additional royalty revenue will flow from the Project throughout the life of mine.

Alternatives to the Project will be further investigated as part of the EIS process. However, the consequences of not proceeding with the Project include:

- loss of royalties to the Queensland Government estimated to be in the order of $130 M;
- loss of employment and training opportunities to the local and regional area;
- loss of goods and services supply opportunities for the local, regional and broader Queensland businesses; and
- loss of positive social impacts for the local and regional community derived from the flow on effect of increased employment and business confidence generated by the Project.

The potential positive impact of not proceeding with the Project is avoidance of potential environmental impacts, which may include impacts to land, water and air (and associated physical, biological and social impacts) arising from the Project.

1.6. REGULATORY APPROVALS

1.6.1. State Legislation

There are two primary pieces of State legislation which are relevant to the Project, being:

1. EP Act; and
2. Mineral Resources Act 1989 (MR Act).

A range of other State Acts will be applicable to the assessment process and these will be addressed as part of the EIS process and include:

- *Aboriginal Cultural Heritage Act 2003;*
- *Native Title (Queensland) Act 1993;*
- *Electricity Act 1994;*
- *Fisheries Act 1994;*
- *Land Title Act 1994;*
- *Local Government Act 2009;*
- *Mineral and Energy Resources (Common Provisions) Act 2014;*
- *Nature Conservation Act 1992;*
- Queensland *Environmental Offsets Act 2014*
- *Regional Planning Interests Act 2014;*
- *Sustainable Planning Act 2009;*
- *Transport Infrastructure Act 1994;*
- *Vegetation Management Act 1999; and*
- *Water Act 2000.*

The following key policies and guidelines will also be considered as part of the EIS process:

- Ecoaccess Guideline - Planning for Noise Control Guideline EM2371 Version 1.00;
- Environmental Protection (Air) Policy 2008;
- Environmental Protection (Noise) Policy 2008;
- Environmental Protection (Water) Policy 2009;
- Major Resource Projects Housing Policy: Core principles to guide social impact assessment;
- Manual for Assessing Hazard Categories and Hydraulic Performance of Dams;
- Queensland Environmental Offsets Policy EHP, 2014;
- Fitzroy Basin Resource Operations Plan September 2014 (Amended September 2015);
- Queensland Water Quality Guidelines 2009;
- Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2000;
- Queensland Government Social Impact Assessment Guideline 2013
- State Planning Policy 1/92 Development and the Conservation of Good Quality Agricultural Land; and
- State Planning Policy 1/03 Mitigating the Adverse Impacts of Flood, Bushfire and Landslide.

The EP Act, administered by the EHP was established "to protect Queensland's environment, while allowing for development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends". When deciding whether to grant or refuse an application for an EA or deciding on the conditions of the authority, the Administering Authority must consider certain matters set out in the EP Act.

An application for an EA for Mining activities on a ML would trigger an assessment level decision to be made by the EHP. This is expected to result in the requirement to prepare an EIS as the 2 Mtpa criteria for ROM tonnes would trigger. Subsequently, WC voluntarily proposes to undertake an EIS for the Project.

Schedule 2 and 2A of the *Environmental Protection Regulation 2008*, (EP Reg) lists prescribed Environmentally Relevant Activities (ERAs) requiring permitting as part of the EA application and issuing process. It is envisaged that ERAs which will be applicable to the Project include those listed in **TABLE 1-1**.

TABLE 1-1 ERAS APPLICABLE TO THE PROJECT

ERA Number	ERA Description
Schedule 2	
8 (1) (c)	Chemical storage (the relevant activity) consists of storing—more than 500 m^3 of chemicals of class C1 or C2 combustible liquids under AS 1940# or dangerous goods class 3.
31 (2) 2(b)	Mineral Processing – processing, in a year, the following quantities of mineral products, other than coke (b) more than 100,000 t
56	Regulated Waste Storage – receiving and storing regulated waste.
63 (3) 1(b)	Sewerage treatment – more than 100 but not more than 1500 EP*
Schedule 2A	
13	Mining black coal

* EP = equivalent persons

AS 1940 = Australian Standard 1940: 2004 – The Storage and Handling of Flammable and Combustible Liquids.

Schedule 3 of the EP Act lists notifiable activities. Properties that are subject to notifiable activities must be referred to, and recorded on, the Environmental Management Register (EMR). The register records properties that are currently or historically known to have been subject to notifiable activities or known to be impacted by a hazardous contaminant. Landowners or occupiers have obligations under the act to notify the Administering Authority of their properties upon identification of a notifiable activity or contamination. In addition, EHP also administers the Contaminated Land Register, a record of contaminated sites that are causing, or may cause serious environmental harm. The notifiable activities expected to be associated with the Project include those presented in **TABLE 1-2**.

TABLE 1-2 NOTIFIABLE ACTIVITIES EXPECTED TO BE APPLICABLE TO THE PROJECT

Activity Number (Schedule 3 of EP Act)	Description of Activity
1	Abrasive blasting—carrying out abrasive blast cleaning (other than cleaning carried out in fully enclosed booths) or disposing of abrasive blasting material.
24	Mine wastes— (a) storing hazardous mine or exploration wastes, including, for example, tailings dams, overburden or waste rock dumps containing hazardous contaminants; or (b) exploring for, or mining or processing, minerals in a way that exposes faces, or releases groundwater, containing hazardous contaminants.
25	Mineral processing—chemically or physically extracting or processing metalliferous ores.
29	Petroleum product or oil storage—storing petroleum products or oil— (a) in underground tanks with more than 200 L capacity; or (b) in above ground tanks with— (i) for petroleum products or oil in class 3 in packaging groups 1 and 2 of the dangerous goods code—more than 2,500L capacity; or (ii) for petroleum products or oil in class 3 in packaging groups 3 of the dangerous goods code—more than 5,000L capacity; or (iii) for petroleum products that are combustible liquids in class C1 or C2 in Australian Standard AS 1940, 'The storage and handling of flammable and combustible liquids' published by Standards Australia—more than 25,000L capacity.

The MR Act, administered by the Department of Natural Resources and Mining (DNRM), is 'an Act to provide for the assessment, development and utilisation of mineral resources to the maximum extent practicable consistent with sound economic and land use management'. The principal objectives of the MR Act are to:

a) encourage and facilitate prospecting and exploring for and mining of minerals;
b) enhance knowledge of the mineral resources of the State;
c) minimise land use conflict with respect to prospecting, exploring and mining;
d) encourage environmental responsibility in prospecting, exploring and mining;
e) ensure an appropriate financial return to the State from mining;
f) provide an administrative framework to expedite and regulate prospecting and exploring for and mining of minerals; and
g) encourage responsible land care management in prospecting, exploring and mining.

The MR Act provides that the Governor in Council may grant a ML for all or any of the following purposes:

a) to mine the mineral or minerals specified in the lease and for all purposes necessary to effectually carry on that mining; and
b) such purposes, other than mining, as are specified in the mining lease and that are associated with, arising from or promoting the activity of mining.

The MR Act provides for the advertisement of an application for the grant of a ML, with a call for objections to the grant. Valid objections may be heard in the Land Court. The MR Act also provides for the surrender of MLs, and for the amendment of conditions of a ML. It is considered to be a primary piece of legislation for the purposes of this IAS.

1.6.2. Commonwealth Legislation

The EPBC Act prescribes the Commonwealth's role in environmental assessment, biodiversity conservation and the management of protected areas. The EPBC Act identifies nine Matters of National Environmental Significance (MNES):

- World Heritage Properties;
- Ramsar Wetlands;
- nationally listed threatened species and ecological communities;
- listed migratory species;
- activities related to nuclear energy, including uranium mining;
- the Commonwealth marine environment;
- national Heritage places;
- the Great Barrier Reef Marine Park; and
- a water resource in relation to coal seam gas development and large coal mining development.

The Australian Government *EPBC Act Environmental Offsets Policy 2012* will also be considered as part of the EIS process.

The EPBC Act requires an assessment and approval for any activity that has, or is likely to have, a significant impact on a MNES. Such an activity is deemed to be a 'controlled action'. It is an offence to undertake a 'controlled action' without the approval of the Commonwealth Environment Minister.

WC has conducted an assessment against the MNES as a component of terrestrial ecology studies. The MNES assessment concluded that the Project area potentially provides habitat for threatened species, including, the Koala and Squatter Pigeon (both known to occur in the Project area) and the endangered Bridled Nail-tail Wallaby (known to populate the adjacent Taunton National Park located immediately to the north of the Project site). Further terrestrial ecology assessment will be undertaken as the EIS process progresses. Based on the assessment of MNES to date, WC have concluded that there is potential for significant impact to matters of MNES and subsequently Referred the Project under the EPBC Act in October 2017. As a result of the Referral, the Project was declared a Controlled Action with relevant controlling provisions:

- Listed threatened species and communities (sections 18 & 18A); and
- A water resource, in relation to coal seam gas development and large coal mining development (section 24D & 24E).

Based on the information available in the referral, the proposed action is likely to have a significant impact on the following matters of national environmental significance, but not limit to:

- Bridled Nail-tail Wallaby (Onychogalea fraenata) - Endangered
- Koala (Phascolarctos cinereus) (combined populations of Queensland, New South Wales and the Australian Capital Territory) - Vulnerable
- Squatter Pigeon (Geophaps scripta scripta) - Vulnerable
- Ornamental Snake (Denisonia maculata) - Vulnerable

The Decision Notice identifies the Project is to be assessed under the assessment bilateral agreement with Queensland. The Decision Notice is included in Appendix 1.

A range of avoidance and mitigation measures will be implemented during the life of the Project to minimise any potential impacts to MNES and broader ecological values, these include:

- clearing of vegetation to be avoided or minimised where practical;
- weed management practices to be implemented to prevent spread of weeds;
- manage existing weeds; and
- selectively rehabilitate mined land to reinstate a mixture of pasture and native species.

Table 3.1 lists the indicative Local, State and Commonwealth statutory approvals which are likely to apply to the Project.

TABLE 1-3 INDICATIVE STATUTORY APPROVALS

LEGISLATION	APPROVAL	ADMINISTERING AUTHORITY	APPROVAL TRIGGER	RELEVANCE TO THE PROJECT
Environment Protection and Biodiversity Conservation Act 1999	EPBC Act	Department of the Environment and Energy	Impacts on Matters of National Environmental Significance.	The EPBC Act identifies nine Matters of National Environmental Significance, of which "nationally threatened species and communities" has relevance to the Project.
Mineral Resources Act 1989	Mining Lease	DNRM	Carrying out mining operations in respect of those minerals specified in either the prospecting permit, exploration permit or mineral development licence held prior to the grant of the lease.	The Project will involve an application for one or more MLs.
Environmental Protection Act 1994	Environmental Authority	EHP	Carrying out mining activities.	The Project will trigger a Site Specific mining activity.
	Development Permit for Material Change of Use	EHP	Carrying out Environmentally Relevant Activities off-lease as triggered under the *Sustainable Planning Act 2009.*	The construction of new powerlines and access road. Potential development of off-lease works relative to water supply.
Sustainable Planning Act 2009 Applicable local government planning scheme	Development Permit for Material Change of Use	Central Highlands Regional Council (CHRC)	A change to the current use of premise for off-lease infrastructure related to the Project.	The construction of a new powerlines, pipelines and access road.
Sustainable Planning Act 2009 *Building Act 1975*	Development Permit for Building Work	IRC and where appropriate registered private certifiers	Construction of a building or other structure.	Construction or upgrade of any building or structure associated with the Project such as those located within the Mine Infrastructure Area (MIA).
Water Act 2000	Development permit for Operational Works for a Referable Dam	DNRM	Dams that have the potential to threaten life if they fail (i.e. termed a 'referable dam' are regulated by DNRM).	The Project will involve the construction of water storages to manage the water resources associated with the Project.

	Water Licence	EHP/ DNRM	Taking water from a watercourse, lake, spring or aquifer for an activity which is of a temporary nature.	Groundwater and or surface water extraction for mine water supply and or ancillary activities.
	Development Permit for Operational Work to take or interfere with water	DNRM	Taking water and/or interfering with the flow of water within a watercourse.	Potential development of off-lease works relative to water supply pipeline.
	Riverine Protection Permit	DNRM	Destroying vegetation, excavating or placing fill in a watercourse, lake or spring.	Potential development of off-lease works relative to water supply pipeline. May apply to activities on the ML, to be further assessed as part of the EIS process.
Strategic Cropping Land Act 2011 and Strategic Cropping Regulation 2011	Development Permit for Material Change of Use on Strategic Cropping Land or Potential Strategic Cropping Land	DNRM	Undertaking a material change of use on SCL or potential SCL.	Potential development of off-lease works relative to water supply pipeline. *Note: If there is other assessable development associated with such activities, this approval is dealt with via referral to DNRM.*
Fisheries Act 1994	Development Permit for Operational Work for Waterway Barrier Works	Department of Agriculture and Fisheries, (DAF)	Works for constructing or raising waterways barrier works.	Potential development of off-lease works relative to water supply pipeline.
Aboriginal Cultural Heritage Act 2003	Cultural Heritage Management Plan (CHMP) and Duty of Care Statement	DNRM	To avoid harm to cultural heritage.	The EIS and CHMP process will assess the occurrence of and extent of the potential impact under the *Aboriginal Cultural Heritage Act 2003*.
Nature Conservation Act	Clearing Permit	EHP	Taking or destruction of certain listed flora and	The EIS process will assess the extent of the potential impact

1992 and the *Nature Conservation (Wildlife) Regulation 1994*			fauna species.	on relevant species under the *Nature Conservation Act 1992* and the *Nature Conservation (Wildlife) Regulation 1994*.
Vegetation Management Act 1999	Vegetation Clearing	DNRM	Clearing regulated regrowth vegetation where the applicable regrowth Vegetation Code cannot be complied with.	The EIS process will assess the extent of the potential impact on regulated regrowth.
Land Title Act 1994	Easements	DNRM	Landowner compensation arrangements, survey and easement registration.	Potential development of off-lease works relative to water supply pipeline and access road works.
	Permit to occupy	DNRM, CHRC	Location of infrastructure within a Council controlled road reserve.	Potential development of off-lease works relative to water supply pipeline and access road works.
Transport Infrastructure Act 1994	Wayleave agreement	Aurizon	Crossing railway corridor land.	Potential development of off-lease works relative to water supply pipeline, power supply works and access road works.
Forestry Act 1959	Sales Permit	DNRM/ DAF	Taking quarry material which is vested with the Crown.	Quarry locations are to be determined, WC will liaise with DNRM/ DAF to determine who 'ownership' of quarry material (e.g. the Crown or private landholder). If any material required for the Project is owned by the Crown, approval may be required.
Electricity Act 1994	Notification of work affecting electricity entities works.	Powerlink	Where the Project interferes with electricity entities works, then notice is required to be given.	The Project will involve the connection of new powerline(s) from the electricity grid to the Project.
Local Government Act 2009	Various permits under the Local Law.	CHRC	Carrying out activities regulated under the local government local laws.	The local laws typically relate to works on local roads, traffic, pest management and vegetation.

2 Project description

2.1. PROJECT DELIVERY

A brief description of the WC Project Delivery Process (PDP) is described below.

A structured three stage PDP is followed to systematically review options and minimise risk, **FIGURE 2-1**. This PDP is based on achieving a balance of the set of defined deliverables adapted to the unique properties of each project.

Each stage culminates in a documented report on which the decision to continue the process is made by the Board of Directors. This project delivery process will provide the platform on which a business approval can be granted to the project allowing the decision to proceed to final engineering, construction and ultimately on which operations can be based.

- **Stage 1: Concept Study** – the purpose is to determine if an economic resource exists in a viable, fatal flaw free business case. The concept study identifies a viable business case for a project with the study demonstrating economic feasibility and provision of a framework to allow a follow-up feasibility studys (. The Concept Study has been completed.
- **Stage 2: Pre-feasibility Study** – the purpose is to assess alternatives and select the base and alternate cases. The study document for this stage will describe the preferred installation that could realistically be built. The Prefeasibility Study is scheduled for completion in early December 2017.
- **Stage 3: Definitive Feasibility Study** - will describe the complete Project and installation to be built. This stage will document the Project with engineering and approvals completed for business approval, with accuracy suitable for external financing. The Definitive Feasibility Study is to commence during 2018.

FIGURE 2-1 PROJECT DELIVERY PROCESS

2.2. KEY ELEMENTS OF THE PROJECT

Key elements of the Project are outlined in **Section 1.4**.

2.3. BACKGROUND TENURE RELATIVE TO THE PROJECT

The Project will be located over two privately owned freehold properties and site access is expected to intersect property related to the Central Railway:

- Lot 5 on Plan HT551, freehold;
- Lot 100 on Plan RP882349, freehold; and
- Lot 661 SP260478, Lands Lease (Central Railway)

Relevant agreements with private landholders within MDL 505 to the north of the Capricorn Highway are in place which ensures access to the Project area is available for the studies to be undertaken as part of the EIS process. Whilst the proposed boundaries for the Project MLs are yet to be finalised it is expected that the northern ML boundary will align with the southern boundary of Taunton National Park and the southern boundary will be aligned to the north of the Central Rail Line and Capricorn Highway. Sections of Pinegrove Road and Red Rock Park Road, which are expected to be located outside ML boundaries, will be impacted by the Project access route and relevant permitting and agreements would be required in consultation with the CHRC.

Water supply for the site is proposed via a pipeline from the existing Jellinbah Coal Mine located approximately 23 km to the northwest of the MDL 505 boundary, Figure 1-4. The proposed pipeline route will generally follow existing roads and private property fence lines, likely properties intersected include:

- Lot 12 RP861407, freehold;
- Lot 13 RP861407, freehold;
- Lot 7 Ht186, freehold;
- Lot 1 SP227977, freehold;
- Lot 2 SP227977, freehold;
- Lot 20 HT486, freehold;
- Lot 7 HT408, freehold;
- Lot 5 HT 551, freehold;
- Bluff Jellinbah Road;

- Lacarno Road;
- Walton Road; and
- Unnamed branch of Walton Road.

Access to properties intersected by the pipeline route for the purposes of assessment is currently being investigated.

No easements have been identified as likely to be impacted by the Project. There is a Stock Route (identified as Minor and unused) associated with the Capricorn Highway. The EIS process will determine if there is likely to be any impacts to the Stock Route.

2.4. MINING AND PETROLEUM TENEMENTS

The Project is located within the existing MDL 505 which is held by Argos (QLD) Pty Ltd, a wholly owned subsidiary of Aquila Resources. As discussed in **Section 2.3**, CCAs are in place to ensure access for EIS studies.

The Project is located to the northwest of Magnetic South Pty Ltd's Dingo West Project (presently subject to a MDL application) and east of Kingho's Bluff Project (ML80194). The existing operating mines of Jellinbah and Yarrabee are located approximately 40 km to the west and the Curragh operation, and Washpool Project are located approximately 50 km to the west. Multiple EPCs are also located within the area surrounding the Project, **FIGURE 1-2**. There is one petroleum tenure underlying the Project, being Authority to Prospect (ATP) 806 which is held by OME Resources Australia Pty Ltd.

2.4. RESOURCE BASE

Four phases of drilling, totalling 118 holes have been completed since exploration commenced on the Project in 2010. A Seismic Survey was also conducted in 2014. The 2015 resource statement demonstrated total estimated coal resources of 28.4 Mt within 200 m of the surface, as follows:

- 15.9 Mt is a Measured resource;
- 5.2 Mt is an Indicated resource; and
- 7.3 Mt is an Inferred resource.

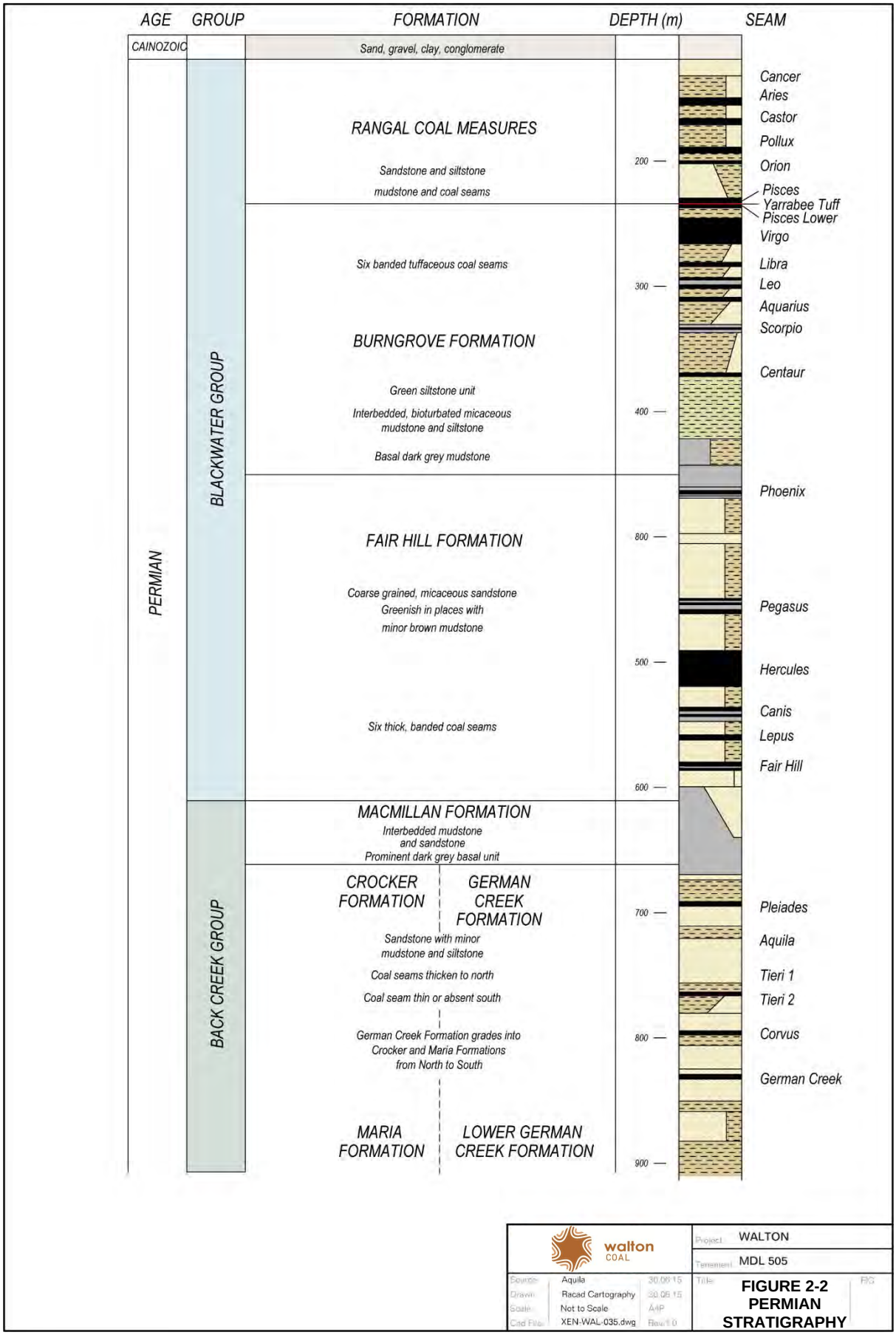
Throughout mid 2017 a further exploration program comprising seismic and drilling activities was undertaken to further define the resource and provide geotechnical, geochemical and groundwater information for the pre-feasibility study and environmental approval information requirements.

The basic stratigraphy of the target resource on site comprises Permian material overlain by Tertiary sediments with multiple coal seams distributed throughout the sequence.

The deposit has the following key characteristics:

- five target seams in the Rangal Coal Measures and within the Permian material, at a depth to first coal varying from 28 m up to 56 m and averaging 42 m starting from the subcrop line in the east of the deposit; and
- structural geology is characterised by folding, faulting and steep dips and is similar in nature to other coal deposits that have been successfully developed in the region including Jellinbah, Yarrebee, Baralabah and Foxleigh.

The general Permian stratigraphy is shown, **FIGURE 2-2**.



walton COAL		Project	WALTON
		Tenement	MDL 505
Source	Aquila	30.06.15	Title: **FIGURE 2-2 PERMIAN STRATIGRAPHY**
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2.5. COAL QUALITY

The analysis of coal quality for the Walton deposit indicates a high quality, low ash, low volatile PCI product can be produced. The majority of the Pollux Upper seam and portions of the Castor seam have low raw ash such that approximately 39 % of all ROM coal can be exported without processing. The remainder of the seams respond well to washing such that overall yield will be approximately 78.5 % depending on the amount of bypass coal achieved.

The Walton product coal is a premium, high yielding LVPCI coal well suited for injection into blast furnaces as a component of the steel production process. The Walton coal product has similar qualities to other LVPCI coals from Jellinbah and Yarrabee Mines. The Rangal Measure seams at Walton (Aries, Cancer, Castor and Orion) are all high rank/low volatile bituminous coals making them particularly suited to being a LVPCI coal.

2.6. MINING

The mine will be developed using conventional truck and shovel (excavator) operations to remove waste and mine in the order of 2 Mtpa of ROM coal per annum (between 1.9 – 2,2 Mtpa). All seams of the Rangal Coal Measures are mined except Pisces which has high raw ash and low yield. The operation will function on a continuous 24 hour seven day a week roster.

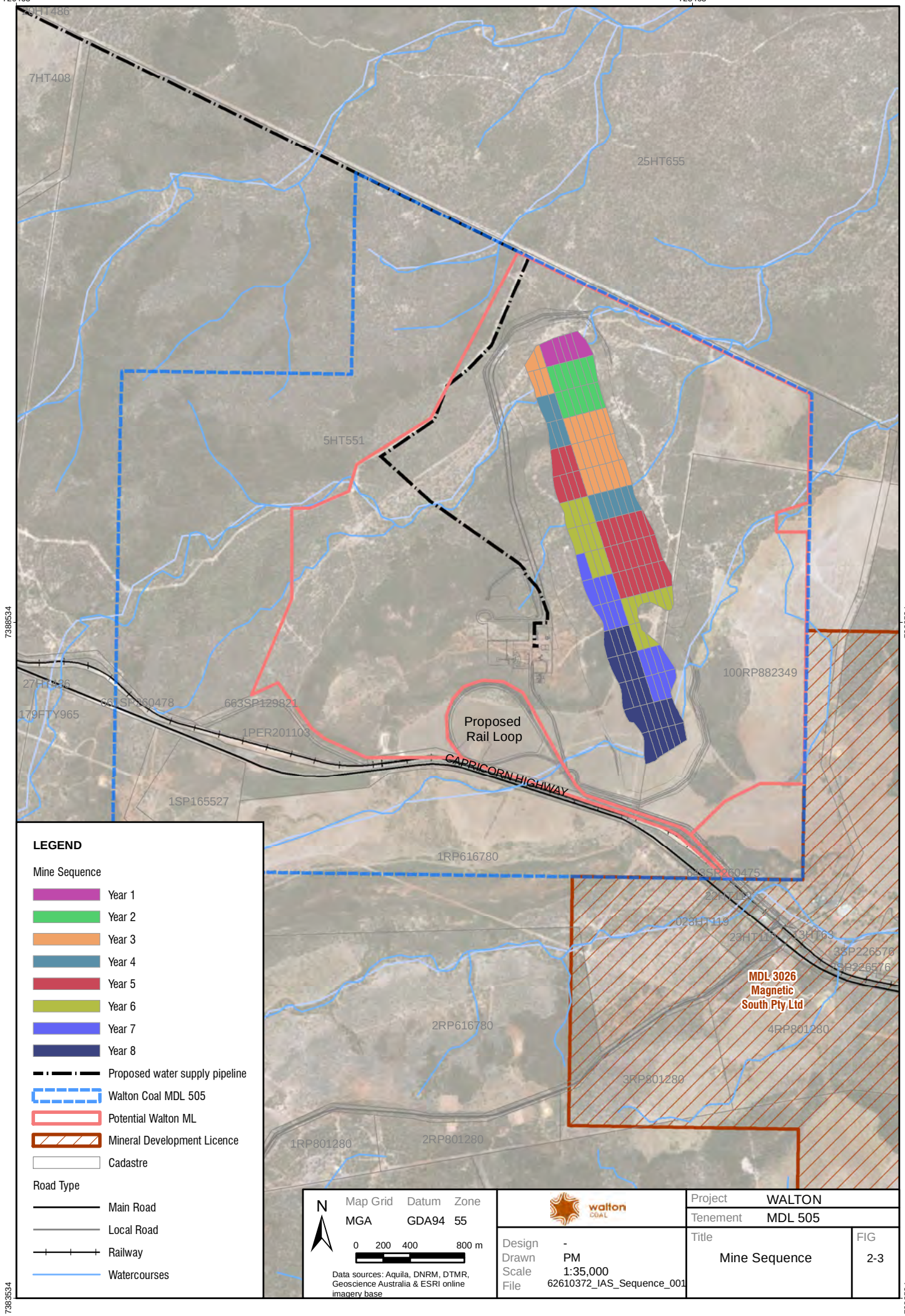
The mine design has been developed through the following process:

- a pit shell was developed based on a margin rank to determine economic blocks of coal across the full resource;
- terrace mining from north to south was adopted to reduce potential impact on Taunton National Park by locating the final void to the south;
- mining equipment comprising high capacity 550 t class excavators for waste and a smaller 190 t machine for coal mining was assumed. All fleets will be required to work a continuous roster to maximise production;
- out of pit dumping of spoil will be required for the first two years to create sufficient space to commence in-pit dumping operations;
- a small built for purpose MIA is to be located close to the TLO and centrally to the pit; and
- on site coal processing with a 260 t per hour (tph) modularised plant, train loadout and rail loop to be constructed in the first 12 months of production while stripping operations are progressing.

The indicative mining schedule sequence is shown, **FIGURE 2-3.**

All ground disturbances will be subject to a disturbance permitting system which considers a number of factors, including:

- planning and legislative permitting (is the proposed disturbance approved by the EA);
- need for the disturbance;
- method of disturbance;
- spotter catcher requirements;
- drainage and sediment control requirements;
- alternative options;
- vegetation status;
- cultural heritage matters;
- vegetation and topsoil recovery; and
- rehabilitation.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Proposed
Rail Loop
CAPRICORN HIGHWAY
1SP165527
1RP616780
2RP616780
3RP801280
4RP801280
2RP801280
1RP801280
MDL 3026
Magnetic
South Pty Ltd
LEGEND
Mine Sequence
Year 1
Year 2
Year 3
Year 4
Year 5
Year 6
Year 7
Year 8
Proposed water supply pipeline
Walton Coal MDL 505
Potential Walton ML
Mineral Development Licence
Cadastre
Road Type
Main Road
Local Road
Railway
Watercourses
N
Map Grid MGA
Datum GDA94
Zone 55
0 200 400 800 m
Data sources: Aquila, DNRM, DTMR, Geoscience Australia & ESRI online imagery base
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Project WALTON
Tenement MDL 505
Design -
Drawn PM
Scale 1:35,000
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Title
Mine Sequence
FIG
2-3

TABLE 2-1 shows the indicative ROM coal and spoil production expected over the life of mine.

TABLE 2-1 INDICATIVE ROM COAL AND SPOIL PRODUCTION.

Year	ROM Coal (Mt)	Spoil (Mt)
1	2	31
2	2	27
3	2	29
4	2	28
5	2	37
6	2	26
7	2	27
8	1.3	12
Total	**15.6**	**217**

The mining process will generally follow the following sequence:

Vegetation Clearing

Progressive clearing of pasture grasses, tree and shrub regrowth, and remnant vegetation will be required ahead of topsoil stripping for the bulk of the mine areas, overburden dumps and infrastructure areas. Clearing will only be undertaken as areas are required to minimise exposed areas. Flora studies are currently in progress and will involve the ground truthing of areas to accurately map the proposed disturbance areas for specific vegetation domains. Felled timber likely to provide significant enhancement value to conservation significant species habitat will be identified and recovered. Recovered timber may be used within rehabilitation areas or placed in undisturbed areas of the Project, for example, recovery of potential Bridled Nail-tail Wallaby resting habitat features such as hollow logs and large shelter timber.

Topsoil Stripping

Following vegetation clearing, topsoil will be recovered using available machinery. Topsoil will either be directly used on progressive rehabilitation or stockpiled for later use if no areas for rehabilitation are available at the time of stripping. Topsoil stockpiles will be appropriately located and sized to minimise loss of biological and physiochemical integrity. An inventory of topsoil will be maintained on site which records details such as stripping and stockpiling date, quantity, stabilisation treatments, analysis results and usage location. Appropriate topsoil stripping depths will be determined throughout the EIS baseline study process.

Spoil Removal

Where spoil is not sufficiently weathered to facilitate free digging it will be blasted to enable machinery to excavate the material. Blasting will utilise conventional techniques applied throughout the mining industry. Spoil will be removed using conventional truck shovel methods. Initially excavated spoil will be placed in out of pit dumps, then as sufficient room becomes available, overburden will be dumped in mined out areas of the pit. Spoil dumps will be geotechnically designed to ensure that the final landform is stable. Where it is physically and chemically suitable, spoil will be utilised in the construction of associated infrastructure such as roads, waste storage facilities and water management structures.

Coal Recovery and Stockpiling

Coal will be recovered from the exposed coal seams following the overburden removal process. Coal will be loaded by excavator or loader into trucks for transport to the ROM coal stockpile adjacent to the CHPP. Alternatively, bypass coal will be directly placed on the product stockpile. Blasting of the coal may be required to assist in the recovery process.

Reshaping and Drainage

Reshaping involves grading the surface of the disturbed area so that it conforms with the final landform and proposed post-mining land use design criteria. The most significant areas that will require reshaping are the spoil dumps. Areas will be reshaped as they become available following which the balance of the rehabilitation process will be undertaken.

Once reshaping is completed, constructed drainage may be required to ensure protection from erosion. For minor reshaping areas, drainage will typically be incorporated as part of the reshaping process. For reshaped spoil dumps, significant drainage structures may be required to ensure stability of the landform. Graded banks, rock lined waterways and sediment dams will be the primary drainage features constructed on out of pit spoil dumps.

Topsoiling

Following reshaping and the construction of drainage, topsoil will be spread over the surface of the final landform. The depth at which topsoil will be spread will be determined during the EIS study process.

Seedbed Preparation and Revegetation

Seedbed preparation will typically involve ripping along the contour using a dozer with tynes mounted behind the machine. Ripping depth will generally be between 0.4 m and 1 m. Ripping along the contour reduces the potential for erosion by creating a key between the topsoil and underlying material, promoting infiltration and providing a barrier to down slope runoff.

Seeding with the appropriate seed mix for the rehabilitation domain, fertilising and addition of any other soil ameliorants will be undertaken following the preparation of the seedbed. Timing will be dependent upon on the selected methodology, machinery availability, ground conditions and weather conditions.

Rehabilitation Maintenance and Monitoring

During the establishment of vegetation on areas of rehabilitation, erosion or other factors may result in the requirement for maintenance activities. Maintenance activities may include the following:

- repair of erosion areas;
- reseeding;
- supplementary planting of tube-stock;
- additional fertiliser or other ameliorant application on areas of poor establishment; and
- repair of drainage structures.

Rehabilitation monitoring will be included in the site monitoring program. Monitoring of rehabilitation will commence when there are sufficient areas available which have successfully established. Monitoring will focus on key indicators relevant to the proposed post-mining land uses.

2.7. MINING EQUIPMENT

The mining fleet will comprise conventional mining equipment typical of a small\ medium coal operation, similar to the following list:

- two 500 tonne excavators for waste removal (~ 10 M Bank cubic metres per annum (bcmpa) each);
- one 190 tonne excavator for waste and coal (~ 3.7 M bcmpa - 60% waste, 40% coal);
- one small excavator with straight blade for thin coal and scalping;
- ten 240 tonne Rear Dump trucks for waste (793 size for the 500 tonne Exc);
- four 140 tonne Rear Dump trucks for waste and coal (785D size for the 190 tonne Exc);
- three or Four track dozers;
- one rubber tyre dozer;
- two graders;
- two water trucks; and
- one overburden drill.

Equipment requirements will be further assessed in the Definitive Feasibility Study.

2.8. COAL HANDLING AND PREPARATION

A new CHPP is proposed to be constructed and located within the Mine Infrastructure Area (MIA). A plant design comprising a 450 tph ROM circuit and 250 tph CHPP has been proposed incorporating dedicated conveyors to facilitate the by-pass of crushed raw coal directly to the product stockpile. Approximately 39 % of raw coal is expected to be by-pass quality and contributes significantly to the high yield achieved.

Coal loading will be completed via an automated loadout facility fed from the product stockpile by approximately 400 m long conveyor to the TLO bin at the rail loop. The rail spur and loop is proposed on the western side of the pit in relatively flat ground to and will be approximately 4 km in length which ties into the main Blackwater to Gladstone line slightly to the east of the project area.

Management of CHPP fine and course reject will involve de-watering, storage and co-disposal within the in-pit spoil backfill. The detailed coal flow process design, CHPP design, and reject management will be further developed for the Project's Definitive Feasibility Study.

2.9. WATER SUPPLY AND STORAGE

An analysis of water balance for the site was undertaken to understand the likely water demand, and it was determined the site requires approximately 400 megalitres of water a year for mining and CHPP activities. A pipeline from the existing Jellinbah Coal Mine located approximately 23 km to the northwest of the MDL 505 boundary is proposed as the source of operational water. The flow rate is expected to average 15 L per second and pressure loss monitoring will be incorporated to ensure loss of pipeline integrity is detected and managed. The proposed water supply option allows for the beneficial use of Jellinbah's excess water which will minimise the impact on surrounding water resources and users. Tenure requirements for the proposed pipeline will be determined throughout the approvals process.

Site water management systems will include drains and levees, storage dams, pipes and pumps and will focus on the separation of clean and dirty water. The raw water supply will be supplemented by recycling of dirty water produced from pit groundwater inflow and runoff from disturbed areas, this water will be stored in the Dirty Water Dam, **FIGURE 1-3,**. Water will also be recovered from coal processing activities for reuse on-site. The diversion of two drainage features are proposed, Spectacle Creek will be diverted to the north of the pit and the southern unnamed creek will be diverted to the south of the pit extent.

Water will be distributed from storages to the CHPP, and the MIA using water transfer pumps which are planned to be pontoon mounted with gangways for access. It is intended to power these pumps with a mains supply and the switch board will have a radio link to allow remote start and stop of these pumps. These pumps deliver to the plant raw water tank, and to a Fire Water storage tank at the MIA. Raw Water delivery from the Fire Water tank is for the site wash down water and for firefighting through hose reels and fire hydrants.

Sizing and engineering design of water management features will be undertaken during the development of the Definitive Feasibility Study and EIS process and will be in accordance with relevant industry standards and regulatory requirements.

2.10. INFRASTRUCTURE AND SERVICES

2.10.1. Haul roads and other on-site roads

Haul roads

To enable the transport of coal to the CHPP and spoil to the out of pit waste dumps, dedicated haul roads external to the pit will be required. These haul roads will be constructed utilising spoil material sourced from initial mining operations. The main haul road from the pit to the MIA and CHPP has been aligned to be adjacent to the western side of the pit, where it will intersect with ramps running from the pit floor. In accordance with industry standards, haul roads will be designed to be 3.5 times the width of the largest truck, and berms will be established along each side of the road to prevent vehicles running off the embankment. The haul road design to be adopted is typical of designs used throughout the Bowen Basin where the road is constructed above the existing grade.

Minor site access roads and tracks

Minor roads and tracks will be required throughout the life of mine to access remote areas for support activities. Construction of these roads and tracks will be minimised and disturbance created by minor roads and tracks will be limited to only that necessary for the intended use. Once no longer required they will be rehabilitated.

2.10.2. Site Access Road

The proposed access road from the Capricorn Highway to the MIA follows a path around the southern end of the pit to the MIA and CHPP and utilises an existing rail crossing, and an existing intersection at the highway. Alternatives were considered, and this alignment was selected as it was the most appropriate. The access road provides vehicle access from the Capricorn Highway to the site and travels past the proposed accommodation camp. The location affects only one landholder and is adjacent to the existing rail corridor. The access road will cater for buses for employees, freight deliveries, and other light vehicles. The structure of the road formation will be typical of similar mine access roads. The intersection with the Capricorn Highway and the rail crossing may require upgrade work. The design of the road and intersection with the Capricorn Highway will be undertaken in consultation Department of Transport and Main Roads (DTMR), Aurizon, and the CHRC.

2.10.3. Mine Industrial Area and Office Facilities

The MIA has been designed to provide an effective and functional operation for the lifetime of the Project. The MIA will include the following facilities:

- fuel farm;
- washpad;
- workshop/store;
- workshop office;
- consumable storage—ground engaging tools, tyres;
- capital spares storage;
- tyre storage;
- heavy and miscellaneous vehicle park up;
- light vehicle park ups; and
- mine office.

The location of the MIA and Mine Office has been selected to be the first point of contact for traffic travelling to site along the Access Road which is important for control of security and safety matters. Managing the safe interaction of heavy and light vehicles is a key aspect of the MIA design and the design allows for complete segregation.

2.10.4. Electricity

The supply of electricity to the MIA is expected to be achieved via connection to the mains power grid which is accessible immediately adjacent to the site or via use of diesel generators. The site distribution voltage will be 11 kilovolt (kV) distributed through an overhead power line system with pole mount transformers. The process of accessing the power from off site will include consultation with Ergon Energy, should this option be chosen. There will be a requirement for diesel powered generators in the construction phase of the Project.

Site electricity options will be further assessed during the Definitive Feasibility Study.

2.10.5. Water Supply Pipeline

As discussed in Section 3.9 water supply for the site is proposed via a pipeline from the existing Jellinbah Coal Mine located approximately 23 km to the northwest of the MDL 505 boundary. The proposed pipeline route will generally follow existing roads and private property fence lines, see **FIGURE 1-4**. The pipeline, will be located on surface for the bulk of the route and will be buried at watercourse crossings and anywhere else required by landholders to allow for cattle/vehicle movement.

2.10.6. Accommodation

There is a pre-existing accommodation camp located immediately to the south east of MDL505 on Lot 100 on Plan RP882349 which is operated by the landholder. It is proposed that this camp will house the DIDO component of the workforce. There is high availability of low cost housing in Blackwater and the surrounding areas which will provide opportunity to the workforce to live locally. The drive in drive out (DIDO) component of the workforce will be bussed from the accommodation camp to site.

2.10.7. Stream Diversions

In order to access the coal resource, two stream diversions are proposed, Spectacle Creek in the north and an unnamed creek to the south. Following preliminary consultation with DNRM it is understood that these streams are not defined watercourses and therefore are not expected to require approval for diversion within the EA. The diversions will be designed in consultation with DNRM to meet the accepted industry engineering standards. Assessment of the post mining treatment for the diversions will be undertaken during the EIS study process.

2.11. WORKFORCE

The human resource strategy will be critical to the success of the Project. Development of the most appropriate strategy will be fundamental to ensuring the Project delivers its objectives. The requirements of a successful long term human resources strategy considers the operating environment (i.e. Central Queensland) and includes the successful blending of:

- accommodation choices;
- roster choices;
- shift lengths; and
- remuneration options.

The Project workforce will be created utilising the experience and resources of the respective contracting organisations for mining and processing. They will seek to recruit, train and retain personnel of a high standard and will draw upon other projects for experienced operators and maintainers as well as utilising both group and individual interview sessions held throughout the recruitment process.

During the construction and operation of Project recruitment process for the senior owner positions, candidates will be made aware of the need to transfer to the Project area, as the mine becomes operational. This will reduce the likelihood of turnover when this important change is required, and mitigate the loss of project knowledge when the team transfers to site. Additionally, the location of senior personnel in the area of the operation demonstrates commitment to supporting the local region.

TABLE 2-2 shows the estimated operational labour numbers.

TABLE 2-2 OPERATIONAL LABOUR.

Position	Average operational labour numbers
Staff	13
Supervisors	16
Mining	144
Processing	12
Maintenance	38
Total	**223**

Prior to commissioning there will be a nine to 12 month construction phase. The construction workforce is estimated to peak at 100 persons (excluding mining crews involved in initial mine development).

The expected labour force will be further defined during the Definitive Feasibility Study.

2.12. DECOMMISSIONING, REHABILITATION AND CLOSURE

The general goals for the Project decommissioning, rehabilitation and closure are to ensure the site is:

- safe to humans and wildlife;
- non-polluting;
- stable; and
- able to sustain an agreed post-mining land use.

The general rehabilitation strategy is expected to incorporate a mixture of land uses including nature conservation and grazing which is consistent with existing land use in the Project area. The site specific objectives of rehabilitation will be determined as background information is developed throughout the EIS process. Criteria for measuring rehabilitation success will also be developed as part of the EIS process and refined throughout operations to ensure acceptable outcomes are achieved. The rehabilitation of mining disturbance will occur progressively as it is integrated into the mining process, as outlined in **Section 2.6.** Infrastructure decommissioning and rehabilitation will occur as facilities are no longer required, but generally as the Project approaches the end of mine life. The process will include removal of structures, reshaping, topsoiling, seeding and soil amelioration, maintenance and monitoring. A final void will be retained in the landform following the cessation of mining at the southern end of the pit. The void will be rehabilitated to ensure it is safe, stable and non-polluting.

3 Existing Environment and Potential Impacts

3.1. AIR AND CLIMATE

The background air quality of the Project area would typically be representative of a rural environment with the existing primary pollutants being particulate from dust generated by farming, Capricorn Highway traffic and coal railing activities and also contributions from bushfires. Climate statistics from the Emerald Airport were obtained as this is the nearest complete Bureau of Meteorology (BOM) station to the Project area. Data periods for the statistics vary, but range between 1981 and 2015. The climate of the Project area is characterised as semi-arid with an average annual rainfall of 559 millimetres (mm). Most rainfall falls during the wet season which is between November and April. Average daily maximum temperatures range between 23.2 degrees Celsius (C) in June and July and 34.4 degrees C in January. Average minimum temperatures range between 8.2 degrees C in July and 22.2 degrees C in January. Evaporation rates were not available for the Emerald Airport BOM Station, however typically evaporation rates in the region exceeded three times the rainfall average.

The 9 am wind speeds are generally between 10 and 20 km per hour with the prevailing wind direction from the southeast and to a lesser extent the east. The 3 pm wind speeds are also generally between 10 and 20 km per hour and the prevailing wind direction is from the east and to a lesser extent the southeast and northeast. The principal air quality impact expected from the Project is likely to be dust generated by mining and processing activities. The principal dust sources will include heavy mining equipment movements, topsoil stripping, coal handling and coal haulage to the rail loadout. During operations, dust generation will be managed by the use of water carts for road watering, sprays on coal handling and conveyor transfer points, conducting of progressive rehabilitation, limiting disturbance to that required for safe operations, use of a disturbance permit system and, if appropriate, changing work practices during adverse meteorological conditions. Further assessment of the air quality and suitable mitigation methods will be outlined in the supporting information to the EIS.

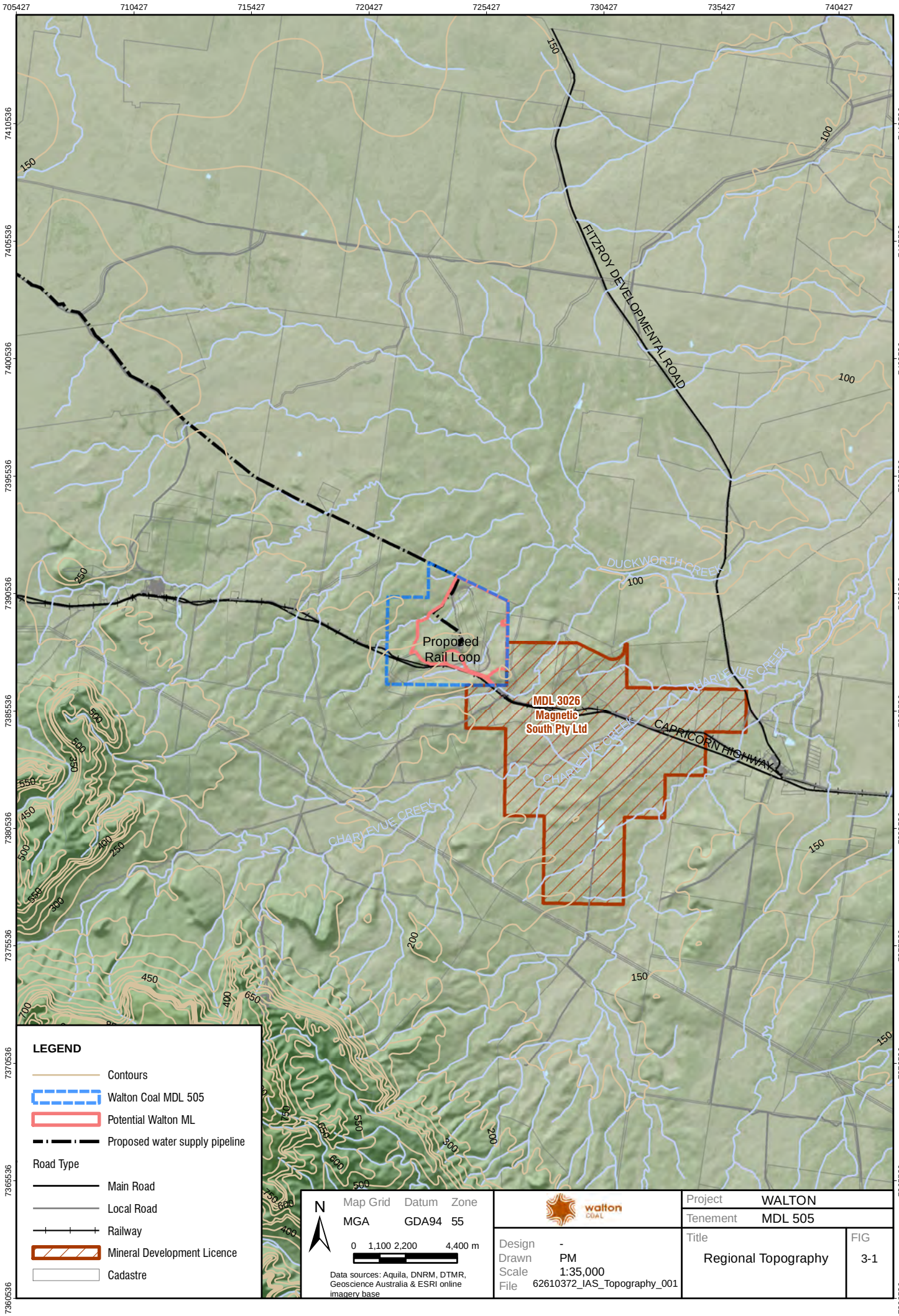
3.2. LAND RESOURCES AND ENVIRONMENTALLY SENSITIVE AREAS

3.2.1. Topography and Land Use

The Project area is gently undulating with an elevation ranging between 130 m to 160 m, **FIGURE 3-1.** The physiography of the area is characterised by a dissected tableland with a general relief variation of about 80 m. This tableland is formed by a sheet of lateralized Tertiary sediments, overlying the coal bearing Permian formations.

The vegetation of the region is a mixture of cleared open pasture, pasture with tree and shrub regrowth and remnant vegetation which has been exposed to varying levels of historical grazing and disturbance, **FIGURE 3-2**. The Remnant vegetation is further discussed in **Section 3.5**. Remnant vegetation and post clearing regrowth is present in scattered sections that typically follow the topography and waterways. The agricultural use of the Project area is mapped as pasture with low and medium production and sown pasture. The Project area is currently used for low intensity cattle grazing and fattening, which is a typical land use for the region. The northern boundary of the Project area is adjoined by Taunton National Park.

The proposed water supply pipeline route is to be located adjacent to existing roads and private property fence lines and within fire breaks and cleared pasture. The proposed route by-passes areas of mapped (Queensland Government) regional ecosystems along approximately 92 % of the pipeline length. The remaining approximately 8 % of pipeline adjacent to MDL 505 is to be located within mapped regional ecosystems along existing tracks, fire breaks and adjacent to fence lines, see **FIGURE 1-4**.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DUCKWORTH CREEK
CHARLEVUE CREEK
CAPRICORN HIGHWAY
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Project WALTON
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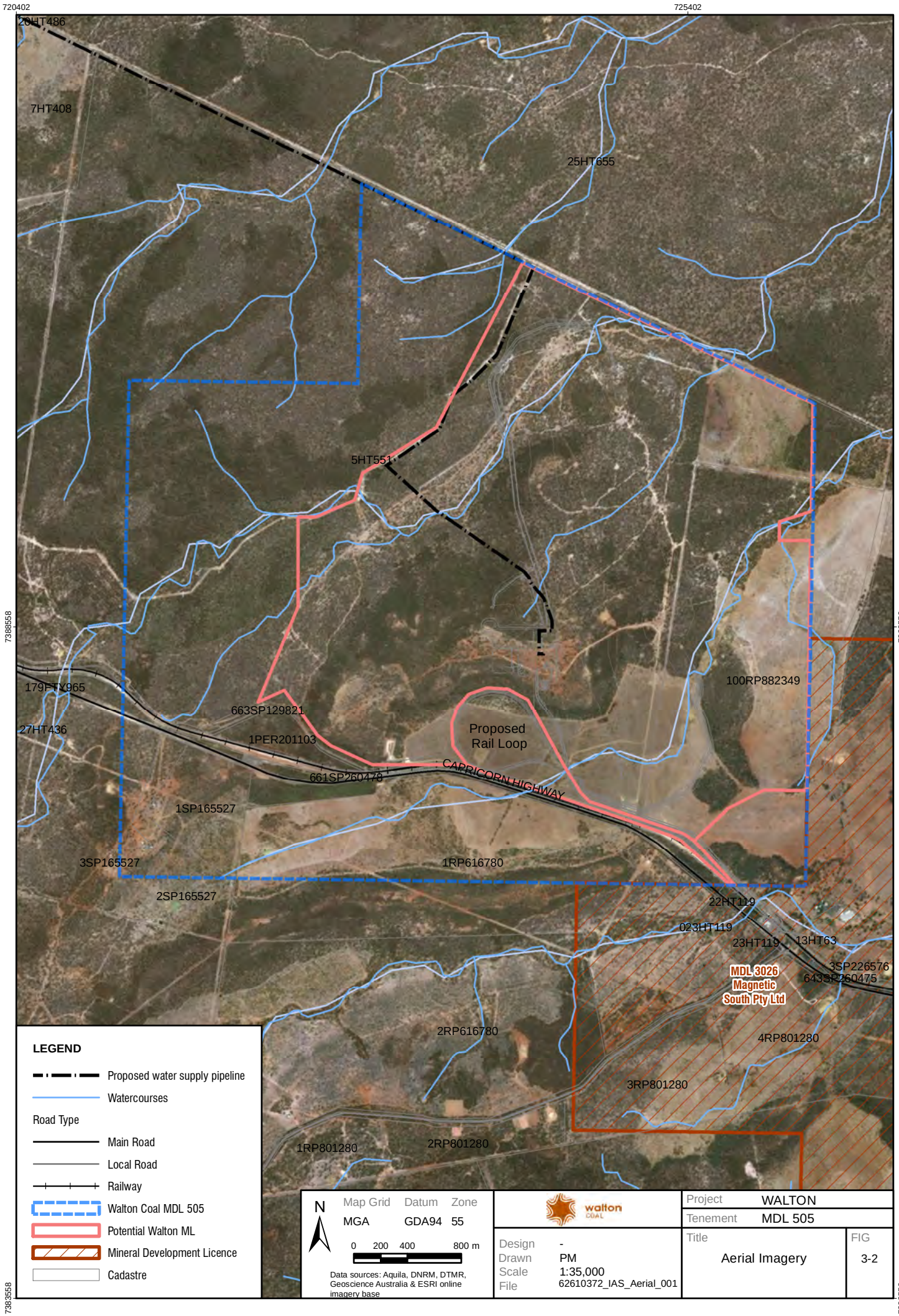
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3-2

3.2.2. Soils

The upper soils horizon of the Project area within MDL 505 is described as hard pedal mottled - yellow duplex soils. The Project area is not within the Strategic Cropping Land Trigger area, nor is it within Class A or Class B agricultural land. Upper horizon soils along the proposed pipeline route are generally the same as those of the Project area within MDL 505, however the 5.75 km section closest to the Jellinbah water source is described as uniform fine cracking, smooth faced peds, grey clay.

Mining activities will follow a conventional mining approach, as described in **Section 2.6**, which will include recovery of topsoil resources for rehabilitation purposes in accordance with a documented topsoil management program. Where recovered topsoil is not able to be immediately utilised it will be directed to topsoil stockpiles which will be incorporated into the toe of out of pit spoil dumps to facilitate topsoil spreading on areas progressively profiled to the final landform contours. Where water supply pipeline burial is necessary, topsoil will be recovered separate to subsoils and respread over the surface following pipeline burial.

3.2.3. Visual Amenity

Due to the proximity to the Capricorn Highway, the physical features associated with the Project that may have aesthetic impacts including the out of pit spoil dumps, and infrastructure such as the CHPP, workshop, power lines and administration buildings. The EIS studies will include an assessment of the impacts that these features may have on the visual landscape.

3.3. SURFACE WATER

The Project area is located in the Fitzroy Basin between two major watercourses. Duckworth Creek (order 3 and 4) is located approximately 3 km to the north of the Project area and flows in a generally east north-easterly direction to join Springton Creek. Charlevue Creek (Order 5) is located approximately 3.5 km to the south of the Project area and flows in a north-easterly direction to Springton Creek. Springton Creek flows to the Mackenzie River which in turn flows to the Fitzroy River.

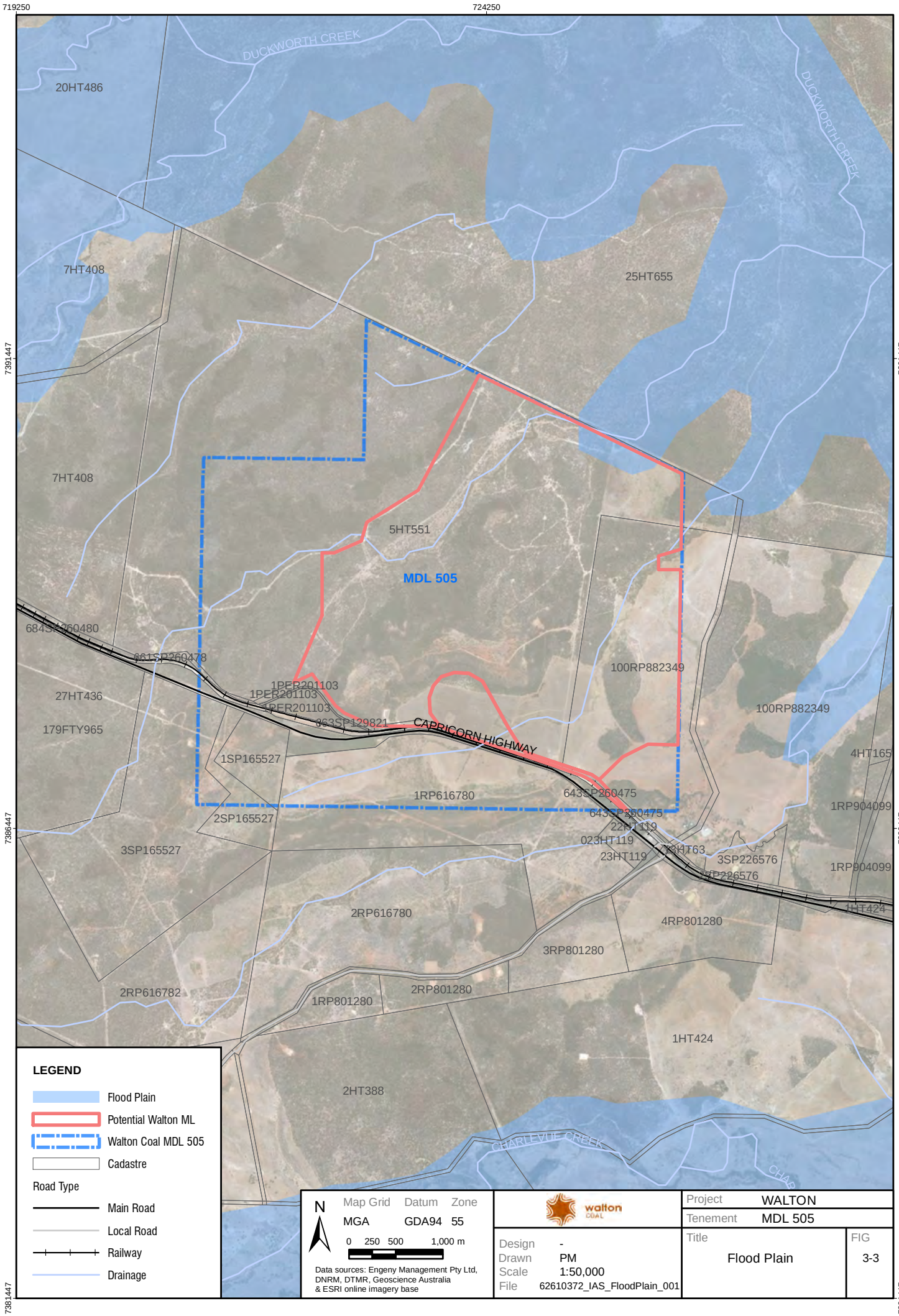
Streams intersected by the Project area are order 1 or 2 and all flow in a north-easterly direction to Duckworth Creek, many through the Taunton National Park. The second order stream traversing the north of the MDL is named as Spectacle Creek while the stream to the south is unnamed. Both streams are ephemeral and anecdotal evidence suggests that they only flow on average of two weeks per year. Both streams that intersect the proposed operational area are listed as Matters of State Environmental Significance (MSES) under the Queensland State Planning Policy July 2014. In March 2017, the Department of Natural Resources and Mines (DNRM) determined that the streams within the Project area do not meet the definition of a watercourse under the Water Act 2000 and are therefore defined as “drainage features”. There are numerous small farm dams located within and surrounding the Project area.

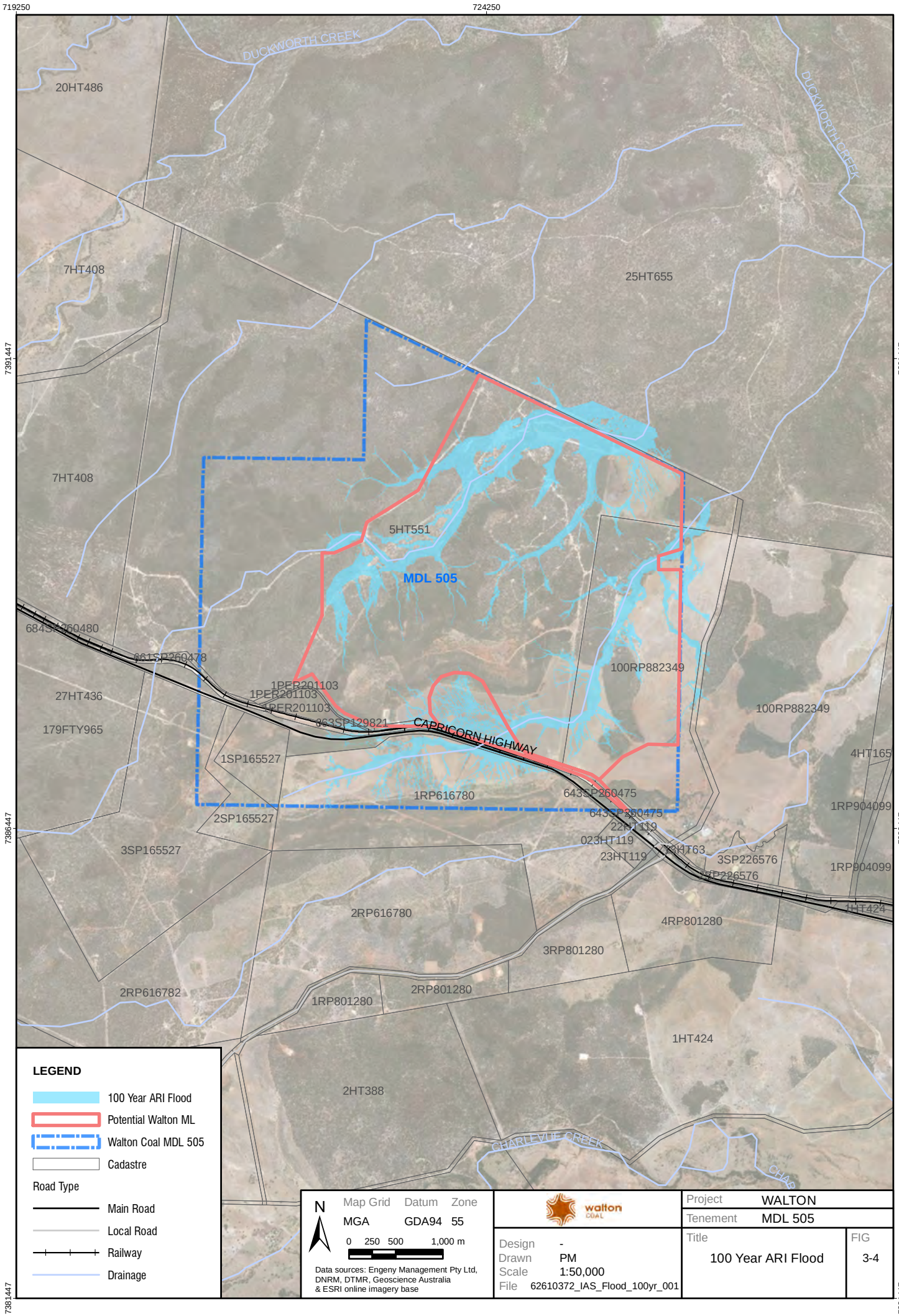
No mining activities or infrastructure areas within MDL 505 are likely to be located within the area affected by the flood plain as mapped by the Queensland Government, **FIGURE 3-3**. Initial preliminary flood studies have been conducted for the Project area based on 1/100 and 1/1000 year flood events and are shown, **FIGURE 3-4** and **FIGURE 3-5.** These initial desktop studies demonstrate that the risk of flooding of the pit and MIA areas is minimal, with the exception of the northern and southern pit extents; however the proposed levees and stream diversions will be appropriately designed to minimise any risk to operations. A section (approximately 5 km) of the water supply pipeline is located within a mapped floodplain area and this will be appropriately considered as planning progresses.

Water quality information was sourced from the nearest DNRM stream gauging station (130105A) which is located on the Mackenzie River approximately 45 km to the northwest of the Project area. Notwithstanding local geological influences the water quality of the streams in the vicinity of the Project area are expected to be broadly similar to the DNRM station given the similar surrounding land uses. **TABLE 3-1** summarises the pH and Electrical Conductivity (EC) of Station 130105A.

TABLE 3-1 GENERAL WATER QUALITY AT DNRM STATION 130105A (SEPTEMBER 1972 – MAY 2014)

	pH	EC (µs/cm)
Number of Samples	138	138
Maximum	8.80	1320
Minimum	6.80	87
Median	7.59	219
Average	7.58	277
Standard Deviation	0.43	171


719250
724250
7391447
7386447
7381447
DUCKWORTH CREEK
DUCKWORTH CREEK
20HT486
7HT408
25HT655
7HT408
5HT551
MDL 505
684SP260480
681SP260478
100RP882349
1PER201103
1PER201103
1PER201103
27HT436
179FTY965
683SP129821
CAPRICORN HIGHWAY
100RP882349
4HT165
1SP165527
1RP616780
643SP260475
643SP260475
1RP904099
2SP165527
22HT119
023HT119
23HT119
3SP165527
3SP226576
1RP904099
3SP226576
1HT424
2RP616780
4RP801280
3RP801280
2RP616782
1RP801280
2RP801280
1HT424
2HT388
CHARLEVUE CREEK
CHAR
LEGEND
Flood Plain
Potential Walton ML
Walton Coal MDL 505
Cadastre
Road Type
Main Road
Local Road
Railway
Drainage
N
Map Grid MGA
Datum GDA94
Zone 55
0 250 500 1,000 m
Data sources: Engeny Management Pty Ltd, DNRM, DTMR, Geoscience Australia & ESRI online imagery base
walton COAL
Project WALTON
Tenement MDL 505
Design -
Drawn PM
Scale 1:50,000
File 62610372_IAS_FloodPlain_001
Title Flood Plain
FIG 3-3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7381447
DUCKWORTH CREEK
DUCKWORTH CREEK
20HT486
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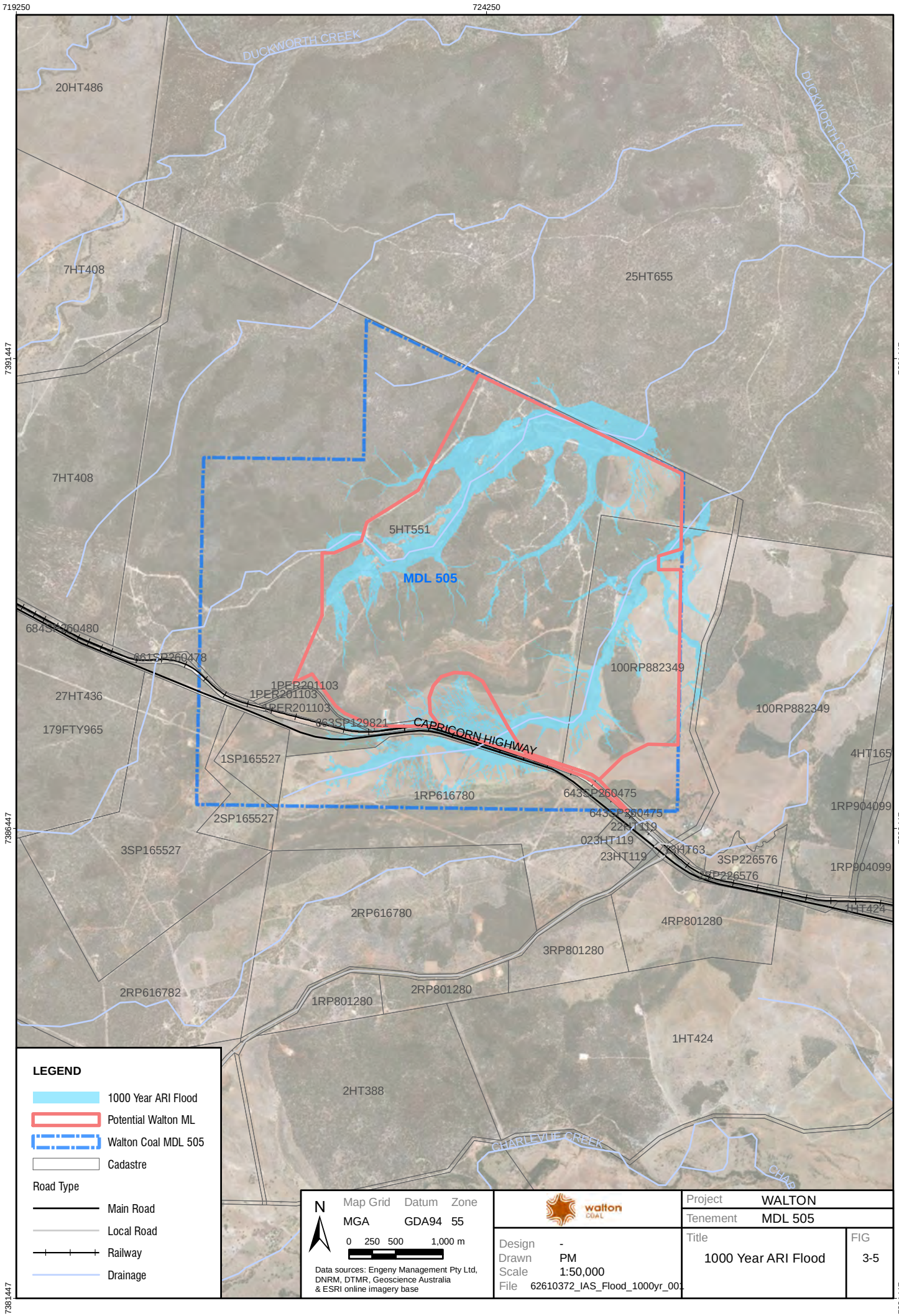
7HT408
5HT551
MDL 505
684SP260480
661SP260478
100RP882349
1PER201103
1PER201103
1PER201103
27HT436
663SP129821
CAPRICORN HIGHWAY
100RP882349
179FTY965
1SP165527
4HT165
1RP616780
643SP260475
643SP260475
1RP904099
2SP165527
22HT119
023HT119
23HT119
23HT63
3SP226576
3SP165527
3SP226576
1RP904099
1HT424
2RP616780
4RP801280
3RP801280
2RP616782
1RP801280
2RP801280
1HT424
2HT388
CHARLEVUE CREEK
CHAS
LEGEND
100 Year ARI Flood
Potential Walton ML
Walton Coal MDL 505
Cadastre
Road Type
Main Road
Local Road
Railway
Drainage
N
Map Grid MGA
Datum GDA94
Zone 55
0 250 500 1,000 m
Data sources: Engeny Management Pty Ltd, DNRM, DTMR, Geoscience Australia & ESRI online imagery base
walton COAL
Design -
Drawn PM
Scale 1:50,000
File 62610372_IAS_Flood_100yr_001
Project WALTON
Tenement MDL 505
Title 100 Year ARI Flood
FIG 3-4


719250
724250
7391447
7386447
7381447
DUCKWORTH CREEK
DUCKWORTH CREEK
20HT486
7HT408
25HT655
7HT408
5HT551
MDL 505
684SP260480
661SP260478
100RP882349
1PER201103
1PER201103
1PER201103
27HT436
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663SP129821
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3SP226576
3SP165527
3SP226576
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1HT424
2RP616780
4RP801280
3RP801280
2RP616782
1RP801280
2RP801280
1HT424
2HT388
CHARLEVUE CREEK
CHAS
LEGEND
1000 Year ARI Flood
Potential Walton ML
Walton Coal MDL 505
Cadastre
Road Type
Main Road
Local Road
Railway
Drainage
N
Map Grid MGA
Datum GDA94
Zone 55
0 250 500 1,000 m
Data sources: Engeny Management Pty Ltd, DNRM, DTMR, Geoscience Australia & ESRI online imagery base
walton COAL
Design -
Drawn PM
Scale 1:50,000
File 62610372_IAS_Flood_1000yr_001
Project WALTON
Tenement MDL 505
Title
1000 Year ARI Flood
FIG
3-5

The Fitzroy Basin Water Resource Plan 2011 is the applicable resource plan for the Project area. The environmental values of the surface waters in the area of the Project area would align with the Mackenzie southern tributaries - developed areas, as defined under the *Environmental Protection (Water) Policy 2009* - Mackenzie River Sub-basin Environmental Values and Water Quality Objectives.

Impacts to surface water resources will include the diversion of Spectacle Creek due to the northern extent of the pit intersecting it. The southern unnamed creek will also be diverted. Some pit and dump intersection with first order streams will occur at the top of their catchment, however the subsequent loss of catchment and flow contribution to the downstream drainage system is not likely to be a major impact. The mining operation will likely produce poor quality water from groundwater inflow to the pit and surface runoff contacting disturbed areas. Release of this poor quality water to surrounding streams may degrade the environmental values of the downstream waters which will also impact downstream users. Appropriate erosion and sediment control measures and a water management system, specifically designed for the Project, will be implemented to manage potential impacts to the surface water values of the area and broader catchment. The proposed water supply option allows for the beneficial use of excess water from Jellinbah Mine which will minimise the impact on surrounding water resources and users.

As part of the supporting information for the EA, a hydrologic and hydraulic model of the surface water catchment will be developed to determine the most appropriate location for mine infrastructure and location of any flood mitigation measures considered necessary for the Project. A Project water balance will be prepared with surface water runoff and direct rainfall to the pits included as inputs to the estimate. Initial Project planning indicates that there will rarely be a surplus of water on the site and it is thus unlikely that discharge surplus water during normal operating conditions would be required, although managed release may be required during significant seasonal events. Project activities that may affect surface waters are changes in the landform and run-off from disturbed areas (including the infrastructure areas) and production of surplus poor quality water from groundwater inflow to the pit.

The following mitigation strategies will reduce the potential impacts on surface waters:

- implementation of a “clean water – dirty water” system to divert clean runoff around disturbed areas and direct run-off from disturbed areas to designated dams for treatment and reuse on site;
- the development of a detailed water management plan to ensure hierarchical management of water based on quality indicators; and
- management of water released from site (if any) meets the likely licensed discharge limits in the environmental authority and the water quality objectives for the receiving waters.

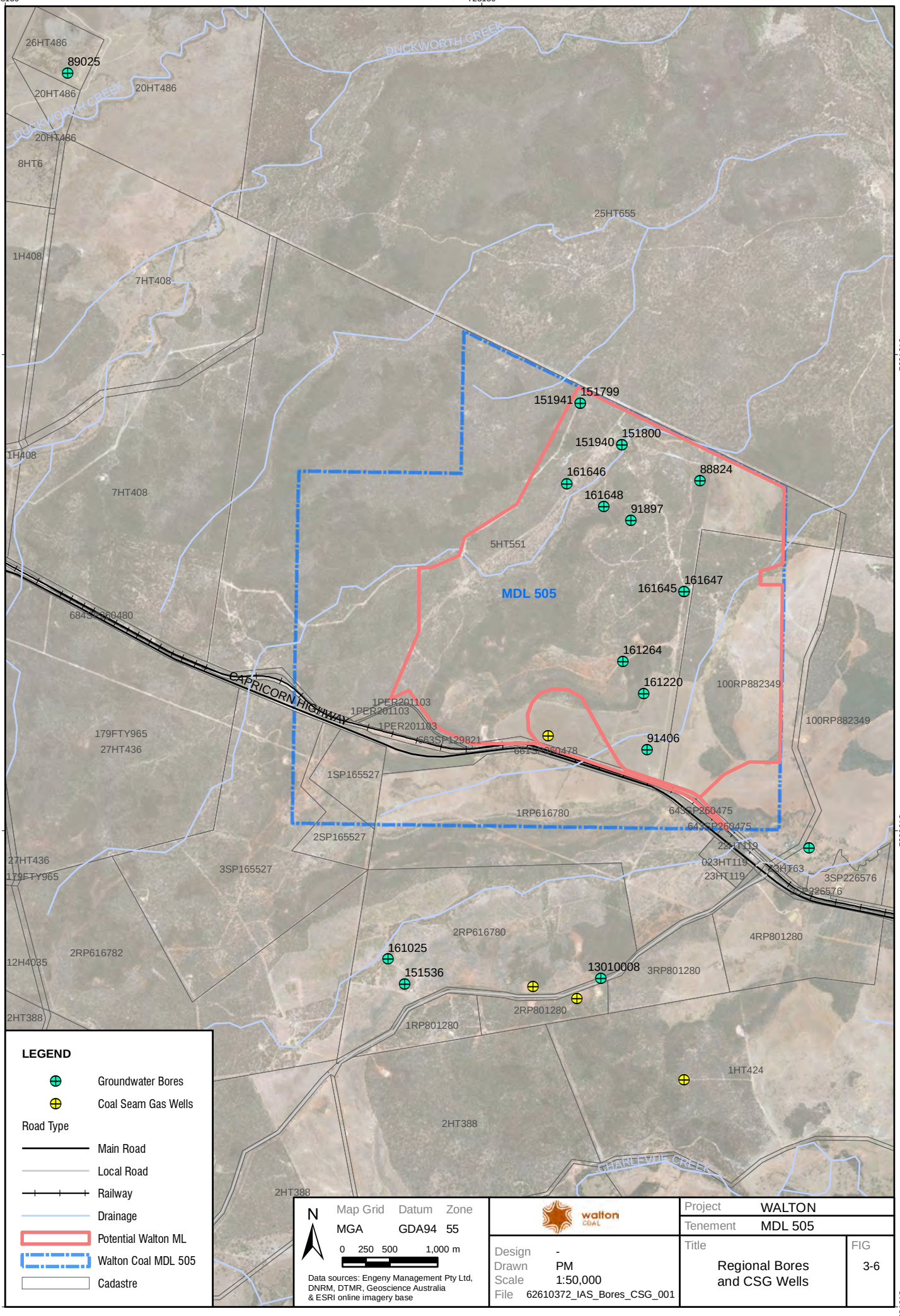
3.4. GROUNDWATER

The Project is within the Highlands groundwater management area and is not within a declared sub artesian area. There are 13 registered groundwater bores within the Project area, a further four within 1.7 km of the southern boundary and one further bore within 5 km, **FIGURE 3-6.** There is also one seam gas well, operated by QGC, that is located within the Project area. **TABLE 3-2** presents the available water quality information for the registered bores within 5 km of the project. It is understood that the background landholder has a number of bores for which detailed water quality information has been kept and will be analysed during the EIS study process.

TABLE 3-2 AVAILABLE GROUNDWATER QUALITY FOR BORES WITHIN 5 KM OF THE PROJECT

Bore	Depth (m)	Date	pH	EC (µs/cm)
RN88824	64	27/04/1993	8.1	3843
RN91897	60	05/02/1996	7.7	14800
RN91406	122	05/08/1994	7.4	9298
RN15136	45.7	25/05/2011	-	1150
RN13010008	80	31/05/2006	-	16100
RN13010008	80	29/07/2013	6.0	12450
RN161646	50	07/07/2017	8.1	2942
RN161646	92	09/07/2017	8.2	29000

As can be seen from **TABLE 3-2**, the groundwater quality varies significantly between bores. Based on EC values, some of the bores may have a quality suitable for limited domestic use (EC < 1,000 µs/cm (drinking)) and or stock watering (EC < 5,000 µs/cm) whilst others (EC > 5,000 µs/cm) have minimal value as a water source. There is potential for impacts to the groundwater of the area through contamination by hydrocarbons and chemicals used as part of the mining operation and drawdown of the resource as a result of open pit mining creating a sink. A groundwater assessment will be required which identifies the underlying stratigraphy and aquifers, models the existing regime, pit inflow conditions and aquifer drawdown scenarios. No Groundwater Dependant Ecosystems have been identified within the Project area, however further assessment will be undertaken to confirm.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723159
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7381618
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CAPRICORN HIGHWAY
CHARLEVILLE CREEK
MDL 505
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151941
151799
151940
151800
161646
88824
161648
91897
161645
161647
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151536
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27HT436
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3SP165527
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2RP616782
12H4035
2HT388
1RP801280
2RP801280
3RP801280
4RP801280
3SP226576
1HT424
LEGEND
Groundwater Bores
Coal Seam Gas Wells
Road Type
Main Road
Local Road
Railway
Drainage
Potential Walton ML
Walton Coal MDL 505
Cadastre
N
Map Grid MGA
Datum GDA94
Zone 55
0 250 500 1,000 m
Data sources: Engeny Management Pty Ltd, DNRM, DTMR, Geoscience Australia & ESRI online imagery base
walton COAL
Design -
Drawn PM
Scale 1:50,000
File 62610372_IAS_Bores_CSG_001
Project WALTON
Tenement MDL 505
Title Regional Bores and CSG Wells
FIG 3-6

3.5. NATURE CONSERVATION

The Project area within MDL 505 contains extensive areas of remnant vegetation. Field-validated mapping was completed during the post-wet season terrestrial ecology site visit undertaken in early April 2017. **TABLE 3-3** details the vegetation types present within the study area and the vegetation types are shown, **FIGURE 3-7**. The majority of the remnant vegetation that may be impacted within the proposed operational footprint is classified as "no concern" with small area of "of concern" vegetation also to be impacted.

TABLE 3-3 FIELD VALIDATED REGIONAL ECOSYSTEMS WITHIN THE PROPOSED DISTURBANCE FOOTPRINT

RE Number	Short Description	Biodiversity Status	Area (hectares) Within Disturbance footprint
11.3.2	Eucalyptus populnea woodland on alluvial plains	Of concern	5.7
11.3.4	Eucalyptus tereticornis and/or Eucalyptus spp. woodland on alluvial plains	Of concern	13.2
11.5.2	Eucalyptus crebra, Corymbia spp., with E. moluccana woodland on lower slopes of Cainozoic sand plains and/or remnant surfaces	No concern at present	144.8
11.5.3	Eucalyptus populnea +/- E. melanophloia +/- Corymbia clarksoniana woodland on Cainozoic sand plains and/or remnant surfaces	No concern at present	6.4
11.7.2	Acacia spp. woodland on Cainozoic lateritic duricrust. Scarp retreat zone	No concern at present	228.9
	TOTAL		**369.0**

The proposed pipeline route by-passes areas of mapped (Queensland Government) regional ecosystems along approximately 92 % of the pipeline length. The remaining approximately 8 % of pipeline adjacent to MDL 505 is to be located within mapped regional ecosystems along existing tracks, fire breaks and adjacent to fence lines, see **FIGURE 1-4**. The pipeline route will be further considered relative to nature conservation values throughout the EIS process.

There are Environmentally Sensitive Areas (ESA's) within and surrounding the Project area. The northern boundary of the Project area is adjoined by Taunton National Park (Category-A Environmentally Sensitive Area (ESA)). A nature refuge, Wallaby Lane (Category C ESA), is also present over the Project area, although predominantly to the west of the coal resource, with only the northern section of the proposed Project area affected. The nature refuge is intended to provide a corridor of native vegetation which links the Taunton National Park and the Walton State Forest (Category C ESA) located to the southeast of the MDL. These ESAs are shown, **FIGURE 3-8**.

Flora

Database searches indicated the potential for 25 threatened or near threatened flora species to occur within 25 km of the MDL 505 boundary. This is considered a particularly high number of species and is likely a result of the close proximity of Taunton National Park and Blackdown Table Land National Park, (approximately 20 km south) of the Project. One conservation significant flora species, Cerbera dumicola (no common name), was identified in the Project area during the post-wet season terrestrial ecology survey (April 2017). An additional species, Bertya pedicellata (no common name), is considered to potentially occur in the Project area. Both of these species are listed as near threatened under the *Nature Conservation Act 1992* (NC Act) and not listed under the EPBC Act. Additional targeted survey effort will be applied to these species during the terrestrial ecology dry season survey.

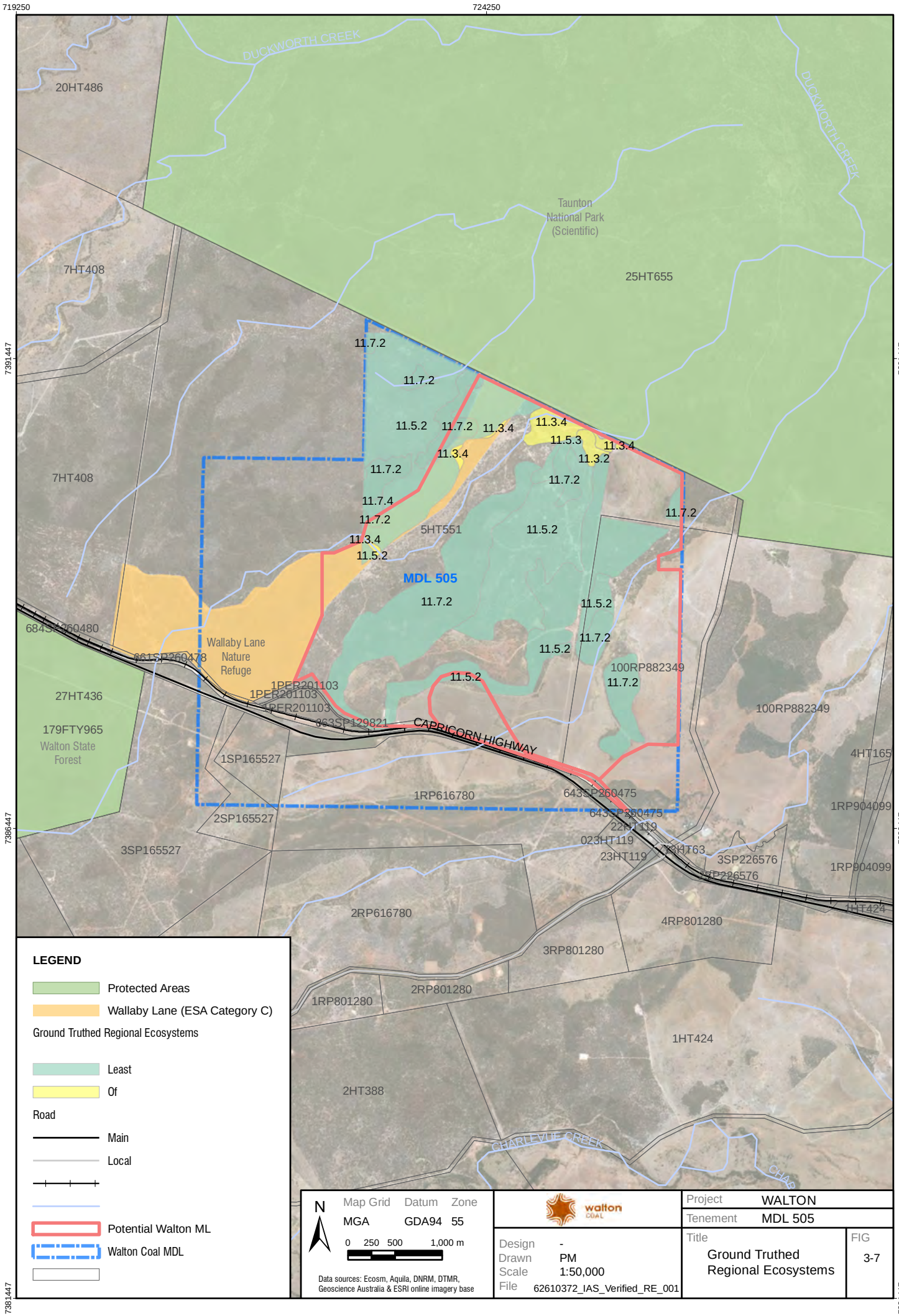
Fauna

Database searches indicated the potential for 24 conservation significant fauna species to occur within 25 km of the MDL 505 boundary . These included 1 amphibian, 10 birds, 8 mammals and 5 reptiles. Habitat mapping of the Project area within MDL 505 was undertaken for each of the fauna species identified or considered likely to occur by database search. Three of the database search species were identified to be present during the post-wet season terrestrial ecology survey (April 2017) and another one is considered to potentially use habits in the Project area. The Koala (*Phascolarctos cinereus*), Squatter Pigeon (*Geophaps scripta scripta*) and Short-beaked Echidna (*Tachyglossus aculeatus*) were identified to be present within the Project area. The Bridled Nailtail Wallaby (*Onychogalea fraenata*) is considered highly likely to move into suitable habitat within the Project area periodically as part of larger home ranges, concentrated in Taunton National Park. The Koala and Squatter Pigeon are each listed as vulnerable under the NC Act and EPBC Act, the Bridled Nail-tail Wallaby is listed as endangered under NC Act and EPBC Act and the Short-beaked Echidna is listed as special least concern under the NC Act, but not listed under the EPBC Act. Additional targeted survey effort will be applied to these species during the terrestrial ecology dry season survey.

Offsets

There are a number of State Significant Values identified as potentially present within the proposed Project disturbance footprint, including essential habitat, regulated vegetation, protected areas and wetland areas (drainage features). It is anticipated that offsets will be required for these areas, as per the requirements of the Queensland *Environmental Offsets Act 2014.* Additionally, offset requirements relative to the EPBC Act *Environmental Offsets Policy 2012* may also be applicable. Baseline studies undertaken throughout the EIS process will refine regional ecosystem and habitat mapping to determine applicable offsets.

The Project's potential impacts on the Wallaby Lane nature refuge are recognised and WC will endeavour to mitigate any adverse impacts by sourcing appropriate offset areas to the west of the current refuge in order to retain connectivity from Taunton National Park to Walton State Forest to the south. The intent is to secure a modified corridor (as part of the broader offset area) under a new land covenant that will provide greater protection than a category C nature refuge. WC will work with the relevant regulatory authorities to achieve this outcome.


719250
724250
7391447
7386447
7381447
DUCKWORTH CREEK
Taunton National Park (Scientific)
20HT486
7HT408
25HT655
5HT551
MDL 505
11.7.2
11.5.2
11.3.4
11.5.3
11.3.2
11.7.4
Wallaby Lane Nature Refuge
684SP260480
661SP260478
1PER201103
663SP129821
CAPRICORN HIGHWAY
27HT436
179FTY965
Walton State Forest
1SP165527
2SP165527
3SP165527
1RP616780
643SP260475
100RP882349
4HT165
1RP904099
023HT119
23HT119
22HT119
3SP226576
1HT424
2RP616780
4RP801280
3RP801280
2RP801280
1RP801280
2HT388
CHARLEVUE CREEK
LEGEND
Protected Areas
Wallaby Lane (ESA Category C)
Ground Truthed Regional Ecosystems
Least
Of
Road
Main
Local
Potential Walton ML
Walton Coal MDL
N
Map Grid MGA
Datum GDA94
Zone 55
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Data sources: Ecosm, Aquila, DNRM, DTMR, Geoscience Australia & ESRI online imagery base
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Design -
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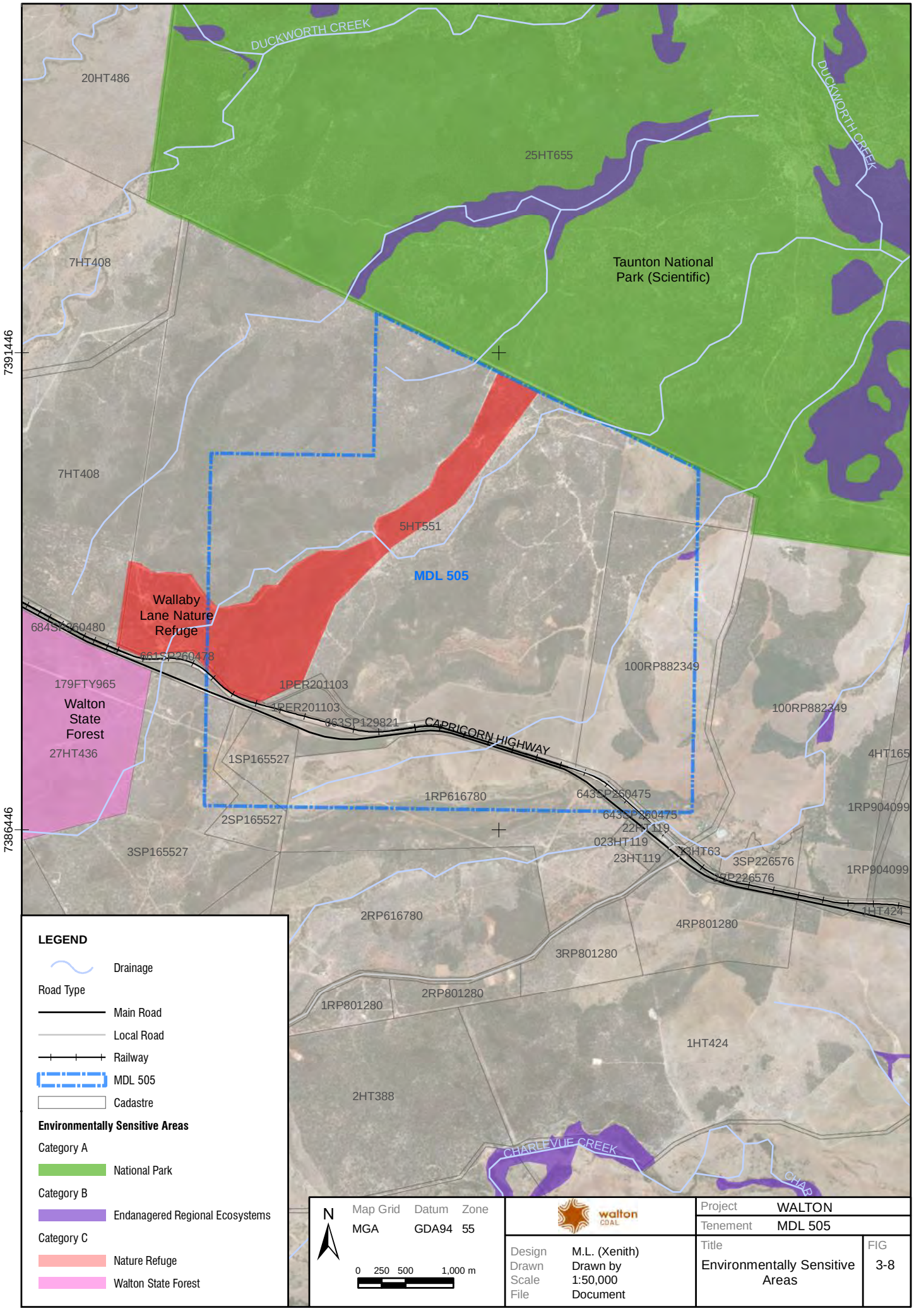
File 62610372_IAS_Verified_RE_001
Project WALTON
Tenement MDL 505
Title Ground Truthed Regional Ecosystems
FIG 3-7


719257
724257
7391446
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DUCKWORTH CREEK
DUCKWORTH CREEK
20HT486
25HT655
7HT408
Taunton National Park (Scientific)
7HT408
5HT551
MDL 505
Wallaby Lane Nature Refuge
684SP260480
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179FTY965
Walton State Forest
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CAPRICORN HIGHWAY
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4RP801280
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2RP801280
1RP801280
1HT424
2HT388
CHARLEVUE CREEK
CHAR
LEGEND
Drainage
Road Type
Main Road
Local Road
Railway
MDL 505
Cadastre
Environmentally Sensitive Areas
Category A
National Park
Category B
Endanagered Regional Ecosystems
Category C
Nature Refuge
Walton State Forest
N
Map Grid MGA
Datum GDA94
Zone 55
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walton COAL
Project WALTON
Tenement MDL 505
Design M.L. (Xenith)
Drawn Drawn by
Scale 1:50,000
File Document
Title Environmentally Sensitive Areas
FIG 3-8

3.6. GREENHOUSE GAS

Greenhouse Gas emissions will be assessed as part of the EIS process. Preliminary estimations indicate that the greenhouse gas emissions for the Project will be in the vicinity of 100,000 tonnes per annum (tpa) of Carbon dioxide equivalent (CO_2-e). This is expected to be comprised of the following approximations:

- Fugitive Emissions from coal mining ~ 32,300 tpa;
- Petroleum Consumption ~ 53,600 tpa; and
- Electricity Consumption ~ 11,570 tpa.

Management strategies to be employed to minimise these emissions include:

- selection of energy efficient plant and equipment;
- operator education and training to minimise wasted hours of operation of equipment;
- trials of substitute fuels e.g. bio-diesel, Liquefied Natural Gas / Compressed Natural Gas; and
- monitoring of energy consumption, especially diesel fuel, and analysis of data to determine correlations between pit design and increasing fuel consumption and then using this data to feedback to influence pit design to save on diesel consumption and thus emissions.

3.7. NOISE AND VIBRATION

Noise and vibration in the region of the Project area is affected by rural activities, local road and rail, and the activities at surrounding mines. Baseline noise monitoring around the Project area commenced in November 2017, however data is yet to become available. The noise regime is likely to be consistent with a rural environment. Noise sources from the Walton Project will include mining (trucks, excavators, dozers, blasting) and processing activities (conveyors, crushers, screens, rail load out). The level of noise at a given receptor will vary depending on the type of machinery in use, traffic in the area and prevailing meteorological conditions. Information from the baseline noise survey and other studies will be used to develop mitigation strategies for the Project. Blasting may also result in off-site impacts. The Walton Mine design processes will confirm the nature and frequency of blasting and this will also be assessed to determine appropriate mitigation measures.

3.8. CULTURAL HERITAGE VALUES

The Project area within MDL 505 has been the subject of previous exploration activity which involved the creation of access tracks and drilling of exploration holes. During these exploration programs, cultural heritage investigations were carried out at all proposed drill sites and over proposed access tracks with the Kangoulu People #2 who held the most recently dismissed Native Title claim over the land. The investigations were carried out in accordance with a cultural heritage management agreement between Aquila and the Ghungalou Aboriginal Corporation as nominee for the Kangoulu People #2.

On proceeding with this development of the Project and the commencement of the ML application process, a Cultural Heritage Management Plan (CHMP) will be required to be developed with the current registered Native Title Claimant group Gaangalu Nation People (QC2012/009) who also constitute the relevant Aboriginal Party under the *Cultural Heritage Act 2003*.

Cultural Heritage values along the pipeline route will also be investigated as part of the EIS process.

The baseline studies will also survey and evaluate the significance of any European settlement that may be present within the Project area.

3.9. NATIVE TITLE

The Project lies within the registered Native Title Claim of the Gaangalu Nation People (QC2012/009). The land on which the pit, dumps, and mine infrastructure area will be located is Freehold and as such Native Title in this area is extinguished. The rail spur and access road and water supply pipeline however may intersect land subject to Native Title and a Native Title agreement will be required with the Gaangalu People for these areas.

3.10. INFRASTRUCTURE IMPACTS

The Project will necessitate the use and development of infrastructure in the region, including:

- power (new connections to the grid, with the possibility of supplementary on-site diesel generation);
- telecommunications;
- water supply pipeline; and
- transport corridor used to access the site and transport the coal product to the chosen export terminal.

The EIS will quantify the scale of infrastructure use and impacts from a local and regional perspective.

3.11. SOCIO-ECONOMIC

All elements of the Project are located in the CHRC area. The Project's primary positive impacts on the socio-economic environment include an increase in local employment and procurement opportunities, as well as training and community development/investment opportunities. Effects such as an increase in the region's population may also result in impacts on local and regional housing markets, access to community services, as well as changes to community values and lifestyles. Through consultation and engagement with relevant stakeholders, the planned EIS studies will examine these impacts and provide recommendations to enhance the benefits of the Project and minimise any potential adverse impacts.

3.12. CUMULATIVE IMPACTS

The cumulative nature of the above potential impacts will be considered as part the EIS process relative to surrounding land uses and potential future uses.

4 Community and Stakeholder Consultation

Community consultation and stakeholder engagement forms an integral component of the assessment process for the Project. WC has and will continue to build strong, lasting relationships with the community and key stakeholder groups, with the objective of providing accurate and timely environmental, social and economic Project information.

The objectives of community and stakeholder consultation will be to:

- initiate and maintain open and honest communication with affected and interested stakeholders on all aspects of the Project;
- identify stakeholder issues and concerns in the relation to the Project via 'a range of engagement methods;
- address stakeholder issues and concerns throughout the approvals process; and
- provide feedback to stakeholders on their issues or concerns and how their comments have been used.

Accordingly, WC will prepare a stakeholder engagement plan that is flexible and will take full account of stakeholder input, respond to feedback and incorporate new stakeholders who may be identified as the EIS process evolves.

To stakeholder engagement plan will involve:

- identifying key stakeholders and determine their level of interest in the Project;
- determining stakeholder level of impact on the Project;
- development of a communication and consultation model;
- selection of appropriate stakeholder communication and consultation tools;
- development of a schedule of activities; and
- ongoing maintenance of documentation of community and stakeholder comments and issues of concern.

Communication and consultation tools will be applied consistent with the level of interest and logistics relative to the individual or group. Communication and consultation tools will include the following options:

- face to face meetings;
- phone meetings;
- group forums;
- written notices and communications;
- newsletters;
- information on the WC Website; and
- media releases.

4.1. INTERESTED AND AFFECTED PERSONS

A list of potentially affected and interested stakeholders have been identified in **TABLE 4-1** and **TABLE 4-2, Figures 4-1** and **4-2** show the relevant local government areas and property boundaries of affected parties.

TABLE 4-1 AFFECTED STAKEHOLDERS

Stakeholder	Category/ Relationship	Contact Details
Trevor Bruce Naughton	Underlying Landholder "Pinegrove" Lot 5 HT551	147 Pine Grove Road Dingo Qld 4702
Leith W.G. Vaughan, Hilary J. Vaughan & Allan W. Vaughan	Underlying Landholder "Red Rock" Lot 100 RP882349	'Redrock Park' Dingo, Qld 4702
Queensland Rail	Underlying Landholder Rail Corridor Lot 661 SP260478	PO Box 198 Rockhampton Qld 4700
QRN Property Pty Ltd	Underlying Landholder – Lot 663 SP129821	Level 1, 305 Edward St Brisbane Qld 4000
Central Highlands Regional Council (Councillor Kerry Hayes – Mayor)	Adjoining and Underlying Landholder (Road)/ Local Council/ Administrator for some off lease activities, including local roads, Coal railing through council area.	PO Box 21, Emerald Qld 4720
Gaangalu Nation People (Comprising Ghungalou Aboriginal Corporation and Nghally Ghungalu Thoonieda)	Registered Native Title Claimant/Cultural Heritage Body	Ghungalou Aboriginal Corporation PO Box 407 The Gap Qld 4061 Nghally Ghungalu Thoonieda PO Box 8225 Allenstown Qld 4700
OME Resources Australia Pty Ltd (QGC)	Underlying Petroleum tenure holder ATP 806	Se 8 66 Mill Point Rd, South Perth, Western Australia, 6151 Australia
BOW CSG Pty Ltd (Mr Vlad Pavic - Tenement Manager)	Underlying Petroleum tenure holder (section of water pipeline) ATP 1025	GPO Box 5262 Brisbane Qld 4001
Department of National Parks and Racing	Adjoining Landholder/ Manager Taunton National Park – Lot 25 HT655	Level 5, 44 Nelson Street Mackay Qld 4740
Sojitz Coal Resources Pty Limited, Tremell Pty Ltd, Jellinbah Group Pty Ltd, Marubeni Coal Pty Ltd	Landholder affected by potential pipeline route - Lot 12 RP861407	GPO Box 374 Brisbane Qld 4001
Ronald Frederick Beak, Paul Ronald Beak, Margaret Susan Beak	Landholder affected by potential pipeline route - Lot 13 RP861407	`Dunluce Station` Bluff Jellinbah Rd, Bluff Qld 4702
David John Horwell	Landholder affected by potential pipeline route - Lot 7 Ht186	25 Platen St Gracemere Qld 4702
Kenneth Donald Mckenzie, Kerry Louise Mckenzie	Landholder affected by potential pipeline route - Lot 1 SP227977	Po Box 144 Blackwater Qld 4717
Andrew Bruce Mckenzie	Landholder affected by potential pipeline route - Lot 2 SP227977	`Wild Horse Creek` 958 Bluff Jellinbah Rd, Bluff Qld 4702
Catherine Heather Hoare, George Thomas Hoare	Landholder affected by potential pipeline route - Lot 20 HT486 and Lot 8 HT6	Po Box 714 Blackwater Qld 4717
Andrew Bruce Mckenzie	Landholder possibly affected by potential pipeline route - Lot 9 HT6	`Wild Horse Creek` 958 Bluff Jellinbah Rd, Bluff Qld 4702
Catherine Heather Hoare, George Thomas Hoare	Landholder affected by potential pipeline route - Lot 7 HT408	Po Box 714 Blackwater Qld 4717
State Government – Department of Natural Resources and Mines - Juanita Joy	Landholder affected by potential pipeline route (property access only) - Lot, 26 HT486 Reserve for Natural Resource Management	PO Box 19 Emerald QLD 4720
Ergon Energy	Regional Queensland Electricity Network owner	PO Box 1090 Townsville Qld 4810
Powerlink	Electricity provider	33 Harold St, Virginia, Qld 4014
Department of Transport and Main Roads – Rockhampton Area	State Government – State Controlled Road Manager (Capricorn Highway)	PO Box 673 Fortitude Valley Qld 4006
Telstra	Telecommunications network owner	Locked Bag 6507 Sydney NSW 2011
Gladstone Ports Corporation	Potential export port operator (RG Tanner Terminal)	PO Box 259, Gladstone Qld 4680
Rockhampton Regional Council	Coal railing through council area.	PO Box 1860, Rockhampton, Qld, 4700
Gladstone Regional Council	Coal railing through council area, coal export from within local council area	PO Box 29, Gladstone Qld 4680
Wiggins Island Coal Export Terminal (WICET)	Potential export port operator	GPO Box 1879 Brisbane Qld 4001
Jellinbah Group (Jellinbah Coal Mine) – General Manager and General Manager Technical Services	Proposed provider of mine water	GPO Box 374 Brisbane Qld 4001

TABLE 4-2 INTERESTED STAKEHOLDERS

Stakeholder	Category/ Relationship	Contact Details
Tanya Marie Olive & Jeffrey Bryan Olive	landholder within 5 km – Lot 1 SP165527	PO Box 67 Bluff, Qld 4702
Benjamin Joseph Olive	landholder within 5 km - Lot 2 SP165527	PO Box 67 Bluff, QLD 4702
Susan Margaret Olive & Dennis Roy Olive	landholder within 5 km - Lot 3 SP165527	PO Box 67 Bluff, Qld 4702
Michelle Joy Beth & Francis Joseph Beath	landholder within 5 km – Lot 1 RP616780	PO Box 48 Bluff Qld 4702
Joan Eileen Bradbury	landholder within 5 km – Lot 4 HT165 & Lot 1 RP904099	20 Dargi St Everton Park Qld 4053
Joy Louise Fernie, & Colin Geoffrey Fernie	landholder within 5 km – Lot 1 HT424	Po Box 320 Blackwater Qld 4717
Jane Elizabeth Geddes	landholder within 5 km – Lot 2 HT388	`Charlevue` 521 Charlevue Rd 4702
Neville Clive Rumpf	landholder within 5 km – Lot 1 &2 RP801280	Po Box 161 Blackwater Qld 4717
Jamie Raymond Saunders	landholder within 5 km – Lot 2 RP616782	500 Charlevue Rd Bluff Qld 4702
Allison Louise Mclaughlin & Aaron Thomas Mclaughlin	landholder within 5 km – Lot 2 RP616780	402 Charlevue Rd Dingo Qld 4702
Crossville Pty Ltd and Rodney Ernest Edgar OHL	landholder within 100 m of potential pipeline corridor – Lot 2 HT518	9 East St Bluff Qld 4702
State Government – Department of Natural Resources and Mines – Juanita Joy	landholder within 100 m of potential pipeline corridor – Lot 6 HT72 – (Reserve For Camping & Water Purposes Bluff-Jellinbah Rd	PO Box 19 Emerald Qld 4720
Ann Catherine Wallin, Fiona Kay Wallin, Christopher Ian Wallin and Sylvia Fay Wallin	landholder within 100 m of potential pipeline corridor – Lot 4 SP255414	1095 Waterworks Rd The Gap Qld 4061
Friends of Taunton	Local interest group	Level 5, 44 Nelson Street Mackay Qld 4740
Fitzroy Basin Association	Local interest group	PO Box 139 Post Central Building Rockhampton Qld 4700
Department of the Environment and Energy	Commonwealth Government	GPO Box 787 Canberra ACT 2601 Australia
Department of Environment and Heritage Protection - Brisbane	State Government – Environmental Assessment Manager	GPO Box 2454 Brisbane Qld 4001
Department of Natural Resources and Mines - Rockhampton	State Government – Mining Tenure Administrator and Operational Safety Regulator	PO Box 3679 Red Hill Qld 4701
Department of Natural Resources and Mines – Mackay - Manager Planning Services	State Government - Natural Resources Manager	PO Box 63 Mackay Qld 4740
Department of Agriculture and Fisheries – Ranger in Charge Duaringa	State Government – Manager Walton State Forest	6 Edward Street, Duaringa Qld 4712
Department of Energy and Water Supply	Regulator for energy and water supply	PO Box 15456 City East, Qld 4002
Queensland Health	State Government - Regional health provider	P O Box 48 Brisbane Qld 4001
Department of Education and Training	State Government - Local schools provider	PO Box 15033 City East Qld 4002
Department Aboriginal and Torres Strait Islander Partnerships	State Government – Indigenous matters	PO Box 883 Rockhampton Qld 4700
Department of State Development - Executive Director, Strategic Policy and Legislation Coordination	State Government - Development	PO Box 15009 Brisbane City East Qld 4002
Queensland Treasury - Senior Advisor (MHF) Hazardous Industries and Chemicals Branch Office of Industrial Relations	State Government – Royalties and revenue	GPO Box 15931 Brisbane City East Qld 4002
Department of Infrastructure, Local Government and Planning - Manager, Legal, Legislation and Policy Services and Manager, Strategic Policy	State Government – Planning and Local Government coordinator	PO Box 15009 Brisbane City East Qld 4002
Department of Communities, Child Safety and Disability Services - Manager, Strategic Policy	State Government – Communities, Strategic Policy and Intergovernmental Relations	GPO Box 806 Brisbane Qld 4001
Department of Tourism, Major Events, Small Business and the Commonwealth Games - Director, Office of the Director General	State Government – Office of the Director-General	PO Box 15168 City East Qld 4002
Department of Housing and Public Works - Manager, Program Performance	State Government – Housing and Public Works	GPO Box 2457 Brisbane Qld 4001

State Emergency Service – Rockhampton area (Blackwater)	Community based Volunteer Emergency Services Provider	PO Box 1397 Rockhampton Qld 4700
Rural Fire Service, Central Queensland	State Government – Rural fire fighting service	2A Andrews Road Emerald Qld 4720
Capricorn Conservation Council	Local Interest Group	PO Box 4011 Rockhampton, Qld, 4700
Queensland Police Service	Regional law enforcement provider	GPO Box 1440 Brisbane Qld 4001
Queensland Ambulance Service	Regional ambulance service Provider	GPO Box 1425 Brisbane Qld 4001
Emerald Chamber of Commerce Inc	Regional business interest group	19 Opal St Emerald Qld 4720
Aurizon	Coal Rail service provider	GPO Box 456, Brisbane Qld 4000
Bluff Hotel	Accommodation provider	Capricorn Highway, Bluff Qld 4702
Bluff Palms Motel	Accommodation provider	16 North St, Bluff Qld 4702
Dingo Hotel Motel	Accommodation provider	16 Normanby St, Dingo Qld 4702
Dingo Caravan Park	Accommodation provider	26 Cairns St, Dingo Qld 4702
Central Highlands Development Corporation	Regional business interest group	PO Box 1425,Emerald Qld 4720
Mr Lachlan Millar	State member for Gregory	PO Box 180 Longreach QLD 4730
Mr Ken O'Dowd MP	Federal member for Flynn	76 Goondoon Street Gladstone, QLD, 4680
Queensland Resources Council	Industry body	Level 13, 133 Mary Street Brisbane, QLD 4000
Australian Minerals Council	Industry body	PO Box 4497 Kingston ACT Australia 2604


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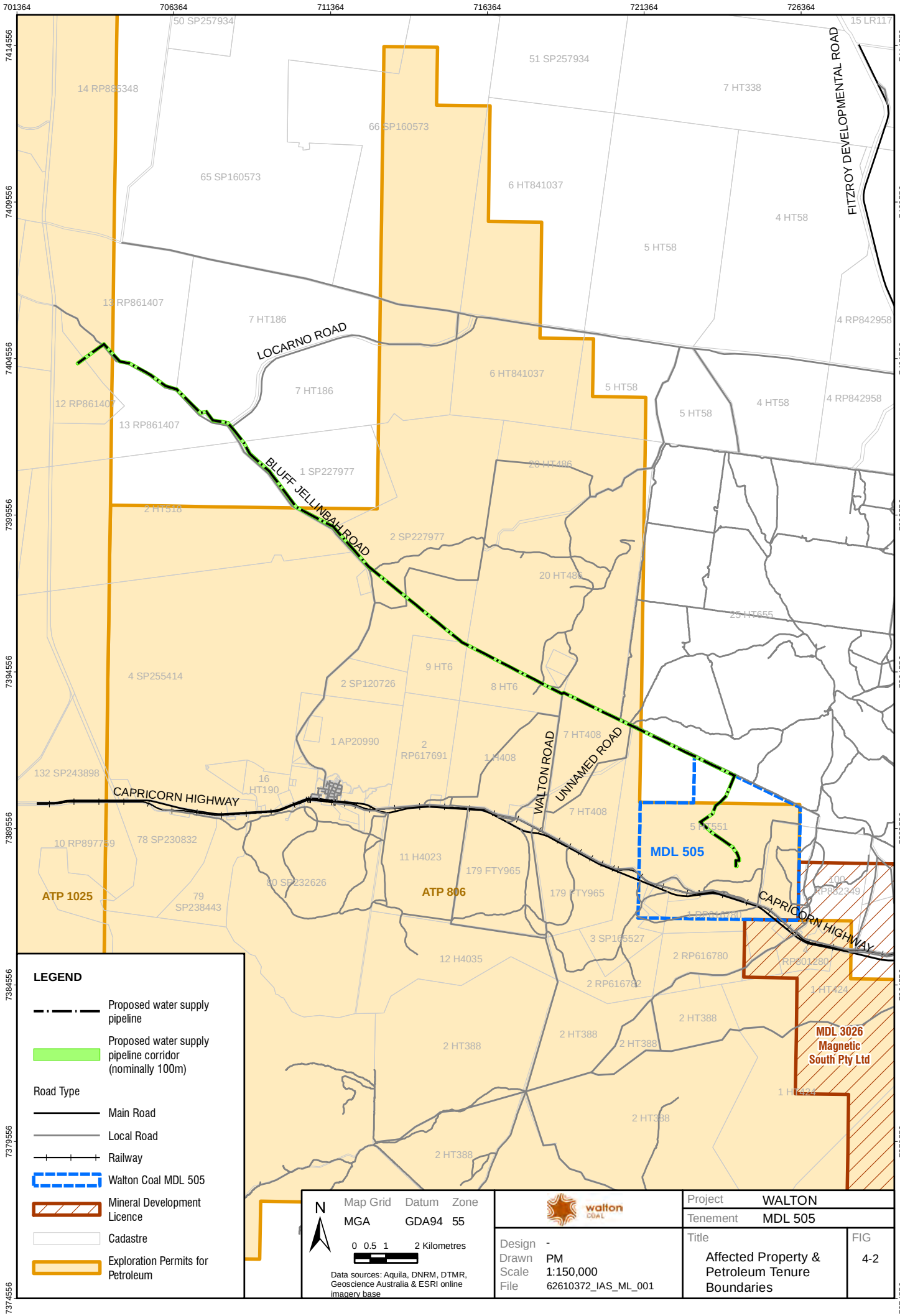
ISAAC REGIONAL COUNCIL
LIVINGSTONE SHIRE COUNCIL
Yeppoon
ROCKHAMPTON REGIONAL COUNCIL
Rockhampton
Bluff
Dingo
Curtis Island
CENTRAL HIGHLANDS REGIONAL COUNCIL
Gladstone
GLADSTONE REGIONAL COUNCIL
Baralaba
Biloela
BANANA SHIRE COUNCIL
NORTH BURNETT REGIONAL COUNCIL
LEGEND
Walton Coal MDL 505
QR Coal Railway Systems
Railway
Blackwater Coal
Goonyella Coal
Newlands Coal
Local Government Areas
N
Map Grid MGA
Datum GDA94
Zone 55
0 10 20 Kilometres
Data sources: Aquila, DNRM, DTMR, Geoscience Australia & ESRI online imagery base
walton COAL
Project WALTON
Tenement MDL 505
Design -
Drawn PM
Scale 1:1,250,000
File 62610372_IAS_Railway_001
Title
Affected Local Government Areas
FIG
4-1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FITZROY DEVELOPMENTAL ROAD
LOCARNO ROAD
BLUFF JELLINBAH ROAD
CAPRICORN HIGHWAY
WALTON ROAD
UNNAMED ROAD
MDL 505
ATP 1025
ATP 806
MDL 3026
Magnetic South Pty Ltd
50 SP257934
51 SP257934
15 LR117
14 RP885348
66 SP160573
65 SP160573
7 HT338
6 HT841037
4 HT58
5 HT58
13 RP861407
7 HT186
4 RP842958
12 RP861407
1 SP227977
2 HT518
2 SP227977
20 HT486
25 HT655
4 SP255414
9 HT6
2 SP120726
8 HT6
1 AP20990
2 RP617691
7 HT408
132 SP243898
16 HT190
10 RP897739
78 SP230832
11 H4023
179 FTY965
80 SP232626
79 SP238443
5 HT551
100 RP882349
3 SP165527
2 RP616780
12 H4035
2 RP616782
1 HT424
2 HT388
LEGEND
Proposed water supply pipeline
Proposed water supply pipeline corridor (nominally 100m)
Road Type
Main Road
Local Road
Railway
Walton Coal MDL 505
Mineral Development Licence
Cadastre
Exploration Permits for Petroleum
N
Map Grid MGA
Datum GDA94
Zone 55
0 0.5 1 2 Kilometres
Data sources: Aquila, DNRM, DTMR, Geoscience Australia & ESRI online imagery base
walton COAL
Design -
Drawn PM
Scale 1:150,000
File 62610372_IAS_ML_001
Project WALTON
Tenement MDL 505
Title
Affected Property & Petroleum Tenure Boundaries
FIG
4-2

5 Environmental Management

WC is committed to operating in an environmentally and socially responsible manner during the approvals, design, construction and operation of the Project.

Environmental matters will be managed by the following commitments as documented in the WC environmental policy statement by:

- complying with legislative requirements;
- communicating effectively with stakeholders; and
- committing to the reduction of environmental impacts.

WC recognises that the above commitments are critical during the Project development stage and has developed a methodical plan to understand the potential environmental impacts of the Project and to achieve all environment expectations of this Project. The environmental impact assessment for each element of the Project will describe the measures that will be taken to prevent or mitigate any potential adverse environmental impacts on the environment, including those outlined in **Section 3**. It will also address the potential for social impacts and present mitigation strategies to manage any potentially adverse impacts, if required.

Environmental management requirements for operations will be stipulated in the regulatory documents that are prepared as part of the approvals process prior to mining (e.g. EA and Plan of Operations). WC will develop and implement an Environmental Management System for the Project to ensure that environmental and social management strategies are implemented, monitored and reviewed throughout the life of the operation and ensure a process of continual improvement is incorporated in its operating practices.

References

KPMG, February 2017. *Coal Price and FX consensus forecasts December 2016/January 2017*. (https://home.kpmg.com/content/dam/kpmg/au/pdf/2017/coal-price-fx-consensus-forecast-december-2016-january-2017.pdf), Viewed 10 May 2017.

Queensland Government, May 2017 https://www.business.qld.gov.au/industries/mining-energy-water/resources/applications-compliance/royalties/calculating/rates , Viewed 10 May 2017.

APPENDIX A

Notification of Referral Decision and Designated Proponent – Department of Environment and Energy

Australian Government
Department of the Environment

Notification of
REFERRAL DECISION AND DESIGNATED PROPONENT – controlled action
ASSESSMENT APPROACH – Bilateral Agreement

Walton Coal Project (EPBC 2017/8077)

This decision is made under section 75 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

proposed action	To construct and operate an open-cut coal mine in the Bowen Basin Central Queensland. [See EPBC Act referral 2017/8077]
decision on proposed action	The proposed action is a controlled action. The project will require assessment and approval under the EPBC Act before it can proceed.
relevant controlling provisions	• Listed threatened species and communities (sections 18 & 18A) • A water resource, in relation to coal seam gas development and large coal mining development (section 24D & section 24E)
designated proponent	WALTON COAL PTY LTD ABN 91 164 474 346
assessment approach	Bilateral Agreement between the Queensland and Commonwealth governments.

Decision-maker

Name and position	James Barker Assistant Secretary Assessments and Governance Branch
Signature	
date of decision	24 November 2017