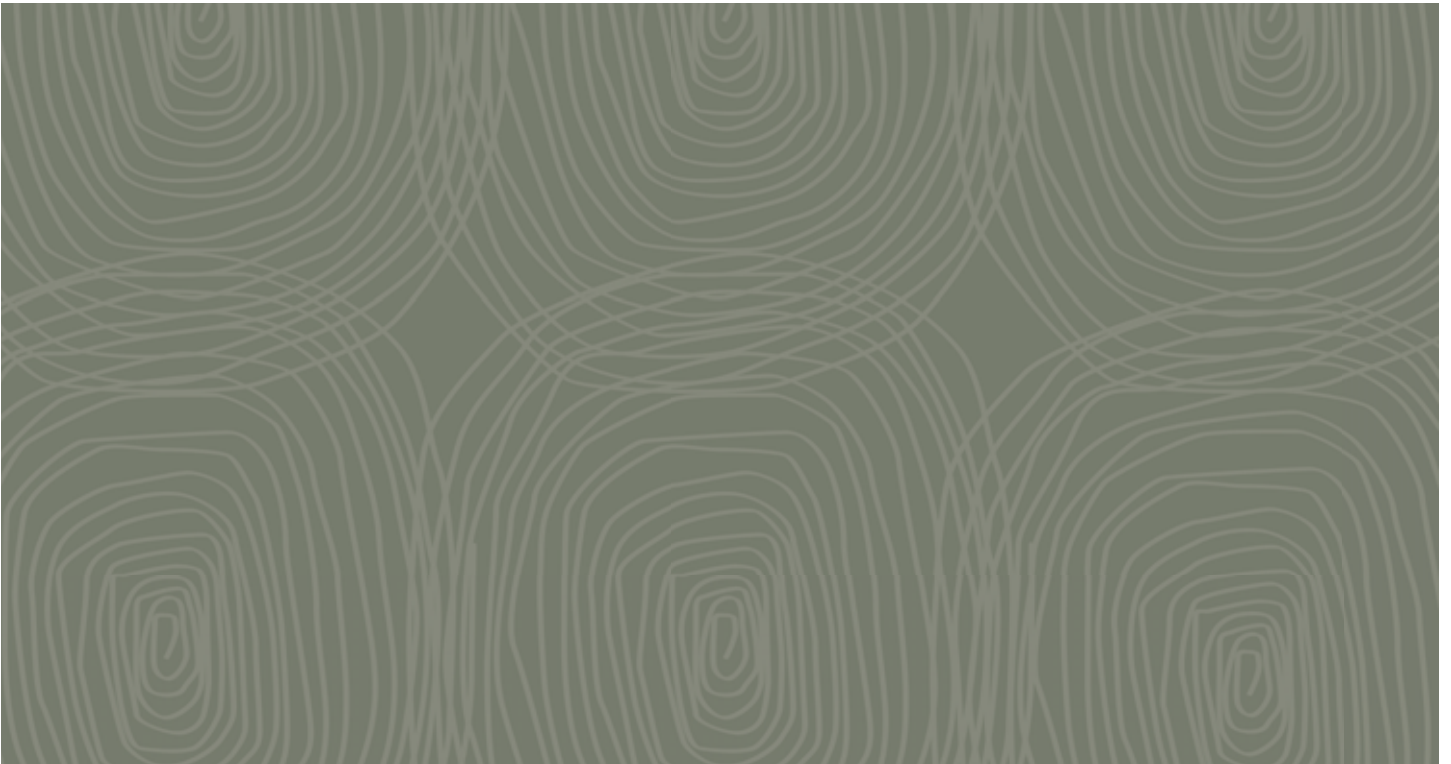


06 | Land Use and Tenure





Section 06 Land Use and Tenure

6.1 Introduction

This section of the Environmental Impact Statement (EIS) assesses the current and proposed land use planning elements of the proposed Project. This section also examines the impacts as a result of the Project and the mitigation methods that will be proposed as a result. In particular, this section includes an assessment of:

- Land tenure and ownership, including land with special purposes and Native Title determinations;
- Existing land uses of the Project area and surrounding environs;
- Agricultural land suitability;
- Existing infrastructure and infrastructure reserves, (e.g. road reserves, easements and stock routes); and
- The regulatory framework of the Project from a local, regional and state-wide planning perspective.

The assessment of land use and tenure characteristics included:

- Desktop analysis of publically available information including aerial photography, local and state government planning instruments and state government database searches;
- Meetings with relevant members of the Project team; and
- Field visits in March 2011.

The Project components are discussed within Volume 1, Section 2.3.

6.2 Location and Land Use Context

6.2.1 Location

The Project area (Mining Lease Application [MLA] 70425) is located in the eastern margin of the Galilee Basin Coal Resource, in the Central West region of Queensland, approximately 65 km north of the township of Alpha (refer to Figure 6-1). Alpha is located on the Capricorn Highway approximately 165 km to the west of Emerald and approximately 245 km to the east of Longreach. Access to the Project area is via Clermont–Alpha Road, which services a small number of large rural properties between the communities of Alpha and Clermont.

Longreach to the west of the Project area is a major rural administrative centre providing a concentration of commercial and government services for the Central West region. Emerald, located approximately 160 kms to the east of the Project area is the commercial and administrative heart of the Central Highlands and services a primary production sector that includes cotton, citrus and the mining industry. Beef cattle grazing is currently the predominant land use within the Central West region, with Longreach benefitting from one of the largest cattle sales yards in Queensland, totalling a throughput of over 90,000 head per annum (Hinchcliffe, 2009).

MLA 70425 is located wholly within the Barcaldine Regional Council area. Barcaldine Regional Council was formed after the amalgamation of the Jericho, Barcaldine and Aramac Shires in March 2008. The Jericho Planning Scheme (local planning scheme) (adopted June 2006) still applies in the



area that was previously the Jericho Shire. Alpha is the administrative hub of the former Jericho Shire providing essential services such as medical, educational and local government services to the surrounding area. Alpha is also the principle place for commerce, business and industry within the former shire area (Hinchcliffe, 2009).

The location of the Project in relation to the former shire area and wider region is shown on Figure 6-2.

6.2.2 Land Use Context

A number of leasehold pastoral properties make up the total area of MLA 70425. Agricultural activities conducted on these properties are generally characterised by low intensity cattle grazing and breeding, with properties that benefit from improved pastures being utilised for stock agistment.

Historically, the Project area has been predominantly used for pastoral activities relating to primary production, specifically for cattle grazing, fattening and breeding. Grazing activity occurs to the east and west of the Project area on partially cleared land of native and buffel grass pastures. Various forms of agricultural infrastructure is present throughout the study area and includes fence lines, bores and windmills, formed and unformed roads and holding yards.

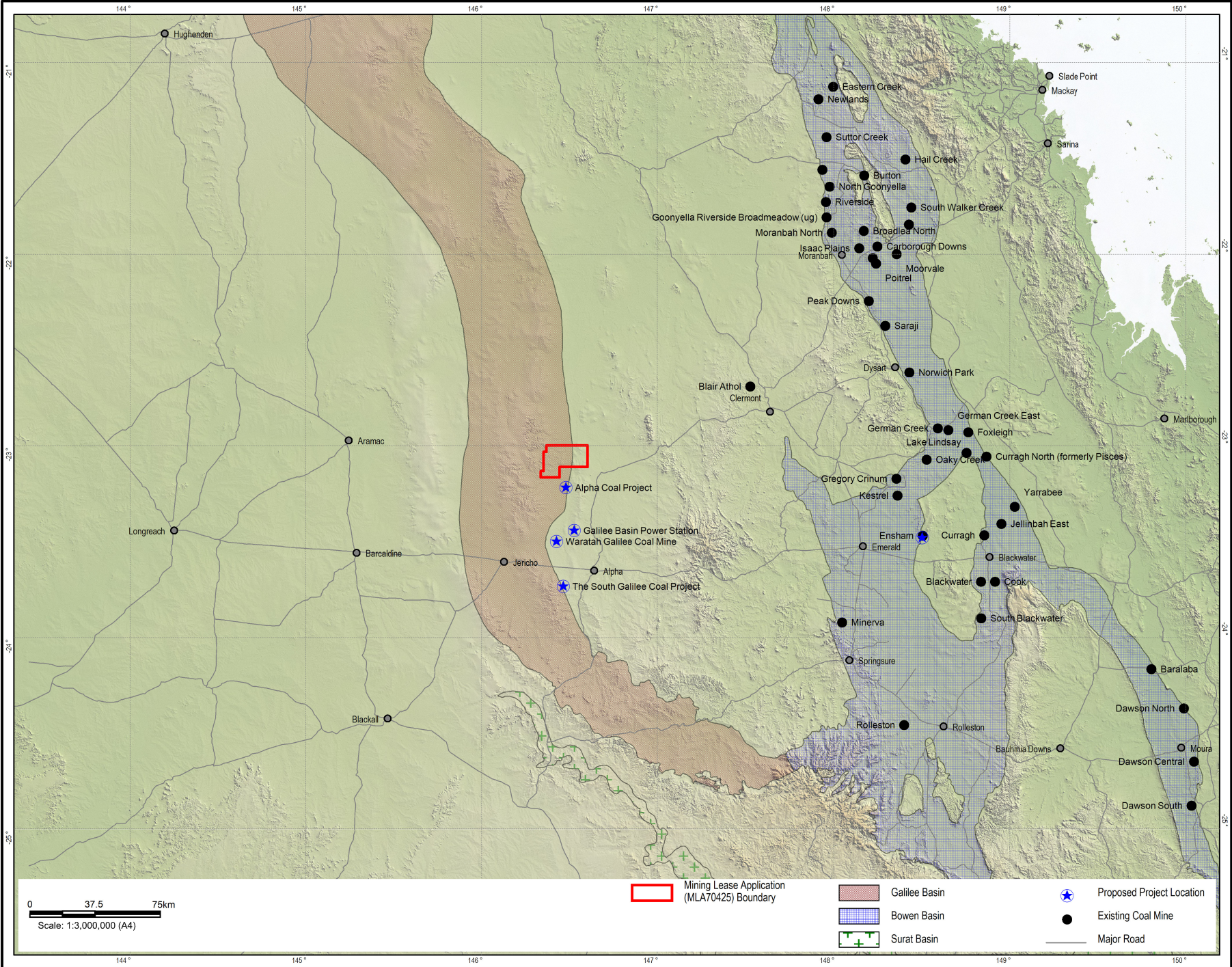
From the 1970s onwards, the Project area and surrounds underwent extensive mineral and petroleum resource exploration by a number of proponents. Remnants of this exploration are located throughout the study area. Mineral resource exploration has been undertaken on all sides of the Project area with underground and open cut mines proposed to adjoin the Project area in various stages of planning. However, mining at present is limited to the sample pit operation at the adjoining Alpha Coal Project.

6.2.3 Biophysical Context

The topography of the Project area varies, but is characterised by large tracts of relatively flat red clay soils interspersed with gently undulating terrain, ephemeral waterways and remnant native vegetation. The geology of the Project area is discussed further in Volume 1, Section 4.

The Project area has been cleared for cattle grazing. However, remnant bushland and scrub remain, particularly along riparian corridors and around agricultural dams within the study area. These creeks and dams provide habitat, movement corridors and water for terrestrial fauna species within the Project area. The dams provide a water source for livestock and other terrestrial fauna and migratory birds, and can be valuable during periods without rainfall. The ecology of the Project area is discussed further in Volume 1, Sections 9 and 10.

The Project area is centrally dissected by Greentree, Sandy and Lagoon Creeks, of which, Greentree and Lagoon Creeks are to be diverted as part of the Alpha Coal Project operations, adjoining MLA 70425 to the south. Several ephemeral creeks are also located within the Project area including Little Sandy, Rocky, Sandy, Lagoon, Middle and Well Creeks. Only the lower reaches of Rocky Creek and Little Sandy Creek are to be diverted as part of the proposed mining operations. Surface Water is discussed further in Volume 1, Section 11.



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Datum: GDA94, MGA Zones5

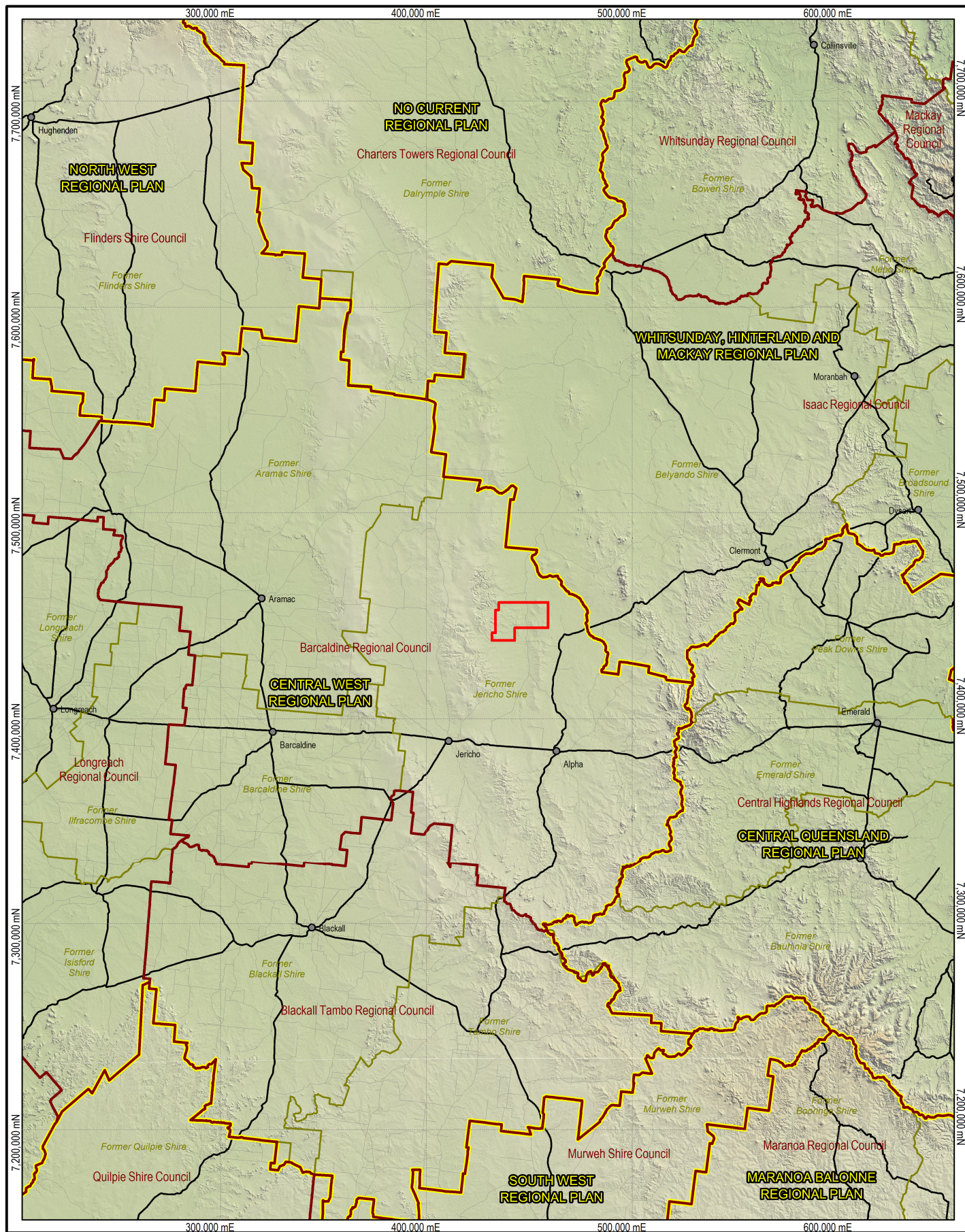


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Kevin's Corner Project
Environmental Impact Statement

WESTERN QUEENSLAND
COAL RESOURCES

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Date | 12-09-2011
Figure: 6-1

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- | | |
|--|------------------------------------|
| Mining Lease Application (MLA70425) Boundary | Regional Plan Boundary |
| Major Road/Highway | Local Government Boundary |
| Minor Road | Pre 2008 Local Government Boundary |

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0 25 50km
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REGIONAL PROJECT LOCATION

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Figure: 6-2

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6.3 Tenure and Tenement Characteristics

6.3.1 Land Tenure

Land tenure underlying the MLA 70425 spans portions of the properties detailed in Table 6-1 below. Land tenure for the site and surrounding area is illustrated on Figure 6-3.

Table 6-1 Land tenure

Property Name	Real property Description	Tenure Type	Size (ha)	Affected Lands (ha)	Primary Use
Forrester	Lot 1788 on PH886	Leasehold	42,475	11,406	Cattle Grazing and Breeding
Surbiton	Lot 681 on PH406	Leasehold	20,719	3,523	Cattle Grazing and Fattening
Surbiton South	Lot 3533 on PH56	Leasehold	19,165	2,918	Cattle Grazing and Breeding
Wendouree	Lot 4994 on PH2232	Leasehold	38,800	17,518	Cattle Grazing and Breeding
Hobartville	Lot 649 on PH1981	Leasehold	56,200	461	Cattle Grazing and Breeding
Cudmore Resources Reserve	Lot 1007 on NPW632	Resources Reserve	6,900	1,673	Protected Area

As shown in Table 6-1, the boundaries of MLA 70425 directly impact on five separate private land holdings and the protected area known as Cudmore Resources Reserve. The adjoining private properties are characterised by large leasehold properties and to a lesser extent, freehold rural land holdings used for the grazing, breeding and fattening of cattle. Cudmore Resources Reserve and the implications surrounding the ingress of the Project into this protected area are discussed further in Section 6.3.4.

Roads and Stock Routes are also located within the Project area and are discussed further in Section 6.5.4.

Current and former land use activities of the land holdings which comprise the Project area are detailed in Section 6.5 and details surrounding homesteads are discussed in Section 6.6.

Negotiation with land owners for the acquisition of the land parcels covered by MLA 70425 is ongoing and is discussed in Volume 1, Section 21.

The Proponent is applying for an "Interest in a Protected Area" beneath Section 34 of the *Nature Conservation Act 1992* (Queensland) (NC Act) in order to obtain approval to carry out the proposed activity beneath a protected area that will be required prior to the commencement of underground activities beneath the area. This matter is discussed further in Section 6.8.2.

6.3.2 Mining Tenements

In accordance with the *Mineral Resources Act 1989* (Queensland) (MR Act), the State (Queensland) is the beneficiary of all coal resources. As such, these resources can only be mined or extracted by a holder of a mining lease beneath the MR Act.

The Proponent (Hancock Galilee Pty Ltd [HGPL]) holds MLA 70425 (Refer to Table 6-2). Global commodity prices have resulted in an increased interest in Galilee Basin coal resources. There are currently a number of proposed coal mining projects in various stages of planning surrounding the Kevin's Corner Coal Mine. Proponents of other mining ventures in the vicinity of the Project area also hold mineral and coal exploration permits that abut the Project area. The mining tenements surrounding the Project area are illustrated on Figure 6-4.

The tenements detailed in Table 6-2 do not authorise the mining of the coal resource, rather they authorize only the prospecting for minerals and coal. In order to extract coal at marketable quantities a mining lease will be required as outlined in Volume 1, Section 2.

Table 6-2 Mining tenements for Project and Surrounds

Tenement	Holder	Status	Date of Application/Grant
MLA 70425	Hancock Galilee Pty Ltd	Application	18/12/2009
MLA 70426	Hancock Coal Pty Ltd	Application	18/12/2009
EPC 1039	Waratah Coal Pty Ltd	Granted	09/03/2007
EPC 1040	Waratah Coal Pty Ltd	Granted	22/06/2006
EPC 1053	Waratah Coal Pty Ltd	Granted	30/08/2007
EPC 1079	Waratah Coal Pty Ltd	Granted	02/11/2007
EPC 1210	Hancock Galilee Pty Ltd	Granted	18/09/2009
EPC 1263	Queensland Thermal Coal Pty Ltd	Granted	02/02/2010
EPC 2065	Shadforths Civil Construction Pty Ltd	Granted	15/10/2010
EPM 16874	Waratah Coal Pty Ltd	Granted	22/12/2009
EPM 16868	Waratah Coal Pty Ltd	Granted	07/12/2009
EPM 17335	Waratah Coal Pty Ltd	Granted	25/11/2009

6.3.3 Petroleum Tenements

Petroleum exploration interests are held by petroleum explorers over the areas covered by MLA 70425. The *Petroleum and Gas (Production and Safety) Act 2004* (Queensland) (P&G Act) establishes a specific regime in respect to applying for a mining lease in an area already covered by an Authority to Prospect (ATP) or Exploration Permit Petroleum (EPP). The petroleum tenures are illustrated on Figure 6-5. Under the Act, a mining lease applicant is obliged to make reasonable attempts to reach an agreement with the holder of the applicable petroleum tenure in relation to its proposed development. Failing agreement, a mining lease applicant may use the statutory process to request the Minister to make a 'preference decision' about whether the coal resource should be developed.



Table 6-3 Petroleum tenements

Tenement	Holder	Status	Date of Grant
EPP 668	Australia Pacific LNG Pty Ltd	Granted	23/04/2007
EPP 744	Comet Ridge Ltd	Granted	15/10/2009
EPP 1044	Queensland Energy Resources Ltd	Granted	25/11/2010

6.3.4 Special Interest

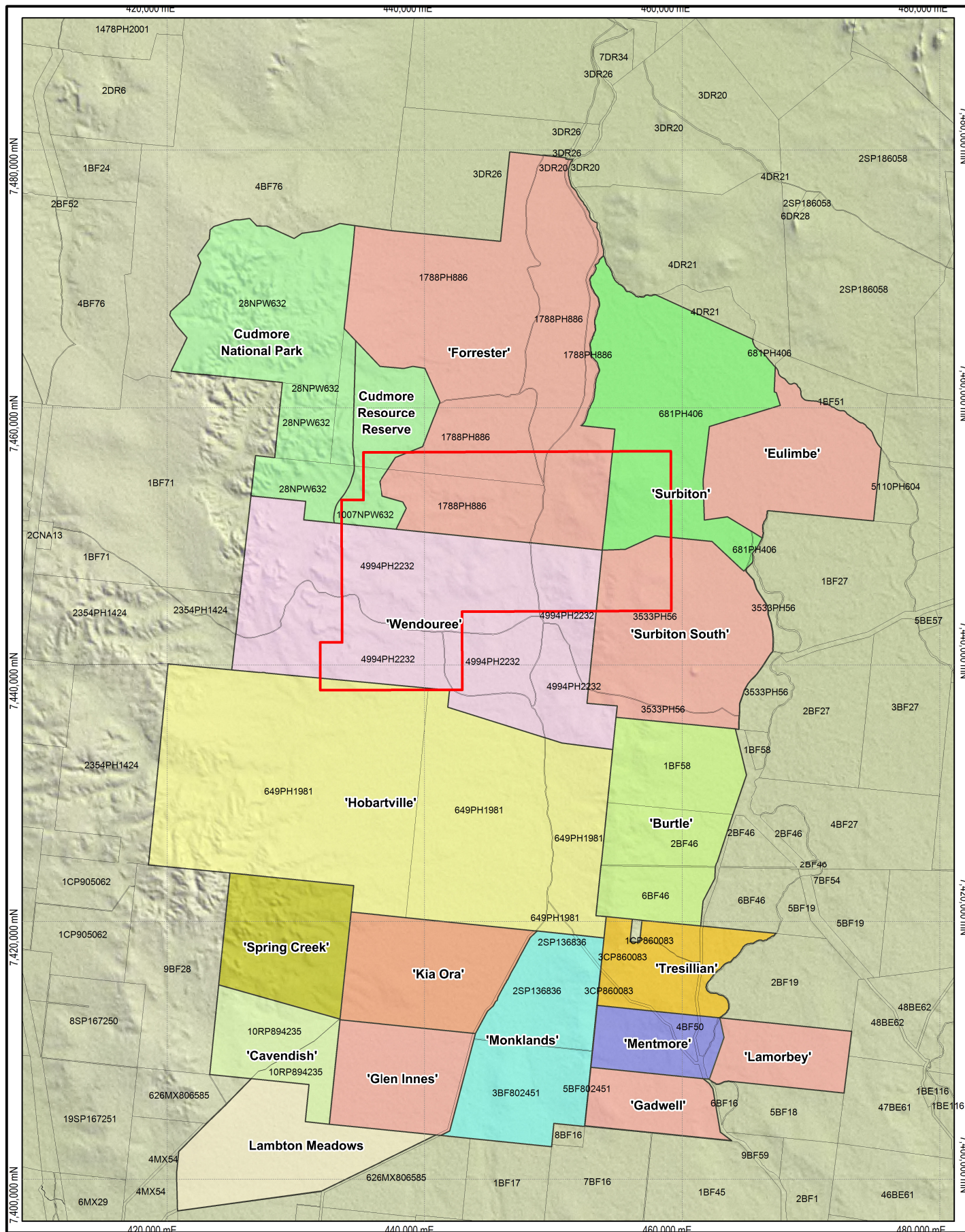
Part of Cudmore Resources Reserve is located within the north-western corner of the Project area. The ecological and cultural values are an extension of the values present in the Cudmore National Park. This reserve has been created recognising its ecological and cultural values as well as the interest in the land for mining purposes.

Cudmore National Park measures 20,400 ha in area and is located approximately 5 km to the northwest of MLA 70425 (refer to Figure 6-10). Classified as a National Park under Schedule 2 Protected Areas of the *Nature Conservation (Protected Areas) Regulation 1994*, the National Park extends to a depth of 50 m below the surface of the subject lands.

MLA 70425 has been identified to ingress under lands that include part of Cudmore Resources Reserve. The extent of ingress and the proximity of tenure of special interest to the Project are exhibited on Figure 6-3 and Figure 6-10. The implications of this are discussed further in Section 6.6.2 and Section 6.8.2.

Cudmore Resources Reserve adjoins Cudmore National Park to the southeast and is properly described as Lot 1007 on NPW632 and measures approximately 6,900 ha in area. 1,673.5 ha of the north-western corner of MLA 70425 ingresses into land identified as the Cudmore Resources Reserve. Cudmore Resources Reserve is listed under Schedule 4 Resources Reserves of the *Nature Conservation (Protected Areas) Regulation 1994*.

There is a third protected area located within the vicinity of MLA 70425. Narrien Range National Park is located approximately 35 km north east of the Project area and is shown on Figure 6-10. The distance from the Project area, proposed transport routes and difference in catchments means that the potential of the Project to impact on the Narrien Range National Park is minimal. As a result, the Narrien Range National Park has not been considered further in this study.



Mining Lease Application
(MLA70425) Boundary

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**SURROUNDING
LAND TENURE**

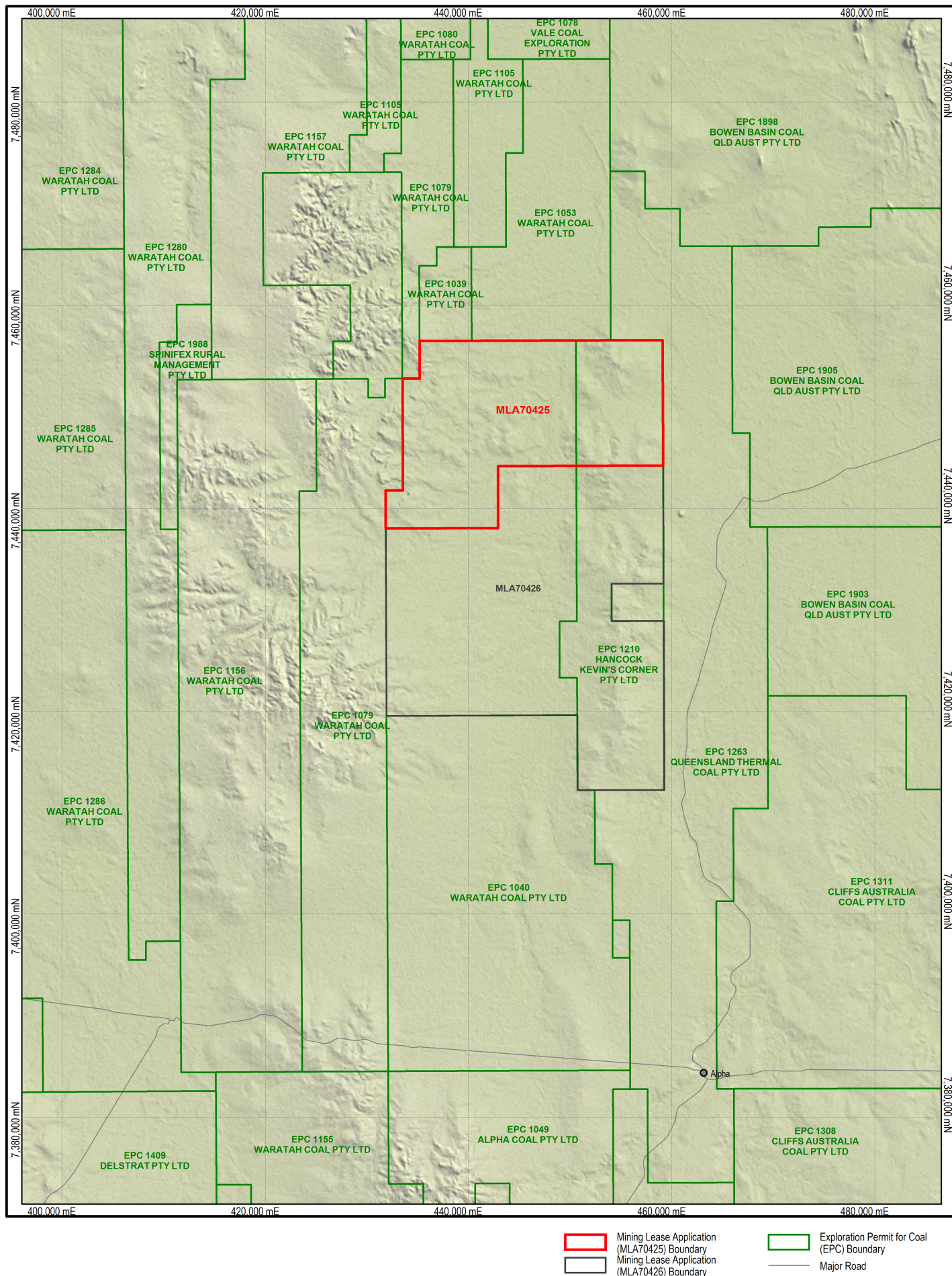
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Figure: 6-3

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SURROUNDING MINING TENEMENTS

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Revision | C
Date | 12-09-2011

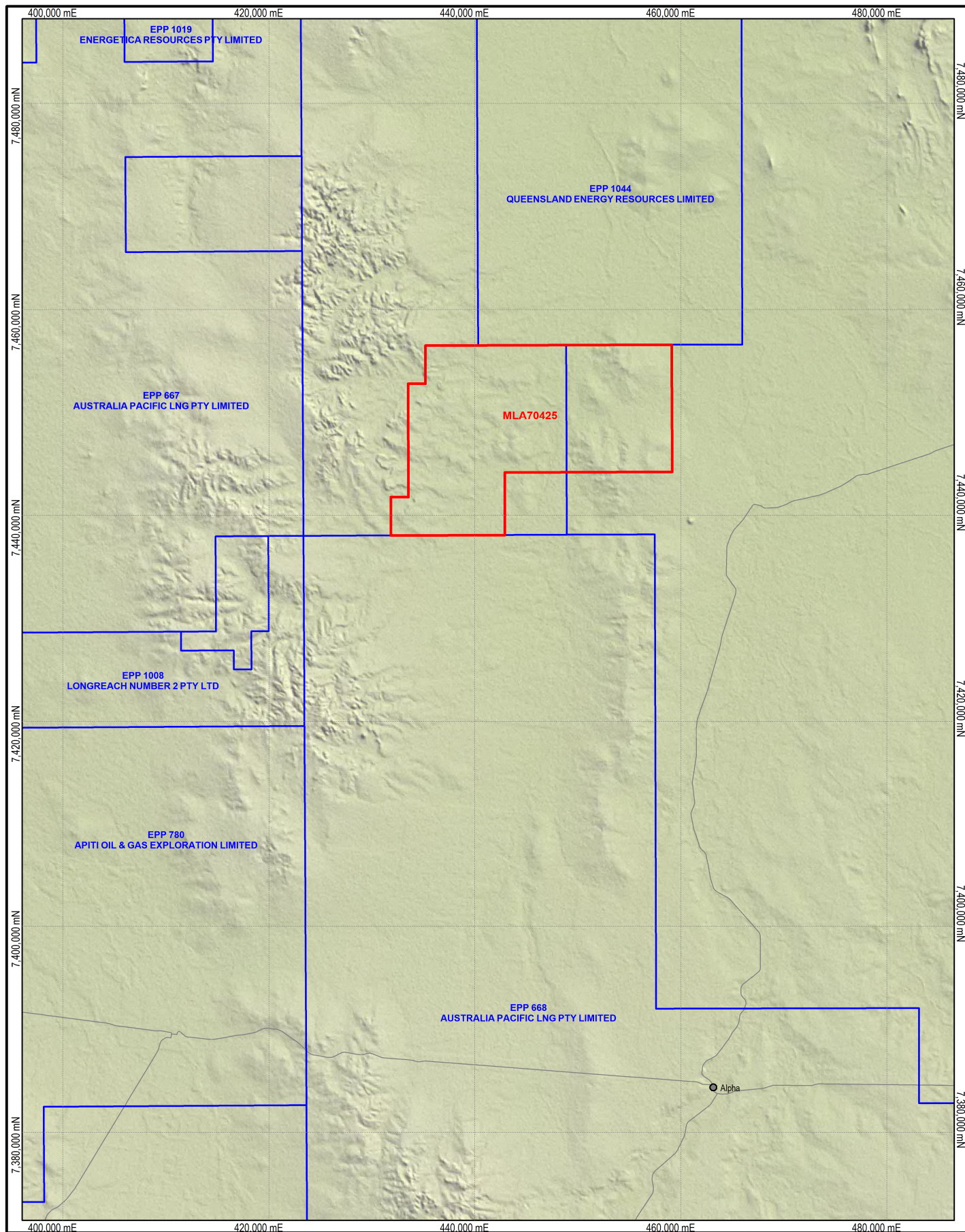
Figure: 6-4

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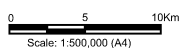
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- Mining Lease Application (MLA70425) Boundary
- Exploration Permit Petroleum (EPP) Boundary
- Major Road

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SURROUNDING PETROLEUM TENEMENTS

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Figure: 6-5

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6.4 Services

6.4.1 Water, Gas and Electricity

No water, gas or high voltage electricity services were identified within or immediately adjacent to MLA 70425. This is not unexpected given the relative isolation from larger communities.

However, as part of Project development, water, power, telecommunications and transport services will need to be established. It is therefore likely that power and water easements will be required on MLA 70425, as noted below.

6.4.2 Utilities Impacts

All services required for the Project will be established either from existing service providers such as Powerlink and SunWater, or through the creation of on-site service provision mechanisms when third party providers cannot satisfy the Project requirements. This will involve the following:

- Water supply for the Project being made available through on-site storage, treatment and internal distribution. Where on-site water supply mechanisms do not satisfy operational requirements a raw water pipeline from Connors River Dam will supplement supply. Water Balance modelling and impacts to the availability of water for the Project is discussed in Volume 1, Sections 11 and 12.
- Power is to be provided by diesel generators during the construction phase of the Project. With connection to the Powerlink Galilee Transmission Project's 275 kV power grid for operations phase. The Project is expected to have a connected load of a total of 259.7 MW during peak operations.

6.4.3 Utilities Mitigation Methods

Construction of the Project will entail the provision of services for operations of the mine itself and ancillary services for the works accommodation village, aerodrome facilities and Light Industrial Area.

Planning, design, approval and construction for the establishment of the PowerLink Lilyvale to Alpha 275 kV high voltage transmission line and the proposed SunWater Connors River Dam to Alpha Pipeline are to be administered and undertaken by the nominated third party providers and are subject to a separate environmental and approvals process.

6.5 Transport Infrastructure

6.5.1 Road Network

6.5.1.1 State Controlled Roads

No state controlled roads are situated within the boundaries of MLA 70425. However, Clermont–Alpha Road is situated to the east of the Project area and provides connectivity between Clermont and Alpha. Access to the Project area is via Clermont–Alpha Road and Degulla Road, which travels west from the intersection with Clermont–Alpha Road. Clermont–Alpha Road is unsealed for the majority of its length apart from approaches to both Alpha and Clermont and creek and river crossings. Clermont–



Alpha Road is primarily used for agricultural traffic connectivity to pastoral properties between Alpha and Clermont.

The Capricorn Highway is a state controlled road that travels east-west between Rockhampton in the east and Barcaldine in the west. The township of Alpha is located on the Capricorn Highway.

Further detail for the surrounding state controlled road network is provided in Volume 1, Section 17.

6.5.1.2 Local Roads

One formed local road and a number of unnamed gazetted roads extend across MLA 70425. These are shown on Figure 6-7 and discussed further within Volume 1, Section 17.

Jericho-Degulla Road traverses the Project area from north to south connecting Forrester Homestead in the north to Wendouree Homestead in the south, with both homesteads situated outside of the Project area. The road also serves as an important link between Clermont-Alpha Road and a number of out-lying homesteads to the north of the Project area.

Access to Cudmore Resources Reserve and Cudmore National Park is provided via Jericho-Degulla Road and Cudmore Road.

Investigations revealed that the formed corridor of Degulla Road which is traversed by vehicular traffic is not situated within the dedicated road reserve for some portions of its alignment. Specifics surrounding this and other matters regarding the local government controlled road network are discussed further in Volume 1, Section 17 of this EIS.

Two sections of unnamed gazetted roads traverse the south-western portion of the Project area in an east-west direction. Traffic utilising the unnamed gazetted roads is generally related to nearby agricultural activities. These unnamed roads generally follow fence lines and provide for the interconnectivity of outlying pasture and adjoining properties. However, these roads also serve a minor role as alternative access routes between Clermont-Alpha Road in the east and Dunrobin Road in the west. Further details regarding the local government controlled road network are discussed in Volume 1, Section 17 of this EIS.

6.5.1.3 Road Network Impacts

Both of the unnamed gazetted roads in the south western corner of the Project area, and the portion of Jericho-Degulla Road that bisects the Project area are to be closed as a result of the Alpha Coal Project occurring immediately to the south. It is proposed that the existing Jericho-Degulla Road within MLA 70425 will be closed to public traffic and relevant bypasses will be constructed to facilitate traffic flow around the Kevin's Corner Project. The proposed works would also interrupt the stock route (refer to Section 6.5.4) currently available within the road reserve. New alignments are to divert around lands subject to the mining lease and provide interconnectivity to those realignments proposed as a result of the Alpha Coal Project.

The Project will also require the creation of an Access Road from Degulla Road to the proposed operations internal to MLA 70425, whilst diverting around MLA 70426 adjoining to the south. Following community consultation, consideration is also being given to road access to the north of MLA 70425.



A Traffic Impact Assessment (TIA) has been undertaken as part of this EIS (Volume 2, Appendix R) and the specifics surrounding road closure and realignment is discussed in Volume 1, Section 17 of this EIS.

6.5.1.4 Road Network Mitigation Methods

The proposed realignments of Jericho-Degulla Road and the unnamed gazetted roads in the south western portion of the Project area will still service their existing catchment networks and provide connectivity to their original destinations.

The section of Degulla Road between the Project area and Clermont-Alpha Road will undergo substantial upgrading to during the construction phase of the Project. This will facilitate all-weather access to and from the Project area by mine vehicles and associated traffic, as well as provide access for the adjacent Alpha Project MLA 70426. Care will be taken in finalising the proposed realignment to ensure it avoids areas of ecological significance.

As shown in Volume 1, Section 2, Figure 2-3, this road closure is part of a proposed road deviation, and a new road, inclusive of a stock route would be constructed to the north and east of MLA 70425 to join into the existing alignment. The proposed road infrastructure is discussed in Volume 1, Section 17 and Volume 2, Appendix R inclusive of the proposed local road closures and proposed road deviations and upgrades. All Project associated bulk material haul roads will be located within MLA 70425. An assessment of the ongoing traffic impacts is provided in detail in Volume 1, Section 17.

6.5.2 Rail

There are no existing rail lines located within MLA 70425. The Project will utilise the Alpha to Abbot Point Rail Project. The location of this line relative to the Project site is shown on Figure 6-6. The establishment of a dedicated rail spur and balloon loop servicing the Project's Coal Handling and Preparation Plant (CHPP) will facilitate coal load out onto dedicated trains. For further details in regards to the rail network, please refer to Volume 3 of the Alpha Coal Project EIS.

The proposed rail spur will travel approximately 17.8 km from the mine to join the Alpha to Abbot Point Rail Project at chainage 30 km, of which approximately 2 km is situated outside the MLA 70425 area. The proposed balloon loop and spur will traverse the northern portion of Surbiton South pastoral holding and partially ingress upon the south-eastern portion of Surbiton pastoral holding and have been located to facilitate alignment with the Alpha to Abbot Point Rail Project while avoiding excessive cuts and/or filled embankments. The chosen alignment is considered suitable for train movements whilst still allowing for an aircraft flight path envelope to service the proposed airport facility. This is shown further in Volume 1, Section 2, Figure 2-5.

6.5.2.1 Potential Rail Impacts

When the Kevin's Corner Project is operating at full capacity, the additional tonnage (30 Mtpa) of marketable coal will effectively double the train and locomotive movements from the Alpha Coal Project. The rail line has been designed to accommodate the expected tonnages from both coal Projects. Further details surrounding impacts in regards to the rail network are provided in Volume 3 of the Alpha Coal Project EIS.



6.5.2.2 Rail Impact Mitigation Methods

Negotiations between landholders affected by the proposed rail corridor alignment and HGPL are currently ongoing. However, care will be exercised in finalising the proposed rail alignment to ensure it avoids any sensitive receiving environments and areas of ecological significance.

Further details surrounding mitigation methods surrounding the rail network are provided in Volume 3 of the Alpha Coal Project EIS.

6.5.3 Airport

As discussed in Volume 1, Section 2.3.5 of this EIS, an airport is proposed to service the FIFO workforce component of the Project. To provide for the expected number of FIFO employees each week the proposed airport has been designed to cater for aircraft up to and including an Airbus A320, with both eastern and western flight paths available.

The airport facility is yet to be fully quantified and scoped, however, it will indicatively include:

- A runway of around 2,500 m in length and 45 m width;
- A passenger screening area;
- An air traffic control tower;
- Access roads with controlled public access to the landside facilities;
- Emergency maintenance and refuelling facilities; and
- Bus depot to transport employees to and from the site.

The final design of the airport facility will require Civil Aviation Safety Authority (CASA) approval.

Volume 1, Section 2, Figure 2-2 and Figure 6-6 depict the location of the proposed airport facility and the proximity to the MLA 70425 boundary.

6.5.3.1 Potential Airport Impacts

Locating an airport facility on rural lands will inevitably have a number of ramifications for the surrounding environs. Impacts from a land use planning perspective are expected to be amenity based issues surrounding:

- Acoustic impacts on surrounding properties from aircraft approach, departure and to a lesser extent, ground movements;
- Visual amenity impacts resulting from the creation of the facility and fly-over's of affected properties;
- Light spillage from operations at the facility;
- Third party heavy vehicle traffic associated with airport operations such as AV1 transport; and
- In the unlikely event of an emergency, emergency response traffic and procedures.

6.5.3.2 Airport Impact Mitigation Methods

The envisaged impacts resulting from the airport facility will be ameliorated through:

- An airport EM Plan and plan of operations, to address flight path issues and hours of operations;



- Operational procedures of the aircraft and flight paths themselves, to address noise and visual impacts; and
- Ongoing negotiations and consultation with surrounding landholders.

6.5.4 Stock Routes

Stock routes are an import component of Queensland's rural infrastructure. Stock routes are utilised for the movement of stock without reliance on the road or rail transport network and provide for alternative agistment areas during times of drought. In recent times, the Queensland stock route network has been utilised by large pastoral companies to move large herds of cattle between various holdings throughout the state and on to markets. Additionally, during times of drought, the network continues to provide pastoralists with opportunities to walk stock to non-drought affected areas or implement long-term drought management strategies (DERM, 2009).

In Queensland the stock route network is administered by both the relevant local government and DERM, with local government being responsible for its day-to-day management, and DERM, as the custodian of the land, providing support, guidance and strategic directions for management (DERM, 2009).

As shown on Figure 6-6 there are two stock route reserves (U291 and U301) that traverse MLA 70425. One bisects the Project area north to south in the eastern portion of MLA 70425 and another reserve is located in the south-western portion of MLA 70425, travelling in an east to west direction.

Consultation with the Stock Route Management Unit of DERM revealed the stock routes that are to be impacted upon by the Project are currently unused and unutilised. No watering points, bores, windmills and holding yards that belong to the state have been identified within the impacted sections of stock routes.

6.5.4.1 Stock Route Impacts

The current alignment of the affected routes will require the closure of the reserves in their current location. Realignment will be necessitated to avoid disturbed areas within the Project area and transport routes proposed for mine traffic.

Discussions surrounding the proposed realignments are continuing with DERM, HGPL and the proponents of adjoining mining operations. As such, final realignments have not yet been developed and negotiations with DERM in this regard are continuing.

6.5.4.2 Stock Route Mitigation Methods

In order to successfully mitigate the potential impacts on the stock route network, HGPL is committed to ensure the following outcomes are achieved:

- Ensure adequate alternatives are proposed to protect existing start and end points and to ensure there is no net loss of connectivity for the network;
- Propose new alignments that share similarities between the existing reserve width and infrastructure provisions such as bores/windmills/holding yards;
- Ensure the newly proposed alignments are suitable for the purpose intended;
- Ensure the safety of stock and people utilising the proposed realignments; and



- The topography and country being traversed is adequate to travel and agist stock.

6.5.5 Future Infrastructure Co-Location

As a result of the Project sites relative isolation, the site is poorly served with infrastructure. Water, power, telecommunications and transportation services will be required within the Project area and to transport product from the Project area. The Alpha Coal Project is unique in that it will be the first project to be developed that provides access to the identified resources within the Galilee Basin. The provision of essential transport and service infrastructure by the Alpha Coal Project is fundamental for the Kevin's Corner Project proposed herein.

Further details surrounding the co-location of infrastructure are exhibited in Volume 1, Section 2.

6.5.5.1 Services Infrastructure Co-location

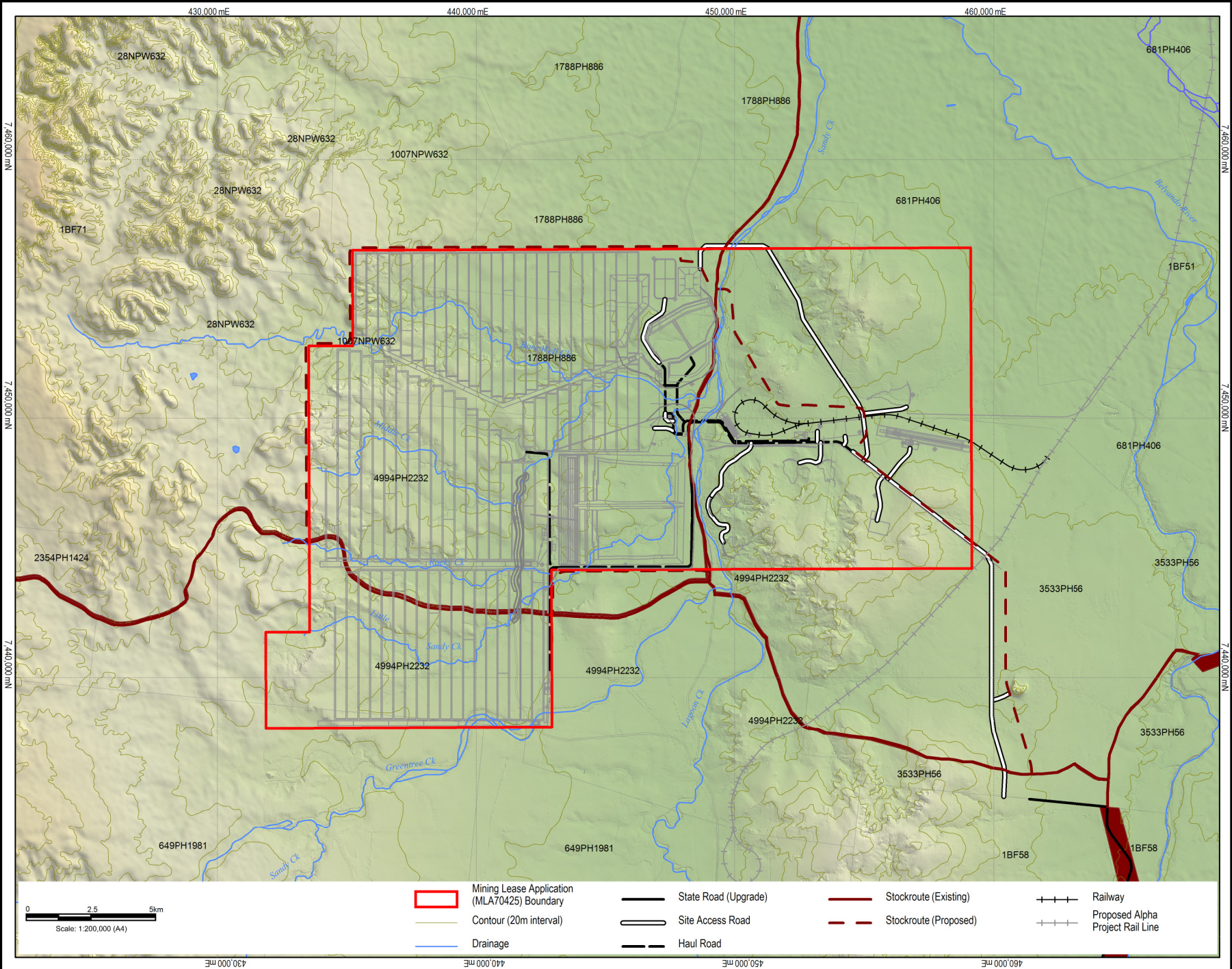
As discussed in Section 6.4, and further detailed in Volume 1, Sections 11 and 12, additional water required for the Project will be made available through the SunWater raw water pipeline proposed to service the Alpha Coal Project through a T-Section and a network of valves. HGPL will enter into supply agreements with SunWater for the provision of water.

Connectivity to the Powerlink high voltage network will be through the establishment of the Galilee Transmission substation at Surbiton South. HGPL will enter into connection and supply agreements with Powerlink for connection to the high voltage network. Refer to Volume 1, Section 2.6.7 (Project Description) for further details surrounding power and high voltage connectivity.

Other types of linear infrastructure such as telecommunications may also be suitable for future inclusion into the easements for the abovementioned uses.

6.5.5.2 Transport Infrastructure Co-Location

A dedicated rail spur and balloon loop will provide access to the Alpha to Abbot Point Rail Project. This will link the Project to the Abbott Point coal export terminal and desired export markets. The rail facility provides for a number of linear infrastructure co-location opportunities. Firstly, for telecommunication services to utilise the corridor, secondly, third party access to the rail corridor and, thirdly, the rail engineering solution that allows for future expansion to service the needs of other users.



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Datum: GDA94, MGA Zones5



Kevin's Corner Project
Environmental Impact Statement

**EXISTING AND
PROPOSED INFRASTRUCTURE**

Job Number: 4262 6660
Revision: C
Date: 12-09-2011
Figure: 6-6

File No: 42626660-g-1019.wor
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6.6 Land Uses and Facilities

This section details existing land uses and facilities of the Project area and the surrounding area. It also details potential impacts likely to occur as a result of the Project and proposed mitigation methods.

6.6.1 Project Area

Figure 6-7 shows the existing land uses over the Project area and surroundings. This figure shows:

- The homestead boundaries within MLA 70425;

6.6.2 Surrounding homesteads;

- Degulla Road;
- Waterways and drainage lines;
- The location of farm bores; and
- An airstrip, established in the 1970's to facilitate mineral resource exploration.

The figure also indicates one farm structure believed to be an agricultural type shed.

From investigations including field visits to the area undertaken in March 2011, land uses within MLA 70425 can be grouped as:

- Bushland;
- Nature conservation (Cudmore Resources Reserve);
- Cattle grazing;
- Coal and mineral resource exploration;
- Formed and unformed roads;
- Areas of Indigenous and non-Indigenous cultural heritage; and
- Farming infrastructure (including access tracks, fences, stockyards and sheds).

6.6.2.1 Agricultural Pursuits

The dominant land use within the boundaries of MLA 70425 is cattle grazing. Primarily, lands underlying the Project area are rural in nature and have been since the time of European settlement in the region. The Project area does not contain any homesteads, however, land uses ancillary to the agricultural activities of the area such as various forms of farming infrastructure are apparent.

Five agricultural land holdings (Wendouree, Forrester, Surbiton, Surbiton South and Hobartville) are located within the boundaries of MLA 70425. The Proponent is currently liaising with the owners of these properties to inform them about the proposed mine and to discuss appropriate compensation agreements. Details surrounding community consultation and stakeholder liaison can be found in Volume 1, Section 21.

Sections of the landscape have previously been cleared and maintained for grazing. Remnant mid height woodland dominated by Boxwood and Ironbark also remains in various locations throughout the



Project area. The areas of remnant vegetation are evident where grazing activities have been limited or restricted. Land cover within the Project area is principally a combination of open forest and woodland with areas of open improved grazing pasture. Several isolated areas have been enhanced through the introduction of fodder species to supplement grazing on native and introduced pastures. Generally, areas that are to be disturbed by mining operations have been cleared for grazing purposes.

The creeks and small farm dams located in various areas of MLA 70425 provide habitat, movement corridors, and water for terrestrial fauna species. The existing small farm dams as shown on Figure 6-7 provide a water source for livestock and other terrestrial fauna and migratory birds, especially when creeks and waterways are dry.

6.6.2.2 Mining and Mineral Exploration

Evidence of mining and mineral resource exploration in the Project area is evident. An airstrip used for the transportation of personnel and equipment to and from the Project area during times of early exploration is located on Wendouree Station. Field visits to the Project area in March 2011 did not find any further evidence of the early mineral resource exploration in the area.

6.6.2.3 Protected Areas

An area comprising 1,673.5 ha of the north-western portion of MLA 70425 is located over lands identified as Cudmore Resources Reserve. Cudmore Resources Reserve is properly described as Lot 1007 on NPW632 and is situated to the east of Cudmore National Park.

The area of Cudmore Resources Reserve which is impacted by the Project area is comprised of relatively uneven terrain constrained in parts by areas of steep slopes.

The regulatory framework and the impacts upon sensitive environmental areas and associated mitigation methods surrounding the ingress of MLA 70425 onto lands identified as Cudmore Resources Reserve is discussed in Section 6.8.2. HGPL is also liaising with DERM regarding an application for an "Interest in a Protected Area" beneath Section 34 of the NC Act in order to enable underground mining beneath lands designated as a Resource Reserve. This issue is discussed further in Section 6.8.2.

The environmental (flora and fauna) values of both Cudmore Resources Reserve and Cudmore National Park are discussed further in Volume 1, Sections 9 and 10.

Evidence of Indigenous and non-Indigenous cultural heritage are also evident in the Project area. The locations and implications of their presence are discussed in Volume 1, Sections 18 and 19, respectively.

6.6.3 Surrounding Area

6.6.3.1 Agricultural Pursuits and Homesteads

Ten homesteads are located within a 25 km radius of MLA 70425. These homesteads are shown on Figure 6-7. Table 6-4 exhibits the approximate separation distances between the homesteads from the MLA 70425 boundary and if these properties benefit from GQAL. These Homesteads are all involved in the rearing of livestock as their primary use.



Land uses ancillary to rural activities such as machine shops and motor vehicle workshops may be present on homesteads surrounding the Project area. However, these uses have not been noted and are considered ancillary to the material use of the property in question.

Table 6-4 Homesteads

Homestead	Proximity to MLA boundary	Bearing & Direction	GQAL Present
Forrester Homestead	4.43 km	2.1 ° North	Awaiting Land Suitability Assessment Results
Surbiton Homestead	2.51 km	57.3 ° East North East	Awaiting Land Suitability Assessment Results
Eulimbie Homestead	5.28 km	72.7 ° East North East	Awaiting Land Suitability Assessment Results
Surbiton South Homestead	9.53 km	113.6 ° East South East	Awaiting Land Suitability Assessment Results
Kingston Homestead	17.24 km	95.1 ° East North East	Awaiting Land Suitability Assessment Results
Burtle Homestead	20.93 km	131.2 ° South East	Awaiting Land Suitability Assessment Results
Hobartville Homestead	21.64 km	170 ° South	Awaiting Land Suitability Assessment Results
Wendouree Homestead	7.25 km	163.1 ° South South East	Awaiting Land Suitability Assessment Results
Speculation Homestead	17.73 km	282.7 ° West North West	Awaiting Land Suitability Assessment Results
Lennox Homestead	24.97 km	296.7 ° West North West	Awaiting Land Suitability Assessment Results

As shown in Table 6-4 the nearest homestead (residence) is 2.51 km from the Project area boundary. This is shown on Figure 6-7 and discussed further in Section 6.8.

6.6.3.2 Mining and Mineral Exploration

There are a number of additional mineral resource exploration projects which are in various stages of planning located nearby to the Project area. Specifically:

- The Galilee Basin Power Station proposed by Galilee Power Pty Ltd, which is a fully owned subsidiary of Waratah Coal Pty Ltd;
- The Waratah Galilee Coal Mine proposed by Waratah Coal Inc, also known as China First;
- Additional Waratah tenements (depicted on Figure 6-2) supporting the above-mentioned Waratah project;
- The South Galilee Coal Project (SGCP), which is a joint venture between AMCI (Alpha) Pty Ltd and Alpha Coal Pty Ltd; and
- The Alpha Coal Project proposed by Hancock Coal Pty Ltd.



Figure 6-3 exhibits the mining tenements relating to these projects and the proponent involved. The relationship, proximity and further discussion surrounding these nearby projects are discussed in Volume 1, Section 2.2.3.

6.6.3.3 Protected Areas

Cudmore Resource Reserve and Cudmore National Park result in a total protected area of 27,300 ha of low-open eucalyptus woodland, occurring on gently undulating terrain with shallow sandy soils. Most of the Cudmore Resources Reserve and the adjoining Cudmore National Park are situated to the immediate north west of the Project area. However, as discussed in 6.6.1.3, a portion (1,673.5 ha) of Cudmore Resources Reserve underlies lands subject to MLA 70425.

Further details surrounding Cudmore Resources Reserve and Cudmore National Park from a land use planning perspective are discussed in Section 6.8.2. The environmental (flora and fauna) values of both Cudmore Resources Reserve and Cudmore National Park are discussed further in Volume 1, Sections 9 and 10.

6.6.4 Land Use Impacts and Mitigation Methods

The Project has the ability to influence the current and future land uses of the Project area and the wider community. The Project will inevitably alter the existing dominant forms of land use of those properties located within MLA 70425, while mining activities are ongoing.

During the construction and operation of the Project the affected land uses will change from those of an agricultural nature to land uses more typical of mining operations and ancillary services to this sector. However, it is not expected that the Project will prevent the continuation of agricultural uses on lands surrounding MLA 70425. Grazing will also be possible on the western portion of MLA 70425 while the mine is operating.

During the operational phase of the Project, the Project site will be used for mining, coal processing, and transport of coal product and associated infrastructure. It is expected that on the mining lease itself, industrial uses ancillary to the mining operations would be developed and may include steel fabricating/engineering, boilermaking industries to service elements of the proposed operations. Other sectors of the local economy may also change, and changes in land use within Alpha Township resulting from this will also occur.

In respect to the value of the coal resource and the relatively limited agricultural value of land within MLA 70425 (refer to Volume 1, Section 23), the proposed development is considered to be a desirable and effective use of the land.

6.6.4.1 Impacts on Surrounding Homesteads and Agricultural Pursuits

The Project has the potential to temporarily impact on existing land use suitability and GQAL over the life of the Project through:

- The proposed mine operations and associated infrastructure;
- Land degradation; and
- Localised contamination of disturbed lands underlying the Project.



The removal of vegetation will also reduce the immediate production potential of the land. Vegetation clearing on the Project in the mining and infrastructure disturbed areas will expose the soil and make it more susceptible to erosion mechanisms.

Inadvertent land contamination may occur via the following methods:

- Wind-blown dust;
- Stormwater runoff from coal stockpiles, the tailings storage facility (TSF), the mining and processing areas;
- Spills of contaminated water from the mining and processing area;
- Effluent from the sewage treatments plants;
- Leachate and windblown rubbish from waste disposal sites;
- Spillage of chemicals or fuel; and
- Potential for acid and metalliferous drainage from mine waste materials.

Land degradation may occur via the following methods:

- Topsoil removal or compaction;
- A reduction in land suitability of the Project, post mining; and
- Increased soil erosion (wind and water) caused by land disturbance.

6.6.4.2 Surrounding Homesteads and Agricultural Pursuits Mitigation Methods

The following strategies will be employed to reduce the impact of land degradation:

- Only the minimum land required for the safe operation of the Project is proposed to be cleared;
- Land to be cleared will be surveyed and marked out prior to clearing and signed off by an appropriate person as defined in the Erosion and Sediment Control Plan, to ensure no significant areas are inadvertently disturbed;
- The disturbed area of the Project will be rehabilitated progressively where possible; and
- Mine rehabilitation will aim to return the land to the pre-mining land conditions except for the final void.

Management of the construction phase of the Project will occur to ensure techniques and methods are adhered to that will sufficiently ameliorate dust, odour, noise and light spillage impacts on surrounding land uses. Details surrounding construction management techniques will be included in the EM Plan contained within Volume 2, Appendix W.

6.6.4.3 Key Resources Area Impacts

Extractive resources are defined as sand, gravel, quarry rock, clay and soil which are used in concrete, asphalt, road bases and a range of other products. They are the raw materials for building homes, hospitals, schools and factories, as well as supporting infrastructure, such as roads, railways, water supply and sewerage systems (Department of Mines and Energy [DME], 2007). Key Resource Areas comprise extractive resources that are considered by the State to be of sufficient importance to be granted statute protection.



No Key Resource Areas (KRAs) are located within the Project area. There are also no KRAs within close proximity to the Project. The closest KRA to the Project is KRA 18 – Benedict Road, located in the Rockhampton Regional Council area. It is therefore considered that direct impacts on KRAs will not result from the Project.

Extractive resources are generally high volume and low cost in nature. This can largely be attributed to their general proximity to their end destination as a product. Whilst no KRAs are identified in proximity to the Project, there may be perceived impacts on local quarry and aggregate materials as a direct result of the Project.

The degree of road upgrades, new road and runway creation, requirements for railway ballast and the general need for construction aggregate to produce cement and other construction materials will put upward pressure on extractive industry resources in the vicinity of the Project and may shorten available supply.

6.6.4.4 Key Resource Area Mitigation Methods

Extractive resources will be sourced in part from disturbed lands resulting from the Project. In order to satisfy the requirements for construction aggregates, Surbiton Basalt Quarry, situated due east of MLA 70425 is intended to be utilised. Buffer areas along haulage routes between the quarry and end destinations during the construction of the Project will be established. Inappropriate development within the Project area will be excluded from these buffer areas.

6.6.4.5 Impacts upon Residential, Rural and Industrial Land Uses and Zoning

The Project will result in changes to the land use of the site itself as the site is currently used primarily for grazing. The area surrounding the Project within the rural zone is unlikely to experience land use conflicts, providing sufficient impact mitigation methods are adhered to during construction and operation.

It is highly likely, with the exception of the potential development of some nearby coal mine projects that current adjacent land uses will continue. However, as previously discussed, earlier land uses will change from those of an agricultural nature to land uses more typical of mining operations and ancillary services and industry. This may result in unplanned and sporadic development in areas surrounding Alpha Township and along Clermont-Alpha Road toward the Project area.

While the Project area is over 65 km away from the Alpha Township, there is expected to be upward pressure placed on land stocks suited for uses for other than those of an agricultural or rural nature. This pressure may not be directly attributed to the activities of the Project.

6.6.4.6 Changes to Residential, Rural and Industrial Land Uses and Zoning Mitigation Methods

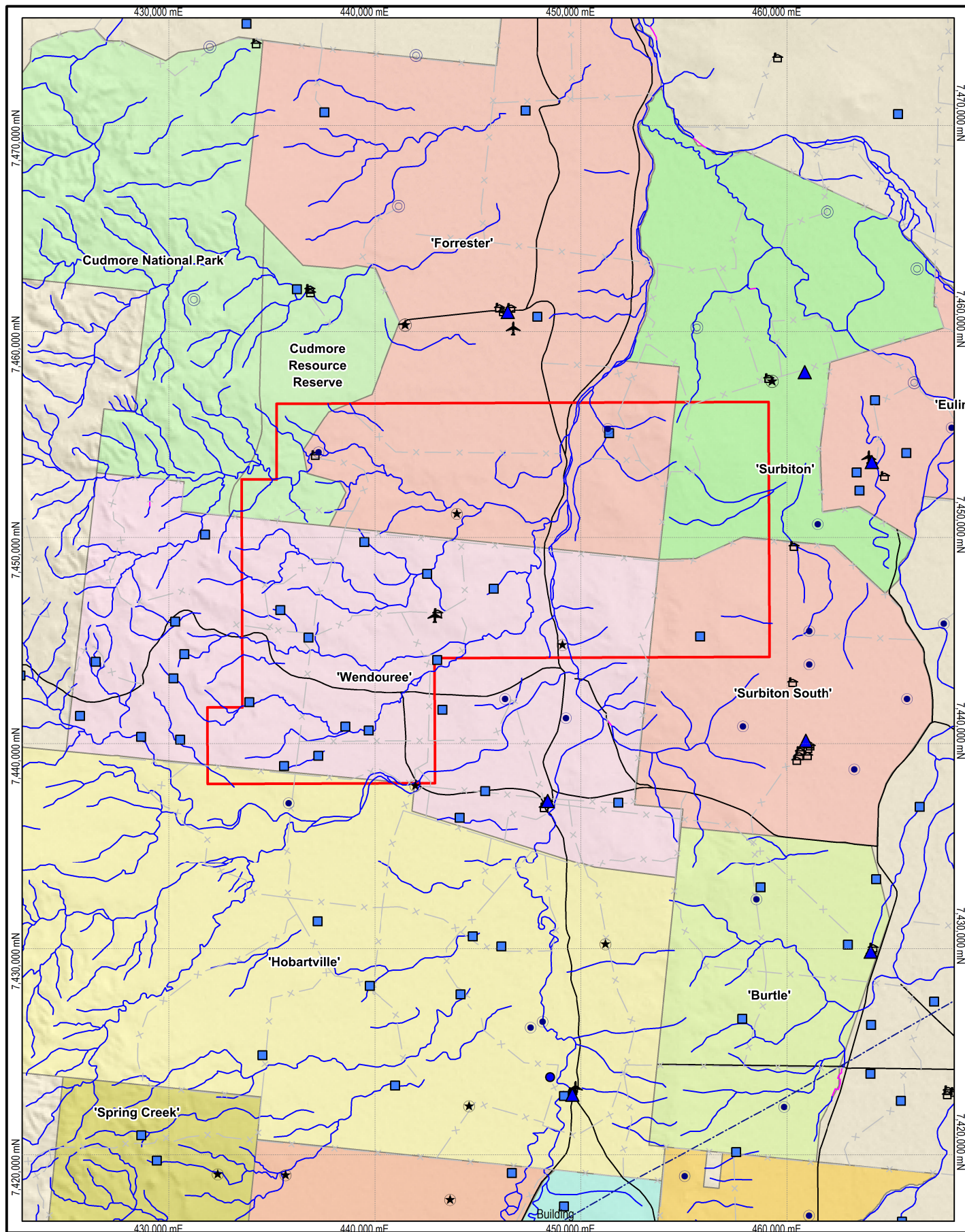
The area surrounding the Project is located within the rural zone and is devoid of urban development. This may result in future material changes to use of land that may be utilised for the provision of services to the mine. Areas within MLA 70425 will change and through subsequent amendments to the local government planning scheme these changes will be reflected in the statutory framework.

In order to overcome the challenges faced by unplanned and piecemeal development that may result from the Project, a number of mitigation methods are recommended for the Barcaldine Regional Council and the Department of Local Government and Planning. These recommendations include:



- A review of all current residential, commercial, community use and industrial land stocks within and around Alpha township to identify available space for future growth;
- A review of statutory planning instruments applicable for the Galilee Basin/Central West Region to allow for the increased development resulting from the Project and other proposed mining operations in the region; and
- A review and amendment of the Jericho Planning Scheme to identify future growth scenarios, locations of future development and prevent ad hoc development in inappropriate locations. This may require changes to the area designation (zoning) of lands surrounding the township to facilitate timely and well planned expansion.





Mining Lease Application (MLA70425) Boundary
 Road

Watercourse
 Powerline
 Fence

Homestead
 Other Building
 Landing Ground

Wind Pump
 Water Tank/Dam
 Bore

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0 2.5 5km
 Scale: 1:250,000 (A4)



HANCOCK GALILEE PTY LTD
Kevin's Corner Project
Environmental Impact Statement

**SURROUNDING
LAND USES**

Job Number 4262 6660
 Revision C
 Date 12-09-2011

Figure: 6-7

Datum: GDA94, MGA Zone55
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6.7 Native Title Provisions

Native title is the recognition by the Commonwealth and State Governments as the laws, the rights and interests over land and water possessed by Indigenous people in Australia, under their traditional laws and customs.

Before European settlement, the land, had been occupied, used and enjoyed since time immemorial by Aboriginal people in accordance with Aboriginal tradition (OQPC, 1993). This traditional use of the land was disrupted in many parts of Australia with European settlement.

Since that time, the High Court of Australia:

- Rejected the doctrine that Australia was terra nullius (land belonging to no-one) at the time of European settlement; and
- Held that the common law of Australia recognises native title rights of Australia's indigenous inhabitants; and
- Held that native title is extinguished by valid government acts that are inconsistent with the continued existence of native title rights and interests, such as the grant of freehold or leasehold estates (OQPC, 1993).

6.7.1 Native Title Impacts

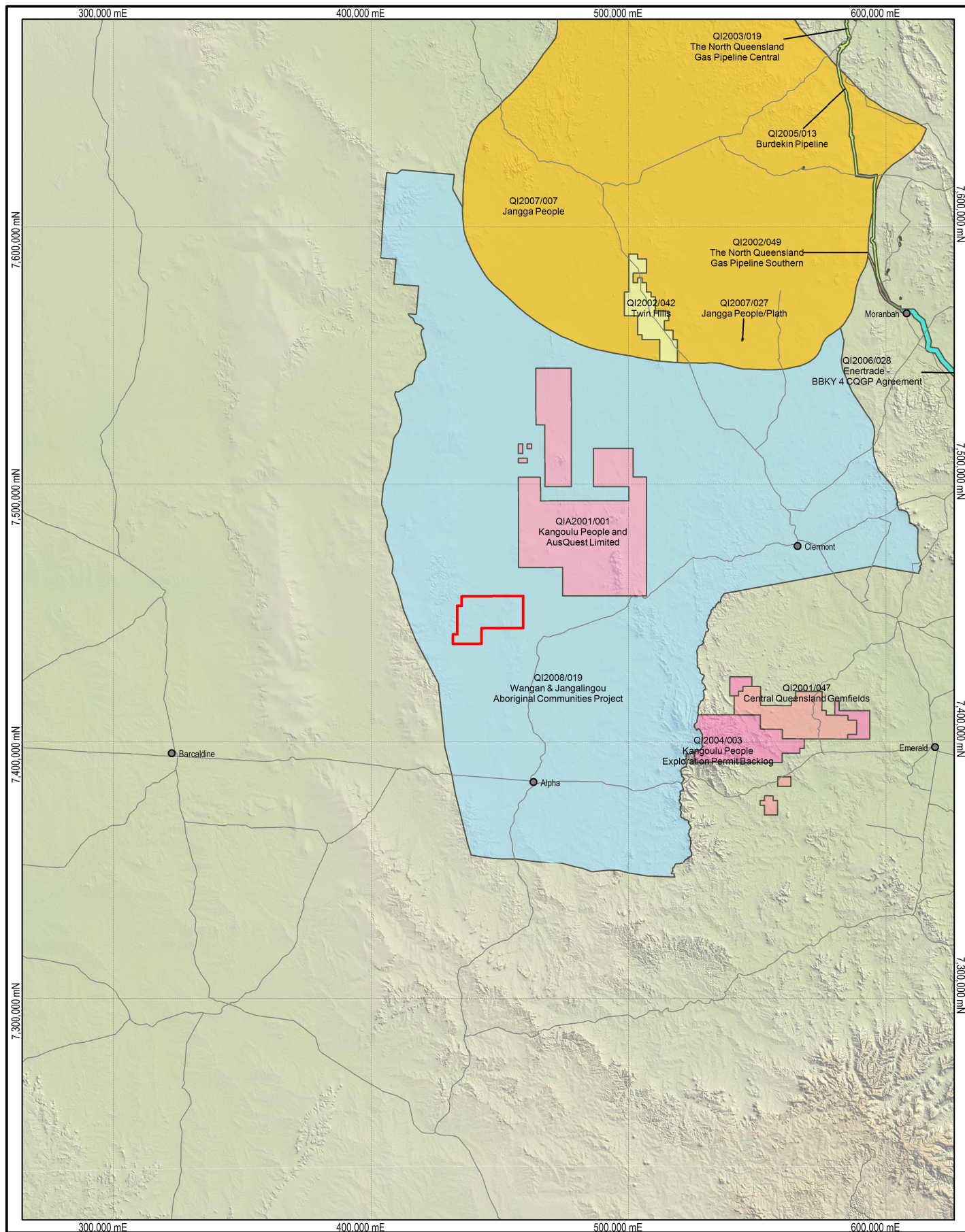
MLA 70425 lies wholly within the Wangan & Jagalingou native title claim boundary (QC04/5, QUD85/04), accepted for Registration on 5 July 2004. The extent of these claims is depicted on Figure 6-8.

6.7.2 Native Title Mitigation Methods

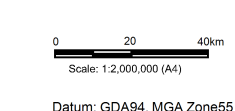
A Cultural Heritage Management Plan (CHMP) for the lands subject to MLA 70425 was approved by the Wangan & Jagalingou Aboriginal Party in January 2010 and ensures that HGPL will abide by all Duty of Care requirements as prescribed by the *Aboriginal Cultural Heritage Act 2003*. In this instance, a CHMP provides for an agreement between the Proponent of the plan (HGPL) and the relevant Wangan & Jagalingou Aboriginal party about how management of the Project will avoid harm to any Aboriginal cultural heritage elements and take all practicable measure to ensure the cultural values of the land are upheld.

Beneath the Commonwealth *Native Title Act 1993*, an ILUA (Indigenous Land Use Agreement) provides a mechanism for interested parties and Native Title claimants to decide upon management practices and activities for the subject area. Consultation between the Wangan & Jagalingou Aboriginal Party and HGPL has led to an ILUA being authorised and executed for the lands of the off tenure rail spur. The Department of Employment, Economic Development and Innovation (DEEDI) has granted formal state government approval for the ILUA.

Right to Negotiate agreements (RTN) have also been approved for MLA 70425.



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NATIVE TITLE DETERMINATIONS

Job Number | 4262 6660
Revision | C
Date | 12-09-2011

Figure: 6-8

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6.8 Sensitive Receptors

Sensitive receptors for the purpose of this study are taken to be any form of “sensitive receiving land use”, including residential and ecological land uses, which may be measurably impacted by the Project.

It is considered that nearby sensitive receptors are expected to be impacted to a degree directly correlated to the separation distance that exists between the Project and the receiving land use in question.

6.8.1 Nearest Residences

All properties surrounding the Project area include a residential land use component. In most instances this is limited to the homestead itself. However, it is not uncommon for larger land holdings to have a workers quarters dwelling or a number of workers quarters situated on the property. These are generally utilised to house the temporary workforce of the property when or if required.

Table 6-4 lists the nearest residences (homesteads) to the Project area and indicates the proximity to the MLA 70425 boundary. The locations of these properties are shown on Figure 6-7.

6.8.1.1 Nearest Residences Impacts

It is expected that the properties detailed in Table 6-4 will be impacted in one form or another by a variety of amenity impacts. These issues may include:

- Dust and other windblown particulate contaminants (Refer to Volume 1, Section 13);
- Noise and acoustic intrusion (Refer to Volume 1, Section 15);
- Reductions in visual amenity (Refer to Volume 1, Section 7);
- Increased vehicular traffic and associated impacts on amenity (Refer to Volume 1, Section 17); and
- Light spillage (Refer to Volume 1, Section 7).

6.8.1.2 Nearest Residences Mitigation Methods

HGPL will be developing an Environmental Management Plan (EM Plan) for the construction and operation of the Project. The EM Plan will propose a variety of management and operational techniques including methods for ameliorating the abovementioned impacts on surrounding residences. Techniques are expected to include, amongst others:

- Dust suppression and particulate matter suppression;
- Acoustic attenuation devices; and
- Vehicle operation guidelines and transport procedures.

6.8.2 Areas of High Ecological Significance

As mentioned in Section 6.3.4, Cudmore National Park is situated immediately to the north-west of the Project area. A portion (1,673.5 ha) of MLA 70425 is located over lands identified as part of Cudmore



Resources Reserve, which adjoins the Cudmore National Park. No part of Cudmore National Park is affected by MLA 70425.

The Narrien Range National Park is located approximately 35 km from the eastern boundary of the Project area and has not been included in the study for the Project due to the separation distance.

Resources reserves are declared over lands which have a high conservation value but cannot be reserved as a national park or conservation park, due to a state interest in another competing resource, such as, areas subject to fossicking, mining or intensive tourism (OQPC, 1992).

Conversely, National Parks are established to permanently preserve the designated area as close to its natural state as possible, while preserving the areas cultural and natural resource values (OQPC, 1992).

Gazetted on 23 October 1998, Cudmore Resources Reserve is designated under the *Nature Conservation Act 1992* as a Resources Reserve and is to be managed in accordance with Section 21 of the *Nature Conservation Act 1992*.

Cudmore Resources Reserve is identified beneath Schedule 2, Part 1 of the *Nature Conservation (Protected Areas Management) Regulation 2006*, as a Resource Reserve placed under the management of joint trustees. Specifically the:

- Environment Chief Executive (DERM); and
- Mining Chief Executive (DEEDI).

The management principles of the resource reserves are generally managed to:

- Recognise and, if appropriate, protect the area's cultural and natural resources;
- Provide for the controlled use of the area's cultural and natural resources; and
- Ensure that the area is maintained predominantly in its natural condition (OQPC, 1992).

During early 2011 HGPL commenced discussions with DERM and DEEDI as joint custodians to seek approval for an "Interest in a Protected Area" in accordance with Section 34 of the NC Act. This section of the NC Act prescribes that a lease, agreement, licence, permit or other authority over, or in relation to, land in a protected area, may only be granted by the chief executive or trustees of the area with the consent of the chief executive. This consent may only be given if the proposed interest is consistent with the management principles of the area and management plan for the area, if a management plan has been approved. As a management plan for Cudmore Resources Reserve has not previously been drafted or approved, the application must generally be in accordance with Section 21 of the NC Act.

Specifically HGPL will seek a Lease beneath the *Land Act 1994* for the life of the mine for an interest in the Cudmore Resources Reserve. This lease will apply to lands subject to the extent of MLA 70425 that are identified to be within the boundaries of Cudmore Resources Reserve.

Areas of High Ecological Significance over that part of Cudmore Resources Reserve located within MLA 70425 are illustrated on Figure 6-9.



6.8.2.1 Potential Impacts

Direct impacts on Cudmore Resources Reserve will involve the establishment of isolated mine infrastructure such as ventilation stacks, associated access routes and include such activities as mine monitoring and exploration. The establishment of such infrastructure will change the existing land use in the immediate vicinity of the infrastructure in question, and ultimately change the high conservation value of the immediate locality approximately 20 to 30 years into the Project life.

The extent of undermining beneath Cudmore Resources Reserve is exhibited within Volume 1, Section 2, Figure 2-9 to Figure 2-14.

Access tracks will be required to service the mine infrastructure to be located within the protected areas. During construction of the mine infrastructure limited areas of disturbance surrounding the isolated locations will be required.

Subsidence is expected to occur in areas of Cudmore Resources Reserve which are to be undermined. This subsidence is likely to have some impact upon the conservation value of the area due to the change in topography. However, no changes to land use or values are expected to result from this. The impacts this will have on the local topography is presented in Volume 2, Appendix J.

Impacts on the ecology of Cudmore Resources Reserve are discussed in Volume 1, Sections 9 and 10.

6.8.2.2 Mitigation Methods

As part of the application for an Interest in a Protected Area, HGPL will prepare a specific management plan for Cudmore Resources Reserve, which includes an Operations Plan, which will detail amongst other things and exhibit the following:

- The need and purpose of the plan;
- The establishment and obligations of the trustees;
- The biophysical, cultural and resource values;
- The management constraints, considerations and parameters required;
- The management framework and contextual fit; and
- An actual construction and operation plan;

This management plan will provide DERM and DEEDI with a management and administrative framework for Cudmore Resources Reserve.

In order to minimise the decrease in natural amenity afforded to the areas impacted, construction management techniques will be employed to ensure minimal land and ecological disturbance, and to retain as far as possible, ecological values associated with the reserve.

6.8.3 Declared Water Storage Catchments

Areas of land that immediately surround water storage areas are termed "declared catchments". Certain types of development proposed within declared catchment areas are referred to DERM during the Integrated Development Assessment System (IDAS) process to ensure the quality of water entering the storage facility is not degraded by the proposed development (DERM, 2011).



Within Queensland there are 20 declared catchment areas administered by DERM, none of which are directly impacted upon by the Project (DERM, 2011).

Specifics surrounding the implications the Project will have on surface water and groundwater are detailed in Volume 1, Sections 11 and 12, respectively.

6.8.3.1 Water storage Catchment Impacts

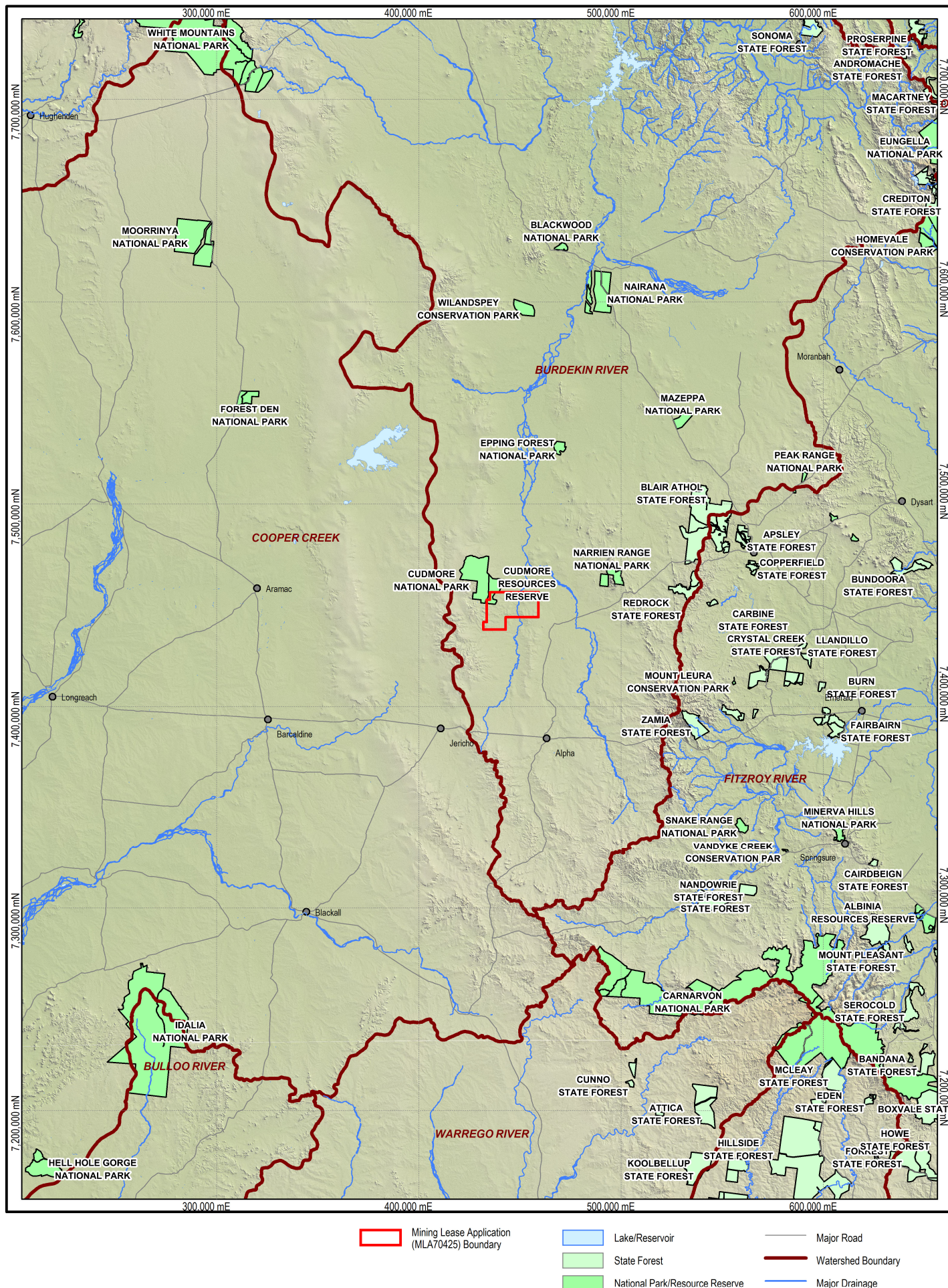
The Project is located within the Belyando Suttor sub-catchment of the Burdekin Basin, with all water falling within the Project area eventually flowing to the Burdekin River (Refer to Figure 6-9) As such, all water extraction and use must be performed in accordance with Burdekin Basin Water Resource Plan 2007 and the Burdekin Basin Resource Operations Plan.

Impacts on surface and ground water quality and availability, including water balance modelling during the construction and operation of the Project are discussed in Volume 1, Sections 11 and 12.

6.8.3.2 Water Storage Catchment Mitigation Methods

Specifics surrounding the use and consumption of water, water quality guidelines and water balance modelling are contained within Volume 1, Sections 11 and 12.

The Environmental Management Plan (EM Plan) also contains aspects in regards to water use and quality and is contained in Volume 1, Section 28.



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ENVIRONMENTAL AREAS

Job Number 4262 6660
Revision B
Date 12-09-2011

Figure: 6-9

0 25 50km
Scale 1:2,500,000 (A4)



HANCOCK GALILEE PTY LTD
Kevin's Corner Project
Environmental Impact Statement

Datum: GDA94, MGA Zone55

File No: 42626660-g-1044.wor

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6.9 Land Suitability

The aim of the land suitability assessment is to evaluate the suitability of the Project area for a variety of relevant land uses. Below, (Section 6.9.1) evaluations are made in accordance with the *Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland – Land Suitability Assessment Techniques* (herein referred to as the Technical Guidelines) (DME, 1995). Further, the outcomes of the land suitability assessment are compared with the distribution of land classified as Good Quality Agricultural Land (GQAL) in the Department of Environment and Resource Management (DERM) *Land Classification System* (2010).

Land is assessed for its suitability for agricultural activities and its relative agricultural importance for the region. This comprises a two part process. Firstly, the Survey Area's overall suitability ranking for each soil type is determined in accordance with the DERM land suitability classification system. Secondly, these suitability rankings are interpreted using the *Planning Guidelines: The Identification of Good Quality Agricultural Land* (DPI, 1993) and translated into Agricultural Land Classes. These land classes are subsequently compared against the local shire planning scheme to determine which classes are considered to be Good Quality Agricultural Land (GQAL) for the specific region.

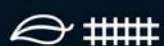
For further details regarding the findings of the Land Suitability Assessment, refer to Volume 1, Section 5.

6.9.1 Land Suitability Assessment

The assessment methodology requires the mapping of land by land suitability classes that refer to the capacity of the land to sustain particular forms of use such as cattle grazing, broadacre cropping, and conservation. These classes are derived through qualitative and quantitative interpretation of the data collected on the physical, chemical and nutritional characteristics of the soil. This system ranks land suitability according to a five-class system (DME, 1995) detailed in Table 6-5 below.

Table 6-5 – Agricultural Land Suitability Class

LS Class	Orders	LS Class Descriptor	Description
1	S Suitable	S1 None/Minor Limitations (Highly Suitable)	Land with negligible limitations, which is highly productive requiring only simple management practices to maintain economic production.
2		S2 Minor Limitations (Moderately Suitable)	Land with minor limitations which either reduce production or require more than the simple management practices of Class 1 land to maintain economic production.
3		S3 Moderate Limitations (Marginally suitable)	Land with moderate limitations which either further lower production or require more than those management practices of Class 2 land to maintain economic production.
4	N Not Suitable	N1 (or S4) Marginal Land (Presently Unsuitable)	Marginal lands with severe limitations which make it doubtful whether the inputs required achieving and maintaining production outweigh the benefits in the long term (presently considered unsuitable due to the uncertainty of the land to achieve sustained economic production)



LS Class	Orders	LS Class Descriptor	Description
5		N2 (or S5) Unsuitable	Unsuitable land with extreme limitations that preclude its use for the proposed purpose.

Criteria that were employed to assess the land use suitability for rainfed broadacre cropping at MLA 70425 were:

- Water availability;
- Nutrient deficiency;
- Soil physical factors;
- Soil workability;
- Salinity;
- Rockiness;
- Microrelief;
- Wetness;
- Topography;
- Water erosion; and
- Flooding

The limitations that were used to assess land suitability for beef cattle grazing within MLA 70425 were

- Water availability;
- Nutrient deficiency;
- Soil physical factors;
- Salinity;
- Rockiness;
- Microrelief;
- pH;
- Exchangeable sodium percentage (ESP);
- Wetness;
- Topography;
- Water erosion;
- Flooding; and
- Vegetation.

6.9.2 Land Suitability Results

The Project area's Soil Types were assessed against the criteria for 'rainfed cropping' and 'broadacre grazing' land utilisation types as per the guidelines.

All Soil Types within MLA 40425 have been classified as unsuitable for cropping due to climatic and soil taxonomic characteristics.

Figure 6-10 illustrates the spatial distribution of pre mining land suitability classes for beef cattle grazing. These Soil Types have been subsequently assessed for their suitability for pastoral activities (beef cattle grazing) (refer Table 6-6).

For further details regarding the preliminary findings and current status of the Land Suitability Assessment, refer to Volume 1, Section 5.



6.9.2.1 Rainfed Broad acre Cropping

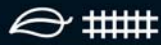
All Soil Types have been classified as unsuitable for cropping due to climatic and soil taxonomic characteristics.

6.9.2.2 Beef Cattle Grazing

Table 6-6 below details the results of the land suitability assessment for beef cattle grazing.

Table 6-6 – Agricultural Land Suitability Class

Land System	Land unit Code	Representative Soil Type (ASC)	Water availability	CEC Rating	Soil physical factors	Salinity	Rockiness	Microrelief	pH	ESP%	Wetness	Topography	Water erosion	Flooding	Vegetation regrowth	Overall Ranking
1. Cudmore	CE1	Brown Sodosol	4	3	2	3	1	1	2	1	2	1	1	2	1	4
	CE2	Petroferic Rudosol	5	4	2	1	3	1	1	1	1	1	1	1	1	5
	CE3	Brown Sodosol	4	3	2	1	1	1	n/a	n/a	2	1	1	2	1	4
	CE4	Brown Vertosol	4	1	2	4	1	1	2	4	1	1	1	1	1	4
	CE5	Stratic Rudosol	3	4	2	1	1	1	2	1	2	1	2	2	1	4
2. Colorado	CO1	Red Kandosol	–	–	–	–	–	–	–	–	–	–	–	–	–	3*
	CO2	Red Kandosol	1	3	2	1	1	1	2	1	1	1	1	1	1	3
	CO3	Lithic Rudosol	3	4	1	1	1	1	1	1	1	1	1	1	1	4
3. Southern Plateau	SP1a	Red Dermosol	1	3	2	1	1	1	2	1	1	1	1	1	1	3
	SP1b	Yellow Kandosol	1	3	2	1	1	1	1	1	1	1	1	1	1	3
	SP1c	Yellow Sodosol	3	3	2	1	1	1	1	1	1	1	1	1	1	3
	SP2a	Red Sodosol	4	3	1	2	1	1	2	2	2	1	1	2	1	4
	SP2b	Brown Dermosol	2	3	1	1	1	1	1	1	1	1	1	1	1	3
	SP3	Red Sodic Dermosol	4	3	2	1	1	1	2	1	1	1	1	1	1	4
4. Joe Joe	JJ1	Red Kandosol	–	–	–	–	–	–	–	–	–	–	–	–	–	3*
	JJ2	Grey Sodosol	3	3	1	1	1	1	2	2	1	1	3	1	1	3
	JJ3	Grey Chromosol	1	3	1	1	1	1	1	1	2	1	1	1	1	3
	JJ4	Brown Chromosol	2	3	1	1	1	1	1	1	2	1	1	1	1	3
	JJ5	Tenosol	4	4	1	3	1	1	2	1	2	1	1	2	1	4
5. Lambton Meadows	LM2	Stratic Rudosol	1	4	1	1	1	1	1	1	1	1	1	2	1	4
	LM3	Stratic Tenosol	3	4	1	1	1	1	1	1	2	1	1	2	1	4
6. Degula	DA2	Red Chromosol	1	3	1	1	1	1	2	1	1	1	1	2	1	3



Land System	Land unit Code	Representative Soil Type (ASC)	Water availability	CEC Rating	Soil physical factors	Salinity	Rockiness	Microrelief	pH	ESP%	Wetness	Topography	Water erosion	Flooding	Vegetation regrowth	Overall Ranking
7. Lagoon Creek	LC1	Yellow Kandosol	1	3	1	1	1	1	1	1	2	1	1	2	1	3
	LC3	Stratic Tenosol	3	3	1	1	1	1	1	2	2	1	1	2	1	3
8. Desert	DT1	Stratic Rudosol	–	–	–	–	–	–	–	–	–	–	–	–	–	3*

6.9.3 Good Quality Agricultural Land

The Study Area, and immediately surrounding land, has also been assessed against the Agricultural Land Class (ALC) system, which is used to identify potential Good Quality Agricultural Land (GQAL) in accordance with the *Guidelines for the identification Good Quality Agricultural Land* (Qld DPI & DHLG&P, 1993) (referred to as the Good Quality Agricultural Land guidelines). Agricultural land is defined as land used for crop or animal production, but excluding intensive animal uses (i.e. feedlots and piggeries). Good quality agricultural land is land which is capable of sustainable use for agriculture, with a reasonable level of inputs, and without causing degradation of land or other natural resources.

The DPI guidelines have been introduced to provide local authorities and development proponents with a system to identify areas of good quality agricultural land for planning and project approval purposes. Descriptions of the agricultural land classes are provided below.

6.9.3.1 GQAL State Context

The GQAL Planning Guideline (Department of Infrastructure and Planning [DIP] / Department of Housing and Local Government Planning [DHLGP], 1993) defines agricultural land quality as:

- Class A – Crop land – Land that is most suitable for current and potential crops with limitations to production which range from none to moderate levels;
- Class B – Limited crop land – Land that is marginal for current and potential crops due to severe limitations, and suitable for pastures. Engineering and/or agronomic improvements may be required before the land is considered suitable for cropping;
- Class C – Pasture land – Land that is suitable only for improved (Class C1) or native pastures (Class C2) due to limitations which preclude continuous cultivation for crop production; but some areas may tolerate a short period of ground disturbance for pasture establishment. This also includes land suitable for light grazing of native pastures in inaccessible areas (Class C3); and
- Class D – Non-agricultural land – Land not suitable for agricultural uses due to extreme limitations. This may be undisturbed land with significant habitat, conservation and/or catchment values or land that may be unsuitable because of very steep slopes, shallow soils, rock outcrop or poor drainage.

DERM has mapped the distribution of land classified as GQAL in the region of the Project (Figure 6-11) at a scale of 1: 500 000 (DPI / DHLGP, 1993), or roughly 1 ground observation per 2,500 – 10,000 ha (Gunn et al. in DPI / DHLGP, 1993).



Within the Jericho Shire Local Government Area, lands classified as Class A, Class B and Class C1 are all considered to be 'good quality agricultural land' (Campbell Higginson Town Planning, 2005; DPI / DHLGP, 1993).

The relationship(s) between soil type, beef cattle grazing land suitability ranking, ALC and GQAL for the project area is outlined below in Table 6-7.

Please note that using the above assessment methodology and assumptions, no GQAL was found within the Project area during the survey.

Table 6-7–GQAL Results

Land System	Land unit Code	Representative Soil Type (ASC)	LS Ranking	ALC Ranking	GQAL
1. Cudmore	CE1	Brown Sodosol	4	C3	No
	CE2	Petroferic Rudosol	5	D	No
	CE3	Brown Sodosol	4	C3	No
	CE4	Brown Vertosol	4	C3	No
	CE5	Stratic Rudosol	4	C3	No
2. Colorado	CO1	Red Kandosol	3	C2	No
	CO2	Red Kandosol	3	C2	No
	CO3	Lithic Rudosol	4	C3	No
3. Southern Plateau	SP1a	Red Dermosol	3	C2	No
	SP1b	Yellow Kandosol	3		
	SP1c	Yellow Sodosol	3		
	SP2a	Red Sodosol	4	C3	No
	SP2b	Brown Dermosol	3		
	SP3	Red Sodic Dermosol	4		
4. Joe Joe	JJ1	Red Kandosol	3	C2	No
	JJ2	Grey Sodosol	3	C2	No
	JJ3	Grey Chromosol	3	C2	No
	JJ4	Brown Chromosol	3	C2	No
	JJ5	Tenosol	4	C3	No
5. Lambton Meadows	LM2	Stratic Rudosol	4	C3	No
	LM3	Stratic Tenosol	4	C3	No
6. Degula	DA2	Red Chromosol	3	C2	No
7. Lagoon Creek	LC1	Yellow Kandosol	3	C2	No
	LC3	Stratic Tenosol	3	C2	No
8. Desert	DT1	Stratic Rudosol	3	C2	No

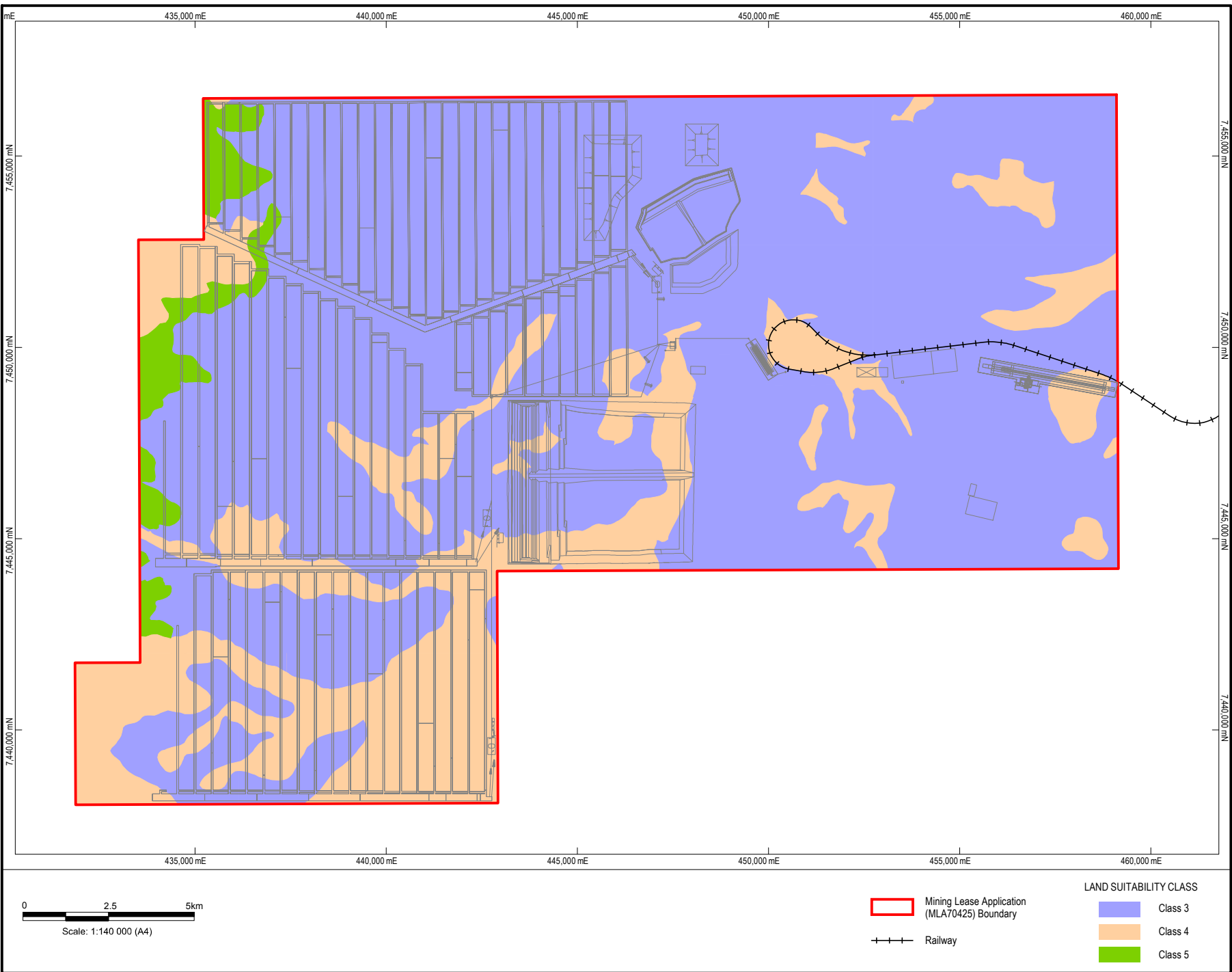
The areas of GQAL relevant to the former Jericho Shire according to SPP 1/92 are depicted on Figure 6-11 overleaf. There are a number of inconsistencies between the results of the soils survey and the SPP mapping.



6.9.4 Strategic Cropping Land

The Queensland Government considers that the best cropping land, termed strategic cropping land, is a finite resource that must be conserved and managed for the longer term. As a general aim, the exercise of planning and approval powers should be used to protect such land from those developments that lead to its permanent alienation or diminished productivity.

An initial review undertaken of the Strategic Cropping Land trigger maps (Map C3 – Alpha Region) indicates that Strategic Cropping Land is not situated within or adjacent to MLA 70425.



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Datum: GDA94, MGA Zone55



HANCOCK GALILEE PTY LTD
Kevin's Corner Project
Environmental Impact Statement

LAND SUITABILITY RESULTS (BEEF CATTLE GRAZING)

Job Number | 4262 6660
Revision | A
Date | 20-09-2011
Figure: 6-10

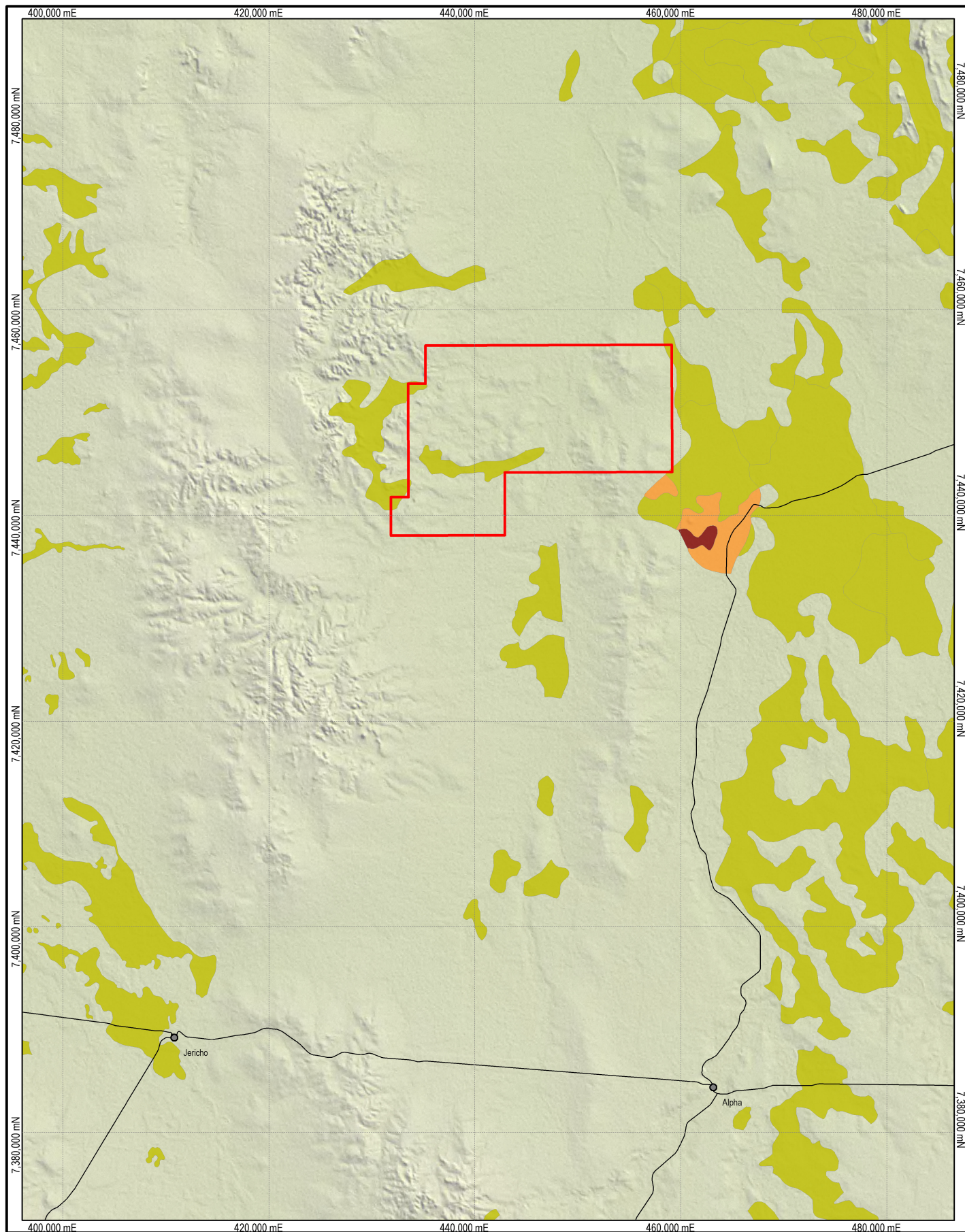
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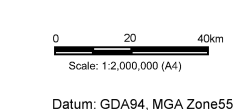
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- Mining Lease Application (MLA70425) Boundary
- Major Road
- Class A
- Class B
- Class C1

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Kevin's Corner Project
Environmental Impact Statement

**GOOD QUALITY
AGRICULTURAL LAND
(SPP 1/92)**

Job Number | 4262 6660
Revision | B
Date | 12-09-2011

Figure: 6-11

File No: 42626660-g-1045.wor

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6.10 Statutory Land Use Planning Assessment

The proposed mining activity is located within MLA 70425 granted under the *Mineral Resources Act 1989* (MR Act). In Queensland all aspects of development of a mining activity for which an Environmental Authority (EA) (mining activity) applies are exempt from the *Sustainable Planning Act 2009* (SP Act) and therefore are exempt from assessment under the local authority planning scheme in accordance with:

- Schedule 4 Table 5 of the *Sustainable Planning Regulation (2009)* where mining and petroleum activities (as defined under the MR Act) are determined to be development that cannot be declared to be development of a particular type and are therefore exempt from assessment from a planning scheme; and
- Section 319 of the MR Act, which states, “the Planning Act does not apply to development authorised under this Act”.

The Project is wholly located within the Barcaldine Regional Council area.

Despite the exemptions stated above, an assessment has been undertaken of State, regional and local planning provisions pertaining to the proposed mining activity as required by the Terms of Reference (TOR). This has been undertaken to determine compliance with the local and regional planning instruments including State Planning Policies (SPPs) in order to gain an understanding of the local planning considerations, identify any land use planning issues and to ensure the Project is consistent with the local government's intention for the area.

Other components of the Project are located off-tenure and may therefore be subject to statutory land use planning provisions.

If required, HGPL will submit development applications to the Barcaldine Regional Council or applicable state agency for any off-lease activities, e.g. quarry, roads, power, water and off-lease rail. The development applications will be supported by this EIS and other information required to be provided in order to make the applicable development application “properly made”.

6.10.1 State-wide Legislation

6.10.1.1 Sustainable Planning Act

The principal planning legislation in Queensland is the SP Act, which was introduced in December 2009, and replaces the *Integrated Planning Act 1997*. The SP Act seeks to achieve sustainable planning outcomes through:

- Managing the process by which development takes place;
- Managing the effects of development on the environment; and
- Continuing the coordination and integration of local, regional and state planning.



The SP Act emphasises the coordination and integration of planning at the three levels at which it occurs in Queensland, namely:

- Local (government) planning;
- Regional planning; and
- State planning.

Planning at the local and state levels are directly associated with the respective levels of government. Regional planning is primarily the responsibility of the state (as a regional plan is a state interest). However, in practice, regional planning is a cooperative activity between local and state governments, through regional planning committees and the implementation of regional plans is generally through local planning instruments.

Coordination of planning refers to the linking of planning activities within differing levels of government and the linking of different aspects of planning such as natural resource planning, land use planning and infrastructure planning. Integration refers to the combination and rationalisation of planning outcomes and presenting them in an integrated and logical fashion.

Local government planning schemes remain the key planning instrument for the integration of state, regional and local planning visions.

Under the SP Act, State land use planning policy is implemented through state planning instruments, comprising:

- State planning regulatory provisions (such as supporting the regional planning process and providing for infrastructure charge mechanisms);
- Regional plans (including The Sustainable Futures Framework for Queensland Mining Towns, and Central West Regional Plan);
- State Planning Policies (SPPs) (discussed below);
- The Queensland State Coastal Management Plan; and
- Standard planning scheme provisions (that will become evident in the form and content of planning schemes prepared since the advent of the SP Act in December 2009).

6.10.1.2 State Planning Regulatory Provisions

The State Planning Regulatory Provisions (SPRPs) are planning instruments that the planning Minister can introduce as required for specific issues and are generally used in the following circumstances (DIP, 2009):

- To implement a regional plan;
- To implement structure plans for master planned areas;
- To allow the planning Minister to respond to environmental, cultural, economic or social issues in local areas by affecting the operation of planning schemes; and
- To apply state infrastructure charges within master planned areas.



SPRP's affect the way a planning scheme is implemented, the operation of a planning scheme and provide a single overarching planning instrument that can be applied in a range of circumstances and can be used to regulate and prohibit development.

A review of the SPRP's has been undertaken, and there are no SPRP's that directly relate to the proposed Project.

6.10.1.3 State Planning Policies

A number of SPPs and associated guidelines have been previously developed and support the implementation of the provisions of SP Act. SPPs hold statutory weight and establish State Government's requirements regarding planning and development matters.

In order to override the intent and outcome of a particular SPP, an overriding need in terms of net public benefit needs to be established. In regards to the Project, the net benefit to the community must be greater as a result of the Project going ahead than is exhibited by upholding the intent of the SPP.

SPPs potentially relevant to the Project include:

- SPP 1/92 Development and the Conservation of Agricultural Land;
- SPP 1/02 Development in the Vicinity of Certain Airports and Aviation Facilities;
- SPP 1/03 Mitigating the Adverse Impacts of Flood, Bushfire and Landslide;
- SPP 2/07 Protection of Extractive Resources;
- SPP 5/10 Air, Noise and Hazardous Materials; and
- Temporary SPP 1/10 Protecting Wetlands of High Ecological Significance in Great Barrier Reef Catchments.

The applicability of these SPPs to the proposed development and the Project site is discussed below.

SPP 1/92 Development and the Conservation of Agricultural Land

SPP 1/92 provides for the protection of GQAL capable of sustainable use for agriculture. The policy principles of SPP 1/92 state:

"Good quality agricultural land has a special importance and should not be built on unless there is an overriding need for the development in terms of public benefit and no other site is suitable for the particular purpose" (DIP, 2010).

Good quality agricultural land is defined as "land which is capable of sustainable use for agriculture, with a reasonable level of inputs, and without causing degradation of land or other natural resources. In this context, agricultural land is defined as land used for crop or animal production, but excluding intensive animal uses such as feedlots, piggeries, poultry farms and plant nurseries based on either hydroponics or imported growth media" (DIP, 2010, SPP 1/92).

There are four classes of agricultural land defined for Queensland and have previously been discussed in Section 6.9.3.

Agricultural land classes are based on an assessment of the agricultural suitability of the land for specified agricultural uses. Agricultural land suitability is a rating of the ability of land to maintain a sustainable level of productivity. The factors used to assess agricultural land suitability are the soil, topographic and climatic limitations which determine sustainable productivity.



The findings of the land suitability assessment and investigation into the distribution of GQAL provided in Section 6.9 (and Volume 1, Section 5 and Volume 2, Appendix I of this EIS) indicate that the development of the Project is not considered to have an impact on any major resources of GQAL within the central western region of Queensland. A large portion of the Project area has been identified as Class C land (suitable for grazing of native or improved pastures) and this aligns with current land use practices. Data indicates that no Class A land and Class B land exist within MLA 70425. Those GQAL resources which do exist either within MLA 70425, or in close proximity, are small and isolated within the wider landscape. As such, it is considered unlikely that these areas will be the focus of development efforts to establish extensive cropping operations in the future.

In this instance there is greater net public benefit for the Project to go ahead than to preserve the marginal agricultural land.

SPP 1/02 Development in the Vicinity of Certain Airports and Aviation Facilities

This SPP sets out broad principles for protecting airports and associated aviation facilities from encroachment by incompatible developments in the interests of maintaining operational efficiency and community safety. SPP1/02 prescribes outcomes for development subject to the policy.

This SPP does not apply to Alpha Aerodrome, as it is not being developed as part of the proposed Kevin's Corner Coal Project. However, the requirements of the SPP must be taken into account for the development of the aerodrome/airport facility resulting from the Project.

SPP 1/03 Mitigating the Adverse Impacts of Flood, Bushfire and Landslide

SPP 1/03 aims to mitigate the adverse impacts of flood, bushfire and landslide for assessable development. This SPP applies generally throughout Queensland, however, the bushfire and landslide outcomes apply only to local governments listed in the SPP.

Jericho Shire Council (the former Local Government Area [LGA]) is exempt from the landslide outcomes due to the low risk of this type of event, however, the SPP applies for bushfire, as defined in Annex 2 of the SPP (DIP, 2010, SPP 1/03) as well as flooding.

Flood immunity and mitigation measures for the control and management of flood waters have been incorporated into the Project's design, and the potential impacts of flood, bushfire and landslides have been considered throughout the Project design and within the EIS. Volume 1, Section 3; Volume 1, Section 25; and Volume 2, Appendix M2, provide due consideration to the management of these hazards to the Project and the surrounding community.

SPP 2/07 Protection of Extractive Resources

SPP 2/07 identifies extractive resources of state or regional significance where extractive industry development is critical to the future growth of the region. The SPP aims to protect these resources from development that might prevent or constrain current or future extraction when the need for utilization of the resource arises. Extractive resources include sand, gravel, quarry rock, clay and soil which are used in concrete, asphalt, road bases and a range of other aggregate products (DIP, 2010, SPP 2/07). There are no key resource areas or potential key resource areas identified under SPP 2/07 located in or near the Project site (DIP, 2010, SPP 2/07).

No Key Resource Areas (KRAs) are located within the Project area. There are also no KRAs within close proximity to the Project. The closest KRA to the Project is KRA 18 – Benedict Road, located in the Rockhampton Regional Council area. It is therefore considered that direct impacts on KRAs will



not result from the Project. It is therefore considered that SPP 2/07 is not applicable to the assessment of the Project.

Temporary State Planning Policy 1/10 Protecting Wetlands of High Ecological Significance in Great Barrier Reef Catchments

Temporary SPP 1/10 aims to protect Wetlands of High Ecological Significance (HES) within Great Barrier Reef catchments from inappropriate development that has the ability to damage or degrade the ecological significance of the identified wetland. While there are no HES Wetlands within the Project area, overarching consideration must be given to the requirements of the Temporary SPP as the Project area is located within a Great Barrier Reef Catchment and will involve significant soil disturbance. Soil disturbance aspects are discussed further in Volume 2, Appendix I. Surface water quality is discussed in Volume 2, Appendix M4.

6.10.1.4 State Coastal Management Plan – Queensland's Coastal Policy 2001

The State Coastal Management Plan – Queensland's Coastal Policy commenced on 27 February 2002. The Plan is due to be replaced by the Queensland Coastal Plan during 2011; however, it is still statute at the time of compiling this EIS. The State Coastal Management Plan seeks to protect and manage Queensland's coastal environments, resources and processes. The State Coastal Management Plan applies when undertaking planning, assessing applications and undertaking management decisions pursuant to legislative responsibilities for activities that occur within the coastal zone or may have an impact on the coastal zone. While the Project does not directly impact upon coastal environments or resources, the water quality of downstream water flowing to the coast is relevant to the Dry Tropical Coast region. Volume 1, Section 11 of this EIS addresses the potential impact of the Project on water quality.

6.10.2 Regional Plans

The Sustainable Futures Framework for Queensland Mining Towns (2007) was initiated by the Queensland Government to provide an overview of the existing situation within mining towns situated in the Bowen and Surat Basins. The aim of framework is to develop strategies to resolve growth management issues (including land use issues) that are having an adverse impact on some of these mining towns (Department of Local Government, Planning, Sport & Recreation [DLGPSR], 2007).

The key objective of the framework is to protect the social, environmental and economic growth of Queensland's mining communities. Achieving this will be facilitated through collaboration between state and local governments, the mining industry and the community to envisage building a productive mining industry built on sustainable, vibrant Queensland communities.

A comprehensive community consultation process and a social impact assessment have been carried out as part of the EIS to identify, consider and mitigate potentially negative impacts of the proposed mine (Volume 1, Section 21 and Volume 2, Appendix T). The Proponent is working closely with the Barcaldine Regional Council and the Alpha Coal Project to ensure the needs of the local community are not negatively impacted by infrastructure developments in the region. The EIS has assessed the Project's impact on the community, community services and accommodation for the construction and permanent workforces (Volume 2, Section 21).



6.10.2.1 Central West Regional Plan

The Central West Regional Plan was developed under the *Integrated Planning Act 1997*, and is now implemented under the SP Act.

The plan is a statutory plan to be adhered to by state agencies and local governments in planning and assessment of developments. The plan recognises that the resources sector operates within specific legislation and supports the development of mining projects within the region. The plan has identified the mineral development license and the coal resources applicable to the Project within the Central West Regional Plan (Hinchcliffe, 2009).

The plan comprises a range of land use policies and aligned strategies that address the region's environmental, social and economic priorities. It is the over-arching plan for the region, with land use provisions that inform other planning instruments. The key objective is to ensure that development is managed in a sustainable way and aims to:

- Establish a connected network of centres;
- Build and maintain community identity;
- Add value to any economic initiatives developed within the region;
- Improve transport infrastructure;
- Support a prosperous community;
- Protect biodiversity; and
- Address climate change (Hinchcliffe, 2009).

The following sections of the Central West Regional Plan are considered relevant in the assessment of this Project and are exhibited in Table 6-5 below.



Table 6-8 Central west regional plan

Objective	Compatibility Assessment	Location where addressed in EIS
Natural environment - Ecological values and biodiversity		
To protect, manage and enhance the extent, diversity, condition and connectivity of the region's natural areas, in order to maintain ecological integrity and processes to reverse biodiversity decline and to increase resilience to the expected impacts of climate change.	Ecological assessments have been conducted for the Project. Methodologies for the rehabilitation / re-vegetation will use the most appropriate species for the landscape elements. Such methodologies will include habitat matching of species to ensure rehabilitation success. Clearing of vegetation will be minimised where possible to maintain habitat connectivity and provide a movement corridor for small, terrestrial fauna species. Pest and weed control strategy to address threat of pests and diseases will be developed.	Volume 1, Section 9, Section 10, Section 26 and Section 28. Volume 2, Appendix K, Appendix L and Appendix M.
Natural resources - Land and natural resource use and management		
<ul style="list-style-type: none">To develop and manage land and natural resources for present and future uses across the region.To adopt a coordinated, regional approach to sustainable management of the region's natural resources.	The Project will be developed in accordance with legislative requirements. The coal resource will be mined as part of the Project. Post mine rehabilitation efforts will attempt to return disturbed areas to as close as practicable to their pre-mining land use suitability.	Volume 1, Section 2, Section 4, Section 5 and Section 26. Volume 2, Appendix I.
Water management		
<ul style="list-style-type: none">To develop and manage water for present and future uses in an equitable manner.	The Project has undertaken extensive analysis of water availability. A proposed water management strategy will address sustainable use of water resources while maintaining environmental values.	Volume 1, Section 11 and Section 12. Volume 2, Appendix M and Appendix N.
Pest management		
<ul style="list-style-type: none">To manage animals and plants that are known pests, to protect present and future land use and economic opportunities.	Pest and weed control strategy to address threat of pests and diseases will be developed.	Volume 1, Section 9, Section 10, Section 26 and Section 28. Volume 2, Appendix L1 and Appendix W



Objective	Compatibility Assessment	Location where addressed in EIS
Strong communities - Regional lifestyle		
<ul style="list-style-type: none">To enhance the liveability, character and safety of the region through planned development.To promote the region as a distinct economic, cultural and social entity that reflects the image of the region as a custodian of Australian history.To ensure the region continues to be respected and has an easily recognised image, while maintaining existing local identities.	<p>The Project will be developed in accordance with legislative requirements.</p> <p>The Project was declared a 'State Significant' project under the <i>State Development and Public Works Organisation Act 1971</i> (Qld) (SDPWO Act) by the Co-ordinator General (CoG).</p> <p>Economic, social and cultural heritage assessments were conducted as part of the EIS, appropriate management plans will be developed and implemented for the Project.</p>	Volume 1, Section 1, Section 18, Section 19, Section 20 and Section 23.
Leadership, networks and coordination		
<ul style="list-style-type: none">To share and exchange resources between government and non-government agencies to enhance opportunities for extending services to communities.	<p>The Project will be developed in accordance with legislative requirements.</p> <p>The Proponent is working with Government Agencies (State and Local), local business, other projects within the region and the community.</p>	Volume 1, Section 1. Volume 2, Appendix T.
Indigenous cultural heritage		
<ul style="list-style-type: none">To recognise Aboriginal people's association with the environment and ensure Aboriginal cultural heritage is managed in an appropriate and sensitive manner.	<p>Indigenous cultural heritage assessment has been conducted for the Project.</p> <p>A Cultural Heritage Management Plan (CHMP) has been developed and Indigenous Land Use Agreements reached.</p>	Volume 1, Section 18.
Economic development, Business and industry		
<ul style="list-style-type: none">To maximise sustainability of business and industry, in order to develop the growth of small enterprises throughout the region, thereby increasing wealth and employment opportunities for local residents.	<p>The Project provides significant employment and regional economic development opportunities for a range of local businesses to provide services to the Project.</p>	Volume 1, Section 23. Volume 2, Appendix V.



Objective	Compatibility Assessment	Location where addressed in EIS
Regional economy		
<ul style="list-style-type: none">To develop a diverse regional economy that is responsive to challenging and changing economic and political environments.	The Project will support long term economic growth in the region and provides an opportunity for diversification of the regional economy.	Volume 1, Section 23. Volume 2, Appendix V.
Employment, labour force and skills		
<ul style="list-style-type: none">To establish, attract and retain a skilled workforce to strengthen economic opportunities and the social fabric of the region, and to improve regional business performance.	The Project will promote skilled workforce migration into the region and promote up skilling of the existing workforce.	Volume 1, Section 20 and Section 23. Volume 2, Appendix T and Appendix V.
Education and training		
<ul style="list-style-type: none">To maximise job creation and employment diversity associated with economic activity development.	<p>The Project will support long term economic growth in the region and provide through this economic development job creation and diversification of the regional economy.</p> <p>The Project is expected to provide educational incentives for the Project through apprenticeships and traineeships, as well as general skills development.</p>	Volume 1, Section 20 and Section 23. Volume 5, Appendix T and Appendix V.
Energy and mineral resource development		
<ul style="list-style-type: none">To actively pursue the opportunity to develop gas, mineral and shale oil extraction industries in local communities, for the benefit of the region.	The proposed Project will develop a known and valued mineral resource. The Mine will have a long life bringing benefit to the region over the long term.	Volume 1, Section 2 and Section 4
Infrastructure - planning and coordination		
<ul style="list-style-type: none">To provide physical and social infrastructure that supports sustainable economic growth, and effectively meets the future needs of the community in a timely, cost-effective and coordinated manner.	The Project requires access to a number of infrastructure services that are being developed in the region for the Projects, which the community can gain access to.	Volume 1, Section 2



Objective	Compatibility Assessment	Location where addressed in EIS
Waste management		
<ul style="list-style-type: none">To develop an integrated approach to waste management, recycling and reuse within the region to meet desired community health and environmental outcomes.	<p>The Project is proposing to use proven management techniques for mine waste management. There will be a landfill within MLA 70425, reuse and recycling will also be objectives of the Project.</p> <p>The principal objective of the waste management strategy is to minimise impacts on land resources, water quality, and air quality, and to manage waste in a manner that avoids any direct or indirect impacts on the environment or health of people working at the mine and the community.</p> <p>The main strategies that will be adopted include waste minimisation (including waste segregation for re-use or recycling), cleaner production and ensuring remaining wastes are disposed safely at appropriate facilities.</p>	Volume 1, Section 16

It is considered that the proposed Project is generally in accordance with many of the objectives of the Central West Regional Plan by virtue of the Project seeking to:

- Develop and manage land and natural resources for present and future uses across the region;
- Adopt a coordinated, regional approach to sustainable management of the region's natural resources;
- Maximise sustainability of business and industry, in order to develop the growth of small enterprises throughout the region, thereby increasing wealth and employment opportunities for local residents;
- Establish, attract and retain a skilled workforce to strengthen economic opportunities and the social fabric of the region, and to improve regional business performance;
- Maximise job creation and employment diversity associated with economic activity development; and
- Provide physical and social infrastructure that supports sustainable economic growth, and effectively meets the future needs of the community in a timely, cost-effective and coordinated manner.



6.10.2.2 Northern Economic Triangle

The Northern Economic Triangle (NET) was established by the Queensland Government in 2007 as a plan to promote sustainable economic, social and community growth through the development of mining, mineral processing and industrial development between Mount Isa, Townsville and Bowen.

Even though the Project is outside of the taskforce area, the Project supports the plan and the strategies of the NET, which are as follows:

- Support stronger regional linkages;
- Enhance mining and mineral processing; and
- Enhancing industrial development.

6.10.2.3 Sustainable Futures Framework for Queensland Mining Towns

The Sustainable Futures Framework for Queensland Mining Towns was initiated by the Queensland Government to provide an overview of the existing situation within mining towns in the Bowen and Surat Basins (DLGPSR, 2007). The aim of the framework is to develop strategies to resolve issues associated with growth in the region. The Proponent is working closely with the Barcaldine Regional Council to ensure the needs of the local community are met through the provision of housing and infrastructure developments in the region. The EIS has assessed the Project's impact on the community, community services and accommodation for the construction and permanent workforces (Volume 1, Section 20 and Volume 2, Appendix T).

6.10.3 Local Government Planning Scheme

The Project is wholly located within Barcaldine Regional Council area. The Regional Council was formed on 15 March 2008 following the amalgamation of the shires of Aramac, Barcaldine and Jericho. Under the transitional arrangements for the amalgamated councils, the planning schemes for the former Shires remain applicable to assess proposed development until a new regional council and SP Act planning scheme come into effect.

In this instance, the Project is located within the former Jericho Shire Council area and as such, the Jericho Shire Planning Scheme, effective 23 June 2006, remains the planning scheme against which assessable development would be assessed. The relevant planning scheme was prepared in accordance with the provisions of the *Integrated Planning Act 1997* (now superseded by the SP Act) and took effect in June 2006.

The location of the Project in relation to current and former council boundaries is shown on Figure 6-1.

Underpinning the scheme are three broad desired environmental outcomes (DEOs), based on the ecological sustainability established by the *Integrated Planning Act 1997*. They provide the basis for the measures of the planning scheme. Each outcome is sought to be achieved to the extent practicable having regard to each of the other DEOs.

Table 6-6 summarises the consistencies of the Project with the DEOs set out in Part 3 of the Jericho Shire Planning Scheme.



Table 6-9 Jericho Planning Scheme desired environmental outcomes

Objective	Compatibility Assessment	Location where addressed in EIS
ENVIRONMENT		
Development is managed to minimise any adverse impacts on air and water quality, to prevent land degradation, loss of habitat and biodiversity and to protect riparian areas.	<p>An EIS has been prepared for the Project in accordance with the SDPWO Act. The objective of the EIS process is to ensure that all impacts, direct and indirect, particularly environmental, social and economic impacts are fully examined and addressed.</p> <p>An EM Plan will be implemented to minimise any adverse impacts on air and water quality, to prevent land degradation, loss of habitat and biodiversity and to protect riparian areas.</p>	Volume 1, Section 5, Section 11, Section 12, Section 13 and Section 28. Volume 2, Appendix W.
Protected areas (including Cudmore National Park and Resources Reserve) and areas, local items and places of cultural significance (including areas along water courses) are identified to ensure their environmental, landscape values and historic significance are protected and enhanced through compatible development.	Partial ingress into Cudmore Resource Reserve will occur albeit underground. A management plan will be developed to ameliorate these impacts, develop appropriate strategies for operation and appropriate approvals/permits sought.	Volume 1, Section 9. Volume 2, Appendix E and Appendix L.
ECONOMIC DEVELOPMENT		
The Planning Scheme reinforces the role of Alpha as the principal place for administrative services, business, industry and commerce within the Shire.	A percentage of the workforce will be from Alpha and the local area. The percentage of local workforce employed in the Project operations will grow as economic activity develops in Alpha.	Volume 1, Section 2, Section 20 and Section 23. Volume 5, Appendix T and Appendix V.
The local service role of the small town of Jericho is protected and enhanced.	A small percentage of the workforce may reside in Jericho.	Volume 1, Section 2, Section 6, Section 20 and Section 23. Volume 2, Appendix T and Appendix V.
Productive rural land, rural industries and natural features (including mineral and extractive resources and tourist resources) are protected to reflect and enhance their continued economic potential and viability.	<p>The Project will be developed in accordance with legislative requirements.</p> <p>The coal resource will be mined as part of the Project.</p> <p>Post mine rehabilitation efforts will attempt to return disturbed areas to as close as practicable to their pre-mining land use suitability</p>	Volume 1, Section 2, Section 4, Section 5 and Section 26. Volume 2, Appendix I.



Objective	Compatibility Assessment	Location where addressed in EIS
The Shire's industrial areas in Alpha are consolidated and protected to ensure their role as the key areas for industrial activity is reinforced.	A percentage of the workforce will be from Alpha and the local area. Alpha will provide a gateway for road-based shipments of goods coming from the south-east and west.	Volume 1, Section 2, Section 20 and Section 23. Volume 2, Appendix T and Appendix V.
COMMUNITY SERVICES		
The settlement pattern is logical and sequenced and the built environment contributes to the overall rural amenity and character of Jericho Shire	The accommodation village for the construction and operational phases of the Project is within MLA 70425. Services to support the mine operations will be complementary to the overall rural amenity.	Volume 1, Section 2 and Section 26.
People are connected to public spaces (including recreational areas) and community services through an appropriate land use structure and the provision of infrastructure, particularly within the urban centre of Alpha, and small town of Jericho	Community services and enhancement of land uses will result from the flow on effects to the nearby townships. A management plan will developed to ameliorate impacts on protected areas and to develop appropriate strategies for operation. The Project area is illustrated on the Jericho Shire Planning Scheme Land Characteristics Map (DIP, 2006, Sheet 3).	Volume 1, Section 6, Section 7 and Section 20. Volume 2, Appendix E and Appendix L.
Development contributes to the health and safety of people and provides a diverse range of housing types, services and facilities	The accommodation village for the construction and operational phases of the Project is within MLA 70425. Services to support the mine operations will contribute to the health and safety of the mine workforce and community members involved in the Project.	Volume 1, Section 2, Section 20, Section 22.
Infrastructure (including water, sewerage and roads) reflects community expectations and needs, meets engineering and environmental standards and is provided in an orderly and logical sequence to ensure cost effectiveness.	All Project infrastructure within MLA 70425 will be developed to meet current standards. Additional infrastructure upgrades will be required to support the Project (e.g. local road upgrades) and those improvements will also benefit community users.	Volume 1, Section 2. Volume 2, Appendix X.



6.10.3.1 Zoning

The majority of MLA 70425 and the surrounding area is zoned as Rural beneath the Jericho Shire Planning Scheme (Campbell Higginson Town Planning, 2005 [Sheet 1]). However, there is a portion of MLA 70425 that is designated as Open Space and Recreation. This area of Open Space and Recreation zoned land is designated to the subject lands of the Cudmore Resources Reserve.

The proposed Project can be best described as an extractive industry, which is listed as a defined form of development within the Planning Scheme. However, the term extractive industry is generally not associated with the extraction and processing of mineral resources out of the ground, moreover, quarry and aggregate materials such as sand, gravel, clay, soil, rock, stone or any similar substance. For this reason, the proposed activity is classified as an undefined land use. In this instance, an undefined land use would be subject to impact assessment procedures within the rural and open space and recreation zones, thereby requiring an assessment against all applicable elements of the local planning scheme, including any relevant codes, DEO's and higher order strategic directions. However, given that the proposed Project is located within MLA 70425, granted under the *Mineral Resources Act 1989* (MR Act), the Project is therefore exempt from assessment under the local authority planning scheme.

It is considered that within the former Jericho shire, the rural zone is the most appropriate location for an extractive industry type land use subject to meeting the specific outcomes contained with the local planning scheme. Egress into lands zoned as open space and recreation, whilst not prohibited, is in direct opposition to the intent of the area beneath the planning scheme.

6.10.3.2 Other Planning Scheme Matters

The Project will exceed the required set-back distance of 1 000 m from adjoining developments.

The GQAL assessment (Section 6.9) has yet to be finalised. However, it is expected to be consistent with the Shire's GQAL figure (DIP, 2006) and will not adversely affect the marginal agricultural lands exhibited.

The Shire bushfire hazard areas figure (DIP, 2006) indicates that the Project is in a predominately low bushfire hazard area.