

# 05

## Comments and Responses – Railway Corridor



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## Section 05 Comments and Responses – Railway Corridor

### 5.1 Carruthers, Doug

#### 5.1.1 Executive Summary

##### Comment – RC1

*Concern about. . . Establishment of several accommodation villages along the railway corridor to accommodate the construction workforce. (1) Details of accommodation villages and temporary camp sites or other residential development, and fuel storage areas to be notified. (2) An evacuation and access map of these facilities to be provided along with a possible landing site identified for the rescue helicopter service if required. (3) Notification if accommodation camps will be alcohol free.*

##### Response – RC1

Five (5) workers accommodation camps, each having estimated capacities of between 500 – 700 persons are proposed to be constructed for the Project. Two (2) camps (Camp 2 – Collinsville and Camp 4 - Gregory) will be only required during the construction phase of the Project (approximately 3 years) and will be decommissioned once the railway has been commissioned. Two (2) other camps (Camp -1 Salisbury and Camp - 3 Wollombi) which have been established near rail related infrastructure (marshalling yards, ballast sidings, rail welding, sleeper manufacture and maintenance team facilities), will be predominantly decommissioned with all but a small number of accommodation rooms (20-40 permanent rooms with additional rooms available on an occasional basis for major rail maintenance and construction events) required at the end of the construction phase of the Project to service operational rostered maintenance crew demands. Camp 5 - Alpha Mine, which is located within the Alpha Mine Lease area, will be required throughout both the construction and operational phases of the Project.

Fuel will be stored at construction depots which are likely to be co-located within the general vicinity of each camp. As the final camp locations and layouts are still being developed, emergency helicopter landing areas, evacuation plans and access maps will be established during the detailed design stage of the Project and as such is not available at this time. Further information regarding layout and indicative camp designs is provided in SEIS Volume 2, Appendix AF, Appendix H.

#### 5.1.2 Transport

##### Comment – RC2

*Notification to the Ambulance Communications Centre of any road and/or lane closures, including road diversions.*

##### Response – RC2

Agreed, the Ambulance Communications Centre will be notified during the construction and operation stages of the Project.

## 5.2 Cormack, Val

### 5.2.1 Executive Summary

#### Comment – RC3

*I cannot finalise my compensation claim until I know how many trains will be passing through my property each day. This is because the noise of each train will impact highly on my cattle and the ability to fatten our beef cattle for the EU market which has.*

#### Response – RC3

As detailed in Volume 3 Section 2. 5. 2 of the EIS, for the nominated transportation of 60 Mtpa of coal, seven (7) trains per day (14 train movements) will be required on average per day.

#### Comment – RC4

*Hancock Prospecting are predicting up to 120 Mtpa on the proposed railway line with third party users. Quoting 14 trains per day is not acceptable.*

#### Response – RC4

As detailed in Volume 3 Section 1. 3 of the EIS, the Project will enable export of 60 Mtpa of quality thermal coal for a lifespan of approximately 30 years, not 120 Mtpa as mentioned in this submission. Augmentation of the rail infrastructure to accommodate a capacity greater than 60 Mtpa to meet future demands generated via third party access agreements will require further impact assessment and approvals subsequent to this EIS.

### 5.2.2 Noise and Vibration

#### Comment – RC5

*It is expected that livestock will adapt to the noise and will not suffer stress from noise. This is not accepted. As such no mitigation measures are proposed. This is not accepted.*

#### Response – RC5

The criteria adopted by the US Department of Transportation Federal Railroad Administration (FRA) for potential noise impacts on wildlife is 100 dB(A)SEL. This criteria is much higher than the criteria used in the assessment for sensitive receivers. Noise measurement data from the Hunter Valley coal trains indicates the 100 dB(A) SEL criteria for animals would only be exceeded within approximately 10 metres of the rail corridor (Australian Rail Track Corporation, 2009). On this basis, noise impacts on wildlife are not expected to be an issue.

### 5.2.3 Land Use and Tenure

#### Comment – RC6

*Compensation payment must be agreed to by myself and paid in full by Hancock Prospecting Pty Ltd before any construction of any form begins on Wavering Downs. The compensation must cover the full life time of the railway line. Not just capitalised out for 18 years. The impact from train noise will be the same in 100 years.*

**Response – RC6**

Negotiations with individual landowners are continuing. These comments are noted and will be taken into consideration during further discussions with the Proponent.

**Comment – RC7**

*If, because of the impact to our operational beef producing business we have to purchase more land then, If this land is not already Freehold it is to be made Freehold by Hancock Prospecting as Wavering Downs is Freehold country and also all costs, stamp duty etc be paid by Hancock Prospecting Pty Ltd.*

**Response – RC7**

HPPL must follow the 1999 Guidelines on acquisition of land by a third party (under the *State Development and Public Works Organisation Act 1971* (SDPWO Act)), and is also subject to the *Acquisition of Land Act 1967* (AL Act). Impacts of the railway line are required to be mitigated and/or compensated in accordance with the compensation provisions of the AL Act.

**Comment – RC8**

*No small water reservoirs to be left on 'Wavering Downs'. Cattle do not drink or do well from muddy waters.*

**Response – RC8**

Volume 3 Section 2. 7 Decommissioning and Rehabilitation of the EIS identifies that at the completion of the construction activities for civil and track work, all temporary construction facilities and areas will be rehabilitated. This includes the rehabilitation of any temporary turkey nest dams that may be required.

**5.2.4 Air Quality****Comment – RC9**

*With the potential for coal dust to escape form the wagons with the very strong winds we experience in our area. The risk to our health and the health of our livestock and the effect to meat quality may be very high.*

**Response – RC9**

The strength of the winds in any area is a minor influence on coal disperment as the emission estimate is based on the 80 km/hr train speed causing the coal dust lift-off. The modelling undertaken has accounted for the prevailing speed and direction of ambient winds (much lower than the train forward speed) when calculating the likely coal dispersion.

Although the majority of the coal on and around existing rail networks comes from spillage from the wagons during loading and unloading, coal dust lift off from the exposed coal surface is considered a serious environmental issue. HPPL fully appreciates this issue and is currently undertaking a study to investigate the best approach to address and minimise coal dust emissions. The study will investigate how wagon shape and design, wagon covers and spray treatments (water sprays or polymer) can



reduce coal dust emissions. This study is also seeking to understand other sources of dust and coal contamination.

It is also noted that in addition to environmental drivers, there are economic ones related to coal loss, possible fuel savings and reduced maintenance which will support the recommendations and outcomes from these investigations.

#### Comment – RC10

*The trains will be sounding their horns at level crossings, three times each way on Wavering Downs, approx. 42 times in daylight hours. The impact on introduced cattle (Brahman Cross) will be very big. Cattle are animals of prey and need to be treated the same way as Fauna in many ways. There will also be lights from the trains and signal equipment operating at night.*

#### Response – RC10

For the safety of road users and the wider community, trains will be required to intermittently sound horns at level crossings. Your concerns are noted. However, it is expected that livestock will adapt to the noise and will not suffer stress from such noise sources. Noise measurement data from a Hunter Valley coal rail project indicates the 100 dB(A) SEL (the criteria adopted by the US Department of Transportation Federal Railroad Administration (FRA) for potential noise impacts on wildlife) criteria for animals would only be exceeded within approximately ten m of the rail corridor. On this basis, noise impacts on wildlife are not expected to be an issue (Australian Rail Track Corporation, 2009).

## 5.3 Heelan, John

### 5.3.1 Description of the Project

#### Comment –RC11

*This section has been completely glossed over, as the availability of water will provide a massive challenge to the success of this project. The average requirements of 22.2 mega litres per km of line is a huge volume of water and when it is intended to be drawn from underground aquifers it has the potential to cause serious and permanent damage to certain underground systems.*

#### Response – RC11

The proponent intends to draw construction water from a number of available sources as addressed in Volume 3 Sections 11 and 12 of the EIS. In addition, the Proponent is currently undertaking a study to investigate potential water supplies, including:

- existing major pipelines;
- existing bores and new bores;
- natural watercourses;
- sinking dams;
- damming creeks or gullies;
- reuse of water from the Alpha Mine site; and
- town water supply systems.

Initial investigations from this study indicate that there may be an opportunity to utilise groundwater for rail construction purposes in the northern section of the alignment (north of the Bogie River). However further investigations will need to occur before this can be confirmed. Should water be required from natural watercourses or groundwater aquifers, permits and approvals will be required from DERM under the *Water Act 2000*.

### 5.3.2 Soils, Topography and Land Disturbance

#### Comment –RC12

*Increased periods of flooding of the Pegunny soil system, which is at present on the floodplains, has the potential to cause a marked increase in salinity. This is due to the fact that this soil is alkaline at or near the surface but becoming strongly acidic at depth and contains appreciable soluble salts and high levels of exchangeable sodium (Lands of the Nogoa-Belyando Area Qld CSIRO Land Research Series 18). Increased water logging of these soils will cause salt levels to rise and can cause serious detrimental effects on pasture growth. A healthy pasture is imperative to our beef cattle operation. To reduce the risk of this happening, a massive increase in the number of culverts needs to be implemented in the section of line from Eaglefield Creek to about the 240 km mark of the line. This will assist in allowing the flood waters from the Suttor River to spread out into the Eaglefield creek system as happens naturally.*

#### Response – RC12

Although we were unable to find published information to support this comment, a hydrological assessment of the rail alignment has been undertaken for the project. This report is contained within Volume 2, Appendix Y of the SEIS and includes an assessment of all major drainage crossing points to inform the detailed design phase. Retention of existing drainage and overland flow paths will be incorporated into the hydrological design to avoid ponding, scouring and the potential water logging of land surrounding the rail corridor.

### 5.3.3 Land Use and Tenure

#### Comment –RC13

*In the potential impacts section no mention is made of the losses of capital value a property will acquire as a result of a rail line running through it. This is a major issue caused by the rail line and it appears the authors of the EIS just want to sweep it under the carpet and refuse to acknowledge it at all. The EIS also states that "for a large number of properties, the area of direct impact is minimal when compared with the total area of land held by the landholder". We strongly disagree with this assertion as every acre of land is important to us and the rail line has imposed a myriad of problems for us that we have had to cope with through a process that we never asked for.*

#### Response – RC13

HPPL must follow the 1999 Guidelines on acquisition of land by a third party (under the SDPWO Act), and is also subject to the AL Act. Impacts of the railway line are required to be mitigated and/or compensated in accordance with the compensation provisions of the AL Act.

#### Comment –RC14

*The EIS states that "where possible areas of severance are amalgamated with adjoining parcels, the large landholdings in the region will be maintained". In our case when we were approached by Hancock Coal regarding our severance area I suggested that it be amalgamated with an adjoining parcel belonging to a neighbour, and a similar parcel of land [which was not a severance area] of a neighbour that was virtually a severance area due to the way it was positioned, be amalgamated to our parcel. We were advised by Hancock that if we wanted to do this then it would be up to us at our expense.*

#### **Response – RC14**

Where reasonable and necessary, and with the agreement of all relevant landholders, and at Proponent's expense, amalgamations of allotments that are impacted by severance will be undertaken through a voluntary negotiation process. Where the land is leasehold (and this is the majority of the land), DERM's approval is also required.

### **5.3.4 Terrestrial Ecology**

#### **Comment –RC15**

*Other introduced species that have the potential to cause damage are giant rat's tail grass {Sporobolus sp. } and rubber vine {Cryptostegia grandiflora}. Both these species are found in the Collinsville and Bowen areas and have the potential to be spread to western areas of the line during construction [Personal comm. DPI Land Officer, Mackay].*

#### **Response – RC15**

A Weed Management Plan has been prepared for this Project, which includes specific requirements and management measures for relevant introduced species (including giant rat's tail grass and rubber vine) (SEIS Volume 2, Appendix AG, Section 2.5).

#### **Comment – RC16**

*I will dispute the interpretation of the literature referred to by Connell Hatch [2008] where the EIS states "feed preference, palatability, quantity of feed eaten and quality of milk produced were not affected when livestock were exposed to feed containing coal dust at rates of dust, 4000 and 8000 mg/m<sup>2</sup>/day" This refers to a study "Coal mine dust and dairy farming - the answers" by A. Andrews and N. Skriskandarajah in 1992 which involved 110 dairy cows on an area of 0.7 of a ha and this was then divided into three plots of 0.23 hectare. This is a completely different situation to where the railway is going and paddocks are much larger and cattle have a larger choice of diet. While the coal industry may not cause reduced production in the animal if consumed, I know from experience that free range animals will avoid foraging contaminated pastures if they can. This has the effect of livestock not feeding on pastures adjacent to the rail line and this country then becomes unproductive for us. As such, I believe it will be necessary to fence the country beside the line into a smaller paddock so as stock are compelled to eat the contaminated pasture - as they did in the trial. The same problem will exist for native fauna as well except it will be impossible to implement mitigation measures and they will naturally vacate the area and not use it as a feeding habitat. The quoted literature also used mine dust generated for the trial which replicated dust from blasting operations at a mine site and not pure coal dust which will be applicable in the rail line situation.*

#### **Response – RC16**

HPPL is currently undertaking a study to investigate the best approach to address and minimise coal dust emissions. The study will investigate how wagon shape and design, wagon covers and spray treatments (water sprays or polymer) can reduce coal dust emissions. Notwithstanding, standard environmental management measures should include air monitoring equipment being installed in rural areas to monitor coal dust emissions.

### 5.3.5 Aquatic Ecology

#### Comment – RC17

*This section refers to riverine habitats and states "only mistake creek and Table Mountain creek contained large pool habitats of supporting aquatic fauna." Eaglefield creek should be included here as it is consistent with the above and an ACTFR Fish survey was conducted by Aaron Davis of Townsville University in Oct/Nov 2009. The survey revealed that most of the species in the upper catchment were in this area. Eaglefield Creek has waterholes 1.5 to 2.5 km long and depths up to 6m deep.*

#### Response – RC17

Habitat assessment and water quality testing was undertaken at the location of the alignment crossing of Eaglefield Creek and consisted of an assessment of a 100 m reach and other habitat features that may occur outside this area (SEIS Volume 2, Appendix AE, Section 3). Results of the Aaron David JCU study were not available for consideration during compilation of EIS.

### 5.3.6 Surface Water

#### Comment – RC18

*Due to the change in flow patterns caused by the rail line a number of serious issues may occur and they all stem from the one cause - insufficient drainage under the rail line. The intended line runs parallel between Eaglefield Creek and the Suttor River and is on floodplain country. The Suttor River has a natural levee bank on it and as such no adjacent water runs into the river in about a twenty kilometre section on the left hand bank next to the rail line. When a flood event does occur, the water overflows the natural levee bank and spreads towards and joins Eaglefield Creek and causes flooding over a wide area of our pasture country - usually for one to two days and at depths of a metre or less. The flooding can be up to 10 km's wide. Due to their slow rate of water flow at shallow depths and short periods of inundation we have not experienced any major infrastructure, pasture or stock losses in 38 years of operations. However the formation of the rail line will in effect create a levee bank which will prevent the vast majority of the flooding Suttor water from extending to Eaglefield Creek. This will cause a rise in water levels between the line and the river and therefore increased flow rates as well. Also, bear in mind that when the Suttor floods in a major event it floods over the entire length of its natural levee (some 20 km's) and not just in certain sections. (Attached diagram in submission document).*

#### Response – RC18

The hydraulic interaction between the Suttor River and Eaglefield Creek will be carefully studied during the detailed design phase of the Project. Consultation with land owners to best understand the local flow characteristics of Suttor River are continuing and will influence the final design. Measures will be taken to prevent unacceptable changes in afflux due to the proposed railway. Increasing the size, number and frequency of culvert locations along the described trace may be a possible solution to

achieve a balanced flow regime where the rail alignment is positioned within natural flood plains (SEIS Volume 2, Appendix Y, Section 7).

#### **Comment –RC19**

*The history of flooding data used is very broad and not detailed enough for this EIS. The History of flooding has been seriously under-estimated. Water Resource records from the Eaglefield gauging station show that flooding from the Suttor has occurred downstream in our property seven times since 1974 and Eaglefield creek has flooded a lot more in the same period [personal records].*

#### **Response – RC19**

Flood events have not been determined from actual gauging information, but information as provided by the Bureau of Meteorology (BoM). The number of flood events does not influence hydraulic model results for drainage requirements. Therefore updating of the flood frequency, likely with smaller events, is not deemed necessary.

#### **Comment – RC20**

*No mention is made in this section of potential damage and destruction of livestock, infrastructure and improved pasture country. As the majority of our livestock are depastured on the floodplain area our entire livelihood can be threatened if severe flooding occurs.*

#### **Response – RC20**

A hydrological assessment of the rail alignment has been undertaken for the Project to inform the detailed design process. This report contained within Volume 2, Appendix Y of the SEIS, includes an assessment of all major drainage crossing points. Retention of existing drainage and overland flow paths will be incorporated into the hydrological design to avoid ponding, scouring and the potential water logging of land surrounding the rail corridor. Consultation with land owners to best understand the local flow characteristics of surrounding flood plains are continuing and will influence the final design.

### **5.3.7 Groundwater**

#### **Comment –RC21**

*The EIS states that the alluvial aquifers are likely to be recharged via direct infiltration of precipitation and from hydraulic connection with surface water bodies. This will be the case for only the shallowest of the aquifers and which are only relatively seasonal in our area. These aquifers will be very quickly depleted if pumped at the volumes the construction phase needs. The deeper alluvial aquifers which can be below 60m have entire clay formations above them and as such are not likely to be recharged as simply. There is very limited data available on aquifers in this area and Section 12. 2. 6. 1 of the EIS states that no hydraulic conductivity data were identified for the search area.*

#### **Response – RC21**

Volume 3, Section 12. 2. 4. 2 of the EIS has been updated as follows:

#### **12. 2. 4. 2 Alluvium, Colluvium and Miscellaneous Unconsolidated Deposits**

Tertiary to Quaternary aged sediments directly underlie the majority of the alignment from the Alpha Mine to chainage 310 km and 450 km to 510 km (refer to Figure 5-1 below), predominantly within



Sections 1, 2 and 4. Most of these sediments have been deposited by adjacent rivers, creeks and associated floodplains and consist of various compositions of sand, silt, gravel and clay.

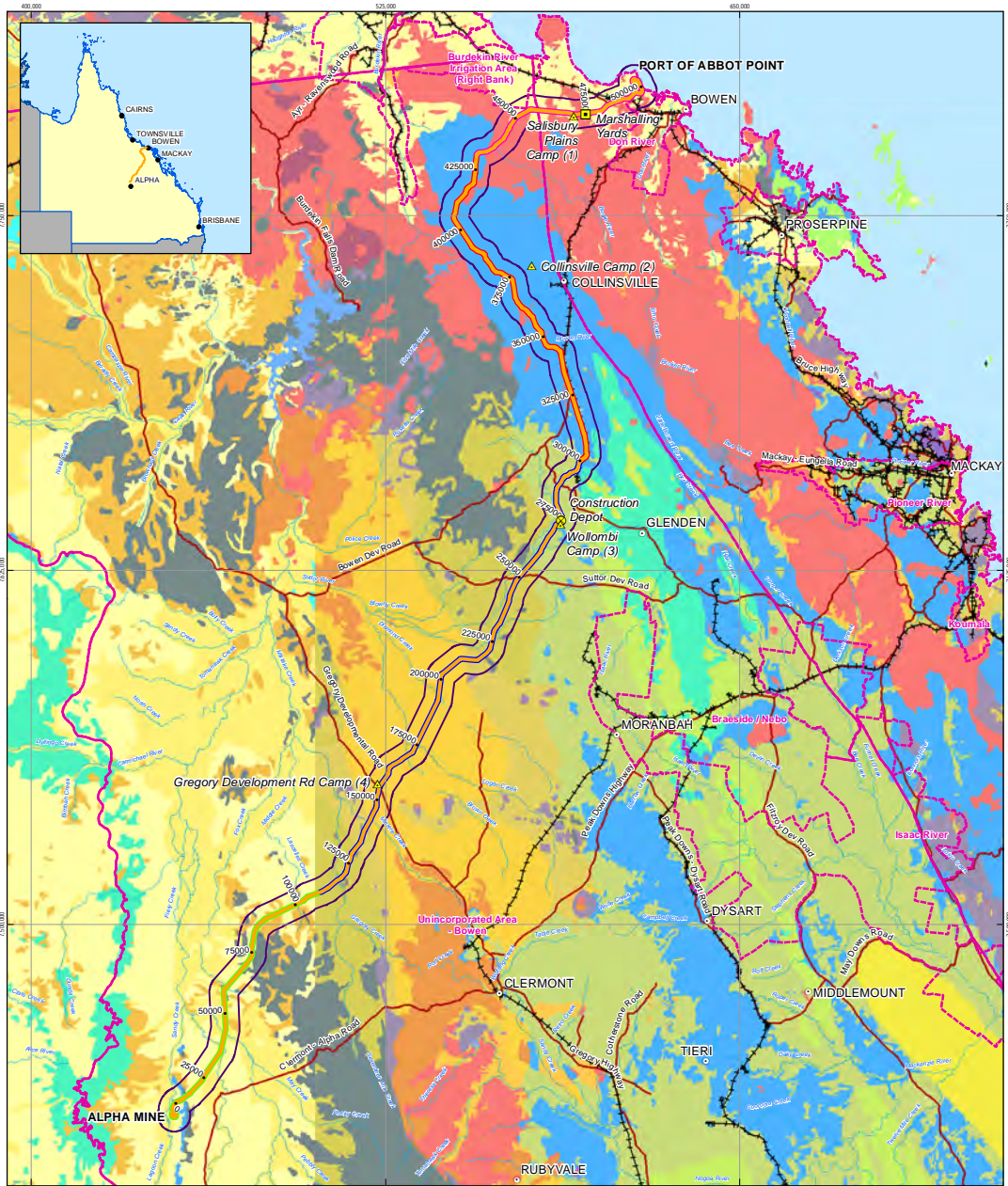
The majority of the alluvial deposits within Section 1 and Section 2 consist of 'older fluviatile and floodplain sediments with some colluvium also mapped in Section 2. Weathering by-products such as ferricrete and laterite are also present. There is no alluvium mapped within Section 3, however presumably there are localised alluvial deposits associated with the Bowen River and its tributaries. Section 4 is dominated by granite outcrops with overlying residual and colluvial deposits for a large part of the alignment before entering the lower lying area of Port of Abbot Point. Port of Abbot Point is typically underlain by alluvium and coastal mudflat deposits.

Colluvium, from weathering of underlying and outcropping bedrock tends to form on slopes and in valleys. Groundwater resources within the colluvium are not expected to be significant, if present. Groundwater bores situated in areas mapped as colluvium in Section 2 and Section 4 are sourcing water from the underlying bedrock.

Borehole logs from the groundwater bore database indicate that the alluvial deposits can range in thickness of between <1 m up to 50 m (RN18,225) in Section 1, <1 m and up to 84 m (RN84,042) in Section 2 and up to 18 m in Section 4. The permeability of the alluvial deposits will vary spatially, and their productivity will be dependent on the presence or absence of coarser-grained sediments such as sand and gravel. Unconfined shallow alluvial aquifers are likely to be recharged via direct infiltration of precipitation, and from hydraulic connection with surface water bodies. Due to the ephemeral nature of many of the water bodies and creeks along the proposed rail route, the unconfined shallow aquifer would be a limited groundwater resource. Deeper alluvial aquifers can be bound by clay layers, which may act as aquitards or aquicludes. These deeper aquifers may be recharged by direct infiltration at outcrop, by slow seepage through clay layers (aquitards), or at geological boundaries or barriers (i. e. faults or intrusions). However, there is very limited data available on aquifers in this area, and no hydraulic conductivity data available within the search area.

Many of the local creeks and rivers are dry for most of the year, however flow during the wet season from November to March (ANRA, 2007). Rivers with deeper channel profiles tend to have permanent waterholes all year round. Recharge of alluvial aquifers occurs during the wet season when the rivers and creeks are running. Alluvial aquifers in Section 4 receive a greater potential to recharge due to the higher rainfall along the coastline.





**LEGEND**

- Town
- ▲ Camp
- Marshalling Yards
- Depot
- Proposed Alignment
- State Road
- Lending Railway
- Watercourse
- Proposed Alignment Section 1
- Proposed Alignment Section 2
- Proposed Alignment Section 3
- Proposed Alignment Section 4
- Waterbody
- Groundwater Management Unit
- Skm Alignment Buffer

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1:1,250,000 (at A3)

0 5 10 20 30 40 50  
Kilometres

Map Projection: Universal Transverse Mercator  
Horizontal Datum: Geocentric Datum of Australia 1994  
Grid: Map Grid of Australia, Zone 55

North Arrow

**HANCOCK PROSPECTING PTY LTD**

Alpha Coal Project  
Supplementary Environmental Impact Statement

## REGIONAL GEOLOGY AND HYDROGEOLOGY

Job Number 41-23742  
Revision B  
Date 11-04-2011

Figure: 5-1

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**Comment –RC22**

*The EIS had made the assumption that because an area is listed as an Unincorporated GMU they are not considered threatened or vulnerable. This is not the case and it only means there is not a large demand on the area at present. If this demand were to dramatically increase then an area could certainly become threatened and vulnerable.*

**Response – RC22**

The Project will require water during the construction phase for consolidation of fill, dust suppression, construction camps, workshops and depots. The northern rail loop within the Abbot Point State Development Area will potentially have the highest water usage for dust suppression, due to its proximity to wetlands, major roads and highways (i. e. Bruce Highway) and populated areas (Bowen). In addition to requirements for consolidation of fill, for embankments planned for the area of the rail loop that intersects with the Kaili (Caley) Valley Wetlands. Potential sources of construction water have been addressed in Volume 3 Sections 11 and 12 of the EIS. In addition, the Proponent is currently undertaking a study to investigate potential water sources which has been outlined in Response RC11. Initial investigations from this study indicate that there may be an opportunity to utilise groundwater for rail construction purposes in the northern section of the alignment (north of the Bogie River). However further investigations will need to occur before this can be confirmed. Should water be required from natural watercourses or groundwater aquifers, permits and approvals will be required from DERM under the *Water Act 2000*.

The level of potential for impact on groundwater during construction is dependent on whether groundwater is abstracted for construction purposes. Abstraction of groundwater could impact on water table levels, local flora and fauna (aquatic, terrestrial and subterranean), as well as surrounding groundwater users. Irrespective of whether groundwater is abstracted, construction of new infrastructure, such as culverts, cuttings, embankments and bridges, has the potential to result in short term, localised impacts on shallow groundwater. The potential impacts on groundwater during construction and post construction of the Project and corresponding mitigation measures are described in Response RC23 and RC24.

**Comment –RC23**

*One of the most serious impacts will be the potential to dewater aquifers and this is not even mentioned. The deep alluvial aquifers can also contain large amounts of clay particles and if large volumes of water are pumped these clay particles can shift through the aquifer and accumulate closer to the pump source and restrict water flow. This can have an effect on water flows on other bores in the vicinity.*

**Response – RC23**

In response to this submission, Volume 3, Section 12. 3. 2. 1 of the EIS has been updated as follows:

**Potential Impacts**

While groundwater is not anticipated to be a major construction water source for the rail, to fully encompass all potential groundwater issues, potential impacts caused by the abstraction of groundwater are listed below.

- lowering of groundwater table (impacting on local groundwater users and groundwater dependent ecosystems);
- disturbance of ephemeral water bodies and streams, and associated ecological impact;



- insufficient investigation into sustainable yields, resulting in over extraction of groundwater and potential failure of aquifers;
- decline in subterranean fauna populations;
- inadequate bore design, resulting in groundwater contamination of confined aquifers;
- restricted groundwater availability or viability for other groundwater users;
- positioning of abstraction bores in close proximity to existing abstraction bores for other land users, resulting in failure of bores due to lowering of water table, increased turbidity, reduced hydraulic conductivity (due to mobilisation of clay particles) and potential damage to bore screen or pump.

Potential impacts, not related to groundwater abstraction, include:

- potential for localised water logging as a result of groundwater level increases caused by construction of any embankments, or as a result of pre-loading, where pre-construction groundwater levels are relatively close to ground surface, particularly in the vicinity of the major rivers and within the low lying coastal flats of Abbot Point;
- potential for localised, temporary reduction in shallow groundwater levels in the vicinity of Sutor River, Bowen River and Bogie River as a result of temporary minor dewatering as a part of bridge pile construction works. The dewatering is unlikely to have any significant or long-term impact, the short duration, low volume and localised nature of the dewatering; and
- potential for localised degradation of groundwater quality within alluvial deposits or bedrock that intersect the Project site, directly beneath or down-gradient of the Project site if any leaks or spills occur during construction. Local water supply bores in Sections 1 and 3 are unlikely to be impacted from construction, given the distance to the bores. Bores within Sections 2 and 4 are the most likely to be impacted.

## Comment –RC24

*Deep underground borehole monitoring needs to be carried out as well, especially in the aquifers that have water quality suitable for stock and domestic purposes, Monitoring should also monitor water quality, so as any saltwater intrusion can be detected, as well as depletion and recharge rates. Monitoring should also be carried out at all existing bores in the vicinity of any new rail line bores. If property owners are subject to stock and domestic water loss then immediate action should be taken by Hancock Coal to provide suitable alternatives. It should be noted that the water requirements to construct one kilometre of rail line will provide on thousand head of cattle enough water for nearly two years. Therefore the drains on groundwater aquifers should be carefully considered and monitored.*

## Response – RC24

Current investigations indicate that there may be an opportunity to utilise groundwater for rail construction purposes in the northern section of the alignment (north of the Bogie River). In response to this submission, Volume 3, Section 12. 3. 2. 2 of the EIS now includes the following mitigation measures.

### Mitigation Measures

The following measures are proposed to monitor and mitigate the potential impacts identified for the construction phase, irrespective of groundwater abstraction:

- maintenance of regular groundwater monitoring (levels and quality) for a minimum 12-month period prior to the start of construction to establish baseline groundwater conditions at selected locations considered the most susceptible to impact (e. g. alluvium at river crossings). This will allow the confirmation of groundwater quality and level action criteria against which to monitor conditions during construction. This program should be agreed with the regulatory authority prior to project commencement;
- develop and implement a groundwater monitoring program to monitor groundwater levels and quality of unconfined shallow aquifers and deeper alluvial aquifers, at selected locations. The bore network and monitoring program should be established 12 months prior to construction, in order to gather natural baseline data that can be used to regularly assess ongoing monitoring data;
- regular assessment of groundwater monitoring results against baseline groundwater conditions during construction and review of monitoring program if necessary;
- if impacts on groundwater levels or quality are identified an assessment of potential mitigation measures will be conducted;
- storage areas for vehicles, machinery, equipment, chemicals etc. during construction should have appropriate facilities to contain spills, leaks and surface water run-off to reduce the potential for contamination of groundwater through infiltration from surface; and
- groundwater monitoring should be conducted by a suitably qualified and experienced professional in accordance with the AS/NZS 5667. 11:1998 Australian/New Zealand Standard for water quality – sampling Part 11; guidance on sampling groundwater's'.

In addition to the mitigation measures cited above (Volume 3, Section 12. 3. 2. 2 of the EIS), in the event that groundwater were to be used for rail construction, a preliminary groundwater investigation would be undertaken at all potential abstraction areas. The investigation would involve sampling the groundwater for water quality, and testing the aquifer to ascertain its hydraulic properties and potential drawdown effects. In areas suitable for groundwater abstraction, in addition to selected locations considered susceptible to impact (i. e. alluvium at river crossings), a twelve month monitoring program should be established to collect baseline water quality and water level data of target aquifers and any aquifers that may be hydraulically connected to the target aquifers. The monitoring program should also encompass existing groundwater bores that may be impacted by groundwater abstraction.

Ongoing monitoring would be conducted by a suitably qualified and experienced professional, in accordance with the AS/NZS 5667. 11:1998 Australian/New Zealand Standard for water quality - sampling Part 11; guidance on sampling groundwaters. Groundwater monitoring data should also be regularly assessed against baseline groundwater conditions during Project construction, and can be used to model groundwater drawdown impacts.

Following preliminary site investigations, a Groundwater Management Plan would be established, outlining bore construction, monitoring, abstraction allocations, groundwater trigger levels, and reporting protocols.

### **5.3.8 Air Quality**

#### **Comment –RC25**

*It is stated here that there is estimated to be "an emission rate of 5. 6kg/km of TSP from fugitive coal release". In Table 13-4 where this figure is expanded to the entire 495 km route the TSP of 19285 kg*

*per day equates to 38.95 kg/km per day. This is a deposition rate of TSP of 14.22 tonnes per year per km of track and we are expected to believe that this has a minimal effect on the environment. The dust dispersion modelling is in Volume 6 Appendix H however the limitation section states that it "must be reviewed by a competent engineer/scientist before being used for any other purpose". I have no such qualifications, but I do know that if someone is dumping fourteen tonnes of coal dust per km on and adjacent to my property each year then it will have a serious cumulative effect. There also appears to be no data available as to what long term exposure to these compounds and ingestion of them has on long term animal health.*

#### **Response – RC25**

HPPL is currently undertaking a study to investigate the best approach to address and minimise coal dust emissions including how wagon shape and design, wagon covers and the use of dust suppressant products (water sprays or polymer) have been shown to reduce coal dust emissions by over 90% in some areas (DuPont Case study Reducing Dust Emissions from Coal Trains 2007).

Furthermore, the 14.2 tonne per km of track is based on worst case emissions for an entire year with, for example, no allowance for rain events. Also, this is the worst case rate in a linear one-dimension (along the track). The area of dust deposition must include the second dimension at right angles to the track so as to derive an impact of mass per area (and then per time; yearly, monthly etc) - this is what the modelling included (and even the third dimension for dust-in-air concentrations).

Approximately 80% of the dust deposition is on the rail tracks (right of way) with the remaining 20% being deposited beyond this. The deposition rate decreases rapidly away from the centreline of the rail corridor so that at the edge of the surrounding properties at 30 m, on both sides, is only exposed to a small fraction of the deposited dust. A possible mitigation measure to consider is to establish a row of native shrubs at the fenceline to 'trap' dust and re-suspended dusts before they leave the corridor.

### **5.3.9 Transport**

#### **Comment –RC26**

*No mention is made of the interruption to traffic flows as a result of proposed rail crossings on rural roads.*

#### **Response – RC26**

Interruptions to rural traffic flows from the estimated seven (7) trains a day frequency is not anticipated to significantly impact upon the safety and amenity of local road users.

#### **Comment –RC27**

*No mention is made of the dangerous nature of rail crossings on rural roads. Most of these crossings occur in isolated areas and any accident area would most likely have dire consequences.*

#### **Response – RC27**

For the safety of road users and the wider community, all rail crossings will be designed to Australian Standards. Risk assessments will be conducted on all rail crossings to determine the appropriate control devices to be used and the level of service provided.

#### **Comment –RC28**

*With the ridiculous situation at present of three companies all intending to build their own lines through the same area one would have thought that common sense would prevail and the relevant Government departments would reach a sensible conclusion and develop a preferred rail corridor that all parties could use.*

#### **Response – RC28**

HPPL has a declared corridor under section 125 (1) (f) of the SDPWO Act and has undertaken to have a third party access regime under the Australian Competition and Consumer Commission (ACCC).

At this point all mines are but proposals and each has to be considered on a stand alone basis as it is not certain if any or all will be approved and proceed. HPPL has declared that it will allow access to other users, and with the addition of a minimum amount of extra infrastructure, additional passing loops and possible sections of track duplication and further rolling stock, the capacity for additional haulage on the rail line could be increased if other parties decide to use the Project rail facilities. The nature and scale of any augmentation to the Project rail infrastructure required to accommodate a capacity greater than 60 Mtpa to meet future demands generated via third party access agreements, will trigger further impact assessment and approvals subsequent to this EIS.

## **5.4 The Moran Family**

### **5.4.1 General**

#### **Comment– RC29**

*Compensation is also an issue that is not adequately addressed. To expect Landholders to be able to gauge the impacts this rail corridor will have over the life time of the project (we have been assured it will only be impacting us for 30-40 years which is contradicted in this EIS) prior to any construction work beginning is virtually impossible. It would be far more beneficial for a rolling compensation package to be implemented based on the tonnage of mineral transported or trains/period. This would ensure that any package would automatically adjust according to the level of inconvenience to the stakeholders at any given time. This system works well in Canada.*

#### **Response – RC29**

Queensland has significant precedents for compensation of rail corridor land for the same legislative framework that is being followed by the Proponent. This draws back to the Acquisition of Land Act 1967, the principles of which the Proponent must recognise in its negotiations with landholders. Negotiations with individual landowners are continuing. These comments are noted and will be taken into consideration during further discussions with the affected parties.

#### **Comment – RC30**

*Volume 3, Section 24. 4. 2 and 24. 5 of the EIS appeared to be absent from the document.*

#### **Response– RC30**

This section of the EIS ends at subsection 24. 3. 10, as such these sections are not absent.

**Comment– RC31**

*We have found the EIS to be repetitious, vague and has some incredibly outdated data included in it. The heavy reliance on desktop data and modelling is also a great cause for concern particularly in relation to overland water flow and dust emissions.*

**Response– RC31**

A hydrological assessment of the rail alignment has now been completed to inform the detailed design process. This report contained within Volume 2, Appendix Y of the SEIS, includes an assessment of all major drainage crossing points. Retention of existing drainage and overland flow paths will be incorporated into the hydrological design to avoid ponding, scouring and the potential water logging of land surrounding the rail corridor. The proponent is currently undertaking a study to investigate the best approach to address and minimise coal dust emissions.

**Comment– RC32**

*This document is enormous and is presented to stakeholders in a format that renders it virtually impossible to adequately cover in the period of time given to respond.*

**Response– RC32**

Notification of the EIS and the submission period (time within which which properly made submissions can be made regarding the Project) is in accordance with the statutory provisions within section 33 (1) (d) of the SDPWO Act. Electronic copies of the EIS document were available to assist stakeholders review information in a convenient manner.

**Comment– RC33**

*The document states in a number of sections that 'the results of this investigation will be available at a later date'. We strongly feel that this information needs to be provided to the Co-ordinator General and all effected stakeholders prior to any final approvals being given to the project as the effects on the environment, individuals, businesses and the state as a whole will be long term and potentially destructive both environmentally and financially.*

**Response– RC33**

The proponent has made commitments to provide a range of on-going studies and investigations to the Coordinator General for assessment and consideration prior to a final decision. A list of other Proponent commitments is included within Volume 2, Appendix D of the SEIS.

**5.4.2 Description of the Project****Comment – RC34**

*This section is inadequate considering the bulk of water that will be required for the project and the limited amount available along the corridor. To draw the 22. 22 megalitres per kilometre from underground aquifers as indicated in the EIS will put incredible strain and possibly permanent damage on underground systems. Any construction of new dams/tanks/turkeys nests will have a downstream/overland flow impact on existing property infrastructure.*

**Response – RC34**



Volume 3, Section 12. 3 of the EIS addresses the potential impacts and mitigation measures associated with groundwater resources within the study area. Additional commentary regarding impacts and mitigation of ground water has been included within these sections as provided RC23 and RC24. Surface water is addressed in Volume 3, Section 11. 4 of the EIS. HPPL is also undertaking a study to investigate potential construction water supplies which has been outlined in Response RC11.

**Comment – RC35**

*Landholder experience is invaluable in considering the placement and construction of drainage lines and should not be dismissed as it has been to date. With the weather systems that have regularly moved through the area more bridges should be considered and any culverts extended or enlarged to accommodate the natural flow of water.*

**Response – RC35**

A hydrological assessment of the rail alignment has been undertaken for the Project to inform the detailed design process. This report contained within Volume 2, Appendix Y of the SEIS, includes an assessment of all major drainage crossing points. Retention of existing drainage and overland flow paths will be incorporated into the hydrological design to avoid ponding, scouring and the potential water logging of land surrounding the rail corridor. Consultation with land owners to best understand the local flow characteristics of surrounding flood plains are continuing and will influence the final design.

**5.4.3 Soils, Topography and Land Disturbance****Comment – RC36**

*The Pegunny floodplain soil system has the potential for a sharp increase in salinity should the incidence of flooding and/or waterlogging become greater. This soil is alkaline at or near the surface but becomes strongly acidic at depth and contains appreciable soluble salts and high levels of exchangeable sodium. (Lands of the Nogoa-Belyando Area Qld; CSIRO Land Research Series 18). Any increase in waterlogging caused by the levee like structure of the rail line or incorrectly placed drainage lines will cause areas previously free draining to be inundated raising salt levels. Pasture species would obviously decline having a direct impact on both our ability to operate a successful grazing enterprise and the water and ecological quality of our river systems.*

**Response – RC36**

Although we were unable to find published information to support this comment, a hydrological assessment of the rail alignment has been undertaken for the Project. This report contained within Volume 2, Appendix Y of the SEIS, includes an assessment of all major drainage crossing points to inform the detained design phase. Retention of existing drainage and overland flow paths will be incorporated into the hydrological design to avoid ponding, scouring and the potential water logging of land surrounding the rail corridor. Measures will be taken to prevent unacceptable changes in afflux due to the proposed railway. Increasing the size, number and frequency of culvert locations along the described trace may be a possible solution to achieve a balanced flow regime where the rail alignment is positioned within natural flood plains.

**Comment – RC37**

*Given the current emphasis being placed on the protection of the Great Barrier Reef from sediment and chemical run off extra care and consideration should be given to the types of mitigation measures used to manage erodible soils.*

#### **Response – RC37**

The proposed mitigation measures will be further developed during the detailed design phase of the Project, following further soil testing and analysis. To assist this process an erosion and sediment control management framework has been developed and included within Volume 2, Appendix AD of the SEIS. This framework includes the following guiding principles to be incorporated within specific erosion and sediment control plans.

- Integrate erosion and sediment control issues into site planning and construction planning;
- Develop effective and flexible Erosion and Sediment Control Plans based on anticipated soil, weather, and construction activities;
- Minimise the extent and duration of soil disturbance;
- Control water movement through the site;
- Minimise soil erosion;
- Promptly stabilise disturbed areas;
- Maximise sediment retention on the site;
- Maintain all ESC measures in proper working order at all times;
- Monitor the site and adjust ESC practices to maintain the required performance standard.

#### **Comment – RC38**

*In the use of any chemical controls, our concerns also relate to the marketability of our end product. Our enterprise sells directly to markets that are sensitive to chemical residues that can be found in beef as a direct result of products ingested by cattle. Strict Quality Assurance audits are conducted and measures are implemented to maintain access to these premium markets (EU/MSA). The use of chemicals on waterways and any part of the easement that may result in run-off contaminating stock or the wider system will need to be considered.*

#### **Response – RC38**

Chemicals are not expected to be used extensively within or near waterways. Notwithstanding, water quality monitoring will be undertaken in accordance with the Project Environmental Management Plan (EM Plan) (SEIS Volume 2, Appendix V).

#### **Comment – RC39**

*At a community meeting held in Clermont on the 5th May, 2010, we were advised by a member of Hancock management that individual copies of the EIS would be forwarded to Landholders, to date that commitment has not been honoured, though select Landholders have received copies.*

#### **Response – RC39**

Following the community information sessions held in December 2010, landholders were sent a CD copy of the EIS.

#### **Comment – RC40**

*Hancock Coal recently conducted community information sessions in regards to the EIS. Our local meeting was held on Wednesday 1st December, A small advertisement was placed in the local newspaper on the 17th November, no doubt fulfilling Hancock Coal's Legislative requirements. Landholders were not officially informed about the meetings until Sunday 28th November via email, a full ten days after the advertisement was placed. The current inclement weather conditions have meant that most landholders have not had access to mail for up to two weeks and many do not subscribe to the much smaller Wednesday edition of the newspaper that the advertisement was placed in. As you can appreciate the low attendance does not reflect a lack of stakeholder interest in the report, merely a lack of notification and consideration on Hancock Coal's behalf.*

**Response – RC40**

These comments are noted and will be taken into consideration prior to further stakeholder engagement in accordance with the Social Impact Management Plan (SIMP). Notwithstanding, the Proponent has protocols related to landholder notice of community information sessions, public meetings etc, these include:

- Each landholder to receive written notification regarding community information sessions hosted in their local area.
- Copies of public presentations etc forwarded to landholders on request to residents who are unable to attend public meetings.
- Formal notification of public EIS consultation sessions are advertised in local papers with at least two weeks notice.
- At least two weeks notice, and four weeks (if possible) for land access and public notices associated with the Project.

**5.4.4 Land Use and Tenure****Comment – RC41**

*A number of issues are not adequately addressed in this section. The potential impact section makes no reference to the loss of capital value due to the existence of the rail corridor.*

**Response – RC41**

HPPL must follow the 1999 Guidelines on acquisition of land by a third party (under the SDPWO Act), and is also subject to the AL Act. Impacts of the railway line are required to be mitigated and/or compensated in accordance with the compensation provisions of the AL Act.

**Comment – RC42**

*To ensure they meet the requirements of their EIS Hancock Coal needs to ensure severed parcels are dealt with in accordance with their statement in this section and in agreement with the Landholder. Any costs associated with joining severed parcels of land to adjacent titles needs to be at Hancock Coals expense*

**Response – RC42**

Where reasonable and necessary, and with the agreement of all relevant landholders, and at Proponent's expense, amalgamations of allotments that are impacted by severance will be undertaken

through a voluntary negotiation process. Where the land is leasehold (and this is the majority of the land), DERM's approval is also required.

Similar to response above, in that DERM approval is required for all leasehold transactions. Severed areas have been minimised, and appropriate measures will be undertaken by Hancock, at the proponent's reasonable expense, to manage such landholdings, including appropriate access. This must be done on a case by case basis.

Where agreement has been reached between the Proponent and affected landowners, safe access across the corridor will be provided. Crossings will be negotiated with each landholder and be of a type that suits the owners operations. Three types of crossings have been identified – stock crossings, light vehicle crossings mainly four wheel drive farm vehicles) and heavy vehicle crossing with height restriction (typically B-double cattle transport trucks and or dozers). Each landholding is likely to have a number of crossings and a mix of types. Proposed crossings will be underpasses for stock and light vehicle where terrain and embankment height permits or at-grade crossings. Where at-grade crossings are proposed they will be subjected to a rigorous risk assessment in accordance with national guidelines and the appropriate level of crossing protection applied. In extreme cases this assessment may deem that grade separation is the only safe option.

#### 5.4.5 Landscape Character

##### Comment – RC43

*We disagree with the statement made in this section with regards to the negative land use impacts specifically targeting grazing. We can provide examples of significantly degraded land types that have been 'protected' under the Vegetation Management Act and have been undeveloped.*

##### Response – RC43

The intent of Volume 3, Section 7. 2. 4 of the EIS is to identify land uses in the context of the visual environment. The landscape of the study area, and the wider region, has been influenced by settlement patterns and uses that have modified the pre-settlement landscape. Such land uses include construction of residences and other buildings, infrastructure, vegetation clearing, agricultural and horticultural land uses and mining, all of which have resulted in changes to the visual landscape.

#### 5.4.6 Land Contamination

##### Comment – RC44

*Mitigation measures for contamination of soil during construction need to include immediate notification to landholders adjacent to the easement. This specifically relates to properties accredited to sell beef to markets with strict guidelines but is most certainly a safety procedure that is relevant to all producers. As stated in the above section the use of chemicals needs to be carefully managed and adjacent landholders notified prior to application.*

##### Response – RC44

In accordance with Volume 2, Appendix AC, Section 3.12.6 of the SEIS, a Spill Response Plan will be prepared to include requirements notifying landholders of any spills with the likelihood of impacting adjoining properties during the construction and operational phases of the Project.

### 5.4.7 Terrestrial Ecology

#### Comment – RC45

*We disagree with the statement that 'the area to be cleared has been minimised as far as possible in the design phase by locating the Project footprint in areas that have been previously cleared or degraded by past land use practices'. Derogatory comments like this are prevalent throughout the EIS and appear to indicate that grazing has had a detrimental effect on the landscape and devalued the environment. Grazing has undoubtedly had some negative impacts where property managers have not taken the natural environment and its capacity to maintain wildlife and stock into consideration. These properties are NOT the norm and the majority of landholders are extremely aware of the impact their management strategies have on the immediate and extended environment.*

#### Response – RC45

Noted.

#### Comment – RC46

*Additional introduced species that also have the potential to cause significant damage include Giant Rat's Tail Grass (*Sporobolus* spp), Rubber Vine (*Cryptostegia grandiflora*) and Bellyache Bush (*Jatropha gossypifolia*). All species exist in the Collinsville and Bowen areas and have the potential to be introduced along the length of the easement.*

#### Response – RC46

HPPL has prepared a Weed Management Plan for this Project, which includes specific requirements and management measures for relevant introduced species (including giant rat's tail grass, rubber vine and Bellyache Bush) (SEIS Volume 2, Appendix AG, Section 2.5).

#### Comment – RC47

*Disturbance of wildlife is duly noted in this section. If wildlife is expected to be negatively effected by light, noise and vibration disturbance then as animals, livestock will also suffer from the same negative impacts.*

#### Response – RC47

Construction and operational noise and vibration impacts while not expected to adversely impact upon any sensitive receivers (no sensitive receivers located within 100 m of the rail corridor), will have a low probability of adverse impacts upon wildlife and livestock located more than 40 m from the rail line or approximately 10 m of the rail corridor. On this basis, noise and vibration impacts on livestock are not expected to be a significant issue.

#### Comment – RC48

*The study conducted by Connell Hatch (2008) as referred to in the EIS relates to a very intensive study conducted on extremely small, highly improved pastures and dairy cows 'Coal mine dust and dairy rates of no dust, 4000 and 8000 mg/m<sup>2</sup>/day'. It would have very little relevance to a broad scale paddock situation where cattle have the option of consuming uncontaminated pasture in areas away from the rail corridor. This coupled with grazing animals 'place specific fear memories' (Grandin and Deesing 2008) where a beast will fear returning to an area where a 'frightening experience first occurred' (such as loud machinery or rapid train movement) will mean that in order to utilise the area*



*adjacent to the rail corridor, paddocks will need to be fenced into smaller areas to compel the animals to consume the pasture. Containing the animals in these smaller paddocks will mean that the feed will be consumed, however weight gain is likely to be limited and meat quality reduced due to the multiple stress effects of the dust, noise, vibration and fast moving trains/vehicles.*

#### **Response – RC48**

HPPL is currently undertaking a study to investigate the best approach to address and minimise coal dust emissions. The study will investigate how wagon shape and design, wagon covers and spray treatments (water sprays or polymer) can reduce coal dust emissions. In addition to environmental drivers, there are economic ones related to coal loss, possible fuel savings and reduced maintenance supporting this process.

Recent noise and vibration testing of coal trains in the Hunter Valley have indicated a low probability of adverse impact on human or livestock comfort for receptors located more than 40 m from the rail line or approximately 10 m of the rail corridor. On this basis, noise and vibration impacts on livestock are not expected to be a significant issue (Australian Rail Track Corporation, 2009).

#### **Comment – RC49**

*Given the current flood situation across Queensland we feel that the comment 'it is not expected that significant level of change will occur' in the floodplain hydrology is a grossly negligent assumption. All efforts need to be made to ensure the natural flow of water along the length of the rail corridor is maintained and this can only be achieved by accessing the real data provided by Australian Water Resource Council gauging stations located along various rivers and creeks in the area and local landholder knowledge of flood water movements. Floodplains act to slow the movement of water and sediments lessening the impact on areas downstream.*

#### **Response – RC49**

Current preliminary drainage designs are based on a limited amount of hydrological, hydraulic and earthwork modelling. This includes flow gauging information from six DERM gauging stations. In addition, a hydrological assessment of the rail alignment has been undertaken for the Project. This report contained within Volume 2, Appendix Y of the SEIS, includes an assessment of all major drainage crossing points to inform the detailed design phase. Retention of existing drainage and overland flow paths will be incorporated into the hydrological design to avoid ponding, scouring and the potential water logging of land surrounding the rail corridor. The rail designs will be developed with the aid of further hydrological and hydraulic modelling and stakeholder input. It is recognised that current landholder records and experiences will be invaluable in design development. Accordingly, consultation with land owners to best understand the local flow characteristics local rivers, creeks and surrounding flood plains are continuing and will influence the final design.

### **5.4.8 Aquatic Ecology**

#### **Comment – RC50**

*This section refers to riverine habitats and states that only two such areas capable of supporting aquatic fauna, Mistake Creek and Table Mountain Creek exist along the alignment. Permanent water holes that support fish populations exist along Eaglefield Creek. The aquatic fauna populations were surveyed by James Cook University in a 2008 ACTFR Fish Survey.*

#### **Response – RC50**

The report included assessment of other habitats, including aquatic habitats identified with habitat values for aquatic fauna in, for example, the Suttor River. Also refer to Volume 6, Section 3.3.3 of Appendix F Freshwater Aquatic Flora and Fauna of the EIS for additional detail on river habitats.

#### **5.4.9 Surface Water**

##### **Comment – RC51**

*This section admits the lack of recorded data on the soil types of the Pegunny flood plain and the salinity hazard in this section of the corridor. The life time of experience that Landholders have with the reactivity of this soil should be considered an invaluable source of information to Hancock Coal.*

##### **Response – RC51**

The Burdekin Falls Dam has not been considered part of the erosion and sedimentation solution. The effect of the dam on sediments has just been mentioned. A whole range of sedimentation and erosion control measures has been mentioned in the EIS for both the construction and the operational phases of the Project. These mitigation measures will be further developed during the ESCPs (concept and detailed), which will be developed following further soil testing and analysis and required as part of the approvals process for MCU's and Operational Works. An erosion and sediment control management framework has been developed and included within Volume 2, Appendix AD of the SEIS.

##### **Comment – RC52**

*The importance of flood events has been seriously underestimated in this section and based on a very broad, unscientific summary of data. This highlights the lack of detailed investigation throughout this EIS with Australian Water Resource Council gauging station records able to provide up to date information on flooding events and local (property) records a reliable source of more site specific data. The EIS cannot effectively conduct a hydraulic analysis of overland flow and flood events without using up to date information.*

##### **Response – RC52**

The Australian Water Resource Council does no longer exist. Available information from existing DERM gauging stations has been applied.

##### **Comment – RC53**

*Landholders have been unable to further develop water resources since February 2002 when the State Government placed a moratorium on water resources. Permits have not been issued since this date. This moratorium needs to be further investigated by the proponent if they plan to construct new water harvesting and storage facilities for Landholders whose existing infrastructure will be negatively impacted by the rail line.*

##### **Response – RC53**

Noted.

##### **Comment – RC54**

*This section makes no mention of potential environmental impacts including the destruction of wildlife and livestock, existing infrastructure and native and improved pasture. Any major change in overland*

*and instream flows has the potential to have a devastating impact on both the ecology and financial viability of properties, particularly in times of flooding. Given the increased incidence of flooding in recent years this issue needs to be addressed.*

#### **Response – RC54**

A hydrological assessment of the rail alignment has been undertaken for the Project to inform the detailed design process. This report contained within Volume 2, Appendix Y of the SEIS, includes an assessment of all major drainage crossing points. Consultation with land owners to best understand the local flow characteristics are continuing and will influence the final design. Measures will be taken to prevent unacceptable changes in afflux due to the proposed railway. Increasing the size, number and frequency of culvert locations along the described trace may be a possible solution to achieve a balanced flow regime where the rail alignment is positioned within natural flood plains.

#### **Comment – RC55**

*To meet Quality Assurance requirements Hancock Coal will need to notify Landholders of chemical useage prior to any applications along the easement.*

#### **Response – RC55**

Any required notification will be undertaken.

### **5.4.10 Groundwater**

#### **Comment – RC56**

*This section of the EIS assumes that alluvial aquifers will be recharged 'via direct infiltration of precipitation and from hydraulic connection with surface water bodies'. Due to the known depth of some of the water bodies that exist along the corridor this statement can only be relevant to the shallowest aquifers in this area. Many of these seasonal aquifers will struggle to maintain the unprecedented amounts of water required to construct the rail line. There is a real risk of these aquifers being permanently damaged and/or run dry. Deeper aquifers have a more complicated means of recharging due to the nature of the soil types and deposition layers in the area. The lack of data in regards to these alluvial aquifers is acknowledged in section 12. 2. 6. 1.*

#### **Response – RC56**

Refer to the updated Volume 3, Section 12. 2. 4. 2 of the EIS provided within RC21 which adequately addresses this comment.

#### **Comment – RC57**

*Considering the lifetime of the rail corridor to assume that the current mapping classification as Unincorporated GMU and assuming that 'groundwater resources and extractions are not considered threatened or vulnerable' does not mean that they may not become so in the future. With the expansion of industries requiring the dewatering of aquifers it would be fair to predict that these resources may very well become threatened and vulnerable in coming years.*

#### **Response – RC57**

The majority of the Project site and surrounding area is mapped as an Unincorporated GMU (does not require any special management), however, due to the proposed lifetime of the rail corridor, this mapping classification may very well change. Currently groundwater is one of many watersources being considered for construction or operation use (refer to RC11). As a result, long-term impacts or threats are not anticipated for groundwater resources that underlie the proposed rail alignment, regardless of future GMU classification. Volume 3, Section 12. 3. 1 of the EIS has been updated as follows:

### **12. 3. 1 Overview**

Establishment and operation of the rail route is estimated to require 11 GL of water for dust suppression, temporary construction camps, workshops and depots, weed wash-down bays, earthworks material conditioning, capping material conditioning, access track and haul road maintenance, and rehabilitation . The Abbot Point rail loop (from chainage 485 km to 510 km) will potentially have the highest water usage for dust suppression, due to its proximity to wetlands, major roads and highways (i. e. Bruce Highway) and populated areas (Bowen). In addition to requirements for consolidation of fill, for embankments planned for the area of the rail loop that intersects with the Kaili (Caley) Valley Wetlands.

The level of potential for impact on groundwater during construction is dependent on whether groundwater is abstracted for construction purposes. Abstraction of groundwater could impact on water table levels, local flora and fauna (aquatic, terrestrial and subterranean), as well as surrounding groundwater users. Irrespective of whether groundwater is abstracted, construction of new infrastructure, such as culverts, cuttings, embankments and bridges, has the potential to result in short term, localised impacts on shallow groundwater. The potential impacts on groundwater during construction and post construction of the Project are outlined in the following sections.

### **Comment – RC58**

*The dewatering of aquifers is not addressed in this section and is one of the most serious potential impacts that will effect stock and domestic supplies.*

### **Response – RC58**

Further to the response provided for RC57, Volume 3, Section 12. 3. 2 of the EIS has been updated as follows:

### **12. 3. 2 Construction**

#### **12. 3. 2. 1 Potential Impacts**

While groundwater is not anticipated to be a major construction water source for the rail, to fully encompass all potential groundwater issues, potential impacts caused by the abstraction of groundwater are listed below.

- lowering of groundwater table (impacting on local groundwater users and groundwater dependent ecosystems);
- disturbance of ephemeral water bodies and streams, and associated ecological impact;
- insufficient investigation into sustainable yields, resulting in over extraction of groundwater and potential failure of aquifers;
- decline in subterranean fauna populations;
- inadequate bore design, resulting in groundwater contamination of confined aquifers;

- restricted groundwater availability or viability for other groundwater users;
- positioning of abstraction bores in close proximity to existing abstraction bores for other land users, resulting in failure of bores due to lowering of water table, increased turbidity, reduced hydraulic conductivity (due to mobilisation of clay particles) and potential damage to bore screen or pump.

Potential impacts, not related to groundwater abstraction, include:

- potential for localised water logging as a result of groundwater level increases caused by construction of any embankments, or as a result of pre-loading, where pre-construction groundwater levels are relatively close to ground surface, particularly in the vicinity of the major rivers and within the low lying coastal flats of Abbot Point;
- potential for localised, temporary reduction in shallow groundwater levels in the vicinity of Suttor River, Bowen River and Bogie River as a result of temporary minor dewatering as a part of bridge pile construction works. The dewatering is unlikely to have any significant or long-term impact, the short duration, low volume and localised nature of the dewatering; and
- potential for localised degradation of groundwater quality within alluvial deposits or bedrock that intersect the Project site, directly beneath or down-gradient of the Project site if any leaks or spills occur during construction. Local water supply bores in Sections 1 and 3 are unlikely to be impacted from construction, given the distance to the bores. Bores within Sections 2 and 4 are the most likely to be impacted.

#### **Comment – RC59**

*As there is no data on the structure of deep alluvial freshwater aquifers we would expect extreme caution and constant monitoring of any extraction processes of all bores in the area relating to those aquifers with the permission of landholders. Contamination of freshwater bodies by the deeper far saltier alluvial aquifers must be prevented during bore construction.*

#### **Response – RC59**

In response, Volume 3, Section 12. 3. 2. 2 of the EIS has been updated as follows:

#### **12. 3. 2. 2 Mitigation Measures**

The following measures are proposed to monitor and mitigate the potential impacts identified for the construction phase, irrespective of groundwater abstraction:

- maintenance of regular groundwater monitoring (levels and quality) for a minimum 12 - month period prior to the start of construction to establish baseline groundwater conditions at selected locations considered the most susceptible to impact (e. g. alluvium at river crossings). This will allow the confirmation of groundwater quality and level action criteria against which to monitor conditions during construction. This program should be agreed with the regulatory authority prior to Project commencement;
- develop and implement a groundwater monitoring program to monitor groundwater levels and quality of unconfined shallow aquifers and deeper alluvial aquifers, at selected locations. The bore network and monitoring program should be established 12 months prior to construction, in order to gather natural baseline data that can be used to regularly assess ongoing monitoring data;
- regular assessment of groundwater monitoring results against baseline groundwater conditions during construction and review of monitoring program if necessary;



- if impacts on groundwater levels or quality are identified an assessment of potential mitigation measures will be conducted;
- storage areas for vehicles, machinery, equipment, chemicals etc. during construction should have appropriate facilities to contain spills, leaks and surface water run-off to reduce the potential for contamination of groundwater through infiltration from surface; and
- groundwater monitoring should be conducted by a suitably qualified and experienced professional in accordance with the *AS/NZS 5667. 11:1998 Australian/New Zealand Standard* for water quality – sampling Part 11; guidance on sampling groundwater's'.

In addition to the mitigation measures cited above (Volume 3, Section 12. 3. 2. 2 of the EIS), in the event that groundwater were to be used for rail construction, a preliminary groundwater investigation would be undertaken at all potential abstraction areas. The investigation would involve sampling the groundwater for water quality, and testing the aquifer to ascertain its hydraulic properties and potential drawdown effects. In areas suitable for groundwater abstraction, in addition to selected locations considered susceptible to impact (i. e. alluvium at river crossings), a twelve month monitoring program should be established to collect baseline water quality and water level data of target aquifers and any aquifers that may be hydraulically connected to the target aquifers. The monitoring program should also encompass existing groundwater bores that may be impacted by groundwater abstraction.

Ongoing monitoring would be conducted by a suitably qualified and experienced professional, in accordance with the *AS/NZS 5667. 11:1998 Australian/New Zealand Standard* for water quality - sampling Part 11; guidance on sampling groundwaters. Groundwater monitoring data should also be regularly assessed against baseline groundwater conditions during Project construction, and can be used to model groundwater drawdown impacts.

Following preliminary site investigations, a Groundwater Management Plan would be established, outlining bore construction, monitoring, abstraction allocations, groundwater trigger levels, and reporting protocols.

#### **Comment – RC60**

*Deep alluvial aquifer bore monitoring needs to be included in this section particularly on water reserves that are suitable for domestic and stock use. All monitoring should include a water quality aspect to ensure salt does not contaminate freshwater reserves and that a reduction in the aquifer level is not affecting the quality of deep alluvial supply. If Hancock Coal mitigation measures fail and domestic and stock water supply is threatened, then they should undertake to supply suitable water for as long as the groundwater is compromised.*

#### **Response – RC60**

These comments will be taken into consideration during further discussions with stakeholders. The baseline and on-going monitoring of ground water levels and quality as outlined in Volume 3, Section 12. 3. 2. 2 of the EIS (refer to RC59) will be undertaken to assist in identifying any impacts on groundwater levels or quality during the Project. If impacts resulting from Project related activities are identified an assessment of potential mitigation measures will be conducted.

### **5.4.11 Air Quality**

#### **Comment – RC61**

*Extrapolation of the data supplied in this section indicates that at 60 Mtpa production a total of 14.22 tonnes per kilometre per year of fugitive coal release will be deposited along the length of the track. As previously stated in 9.3.2.3.1 any introduction of foreign matter on a pasture system will have an effect on the grazing habits of both wildlife and stock and to date there is no cumulative data on the long term effects on animals ingesting these compounds.*

**Response– RC61**

The emission rate is a worst case assumption for a single train pass. This has been extrapolated to all train passes for the entire year with no allowance for variation that would be experienced due to environmental factors such as rain events.

HPPL is currently undertaking a study to investigate the best approach to address and minimise coal dust emissions. The study will investigate how wagon shape and design, wagon covers and spray treatments (water sprays or polymer) can reduce coal dust emissions.

**Comment – RC62**

*Air quality monitoring systems should be included in the mitigation measure for rural areas. Dust settling measures should also be implemented to reduce coal dust emissions from the wagons during transportation.*

**Response– RC62**

A monitoring regime with selected measurement points will form part of the Environmental Measurement System (EMS) for the Project.

## **5.4.12 Noise and Vibration**

**Comment – RC63**

*This section fails to recognise the negative impacts of noise on wildlife and livestock as per 9.3.2.3.1 (53P).*

**Response– RC63**

Volume 3, Section 9.3.2.3.1 of the EIS refers to the potential impacts from particulate emissions, the correct section reference for this submission is Volume 3, 9.3.2.2.1. Volume 3, Section 9.3.2.2.2 Mitigation and Management Measures addresses the impacts of noise and vibration on wildlife.

It is expected that livestock will adapt to the noise and will not suffer stress from such noise sources. Noise measurement data from a Hunter Valley coal rail project indicates the 100 dB(A) SEL (the criteria adopted by the US Department of Transportation Federal Railroad Administration (FRA) for potential noise impacts on wildlife) criteria for animals would only be exceeded within approximately 10 metres of the rail corridor (Australian Rail Track Corporation, 2009). On this basis, noise impacts on wildlife and livestock are not expected to be a significant issue.

**Comment – RC64**

*This section fails to recognise the negative impacts of vibration on wildlife and livestock as per 9.3.2.3.1.*

**Response– RC64**

Volume 3 Section 9. 3. 2. 3. 1 of the EIS refers to the potential impacts from particulate emissions, the correct section reference for this submission is Volume 3, 9. 3. 2. 2. 1. Volume 3, Section 9. 3. 2. 2. 2 Mitigation and Management Measures addresses the impacts of noise and vibration on wildlife.

Recent vibration testing of coal trains in the Hunter Valley have indicated low probability of adverse impact on human comfort for receptors located more than 40 m from the rail centre line. Accordingly it is highly unlikely there would be adverse vibration impacts during the operation of the Project (Australian Rail Track Corporation, 2009).

**Comment– RC65**

*Again this section fails to recognise the negative impacts of Operational Noise on wildlife and livestock as per 9. 3. 2. 3. 1. Wildlife, particularly kangaroos and emus and livestock fail to adjust to traffic along the two roads that border our property. This equates to 18 trains per day which would indicate a constant stream of rail traffic along the corridor with the expectation that Landholders are still able to safely walk livestock and drive machinery and vehicles over the line at level crossings and wildlife will comfortably use the facilities provided for them to gain access to their traditional feeding and breeding grounds. We have been advised in consultations with Hancock Coal to expect that the 60 Mtpa figure will be exceeded easily and that the line will be expecting a 120 Mtpa capacity, however they fail to make this obvious in this EIS.*

**Response– RC65**

Volume 3, Section 9. 3. 2. 3. 1 of the EIS refers to the potential impacts from particulate emissions, the correct section reference for this submission is Volume 3, Section 9. 3. 2. 2. 1. Volume 3, Section 9. 3. 2. 2. 2 Mitigation and Management Measures addresses the impacts of noise and vibration on wildlife.

It is expected that livestock will adapt to the noise and will not suffer stress from such noise sources. Noise measurement data from a Hunter Valley coal rail project indicates the 100 dB(A) SEL (the criteria adopted by the US Department of Transportation Federal Railroad Administration (FRA) for potential noise impacts on wildlife) criteria for animals would only be exceeded within approximately 10 metres of the rail corridor (Australian Rail Track Corporation, 2009) . On this basis, noise impacts on wildlife and livestock are not expected to be an issue.

As detailed in Volume 3, Section 1. 3 of the EIS, the Project will enable export of 60 Mtpa of quality thermal coal for a lifespan of approximately 30 years, not 120 Mtpa as mentioned in this submission. Augmentation of the rail infrastructure to accommodate a capacity greater than 60 Mtpa to meet future demands generated via third party access agreements will require further impact assessment and approvals subsequent to this EIS.

Adverse impacts associated with the rural amenity of the property caused by the Project will be addressed through a value engineering process which will be informed by stakeholder engagement in accordance with the SIMP. Notwithstanding, negotiations with individual landowners are continuing. These comments will be taken into consideration during further discussions with affected parties.

**5.4.13 Waste****Comment– RC66**

*Vegetative or other waste should not be taken off site and placed on Landholder owned 'adjoining bushland' without the permission of the Landholder.*

**Response– RC66**

Table 16-1 contained with Volume 3, Section 16 of the EIS identifies that as far as practicable vegetation materials will be mulched and used onsite for rehabilitation and revegetation works. Larger vegetation materials such as hollow logs and hollow bearing trees will be stockpiled for use in rehabilitation activities or placed in adjoining bushland in accordance with prior landowner consent.

#### **5.4.14 Transport**

**Comment– RC67**

*Temporary road closures will not be an acceptable option as alternative access to townships in rural areas is very limited or non existent. Detours should be created to ensure access is open at all times.*

**Response– RC67**

The Traffic Management Plan that will be developed prior to commencement of the works will nominate alternative routes and detours to ensure access to townships will not be affected. The alternative routes will be identified in consultation with the key stakeholders.

**Comment– RC68**

*Despite repeated assurances from Hancock Coal that the crossing on the Kilcummin Diamond Downs Road will be an overpass this EIS still indicates a level crossing. The rail crossing on this road is on a direct east/west aspect with the sun seriously effecting road users vision for the better part of the day. These crossings are relevant specifically to us however we feel that all road crossings in this day and age should be either over or underpasses. Especially considering the potential for such high amounts of rail traffic along the corridor.*

**Response– RC68**

The current intent is to grade separate (road bridge over rail) the Kilcummin Diamond Downs Road which runs north-south but not the nearby east-west oriented Mabbins Road. However, all rail crossing points will be subjected to a detailed assessment in line with nationally agreed processes and procedures prior to finalisation and accreditation. These assessments consider the principal factors that affect the safety of crossings – number of road users and rail traffic, now and in the future; the orientation of the road relative to the rail; the relative elevation; the road surfacing and a host of other factors associated with sight distance and the ability of the road users to see an approaching train and be able to stop safely. Matters such as possible sun-glare come into this assessment. Once assessed an interface agreement is entered into with the crossing user in the case of private crossings or the group who represent the users for public crossings e. g. local council or the DTMR. These agreements form part of the rail safety accreditation which is assessed by the government appointed Rail Regulator.

**Comment– RC69**

*This section fails to identify any dangers associated with rail crossings in rural areas. Verbal confirmation of these overpasses is not acceptable. Only when it is detailed in the rail alignment plans will we be satisfied that personal safety is assured.*

**Response– RC69**

Overpasses are infrequently used in Australia. This is because when a risk based assessment is carried out rarely can it be demonstrated that the safety risk or nuisance of being stopped at a crossing whilst a train passes is significant enough to justify grade separation. Modern signalling systems are able to detect and predict the approach of a train and ensure that the protection system, lights, bells and/or booms will activate in time for traffic to stop and be held for a minimum time before the train arrives, irrespective of the train speed. Once the train has passed the protection is lifted almost immediately to minimise the road user delays. If sighting distance is compromised, advance warning road traffic signals can be added. If there is a circumstance where obstruction of the rail line is possible or likely interactive systems that observe the crossing and inform the train allowing it to slow down and/or stop if the obstruction doesn't clear are now available. So modern technology coupled with informed and sensible road user behaviour make level crossings more than acceptably safe in most instances in rural Australia. This railway and these conditions are not unusual or unique as appropriately protected level crossings are still the predominant crossing type throughout the nation and the world.

**5.4.15 Social****Comment– RC70**

*This EIS fails to recognise the services provided by the Royal Flying Doctor in the area.*

**Response– RC70**

The Royal Flying Doctor Service (RFDS) provides emergency response services when a person becomes seriously ill or injured and requires evacuation by air from a location without medical facilities to the nearest hospital infrastructure. For a primary response, the RFDS may fly to an isolated property, such as a station, mine site, road house or small community, to a remote health facility, or to an accident site itself. The RFDS provides this service 24 hours a day to over 80% of the Australian continent. RFDS has bases in Charleville, Mount Isa and Cairns. These bases can be contacted by telephone, HF radio and Selcall equipped radios.

HPPL will consult with the RFDS to further develop the Emergency Response Plan and draft SIMP including the development of:

- Relationships at the regional level (Longreach, Mackay and Townsville) and at a local district level will be developed to address issues as they arise;
- Relevant management strategies; and
- Development of relevant indicators to be monitored throughout the life of the Project.

**Comment – RC71**

*As landowners, both individually and collectively as a group we have advised Hancock Coal in good faith to provide us with adequate notice (at least seven working days) of proposed appointments, investigative access and community information sessions. They have consistently failed to understand or adhere to this and other requests, including many issues that have been raised in regards to planning and development of the corridor.*

**Response – RC71**



HPPL is committed to addressing all landowners submissions made during the EIS consultation period. Confidential negotiations with landholders are currently underway to confirm access protocols and identify specific impacts or areas of concern to be addressed in the landholder compensation packages. Improving access to Project information and engagement with impacted landholders will be managed within the SIMP process.

#### 5.4.16 Hazard and Risk

##### Comment– RC72

*Nibbereena Creek is not listed as an 'environmentally sensitive receptor'. This creek has significant flows and is crossed three times by the rail corridor. It is situated between Myra Creek and Eaglefield Creek and should be acknowledged in this list.*

##### Response– RC72

Nibbereena Creek is a first order stream that is identified in Volume 3 Section 10 (Aquatic Ecology) Figure 10-2 Sheet 3 of 5 as a Riverine Waterbody. It is also recognised as major waterway in current BFS design. Nibbereena Creek is therefore included on the list contained within Volume 3 Section 24. 1. 3. 2 as an environmentally sensitive receptor.

##### Comment– RC73

*(16, 23) Fire risk is under rated and the indication that the Project area is sparsely vegetated is false.*

##### Response– RC73

Volume 3, Section 24. 3. 3 of the EIS addresses the proposed management and response to the bushfire risk. The moderate risk rating which can be reduced to a low risk rating with controls in place, is considered appropriate to the level of risk associated with bushfire.

##### Comment– RC74

*(17,) To rate the risk of 'Severe Weather Resulting in Flooding' as insignificant is ridiculous given the topography and available data (BOM, AWRC) for the area the rail corridor transects.*

##### Response– RC74

Flood events used in the surface water modelling have been determined from information as provided by the BoM. The number of flood events does not influence hydraulic model results for drainage requirements.

##### Comment– RC75

*(22,) This EIS fails to include any communication facility for direct contact with train operators by Landholders for the purpose of notifying stock or heavy machinery movements. This is very important if at grade crossings are the only option for Landholders accessing their property on either side of the rail corridor.*

##### Response– RC75

Volume 3, Section 17. 3. 4. 1. 6 of the EIS identifies that traffic impacts associated with railway operations at crossings can be further assessed when a more detailed operational plan has been

developed for the transport of the coal from the Alpha Mine to the Port of Abbot Point. Standard safety procedures for rail operations, however, will apply at these road crossings and special procedures will be identified in the traffic management plan to be prepared.

In accordance with consultation and agreements with current land owners, where private below rail stock crossings can not be accommodated, new livestock mustering yards and an at grade occupational crossing may be developed. If necessary, these locations will include relevant communication facilities to contact train operators.

## **5.5 Salmond, Joanne**

### **5.5.1 Groundwater**

#### **Comment – RC76**

*Further investigation including full groundwater modelling should be undertaken before the EIS is approved. With a predicted radius of impact of 20km it is clear that a large number of private bores are within the ambit of drawdown influence from proposed pits and dewatering operations. Hancock Coal has not mentioned or committed to any make-good undertaking for damaged bores.*

#### **Response – RC76**

This section pertains to Volume 3 - Rail Corridor EIS, which covers the issues, impacts and mitigation measures associated with the proposed Project rail alignment. Please refer to Volume 2 - Coal Mine EIS for information regarding impacts associated with proposed pit dewatering operations. In regards to groundwater abstraction along the rail alignment, refer update sections of the EIS as provided within RC57, RC58 and RC59.

## **5.6 Scott, Owen and Lee**

### **5.6.1 Health and Safety**

#### **Comment – RC77**

*Nibbereena Creek is not listed as being an Environmentally Sensitive receptor. Due to any change in the flow of this creek, serious issues may occur. The one and only cause will be the rail line. The two planned crossings below the dwellings.*

#### **Response – RC77**

Nibbereena Creek is a first order stream that is identified in Volume 3, Section 10, Figure 10-2 Sheet 3 of 5 as a Riverine Waterbody. It is also recognised as major waterway in current BFS design and is therefore included on the list contained within Volume 3, Section 24. 1. 3. 2 as an environmentally sensitive receptor. The potential impacts on Nibbereena Creek, along with other waterways within the study corridor, will be modelled as part of the detailed design of the Project.

## 5.6.2 Noise and Vibration

### Comment – RC78

*With the wind blowing predominately from the SE, our property is subject to approximately 7km of operational rail usage. Again, due to this route change of the railway corridor and our homestead being only 2km from the line, we are yet again impacted sub.*

### Response – RC78

Although there is a route change, rail operation noise levels at this sensitive receiver located at two km from the rail corridor is expected not to exceed the criteria for sensitive receptors. As there are only 14 rail movements during each 24-hour period, it is unlikely that sleep disturbance will be an issue.

As applied to other similar rail projects assessing infrequent rail movements on open rail networks during night time periods 10pm to 7 am, we consider that sleep disturbance criteria is not applicable to this Project. However, as noise impact assessments for the EIS have been based on desk top analysis, site based noise monitoring (internally and externally) of sensitive receptors will be undertaken as part of the detailed design stage. Compliance measurements may form part of the recommendations if the calculations at detailed design stage suggest exceedance of relevant criteria

## 5.6.3 Air Quality

### Comment – RC79

*Yet again, due the route change, three stud breeding paddocks from 400 – 600 acres in size are adjacent to the rail line, along with one 2000 acre paddock. The EIS has stated the deposition rate of the TSP of 14.22 tonnes per year per kilometre will occur.*

### Response – RC79

While the position of the rail alignment, where it traverses Lot 4 DC93, has not changed since the EIS was published. The 14.2 tonne per km of track is based on worst case emissions for an entire year with, for example, no allowance for rain events. Also, this is the worst case rate in a linear one-dimension (along the track). The area of dust deposition must include the second dimension at right angles to the track so as to derive an impact of mass per area (and then per time; yearly, monthly etc) - this is what the modelling included (and even the third dimension for dust-in-air concentrations).

Approximately 80% of the dust deposition is on the rail tracks (right of way) with the remaining 20% being deposited beyond this. The deposition rate decreases rapidly away from the centreline of the rail corridor so that at the edge of the surrounding properties at 30 m, on both sides, is only exposed to a small fraction of the deposited dust.

A possible mitigation measure to consider is to establish a row of native shrubs at the fenceline to 'trap' dust and re-suspended dusts before they leave the corridor.

## 5.7 Barcaldine Regional Council

### 5.7.1 Introduction

#### Comment – RC80

*.... it is suggested that longer term access and/or incorporation with public or private enterprise (e. g. QR) for regional passenger transport be included with the conditioning and approvals.*

**Response – RC80**

Whilst the concept of regular passenger rail services to remote communities is a commonly held ideal, history shows that it is not realistic and is rarely supported by the communities it serves. There are no passenger services to regional country centres anywhere in the nation that have patronage levels to support the cost of the services. The trend is for more and more of these lines to be closed and replaced with bus services. If a rail line remains open to passenger services it has to be heavily subsidised by the state and is often only kept alive for historical and nostalgic reasons. This railway is a dedicated heavy haul railway and to introduce a passenger service into the coal traffic would create operational and safety issues that alone would outweigh any benefit. The value of this line to the State is not as a passenger rail line now nor in the future. Its value is as a railway dedicated to the transport of coal which provides value to Queensland and the nation via export revenues.

**Comment – RC81**

*The additional infrastructure has the potential to cause impacts along the length of the line and at associated infrastructure points (impacts not mentioned in EIS).*

**Response – RC81**

The impact of the railway and associated infrastructure has been assessed, with mitigation measures proposed, throughout the EIS. While there is no specific impact raised in this comment, the Project Rail EM Plan contained within Volume 2, Appendix AC of the SEIS does address and seek to mitigate a comprehensive range of environmental impacts which may result from the Project.

**5.7.2 Description of the Project****Comment – RC82**

*The alignment of the rail line includes a number of impacted properties, owners and householders. The rural industries are integral to the long term stability and ongoing viability of the regional communities.*

**Response – RC82**

The Project design team is refining the alignment to address the surrounding land use access and amenity in accordance with such concerns. HPPL is currently in confidential negotiations with landholders to identify specific impacts to be addressed within the final detailed design and commitments to be included within individual landholder compensation packages.

**Comment – RC83**

*Where rail impacts can be minimized including co-located with infrastructure such as the power, pipelines (gas and water) etc in accordance with required separation distances and these should be the preferred method rather than multiple transecting services which contribute to a greater disturbance footprint.*

**Response – RC83**

The engineering performance criterion (horizontal and vertical alignment gradients) for the rail development is highly constrained and therefore is not consistent with the other existing infrastructure

corridors (road, power, gas and water pipeline corridors). As such the rail alignment has a very limited capacity to co-locate with existing service routes.

However the Project does not preclude the opportunity for co-location of other utilities and services within or immediately adjacent to its alignment. Since the initial development of this Project, such opportunities have been acknowledged, including but not limited to the Galilee (AMCI) Coal Project, a multi-user infrastructure corridor within the Abbot Point State Development Area, Powerlink power transmission line and SunWater raw water pipeline.

#### **Comment – RC84**

*In order to demonstrate the role of the Project within the Central Queensland region, it is essential to identify the relationship of the Project with other projects within the region. The Project corridor will be utilised for adjoining Kevin's Corner Mine Project and other Hancock Galilee Projects.*

#### **Response – RC84**

Refer to RC 83 and Volume 3, Section 2. 2. 1 of the EIS which details other projects that are occurring within the region. In addition the cumulative impacts of the Project are addressed in Volume 1 of the EIS.

### **5.7.3 Surface Water**

#### **Comment – RC85**

*Potential flooding impacts due to the additional proposed infrastructure needs to be modelled to assess impacts and to ensure that there are no adverse impacts to the community, residences, roads and properties.*

#### **Response – RC85**

Current preliminary drainage designs are based on a limited amount of hydrological, hydraulic and earthwork modelling. This includes flow gauging information from six DERM gauging stations. In addition, a hydrological assessment of the rail alignment has been undertaken for the Project. This report contained within Volume 2, Appendix Y of the SEIS, includes an assessment of all major drainage crossing points to inform the detailed design phase. Retention of existing drainage and overland flow paths will be incorporated into the hydrological design to avoid ponding, scouring and the potential water logging of land surrounding the rail corridor. The rail designs will be developed with the aid of further hydrological and hydraulic modelling and stakeholder input. It is recognised that current landholder records and experiences will be invaluable in design development. Accordingly, consultation with land owners to best understand the local flow characteristics local rivers, creeks and surrounding flood plains are continuing and will influence the final design.

### **5.7.4 Social**

#### **Comment – RC86**

*The government is aware that growth of this order will bring large scale change to many communities in regional Queensland.*

#### **Response – RC86**



HPPL is obligated to meet government performance standards with regards to local employment and training objectives. This will involve further consultation with key stakeholders to develop programmes and procedures for implementation within the SIMP process (SEIS Volume 2, Appendix E).

## Comment – RC87

*True sustainability of the railway line needs to include social, environmental and economic impacts as per the TOR and in this way by enabling dual purpose use of the railway line there is a potential that passenger, freight and other occasional needs such as large machinery or stock may be transported utilizing the same line. Sustainable infrastructure is in the interests of the state.*

*‘Proposals for major new and expanded mining and petroleum development which bring forward the delivery of infrastructure and services or promote development in locations not supported by regional land use plans and local area plans will involve collaboration with the State Government and community to mitigate identified social impacts.’*

*BRC ask the Co-ordinator General to make formal requirement that mines, including Hancock Coal (the applicant) have a responsibility to mitigate negative social impacts and to contribute to the development of communities in and near where they operate.*

## Response – RC87

HPPL will continue to consult with stakeholders as part of the detailed design, construction, operation and decommissioning of the rail infrastructure to monitor and address negative perceptions held by stakeholder groups. This will include undertaking consultations to identify underlying causes and implement management plan strategies within the SIMP process to ameliorate such concerns (SEIS Volume 2, Appendix E).

Depending on the Management Plan to be developed, key stakeholders to be engaged may include (but not limited to), landholders, traditional owners, Barcaldine Regional Council (BRC), Isaac Regional Council (IRC), Whitsunday Regional Council (WRC), Queensland Police Service (QPS), Queensland Fire and Rescue (QFR), Queensland Ambulance (QA), State Emergency Service (SES), RFDS, Department of Health (DoH), Education Queensland (EQ), Department of Communities (DoC), Department of Housing (DoH), DEEDI, local businesses and service providers (including relevant non-government organisations), Chambers of Commerce or Progress Associations, TAFE and employment agencies etc.

## Comment – RC88

*Local employment including cattle grazing may be impacted by the proposed railway and all measures are to be in place to ensure that the industry remains viable in the longer term as it is part of the important cultural heritage associated with the Barcaldine Region and surrounds.*

## Response – RC88

This will be addressed by a specific Management Plan in the Phase 2 SIMP (SEIS Volume 2, Appendix E). The Management Strategy will be developed in consultation with relevant stakeholders (i. e. landholders).

### 5.7.5 Land Use and Tenure

#### Comment – RC89

*five temporary workers' camps accommodating for 700 to 800 personnel per camp for the construction phase only –This conflicts with comment in Vol 1 S 1 regarding inclusion of two permanent camps within the five.*

*Consistency is required with the proposed number of accommodation camps and number of personnel within them relating to: (1) Rail and construction phase (2) Mine construction phase (3) Ongoing mine operation and closure (4) Post closure (5) Associated industries (estimates). Further detail and clarification is required. Additional feedback and consultation is required with BRC on the camp and personnel numbers. The total HC and other camps and workforce including adjoining areas within the Barcaldine Regional Council jurisdiction also need to be acknowledged in total predicted numbers (sourced Vol 3 Figure 2-3).*

#### Response – RC89

Five workers camps are proposed as part of this Project, accommodating 400 to 700 personnel per camp. Further clarified and information regarding the proposed camps has been provided within Volume 1, Section 2. 1. 2 of the SEIS and Volume 2, Appendix AF of the SEIS.

## 5.8 Central Highlands Regional Council

### 5.8.1 Noise and Vibration

#### Comment – RC90

*There is concern in regard to data for the noise and vibration from the railway activity on the two (2) potentially affected homes that are within 200 meters of the line. The EIS noise modelling for these potentially affected sites suggests no impact. However it is indicated that the minimal level of activity will be fourteen (14) train trips per day with trains having lengths of up to two (2) kilometres. This data should be reviewed by an independent acoustic engineer.*

#### Response – RC90

The comment states two homes within 200 m of the line, however we based our assessment on one receiver at 113 m and one at 260 m. The report does not state no impact, it states "This assessment indicates that rail noise levels from the proposed corridor are expected to meet the 65dB(A) LAeq,24hrs and 87dB(A) Lmax noise targets at all identified sensitive receivers". Furthermore, as noise impact assessments for the EIS have been based on desk top analysis, site based noise monitoring (internally and externally) of sensitive receptors will be undertaken as part of the detailed design stage. Compliance measurements may form part of the recommendations if the calculations at detailed design stage suggest exceedance of relevant criteria

## 5.9 Department of Communities

### 5.9.1 Social

#### Comment – RC91

*The section current provides a gender distribution of the local study area, and no analysis of the gender distribution of the regional study area.*

**Response – RC91**

Gender distribution for the regional study area is provided in Volume 6 Appendix K of the EIS. Parts of this section have been updated as part of the SEIS. Refer to Volume 2, Appendix C of the SEIS for an updated workforce profile, which includes assumptions on the gender distribution of the workforce.

**5.9.2 Economic Impact Study****Comment – RC92**

*It is not clear to what extent the socio-economic benefits are also shared by residents in Alpha and Jericho, Emerald and Clermont.*

**Response – RC92**

HPPL will develop an employment and procurement policy that will maximise local employment, Indigenous employment, and the employment of apprentices and trainees and will also be applied to contractors working on the Project as outlined in the SIMP. Refer to Volume 3, section 27 of the EIS for further information.

**5.9.3 Social Impact and Management Plan****Comment – RC93**

*The EIS states that HPPL has an existing community development fund, to be maintained throughout the construction and operational stages of the Project*

*What is the size of the CDF, and for what purposes is it used? How is it funded? Who are the likely beneficiaries of the CDF - are benefits distributed primarily locally or regionally? What are the considerations enacted by HPPL in determining the distribution of the Fund?*

**Response – RC93**

Further details regarding the CDF will be provided in the SIMP as consideration of future requirements is undertaken in more detail. The current Alpha Community Development Fund is a private Hancock fund administered by the BRC on the Proponents behalf.

**Comment – RC94**

*. . the EIS outlines negative perceptions held towards the project from several stakeholder groups relating to community services and facilities, health and wellbeing, and safety.*

**Response – RC94**

HPPL will continue to consult with stakeholders as part of the detailed design, construction, operation and decommissioning of the rail infrastructure to monitor and address negative perceptions held by stakeholder groups. This will include undertaking consultations to identify underlying causes and implement strategies within the SIMP process to ameliorate such concerns. Refer to Volume 3, Section 27 of the EIS for further information.

**Comment – RC95**

*The EIS states that HPPL will develop an employment and procurement policy that will maximise local employment, Indigenous employment, and the employment of apprentices and trainees. This policy is also to be applied to contractors working on the Project.*

#### **Response – RC95**

HPPL will develop an employment and procurement policy that will maximise local employment, Indigenous employment, and the employment of apprentices and trainees and will also be applied to contractors working on the Project as outline in the SIMP. Refer to Volume 3, Section 27 of the EIS for further information.

## **5.10 Department of Employment, Economic Development and innovation (DEEDI)**

### **5.10.1 Introduction**

#### **Comment – RC96**

*Waterway barrier works approvals under the Fisheries Act 1994 will be required for any culvert crossings of any waterway, tributary or drainage line that meets the definition of waterway under the Fisheries Act 1994.*

*The proponent should note that the definition of waterway is different for the Fisheries Act 1994 than the Water Act 2000.*

#### **Response – RC96**

An assessment and determination of watercourses which are likely to trigger a water barrier works approval by the Project will be provided to DERM for confirmation in accordance with the *Fisheries Act 1994* prior to lodgement of a development application. HPPL understands that the DERM's preference is that the Proponent prepare a single permit application for the entire Project to cover such works. This application will identify a series of different development scenarios within a typical bed and banks cross section, stating where, when and how fish movement will be impacted by such scenarios. Typical development scenarios would include (but may not be limited to) bridge abutment and pier configurations, culvert arrangements and access track causeway formations, and will be accompanied by relevant work methodologies, a description of temporary structures and barriers required, erosion and sediment control measures and estimated construction timeframes and durations. Where relevant the application will refer to the self assessable code for minor barrier waterway works including culvert crossings, bed level waterway crossings, encasement of existing bridge piers. These development scenarios will include both temporary and permanent development and include indicative disturbance timeframes where relevant. This will allow the DERM more effective management of their resources to deliver a consistent regulatory approach under the *Fisheries Act 1994* for the entire Project, with relevant conditions and controls consolidated within a single permit package.

### **5.10.2 Geology**

#### **Comment – RC97**

*Resource sterilisation for both coal mineral and other resources is addressed but not with reference to publicly available drilling data and information on QDEX.*

**Response – RC97**

Every effort has been made to position the Project rail alignment so as not to adversely impact upon mining interests with the potential to contain a mineral deposit yet to be extracted. The support and approval of this new infrastructure corridor would not in itself preclude a lessee's ability to efficiently access an adjoining resource. In addition, QCoal, who is a key stakeholder regarding this issue has been consulted extensively by Hancock in relation to sterilisation. This comment has been addressed in more detail within Volume 2, Appendix AH of the SEIS.

**Comment – RC98**

*There is a substantial deficit of fill materials compared with cut volumes, resulting in a need for additional borrow materials from yet to be determined sites. There may also be a requirement for new quarry sites to be developed to supply ballast.*

**Response – RC98**

A number of potential borrow areas and quarry sites are being investigated as part of the Project.

Following ground breaking geotech investigations will be undertaken from mid July 2011 to October 2011. These investigation areas will be updated to show areas that will be needed for the Project and volume of material expected to be borrowed from each area.

Ballast is planned to be quarried from three proposed locations for the Project:

- A northern quarry near chainage 486 km (Mt Roundback);
- A mid-section quarry near chainage 314 km (Weetalabah); and
- A southern quarry near chainage 020 km (Surbiton Hill).

Approximately 800,000 m<sup>3</sup> of ballast needs to be quarried for the railway construction, including an allowance for losses. Weetalabah quarry is located close to the Wollombi track construction depot, and is the preferred source for the bulk of the ballast supply. The northern and southern quarries will primarily be used to source ballast for the extremities of the track, the marshalling yards (Mt Roundback only) and the two loops.

Geotechnical drilling is proposed to commence during the detailed design phase to firm-up expected material yields at each quarry. If test results are favourable, the preferred ballasting strategy involves:

- Central Section:

A large ballast stockpile will be established at Weetalaba and a ballast siding will be constructed. Ballast trains will be loaded and watered on this siding. The ballast trains will then distribute ballast north and south to coincide with the tracklaying progress. The stockpile size is forecast to peak at 300,000 m<sup>3</sup> just prior to track construction and will require an area of 15 ha.

Initially, some ballast will need to be hauled by road to the Wollombi Depot until tracklaying on the northern workfront reaches the Weetalaba Quarry siding. An area of up to 12 ha has been allowed at Wollombi for this use.

Under the preferred scenario, Weetalaba Quarry will provide 540,000 m<sup>3</sup> of ballast, sufficient to ballast the track between chainage 050 km and chainage 431 km. The optimal productivity rate for quarrying and crushing/screening operations is in the order of 2,000 m<sup>3</sup>/day.

- Northern Section:



Ballast from the Mt Roundback Quarry will be road-hauled to a stockpile within the marshalling yard area.

Mt Roundback Quarry will provide 190,000 m<sup>3</sup> of ballast, sufficient to ballast the track between chainage 431 km and the Port Loop, including the marshalling yard. The optimal productivity rate for quarrying and crushing/screening operations is in the order of 600 m<sup>3</sup>/day.

- Southern Section:

Ballast from the Surbiton Hill Quarry will be road-hauled to a stockpile at the Alpha (Rail) Depot (chainage 16000).

Surbiton Hill Quarry will provide 70,000 m<sup>3</sup> of ballast, sufficient to ballast the track between chainage 50 km and the Mine Loop. The optimal productivity rate for quarrying and crushing/screening operations is in the order of 600 m<sup>3</sup>/day.

### 5.10.3 Aquatic Ecology

#### Comment – RC99

*Development approval under the Fisheries Act 1994 required for operational works that is the removal, destruction or damage of marine plants associated with the rail loop construction works at the Port of Abbot Point.*

#### Response – RC99

An assessment and determination of marine plants will need to occur to identify at which locations these applications are likely to be required for the Project. Use of sensitive machinery and work methods (matting) was encouraged to minimise disturbance during invasive geotechnical investigations. If the relevant environmental assessments and mapping has occurred for the entire Project, the Proponent will attempt to consolidate marine plant disturbance applications to DERM, as will occur for Waterway Barrier Works under the *Fisheries Act 1994*. In addition, on-going consultation with DEEDI (Fisheries Queensland) will be undertaken to identify whether an offset package will also be required due to the extent of Project works.

#### Comment – RC100

*Waterway barrier works approvals under the Fisheries Act 1994 will be required for any culvert crossings of any waterway, tributary or drainage line that meets the definition of waterway under the Fisheries Act 1994.*

*The proponent should note that the definition of waterway is different for the Fisheries Act 1994 than the Water Act 2000.*

#### Response – RC100

Refer to RC96.

#### Comment – RC101

*This section suggests that temporary flow diversions may be required during construction activities, but provided no details.*

#### Response – RC101

The detail of temporary flow diversions will be dependant on the final detailed design and timing of construction. This detail will be provided as part of the CEMP to be developed for the Project and will be consistent with the requirements of DEEDI and the *Fisheries Act 1994* to provide fish passage and protection of fish habitat. As referred to in RC 99, IDAS applications will be made when triggered by impacting on waterways and fish habitat areas. Indicative drainage drawings are provided in Volume 2, Appendix Y of the SEIS.

#### **5.10.4 Social**

##### **Comment – RC102**

*DEEDI recognise that FIFO workforce arrangements can provide an attractive employment option for both employer and employees in some circumstances. This section contains details about some of the locations and types of other significant places of employment in the Project's area including FIFO arrangements from the region or wider areas, Queensland and within Australia. However, it does not identify the potential locations from which the FIFO workforce is to be recruited.*

##### **Response – RC102**

HPPL is committed to developing a recruitment strategy as outline in the SIMP. Refer to Volume 3, Section 27 of the EIS for further information.

#### **5.10.5 Environmental Management Plan**

##### **Comment – RC103**

*No reference to Local Government Area Pest Management Plans nor Regional Pest Management Plans in the rail corridor EMP for the occurrence of priority pest plants and animals in the project area.*

##### **Response – RC103**

The comments provided in this submission are noted. HPPL fully appreciates this issue and has prepared a Weed Management Plan for this Project, which includes specific reference to regional and local government area pest management plans (SEIS Volume 2, Appendix AG, Section 2).

##### **Comment – RC104**

*No reference to the mitigation measures regarding the potential spread of biosecurity risks via plant and equipment*

##### **Response – RC104**

HPPL addressed this issue in a Weed Management Plan for this Project (SEIS Volume 2, Appendix AG, Section 2)

### **5.11 Department of Environment and Resource Management**

The DERM submission and subsequent responses have been compiled and can be found in Volume 2, Appendix AJ of this SEIS.

## 5.12 Department of Infrastructure and Planning

### 5.12.1 General

#### Comment – RC145

*The EIS does not include a comprehensive assessment of the project against the Central West Regional Plan.*

#### Response – RC145

The following table (Table 5-3) provides a likely assessment of the Project against the Desired Regional Outcomes of the *Central West Regional Plan 2009*. This assessment will be provided in greater detail as part of the relevant development applications for the Project.

Table 5-1 Project assessment against Desired Regional Outcomes of the Central West Regional Plan (2009)

Desired Regional Outcome	Project assessment
<p><b>Natural Environment</b></p> <p>The area, function and value of the region's terrestrial and aquatic natural assets are effectively protected and enhanced, and are resilient to climate change.</p>	<p>Section 9 of the EIS describes the environment within the study area including flora, fauna and vegetation communities and to identify any threatened species, habitats or environmentally sensitive areas that may be impacted by the Project.</p> <p>Section 11 describes the existing environment for water resources that may be affected by the Project in the context of environmental values as defined in various legislative documents.</p> <p>Section 14 presents an analysis of the potential greenhouse gas (GHG) emissions that will be produced as a result of the construction and operation phases of the Project and highlights potential means by which these emissions could be reduced or avoided.</p> <p>Sections 13 and 15 of the EIS detail air and acoustic environment protection measures.</p> <p>A draft Environmental Management Plan (EM Plan) has also been developed and has been provided at Section 26 of the EIS to address the environmental management requirements relevant to the Project. It specifically details the measures to be adopted to address identified impacts during the construction and operation of the Project.</p>
<p><b>Natural Resources</b></p> <p>The values of the region's natural resources are managed and secured to meet community needs and expectations in a sustainable way.</p>	<p>A draft Environmental Management Plan (EM Plan) has been developed and included in Section 26 of the EIS.</p> <p>The EM Plan specifically details the measures to be adopted to address identified impacts during the construction and operation of the Project. Sections 26.3.12 and 26.3.14 respectively of the EM Plan discuss land and water based environmental values and characteristics and the potential impacts on these values due to the Project.</p> <p>The EM Plan will be finalised during the development approvals stage of the Project.</p>
<p><b>Strong Communities</b></p> <p>Retain the sense of identity in the region's rural and remote communities, and support and encourage healthy and viable rural enterprise that enhances the interdependence and liveability of these communities.</p>	<p>Section 20 of the EIS provides a description of the social values of the local and regional study areas relevant to the Project and provides an assessment of potential impacts and suggested mitigation and management measures. A monitoring program has been developed in order to validate the social impact assessment and allow mitigation measures to be adjusted as required.</p> <p>The Project affects three native title claim areas. Separate processes are in place to manage native title and cultural heritage interests. Consultations undertaken in relation to cultural heritage are detailed in Section 18 of the EIS.</p>
<p><b>Urban Development</b></p> <p>A well planned region that has diverse, quality and affordable housing options supported by an appropriate level of infrastructure to complement the rural lifestyle of the region.</p>	<p>Section 20 of the EIS addresses the social characteristics of the region and the implication of the Project. This includes consideration of the location and types of physical and social infrastructure, settlement and land use patterns of the study area.</p>
<p><b>Economic Development</b></p> <p>An economic base broadened by further developing existing export industries and by</p>	<p>Section 22 of the EIS presents economic impacts and benefits associated with the Project. An economic impact study was also undertaken by Economic Associates Pty Ltd, with the full report</p>

Desired Regional Outcome	Project assessment
encouraging new industries or businesses with potential for growth throughout the region.	presented in Volume 6, Appendix L of the EIS.
<p>Infrastructure</p> <p>Infrastructure leads and supports desired regional growth, and helps create sustainable rural communities and regional economic development.</p>	<p>Physical and social infrastructure of the region and the study corridor are both addressed as part of the EIS. The relevant sections of the EIS are:</p> <ul style="list-style-type: none"> <li>• Section 11 Surface Water</li> <li>• Section 12 Groundwater</li> <li>• Section 16 Waste</li> <li>• Section 17 Traffic Impact Assessment</li> <li>• Section 20 Social</li> </ul>

### 5.12.2 Description of the Project

#### Comment – RC146

*Provide commitment to sharing of rail facilities with proponents of other Galilee Basin proposals.*

#### Response – RC146

The rail capacity is in accordance with the mine development and has capacity to expand in the future to accommodate third party agreements. Project rail capacity for haulage of 60 Mtpa of coal has been designed to support the Alpha Mine plus additional capacity for Kevins Corner Mine. With construction of additional passing loops to the single line track and selective partial duplication, there is potential to further increase the tonnage and thus service other proponents also developing coal projects within the Galilee Basin. The regime controlling the equitable access to the Project by third party is managed in accordance with *Trade Practices Act 1974* (TP Act) and will be regulated by ACCC.

### 5.12.3 Social

#### Comment – RC147

*Provide further details on the expected level of use of the proposed permanent accommodation camps at Eaglefield and Merinda (Salisbury Plains) including whether these camps will accommodate up to 40 persons continuously throughout the year or be used on an intermittent basis for maintenance purposes only.*

#### Response – RC147

Camp - 1 Salisbury and Camp - 3 Wollombi which will be established near rail related infrastructure (marshalling yards, ballast sidings, rail welding, sleeper manufacture and maintenance team facilities), will maintain approximately 20 to 40 accommodation rooms permanently during the operational phase of the Project. As required on an occasional basis, additional rooms will also be available to accommodate additional workforce demands generated by larger rail maintenance and construction events which are likely to occur over the life of the Project.

#### Comment – RC148



*Provide justification as to why it is intended to retain the Salisbury Plains accommodation facility instead of encouraging permanent locally based maintenance workforce (as it will be the case for remaining operational workforce).*

**Response – RC148**

Refer to Volume 2, Appendix C of the SEIS for an updated workforce profile.

## **5.13 Department of Infrastructure and Planning (SDA Branch)**

### **5.13.1 General**

**Comment – RC149**

*A comprehensive review of the EIS has found the information provided is not sufficient to determine the suitability of the proposed use (the rail line) within the Abbot Point State Development Area (APSDA). The EIS does not provide sufficient information for the State Development Areas Branch of the Department of Infrastructure and Planning (DIP) to determine how the project will: (1) impact on the Abbot Point State Development Area (APSDA) and (2) impact on the Kaili (Caley) Valley Wetlands.*

**Response – RC149**

The Project will require approval by the Coordinator General for a MCU involving an Infrastructure Facility within the APSDA under the SDPWO Act. As the detailed design phase is not yet complete, the Proponent is not requesting that this MCU be approved as part of the Coordinator General's Report. An assessment against the Development Scheme for APSDA has been provided within Volume 1, Section 3 (refer to WP51) of the SEIS.

Further detail regarding the nature, scale and location of works and impacts on the Kaili (Caley) Valley Wetland in accordance with recently published information will be determined during the detailed design stage of the Project and will be submitted to DEEDI for assessment and approval in accordance with the SDPWO Act.

**Comment – RC150**

*The EIS fails to adequately demonstrate how the part of the project within the APSDA accords with the objectives of the Development Scheme for the APSDA and the purposes of the relevant land use precincts. There is not sufficient detail to enable an adequate assessment of the impacts of the project on the functionality of the APSDA.*

**Response – RC150**

As the detailed design phase is not yet complete, the Proponent is not seeking to use the EIS as the assessment report for an MCU within the APSDA. While an assessment against the Development Scheme for APSDA has been provided within Volume 1, Section 3 (refer to WP51) of the SEIS, a separate development application, assessing the Project against the objectives and purpose of the relevant land use and functionality of the APSDA will be submitted separately to the Coordinator General.

**Comment – RC151**

*In order to minimise impacts on the APSDA DIP is seeking a single entry point for standard gauge rail within the APSDA, and a single standard gauge rail network within the APSDA to service the export of coal stockpiles. The EIS should address the connectivity of the project to the APSDA to enable a complete assessment of the impacts of this component of the project.*

**Response – RC151**

The Project will achieve a single entry point for standard gauge rail into the APSDA in accordance with these instructions. Within the APSDA, options for providing new transport infrastructure to the Port of Abbot Point are highly constrained. Various design options were provided to DEEDI (formerly DIP) as assessment managers of the APSDA during the preparation stages of the EIS. Consultation with the Coordinator Generals Office is continuing with regards to the connectivity of the Project to the APSDA. As the detailed design phase is not yet complete, the Proponent will submit a separate development application for MCU within the APSDA with further design information and rationales such that a complete assessment can be conducted.

**Comment – RC152**

*In order for the EIS to be used as the assessment report for material change of use applications within the APSDA, additional detail in respect to the extent of cut, fill, batters, and other supporting rail infrastructure components is required.*

**Response – RC152**

As the detailed design phase is not yet complete, the Proponent is not seeking to use the EIS as the assessment report for an MCU within the APSDA. A separate development application, assessing the Project against the objectives and purpose of the relevant land use and functionality of the APSDA will be submitted to the Coordinator General.

**Comment – RC153**

*Given the project traverses the APSDA, an application for a material change of use for that part of the project within the APSDA will be required to be submitted to the Coordinator-General.*

**Response – RC153**

Refer to RC152

**Comment – RC154**

*As part of the Northern Economic Triangle Infrastructure Plan 2007-2012 (NET Plan), the Queensland Government has identified Bowen Abbot Point as the next major industrial hub and export facility in Queensland, with capacity to accommodate industries of national and global significance and create sustainable employment opportunities for future generations. Please ensure the EIS recognises the link between the Development Scheme for the APSDA and the NET Plan.*

**Response – RC154**

Industrial development of Abbot Point is a key part of the Government's *Northern Economic Triangle Infrastructure Plan 2007-2012 (NET)*. This Plan is the Government's initiative to see emergence of Mount Isa, Townsville and Bowen as a triangle of industrial development and mineral processing.

The *Development Scheme for the Abbot Point State Development Area 2008* guides the development of the APSDA in line with the NET. Both of these planning instruments have been prepared to facilitate appropriate new industrial development within the region, particularly Bowen/Abbot Point. The Project comprises of transport infrastructure development which will strengthen the current and future development and use of the APSDA. The Project does not conflict with either of the instruments and is identified as supporting their set land use and development objectives.

**Comment – RC155**

*Reference to the APSDA Development Scheme 2009 should be the Development Scheme for the APSDA. This was approved in 2008.*

**Response – RC155**

Noted.

**5.13.2 Introduction****Comment – RC156**

*Section 1. 3 states additional field studies are being undertaken and will form part of the supplementary material made available after public consultation. There are other instances throughout the EIS where the detail provided is limited and is 'subject to detailed design'. The EIS in its current form does not contain all the relevant information at this time to undertake an adequate assessment. This section should remove all reference to community infrastructure designations which are not authorised within the APSDA.*

**Response – RC156**

Community Infrastructure Designation (CID) under the SP Act does not apply to the section of the corridor located within the APSDA. This section of the EIS has been amended, within Volume 1, Section 3 (refer to WP54). Additional information has been provided as part of the SEIS submission and now available for assessment.

**Comment – RC157**

*This section states the objectives of the Development Scheme for the APSDA and the purposes of the relevant land use precincts will be addressed in the 'final EIS document', however, these should be described within the EIS at this time. It should be noted that if the EIS is to be used as the assessment report for a material change of use application to the Coordinator-General, under the Development Scheme for the APSDA it must provide an adequate assessment of the impacts of the project based on the Development Scheme for the APSDA. Provide an assessment of the proposal against the Development Scheme for the APSDA.*

**Response – RC157**

Refer to RC149.

**Comment – RC158**

*This section nominates appropriate approvals through local authorities on matters such as 'change of the material use of the land', and state government agencies on matters such as gaining an environmental authority. This section further lists approvals that may be required prior to development of the project.*

**Response – RC158**

Volume 1, Section 1 of the SEIS includes a list of approvals which will need to be obtained during the Project. This section of the EIS has been amended, within Volume 1, Section 3 (refer to WP54).

**Comment – RC159**

*This section should be revised to identify that a material change of use application will be required to be submitted to the Coordinator-General for that part of the project contained within the APSDA. The material change of use application will be required to address the objectives of the Development Scheme for the APSDA and the purpose of the precincts affected by the project. It is critical for the EIS to contain sufficient detail relating to all aspects of the project within the APSDA, particularly the potential impacts and mitigation measures associated with the flora, fauna (aquatic and terrestrial), habitats, hydrology and the like, to the Kaili (Caley) Valley Wetlands. This is necessary if the EIS is to form the basis of the material change of use application for that part of the project contained within the APSDA. In its current form, the EIS does not contain a sufficient level of detail to ascertain the potential impacts of the project on the APSDA and the environmental values of the wetlands.*

**Response – RC159**

It is noted that a MCU DA will be required for that part of the Project contained within the APSDA. An assessment of the Project against the provisions of the Development Scheme for the APSDA has been provided within Volume 1, Section 3 (refer to WP51) and Volume 3, Section 1. 9. 7 of the EIS has been amended and provided within Volume 1, Section 3 (refer to WP54). A separate DA for MCU within the APSDA will be submitted to the Coordinator General separate to the EIS.

**Comment – RC160**

*Please ensure that assessment against the Development Scheme for the APSDA is collated for ease of assessment.*

**Response – RC160**

Refer to RC159.

**Comment – RC161**

*This section states the defined use of the project is considered to be a use which 'may meet the purpose of the land use designation', and is therefore a consistent use in the relevant precincts. Furthermore, and in consideration of comments provided for items 6 and 7, this assessment fails to consider how the project will impact on the functionality of the APSDA.*

**Response – RC161**

Refer to RC159.

**Comment – RC162**

*Section 1. 11. 3. 2. 1 states the project has been aligned to avoid and manage areas of ecological significance and is therefore consistent with the intent of the precinct. Since the project impacts on a portion of a wetland of national importance, the EIS's statement regarding consistency in this precinct is not consistent with the precinct. The assessment of the project against the relevant precinct purposes is considered to be insufficient.*

**Response – RC162**

Refer to Volume 1, Section 3, WP51 of SEIS.

**Comment – RC163**

*This section references assessment against State Planning Policies in section "1. 1. 1 above". This should reference section "1. 12. 5 below".*

**Response – RC163**

Amendment noted.

**Comment – RC164**

*The last paragraph in this section discusses the northern railway loop being located on both strategic port land and on land within the APSDA, and clearly states a material change of use will be prepared in accordance with the Development Scheme for the APSDA and lodged with the DIP.*

**Response – RC164**

An assessment of the Project against the Development Scheme for the APSDA has been undertaken in Section 1. 11. 3. 2 of the EIS. A more detailed assessment of the Project against the provisions of the Development Scheme for the APSDA has been provided within Volume 1, Section 3 (refer to WP51).

**Comment – RC165**

*Table 1-5 should also include requirements for development on strategic port land.*

**Response – RC165**

In response, the following row has been added to Volume 3, Section 1 Table 1-5 of the EIS:

Permit, Approval or Licence	Why it applies	Administering Authority	Applies ✓/✗
Material Change of Use Development Scheme for the Abbot Point State Development Area	Defined as an Infrastructure Facility	DEEDI	✓

**5.13.3 Description of the Project****Comment – RC166**



*The last paragraph should be revised to recognise the DIP's planning for a selected infrastructure corridor in the APSDA, between the Industry Precinct and proposed MCF at the Port of Abbot Point. Suggest the chainage references for extent within the APSDA are checked and verified. Chainage references throughout the EIS indicate various lengths from 495km to 510km. It is therefore difficult to establish where facilities will be located in relation to chainage distances.*

**Response – RC166**

The last paragraph of Volume 3, Section 2. 2. 1. 3 of the EIS has been amended:

The coal will be sourced from the AMCI / China 1 mining tenements near Alpha in the Galilee Basin, Central Queensland and taken by rail to the APSDA where stockyards will be established that tie in with the selected infrastructure corridor in the APSDA, between the Industry Precinct and proposed MCF at the Port of Abbot Point. The coal would then be exported through the proposed MCF, or a new jetty, berth, and conveyor of a design similar to that currently in use at Abbot Point.

The length of the corridor is 495km and this is applicable throughout the EIS.

**Comment – RC167**

*This section includes reference to the 1 in 50 and 1 in 20 year flood immunity levels for major and minor drainage lines for the rail crossing. No basis is provided for why these flood immunity levels have been selected for this project.*

**Response – RC167**

The 1 in 50 years is a standard used by Queensland Rail (QR) National and generally applied for any rail designs in Queensland. A 1:20 protection level has not been used in the EIS.

**Comment – RC168**

*Suggest acknowledging the preparation of a social impact management plan to support this EIS. Regard should be given to the results of the Bowen Abbot Point Accommodation and Community Infrastructure Study (BAPACI study) to inform the planning for non-resident workforce accommodation, particularly for the northern part of the project in the Bowen Abbot Point region. The BAPACI study report is available for viewing and download from the DIP's website (<http://www.dip.qld.gov.au/resources/plan/net/bowen-abbot-point-report.pdf>).*

**Response – RC168**

The SIMP is included in Volume 3, Section 27 of the EIS. Finalisation of the SIMP will be achieved in accordance with the framework provided within Volume 2, Appendix E of the SEIS and will include reference to the Bowen Abbot Point Accommodation and Community Infrastructure Study.

### **5.13.4 Climate and Climate Change**

**Comment – RC169**

*This section should discuss the cumulative impacts from the proposed activity. A list of the impacts without an assessment of how the impacts relate to each other or their overall effect provides no additional benefit.*

**Response – RC169**

Detail regarding cumulative impacts associated with the rail component of the Project are detailed in Volume 4, Section G6 of the EIS. Cumulative impacts will be further discussed within the finalised SIMP.

## Comment – RC170

*Please provide detail on the impact sea level rise/increased rain fall will have on the Kaili (Caley) Valley Wetlands, and thus the rail loop and rail infrastructure at the northern end of the project within the APSDA. The project should not compromise the integrity and functionality of the project.*

## Response – RC170

Volume 3, Section 3, Table 3-5 of the EIS identifies that it is considered that there will be no noticeable impact in any of the Project assets from sea level rise.

The impact of sea level rise on the wetland is not part of the assessment required by this EIS.

## 5.13.5 Geology

### Comment – RC171

*This fails to acknowledge the creeks crossed by the rail corridor in the northern part of the rail corridor, i. e. Splitters and Salt Water Creeks. Revise this section to explain how the project will impact on these watercourses.*

### Response – RC171

Volume 3, Section 4. 2. 5 as well as 4. 3. 6 of the EIS have been updated as follows:

#### 4. 2. 5 Water Courses/Pathways

The proposed Alpha Coal (Rail) crosses or comes in close proximity to a number of creeks and rivers. Creek and river crossings will necessitate geotechnical investigations for design of footings/piles for the bridge structures. A list of the major creeks and rivers that have been identified in the vicinity of the Alpha Coal (Rail) are given in Table 5-2. Other seasonal surface water pathways may occur during periods of wet weather that are not identified on the available mapping and will require hydrological analysis during detailed design.

**Table 5-2 Watercourses in the Vicinity and Crossings of the Project**

Section	Approx Chainages	Water Course Name	Status/Notes
1 0 km – 110 km	-	Lagoon Creek	Ephemeral, does not cross Alpha Coal (Rail)
	-	Sandy Creek	Ephemeral, does not cross Alpha Coal (Rail)
	38. 8	Native Companion Creek	Ephemeral
	43. 5	Belyando River	Ephemeral
	60. 6	Lestree Hill Creek	Ephemeral
	101. 3	Lascelles Creek	Ephemeral

2 110 km – 300 km	118. 0	Mistake Creek	Ephemeral
	142. 0	Miclere Creek	Ephemeral
	170. 0	Brown Creek	Ephemeral
	175. 3	Logan Creek	Ephemeral
	195. 9	Diamond Creek	Ephemeral
	223. 7	Eaglefield Creek	Ephemeral
	262. 7	Suttor Creek	Ephemeral
	-	Suttor River	Ephemeral, does not cross Alpha Coal (Rail)
3 300 km – 430 km	301. 7	Kangaroo Creek	Ephemeral, does not cross Alpha Coal (Rail)
	~ 345	Rosella Creek	Ephemeral, intersects Option 2 & 3
	~ 345	Bowen River	Perennial, intersects Option 1A & 2
	375. 0	Pelican Creek	Ephemeral
4 430 km – 495 km	436. 2	Bogie River	Ephemeral
	458. 4	Sandy Creek	Ephemeral
	465. 5	Finley Creek	Ephemeral
	468. 8	Elliot Creek	Ephemeral
	484. 8	Splitters Creek	Ephemeral
Rail Loop 495 km – 510 km	498. 2	Saltwater Creek	Ephemeral

## 4. 3. 6 Environmental

### 4. 3. 6. 1 Potential Impacts

Construction of bridges at creek and river crossings has the potential to obstruct and/or create partial interference with a natural watercourse. Construction of bridges at the crossings may necessitate modifying (cutting/filling activities) the river and creek bank profile. Clearing of vegetation may increase the erosion and weathering potential of the creek/river banks. In addition, construction of crossings/bridges in areas with an elevation at or below 20m AHD has the potential to intersect acid sulfate soils. Saltwater Creek, as well as the areas proposed for bridge construction over the Bruce Highway and QR North Coast Line, have the potential to contain acid sulfate soils. Further details regarding the impact of acid sulfate soils are detailed in Volume 3, Section 5. 3. 4 of the EIS.

### 4. 3. 6. 2 Mitigation Measures

The following will mitigate construction impact on natural watercourses within the Project area:

- post-construction rehabilitation of vegetation that has been cleared along the river/creek banks during construction;
- the creek/river profile will not be altered in anyway that reduces or increases flow volume or flow rates, or obstructs floodwaters from their natural pathway;
- all waste material will be removed from the site to an approved disposal site;

- an Acid Sulfate Soil (ASS) Investigation will be undertaken in any area where in-situ soils from excavation (below 5m AHD) or filling activities on land that is at or below 20m AHD, or where dewatering changes (permanent or temporary) in the groundwater are proposed. Further details regarding the ASS Investigation can be found under Volume 3, Section 5. 3. 4. 2 of the EIS and in the ASS Framework in Volume 2, Appendix Z of the SEIS;
- erosion and siltation control will be in place;
- cleared vegetation will not be left near river/creek banks or within the creek/river itself;
- water from the creek/river will not be used for construction purposes without an approved extraction license; and
- no discharge of wastewater from the site to the creek/river without complying with the relevant *Queensland Water Quality Guidelines (2009)* and with approval from regulatory authorities.

### 5.13.6 Soils, Topography and Land Disturbance

#### Comment – RC172

*This section identifies the land around the Kaili (Caley) Valley Wetlands as being salt pans or tidal flats subject to tidal inundation. Please note however, the part of the wetlands where the rail line is proposed to be constructed is not regarded as marine or tidally influenced. This has a significant impact on constructability and stability. Consultants working for the DIP in the preparation of an environmental management plan for the Kaili (Caley) Valley Wetlands have prepared a baseline profile (available for viewing and download at [http://www.dip.qld.gov.au/resources/plan/land/state\\_development\\_areas/abbot\\_point/baseline\\_profile\\_for\\_the\\_kaili\\_valley\\_wetlands.pdf](http://www.dip.qld.gov.au/resources/plan/land/state_development_areas/abbot_point/baseline_profile_for_the_kaili_valley_wetlands.pdf)). Revise this section accordingly.*

#### Response – RC172

The Baseline Profile for the Kaili (Caley) Valley Wetlands (BMT WBM, 2010) has mapped the area of the wetlands that the Project alignment is located as the Palustrine wetlands which are primarily of a brackish to freshwater nature (depending on the rainfall and salinity conditions), and not regarded as marine or tidally influenced.

#### Comment – RC173

*The discussion on the area required for investigation under SPP 2/02 is not consistent with the SPP. The SPP requires an ASS investigation in all areas of soils disturbance that occur at or below 5m AHD, even where the surface level may be above 5m AHD and up to a maximum of 20m. The SPP also requires an ASS investigation where more than 500m<sup>3</sup> of fill is being placed on land at or below 5m AHD. The issues relating to filling are discussed in section 5. 3. 4. 1 but should also be mentioned as issues for investigation in this section for accuracy.*

#### Response – RC173

The extent of cut and fill was not known at time of writing EIS and is still not known at the time of this SEIS. Due to the nature and scale of the Project works on land below 5m AHD, the Project is likely to trigger an assessment against SPP 2/02. Although the design will minimise the extent of excavation

of soils with a medium to high probability of ASS, a Project ASS Framework attached in Volume 2, Appendix Z of the SEIS has been developed to inform the preparation of a detailed ASS management plan that will be required during the construction phase of the Project. This framework indicates that an ASS Investigation will be carried out in agreement with local DERM office and with reference to the SPP 2/02. This will be required during the approvals phase for MCU and Operational Works.

Published information on high and low probability ASS will be included within the SEIS.

**Comment – RC174**

*Please provide detail of the impacts the project will have on soils in the vicinity of the Kaili (Caley) Valley Wetlands, in the northern part of the project. The integrity and functionality of the Wetlands should not be compromised by the project.*

**Response – RC174**

There is potential for ASS within the wetland areas. Filling or excavating within these wetlands may result in exposure to ASS or alteration to groundwater which will also create issues with ASS. This may result in reduced water quality and impacts to surrounding vegetation, which in turn will result in loss of habitat. A Project ASS Management Framework attached in Volume 2, Appendix Z of SEIS has been developed to inform the preparation of a detailed ASS Management Plan that will be required during the construction phase of the Project.

**Comment – RC175**

*This section should be revised to describe the extra measures to be included in the proposed erosion and sediment management control plan (ESMCP) to protect the Kaili (Caley) Valley Wetlands from erosion risk.*

**Response – RC175**

An Erosion and Sediment Control Criteria has been developed and included within Volume 2, Appendix AD of the SEIS. These mitigation measures will be further developed during the ESCPs (concept and detailed), which will be developed following further soil testing and analysis and these are required as part of the approvals process for MCU's and Operational Works.

**Comment – RC176**

*This section should be revised to note the ASS investigation will be conducted in accordance with the relevant State requirements.*

**Response – RC176**

An ASS investigation will be done and carried out in agreement with local DERM office and with reference to the SPP 2/02. This will be done during the detailed design as part of the MCU and Operational works approvals process.

**Comment – RC177**

*This section should be revised to describe the potential impacts of the project on the Kaili (Caley) Valley Wetlands from the proposed filling activities as they relate to salinity impacts and management.*



**Response – RC177**

Potential for alterations to ground water dynamics, and surrounding vegetation as a result of salt movements through the soil profile and groundwater flow is noted.

**Comment – RC178**

*Land suitability in Figure 5-3 is representative of good quality agricultural land classes. This figure shows much of the northern part of the project within the APSDA is categorised as class A and class B. However, the Bowen Shire Planning Scheme 2006 contains a map showing good quality agricultural land, and includes only a small portion to the south east and south west of the APSDA as containing good quality agricultural land.*

**Response – RC178**

This figure has also included those areas listed as Strategic Cropping Land (SCL), which is regarded as 'the best of Class A', hence the additional coverage to that shown within the *Bowen Planning Scheme 2006*.

**Comment – RC179**

*This section should include the full list of management plans that are required to address the soils related impacts. Stating a "may include" is not sufficient.*

**Response – RC179**

Additional specific management plans will be included as sub-plans associated with the Project EM Plan (SEIS Volume 2, Appendix AC). These will be developed and implemented to ensure that all environmental impacts have mitigation and management measures. These management plans will include but may not be limited to the following: A Concept and Detailed ESCP, Environmental Management Plan, Acid Sulfate Soil Management Plan, Rehabilitation Management Plan, Contaminated Soil Earthworks Management Plan, GQAL and Strategic Cropping Land Assessment and if necessary a Remediation Action Plan (for contaminated sites).

**5.13.7 Land use and Tenure****Comment – RC180**

*The second last paragraph in this section discusses existing land use and future intent for the land within the APSDA. It also discusses 'special use' at the Port of Abbot Point area. Please clarify that this is consistent with the Port of Abbot Point Land Use Plan and the Development Scheme for the APSDA or alternatively if not consistent, the basis for that determination.*

**Response – RC180**

Being defined as an Infrastructure Facility under the Development Scheme for the APSDA, the Project is considered to be a use that may meet the purpose of the land use designation within which it is located. For a full Project assessment against the objectives of the Development Scheme for the APSDA and the abovementioned land use intents refer to Volume 3, Section 1. 11. 3. 2 of the EIS as well as Volume 1, Section 3, WP51 and WP54 of SEIS.

Approximately 2.4 km of the Project lies within Port of Abbot Point SPL which is designated as Port Handling Activities precinct under the current *Port of Abbot Point Land Use Plan 2008*. The intent of

this precinct is to provide for establishment and operation of wharves, loading and unloading areas, stockpiling, land access, transport corridors (both rail and road) and port related offices. Furthermore, it supports the efficient movement of all existing and potential new commodities and the continuing capital investments in infrastructure (Port of Abbot Point Land Use Plan, 2008, pg. 14).

The Project entails construction of a railway line and railway loop within this area of Port of Abbot Point, as such the Project is consistent with the land use intent of the Materials Handling Precinct. It is important to note that the soon to be gazetted, *Draft Land Use Plan for Port of Abbot Point 2009* does not change the intent of this designation and the Project will remain consistent with this land use intent.

#### **Comment – RC181**

*This section discusses the various zoning designations under the applicable planning schemes/development schemes, and references detailed assessment as occurring in section 1. 12. Section 1. 12 fails to assess the project against the provisions of the Development Scheme for the APSDA (notwithstanding a limited assessment has occurred under section 1. 11. 3. 2). Given the Development Scheme for the APSDA has been prepared to guide and manage land use planning within the APSDA, this section must provide an assessment of the project against the Development Scheme for the APSDA.*

#### **Response – RC181**

For a full Project assessment against the objectives of the Development Scheme for the APSDA and the abovementioned land use intents refer to Volume 3, Section 1. 11. 3. 2 of the EIS as well as Volume 1, Section 3, WP51 and WP54.

#### **Comment – RC182**

*The alignment of the proposal rail corridor shows it crossing the existing rail infrastructure at several other locations not mentioned in this section. This should be clarified.*

#### **Response – RC182**

Volume 3, Section 6. 2. 7 of the EIS refers to the Stock Route Network, not the existing railway network that the Project may be crossing.

Volume 3, Section 6. 2. 8 of the EIS states that the Project will cross the existing North Coast Railway line once, with this provided as a grade separated crossing so as to avoid conflict between the two railway lines.

#### **Comment – RC183**

*The existing workers camp in the northern area of the project is to the west of Merinda, not north of Merinda.*

#### **Response – RC183**

Agreed, the existing Merinda Camp is located to the west of the Merinda Township. However, this camp will no longer be utilised for the purposes of this Project (refer to Volume 1, Section 2 of the SEIS for further information).

### 5.13.8 Landscape Character

#### Comment – RC184

*This section lists key natural features within the corridor. The Kaili (Caley) Valley Wetlands should be included in this list. This section states the listed features are within the project corridor which is not accurate. Most, if not all of these features, are visible from, rather than within the corridor. The list should clearly distinguish which features are within the proposed corridor (such as the Kaili (Caley) Valley Wetlands, and those which are visible*

#### Response – RC184

The natural features listed in Volume 3, Section 7. 2. 2 of the EIS are all located within the region, not the study area, and contribute to the regional visual landscape. The rail loop located within the APSDA extends into the Kaili (Caley) Valley Wetland and therefore this landscape feature is located within the study area.

#### Comment – RC185

*This section needs to discuss the land uses within the APSDA and at the Port of Abbot Point.*

#### Response – RC185

The northern extent of the study area extends into the APSDA and the strategic port land associated with the Port of Abbot Point. The Port of Abbot Point contains the Abbot Point Coal Terminal comprising a rail in-loading facility, coal handling and stockpile areas, and a single trestle jetty and conveyor connected to a berth and shiploader.

The APSDA is located adjacent to the port and is intended to provide land for the development of large scale industry. The majority of the APSDA is currently undeveloped.

### 5.13.9 Land Contamination

#### Comment – RC186

*This section needs to consider potential impacts to areas of ecological significance within the project corridor, including the Kaili (Caley) Valley Wetlands, and identify specific mitigation measures where required.*

#### Response – RC186

Mitigation measures will be addressed in the EM Plan (SEIS Volume 2, Appendix AC) with regards to chemical and fuel storage and risk to receiving waterways, and same will apply to refuelling of vehicles. HPPL is not requesting that ERA's associated with the rail construction and operation be approved as part of the Coordinator Generals Report. Further detail regarding location of works and thresholds will be determined during the detailed design stage of the Project and will be submitted to DERM for assessment and approval in accordance with the SP Act and EP Act.

### 5.13.10 Terrestrial Ecology

#### Comment – RC187

*This section identifies the methodology for the flora and terrestrial fauna surveys and discusses the Department of Environment and Resource Management's (DERM)'s involvement and recommendations for survey sites (both detailed/comprehensive and rapid). Given the project is traversing the APSDA and the Kaili (Caley) Valley Wetlands, which is listed on the Directory of Important Wetlands in Australia by the Commonwealth government, two rapid fauna surveys, undertaken within proximity to the Kaili (Caley) Valley Wetlands, is considered insufficient. The lack of flora surveys (both rapid and detailed/comprehensive) within proximity to the Kaili (Caley) Valley Wetlands should be undertaken. Previous studies undertaken for the DIP have identified of concern and non-remnant regional ecosystems, including semi-evergreen vine thicket threatened ecological community, in the location of the proposed railway corridor for the project.*

#### Response – RC187

Additional ecological assessments are currently scheduled within the wetland area and results and impact assessment will be incorporated into an additional document which will be provided after the SEIS. The document will also contain commentary regarding other studies undertaken within the Kaili (Caley) Valley wetland which have become publicly available since the finalisation of the EIS. This report will assist in identifying additional design performance requirements and mitigation required for the management of the construction and operation of the Project infrastructure within the APSDA and wetland area.

#### Comment – RC188

*Table 9-7 should list the Kaili (Caley) Valley Wetlands as an ecologically sensitive area under the state section as well as the national level. The wetland is identified as a Great Barrier Reef Wetland Protection Area.*

#### Response – RC188

The Kaili (Caley) Valley Wetland is listed in Volume 3, Section 9 Table 9-7 of the EIS as Wetlands of National Importance.

#### Comment – RC189

*This section refers to potential offsets relating to the clearing of marine plants. The section states that offsets "may be" required.*

#### Response – RC189

An Offsets Strategy has been developed for the Project which initiates investigations into offsetting requirements and likely options for the Project and incorporates relevant state and federal offset policies (SEIS Volume 2, Appendix X). As the mine will be exempt from VMA offset requirements, the Strategy will outline how biodiversity offsets apply. Unavoidable loss of marine plants and fish habitat will be required under offset policies administered by DEEDI.

#### Comment – RC190

*These sections should be revised to provide more clarity, particularly in terms of how the fauna spotters will operate as part of the clearing operations.*

**Response – RC190**

The Construction Environmental Management Plan (CEMP) will provide details of operations of fauna spotters during pre-construction and construction phases of the Project.

**Comment – RC191**

*This section should take into account the impacts of the rail loop in the Kaili (Caley) Valley Wetlands. The loop has the potential to isolate fauna within the loop from the rest of the wetland community.*

**Response – RC191**

Options for providing new transport infrastructure to the Port of Abbot Point are highly constrained. Various design options were provided to DEEDI (formerly DIP) as assessment managers of the APSDA. Consultation with the Coordinator Generals Office is continuing with regards to the Kaili (Caley) Valley Wetland Environmental Management Plan and how its mitigation and management strategies will impact the construction and operational phases of the Project. The design of the rail embankment in this area will aim to maintain balanced flows in the wetland area and minimise impact on the surrounding environment.

**Comment – RC192**

*Given the project is adjacent to water bodies, some of which feed in to the Great Barrier Reef Marine Park, potential additional measures to address sediment and erosion impacts should be discussed. Please also provide detail on treatments proposed downstream of culverts where flow rates exceed 2.5m/s.*

**Response – RC192**

Soil testing will occur as part of a geotechnical program which will inform the design and management of detailed erosion and sediment control management plans required during construction. To further guide this aspect of the Project an Erosion and Sediment Control Criteria has been prepared for the Project (SEIS Volume 2, Appendix AD).

**Comment – RC193**

*This section discusses the potential for fauna mortality during the operational phase of the project. Of prevalence in this section, is discussion on cause of mortality via barbed wire fences. The mitigation measures nominated include avoiding the use of barbed wire but do not identify what would be used as an alternative.*

**Response – RC193**

There are a number of alternatives to barbed wire. As part of the detailed design phase, selecting materials will be considered and alternatives examined. If the entire fence cannot be barbed wire free to exclude stock from the rail corridor, alternating barbed and non-barbed strands may reduce the impact to wildlife and may be considered suitable.

**Comment – RC194**



*This section should specifically mention the potential impact of sediment and erosion on the Kaili (Caley) Valley Wetlands as a result of the project. This section should also refer to the proposed ESMCP as part of the implementation plan.*

**Response – RC194**

Refer to RC192.

**Comment – RC195**

*This section needs to discuss the impacts of the rail loop on the functionality of the Kaili (Caley) Valley Wetlands. Particular discussion should be included on the potential of the rail loop to significantly alter the flooding and water circulation patterns within the loop from the rest of the wetland community.*

**Response – RC195**

Volume 6, Appendix G of EIS states that there is no substantial increase in water flux (up to 0.05m) and that there is no substantial change in hydrological regime of the wetland or associated creeks. In addition a hydrological assessment of the rail alignment has been undertaken for the Project. This report contained within Volume 2, Appendix Y of SEIS. Retention of existing drainage and overland flow paths will be incorporated into the hydrological design to avoid ponding, scouring and the potential water logging of land surrounding the rail corridor. Measures will be taken to prevent unacceptable changes in afflux due to the proposed railway. Increasing the size, number and frequency of culvert locations along the described trace may be a possible solution to achieve a balanced flow regime where the rail alignment is positioned within natural flood plains.

**Comment – RC196**

*This section should describe the further studies required to identify and manage impacts from the project on both flora and fauna species of conservation significance. The EIS must specify the investigations to be undertaken as part of the mitigation measures. Where specific fauna is identified as being present, and will be disturbed by the project, specific species management plans should be developed.*

**Response – RC196**

As there are a number of threatened species that have been identified to occur or have high potential to occur on the alignment, a number of threatened species plans will be required to be prepared. To develop these plans, some additional field work may be required to identify precise locations of suitable habitats and management measures. Additional field surveys will not be required for all species (e.g. squatter pigeon) as some have been located throughout the alignment while others have specific habitat requirements (yakka skink) that have already been identified by field investigations. Field work that is undertaken for other parts of the Project in the pre-construction phase (ie pre-getoch investigations, least concern plant investigations, biocondition assessments) can also be used to identify habitats to be considered in management plans. Impact upon species not specifically covered by an individual management plan have been addressed in a Species Management Program which has been developed for the Project (SEIS Volume 2, Appendix AA).

**Comment – RC197**

*This table references fauna survey sites; however, there is no figure to represent the location of the surveyed matters of national environmental significance. It is considered the field surveys conducted to date have not provided the amount of detail to support the statements in the table.*

**Response – RC197**

Additional ecological investigations are being undertaken at a number of locations along the alignment. The results and impact assessment will be incorporated into an Updated Terrestrial Ecology Report (SEIS Volume 2, Appendix AE).

**Comment – RC198**

*This section should specifically state the additional studies and management plans that are required for the assessment and mitigation of impacts.*

**Response – RC198**

Refer to RC196.

**5.13.11 Aquatic ecology****Comment – RC199**

*Given the project traverses a portion of the Kaili (Caley) Valley Wetlands, the fact no aquatic assessments were undertaken within the Kaili (Caley) Valley Wetlands is considered insufficient. The lack of assessment of the wetland is confirmed by Table 10-1 and Figure 10-1. Without these assessments, it is unclear how the impacts of the project on the aquatic values, and subsequently, mitigation measures can be identified. This is a substantial omission, given the project's direct impact on the wetlands.*

**Response – RC199**

Since the compilation of the EIS, aquatic assessment of the Kaili (Caley) Valley wetland has been undertaken. In addition, results of other studies undertaken within the wetland have become publicly available. On the basis of this information, results and impact assessment have been collated and are presented in Volume 2, Appendix AI of the SEIS.

**Comment – RC200**

*Figure 10-2 does not appear to accurately depict habitats associated with the Kaili (Caley) Valley Wetlands. The crescent shape of the water body types may be the result of a mapping error.*

**Response – RC200**

This was a mapping error that has been addressed in Figure 2 of Volume 2, Appendix AI of the SEIS

**Comment – RC201**

*This section does not indicate that any water quality testing was conducted in the Kaili (Caley) Valley Wetlands. As with comments provided above for items 46 and 47.*

**Response – RC201**

Since the compilation of the EIS, additional aquatic assessments and water quality testing have been undertaken. In addition, results of water quality studies undertaken within the wetland have also become publicly available. The findings of these assessments and studies are presented in Volume 2, Appendix AI of the SEIS.

#### **Comment – RC202**

*This section refers to section 9 of volume 3, for a more detailed discussion on marine plants, however, that section is less detailed than section 10.*

#### **Response – RC202**

Refer to RC201.

#### **Comment – RC203**

*This section recognises the importance of the Kaili (Caley) Valley Wetlands as containing important spawning, breeding, and nursery habitats for many fish species, and habitat for waterfowl and shorebirds. Given its importance, the level of detail provided is insufficient.*

#### **Response – RC203**

Since the compilation of the EIS, aquatic assessment of the Kaili (Caley) Valley wetland has been undertaken. In addition, results of other studies undertaken within the wetland have become publicly available. On the basis of this information, results and impact assessment have been collated and are presented in Volume 2, Appendix AI of the SEIS.

#### **Comment – RC204**

*This section should list the potential impacts on wetlands and marine plants including loss of habitat and water quality. It should also include discussion on the increase in water afflux levels and flow rates.*

#### **Response – RC204**

The potential impacts of loss of habitat and a degradation to water quality are discussed in Volume 3, Section 10. 3. 2. 2 and 10. 3. 2. 8 of EIS respectively and these principles apply to wetland habitats. Updated documentation that will be prepared following the additional assessments at the wetland. This will document will provide more specific assessment for marine plants and the Kaili (Caley) Valley Wetland.

#### **Comment – RC205**

*As the EIS contains no details on the amount of embankment versus elevated rail line within the Kaili (Caley) Valley Wetlands, the impacts on the loss of aquatic habitat is impossible to assess. The information in Volume 6 section G, does not provide assistance in determining this breakdown as Table 6 and Figure 4 of the G1 report do not relate to each other. Preference to minimise impacts within the wetland is for an elevated rail line throughout the entire aquatic environment. The section also does not indicate the extent of the disturbance during construction around the development footprint for either of the construction methods. Therefore impacts are likely to be greater than the 14.5ha stated.*

#### **Response – RC205**

The current design is for the entire loop to be constructed on an embankment through the wetland. The embankment will be constructed on rock fill with balancing culverts throughout to ensure that there is free flow of tidal and fresh water throughout the wetlands. Siting and sizing of the culverts is to be carried out in final design. Refer to Volume 2, Appendix AI for further information regarding the potential impact upon the aquatic habitat in this area.

**Comment – RC206**

*The Department is in the process of preparing an environmental management plan for that part of the Kaili (Caley) Valley Wetlands within the APSDA. Part of the preparation has involved flora, fauna and aquatic surveys, in addition to water quality monitoring. This work has found Saltwater Creek flows into the wetlands and is an example of a permanent water body, but not perennial. Furthermore, this work has found sections of Saltwater Creek are estuarine in nature. A strategic environmental management plan is being prepared which will be available to be used as a framework to guide proponents in preparing individual project environmental management plans. The draft of the environmental management plan will be publically notified in the first quarter of 2011.*

**Response – RC206**

Options for providing new transport infrastructure to the Port of Abbot Point are highly constrained. Various design options were provided to DEEDI (formerly DIP) as assessment managers of the APSDA. Consultation with the Coordinator Generals Office is continuing with regards to the Draft Kaili (Caley) Valley Wetlands Environmental Management Plan (DEEDI, 2011) and how its mitigation and management strategies will impact the Project.

**Comment – RC207**

*This section does not discuss rehabilitation of areas disturbed during construction.*

**Response – RC207**

Detailed decommissioning plans will be developed as required for the rehabilitation of any temporary working areas within the Kaili (Caley) Valley Wetland.

**Comment – RC208**

*These sections fail to acknowledge the potential impacts to fauna mortality within specific aquatic environments, specifically the Kaili (Caley) Valley Wetlands as a result of the project.*

**Response – RC208**

The mitigation measures identified in Volume 3, Section 10. 3. 2. 5 of the EIS would apply to the Kaili (Caley) Valley Wetland as well as other aquatic habitats in the study area. Since the compilation of the EIS, additional aquatic assessments of the Kaili (Caley) Valley Wetland have been undertaken. Impact assessment and specific mitigation measures for this habitat area are presented in Volume 2, Appendix AI of the SEIS.

**Comment – RC209**

*This section does not adequately respond to the impacts raised in section 10. 3. 2. 6. More detail is required on how the construction will impact on the environmental values of the Kaili (Caley) Valley Wetlands and how these impacts will be mitigated.*

**Response – RC209**

Since the compilation of the EIS, additional aquatic assessment of the Kaili (Caley) Valley Wetland has been undertaken. Refer to Volume 2, Appendix AI of the SEIS for further information regarding potential Project impacts and prescribed mitigation and management measures for this area.

**Comment – RC210**

*This section needs to recognise the sensitive nature of the impacts associated with the Kaili (Caley) Valley Wetlands.*

**Response – RC210**

Since the compilation of the EIS, additional aquatic assessment of the Kaili (Caley) Valley Wetland has been undertaken. Refer to Volume 2, Appendix AI of the SEIS for further information regarding potential Project impacts and prescribed mitigation and management measures for this area.

**Comment – RC211**

*This section identifies a Weed and Pest Management Plan will be prepared for the construction phase of the project and identifies one of the actions as 'controlling pest and weed species where necessary'. Suggest rewording to 'as appropriate' instead of 'where necessary'. There should be an indication of how many vehicle wash down stations will be provided along the corridor.*

**Response – RC211**

A Weed Management Plan has been prepared for this Project, which includes specific requirements and management measures for relevant introduced species. This document includes commitments regarding vehicle washdown requirements (SEIS Volume 2, Appendix AG, Section 2.5)

**Comment – RC212**

*These sections are not focused on the operational phase of the project and appear to repeat impacts and mitigation measures associated with the construction phase.*

**Response – RC212**

Further consideration of likely operational phase mitigation measures will be provided with the Project EM Plan (SEIS Volume 2, Appendix AC) regarding the rail development within aquatic environments.

**Comment – RC213**

*There is evidence of estuarine/ saltwater crocodiles inhabiting the Kaili (Caley) Valley Wetlands. This should be considered in the EIS, even though the EIS nominates the risk during project construction and operation is low.*

**Response – RC213**

Mitigation measures regarding estuarine/saltwater crocodiles are considered within the updated Terrestrial Ecology Report (SEIS Volume 2, Appendix AE). Additional consideration of this issue is also incorporated within Volume 2, Appendix AI of the SEIS.



**Comment – RC214**

*Given the impacts on the Kaili (Caley) Valley Wetlands from the project the EIS needs to provide a discussion of the possible alternatives to the current rail loop position.*

**Response – RC214**

Volume 3, Section 1. 7. 1 of the EIS briefly describes the railway options process. During the selection of an alignment a variety of environmental, engineering and social factors were considered and alignment options investigated prior to aquatic ecology on ground assessment. Options for providing new transport infrastructure to the Port of Abbot Point are highly constrained. Various design options were provided to DEEDI (formerly DIP) as assessment managers of the APSDA.

Following the abovementioned consideration, two principal options for accessing the proposed coal terminal at the Port of Abbot Point were identified.

The two (2) options enter the APSDA and travel east, generally parallel to the Bruce Highway before turning north, and crossing the highway and North Coast Rail line. From this point Option 1 turns west, then north entering the proposed multi-user infrastructure corridor (being developed by the Department of Infrastructure and Planning), heading in a northerly direction before running due east to the coal out-loader at the coal terminal and then turning south to exit the APSDA. Option 2 turns west from the crossing to run parallel to the Abbot Point Rail line, to the coal out-loader and terminates in a balloon loop.

Each option involves impacts to the Kaili (Caley) Valley Wetland, however in terms of total impacts it is considered that Option 2 results in a lesser overall impact:

- Option 1 bisects the wetland both east-west and north-south, whilst Option 2 has an edge effect;
- Option 1 would involve significant disturbance and excavation to areas of potential ASS and actual ASS;
- Option 1 has a reduced total footprint area of impact to the wetland than with Option 2; and
- Both options comprise earth embankments and elevated structures designed to minimise hydraulic impacts and changes to the tidal regime of the wetland.

The second option, having a balloon loop at the southern end of the coal terminal, was determined to provide a preferential outcome on engineering and environmental considerations.

Consultation with the Coordinator Generals Office is continuing with regards to the Kaili (Caley) Valley Wetland Environmental Management Plan and how its mitigation and management strategies will impact the Project.

**Comment – RC215**

*This section recognises the importance of the Kaili (Caley) Valley Wetlands as containing important spawning, breeding, and nursery habitats for many fish species, and habitat for waterfowl and shorebirds. Given its importance, the level of detail provided is insufficient.*

**Response – RC215**

Since the compilation of the EIS, aquatic assessments of the Kaili (Caley) Valley wetland have been undertaken. In addition, results of other studies undertaken within the wetland have become publicly available. On the basis of this information, results and impact assessment have been collated and are presented in Volume 2, Appendix AI of the SEIS.

**Comment – RC216**

*This section should specifically state the additional studies and management plans that are required for the assessment and mitigation of impacts.*

**Response – RC216**

An updated document will identify the specific management plans that will be required.

**5.13.12 Surface Water****Comment – RC217**

*The listed environmental values should include those values associated with aquatic fauna and flora.*

**Response – RC217**

Volume 3, Sections 9 and 10 of the EIS address the terrestrial and aquatic ecology values of the study area.

**Comment – RC218**

*This section should summarise the impacts on the Kaili (Caley) Valley Wetlands arising from the hydrologic model.*

**Response – RC218**

The impacts of changes in hydrology on the ecological values of Kaili (Caley) Valley Wetland are discussed in Volume 3, Section 10 of the EIS. Additional assessment of the Kaili (Caley) Valley Wetlands including further assessment of the ecological values and impacts, will be undertaken post the SEIS.

**Comment – RC219**

*This section identifies the extent of importance of the Kaili (Caley) Valley Wetlands. The wetlands cover approximately 5 000ha and are recognised as one of the most important waterfowl locations in Northern Queensland.*

**Response – RC219**

Noted.

**Comment – RC220**

*This section makes no comment about the potential increase in flood levels or duration as a result of the project. It therefore difficult to determine the effectiveness of the proposed culverts and design levels. The stated afflux limit of 1.5m is not consistent with the reported accepted level in Volume 6 report G1 of 0.5m.*

**Response – RC220**

Invert levels of the proposed Alpha Rail culverts have been kept consistent with existing culverts along the access road in order that the permanent pool level of the wetland will remain the same. Additional durations of peak depth inundation will be short (less than eight (8) hours).

This detailed assessment does not form part of the EIS as the detailed design stage of the Project has not been completed yet. Impacts on flood levels will be considered as part of the detailed design with appropriate design and mitigation measures being used to minimise any potential impact on flood levels.

#### **Comment – RC221**

*Tables 11-4 and 11-6 propose hydraulic modelling to "minimise" the effects of increased flood heights and flow velocity. The aim should be to achieve no increase in flood heights and maintain velocity to pre construction levels. An option to minimise impacts within the Kaili (Caley) Valley Wetlands would be for an elevated rail line throughout the entire aquatic environment.*

#### **Response – RC221**

Refer to RC220. The proposed design is intended to result in the permanent pool level of the wetland to remain the same. Further assessment of the surface water quality within Kaili (Caley) Valley Wetlands has been undertaken as part of the additional aquatic ecology assessment provided in Volume 2, Appendix AI of the SEIS.

#### **Comment – RC222**

*The statement that "impacts on water resources are not expected" is not supported, as a discussion of the hydraulic modelling has not been provided.*

#### **Response – RC222**

The statement included within the EIS is correct. Only localised impacts, near the rail, are expected on water resources. The design of the cross drainage for the rail will ensure that changes in the hydrology are minimal.

### **5.13.13 Air Quality**

#### **Comment – RC223**

*The modelling for air quality was based upon a moving train yet there will be times particularly at passing stations and the rail loops that train emissions will not be mixed with existing air as relied upon by the model.*

#### **Response – RC223**

The emission of coal dust from the loaded wagon in transit is based on the worst case assumption of air moving at 80 km/hr (the speed of the train) creating lift-off of the exposed coal within the wagon. When the train is stopped or slow moving at signals or passing loops, the emission will be lower.

It is therefore stated that the impact will be lower than the worst case assumed in the modelling.

### 5.13.14 Noise Vibration

#### Comment – RC224

*The statements in this section related to noise and vibration impacts as they relate to the environmental values of the Kaili (Caley) Valley Wetlands are not consistent with the statements made in the relevant areas of Section 10. Section 10 does indicate that there are possible impacts arising from noise and vibration that should be addressed.*

#### Response – RC224

Volume 3, Section 15. 2. 2 of the EIS, acknowledges that the project is likely to adversely impact upon the Caley Vally Wetand, which provides habitat for migratory birds, particularly during the wet season.

Volume 3, Section 10. 3. 2. 11 of the EIS outlines some mitigation measure to reduce likely impacts on the aquatic habitats as a result of noise, vibration and light disturbance. Therefore these sections are consistent.

### 5.13.15 Transport

#### Comment – RC225

*This section nominates a detailed construction plan is being prepared, and that a transport logistics paper has been used as an alternative to undertake the impact assessment.*

#### Response – RC225

The Logistics Plan which has been included as Appendix E to the Traffic Impact Assessment Report (SEIS Volume 2, Appendix AB) estimates heavy vehicle movements and transport moves from camps to airport. A detailed construction schedule is available as part of this additional assessment.

#### Comment – RC226

*This section should acknowledge the cumulative construction impacts the project will have on the traffic and transport for the areas in which it is located, taking in to account other projects already undergoing various stages of environmental impact assessment and planning assessment, including the proposed multi-cargo facility and proposed X110 expansions at the Port of Abbot Point. Much of this section nominates that impacts are unknown until detailed design phase of the project, or until traffic management plan is developed. As a result, an assessment of traffic impacts or mitigation measures cannot be undertaken at this time. Furthermore, the EIS fails to acknowledge how the standard gauge rail network as part of this project will interact with the narrow gauge rail network already servicing the Abbot Point Coal Terminal, and proposed expansions to support other coal proponents. Please provide an explanation of the different rail networks will interact and maintain functionality and integrity of each network.*

#### Response – RC226

Cumulative construction impacts of the Project upon traffic and transport have been addressed in Volume 4, Appendix G, Section G. 6. 12 and Table G-15 of EIS.

The Project will run alongside the existing QR National Newlands network. HPPL has coordinated the engineering design with QR so as to allow for sufficient clearance between the Project and the QR

corridor. Detail of the existing Newlands line, the proposed Northern Missing Link and detail of future requirements has been obtained. Issues such as maintenance access have been considered and throughout the final design of the Project all of the interface issues with QR will be further examined and incorporated.

The functionality of all existing and proposed railway lines will not be impacted upon as the Project will adhere to agreed separation distances (as in the case with the NML railway line) and construct a bridge at the North Coast Railway line crossing.

With regard to support of other proponents, the Project is designed to accommodate for haulage of 60 Mtpa of coal, however, with construction of additional passing loops to the single line track and selective partial duplication, there is potential to further increase the tonnage and thus service other proponents. The regime controlling the equitable access to the Project by third party is managed in accordance with TP Act and will be regulated by ACCC.

### **5.13.16 Indigenous Cultural Heritage**

#### **Comment – RC227**

*The EIS does not contain the detailed information (i. e. results from field investigations) to ascertain the level of potential impact and associated mitigation measures for Indigenous cultural heritage. As such, an assessment cannot be undertaken at this stage.*

#### **Response – RC227**

Indigenous Cultural Heritage archaeological surveys were undertaken from August 2010 through to November 2010 with a total of 330 km of the Project now having been surveyed. The remainder of the rail line is part of the programmed work. Archaeological reports for the 2010 rail surveys have now been received by the Proponent. The Proponent is currently in discussions with each respective Aboriginal Party in regard to appropriate cultural heritage, mitigation and management strategies.

### **5.13.17 Social**

#### **Comment – RC228**

*Clarification is sought in respect to whether this considers the importance and prevalence of the horticultural industry in the Bowen Abbot Point region.*

#### **Response – RC228**

Refer to Volume 3, Section 22 of the EIS.

#### **Comment – RC229**

*Clarification is sought in respect to what constitutes the 'local study area'. The EIS nominates medical emergencies within the local study area are serviced by a rescue helicopter (Mackay based) and an ambulance service. It would be expected, that given the length of the rail corridor, there would be more than one ambulance service.*

#### **Response – RC229**

HPPL will engage with a range of local and regional medical service providers to ensure that the Project is serviced appropriately in this regard.



**Comment – RC230**

*This section identifies the construction workforce will be housed at one of five accommodation camps along the project corridor, with the closest to Abbot Point, being at Salisbury Plains (20km away). There is inconsistency throughout the EIS; other references to this camp suggest it is in Merinda (even though Merinda is to the east of Mount Roundback, and the construction camp referred to is to the far west of Mount Roundback). Please clarify where the accommodation camps are proposed and the details of these facilities. Suggest the code of conduct for the accommodation camps include guidance on interaction with the communities within proximity to the camps to ensure no adverse impacts to community members. It is unclear whether the recreational facilities within the temporary construction camps will comprise outdoor recreation opportunities also. This needs to be explained and clarified within the EIS. The EIS should consider the outcomes of the BAPACI study, available for viewing and download from DIP's website (<http://www.dip.qld.gov.au/resources/plan/net/bowen-abbot-point-report.pdf>).*

**Response – RC230**

Refer to Volume 2, Appendix C of SEIS for an updated workforce profile.

**Comment – RC231**

*Clarity is needed in respect to the temporary nature of the construction camps; are the accommodation units and camps themselves temporary, or, is it the construction workforce that is temporary? This is in reference to section 20. 5. 2 which talks about permanent accommodation camps, which are assumed to be in the same locations (3 nominated) as the temporary construction camps. Given the numbers of FIFO operational workforce is expected to be significantly less than FIFO construction workforce, will the temporary camps be reduced in size (i. e. demountable accommodation units removed from site and other facilities removed to respond to the size and scale of the population expected to be housed?).*

**Response – RC231**

Camp - 1 Salisbury and Camp - 3 Wollombi which will be established near rail related infrastructure (marshalling yards, ballast sidings, rail welding, sleeper manufacture and maintenance team facilities), will maintain approximately 20 to 40 accommodation rooms permanently during the operational phase of the Project. As required on an occasional basis, additional rooms will also be available available to accommodate additional workforce demands generated by larger rail maintenance and construction events which are likely to occur over the life of the Project. Refer to Volume 2, Appendix C of SEIS for an updated workforce profile.

**Comment – RC232**

*This section suggests rosters for construction activities will either be 21 days on and 7 days off, or 10 days on and four days off. This does not seem to accord with earlier sections within the EIS, which suggest construction will do a 13 day fortnight, 3 weeks on 1 week off RnR roster. Please review and ensure consistency.*

**Response – RC232**

Rosters during the construction phase are expected to be either:

- One month roster, 3 weeks (21 days) on and 1 week (7 days) off; or

- Fortnight roster, 10 days on and 4 days off.

The rosters will be determined by the construction contractor and will be subject to the role the worker is employed to undertake. For example administrative/management roles could work the fortnight roster and the construction roles could work the one month roster. Refer to Volume 2, Appendix C of SEIS for an updated workforce profile.

### 5.13.18 Health and Safety

#### Comment – RC233

*See comments on section 13. 3. 3. 1 (47BX) regarding assumptions arising from the air quality modelling. If relevant, similar questions regarding air quality should apply to this section as well. For example will passing loops occur in proximity to the sensitive receptors? A stationary train emitting engine exhaust combined with a moving train may result in some breaches of the EPP (Air) criteria.*

#### Response – RC233

The particulate matter impact from diesel locomotives was found to be very low compared to the goals to protect environmental values. The cumulative impact due to dust from a passing train will not be elevated enough to approach the assessment criteria. Emissions from the coal wagons do not include products of combustion (like diesel engines) so there is no cumulative impact.

#### Comment – RC234

*Although the air quality assessment found air emissions would be within established guidelines, should management/mitigation measures be put in place to ensure air emissions do not increase and go above.*

#### Response – RC234

The Project Environmental Management System (EMS) will allow for investigating complaints of dust impact. This may include selective monitoring to confirm model impacts are below established (and legislated) guidelines and goals.

#### Comment – RC235

*The statements in this section regarding no expected increase in biting insect numbers cannot currently be supported. The rail loop through the Kaili (Caley) Valley Wetlands may well result in changes to water duration inside the loop contributing to a temporal increase in biting insect breeding conditions. The relevant sections regarding changes to ecological conditions as a result of construction of the loop has not adequately demonstrated that the project will not result in changed conditions.*

#### Response – RC235

The detailed design, construction and operation phases of the Project will be undertaken to minimise risk of environmental changes resulting in an increase in local populations of biting insects or increase the spread of biting insects in accordance with the relevant guidelines and codes. This will apply to works undertaken within proximity to Kaili (Caley) Valley Wetlands.

### 5.13.19 Economic Impact Study

#### Comment – RC236

*This section is confusing, whereby the lead in suggests tourism accommodation is limited in the immediate vicinity of the project, however, the figures provided for occupancy rates and vacant rooms or beds per night seem to contradict this. Further, it is unclear whether the figures provided for the Whitsunday region apply across the entire local government area. The BAPACI study found the seasonal nature of the horticultural industry in Bowen, impacted on the availability of accommodation types for seasonal workers, which in turn impacted on the ability to accommodate tourists, non-resident workers and other demographic groups.*

#### Response – RC236

The assessment of accommodation states that there is limited stock of accommodation within the immediate vicinity of the Project, indicating that there is little accommodation within close proximity of the rail alignment. As stated in the EIS, the assessment of available tourism accommodation was based on the Mackay, Whitsunday and Outback Tourism Regions as defined by the Australian Standard Geographic Classification 2010 Edition.

The analysis reported average annual occupancy rates, which indicated that there was some capacity to absorb increased demand for short term accommodation. The demand for accommodation comes from a variety of sources, including business travellers, tourists and short term workers. The extent to which one of those groups may crowd out capacity for others has little significance other than indicating need for additional facilities.

### 5.13.20 Hazard and Risk

#### Comment – RC237

*This section should identify the Kaili (Caley) Valley Wetlands as a sensitive environmental receptor. The section should include an assessment of the risks to the environment as a result of the actions. For example in Table 24-7 risk 1 identifies the risk to the environment but similar actions such as risk 2 and 3 do not.*

#### Response – RC237

The Kaili (Caley) Valley Wetlands is a sensitive environmental receptor. Items 2 and 3 of Volume 3, Section 24, Table 24-7 of EIS references the risk identified for item 1.

### 5.13.21 Environmental Management Plan

#### Comment – RC238

*The EIS should provide details on an Environment Management System or an environmental policy relevant to the project.*

#### Response – RC238

The EM Plan included as part of Volume 3 of the EIS has been prepared to the potential impacts associated with the Project as identified in the EIS and the proposed mitigation measures identified.

This EM Plan is a preliminary document and will be reviewed and finalised following the issuing of development conditions for the Project.

The issues raised in this submission will form part of the review of the EM Plan.

**Comment – RC239**

*See comments on section 13. 3. 3. 1 and Section 21. 3. 3. 1. Additionally this section contains issues other than those related to air quality. Suggest the heading needs to be corrected and or that the headings from section 26. 3. 8 - Surface water should be re-numbered to 26. 4?*

**Response – RC239**

Renumbering in Volume 3 Section 26. 4 of EIS is required. The revised section headings are:

- 26. 4 Surface Water
- 26. 5 Groundwater
- 26. 6 Noise and Vibration
- 26. 7 Waste Management
- 26. 8 Land Management
- 26. 9 Terrestrial Ecology
- 26. 10 Aquatic Ecology

**Comment – RC240**

*This section states that the project skirts the edge of the Kaili (Caley) Valley Wetlands. This could be taken to imply that the project is not intending to develop on approximately 14ha of the wetland.*

**Response – RC240**

The description of the Project within the Kaili (Caley) Valley Wetland is adequate and accurate throughout the EIS.

## **5.14 Department of Transport and Main Roads (DTMR)**

### **5.14.1 Introduction**

**Comment – RC241**

*The details in section 1. 11. 3. 6. 2 are not strictly correct. They should be amended as shown in Column 3.*

**Response – RC241**

Noted.

### **5.14.2 Description of the Project**

**Comment – RC242**

*This section states "Existing accesses at State Controlled Roads will serve as major access roads" however, it provides no indication about whether the access intersections are adequate to cater for additional project traffic.*

#### **Response – RC242**

Volume 3, Section 2. 4. 5 of the EIS provides a brief outline with detail of the traffic volumes and road network provided in Volume 3, Section 17 of the EIS. Further details regarding impacts on intersections are provided within the Traffic Impact Assessment (SEIS Volume 2, Appendix AB, Section 5).

#### **Comment – RC243**

*S2. 2. 1. 4 should include a description of the inter-relationship with the Goonyella to Abbot Point rail expansion project.*

#### **Response – RC243**

The construction phase of the GAP project is unlikely to conflict with this Project. Operational impacts have been addressed in the alignment design process. Co-location opportunities are addressed in Volume 3 Section 1. 8.

#### **Comment – RC244**

*The Goonyella to Abbott Point rail network is now under the control of QR Network Pty Ltd (trading as QR National). The project also runs parallel to a section of the QR Network railway within the Port of Abbott Point. Accordingly these matters should be reflected in s2. 3. 2.*

#### **Response – RC244**

Volume 3, Section 2. 3. 2 has been amended as follows:

As depicted in Volume 3, Section 2, Figure 2-1 of the EIS, the Project stretches between the Alpha Coal Mine, 38 km northwest of the Alpha Township and the Abbot Point Coal Export Terminal, 25 km north of Bowen. The Project corridor proceeds in a generally north-easterly direction from the Alpha Coal Mine, crossing the Belyando River and several of its tributaries in the first 100 km. The Project corridor crosses relatively flat lowlands before commencing a gentle climb from near Eaglefield (around 272 km from the mine) adjacent to the Suttor River, to a point near the existing Newlands mine (around 280 km from the mine). This is the highest point on the Project corridor at approximately 300 m above sea level. In the vicinity of the Newlands mine, the Project corridor runs parallel to the Goonyella to Abbott Point rail network which is now under the control of QR Network Pty Ltd (trading as QR National). The Project corridor runs parallel to the QR National railway for approximately 70 km through a pass in the Leichhardt Range and parallel to the Newlands Railway to a point near the Bowen River. The Project corridor then travels in a north westerly direction on crossing the Bowen River at approximately 344 km from the mine, then passes down the Bowen River valley through mostly grazing land toward Mt Herbert. The Project corridor passes to the west of Mt Herbert through a pass in the Clarke Range. From this point, the Project corridor travels north-easterly crossing the Bogie River at about 436 km from the mine, then finally in an easterly direction entering the Abbot Point area on its western boundary at 495 km from the Alpha Coal Mine. The Project also runs parallel to a section of the QR Network railway within the Port of Abbott Point.



The Project corridor passes approximately 70 km to the northeast of the town of Clermont, 55 km to the northeast of the town of Moranbah, 35 km to the east of Mt Coolon, 20 km to the west of Collinsville, and enters the APSDA 25 km west of Bowen.

## Comment – RC245

*S2. 4. 2 should include an additional pre-construction activity to liaise and plan for the upgrade of level crossings, drainage works and any other rail-related infrastructure where the project crosses or runs parallel to the existing QR Network Pty Ltd Goonyella - Abbot Point railway.*

## Response – RC245

Volume 3, Section 2. 4. 2 of the EIS has been amended as follows:

The following activities are proposed to be undertaken prior to construction of the proposed railway line:

- liaise and plan for the upgrade of level crossings, drainage works and any other rail-related infrastructure (eg fencing) where the Project crosses or runs parallel to the existing QR Network Pty Ltd railway.
- geotechnical investigations to assess expected physical and chemical properties and quantities of soil and rock to be excavated;
- meetings with landowners, community and stakeholder groups;
- notification of Project and construction timeframes;
- identification of areas of significance from wildlife, environmental and heritage viewpoints;
- acquisition of immediately affected land;
- clearing of vegetation (refer to Volume 3, Section 9. 3. 1. 1 of this EIS);
- fencing of proposed corridor so as to prevent cattle from accessing the work area;
- establishment of site so as to provide site access, power, telecommunications, water supply and workers camps; and
- access roads are to be identified and designated throughout the corridor footprint.

## Comment – RC246

*Section 2. 6. 2 discusses the interface of the Hancock rail project with publicly controlled roads ie either in the form of grade-separated crossings for major roads and at-grade crossings for local roads.*

## Response – RC246

Ongoing engagement will be undertaken in relation to the QR National network and its interaction with this Project.

## Comment – RC247

*Section 2. 6. 4 discusses the intentions of the project with respect to Stormwater Drainage. It should also acknowledge the intention that, where the rail project runs parallel to the existing QR Network*

*railway, any existing Stormwater Drainage infrastructure within the existing rail corridor will be upgraded in consultation with QR Network, to preserve the integrity of the existing railway.*

**Response – RC247**

Ongoing engagement will be undertaken in relation to the QR National network and its interaction with this Project. Comes will inform the detailed design of drainage infrastructure.

### **5.14.3 Land Use and Tenure**

**Comment – RC248**

*S6. 2. 7 should identify that the project also runs parallel to the QR Network Pty Ltd railway within the Port of Abbot Point.*

**Response – RC248**

The first paragraph of Section 6. 2. 7 has been updated to reflect the submission as follows:

The Project runs in part parallel to the Queensland Rail (QR) Northern Missing Link (NML) railway line for 70 km, which is currently under construction and is located to the eastern side of the Project (east of Eaglefield). The Project also runs for approximately 6 kms parallel to the existing QR Network Pty Ltd railway which is within the Port of Abbot Point area. The Project crosses the existing North Coal railway prior to entering the APSDA. A bridge will be constructed so as to continue the flow of trains on both railway lines and eliminate any potential interference between the two railway lines. For further information on proposed bridges refer to Volume 3, Section 17 of the EIS.

**Comment – RC249**

*Similar to the above matter, s6. 3. 4 should identify that the project also runs parallel to the QR Network railway within the Port of Abbot Point.*

**Response – RC249**

The third paragraph of Volume 3, Section 6. 3. 4 of the EIS has been updated to reflect the submission as follows:

The Project runs adjacent to the Northern Missing Link rail line for 70 km and in parallel to the QR Network railway line within the Port of Abbot Point area for approximately 6 km. The Project will also cross the existing North Coast railway line via a new bridge and there will be no ability to transfer trains between lines. There may be some short term disruptions to services on these lines during construction to manage safety issues, however with forward planning and communications with rail users, these disruptions should not cause any significant delays or other problems for the existing rail lines. Once the Project is operational, there will be no interactions with other rail infrastructure.

### **5.14.4 Air Quality**

**Comment – RC250**

*The EIS considers coal dust issues beyond the rail corridor but not within the rail corridor.*

**Response – RC250**

Noted.

### 5.14.5 Greenhouse Gas Emissions

#### Comment – RC251

*A table similar to Volume 2 Table 17-4 is not shown in this section, outlining the traffic associated with the transport of materials for the rail component of the EIS.*

#### Response – RC251

Volume 3, Section 14. 2. 1. 4 of the EIS addresses the emission factors in the transport of materials for the construction and operation stage of the Project. As detailed in Volume 3, Section 14. 2. 2 of the EIS much of the required detailed information is currently not available to provide a more detailed breakdown of emissions.

### 5.14.6 Noise and Vibration

#### Comment – RC252

*Table 15. 1 lists the background noise levels within the project area. This table appears to be in error as it states the background noise level Monday to Saturday 7am - 6pm as "0". This error should be corrected.*

#### Response – RC252

The Average Background A-weighted Sound Pressure Levels (L<sub>Abg,T</sub>) for Monday to Saturday 7am - 6pm should be 40. The correct information is contained within Volume 6, Appendix I, Table 3-1 of the EIS.

#### Comment – RC253

*The first paragraph of s15. 2. 3. 1 mentions that the EPP Noise nominates planning levels. The current EPP Noise 2008 does not contain planning levels for railways, these levels were contained in the previous EPP Noise which has now been repealed.*

#### Response – RC253

The reference in the EIS is incorrect. The EPP 2008 does not include planning levels for railways, however they were provided within the previous version EPP 1997. The EIS section refers to the current QR guideline which has the old EPP 1997 criteria.

### 5.14.7 Transport

#### Comment – RC254

*Section 17. 1. 3 makes reference to a Transport Logistic Paper developed by HPPL which was used as the basis for estimating the potential traffic generation of the construction of the railway.*

#### Response – RC254

The Project Logistics Plan is attached as an appendix in the Traffic Impact Assessment Report. The Traffic Impact Assessment Report is included within Volume 2, Appendix AB of the SEIS.

**Comment – RC255**

*Section 17. 2. 3 indicates that the rail network will intersect the SCR network and cross at five locations with grade-separated crossings and also crosses the Collinsville - Elphinstone Road with an at-grade crossing. This is inconsistent with the details outlined in Figure 17. 2 which shows five crossings, all of which are grade separated.*

**Response – RC256**

Grade separated crossings include:

- Gregory Developmental Road - Road-over-Rail;
- Kilcummin Road - Road-over-Rail;
- Suttor Development Road - Road-over-Rail;
- Cerito Developmental Road - Road-over-Rail;
- Collinsville-Elphinstone Road - Rail-over-Road; and
- Bruce Highway (Bowen-Ayr) - Rail-over-Road.

For further details refer Volume 2, Appendix AB of the SEIS.

**Comment – RC257**

*Section 17. 3. 3 indicates that all construction personnel will be employed on the basis of fly in fly out via regional airports such as Proserpine and Mackay. However, no information is provided how this transport proposal commitment will be validated. If this transport mode proposal changes and construction personnel come from surrounding areas, in particular major regional centres, or they chose to drive themselves to regional airports, this may have a significant impact on SCR network.*

**Response – RC257**

The Logistics Plan nominates the most likely arrangement for transport of construction personnel. This plan would be updated should there be any reason to change the proposed arrangements and a reassessment of the transport impacts would consequently follow (SEIS Volume 2, Appendix AB).

**Comment – RC258**

*Section 17. 3. 3. 1 acknowledges that some people will drive to site in personal vehicles. No allowance for this has been made in Table 17-15.*

**Response – RC258**

Personal vehicles will not be allowed on the site. It is assumed that there would be light vehicle movements attributed to short call-in visits from site supervisors, service personnel, contractors and personnel conducting construction related business.

**Comment – RC259**

*These sections includes discussion about work camps which will be established along State-controlled roads (SCRs) However, no reference is made to consulting and seeking DTMR approval for camp access location and intersection (driveway) design.*

**Response – RC259**

Road works and intersection upgrades impacting a State Controlled Road (SCR) to accommodate construction demands will be provided to Department of Transport and Main Roads (DTMR) for consideration and approval. Work camps will require separate development approval. DTMR will be a concurrence agency in such applications with access to a SCR.

**Comment – RC260**

*Figure 17-1 indicates proposed rail alignment in the vicinity of the Port of Abbott point. DTMR has undertaken preliminary planning investigations for possible future alternate highway alignments, in particular to assess the relationship with potential future development of the State Industrial Land precinct in this area. The potential rail alignment shown in the vicinity of Splitters Creek may conflict with future and existing Bruce Highway alignments.*

**Response – RC260**

Further review of rail alignment design will be undertaken in consultation with DTMR as part of detailed design stage of the Project.

**Comment – RC261**

*It is not clear whether proposed rail crossings of SCRs are road over rail or vice versa.*

**Response – RC261**

Refer to RC300. For further details refer Volume 2, Appendix AB of the SEIS.

**Comment – RC262**

*The report indicates that traffic operation impacts for a SCR are only to be considered further when construction traffic or operational traffic exceeds 5% of the existing AADT. This principle also states that the 5% criteria may also apply to equivalent standard axles loads (ESAs) as well as traffic volumes. However, it is not clear whether all roads with a 5% increase in project traffic AADT/ESA's have been assessed.*

**Response – RC262**

This is addressed in the supplementary Traffic Impact Assessment Report contained within Volume 2, Appendix AB of the SEIS.

**Comment – RC263**

*Table 17-17 identifies sections of SCRs where AADT is greater than 5%. The EIS indicates road impact analysis will be undertaken when further information comes to hand. No draft analysis of the impact on pavement life, maintenance and road operations and safety has been undertaken. A Traffic Management (Road-use Mgt) Plan is not the appropriate mechanism to assess/ address these potential impacts. (as stated previously, the RMPs purpose is to summarise the latest information on traffic volumes/impacts/mitigation, not commence the analysis at that stage).*

**Response – RC263**



This is addressed in the supplementary Traffic Impact Assessment Report (SEIS Volume 2, Appendix AB, Section 5).

**Comment – RC264**

*In this section, the highest AADT has been adopted for the entire length of the road, which does not allow for accurate assessment of impacts on the various sub-sections of the road. In sections where the existing traffic numbers are lower, project traffic may constitute a higher percentage which may affect whether project traffic falls above or below the 5% trigger for road impact assessment as per DTMR's "Guidelines for Assessment of Road Impacts of Development Proposals".*

**Response – RC264**

Where possible, the supplementary Traffic Impact Assessment Report assesses the various road sections. The Road Impact Assessment (RIA) and Road Management Plan (RMP) will be finalised as part of the detailed design stage of the Project and prior to commencement of construction works (SEIS Volume 2, Appendix AB).

**Comment – RC265**

*A table similar to Volume 2 Table 17-16 "Summary of additional traffic movements on the State-controlled roads" and Table 17-17 "Construction traffic impact on State-controlled roads" is not shown in this section which would assist clarity of understanding of overall traffic data.*

**Response – RC265**

Heavy vehicle traffic movements and traffic moves to airports are provided in the Traffic Impact Assessment Report and the Draft Logistics Plan (SEIS Volume 2, Appendix AB, Section 5).

**Comment – RC266**

*Table 17-16 Summary of additional traffic movements on the State-controlled roads states that the AADT on the Clermont Alpha Road is 377. It should be noted that the AADT figure given for calculation in this table is the highest traffic count figure on this road.*

**Response – RC266**

The Traffic Impact Assessment Report has been updated and is included in Volume 2, Appendix AB of the SEIS.

**Comment – RC267**

*The assertion that traffic capacity will be reduced by 10% average is not explained.*

**Response – RC267**

This is addressed in the supplementary Traffic Impact Assessment Report. Refer Volume 2, Appendix AB of the SEIS.

**Comment – RC268**

*The comments relating to the review of speed restrictions along SCR network and where necessary, additional signposting of speed limitations appear to only be mentioned in this section.*

**Response – RC268**

Traffic Management Plans and individual Traffic Control Plans will be developed and approved by DTMR for all SCR's prior to construction commencement.

**Comment – RC269**

*Establish a new sub-section within s17. 3 that analyses and identifies satisfactory crossing protection solutions in situations where the rail project level crossings will be located in close proximity to existing level crossings. For example the siting and design of new project level crossings in close proximity to existing level crossings should be done so that the safety of both sets of level crossings address rail traffic on both rail corridors. This would likely result in the overall coordination of the level crossing infrastructure.*

**Response – RC269**

The assessment process outlined elsewhere will take such factors into consideration. HPPL is already in discussions with QR National and these discussions will be on-going throughout final design to ensure a coordinated outcome.

## **5.15 ISAAC Regional Council**

### **5.15.1 Transport**

**Comment – RC270**

*The EIS should clearly identify and provide for alternative options for the intersection of road and rail infrastructure on the transport corridor to the port for coal product. The long term conflicts of the rail infrastructure over the mine life have the clear severing of operational agricultural land productivity and water access if this is not satisfactorily rectified. Adequate under passes for stock and road transport services is essential to ongoing land management and operational safety. The strategic placement of infrastructure will maximise long term the investment and resource profitability across the entire Galilee basin if proper planning is undertaken to eliminate user conflicts.*

**Response – RC270**

Consultation is being undertaken with landholders to maintain access across the railway to minimise impact on land use. Both at-grade and grade separated crossings are being proposed.

Further discussions will be undertaken with the relevant stakeholders to ensure the impact of the rail alignment and the operations of the railway is minimised. This will include undertaking consultations to identify underlying causes and implement management plan strategies within the SIMP process to ameliorate such concerns (SEIS Volume 2, Appendix E).

## **5.16 Queensland Health**

### **5.16.1 Noise**

**Comment – RC271**

*The proponent should ensure that all sensitive receptors affected by rail noise have been appropriately assessed against the relevant sleep disturbance criteria and that adequate mitigation measures are undertaken to ensure the health and well-being of occupants is maintained.*

**Response – RC271**

As applied to other similar rail projects assessing infrequent rail movements on open rail networks during night time periods 10pm to 7 am, we consider that sleep disturbance criteria is not applicable to this Project. As there are only 14 rail movements during each 24-hour period, it is unlikely that sleep disturbance will be an issue. However, as noise impact assessments for the EIS have been based on desk top analysis, site based noise monitoring (internally and externally) of sensitive receptors will be undertaken as part of the detailed design stage. Compliance measurements may form part of the recommendations if the calculations at detailed design stage suggest exceedance of relevant criteria.

**5.17 Queensland Police Service****5.17.1 Transport****Comment – RC272**

*QPS are key stakeholders in relation to Traffic safety matters and level crossings at rail lines currently feature as a specific traffic enforcement matter.*

*QPS suggests a significant public awareness campaign would be required prior to the commencement of the operational phase of the rail line.*

**Response – RC272**

Further assessment as to the management of traffic safety will be undertaken in consultation with the QPS within the SIMP process to ameliorate such concerns (SEIS Volume 2, AppendixE).

**Comment – RC273**

*QPS requests any information relating to movement schedule of over – dimension vehicles related to rail construction be provided in advance for traffic management planning.*

**Response – RC273**

A Project Logistics Plan has been included as an appendix to the Traffic Impact Assessment Report (SEIS Volume 2, Appendix AB, Appendix E). This plan provides estimates of Heavy Vehicle movements. Transport movements' will be further analysed during detail design and communicated with the relevant authorities.

**Comment – RC274**

*Private vehicle transportation to work sites and camps is not adequately addressed in the EIS from a rail project perspective.*

**Response – RC274**

No private vehicles will be permitted on site. Workforce will be transported from the camps to the work site by small buses and people movers. Typically, the main haul road will be used for this transportation of the workforce.

**Comment – RC275**

*Issue should be addressed in Traffic Management plan as should programs for fatigue management education.*

## Response – RC275

A Fatigue Management Program will form part of the Traffic Management Plan.

## Comment – RC276

*QPS requests communication program include a component for tourism traffic in vicinity of area as relevant local councils actively engage in encouraging tourism to area, particularly in form of ‘grey nomads’ – safety implications in recreational vehicles competing for space with heavy vehicles involved in rail construction.*

## Response – RC276

Project updates and Traffic Control Plans will be communicated to the local council to enable the local community and visitors to be kept updated via the SIMP process.

Changes or impacts on public roads should also be advertised on the local papers or through an informal public information campaign.

## 5.17.2 Social

### Comment – RC277

*The QPS disagrees with this assessment for construction phase and contends impact on QPS will be high. Policing of 5 separate camps with high populations as indicated by the project in addition to the described traffic impacts will significantly affect smaller regional policing facilities at divisions along the project footprint, influencing capacity to respond to ‘regular’ calls for service within the community.*

*QPS will require additional funding and resources to respond to crime and community safety aspects associated with camps.*

### Response – RC277

The Draft SIMP (table 20-14) provided within the EIS has been amended to include as follows:

Table 5-3 Summary of Social Impacts and Opportunities in the Construction Stage

Impact	Stakeholder group	Existing Project Description				
		Likelihood/Consequence Rating	Status of impact	Duration of impact	Spatial extent of impact	Stakeholder importance
Community Services and Facilities						
Police services	QPS	Medium	Medium	Medium	Regional	High

In addition the Proponent will consult with QPS to further develop the draft SIMP including the development of:

- Relationships at the district level (Longreach, Mackay and Townsville) and at individual stations to address issues as they arise;
- Relevant management strategies; and
- Development of relevant indicators to be monitored throughout the life of the Project.

HPPL will also consult with the QPS on the Traffic Management Plan and Emergency Response Plan for the Project.

### 5.17.3 Hazard and Risk

#### Comment – RC278

*QPS suggests the development of Security Plan in relation to camp sites and work corridors and is prepared to consult in relation to these issues.*

#### Response – RC278

Item 24 of Table 24-7 contained within Volume 3, Section 24 of the EIS identifies that entry to camp sites will be restricted. A detailed site management and security plan will be prepared prior to the operation of the camps. This will be undertaken in consultation with the QPS.

#### Comment – RC279

*Suggest Proponent include QPS as a key stakeholder in the preparation of security plans for the project with a view to providing assistance in terms of future proactive patrols and enforcement activities. Suggest the development of a network and protocols to share appropriate information in relation to potential security threats.*

#### Response – RC279

A detailed site management and security plan will be prepared prior to the operation of the camps. This will be undertaken in consultation with the QPS.

#### Comment – RC280

*Some incidents will trigger a QPS investigation and Proponent should include crime scene preservation requirements in any planning in relation to incidents, those involving death in particular.*

#### Response – RC280

A detailed site management and security plan will be prepared prior to the operation of the camps. This will be undertaken in consultation with the QPS.

#### Comment – RC281

*QPS requires involvement development of Emergency management plans and requires protocols included for QPS notification of incidents, particularly those relevant to the Coroners Act 2003 and the Police Powers and Responsibilities Act 2000.*

#### Response – RC381



A detailed site management and security plan will be prepared prior to the operation of the camps. This plan will include emergency and evacuation procedures and will be developed in consultation with the QPS.

#### **5.17.4 Social Impact and Management Plan**

##### **Comment – RC282**

*QPS suggests increased temporary population will have significant impost on policing activities.*

##### **Response – RC282**

The Draft SIMP provided within the EIS has been amended (refer to RC297). HPPL is also consulting with the QPS on the Traffic Management Plan and Emergency Response Plan for the Project.

##### **Comment – RC283**

*Traffic safety issues around camp sites and on transport routes will require enforcement activities.*

##### **Response – RC283**

HPPL will consult with QPS to further develop the draft SIMP including the development of:

- Relationships at the district level (Longreach, Mackay and Townsville) and at individual stations to address issues as they arise;
- Relevant management strategies; and
- Development of relevant indicators to be monitored throughout the life of the Project.

A TIA has been developed for the construction and operational stages of the Project (SEIS Volume 2, Appendix AB). The draft SIMP refers to the TIA as one of existing management strategies (refer to Section B of the draft SIMP) and results of the TIA monitoring will be reported as part of the SIMP Reporting requirements (refer to Section C of the draft SIMP).

HPPL will also consult with the QPS on the TIA and Emergency Response Plan for the Project.

##### **Comment – RC284**

*Emergency and incident response relating to camp and work sites will again impose upon QPS resources.*

##### **Response – RC284**

HPPL will consult with QPS to further develop the draft SIMP. Provisions within the SIMP will enable stakeholders to address emergency and incident response issues. Refer to RC303.

##### **Comment – RC385**

*Rural towns as outlined may experience increased social disorder from workforce visiting in off shift periods.*

##### **Response – RC285**

HPPL will consult with QPS to further develop the draft SIMP. Provisions within the SIMP will enable stakeholders to address social disorder issues. Refer to RC303.

**Comment – RC286**

*Disputes may arise between landholders and project workforce particularly in terms of access to land.*

**Response – RC286**

HPPL will consult with QPS to further develop the draft SIMP. Provisions within the SIMP will enable stakeholders to address landowner disputes. Refer to RC303.

**Comment – RC287**

*QPS will be required to locate persons of interest working in camps in relation to non camp related activities.*

**Response – RC287**

HPPL will consult with QPS to further develop the draft SIMP. Provisions within the SIMP will enable stakeholders to address this issue. Refer to RC303.

**Comment – RC288**

*Additional funding will be required to cope with the impact upon Police service delivery during the periods that these camps will be operational.*

**Response – RC288**

HPPL will consult with QPS to further develop the draft SIMP. Provisions within the SIMP will enable stakeholders to raise issues such as funding of additional resources. Refer to RC303.

**Comment – RC289**

*QPS also welcome prospect of further engagement from a wider perspective as per the Construction Engagement Strategy.*

**Response – RC289**

HPPL will consult with QPS to further develop the draft SIMP. Provisions within the SIMP will enable stakeholders to increase their engagement and knowledge of the Project. Refer to RC303.

## **5.18 Whitsunday Regional Council**

### **5.18.1 Description of the Project**

**Comment – RC290**

*The exact location, size and nature of the camps (i. e. permanent or temporary) is not included in the EIS and further details of this are required to be provided as part of the supplementary EIS.*

**Response – RC290**

Five (5) workers accommodation camps, each having estimated capacities of between 500 – 700 persons are proposed to be constructed for the Project. Two (2) camps (Camp 2 – Collinsville and Camp 4 - Gregory) will be only required during the construction phase of the Project (approximately 3 years) and will be decommissioned once the railway has been commissioned. Two (2) other camps (Camp - 1 Salisbury and Camp - 3 Wollombi) which have been established near rail related

infrastructure (marshalling yards, ballast sidings, rail welding, sleeper manufacture and maintenance team facilities), will be predominantly decommissioned with all but a small number of accommodation rooms (20 to 40 permanent rooms with additional rooms available on an occasional basis for major rail maintenance and construction events) required at the end of the construction phase of the Project to service operational rostered maintenance crew demands. Camp 5 - Alpha Mine, which is located within the Alpha Mine Lease area, will be required throughout both the construction and operational phases of the Project.

Fuel will be stored at construction depots which are likely to be co-located within the general vicinity of each camp. As the final camp locations and layouts are still being developed, emergency helicopter landing areas, evacuation plans and access maps will be established during the detailed design stage of the Project and as such is not available at this time. Further information regarding layout and indicative camp designs is provided in Volume 2, Appendix AF of the SEIS.

**Comment – RC291**

*The proponent states that 200 railway line alternatives have been reviewed. There is little discussion on the viability of using the existing railway corridor from Newlands to Abbot point to reduce further fragmentation of GQAL and limit proximity to Bowen River and Biralee-Pelican Creek Aggregation.*

**Response – RC291**

The engineering performance criterion associated with standard gauge rail development (horizontal and vertical alignment gradients) is highly constrained and therefore is not consistent with the other existing infrastructure corridors including the Newlands rail system. Options are addressed in Volume 3, Section 2. 3. 4 of the EIS.

**Comment – RC292**

*The construction of the railway line may open opportunities for other mines in the Alpha region. Consequently the construction of the railway line may feed a number of mines and support the disturbance of land resources in excess of those described for the Alpha mine site.*

**Response – RC292**

Noted.

**5.18.2 Landscape Character****Comment – RC293**

*There has also been limited exploration of other issues that have the potential for social impacts for example, landscape and visual impacts - the Visual Impact Analysis (VIA) in Section 7 of Volume 3 was prepared as a desktop study only. Section 7. 1. 5 notes that the assessment "required qualitative (subjective) judgements to be made" and acknowledges that "some viewing locations and views may be considered more important than others by those experiencing the landscape. . . " and ". . . some viewers may be more aware of the landscape and concerned about its appearance. . . ". Many of the stakeholders identified the quality of the surrounding environment, which would include visual amenity, as being of community value and a benefit to living in the Study area. this could be substantially impacted by the proposed rail. There were no photo montages or artists impressions of the proposed rail in the VIA, again highlighting the limited information provided to stakeholders*

**Response – RC293**

It is recognised in the EIS that landholders in this area have a strong connection to their property and a strong sense of place to the wider region. The visual impact assessment is about the assessment of landscape and visual impacts, the significance of these within the existing visual environment, and the sensitivity of the receptor and the landscape.

Volume 3, Section 7 of the EIS identified the residences that are located within close proximity to the study area (three properties within one km of the proposed alignment) and that the railway line will also be visible from some roads within the area. The residences with foreground views of the corridor are those which have been the focus of the assessment. As the distance from the corridor increases so does the visual sensitivity as there are then more components to the view. Therefore the residences located within close proximity to the study area, are therefore likely to more significantly impacted upon than viewing locations more distant from the corridor.

The preparation of photomontages was not undertaken as the alignment of the railway line within the study area has not yet been confirmed. With the finalisation of the rail alignment during the detailed design stage of the Project, the sensitive visual receptors will be confirmed and specific visual impacts identified as part of the design and implementation of the mitigation measures. Specific mitigation measures may include screening landscaping for the closest residences. Other mitigation measures were identified within Volume 3, Section 7 of the EIS.

### 5.18.3 Geology

#### Comment – RC294

*The EIS does not describe any of the major anticlines, synclines and fault lines that intersect or are close to the project nor does it describe other features that may pose significant impacts on the construction, operation and rehabilitation of the project footprint as these are to be addressed in the geotechnical investigation.*

#### Response – RC294

Geotechnical investigations for the Project are due to commence from mid July 2011 to October 2011. Once completed, the investigations will provide more detailed information about existing geological and geotechnical conditions.

### 5.18.4 Soils, Topography and Land Disturbance

#### Comment – RC295

*GHD do not factor in land which has the potential to be irrigated if water was available. The report does note that fragmentation of grazing areas will result.*

#### Response – RC295

Declared Projects of State Significance may be exempt from the GQAL process. Section 4.14 of the GQAL Planning Guidelines state that proposals that have an "overriding need" and cites major infrastructure, including railways as a case where this may apply. Notwithstanding, a soils investigation study of the rail corridor targeting the sensitive soil and landforms (including GQAL and SCL) will be conducted where 1:100,000 mapping is not available to quantify and clarify the project's impact on GQAL. These investigations will be used to establish baseline soils information for areas to be disturbed.

Other environmental soil testing will occur as part of a geotechnical programme which will inform the design and management of detailed erosion and sediment control management plans required during

construction. To further guide this aspect of the Project an Erosion and Sediment Control Criteria has been prepared for the Project (SEIS Volume 2, Appendix AD).

## Comment – RC296

*The GQAL assessment is very broad relying on soil mapping data at in some cases 1:2,000,000 and an attempt to correlate land systems with an agricultural land class. The assessment does not factor in the availability of irrigation water at the present or future. the Vertosol should be capable of sustained cropping.*

## Response – RC296

Refer to RC337.

## Comment – RC297

*The railway line will sterilise over 21,000 ha of prime agricultural land. The value of this prime agricultural land is not valued for its current or future agricultural production and is required to be considered as part of the SEIS.*

## Response – RC297

The EIS states 503 ha within 60 m alignment.

## 5.18.5 Land Use and Tenure

### Comment – RC298

*As part of the SEIS, the Proponent is required to provide details of the impacts of the railway line in relation to legitimate grazing and agricultural operations that are currently occurring within the rail corridor. Consideration is required to be given to the cumulative impacts of the railway on the current legitimate rural land uses that are occurring on properties within the rail line corridor and identify how negative impacts will be mitigated against for the life of the project (commencing as feasibility and design through to decommissioning of the project). An analysis is required to be conducted for the life of the project with the operating at 100% capacity.*

### Response – RC298

The likely impacts of the Project upon grazing and agricultural operations within properties directly impacted by the Project have been described in Volume 3, Section 6.3 of the EIS. A more concise list of the impacts and the proposed mitigation measures and remediation actions that have been undertaken are described in Table 5-4.

The impact of the Project upon farming and agricultural operations in the study area is important and as such the Proponent is continually working with land owners to establish means of mitigating and compensating such impacts.

Table 5-4 Project impacts upon agriculture/grazing operations and mitigation measures

Project phase	Likely impacts upon directly impacted properties	Proposed/undertaken mitigation measures
Detailed design	The detailed design stage of the Project will not have any significant impact upon grazing and agricultural operations.	HPPL has undertaken consultation with all affected landowners during the EIS stage of the Project. These discussions focused on identifying ways of alleviating or minimising



Project phase	Likely impacts upon directly impacted properties	Proposed/undertaken mitigation measures
		<p>impacts upon the property configuration, access and long term property operations. On the basis of this consultation, the Project alignment has been amended.</p> <p>HPPL has also discussed compensation as a means of compensating loss of property value, impact upon current property operations and the livelihood of the landowners.</p> <p>This consultation will continue throughout the detailed design stage of the Project.</p>
<b>Construction</b>	<p>Disruption to agricultural and grazing activities and severance of grazing areas.</p> <p>Disruption of cattle movement within properties.</p> <p>Impact upon existing property infrastructure such as dams and cattle yards.</p> <p>Impact on existing purpose built cattle laneways</p>	<p>HPPL has undertaken landowner consultation. On the basis of landowner consultation and engineering design, the Proponent has placed the Project alignment along the perimeter of the properties where possible. Where this was not possible, the Proponent will provide fencing between grazing areas and the Project corridor as well as provide access for grazing stock.</p> <p>HPPL will provide alternate access for stock movement. This has been discussed in Section 17 of the EIS.</p> <p>On the basis of consultation with landowners, the Proponent has amended the Project alignment so as to avoid important property infrastructure. In cases where this was not possible, appropriate compensation packages are being arranged so as to compensate for relocation of dams (with land owner agreement) or for improvement of current cattle laneways.</p>
<b>Operation</b>	<p>The Project is unlikely to cause any significant impact upon grazing and agricultural practices during the operation stage of the Project.</p>	<p>With proposed mitigation measures put in place, the Project is unlikely to general significant impact upon grazing and agricultural operations.</p>
<b>Decommissioning</b>	<p>Disruption to grazing and agricultural operations during removal of fences, railway line, construction camps, marshalling yard) and fuel farms.</p>	<p>Mitigation measures for these impacts will be identified in a Decommissioning and Rehabilitation Plan to be established and implemented at the end of the Project operation stage.</p>

## 5.18.6 Terrestrial Ecology

### Comment – RC299

*Any approval granted is required to ensure that the proponent prepare pest and weed management plans.*

### Response – RC299

A Weed Management Plan has been prepared for this Project, which includes specific requirements and management measures for relevant introduced species (SEIS Volume 2, Appendix AG, Section 2.5).

**Comment – RC300**

*Some ecosystems will have hollow logs which will be important nesting and rest sites for some animals. The removal of these hollow trees will impact on local populations of animals which required these as part of their life and breeding cycles.*

**Response – RC300**

Hollow bearing trees and hollow logs are discussed in Volume 3, Section 9. 3. 1. 2. 1 and Section 9. 3. 1. 2. 2 of the EIS as well as Volume 6, Section 5. 3. 9 of Appendix F. These features are important for local wildlife populations and mitigation measures have been recommended.

**Comment – RC301**

*The economic value of the cleared vegetation has not been assessed, or its economic impact on local and regional fauna. This is required to be considered as part of the SEIS.*

**Response – RC301**

This is not part of the Project's TOR.

**Comment – RC302**

*There are 10 weeds of national significance identified in the railway corridor. One of the most easily spread of these weeds is Parthenium.*

**Response – RC302**

A Weed Management Plan has been prepared for this Project, which includes specific requirements and management measures for relevant introduced species (including Parthenium) (SEIS Volume 2, Appendix AG, Section 2.5).

**Comment – RC303**

*The development of the railway line will introduce an efficient vector for the rapid transfer of weed seed if not properly addressed. The economic impact of a poorly managed weed management plan has not been considered.*

**Response – RC303**

A Weed Management Plan has been prepared for this Project, which includes specific requirements and management measures for relevant introduced species as well as measures to restrict the spread or introduction of weed species (SEIS Volume 2, Appendix AG, Section 2.5).

**Comment – RC304**

*The proponent states that it will generate a fire management plan for the construction phase of the project. The proponent is also required to develop a fire management plan for the operations phase of the project.*

**Response – RC304**

Fire management plans will be prepared for construction and operation phases of the Project.

**Comment – RC305**

*The flora and fauna investigations rely on few detailed observations and rely on more landscape wide or broad studies. There is a lack of detailed studies required to determine more precisely the impact of the railway line across the landscape.*

**Response – RC305**

Additional ecological investigations are being undertaken at a number of locations along the alignment. The results and impact assessment of such surveys have been incorporated into the Updated Terrestrial Ecology Report (SEIS Volume 2, Appendix AE, Section 5).

**5.18.7 Surface Water****Comment – RC306**

*It is estimated that approximately 11x109 litres of water will be required for construction activities of the project - The EIS does not state if this includes water requirements for the running of the camps and ancillary facilities. The EIS does not state where the required water will be sourced from more specifically than "a combination of water bores and existing water pipelines may be used". The EIS proposes that water will be stored on site in tanks, dams and/or turkeys nests.*

**Response – RC306**

HPPL has conducted further studies to identify existing hydrogeological information for use in the detailed design stage and to inform further study requirements. The study identified existing water supplies that could be available from external stakeholders.

**Water Demand**

The projection of construction water demand was utilised to determine the required network of water points and acceptable spacing for water supply to suit construction requirements. The associated bore field required has been estimated based on historical data and a detailed estimate has been produced utilising this data.

To achieve the desired completion date, the Project is divided into five separable portions with several working fronts operating simultaneously. The total water quantities required has been determined based on demand for construction requirements. The calculation includes water requirements for railway earthworks, roads, construction haul roads, access tracks, borrow pits, dust suppression and camp demands.

The calculations have been based on a production rate of 10,000 m<sup>3</sup> /day for each separable portion. Each working front within the separable portions will have an average daily production rate of 2,000 m<sup>3</sup> /day. The capacity for each water point has been calculated to be 7.5 L/s/crew for each 2,000 m<sup>3</sup> /day. The required water point spacing is approximately 10km.

**Water Supply**

The potential sources for water supply include the following ;

- Existing major pipelines
- Existing bores and new bores
- Ephemeral flow in streams and bed sands of streams
- Supplemented flow in streams and bed sands of streams (eg. Bowen River)
- Existing town water supply systems (Merinda camp/Collinsville camp)
- Private dams

A summary of the proposed groundwater sources is included in Volume 2, Appendix Y, Table 7. 1 of the SEIS. These have also been detailed below, as follows;

## **Chainage 0 to 104 km**

For this section of the Project the existing water supply is inadequate and the identified sources produce poor to moderate prospects.

The potential water supplies are:

- Bores: There are a number of bores within 1. 4km up to 10km of the proposed railway
  - Potential supplies range from 1 to 12. 38 L/s.
  - Drilling Depth up to 125m - Generally 60-90m deep.
  - 272 test holes proposed at 75% strike rate

Based on insufficient existing water supplies, an exploration program is required for this section of the Project to secure an adequate water supply. Provisional drilling areas have been identified that could contain water sources along the alignment. Based on limited information for existing bores, new bores have been identified where previous drilling indicates fair to moderate yields.

Future investigation work will include a detailed and potentially lengthy exploratory drilling program to try to reduce the number of target sites for exploratory drilling. Production bores will then be drilled to obtain the required water supply. This program cannot commence until the necessary water entitlements to drill and test are obtained from DERM.

- Alternatives for obtaining water: The potential exists for water to be harvested from the Alpha mine de-watering process required for the development of Alpha coal mine that is likely to occur during 2012.

## **Chainage 104 to 215km**

For this section of the Project the existing water supply is inadequate and the identified existing sources produce fair to poor prospects.

The potential water supplies are:

- Bores: There are a limited number of bores within 1. 4km to more than 10km of the proposed railway
  - Potential supplies range from 0. 5 to 3 L/s.
  - Drilling Depth up to 125m – Generally 100-125m deep.
  - 374 test holes proposed at 75% strike rate

Based on insufficient existing water supplies, an exploration program is required for this section of the Project to secure an adequate water supply. Provisional drilling areas have been identified that could contain water sources along the alignment. Based on limited information for existing bores, new bores

have been identified where previous drilling indicates fair to poor yields. An optimisation, ground truthing and targeting program is proposed in this section of the Project to reduce the number of target areas required for investigation.

Future investigation work will include a detailed and potentially lengthy exploratory drilling program to try to reduce the number of target sites for exploratory drilling. Production bores will then be drilled to obtain the required water supply. This program cannot commence until the necessary water entitlements to drill and test are obtained from DERM.

- Alternatives for obtaining water: There is limited potential for alternative water sources in this section of the Project.

### **Chainage 215 to 290 km**

For this section of the Project the existing water supply is adequate and the identified sources produce moderate to good prospects.

The potential water supplies are:

- Bores: There are a limited number of bores within 500 m to more than 2.5 km of the proposed railway
  - Potential supplies range from 5 to 12 L/s.
  - Drilling Depth up to 125m – Generally 100-125m deep.
  - 121 test holes proposed at 75% strike rate
- Sunwater pipeline: The Sunwater (Burdekin to Moranbah) pipeline exists in this section of the Project as detailed in section 8 of the Hydrogeology report. The distance from the rail alignment varies from 500 m to 9.3 km between chainage 264.6 km and chainage 290 km. Preliminary advice from sunwater is that capacity exists for supply, however negotiations with existing customers will be required to secure allocations. Unit costs to utilise this source of water will be in the order of \$3,000 to \$3,500/ML. There is also potential to use this source along a greater distance of the alignment by construction of temporary pipelines, dams and pump stations.

### **Chainage 290 – 352 km**

For this section of the Project the existing water supply is adequate and the identified existing sources produce fair to moderate prospects dependent on supply by external sources.

The potential water supplies are:

- Bores: There are a very limited number of existing bores within 10km of the proposed railway
  - Potential supplies range from 5 to 12 L/s.
  - Drilling Depth up to 125m – Generally 100-125m deep.
  - 126 test holes proposed at 75% strike rate
- Bed sands: The rail alignment crosses the Bowen River in this section of the alignment (chainage 346) and the possibility exists for water supply up to 10L/s. There is also potential to use this source along a greater distance of the alignment by construction of temporary pipelines, dams and pump stations. Development approval and negotiations with existing holders of allocations would be required for new stream off takes and purchase of this water will be in the order of \$200/ML
- Sunwater pipeline: The Sunwater (Newlands) pipeline exists in this section of the Project (chainage 296 to chainage 326 km). Although operated by Sunwater, the Newlands pipeline is owned by Xstrata. There is little capacity for supply during the summer months between



September and March. Outside these months there is low demand and potential capacity to supply 4 to 5 ML/day. Unit costs to utilise this source will be in the order of \$1500/ML. There is also potential to use this source along a greater distance of the alignment by construction of temporary pipelines, dams and pump stations.

### **Chainage 352 – 416 km**

For this section of the Project the existing water supply is moderately adequate and the identified existing sources produce fair prospects.

The potential water supplies are:

- Bores: There is only one existing bore within 10km of the proposed railway
  - Potential supply between 5 and 7 L/s.
  - Drilling Depth up to 125m – Generally 100-125m deep.
  - 93 test holes proposed at 75% strike rate
- Bed sands: The rail alignment crosses Pelican Creek (part of the Bowen river bed sands) in this section of the alignment at chainage 368 and the possibility exists for water supply of up to 10L/s. There is also potential to use this source along a greater distance of the alignment by construction of temporary pipelines, dams and pump stations. Development approval and negotiations with existing holders of allocations would be required for new stream off takes and purchase of this water will be in the order of \$200/ML
- Sunwater pipeline: The Sunwater (Newlands) pipeline exists in this section of the Project (chainage 296 km to chainage 326 km). Although operated by Sunwater, the Newlands pipeline is owned by Xstrata. There is little capacity for supply during the summer months between September and March. Outside these months there is low demand and potential capacity to supply 4 to 5 ML/day. Unit costs to utilise this source will be in the order of \$1500/ML. There is also potential to use this source along a greater distance of the alignment by construction of temporary pipelines, dams and pump stations.

### **Chainage 416 - 509km**

For this section of the Project the existing water supply is moderately adequate and the identified existing sources produce fair to good prospects.

The potential water supplies are:

- Bores: There are three existing bores within 4km of the proposed railway
  - Potential supply between 5 and 7 L/s.
  - Drilling Depth generally 80 – 100m deep.
  - 232 test holes proposed at 75% strike rate
- Bed sands: The rail alignment crosses the Bogie River and Splitters Creek in this section of the alignment at chainage 435 and 484 km and the possibility exists for water supply of up to 5L/s if accessible. Development approval and negotiations with existing stakeholders (NQBP) will be required at Splitters creek.

Temporary access to water is obtained by approval of a S237 permit under the *Water Act 2000* regulated by the DERM. Applications are made to the DERM for water entitlement to drill and test (S237 permit) and once approved an application for a development permit under the SP Act is required. Following approval of the development permit test drilling and test pumping can occur.

After suitable production bores are identified from test drilling an application is made to DERM for water entitlement for construction. Lead times for the approvals process can vary between 80 to 150 business days.

Permanent access to water is generally for periods greater than 12 months and is done via water licenses issued under s206 of the *Water Act 2000*. The approval process and duration are similar to those detailed for temporary access but also includes a period for advertising.

In both cases, legal rights for access to land will be required in addition to environmental approvals for vegetation clearance where drilling and clearance of access tracks is proposed.

**Comment – RC307**

*Majority of the drainage lines flow east to west. Different sizes and numbers of corrugated steel pipe and precast concrete box culverts will be used for most drainage lines with bridges to be built over major waterways.*

**Response – RC307**

Detailed design and final locations of culverts and bridges is not part of the EIS but of the final design.

**Comment – RC308**

*The proponent states that an Erosion and Sediment Management Plan will be developed for the construction phase of the project. An Erosion and Sediment Management Plan is also required to be developed for the operational phase of the project and both these management plans are required to be provided as part of the SEIS.*

**Response – RC308**

Erosion and Sediment Control Plans will be developed for the construction and operation phases of the Project. These plans will contain mitigation measures which will be further developed following further soil testing and analysis. To assist this process an Erosion and Sediment Control Criteria has been developed and included within Volume 2, Appendix AD of the SEIS.

**Comment – RC309**

*The proponent states that there will be minimal impact on the Birralelee-Pelican creek aggregation wetland is listed as an important wetland in Australia and that construction will occur 3.5km upstream from the aggregation and will have minimal impact on the wetland. An assessment of the indirect impacts are required to ensure the cumulative affect of increased development in its catchment does not transfer sediment to this location which will alter the hydrological regime and therefore the aquatic ecosystems which it supports.*

**Response – RC309**

The EIS does not cover cumulative effects of other developments.

**Comment – RC310**

*The construction of the railway will have an impact on the soil resources at creek and river crossings. If poorly managed these crossings could start to contribute significant quantities of sediment to the river systems.*

**Response – RC310**

Erosion and Sediment Control Plans will be developed for the construction and operation phases of the Project. These plans will contain mitigation measures which will be further developed following further soil testing and analysis. To assist this process an Erosion and Sediment Control Criteria has been developed and included within Volume 2, Appendix AD of the SEIS.

**Comment – RC311**

*There is very little discussion of the possible impact on hill slope drainage and possible causes of secondary salinisation of soils. The railway line is likely to change hill slope and landscape surface and subsurface hydrology which may exacerbate the formation of secondary salinity outbreaks.*

**Response – RC311**

Changes to surface and subsurface hill slope hydrology will be local and kept minimal.

**Comment – RC312**

*The railway corridor will be constructed through 1004ha of strongly sodic soils. If water is concentrated in these areas after construction, and the topsoil has been altered, the landholders can expect till and gully erosion to occur.*

**Response – RC312**

Sodic Soils will be required to be managed along the alignment. Specific management practices such as stripping soils in layers, stockpiling separately, backfilling (if required) in correct order, will have to be applied to areas of high sodicity so as to not expose sodic soils to erosion. Application of gypsum may be required to treat sodic soils when reinstatement is required. Areas will be required to be reinstated / rehabilitated following construction in order to protect land from erosion. Successful reinstatement will depend on the soil management practices.

**Comment – RC313**

*The report states that an Erosion and Sediment Management Control Plan will be developed for the construction and rehabilitation phase of the project. An Erosion and Sediment Management Control Plan is also required to be developed for the operational phase of the project. This information is required to be provided as part of the SEIS.*

**Response – RC313**

Erosion and Sediment Control Plans will be developed for the construction and operation phases of the Project. These plans will contain mitigation measures which will be further developed following further soil testing and analysis. To assist this process an Erosion and Sediment Control Criteria has been developed and included within Volume 2, Appendix AD of the SEIS.

**5.18.8 Groundwater****Comment – RC314**

*The Environmental Management plan states that groundwater impacts are not anticipated to arise as a result of the construction or operation of the rail project, further details and evidence of this are required to be provided as part of the SEIS.*

**Response – RC314**

The detailed design and geotechnical investigations for the rail formation are not completed. This information will drive the ground water monitoring program for the Project. For further information regarding potential impacts refer to RC57, RC58 and RC59.

**5.18.9 Air Quality****Comment – RC315**

*The report outlines that some coal dust may become air bourne in the vicinity of the railway line. A study is required to be undertaken that identifies the cumulative impact of coal dust on the environment from Alpha to Abbot Point. The study is also required to consider the cumulative impact for the life of the project and with the railway line operating at 100% capacity for the life of the project.*

**Response – RC315**

The impact of coal dust impacts away from the rail corridor, both concentration and deposition, have been assessed against goals and standards that set the limit that environmental values are protected.

**5.18.10 Waste****Comment – RC316**

*The proponent has not clearly identified how waste from the construction of the railway line will be dealt with.*

**Response – RC316**

Volume 3, Section 16 Table 16-1 identifies that all other surplus non-recyclable construction materials will be disposed of at an appropriately licensed landfill in accordance with legislative requirements, in addition, garbage will be removed by an appropriate licensed contractor for disposal. Further discussions will be held with the relevant local authorities in relation to the disposal of waste in landfill.

**5.18.11 Transport****Comment – RC317**

*Council requests that Hancock Prospecting Pty Ltd identify all roads (including state and locally controlled roads) within the Whitsunday Regional Council area that will be utilised by Hancock Prospecting Pty Ltd as part of the construction and operation of the proposed rail line (within the Whitsunday Regional Council area). Once all roads have been identified, Council would like to enter into discussions with Hancock Prospecting Pty Ltd in relation to a Road Maintenance Agreement between Whitsunday Regional Council and Hancock Prospecting Pty Ltd for the life of the project. Council is happy to facilitate these discussions with Hancock Prospecting Pty Ltd.*

**Response – RC317**

Roads have been identified in the Logistics Plan which has been included as an appendix to the Traffic Impact Assessment Report (SEIS Volume 2, Appendix AB, Appendix E) estimates heavy vehicle movements and transport moves from camps to airport. The proponent will address maintenance of roads during construction and operations as part of detail design stage of the Project with ongoing discussions held with the relevant local governments. The RIA and RMP for the Project will be finalised as part of the detailed design stage of the Project and prior to commencement of construction works (SEIS Volume 2, Appendix AB).

### **5.18.12 Non-indigenous and Indigenous Cultural Heritage**

#### **Comment – RC318**

*The EIS mentions that further cultural heritage surveys will be conducted in late 2010, however no further details are included.*

#### **Response – RC318**

A non-Indigenous cultural heritage field survey has been undertaken for the Project area, refer to Volume 2, Appendix AK of the SEIS for further information.

Indigenous cultural heritage surveys were undertaken from August 2010 through to November 2010 with a total of 330km of the proposed rail line now having been surveyed. The remainder of the rail line is part of the programmed work. Archaeological reports for the 2010 rail surveys have now been received by the Proponent. HPPL is currently in discussions with each respective Aboriginal Party in regard to appropriate mitigation and management strategies.

#### **Comment – RC319**

*Ground truthing and field surveys have not been included as part of this EIS. It is anticipated that additional landowner liaison regarding the project, in particular the rail corridor, will also reveal further sites of significance. Non-indigenous cultural heritage is not mentioned in the Environmental Management Plan and is required to be considered as part of the SEIS.*

#### **Response – RC319**

A non-Indigenous cultural heritage field survey has been undertaken for the Project area (refer to Volume 2, Appendix AK of the SEIS). Landowner consultation has been completed via phone to all landowners across the rail corridor and this information has assisted in further targeting of areas of potential non-Indigenous cultural heritage significance as part of the field survey (refer to Appendix A of the Volume 2, Appendix AK of the SEIS for landowner consultation details). Conservation and Heritage Management Plans will be finalised for areas of significance prior to commencement of Project construction.

Indigenous cultural heritage surveys were undertaken from August 2010 through to November 2010. A total of 330km of the proposed rail line has now been surveyed. The remainder of the rail line will be scheduled for survey in May 2011. Archaeological reports for the 2010 rail surveys have now been received by the Proponent. HPPL is currently in discussion with each respective Aboriginal Party in regard to appropriate cultural heritage mitigation and management strategies.

#### **Comment – RC320**



*The EIS does not provide enough information on the location of cultural heritage sites across the MLA and indeed indicates that further studies are currently underway or will shortly be underway. Further indigenous cultural heritage studies need to occur.*

#### **Response – RC320**

A program for systematic field survey and management of the Project areas (rail) in regards to non-Indigenous heritage matters has been undertaken and the report is contained within Volume 2, Appendix AK of the SEIS.

Indigenous Cultural heritage surveys were undertaken from August 2010 through to November 2010 with a total of 330 km of the proposed rail line now having been surveyed. The remainder of the rail line is part of the programmed work. Archaeological reports for the 2010 rail surveys have now been received by the Proponent. HPPL is currently in discussions with each respective Aboriginal Party in regard to appropriate mitigation and management strategies.

#### **Comment – RC321**

*The Cultural Heritage Management Plan (CHMP) will be finalised prior to the commencement of construction. There is not enough information in the EIS report to indicate the extent of cultural heritage across the railway corridor or their significance.*

#### **Response – RC321**

A non-Indigenous cultural heritage field survey has been undertaken for the Project area (refer to Volume 2, Appendix AK of this SEIS). The field survey identified three sites of non-Indigenous cultural heritage significance within the Project area (refer to Volume 2, Appendix AK of this SEIS). HPPL is currently in discussions with each respective Aboriginal Party in regard to appropriate cultural heritage mitigation and management strategies. A Non-Indigenous Cultural Heritage Management Plan for the Apha Mine has been prepared and is with the Proponent for review. Indigenous cultural heritage surveys were undertaken from August 2010 through to November 2010 with a total of 330km of the proposed rail line now having been surveyed. The remainder of the rail line is part of the programmed work. Archaeological reports for the 2010 rail surveys have now been received by the Proponent. HPPL is currently in discussions with each respective Aboriginal Party in regard to appropriate cultural heritage mitigation and management strategies.

#### **Comment – RC322**

*The EIS mentions that further cultural heritage surveys will be conducted in late 2010 however no further details are included.*

#### **Response – RC322**

A non-Indigenous cultural heritage field survey has been undertaken for the Project area (refer to Volume 2, Appendix AK of the SEIS). The field survey identified three sites of non-Indigenous cultural heritage significance within the Project area (refer to Volume 2, Appendix AK of this SEIS). HPPL is currently in discussions with each respective Aboriginal Party in regard to appropriate cultural heritage mitigation and management strategies.

Indigenous cultural heritage surveys were undertaken from August 2010 through to November 2010 with a total of 330 km of the proposed rail line now having been surveyed. The remainder of the rail line is part of the programmed work. Archaeological reports for the 2010 rail surveys have now been received by the Proponent. HPPL is currently in discussions with each respective Aboriginal Party in regard to appropriate cultural heritage mitigation and management strategies.

### **5.18.13 Social**

#### **Comment – RC323**

*A comprehensive SIA which meets the requirements of the TOR was not undertaken. This affects the reliability of the findings and proposed recommendations. Lack of money or time should never be considered acceptable reasons for not undertaking a comprehensive SIA consultation process. The SIA relies heavily on the findings and conclusions of the EIS, but it is evident that much of the EIS has been undertaken as a desktop study, with limited fieldwork to "ground-truth" the assumptions, conclusions and recommendations (e. g. sections addressing cultural heritage and visual impacts). This underscores the limitations of the SIA.*

#### **Response – RC323**

The social impacts associated with the Project have been updated (SEIS Volume 2, Appendix E).

#### **Comment – RC324**

*The EIS and SIA have been based on preliminary designs and primarily desktop investigations. This increases the likelihood of changes which will affect potential social impacts and the SIA.*

#### **Response – RC324**

The EIS was based on a preliminary design, allowing for input from landholders to influence Project location which occurred through out the EIS process and after the draft EIS was submitted to the DIP (now DEEDI). HPPL has continued to consult with the social impact assessment unit regarding the SIMP as well as landholders, regional councils and other stakeholders post the submission of the EIS. Consultations associated with the SIA will continue as part of the draft SIMP.

#### **Comment – RC325**

*Social and Cultural Area of influence for the proposed rail project did not meet with the full requirements of the TOR for the SIA. The 'Social and Cultural Area of Influence' for the rail project distinguishes between the Local Level and Regional Level, and does not address the District and State levels, as required in the TOR. The Case Studies are presented anonymously so it is not clear which have been undertaken within the WRC area. Other relevant proposals or projects within the local area, district or region are listed but are not clearly identified on plan which could assist in highlighting interrelationships and potential conflicts. Location and types of physical and social infrastructure, settlement and land use patterns was not adequately addressed. Social values were not adequately addressed and the SIA did not clarify how these were considered in identifying the social and cultural area of influence of the project. Indigenous social and cultural interests were not adequately addressed in the SIA.*

#### **Response – RC325**

As per the TOR, the SIA defines the Project's social and cultural area of influence taking into account the potential for social and cultural impacts to occur at the local, district, regional and state level.

During the initial scoping exercise for the SIA, it was assessed that the majority of the impacts would occur at the local and regional level. The SIA study area was discussed with the relevant Local Government authorities and the Social Impact Assessment Unit who did not object to the study area definition.

As described in the SIA, according to the Australian Bureau of Statistics (ABS), there were 1,742 people in the regional study area who identified as Indigenous in 2006. Of these people 1,420 identified as Aboriginal (2. 4% of the regional study area population). In 2006, 47 people in the local study area identified as being Indigenous. Of these 40 identified as being Aboriginal (2. 2% of the local study area population).

The ABS statistics do not correlate to the number of people who identify as native title holders or as having traditional owner interests. As stated in Section 18 (Indigenous Cultural Heritage) of the EIS, the lands associated with the Project are located across three registered native title claim areas:

- The Wangan and Jagalingou People (QUD85/04);
- The Jangga People (QUD6230/98); and
- The Birri People (QUD6244/98).

The Project area also passes through an area of land where no current registered native title claim exists, or ever has existed, and where the Juru People have indicated they have traditional owner interests.

HPPL undertook consultations to develop the Cultural Heritage Management Plans (CHMP) and Indigenous Land Use Agreements (ILUA). Table 5-5 lists the locations of ILUA and CHMP consultations.

**Table 5-5 ILUA and CHMP Consultation Locations**

Aboriginal Party	Location
Wangan and Jagalingou People	Rockhampton, Bundaberg, Brisbane and Woorabinda
Jangga People	Charters Towers, Brisbane, Collinsville
Birri People	Townsville, Brisbane, Cherbourg and Rockhampton
Juru People	Bowen, Cairns, Townsville and Brisbane

Dates of individual consultation events are listed in Section 18 (Indigenous Cultural Heritage) of the EIS.

Key issues raised during the consultations were:

- Impacts on sites of sites of significance (will be addressed in the CHMPs);
- Connection to country (will be addressed in the ILUAs);
- Impacts on native title rights and opportunities (will be addressed in the ILUAs);
- Employment opportunities (will be addressed in the ILUAs); and
- Contract opportunities (will be addressed in the ILUAs).

As described in Volume 3, Section 18 of the EIS, in addition to arrangements for cultural heritage protection and management that are documented in the CHMPs and ILUAs, the Proponent and those Aboriginal Parties who have been endorsed to develop the CHMPs have also developed an agreed

process, called the Indigenous Peoples Policy (IPP), in respect to the Proponent's engagement with Indigenous people. During negotiations and interactions with Indigenous People, the Proponent has worked diligently to afford Indigenous People respect for their connection to country and have ensured that Indigenous people are well equipped to resource and negotiate agreements.

## Comment – RC326

*Community Engagement was limited, was based on preliminary design information, and a number of potential social issues appear to have been glossed over or inadequately addressed. SIA community engagement process has been undertaken at the lowest levels of participation (that of informing and very limited consultation) which amounts to tokenism rather than meaningful community engagement. The SIA also does not provide a community engagement strategy that promotes an active and ongoing role for stakeholders throughout the project life cycle.*

## Response – RC326

EIS consultations (including SIA consultations) were considered appropriate for the stage of the Project (i. e. preliminary design) in order for landholders and other stakeholders to influence the Project design. Based on consultations to date (including landholder negotiations, cultural heritage consultations, feedback from EIS and SIA consultations) the Proponent has considered potential impacts and relevant management strategies during the continuing Project design development. Some of the impacts and relevant management strategies include (but are not limited to):

- Limit impact on current and future property management plans including the need for occupational crossings or under rail all weather access where appropriate (addressed through landholder negotiations).
- Minimise impact on property infrastructure (addressed through landholder negotiations)
- Respect for sensitive areas, (addressed through landholder negotiations and cultural heritage management plan)
- Limit noise and vibration impacts on sensitive receptors (Project design);
- Reduce the spread of coal dust (improved operational procedures and rolling stock design)
- Address potential natural hazards including fire risks and slope stability (Project design);
- Manage construction and operational demands to minimise stress on local and regional supply capacities (addressed in the draft SIMP); and
- Provide social support systems and set behavioural expectations for Project staff to compliment local community services and facilities such as the workforce Code of Conduct and Camp Management Plan (addressed in the draft SIMP).

HPPL has maintained regular contact with relevant Regional Councils and other stakeholders throughout the Project and has responded to issues as they arise. In accordance with the draft SIMP, the Proponent is obligated to continue to consult with and evaluate comments from stakeholders throughout the entire Project lifecycle. HPPL will continue to consult with stakeholders to further develop the core elements of the draft SIMP in particular:

- Section B Impact Mitigation and Management;
- Section C Monitoring, Reporting and Review;
- Section D Stakeholder Engagement Strategy; and

- Section E Social Impact Management Plan Dispute Resolution.

The performance of the SIMP to achieve reasonable and equitable outcomes will be evaluated and modified throughout the Project lifecycle.

**Comment – RC327**

*The Social Baseline Study based on existing research and limited field work, and there was little analysis.*

**Response – RC327**

There was a variety of secondary data available to support the consultations.

**Comment – RC328**

*Inadequate consideration of potential social impacts of workforce and work camps was undertaken. SIA to include information on employment and procurement policies that have been implemented on their other projects with some conclusions and recommendations about how these could be adapted for the rail project.*

**Response – RC328**

Refer to Volume 3, Section 8. 4 of the EIS which identifies the potential impacts. Refer to Volume 2, Appendix C of the SEIS for an updated workforce profile, HPPL will conduct further consultations as part of the draft SIMP finalisation to address the impacts of the construction camps. A framework for the development of the SIMP is outlined within Volume 2, Appendix E of the SEIS.

**Comment – RC329**

*Identification of Potential Social impacts were not thoroughly undertaken. There was no real analysis of the potential impacts on hard and soft community infrastructure and services required to support population growth (which had been raised as one of the issues of concern by the WRC) and the SIA and EIS concluded that there would be none. This is inconsistent with the research findings of the Bowen Abbott Point Accommodation and Community Infrastructure Study (2009). There was no examination of the potential to locate the operational workforce within Collinsville, although the SIA did recognise the benefits of adding to the resident population. there was also no examination of various housing options and impacts. these are critical concerns for the WRC.*

**Response – RC329**

HPPL considered using existing accommodation in Collinsville, however it was not considered appropriate for the Project because of the distance required to travel to the work site.

**Comment – RC330**

*Workable Mitigation Measures and Management Strategies were not identified.*

**Response – RC330**



HPPL will continue to consult with stakeholders as part of the detailed design, construction, operation and decommissioning phases of the Project. This will include undertaking consultations to further develop the draft SIMP in accordance with stakeholder consultations.

#### **5.18.14 Economic Impact Study**

##### **Comment – RC331**

*Council requests that Hancock Prospecting Pty Ltd pro-actively seek to buy all goods and services (for the construction and maintenance of the railway line, but not limited to the component of railway line within the Whitsunday Regional Council area) from suppliers within the Whitsunday Regional Council area. This supports local business and enterprise and helps to contribute towards the economic growth of the region.*

##### **Response – RC331**

HPPL will continue to purchase goods locally where they are available at competitive prices.

##### **Comment – RC332**

*Council requests that Hancock Prospecting Pty Ltd pro-actively seek to buy all goods and services for the construction and operation of the construction camp, from suppliers within the Whitsunday Regional Council area. This supports local business and enterprise and helps to contribute towards the economic growth of the region.*

##### **Response – RC332**

HPPL will continue to purchase goods locally where they are available at competitive prices. Further consultation the Council regarding this issue within the SIMP process can ameliorate such concerns (refer to Volume 2, Appendix E of the SEIS).

#### **5.18.15 Decommissioning and Rehabilitation**

##### **Comment – RC333**

*The rehabilitation of the railway earthworks is generally discussed. There is no detail on how the main excavation areas will be rehabilitated and further details of this are required to be provided as part of the SEIS.*

##### **Response – RC333**

This section of the EIS proposes the overall strategy for the decommissioning and rehabilitation to be undertaken. Detailed plans will be development when details of specific site works are known.

#### **5.18.16 Environmental Management Plans**

##### **Comment – RC334**

*The proponents states that a number of Management Plans will be developed for the operational phase of the railway (these plans are also required to be prepared for the operational phase and are required to be provided as part of the SEIS including: - Environmental management Plan; - Weed and Pest animal management plan; - Fire Management Plan; - Erosion and Sediment Management Control Plan; - Species or population management plan; - Dust management plan for the trains.*

**Response – RC334**

Additional specific management plans will be included as sub-plans associated with the Project EM Plan (SEIS Volume 2, Appendix AC). These will be developed and implemented to ensure that all environmental impacts have mitigation and management measures. These management plans will include but may not be limited to the following: A Concept and Detailed ESCP, Environmental Management Plan, Acid Sulfate Soil Management Plan, Rehabilitation Management Plan, Contaminated Soil Earthworks Management Plan, GQAL and Strategic Cropping Land Assessment and if necessary a Remediation Action Plan (for contaminated sites).

This EM Plan is a preliminary document and will be reviewed and finalised following the issuing of development conditions for the Project (Volume 2, Appendix AC).

**5.19 Capricorn Conservation Council****5.19.1 Land Use and Tenure****Comment – RC335**

*The proposed railway corridor has not been carefully studied with regard to its potential environmental and other effects. CCC believes that the environmental impact statement prepared by the proponent of the Alpha Mine Project needs to a supplementary EIS in order to fully consider impacts associated with the Rail Component of the proposed Alpha Mine Project. Consideration*

**Response – RC335**

The EIS was prepared in accordance with the Project TOR and was based on Project information available at that time. Further detailed assessment through the approvals processes and development of management plans will incorporate more specific assessment processes relevant to specific locations or issues.

**5.20 Environmental Defenders Office of Northern Queensland Inc. and Environmental Defenders Office (QLD) Inc.****5.20.1 Terrestrial Ecology****Comment – RC336**

*No biodiversity surveys were undertaken along 38% of the proposed rail route. Hancock's contention that the rail line will have no significant impact on biodiversity is therefore not proven and the EIS is incomplete.*

**Response – RC336**

Additional ecological investigations are being undertaken at a number of locations along the alignment. The results and impact assessment have been incorporated into an Updated Terrestrial Ecology Report (Volume 2, Appendix AE, Section 5).

**5.21 Hannan Pastoral Company****5.21.1 Land Use and Tenure****Comment – RC337**

*RA8 is a restricted area under the Minerals Resources Regulation (2003 created to preserve an identified dam site for future development when required. This has been completely overlooked by Hancock Coal with its proposed railway line.*

#### **Response – RC337**

The RA8 was a constraint to the Project alignment design to the extent that its development:

- was not identified or assessed as part of the EIS, CoG's Report or Community Infrastructure Designation for QR's NML Project which also impacts this area,
- is at least 20-30 years into the future if not longer,
- would not proceed until future water supply demands exceeded known and unknown regional water management strategies,
- requires a level of community support which favoured its development over the resulting impacts to the natural environment, and
- had a funding commitment consistent with priority infrastructure planning for the region.

Realigning the corridor to be above the ponded area of the proposed Suttor River dam buffer, as suggested, within the RA 8, would require a deviation which in itself may well conflict with a number of the above multi-criteria.

While the protection of restricted areas from inappropriate development is important, it is considered reasonable and supportable that the Project proceeds as currently proposed, on the basis that a deviation around the future dam site be constructed at such time that the economic, social and environmental benefits associated with the dam outweigh those associated with the proposed transport corridor

## **5.22 Mackay Conservation Group**

### **5.22.1 Soils, Topography and Land Disturbance**

#### **Comment – RC338**

*Judging by current railway bridges there will be significant erosion from the cleared riparian areas around these bridges and their approaches, as the sandy soils erode easily once vegetative cover is removed. Because large intensive rainfall events can be widespread across Central Queensland these bridges will deliver higher sediment loads downstream affecting aquatic life and shortening the life of downstream dams and weirs as sediments fill up the dams. These events are predicted to become more intense over time under Climate Change. How will this change sediment loads from cleared areas along the rail route?*

#### **Response – RC338**

Erosion and Sedimentation will be addressed firstly in the Concept Erosion and Sediment Control Plan (required as part of the MCU DAs, Approvals Process), and then in the Detailed Erosion and Sediment Control Plan (developed in conjunction with detailed design, and submitted with applications for Operational Works Permit). Sediment loads were not calculated as part of the EIS as this will be done during the erosion and sediment control planning during the detailed design phase. Details on cut depths, disturbance areas, construction footprint, final alignment will be required to accurately measure sediment loss, and provide appropriate mitigation measures. To assist this process an erosion and sediment control management framework has been developed and included within Volume 2, Appendix AD of the SEIS.

### 5.22.2 Land Use and Tenure

#### Comment – RC339

*The EIS claims there will be no significant impacts on wildlife species yet fails to provide evidence.*

#### Response – RC339

Volume 3 Section 9. 3. 1. 3 of the EIS identifies the Mortality of Terrestrial Fauna, potential impacts, and mitigation and management measures. This section identifies that construction activities have the potential to cause wildlife mortality if animals are present when vegetation is cleared or venture into active construction zones. Mitigation measures have been proposed to reduce the potential for fauna mortality. Volume 3 Sections 10. 3. 2 and 10. 3. 3 of the EIS addresses the potential impacts, and mitigation and management measures on the aquatic ecology, in both the construction and operation stages of the Project.

### 5.22.3 Terrestrial Ecology

#### Comment – RC340

*The railway passes through a range of ecological communities, including 68 regional ecosystems and approximately 1,530 hectares of mapped remnant vegetation yet no biodiversity surveys have been conducted along 38% of the railway route allegedly because landowner access was denied (Table 3 is attached i. e. REs in Lots on Rail Route Un-surveyed for Biodiversity). The contention by Hancock Coal that the rail line will have no significant impact on biodiversity is therefore not proven and the EIS is incomplete.*

#### Response – RC340

Some additional ecological assessments have occurred since the EIS was completed. These results and impact assessments have been included within the Updated Terrestrial Ecology Report (SEIS Volume 2, Appendix AE, Section 5). There are some areas where ecological assessment is scheduled pending fine weather and access agreements with land owners. Results from these additional investigations will be incorporated into the detailed design process as required, and a copy will be provided to the Coordinator General for consideration and assessment.

#### Comment – RC341

*Many species in the regions covered are nomadic or migratory and are opportunistic. Nevertheless the region provides for a significant number of these species, and the line will have impacts, especially at the bridges and other riparian areas. For example during large floods locals tell us the Belyando River can be 30 to 40 km wide and floodwaters and flood debris back up behind the bridges, which act then as dams. The backed up water affects riparian areas and properties for many kilometres upstream. There are twenty-six planned rail bridges across waterways. They will damage habitats and properties. What remediation, restoration processes and compensation packages are planned? Who will fund them?*

#### Response – RC341

The detailed design aims to reduce the impact on the hydrology of the area and minimise the footprint of riparian disturbance. The proposed preliminary drainage infrastructure is designed to minimise the disturbance of natural existing drainage paths following best practice principles currently being applied on similar projects Australia wide. It is recognised that in floodplains flood waters are not concentrated in one main channel at high depth, but rather water spreads out over a wide area at shallow depth moving slowly once the main channel banks have been breached. Therefore it is proposed that

primary crossing structures e. g bridges in all floodplain areas are supplemented by floodplain relief culverts i. e - 900 mm diameter relief culverts provided at approximately 50 m centres or closer. These designs will be further developed with the aid of further hydrological and hydraulic modelling and stakeholder input. In the event remediation is required a suitable package would need to be developed in negotiation with the appropriate parties.

**Comment – RC342**

*Clearing for the bridges will also mean higher sediment loads reaching the Great Barrier Reef negating work being done under the State and federal government's Reef Water Quality Program to reduce sediment loads. The distance downstream of Great Barrier Wetlands of High Ecological Significance is not provided in the EIS nor are potential impacts on such wetlands addressed.*

**Response – RC342**

Potential impacts on receiving environments will be discussed within the ESCP, which will be required at a concept level for the application process for MCU's and Operational Works and at a detailed level prior to construction.

**5.22.4 Surface Water****Comment – RC343**

*During flooding the bridges will act as dams themselves. Water backs up behind debris trapped by the bridges and can back up for miles, increased erosion around the bridge areas, and affecting properties upstream.*

**Response – RC343**

In low lying areas bridges will use 12 m spans and in steeper areas 20 m spans. These spans will allow debris to pass the bridges, except maybe large trees. In the unlikely event a tree gets stuck at the bridge, removal forms part of bridge maintenance.

**Comment – RC344**

*The Belyando River can be 30-40 km wide in a big flood. Just what are the widths for large floods across the bridge sites? What will be the increase in sediment loads and other pollutants as a result of this rail line? What compensation and repair process will be in place to ensure that infrastructure and property and environmental damage are quickly addressed? Who will be responsible and are current laws and regulations sufficient to address this issue?*

**Response – RC344**

The length of the proposed bridges is related to the size of the river (flows) and its catchment. The streambed of the Belyando will be crossed by a 156 m long bridge. In addition approximately 50 culverts (with a diameter of 3 m) will be placed near the main river crossing (bridge). In the floodplains 900 mm culverts will be placed over several kilometres at 25 m intervals which will allow passing of water in the floodplains during flood events. Where necessary scour protection will be part of the bridge and culverts to minimise increases in sediment loads.

Ongoing consultation will be undertaken with landholders during the Project.



### 5.22.5 Air Quality

#### Comment – RC345

*The approach and northern terminus of the Hancock coal railway line stretches across a number of Great Barrier Reef creek catchments and along the nationally listed Birralelee-Pelican Creek and Abbot Point Caley Valley wetlands. Unless coal wagons are covered coal dust will be blown constantly into these waterways and washed down into the Great Barrier Reef marine waters.*

#### Response – RC345

The modelling results, with conservative estimates of emissions, indicate that the resultant worst case deposition rates will be below acceptable rates ( $2 \text{ g/m}^2 \cdot \text{month}$  - annually averaged). Dust will not be constantly blown into the receiving environment, with the rate of coal dust loss from the moving train variable depending on wind and rain.

A study by the Proponent is currently being conducted addressing this including issues such as wagon shape, sprays – repeated water sprays and polymer and covers. This study is also looking at other sources of dust and coal contamination. Dust lift off from the exposed coal surface is a minor component with most of the coal on and around the tracks in other systems coming from spillage onto the wagons during loading and unloading. HPPL fully appreciates this issue and is seriously investigating the best approach to minimising coal dust and that in addition to environmental drivers, there are economic ones related to coal loss, possible fuel savings and reduced maintenance.

### 5.22.6 Economic Impact Study

#### Comment – RC346

*The cumulative effects of the additional adjacent projects the building of the Hancock coal rail line will facilitate and how their impacts will be addressed has not been taken into account in this EIS. It will cause more clearing of remnant regional ecosystems, permanent biodiversity loss, loss of use of other surface activities such as grazing and agriculture, and increased water and air pollution. Such costs should be considered in a cost/benefit analysis of comparisons of the expansion of the coal industry along this rail line and into the Galilee Basin versus the alternative of supplying energy from renewable sources such as solar thermal power plants.*

#### Response – RC346

At this point in time it is proposed that the Project rail line will service the Alpha Coal Project (Mine) and the Kevin's Corner Coal Project. The impact of other coal mine operators seeking third party access would be relevant consideration in the assessment of such third party applications.

The issue of cumulative impacts also relates to the cumulative impact of those Projects currently proposed as opposed to any Projects which may eventually be proposed. The Department of Local Government and Planning (DLGP, former Department of Infrastructure and Planning) have commissioned the Office of Economic and Statistical Research (OESR) to undertake a study of the cumulative impacts associated with major infrastructure projects within the region (including Whitsunday region). When published, outcomes of this report will be considered during the discussions between the Proponent and the regional stakeholders. A cost benefit analysis did not form part of the Project's TOR and as such was not prepared.

## **5.23 QCoal Pty Ltd**

### **5.23.1 Introduction**

#### **Comment – RC347**

The proponent has not indicated the width of the proposed railway corridor in the Description of the Project to show the scale of impacts e. g. 500 km x 500 m is equivalent to a disturbance area of 25,000 ha.

#### **Response – RC347**

Volume 3, Section 2. 3. 3 of the EIS identifies that a 60 m wide corridor will be required for the track, drainage, access roads and other infrastructure to support the construction and operation of the Project. In some areas, the Project corridor may be wider so as to allow for deep cuttings and to meet engineering requirements. For the purposes of technical assessments such as geology, terrestrial and aquatic ecology and air and noise impact assessments a buffer of 500 m was used.

Refinement of the corridor requirements will occur with the development of the design of the rail and associated infrastructure.

#### **Comment – RC348**

*The proponent has not indicated whether it is party to the X110 Coal expansion project at Abbot Point. The EIS for this expansion has not commenced.*

#### **Response – RC348**

In April 2010, NQBP awarded BHP Billiton Pty Ltd (Terminal 2) and HPPL (Terminal 3) preferred developer status for the X110 development which has been split into separate terminals each having a capacity of 30 Mtpa. The VEA for X80/X110 was publicly advertised in 2009.

#### **Comment – RC349**

*Alternative route options should be included and discussed in the EIS.*

#### **Response – RC349**

Volume 3, Section 2. 3. 4 of the EIS details both the investigation into the port options and the refinement and selection of the preferred route for the railway. In particular, Volume 3, Section 2, Table 2-2 outlines the the key railway alignment options and sub-options.

#### **Comment – RC350**

*The proponent must complete these field investigations as part of the initial EIS process and not as addendums to the Supplementary EIS Report:*

- *Terrestrial ecology;*
- *Indigenous archaeology; and*
- *Non-indigenous archaeology.*

#### **Response – RC350**

A survey of non-Indigenous cultural heritage matters has been undertaken by the Proponent and is contained within Volume 2, Appendix AK of this SEIS.

Indigenous cultural heritage surveys were undertaken from August 2010 through to November 2010 with a total of 330 km of the proposed rail line now having been surveyed. The remainder of the rail line is part of the programmed work. Archaeological reports for the 2010 rail surveys have now been received by the Proponent. HPPL is currently in discussions with each respective Aboriginal Party in regard to appropriate cultural heritage mitigation and management strategies.

The Proponent is involved in ongoing negotiations to access all areas of the proposed rail corridor. Once these negotiations are complete the outstanding surveys including terrestrial ecology will be undertaken.

#### **Comment – RC351**

*Key objectives rail alignment: The proponent has not adequately considered the economic impacts to existing or proposed coal mining activities in the northern Bowen Basin. Sterilisation of State significant coal resources has not been considered as a key objective for rail alignment assessment.*

#### **Response – RC351**

Every effort has been made to position the Project rail alignment so as not to adversely impact upon mining interests with the potential to contain a mineral deposit yet to be extracted. The support and approval of this new infrastructure corridor would not in itself preclude a lessee's ability to efficiently access an adjoining resource.

In addition, QCoal, who is a key stakeholder regarding this issue has been consulted extensively by Hancock in relation to sterilisation. This comment has been addressed in more detail within Volume 2, Appendix AH of the SEIS.

#### **Comment – RC352**

*The holders of mining tenures are also affected and interested parties and should be included in any future public consultation process.*

#### **Response – RC352**

All such sessions were advertised in the media.

#### **Comment – RC353**

*As part of the community engagement process, in particular community information sessions in regional centres, the proponent has been remiss in not advising and/or inviting the holders of mining tenures traversed by the rail corridor to such information session.*

#### **Response – RC353**

All such sessions were advertised in the media.

#### **Comment – RC354**

*The proponent has not consulted with all stakeholders in finalising the preferred rail alignment option. Holders of mining tenures have not been involved the rail corridor assessment.*

## **Response – RC354**

HPPL has consulted extensively with QCoal and other tenure holders.

## **Comment – RC355**

*The proponent has not addressed the statutory provisions in relation to various Environmental Protection Policies – Water, air, noise and waste.*

## **Response – RC355**

While not mentioned specifically in Volume 3, Section 1. 11. 3. 3 of the EIS, each of these EPP's have been addressed in the EIS. The relevant sections are:

- EPP Water - Volume 3, Section 11 of the EIS;
- EPP Air - Volume 3, Section 13 of the EIS;
- EPP Noise - Volume 3, Section 15 of the EIS; and
- EPP Waste - Volume 3, Section 26 of the EIS.

## **Comment – RC356**

*The proponent has not addressed the statutory provisions of the Mineral Resources Act 1989 in those circumstances where the rail corridor crosses through and/or impacts upon other mining activities subject to the Mineral Resources Act 1989.*

## **Response – RC356**

The provisions and requirements of all relevant legislation will be addressed as required. Provisions of the *Mineral Resources Act 1989* have been addressed by the Project Mine development.

## **Comment – RC357**

*The proponent has not addressed the statutory provisions of the Petroleum Act 1923.*

*The Petroleum and Gas (Production and Safety) Act 2004 and the Petroleum Act 1923 provide the framework for accessing land to explore and develop petroleum and coal seam gas resources in Queensland.*

*Further, the proponent has not assessed potential impacts to Petroleum Pipeline Licence (PPL) 89 granted to North Queensland Pipeline No. 1 Pty Ltd on 6 March 2003.*

## **Response – RC357**

The provisions and requirements of all relevant legislation will be addressed as required.

## **Comment – RC358**

*The proponent has not addressed the statutory provisions of the Petroleum and Gas (Production and Safety) Act 2004.*

*The main purpose of this Act is to facilitate and regulate the carrying out of responsible petroleum activities and the development of a safe, efficient and viable petroleum and fuel gas industry.*

*The proposed railway route will cross gas pipelines. The potential impacts to such infrastructure has not been addressed in the EIS.*

**Response – RC358**

The provisions and requirements of all relevant legislation will be addressed as required.

**Comment – RC359**

*The proponent must address the statutory provisions of the Coal Mining Safety and Health Act 1999 in relation to the future construction and operation of the railway through lands where mining activities have been authorised under the Mineral Resources Act 1989.*

**Response – RC359**

The provisions and requirements of all relevant legislation will be addressed as required.

**Comment – RC360**

*The proponent must consider any safety implications under the Explosives Act 1999 in relation to the routing and operation of a railway through areas where active mining is or will be occurring. Such mining activities are authorised under the Mineral Resources Act 1989.*

**Response – RC360**

The provisions and requirements of all relevant legislation will be addressed as required.

**Comment – RC361**

*The proponent must consider the provisions of the Water Supply Safety and Reliability Act 2008, and in particular any potential impacts to water supply pipelines crossed by the proposed railway route.*

**Response – RC361**

The provisions and requirements of all relevant legislation will be addressed as required.

**Comment – RC362**

*The proponent has not considered the provisions of the Queensland Heritage Act 1992 (QH Act).*

*It would appear that the proponent has not conducted a search of the Queensland Heritage Register to identify sites of non-indigenous historical significance for the Project area.*

*The proponent must consider potential impacts to places and items of historical and/or non-indigenous cultural heritage.*

**Response – RC362**

A non-Indigenous cultural heritage field survey, desktop assessment and landowner consultation in regard to cultural heritage has been undertaken for the Project area (refer to Volume 2, Appendix AK of the SEIS). The field survey identified three sites of non-Indigenous cultural heritage significance within the Project area. Refer to Figure 3.1 of the Volume 2, Appendix AK of the SEIS for the location of the sites and the report for further information. HPPL is currently in discussions with each respective Aboriginal Party in regard to appropriate cultural heritage mitigation and management strategies.



## **Comment – RC363**

*The proponent has not considered the provisions of the Electricity Act 1994 or the Electricity Regulation 2006.*

*The proponent must consider potential impacts to all electricity supply systems affected by the Project.*

## **Response – RC363**

The provisions and requirements of all relevant legislation will be addressed as required.

## **Comment – RC364**

*The headings hierarchy for Sustainable Planning Act 2009 is incorrect.*

## **Response – RC364**

Volume 3, Section 1. 11. 3. 3 of the EIS has no sub-headings.

## **Comment – RC365**

*The proponent must complete a comprehensive terrestrial ecological survey as part of the initial EIS process. The proponent must develop vegetation and biodiversity offsets pursuant to the statutory provisions.*

## **Response – RC365**

Additional terrestrial ecology assessments have been undertaken and results and impact assessment have been incorporated into the Volume 2, Appendix AE of the SEIS). A program of additional field work site is continuing. Biodiversity offsets have been addressed within the Offsets Strategy for the Project (SEIS Volume 2, Appendix X, Section 3).

## **Comment – RC366**

*PVMPs must be approved and signed off by all affected land holders.*

## **Response – RC366**

Noted.

## **Comment – RC367**

*Correct the reference to the Nature Conservation Act 2002.*

## **Response – RC367**

The correct reference is the *Nature Conservation Act 1992* as detailed in the EIS.

## **Comment – RC368**

*The proponent must consider the statutory implications for the project pursuant to the following Nature Conservation (Wildlife Management) Regulation 2006.*

## **Response – RC368**

Noted.

**Comment – RC369**

*The proponent has not demonstrated that the proposed rail alignment will not sterilise coal resources or impact on the economic viability of current projects to develop such coal resources.*

*In the northern Bowen Basin, the proposed rail infrastructure will not support the local mining industry as stated in the EIS.*

**Response – RC369**

Every effort has been made to position the Project rail alignment so as not to adversely impact upon mining interests with the potential to contain a mineral deposit yet to be extracted. The support and approval of this new infrastructure corridor would not in itself preclude a lessee's ability to efficiently access an adjoining resource.

In addition, QCoal, who is a key stakeholder regarding this issue has been consulted extensively by Hancock in relation to sterilization. This comment has been addressed in more detail within Volume 2, Appendix AH of the SEIS.

**Comment – RC370**

*The proponent has not considered the provisions of the State Planning Policy (SPP) for Protecting Queensland's Strategic Cropping Lands (2010).*

**Response – RC370**

DERM have advised the requirements of the the State Planning Policy (SPP) for Protecting Queensland's Strategic Cropping Lands (2010) are not applicable to TOR, EIS and EM Plan (SEIS Volume 2, Appendix AC) documents for current proposals at this stage .

**Comment – RC371**

*The proponent has not considered the provisions of the Queensland Government Environmental Offsets Policy (QGEOP).*

**Response – RC371**

A Vegetation Offsets report has been prepared and forms part of Volume 2, Appendix X of the SEIS.

**Comment – RC372**

*The proponent has not considered the implications of the State Coastal Management Plan – Queensland Coastal Policy 2001.*

**Response – RC372**

The State Coastal Managmenet Plan is addressed in Volume 3 Section 1. 12. 6 of the EIS.

**Comment – RC373**

*A permit pursuant to NCA will be required to interfere with or remove protected vegetation.*

*Similarly, a permit pursuant to NCA will be required to interfere with or disturb a nesting or breeding site including burrows. Table 1-5 should be amended accordingly.*

**Response – RC373**

Noted.

### 5.23.2 Description of the Project

#### Comment – RC374

*Rail Alignment - the rail alignment detailed in the environmental impact statement is not fully contained within the rail corridor thus causing confusion as to whether the assessment is based in the alignment or the corridor.*

#### Response – RC374

The railway alignment is located within the Project study area.

#### Comment – RC375

*The proponent must include economic impacts associated with the severance and sterilisation of coal resources in the Northern Bowen Basin.*

#### Response – RC375

Every effort has been made to position the Project rail alignment so as not to adversely impact upon mining interests with the potential to contain a mineral deposit yet to be extracted. The support and approval of this new infrastructure corridor would not in itself preclude a lessee's ability to efficiently access an adjoining resource.

In addition, QCoal, who is a key stakeholder regarding this issue has been consulted extensively by Hancock in relation to sterilisation. This comment has been addressed in more detail within Volume 2, Appendix AH of the SEIS.

#### Comment – RC376

*The proponent must include existing mining tenures as a factor in selecting the preferred railway corridor.*

#### Response – RC376

Existing mining tenures were considered in the process of selection of the preferred railway corridor.

#### Comment – RC377

*The proponent must include the holders of mining tenures as affected stakeholders or interested parties in the proponent's community consultation program.*

*Their views or input are required for consideration in final EIS.*

#### Response – RC377

EIS consultations were considered appropriate for the stage of the Project. HPPL will continue to consult with stakeholders throughout the entire project lifecycle.

#### Comment – RC378

*The proponent must ensure that the construction and operation of the camp 3 will not impact upon exploration and other mining activities associated with MDLA 443 and MLA 70435.*

#### Response – RC378

Noted.

#### **Comment – RC379**

*Camp 3 is situated in an area designated by DERM as sensitive habitat for the ornamental snake which is an endangered species.*

#### **Response – RC379**

This camp has been relocated to the northern end of the property to where there is a fork between the Project alignment and NML alignment. Initial assessments indicate the impact upon sensitive habitats is minimal, and this will be confirmed during the detailed design stage.

### **5.23.3 Geology**

#### **Comment – RC380**

*Rail Route Geological Assessment - the geological and soils assessment is based on desk-top studies without any field validation. This restricts assessment of impacts on coal resources. The lack of site specific assessment of soil properties associated with erosion and subsequent impacts on water quality and aquatic ecosystems fails to address the requirements of the terms of reference.*

#### **Response – RC380**

Additional site specific field investigations will be undertaken, particularly at the locations of the creek crossings identified along the rail route, during the detailed design stage. In order to identify potential impacts on water quality, aquatic and terrestrial ecosystems, the investigations will involve assessment of local geology, soil properties, water quality, flora and fauna.

#### **Comment – RC381**

*The proponent has only conducted a desk-top review of available geological data relevant to the rail corridor.*

*Appendix D has relied on out of date geological maps prepared by the BMR between 1964 and 1968. This Appendix contains no formal description of the distribution or inter-relationship of stratigraphy or mineral resource potential of the region.*

*The proponent has not evaluated the real impact to mineral resources posed by the rail corridor.*

*Site-specific geological data is fundamental to other investigations including but not limited to soil, erosion and sediment control, regional ecosystems and impacts to surface water quality (eg turbidity, suspended solids, salinity, acidity and alkalinity).*

#### **Response – RC381**

Refer to Figure 5-1.

#### **Comment – RC382**

*The extent of regionally significant coal bearing strata should be delineated where they are traversed by the proposed rail corridor.*

#### **Response – RC382**

In response to this submission, Volume 3, Section 4. 2. 4. 4 and 4. 2. 4. 5 have been updated as follows:

#### **4. 2. 4. 4 Section 3**

Section 3 of the Project occurs from chainage 300 km to 430 km (Volume 3, Section 4, Figure 4-3) and is subdivided into three parts.

The topography and geology change noticeably after 300 km as the Project enters the Bowen River Catchment area.

##### **Part 1 – 300 km to 345 km**

The Project traverses undulating terrain with some sharper rises and depressions associated with creeks and drainage lines.

The soils consist of cracking clays (vertisols) for most of this part of the Project until the Bowen River is intersected at chainage 345 km.

Outcropping units of the Upper Permian-aged Blackwater Group (Puw) and the Back Creek Group (Pb), which includes the major coal measures of the Bowen Basin dominate this part of the Project area. Within the vicinity of the Project (five km buffer), the following units are found:

- Unnamed Early Cretaceous intrusive granitoid (Ki) (chainage 320 km to 340 km);
- Rewan Formation (TRr);
- Blackwater Group:
  - Moranbah Coal Measures (Pwb);
  - Fair Hill Formation and Fort Hill Coal Measures (Pwt); and
  - Rangal Coal Measures, Bandanna Formation, Baralaba Coal Measures (Pwj).
- Back Creek Group:
  - Blenheim Subgroup (Pbe); and
  - Exmoor Formation (Pbx).

Given that the Blackwater Group and the Back Creek Group outcrops in many places within the vicinity of the Project area, there are many structural features, including faults, synclines, anticlines and trend lines present including granitoid intrusions. Many of these structural features are trending approximately north-south, inline with the geological boundaries between the various units.

Based on 1:250,000 geological mapping, Section 3 of the rail alignment overlies potentially economic geological resources, Section 3 of the rail alignment (five km buffer) potentially overlies Moranbah Coal Measures (Pwb), Fort Cooper Coal Measures (Pwt), Collinsville Coal Measures (Pbc) and the Rangal Coal Measures/Baralaba Coal Measures (Pwj). However, the rail alignment was positioned along this proposed route in order to utilise land already cleared for existing rail infrastructure, consequently minimising any loss of resource within this region.

#### **4. 2. 4. 5 Geological Properties**

The geological properties outlined in the previous section pose potential impacts on the construction and operation of the Project; features that include outcropping granites and sharp topographic relief areas, concealed faults, fault zones, highly weathered lithological profiles and cracking and dispersive soils.



The geotechnical investigation will identify the physical, geo-mechanical and chemical properties of waste rock in both fresh and weathered lithologies, which will then allow the determination and design concepts for slope stability, rehabilitation and possible acid generation of waste rock and waste water management.

Once the geotechnical and chemical properties of the rocks and soils within the Project area are determined, then Occupational Health and Safety concerns may be identified and addressed as part of the EM Plan (SEIS Volume 2, Appendix AC).

**Comment – RC383**

*The proponent must be required to complete the geotechnical investigations along the proposed rail corridor as part of the EIS process.*

**Response – RC383**

HPPL is finalising preparations for a detailed geotechnical survey program, the outcomes of which will be used as part of the detailed design process.

**Comment – RC384**

*The proponent has incorrectly placed the Moranbah Coal Measures on the Collinsville Coal Measures, when these two units are separated by an extensive sedimentary sequence comprising the Exmoor Formation and Blenheim Subgroup.*

*Further, the Fort Cooper Coal Measures and Rangal Coal Measures are younger sedimentary sequences which overlie the Moranbah Coal Measures. The proponent be required to correct these technical errors.*

**Response – RC384**

Volume 3, Section 4, Table 4-3 (below numbered as **Table 5-6**) has been revised to reflect this submission and details have been verified with reference to Staines and Koppe (1980).

**Table 5-6: Geological Units Underlying the Project Site**

Section	Map Symbol	Unit Name/Type	Geological Age	Lithological Summary
1 (0 km – 110 km)	Q	ALLUVIUM	QUATERNARY	Alluvium of older flood plains, sand, gravel, soil
	TQw	Woondoola beds	TERTIARY – QUATERNARY	Silt, clay, sandy clay; minor sand and gravel; fluvial
	T	SEDIMENTARY ROCK	TERTIARY	Quartzose sandstone, conglomerate, siltstone
	Czb	BASALT	CAINOZOIC	Olivine basalt lava flows
	Po	Colinlea Sandstone	EARLY PERMIAN - LATE PERMIAN	Quartz sandstone, pebbly quartz sandstone, minor conglomerate and siltstone
	CPj	Joe Joe Group	CARBONIFEROUS - PERMIAN	Tillitic conglomerate, lithic sandstone, siltstone, minor

Section	Map Symbol	Unit Name/Type	Geological Age	Lithological Summary
				mudstone and coal
	Cr	Raymond Sandstone	CARBONIFEROUS	Flaggy quartzose sandstone, siltstone and minor limestone
	Cs	Star of Hope Formation	CARBONIFEROUS	Lithic conglomerate, feldspatholithic sandstone, rhyolitic to dacitic ignimbrite and flows, tuffaceous siltstone and rare sinter
	Cu	Ducabrook Formation	CARBONIFEROUS	Feldspatholithic sandstone, mudstone, siltstone (commonly tuffaceous), minor algal and oolitic limestone
	Ch	Mount Hall Formation	CARBONIFEROUS	Quartzose to feldspathic sublabile sandstone, quartz-pebble conglomerate, mudstone and red siltstone
2	Cza	ALLUVIUM	CAINOZOIC	Alluvium, mainly clay, silt, sand and gravel
	Czb	BASALT	CAINOZOIC	Olivine basalt lava flows
	Czd	FERRICRETE	CAINOZOIC	Laterite.
	Czr	MISCELLANEOUS UNCONSOLIDATED SEDIMENTS	CAINOZOIC	Soil, alluvium, gravel, scree, 'billy', sand, duricrust.
	Czs	COLLUVIUM	CAINOZOIC	Sandstone, claystone, siltstone, conglomerate, laterite, oil shale, brown coal, sandstone breccia.
	Ki	GRANITOID	EARLY CRETACEOUS	Gabbro, leuco-diorite, quartz hornblende diorite, biotite-hornblende granodiorite, microgranite, rhyolite, trachyte
	Rr	Rewan Formation	TRIASSIC	Lithic sandstone, pebbly lithic sandstone, green to reddish brown mudstone and minor volcanolithic pebble conglomerate (at base)
	PRw	Mount Wickham Rhyolite	PERMIAN - TRIASSIC	Rhyolite, rhyolitic breccia, trachyte, dacite
	Pwj	Rangal Coal Measures, Bandanna	LATE PERMIAN	Sandstone, siltstone, mudstone, coal, tuff, conglomerate

Section	Map Symbol	Unit Name/Type	Geological Age	Lithological Summary
		Formation, Baralaba Coal Measures		
	Pwt	Fair Hill Formation, Fort Cooper Coal Measures	LATE PERMIAN	Sandstone, conglomerate, mudstone, carbonaceous shale, coal, cherty tuff
	Pwb	Moranbah Coal Measures	LATE PERMIAN	Labile sandstone, siltstone, mudstone, coal, conglomerate in the east
	Pbe	Blenheim Subgroup	LATE PERMIAN	Micaceous siltstone, pebbly in places, labile sandstone, quartzose lithic sandstone, coquinite, limestone
	Pbx	Exmoor Formation	LATE PERMIAN	Quartzose to sublabile sandstone, siltstone, mudstone, rare limestone
	Pbc	Collinsville Coal Measures	EARLY PERMIAN	Quartzose sandstone, conglomerate, siltstone, coal
	Pvz	Lizzie Creek Volcanics	PERMIAN	Basaltic to andesitic lava and volcanoclastic rocks (including breccia and arenite), rhyolitic to dacitic lava and volcanoclastic rocks (including ignimbrite); local siltstone, shale and polymictic conglomerate
	Cvb	Bulgonunna Volcanic Group	CARBONIFEROUS	Rhyolitic to dacitic ignimbrite and lava flows and domes
	Ch	Mount Hall Formation	CARBONIFEROUS	Quartzose to feldspathic sublabile sandstone, quartz-pebble conglomerate, mudstone and red and green siltstone
	Cu	Ducabrook Formation	CARBONIFEROUS	Feldspatholithic sandstone, mudstone, siltstone (commonly tuffaceous), minor algal and oolitic limestone
	Cr	Raymond Sandstone	CARBONIFEROUS	Flaggy quartzose sandstone, siltstone and minor limestone
	Cs	Star of Hope Formation	EARLY CARBONIFEROUS	Lithic conglomerate, feldspatholithic sandstone, rhyolitic to dacitic ignimbrite and flows, tuffaceous siltstone and rare sinter
	DCs	Silver Hills Volcanics	LATE DEVONIAN -	Rhyolite, dacite, rhyolitic ignimbrite,

Section	Map Symbol	Unit Name/Type	Geological Age	Lithological Summary
			EARLY CARBONIFEROUS	volcaniclastic sediments, sinter, minor sandstone and siltstone
	PLEa	Anakie Metamorphic Group	NEOPROTEROZOIC - CAMBRIAN	Siltstone, fine sandstone, phyllite, schist, commonly cleaved and multiply deformed
3 (300 km – 430 km)	Tb	BASALT	TERTIARY	Olivine basalt
	Tn	SEDIMENTARY ROCK	TERTIARY	Clayey sandstone, sandy claystone, feldspathic sandstone, conglomerate, minor siltstone, rare oil shale
	Ki	GRANITOID	CRETACEOUS	Granodiorite, diorite, rhyolite, porphyry, gabbro, microdiorite
	PKg	GRANITOID	PERMIAN - CRETACEOUS	Leucocratic granite, microgranite, adamellite; minor microadamellite, syenite, diorite, gabbro, rhyolite porphyry
	PTRr	Mount Wickham Rhyolite	PERMIAN - TRIASSIC	Rhyolite, rhyolitic breccia, trachyte, dacite
	Pb	Back Creek Group	EARLY PERMIAN - LATE PERMIAN	Quartzose to lithic sandstone, siltstone, carbonaceous shale, minor coal and sandy coquinite
	Plc	Collinsville Coal Measures	EARLY PERMIAN	Quartzose sandstone, conglomerate, siltstone, coal
	Plz	Lizzie Creek Volcanics	PERMIAN	Basaltic to andesitic lava and volcaniclastic rocks (including breccia and arenite), rhyolitic to dacitic lava and volcaniclastic rocks (including ignimbrite); local siltstone, shale and polymictic conglomerate
	CPg	GRANITOID	CARBONIFEROUS – PERMIAN	Adamellite, granodiorite, granite; minor microgranite, porphyry, quartz diorite, granophyre, microtrondhjemite
4 (430 km – 510 km)	Qa	ALLUVIUM	QUATERNARY	Alluvium, coastal mud flats, minor evaporites, colluvium, soil
	Qs	COLLUVIUM	QUATERNARY	Residual and colluvial soil, sand, gravel, rubble, some semi-consolidated material
	Qr	COLLUVIUM	QUATERNARY	Clay, silt, sand, gravel and soil; colluvial and residual deposits
	CPg	GRANITOID	CARBONIFEROUS –	Adamellite, granodiorite, granite;

Section	Map Symbol	Unit Name/Type	Geological Age	Lithological Summary
			PERMIAN	minor microgranite, porphyry, quartz diorite, granophyre, microtrondhjemite
	Cud	GRANITOID	CARBONIFEROUS	Diorite, quartz diorite, tonalite, gabbro, granodiorite; rare adamellite, norite, monzonite, granite; abundant dykes

**Comment – RC385**

*The proponent must complete the field investigations for soils (geology) as part of the initial EIS process.*

*The results of these investigations will influence the description of environmental values such as land, water and vegetation, and subsequent impacts on these environmental values.*

**Response – RC385**

HPPL is finalising preparations for a detailed geotechnical survey program, the outcomes of which will be used as part of the detailed design process.

**Comment – RC386**

*The proponent must provide legible geological maps in Appendix D which have been prepared from the most recent geological data sets and not out dated data from the mid 1960s.*

**Response – RC386**

The figures have been updated.

**Comment – RC387**

*The proponent must be required to expand section 4. 2. 5 to describe or quantify the coal resources traversed by the proposed rail corridor for all mining projects listed in Table 4-5, and to describe the economic implications of such sterilisation.*

**Response – RC387**

Volume 3, Section 4. 2. 4. 3 of the EIS has been updated as follows:

Section 3 of the Project occurs from chainage 300 km to 430 km (refer to Volume 3, Section 4, Figure 4 3) and is subdivided into three parts. The topography and geology change noticeably after 300km as the Project enters the Bowen River Catchment area.

**Chainage 300 km to 345 km**

The Project traverses undulating terrain with some sharper rises and depressions associated with creeks and drainage lines. The soils consist of cracking clays (vertisols) for most of this part of the Project until the Bowen River is intersected at 345 km.



Outcropping units of the Upper Permian-aged Blackwater Group (Puw) and the Back Creek Group (Pb), which includes the major coal measures of the Bowen Basin dominate this part of the Project area. Within the vicinity of the Project (five km buffer), the following units are found:

- Unnamed Early Cretaceous intrusive granitoid (Ki) (chainage 320 km to 340 km);
- Rewan Formation (TRr);
- Blackwater Group:
  - Moranbah Coal Measures (Pwb);
  - Fair Hill Formation and Fort Hill Coal Measures (Pwt); and
  - Rangel Coal Measures, Bandanna Formation, Baralaba Coal Measures (Pwj).
- Back Creek Group:
  - Blenheim Subgroup (Pbe); and
  - Exmoor Formation (Pbx).

Given that the Blackwater Group and the Back Creek Group outcrops in many places within the vicinity of the Project area, there are many structural features, including faults, synclines, anticlines and trend lines present including granitoid intrusions. Many of these structural features are trending approximately north-south, inline with the geological boundaries between the various units.

Based on 1:250,000 geological mapping, Section 3 appears to be the only section of the rail alignment that overlies potentially economic geological resources. Section 3 of the rail alignment (five km buffer) potentially overlies Moranbah Coal Measures (Pwb), Fort Cooper Coal Measures (Pwt), Collinsville Coal Measures (Pbc) and the Rangel Coal Measures/Baralaba Coal Measures (Pwj). However, the rail alignment was positioned along this proposed route in order to utilise land already cleared for existing rail infrastructure, consequently minimising any loss of resource within this region.

#### **Comment – RC388**

*The proponent must make an assessment based on the “Local Industry Policy – A Fair Go for Local Industry” (Queensland Government, 2008), which is a current requirement of DERM’s generic Terms of Reference.*

#### **Response – RC388**

This is not a requirement of the Project’s TOR.

#### **Comment – RC389**

*The proponent must provide advice in the EIS which confirms that alignment of the corridor will avoid all mining leases and significant coal resources particularly those identified in the Moranbah Coal Measures and mined extensively in the northern Bowen Basin.*

#### **Response – RC389**

Section 3 of the rail alignment occurs from 300km to 430km (refer to Volume 3, Section 4, Figure 4-3 of the EIS) and is subdivided into three parts. The topography and geology change noticeably after 300 km as the Project enters the Bowen River Catchment area.

Chainage 300 km to 345 km

The Alpha Coal (Rail) traverses undulating terrain with some sharper rises and depressions associated with creeks and drainage lines. The soils consist of cracking clays (vertisols) for most of this part of the Alpha Coal (Rail) until the Bowen River is intersected at 345 km.

Outcropping units of the Upper Permian-aged Blackwater Group (Puw) and the Back Creek Group (Pb), which includes the major coal measures of the Bowen Basin dominate this part of the Project area. Within the vicinity of the Alpha Coal (Rail) (five km buffer), the following units are found:

- Unnamed Early Cretaceous intrusive granitoid (Ki) (320km to 340km);
- Rewan Formation (TRr);
- Blackwater Group:
  - Moranbah Coal Measures (Pwb);
  - Fair Hill Formation and Fort Hill Coal Measures (Pwt); and
  - Rangal Coal Measures, Bandanna Formation, Baralaba Coal Measures (Pwj).
- Back Creek Group:
  - Blenheim Subgroup (Pbe); and
  - Exmoor Formation (Pbx).

Given that the Blackwater Group and the Back Creek Group outcrops in many places within the vicinity of the Project area, there are many structural features, including faults, synclines, anticlines and trend lines present including granitoid intrusions. Many of these structural features are trending approximately north-south, inline with the geological boundaries between the various units.

Based on 1:250,000 geological mapping, Section 3 appears to be the only section of the rail alignment that overlies potentially economic geological resources. Section 3 of the rail alignment (five km buffer) potentially overlies Moranbah Coal Measures (Pwb), Fort Cooper Coal Measures (Pwt), Collinsville Coal Measures (Pbc) and the Rangal Coal Measures/Baralaba Coal Measures (Pwj). However, the rail alignment was positioned along this proposed route in order to utilise land already cleared for existing rail infrastructure, consequently minimising any loss of resource within this region.

Every effort has been made to position the Project rail alignment so as not to adversely impact upon mining interests with the potential to contain a mineral deposit yet to be extracted. The support and approval of this new infrastructure corridor would not in itself preclude a lessee's ability to efficiently access an adjoining resource.

In addition, QCoal, who is a key stakeholder regarding this issue has been consulted extensively by Hancock in relation to sterilisation. This comment has been addressed in more detail within Volume 2, Appendix AH of the SEIS.

#### **Comment – RC390**

*Following on from “avoidance of MLAs and MDLs” in the EIS, the proponent should be asked to remove the statement “except where it is clear that the net sterilisation was likely (?) than through the through the exploration areas.”*

#### **Response – RC390**

Every effort has been made to position the Project rail alignment so as not to adversely impact upon mining interests with the potential to contain a mineral deposit yet to be extracted. The support and

approval of this new infrastructure corridor would not in itself preclude a lessee's ability to efficiently access an adjoining resource.

In addition, QCoal, who is a key stakeholder regarding this issue has been consulted extensively by Hancock in relation to sterilisation. This comment has been addressed in more detail within Volume 2, Appendix AH of the SEIS.

## **Comment – RC391**

*Further sterilisation of coal resources must be avoided by re-routing the railway alignment west of the Suttor River, thus avoiding the Moranbah Coal Measures which are the most productive and prospective coal bearing formations in the Northern Bowen Basin. HPPL should avoid all MDLs and MLAs as stated previously in the EIS.*

## **Response – RC391**

Refer to RC410.

## **Comment – RC392**

*The proponent must prepare the Construction EMP for inclusion in the EIS documentation.*

## **Response – RC392**

The Project CEMP including methodologies, responsibilities and program are still being developed. This will be provided at a later stage in the Project and will form part of the required approvals.

## **Comment – RC393**

*The proponent must conduct a detailed assessment of soils and landforms along the railway corridor as part of the EIS process.*

*The assessment must adopt the methodologies outlined in the “The Australian Soil and Land Survey Field Handbook” (Third Edition) published by the CSIRO (2009).*

## **Response – RC393**

Soil surveys were required for the Project as outlined in the ToR for the EIS, in particular *Section 3.2.2.1 Description of Environmental Values*. However due to some site access arrangements, environmental permit considerations and weather constraints, only a desktop assessment has been undertaken to assess soils within the Project corridor. The Proponent has developed a detailed Soils Survey Program methodology which is contained within Volume 2, Appendix AL of this SEIS. This includes the following:

- Review of desktop information of the soils and landscapes of the alignment. This includes existing DERM and CSIRO reports soil survey, land resource, and field manuals; spatial information from DERM's Soil and Land Information (SALI) database and Combined Soils database; mapping of topography, geology, good quality agricultural land, strategic cropping land; acid sulphate soils; regional ecosystems etc.
- Development of preliminary unique mapping areas (UMAs) for field investigation and description. These UMA's represent areas of land where one or more land soil types are predicted based upon

the desktop study. Each one of these UMA's will be described during the filed study and the boundaries validated and revised.

This Program is being submitted to DERM as part of this SEIS.

#### 5.23.4 Soils, Topography and Land Disturbance

##### Comment – RC394

*Rail Route Geological Assessment - the geological and soils assessment is based on desk-top studies without any field validation. This restricts assessment of impacts on coal resources. The lack of site specific assessment of soil properties associated with erosion and subsequent impacts on water quality and aquatic ecosystems fails to address the requirements of the terms of reference.*

##### Response – RC394

Additional site specific field investigations will be undertaken prior to construction, particularly focusing on the 19 creek crossings identified along the rail route. In order to identify potential impacts on water quality, aquatic and terrestrial ecosystems. These investigations will involve assessment of local geology, soil properties, water quality, flora and fauna.

##### Comment – RC395

*The physio-chemical properties of soils in Table 5-1 have not been validated by field surveys along the proposed rail corridor.*

##### Response – RC396

These values were baseline only. Soil surveys were required for the Project as outlined in the ToR for the EIS, in particular *Section 3.2.2.1 Description of Environmental Values*. However due to some site access arrangements, environmental permit considerations and weather constraints, only a desktop assessment has been undertaken to assess soils within the Project corridor. The Proponent has developed a detailed Soils Survey Program methodology contained within Volume 2, Appendix AL of this SEIS. This includes the following:

- Review of desktop information of the soils and landscapes of the alignment. This includes existing DERM and CSIRO reports soil survey, land resource, and field manuals; spatial information from DERM's Soil and Land Information (SALI) database and Combined Soils database; mapping of topography, geology, good quality agricultural land, strategic cropping land; acid sulphate soils; regional ecosystems etc.
- Development of preliminary unique mapping areas (UMAs) for field investigation and description. These UMA's represent areas of land where one or more land soil types are predicted based upon the desktop study. Each one of these UMA's will be described during the filed study and the boundaries validated and revised.

This Soils Survey Program is being submitted to DERM as part of this SEIS.

##### Comment – RC396

*The proponent must conduct a site-specific detailed assessment of soils and landforms along the railway corridor as part of the EIS process.*

##### Response – RC396

These values were baseline only. Soil surveys were required for the Project as outlined in the Terms of Reference (ToR) for the Environmental Impact Statement (EIS), in particular *Section 3.2.2.1 Description of Environmental Values*. However due to some site access arrangements, environmental permit considerations and weather constraints, only a desktop assessment has been undertaken to assess soils within the Project corridor. The Proponent has developed a detailed Soils Survey Program methodology contained within Volume 2, Appendix AL of this SEIS. It includes the following:

- Review of desktop information of the soils and landscapes of the alignment. This includes existing DERM and CSIRO reports soil survey, land resource, and field manuals; spatial information from DERM's Soil and Land Information (SALI) database and Combined Soils database; mapping of topography, geology, good quality agricultural land, strategic cropping land; acid sulphate soils; regional ecosystems etc.
- Development of preliminary unique mapping areas (UMAs) for field investigation and description. These UMA's represent areas of land where one or more land soil types are predicted based upon the desktop study. Each one of these UMA's will be described during the filed study and the boundaries validated and revised.

The Soils Survey Program is being submitted to DERM as part of this SEIS.

#### **Comment – RC397**

*The sodicity of soils and resulting slaking and dispersion characteristics can only be validated by a detailed assessment of soils along the railway corridor as part of the EIS process.*

#### **Response – RC397**

Soil surveys were required for the Project as outlined in the ToR for the EIS, in particular *Section 3.2.2.1 Description of Environmental Values*. However due to some site access arrangements, environmental permit considerations and weather constraints, only a desktop assessment has been undertaken to assess soils within the Project corridor. The Proponent has developed a detailed Soils Survey Program methodology contained within Volume 2, Appendix AL of this SEIS. It includes the following:

- Review of desktop information of the soils and landscapes of the alignment. This includes existing DERM and CSIRO reports soil survey, land resource, and field manuals; spatial information from DERM's Soil and Land Information (SALI) database and Combined Soils database; mapping of topography, geology, good quality agricultural land, strategic cropping land; acid sulphate soils; regional ecosystems etc.
- Development of preliminary unique mapping areas (UMAs) for field investigation and description. These UMA's represent areas of land where one or more land soil types are predicted based upon the desktop study. Each one of these UMA's will be described during the filed study and the boundaries validated and revised.

The Soils Survey Program is being submitted to DERM as part of this SEIS.

A soil survey will be conducted during the detailed design phase in order to assess soil in regards to erosion potential and will be required for the Detailed ESC Plan.

#### **Comment – RC398**

*The proponent must describe any strategic cropping lands along the proposed railway corridor.*



**Response – RC398**

DERM have advised the requirements of the the State Planning Policy (SPP) for Protecting Queensland's Strategic Cropping Lands (2010) are not applicable to TOR, EIS and EM Plan documents for current proposals at this stage .

**Comment – RC399**

*Erosion and Sediment Control Plan to be part of the EIS documentation.*

**Response – RC399**

Erosion and Sedimentation will be addressed firstly in the Concept Erosion and Sediment Control Plan (required as part of the Material Change of Use, Approvals Process), and then in the Detailed Erosion and Sediment Control Plan (developed in conjunction with detailed design, and submitted with applications for Operational Works Permit). Sediment loads were not calculated as part of the EIS as this will be done during the erosion and sediment control planning during the detailed design phase. Details on cut depths, disturbance areas, construction footprint, final alignment will be required to accurately measure sediment loss, and provide appropriate mitigation measures. To assist this process an erosion and sediment control management framework has been developed and included within Volume 2, Appendix AD of the SEIS.

**Comment – RC400**

*The proponent must undertake site-specific geotechnical investigations to assess the characteristics of waste rock, soils and fill materials as part of the EIS.*

**Response – RC400**

HPPL is finalising preparations for a detailed geotechnical survey program, the outcomes of which will be used as part of the detailed design process.

**Comment – RC401**

*The proponent must undertake site-specific geotechnical investigations to assess the characteristics of waste rock, soils and fill materials as part of the EIS. The investigation must include appropriate mitigation and management practices for deleterious waste rock materials if identified by field surveys.*

**Response – RC401**

HPPL is finalising preparations for a detailed geotechnical survey program, the outcomes of which will be used as part of the detailed design process.

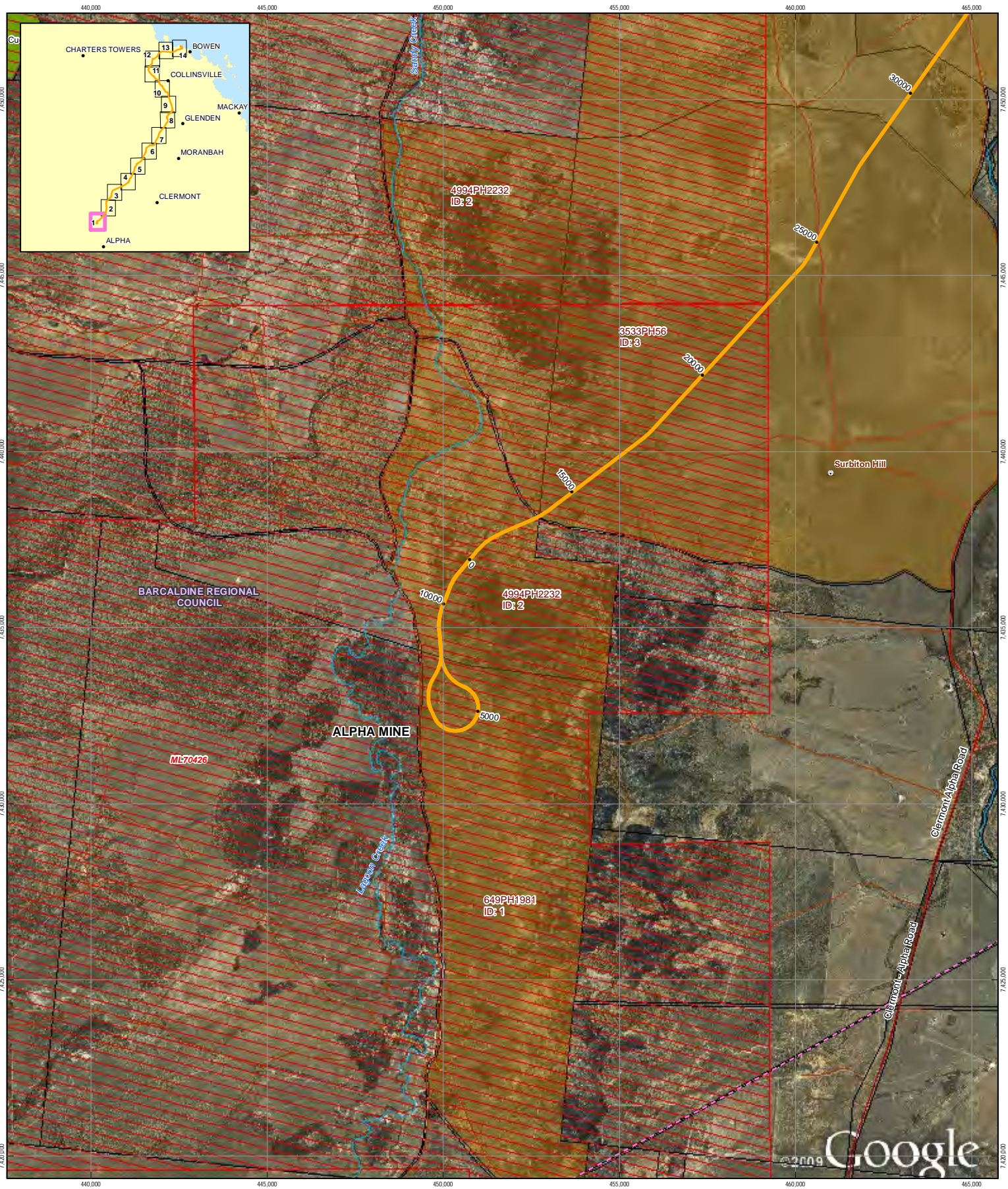
**5.23.5 Land use and Tenure****Comment – RC402**

*The proponent must describe all mining activities and mining tenures along the proposed railway corridor in this section of the EIS (existing environment).*

**Response – RC402**

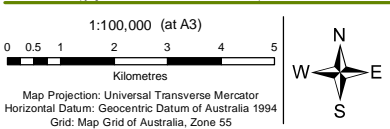
All mining activities are demonstrated in updated in Figure 5-2 below.





<b>LEGEND</b> <ul style="list-style-type: none"> <li>Town</li> <li>Mountain</li> <li>Camp</li> <li>Marshalling Yards</li> <li>Depot</li> </ul>	<ul style="list-style-type: none"> <li>Proposed Alignment</li> <li>State Road</li> <li>Local Road</li> <li>Existing Railway</li> <li>Watercourse</li> </ul>	<ul style="list-style-type: none"> <li>Powerline</li> <li>Gas Pipeline</li> <li>Water Pipeline</li> <li>Nature Refuge</li> <li>Reserve</li> <li>Great Barrier Reef Marine Park</li> </ul>	<ul style="list-style-type: none"> <li>Local Government Area</li> <li>Cadastral</li> <li>Waterbody</li> <li>Tenure</li> <li>Freehold</li> <li>Lands Lease</li> <li>Easement</li> </ul>	<ul style="list-style-type: none"> <li>Mining Lease</li> <li>Application</li> <li>Granted</li> </ul>	<p>While every care is taken to ensure the accuracy of this product, the Department of Environment and Resource Management (DERM) makes no representations or warranties about accuracy, reliability, completeness or suitability for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damages) and costs which you might incur as a result of the product being inaccurate or incomplete in any way and for any reason. © The State of Queensland. Department of Environment and Resource Management (DERM) 2009.</p>
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Alpha Coal Project

Supplementary Environmental Impact Statement

## LAND USE AND TENURE

Job Number 41-23742  
Revision B  
Date 11-04-2011

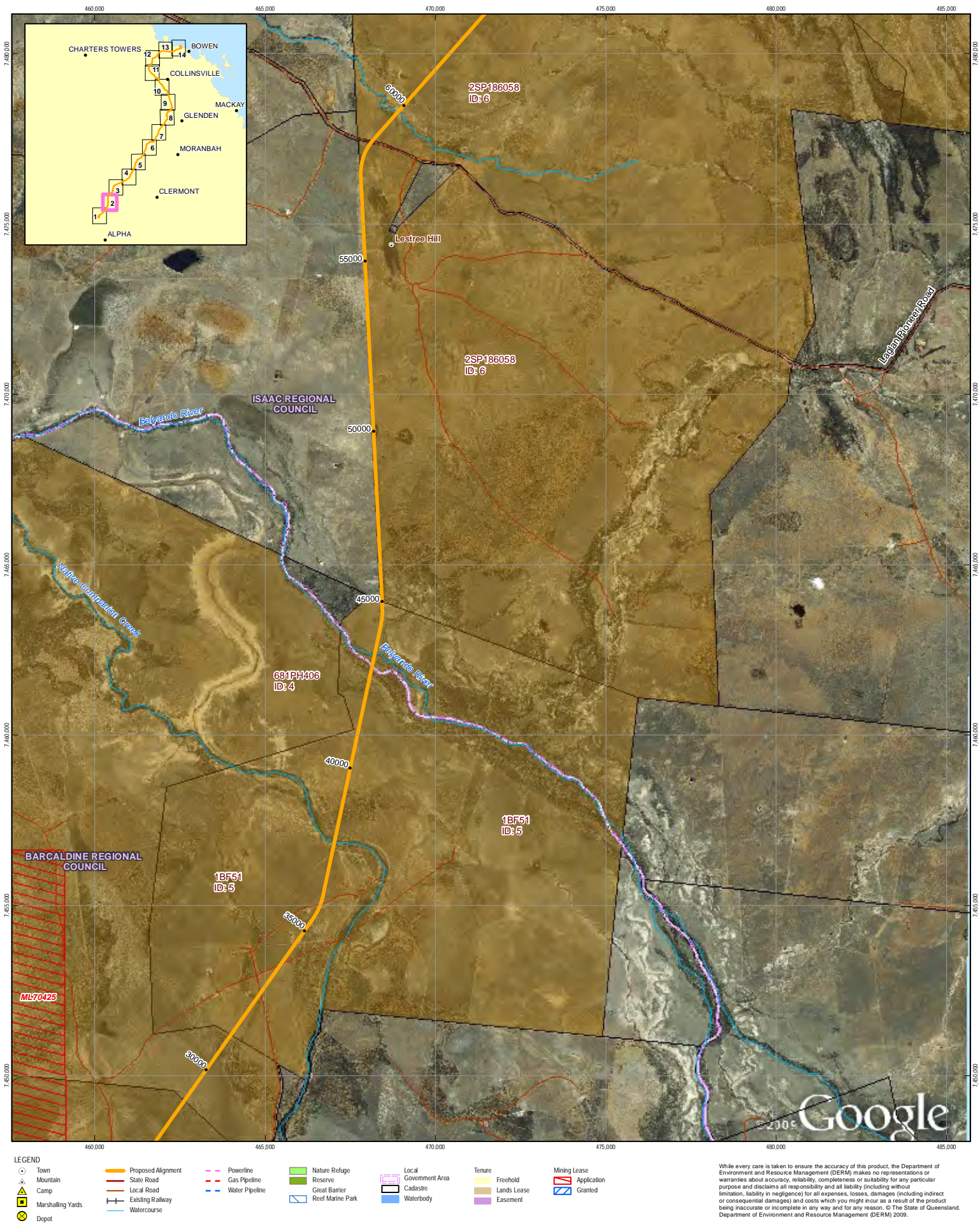
Figure: 5-2  
Sheet 1 of 14

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0 0.5 1 2 3 4 5

Kilometres

Map Projection: Universal Transverse Mercator

Horizontal Datum: Geocentric Datum of Australia 1994

Grid: Map Grid of Australia, Zone 55



**HANCOCK PROSPECTING PTY LTD**

Alpha Coal Project

Supplementary Environmental Impact Statement

## LAND USE AND TENURE

Job Number 41-23742

Revision B

Date 11-04-2011

**Figure: 5-2**

**Sheet 2 of 14**

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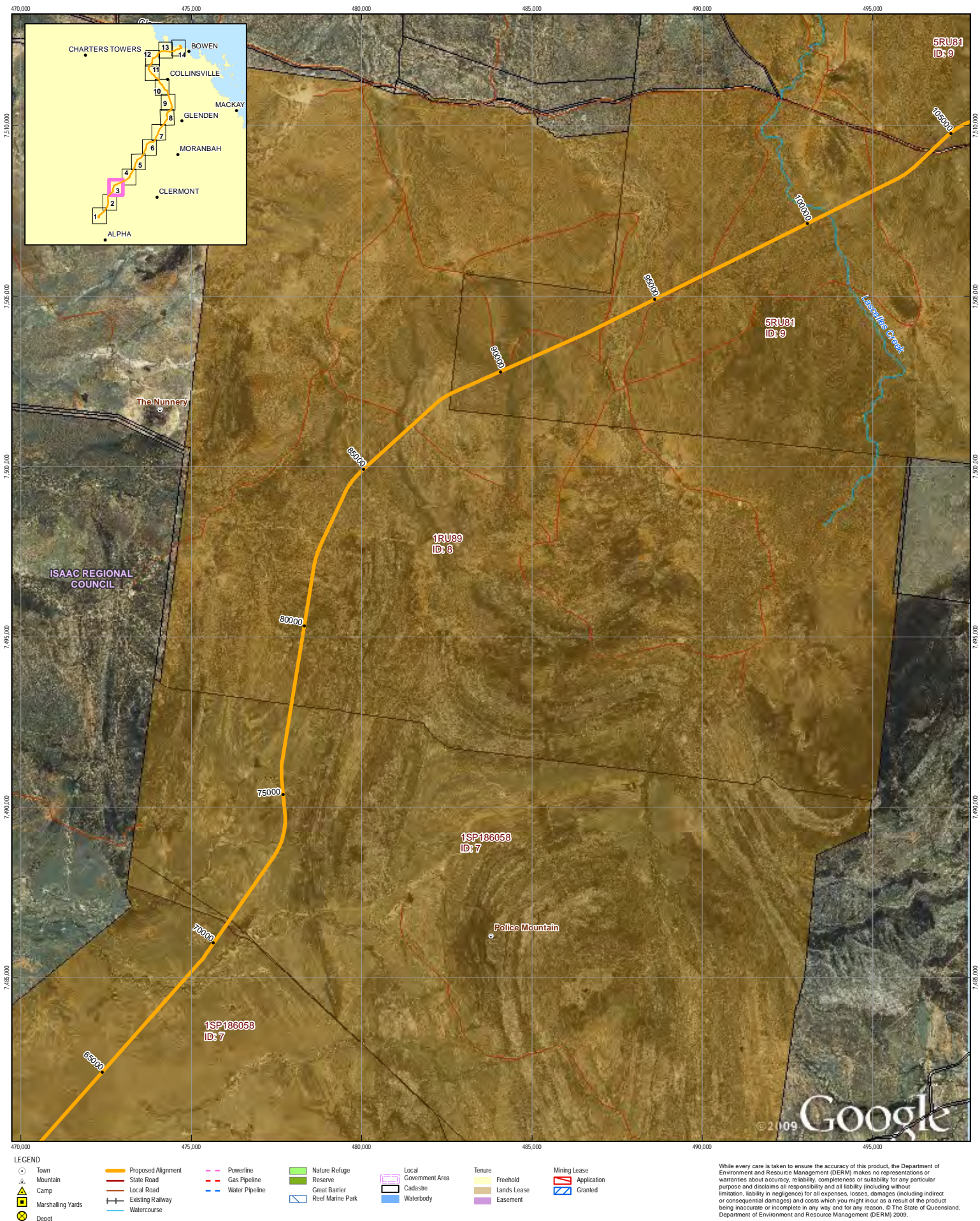
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1:100,000 (at A3)

0 0.5 1 2 3 4 5

Kilometres

Map Projection: Universal Transverse Mercator  
Horizontal Datum: Geocentric Datum of Australia 1994  
Grid: Map Grid of Australia, Zone 55



**HANCOCK PROSPECTING PTY LTD**

Alpha Coal Project  
Supplementary Environmental Impact Statement

## LAND USE AND TENURE

Job Number 41-23742  
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**Figure: 5-2**  
**Sheet 3 of 14**

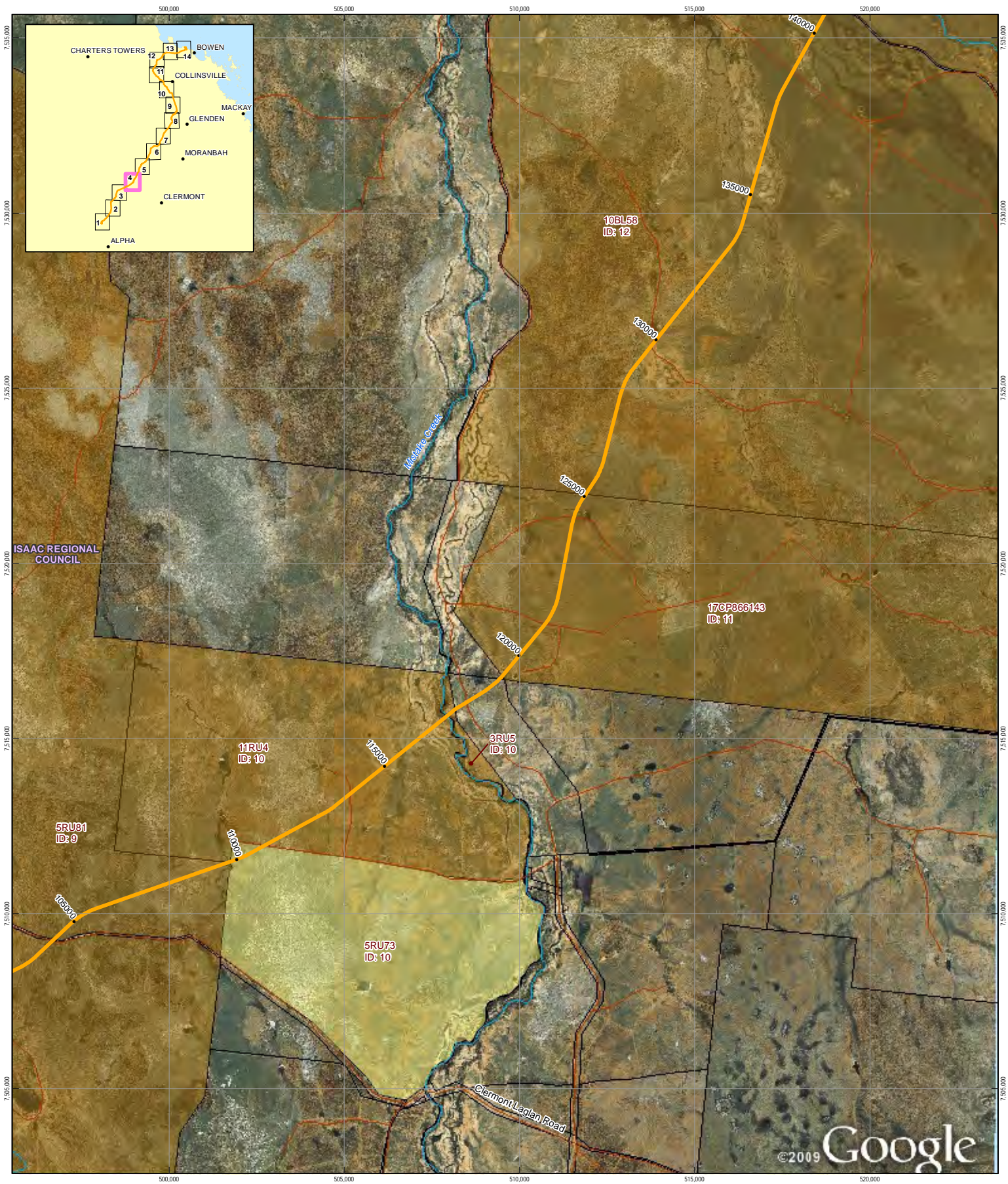
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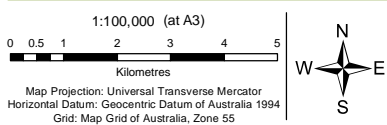




LEGEND					

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Job Number 41-23742  
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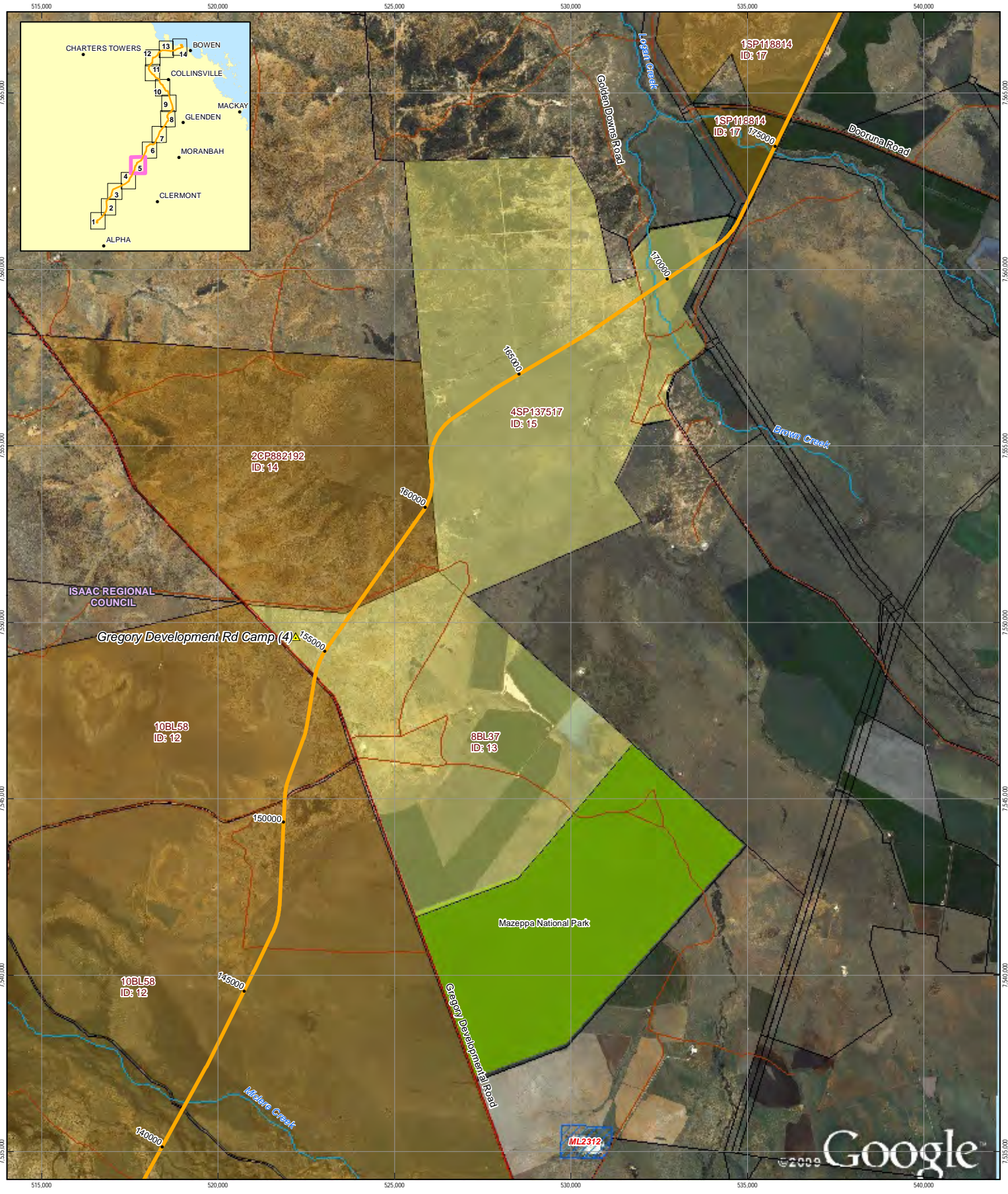
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**LEGEND**

Town	Proposed Alignment	Powerline	Nature Refuge	Local Government Area	Tenure	Mining Lease
Mountain	State Road	Gas Pipeline	Reserve	Cadastral	Freehold	Application
Camp	Local Road	Water Pipeline	Great Barrier Reef Marine Park	Waterbody	Lands Lease	Granted
Marshalling Yards	Existing Railway				Easement	
Depot	Watercourse					

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Kilometres

Map Projection: Universal Transverse Mercator  
Horizontal Datum: Geocentric Datum of Australia 1994  
Grid: Map Grid of Australia, Zone 55

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**Figure: 5-2**  
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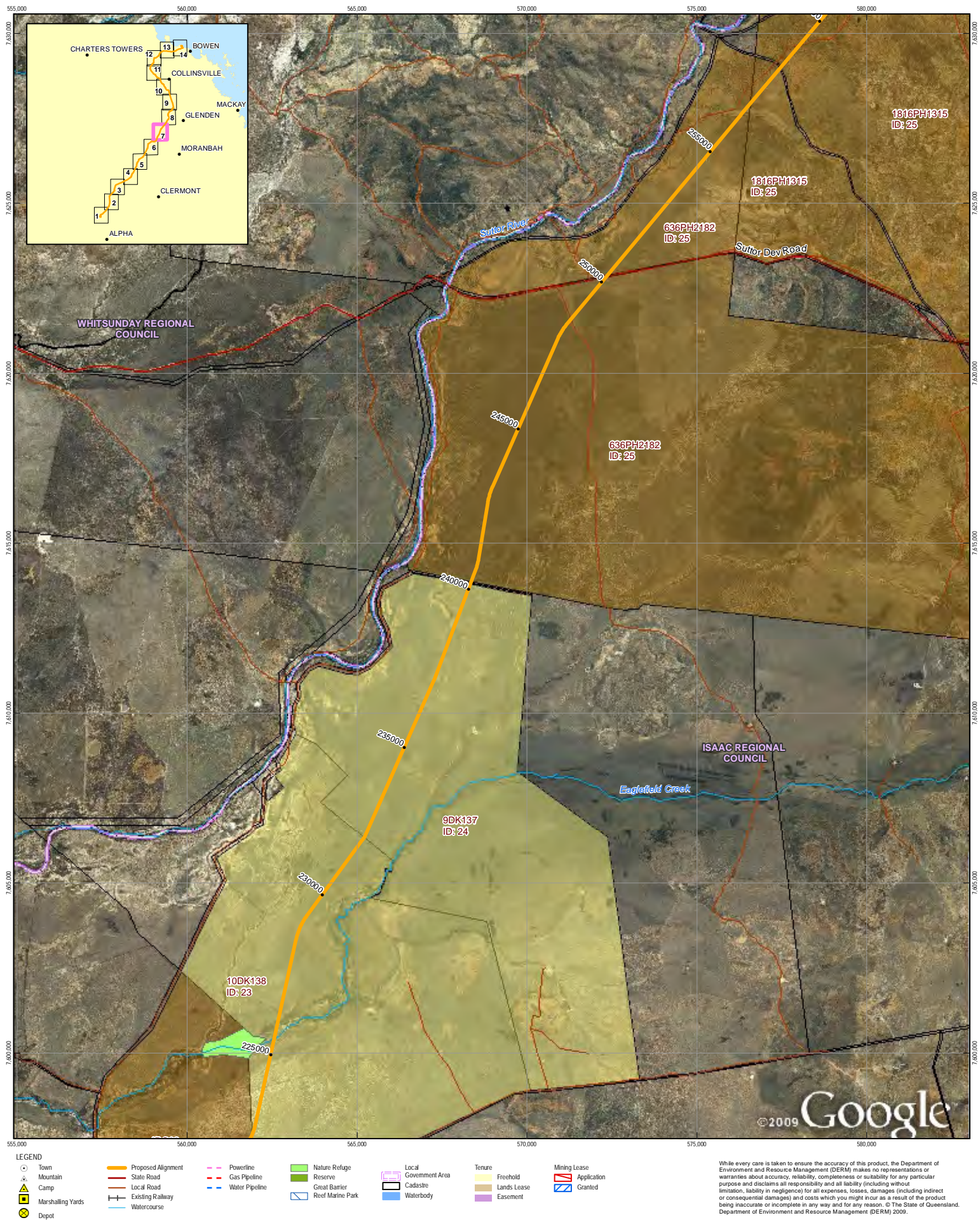












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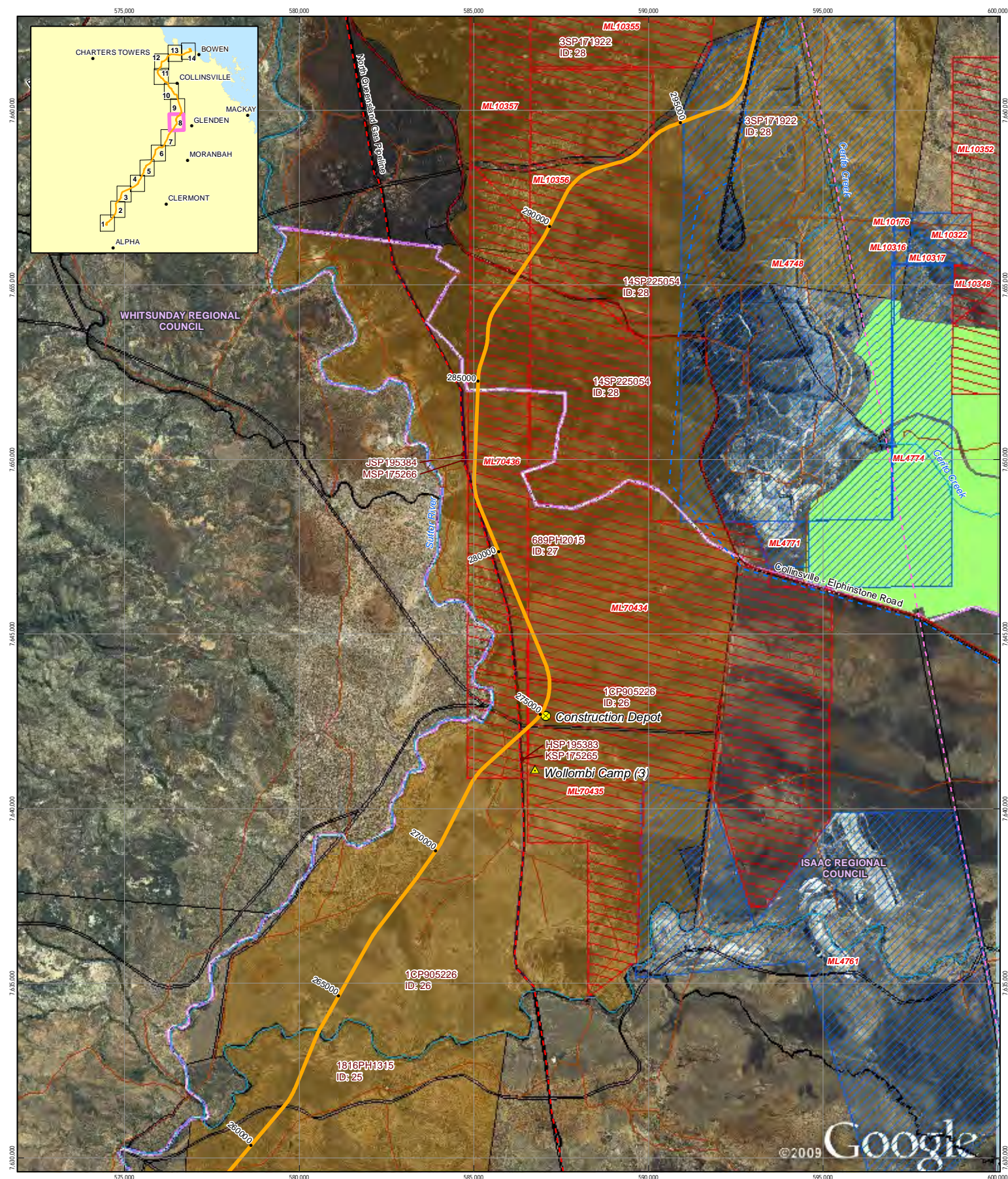
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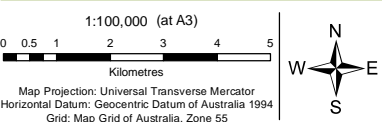






- LEGEND**
- |                     |                      |                  |                    |                         |               |
|---------------------|----------------------|------------------|--------------------|-------------------------|---------------|
| ○ Town              | — Proposed Alignment | — Powerline      | ■ Nature Refuge    | □ Local Government Area | ■ Tenure      |
| ▲ Mountain          | — State Road         | — Gas Pipeline   | ■ Reserve          | □ Cadastre              | ■ Freehold    |
| ▲ Camp              | — Local Road         | — Water Pipeline | ■ Great Barrier    | □ Waterbody             | ■ Lands Lease |
| ■ Marshalling Yards | — Existing Railway   |                  | ■ Reef Marine Park |                         | ■ Easement    |
| ● Depot             | — Watercourse        |                  |                    |                         |               |

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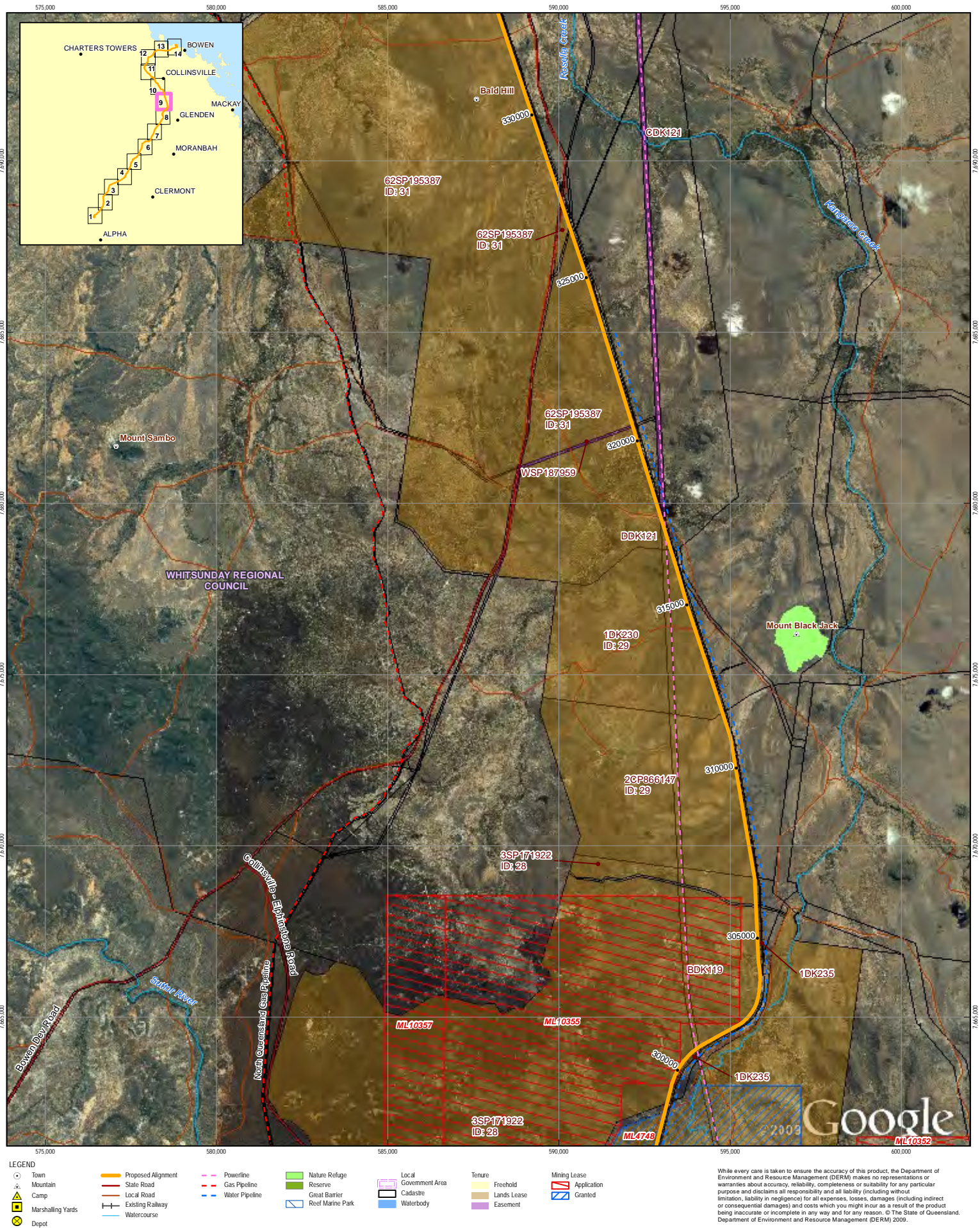
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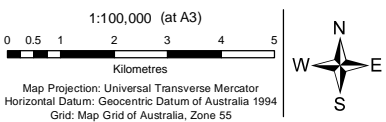








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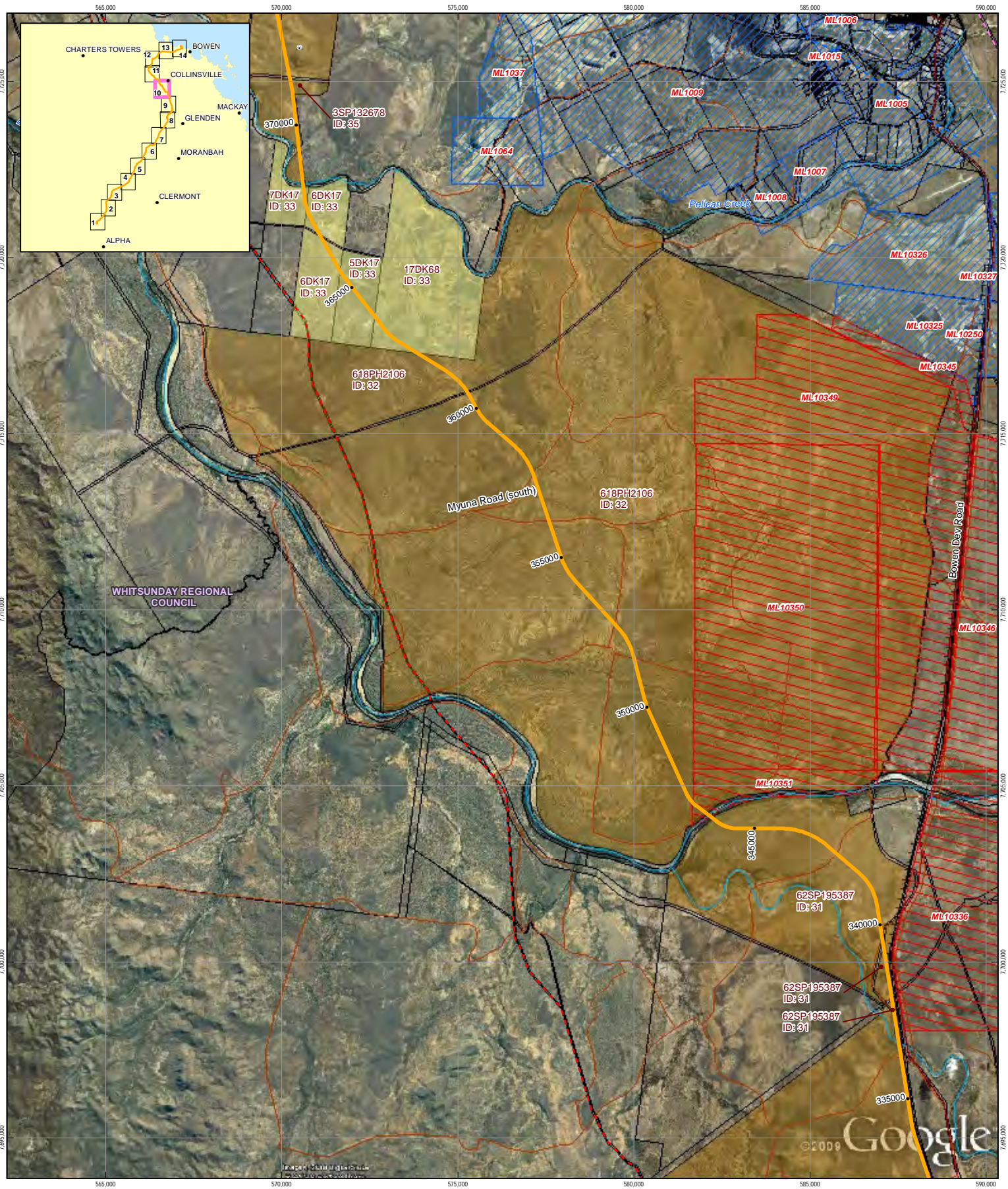
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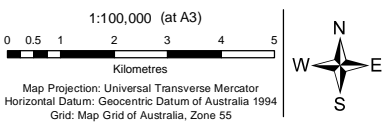








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**Figure: 5-2**  
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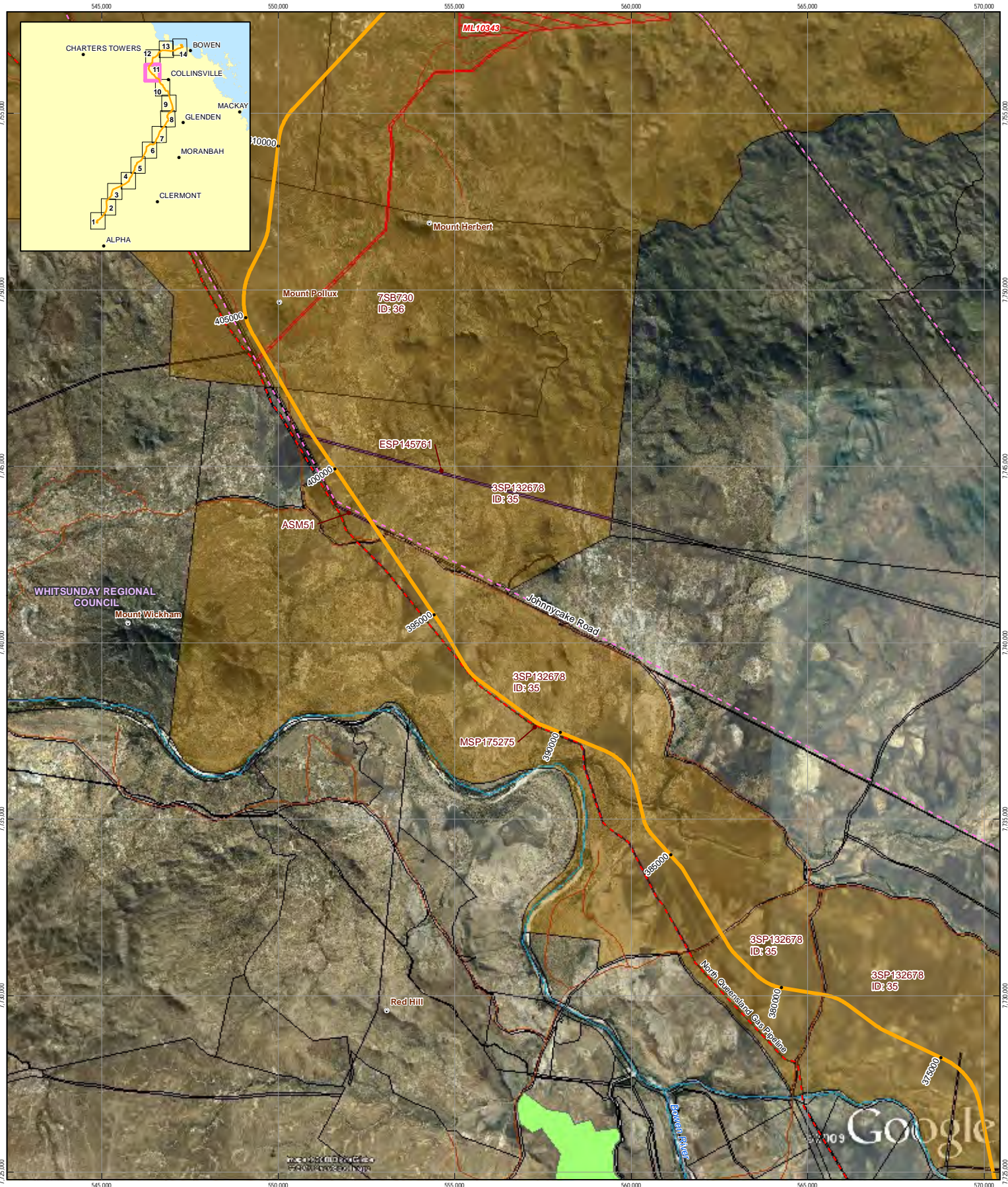
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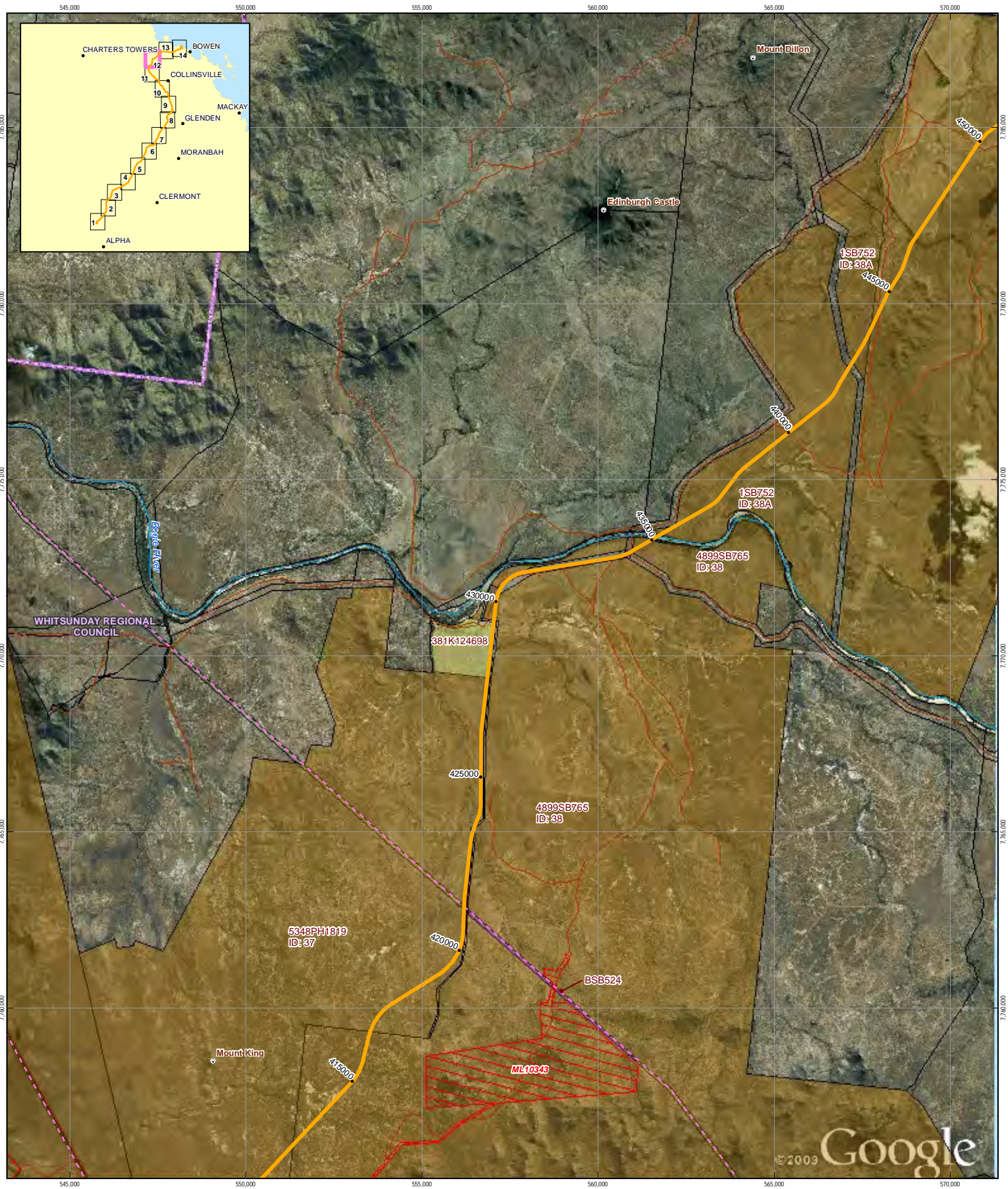
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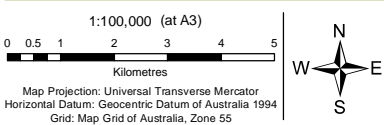




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Figure: 5-2  
Sheet 12 of 14

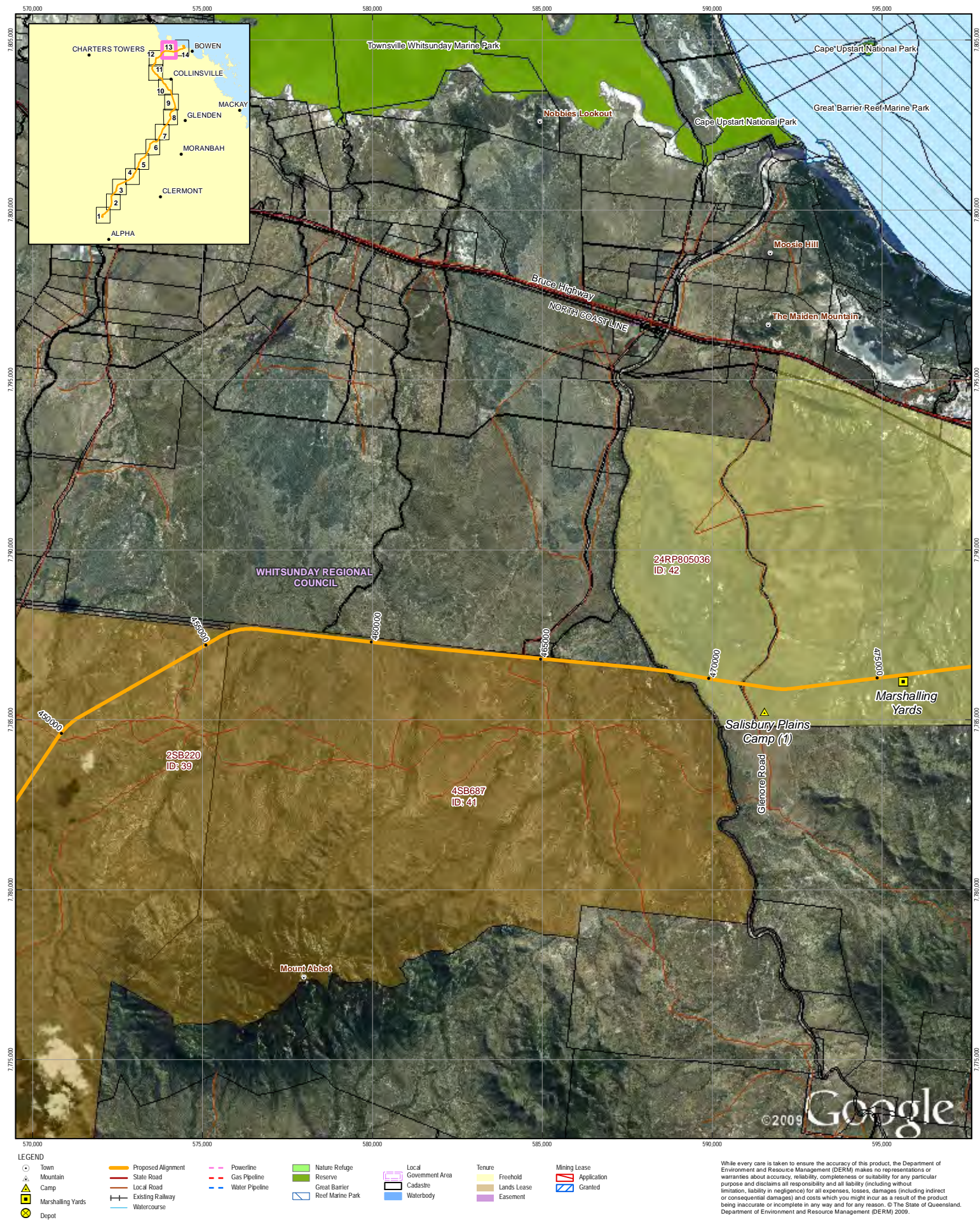
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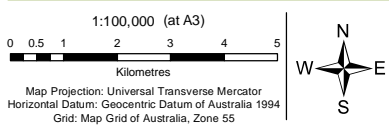








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Alpha Coal Project  
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**Figure: 5-2**  
**Sheet 13 of 14**

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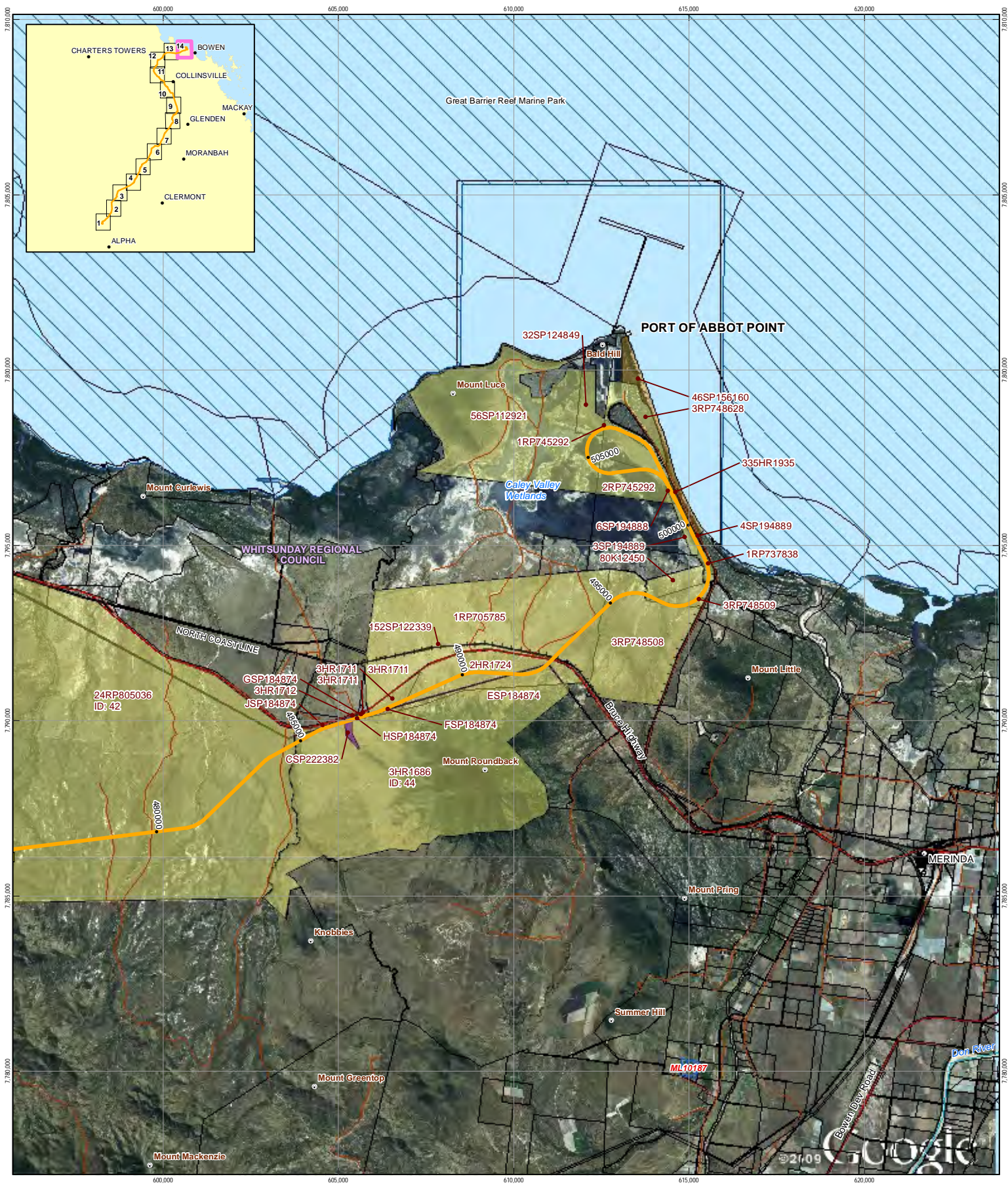
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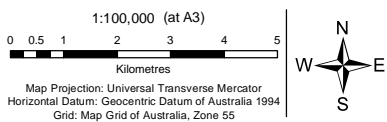








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**Comment – RC403**

*Section 6. 2. 1 should be amended to include reference to the Suttor and Wollombi open-cut coal mine of Xstrata Coal or the Byerwen mining leases of Byerwen Coal.*

**Response – RC403**

Volume 3, Section 6. 2. 1 of the EIS has been amended as follows:

From a regional perspective, the majority of the Project lies within the Whitsunday Hinterland and Mackay (WHAM) region, with a small area lying within the Central West (CW) Region at the Alpha Township. These regions are dominated by agricultural land use, primarily agricultural and horticultural industries. The beef cattle industry is one of the largest industries, with prime livestock producing areas lying within the Belyando, Broomsound and Bowen Shires which are part of the overall Whitsunday Hinterland and Mackay Region (WHAM Regional Plan, 2006). Beef cattle production is also the core of the regional economy in the Central West Region (CW Regional Plan 2009). Agriculture and horticulture are the key operations along the coastal plain of the region, while sugarcane processing, dry land farming of grains and sunflowers dominates the Bowen Shire (WHAM Regional Plan, 2006).

The Project corridor will cross the Barcaldine, Isaac and Whitsunday Regional Councils, as follows:

- Alpha Coal Mine (chainage 0) to chainage 45 km along the alignment lies within the BRC;
- chainage 45 km to approximately chainage 282. 5 km of the alignment lies within the IRC area;
- chainage 282. 5 km to approximately chainage 490 km of the alignment lies within the Whitsunday Regional Council; and
- chainage 490 km to the Abbot Point load out loop lies within the APSDA.

With the Galilee and Bowen Basins being located within these regions, the general landscape is dominated by existing and proposed extractive industries. Key extractive industries surrounding the Project include but are not limited to the following:

- established mines in the Bowen Basin:
  - Sonoma coal mine;
  - Collinsville thermal coal mine;
  - Suttor and Wollombi open-cut coal mine;
  - Newlands thermal coal mine; and
  - several other mines located in the surrounds of Moranbah, Clermont and Coppabella within the Bowen Basin including the Byerwen mining Project.
- proposed coal mines in the Galilee Basin and Bowen Basin:
  - Kevin's Corner north of Alpha Township;
  - Alpha Coal Mine that is immediately adjacent to chainage 0 to 500m of the alignment and will be serviced by the Project;
  - China First north of Alpha Township; and
  - Drake coal mine south east of Collinsville and in close proximity to the Project.

HPPL has avoided existing and proposed mines and known coal resources as far as possible, working in consultation with stakeholders. For further information regarding mining tenements refer to Volume 3, Section 4. 2. 6 of the EIS.

Small mining townships are located in surrounds of the Project, consisting of residential, commercial and rural land uses. Key towns include Alpha, Clermont, Emerald, Collinsville, Glenden, Merinda, Bowen and others.

The northern section of the Project area, beginning from chainage 490 km to the railway loop lies within the APSDA. Land in the APSDA is predominantly used for rural (grazing) use. The Project will be located within all four land use precincts designated under the Development Scheme for the APSDA

The northern section of the Project area, beginning from chainage 490 km to the railway loop lies within the APSDA. Land in the SDA is currently predominantly used for rural (grazing) use, however the APSDA development scheme identifies future land use as heavy industrial and related transportation activities. Land use has been identified as 'special use' at the Port of Abbot Point area.

Agricultural land use suitability is discussed further in Volume 3, Section 5. 2. 2 of this EIS. Further information on economic attributes of the Project area is provided in Volume 3, Section 22. 2 of this EIS.

**Comment – RC404**

*Figure 6-1, Sheet 8 should be amended to include the mining leases for the Byerwen Coal Project.*

**Response – RC404**

Refer to RC437 for the amended Volume 3, Section 6, Figure 5-1.

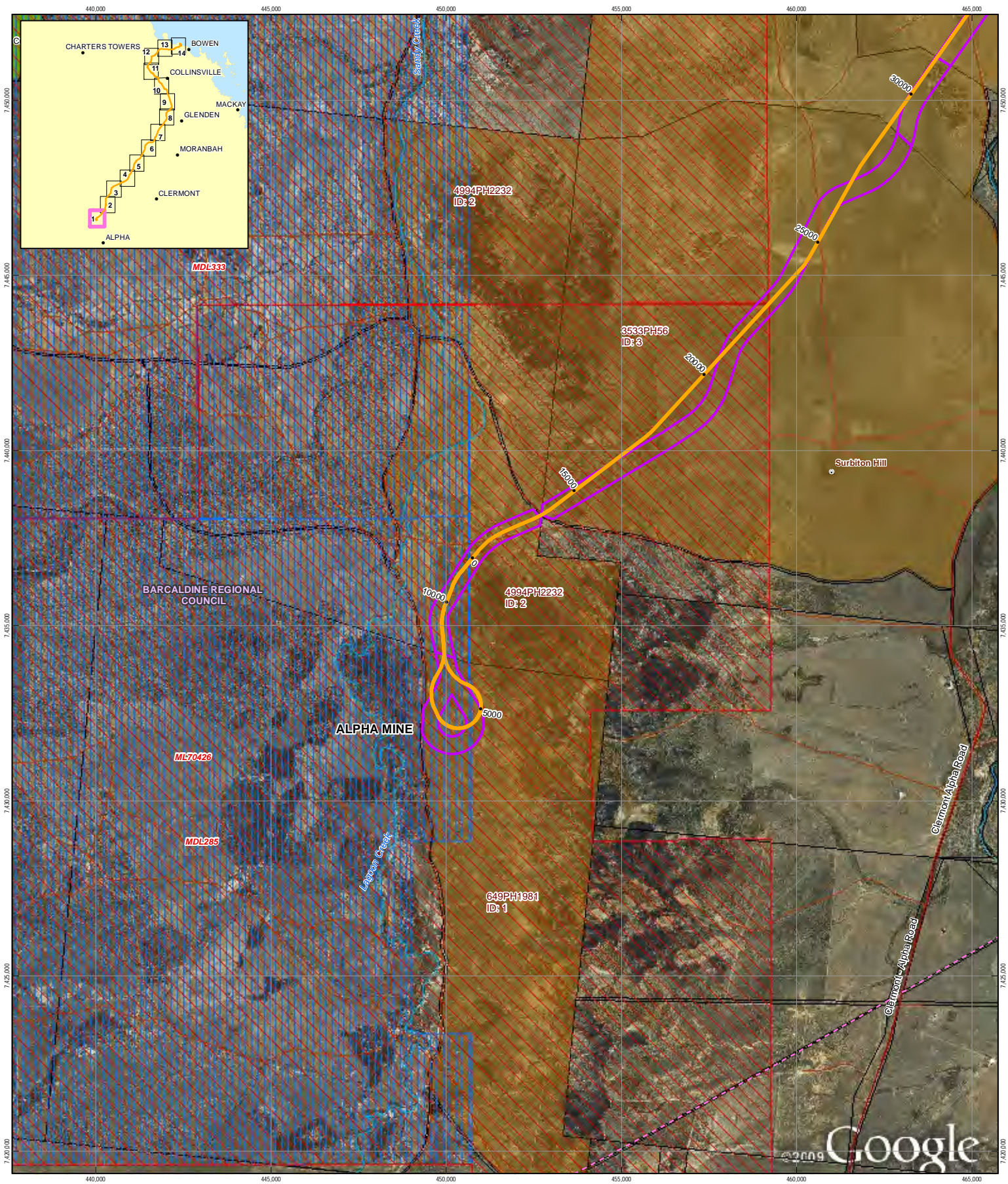
**Comment – RC405**

*The proponent has not delineated applications for MDL443 and MLs 10355, 10356, 10357, 70434, 70435 and 70436 on Sheets 8 and 9 of Figure 6. 2.*

**Response – RC405**

Refer to amended Figure 5-3 below.



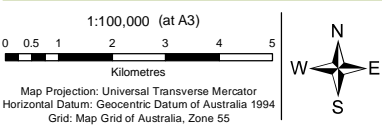


#### LEGEND

Town	Proposed Alignment	Powerline	Nature Refuge	Local Government Area	Tenure	Mining Lease	Mineral Development License
Camp	State Road	Gas Pipeline	Reserve	Cadastral	Freehold	Application	Application
Marshalling Yards	Local Road	Water Pipeline	Great Barrier Reef Marine Park	IFS Corridor	Lands Lease	Granted	Granted
Depot	Existing Railway	Watercourse	Waterbody	Easement	Easement		
Mountain							

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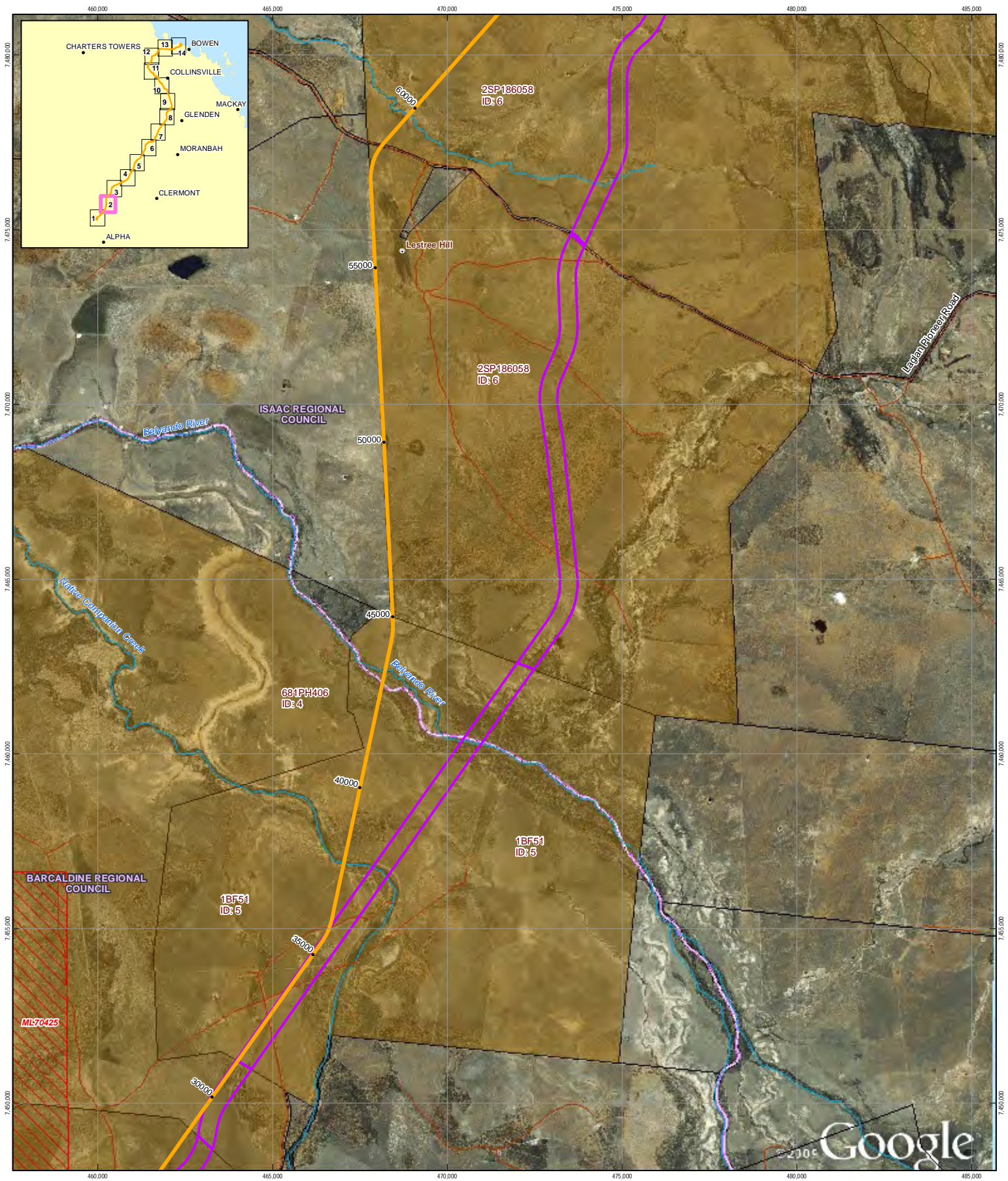
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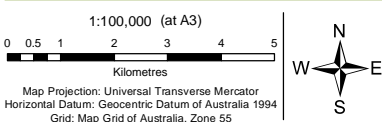


#### LEGEND

Town	Proposed Alignment	Powderline	Nature Refuge	Local Government Area	Tenure	Mining Lease	Mineral Development License
Camp	State Road	Gas Pipeline	Reserve	Cadastral	Freehold	Application	Application
Marshalling Yards	Local Road	Water Pipeline	Great Barrier Reef Marine Park	IFS Corridor	Lands Lease	Granted	Granted
Depot	Existing Railway	Watercourse	Waterbody	Easement			
Mountain							

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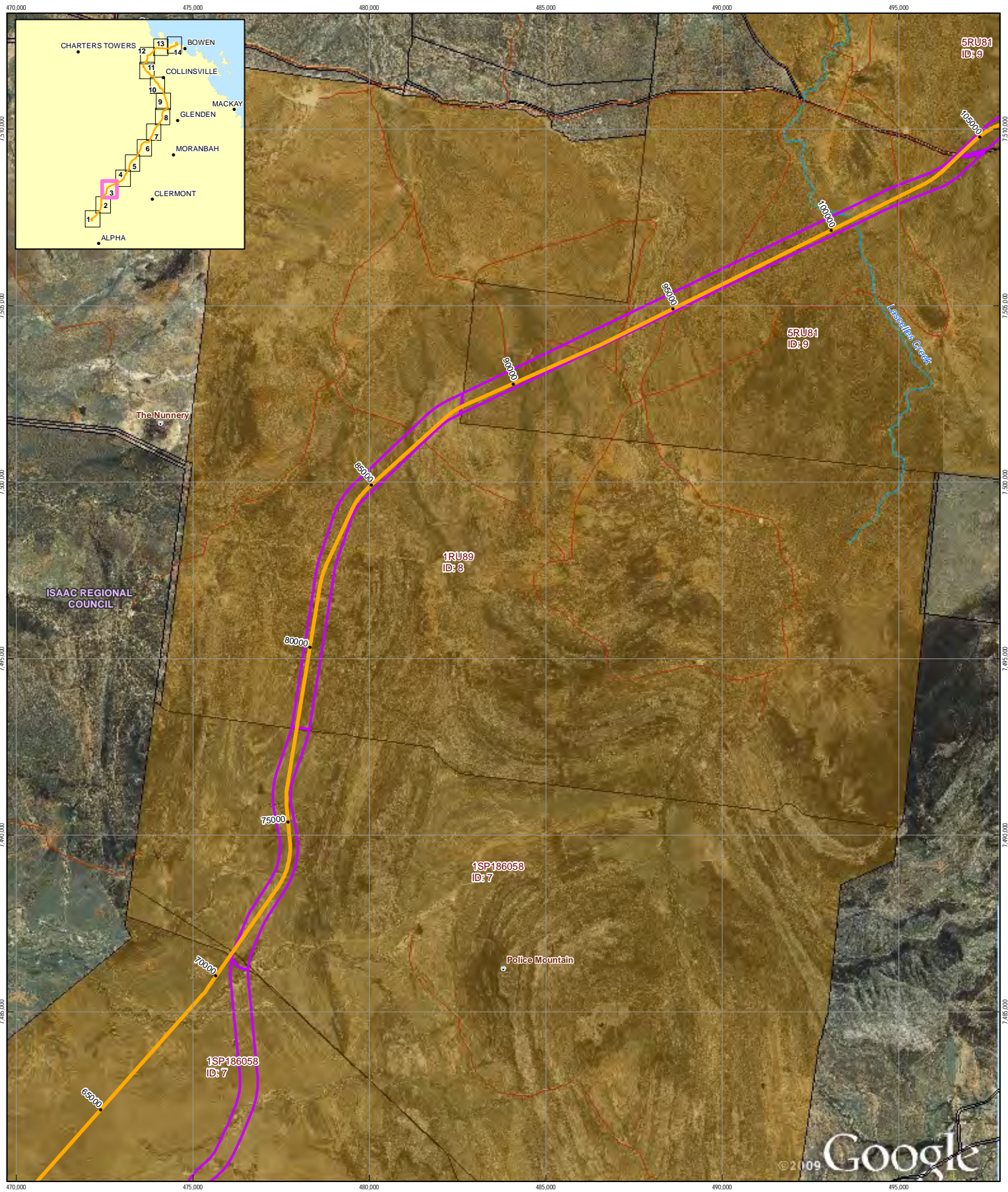
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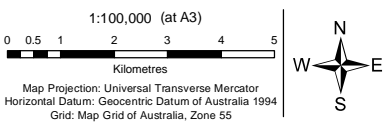








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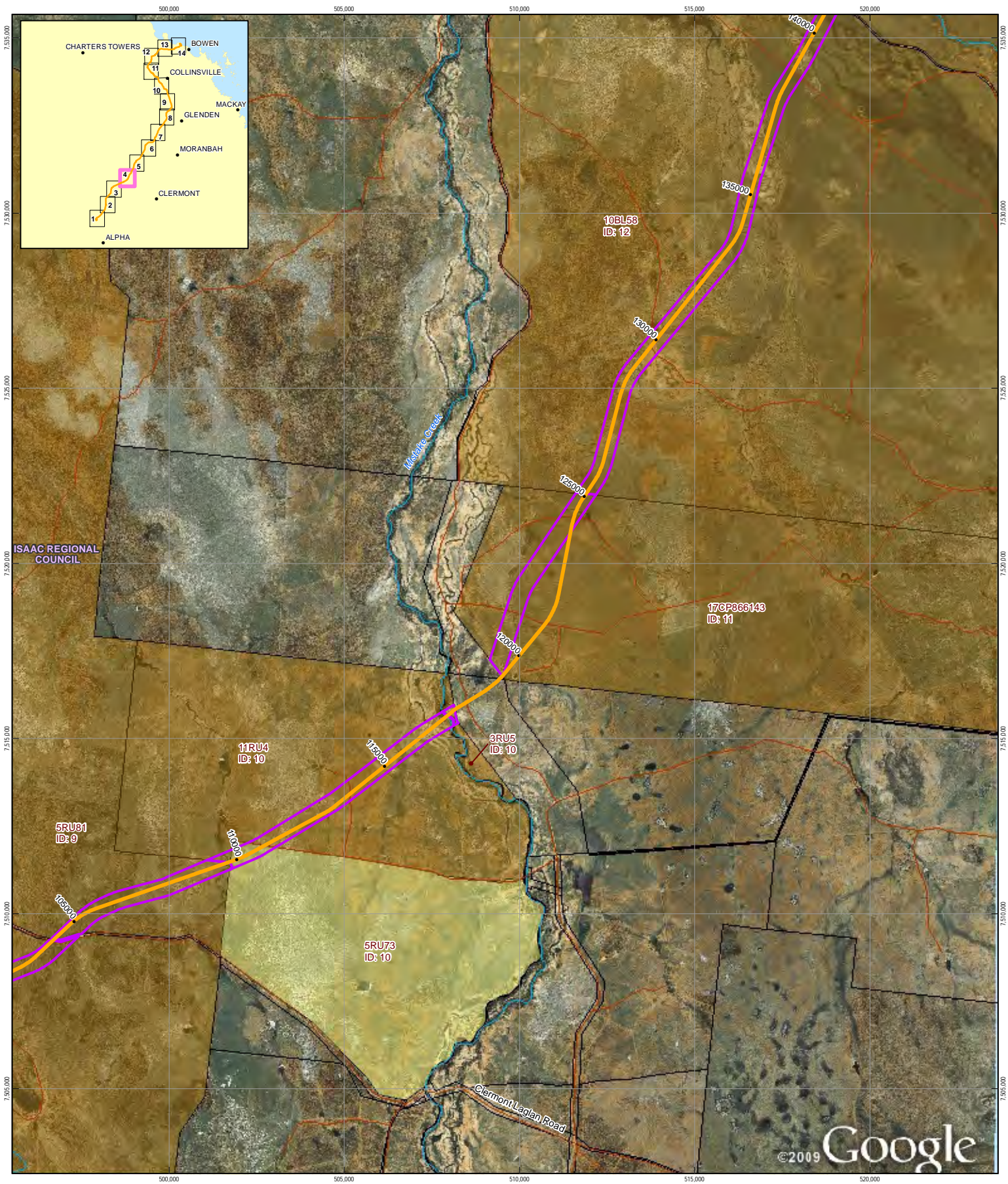
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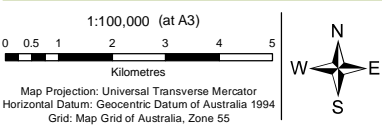


#### LEGEND

Town	Proposed Alignment	Powderline	Nature Refuge	Local Government Area	Tenure	Mining Lease	Mineral Development License
Camp	State Road	Gas Pipeline	Reserve	Cadastral	Freehold	Application	Application
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Depot	Existing Railway		Waterbody		Easement		
Mountain	Watercourse						

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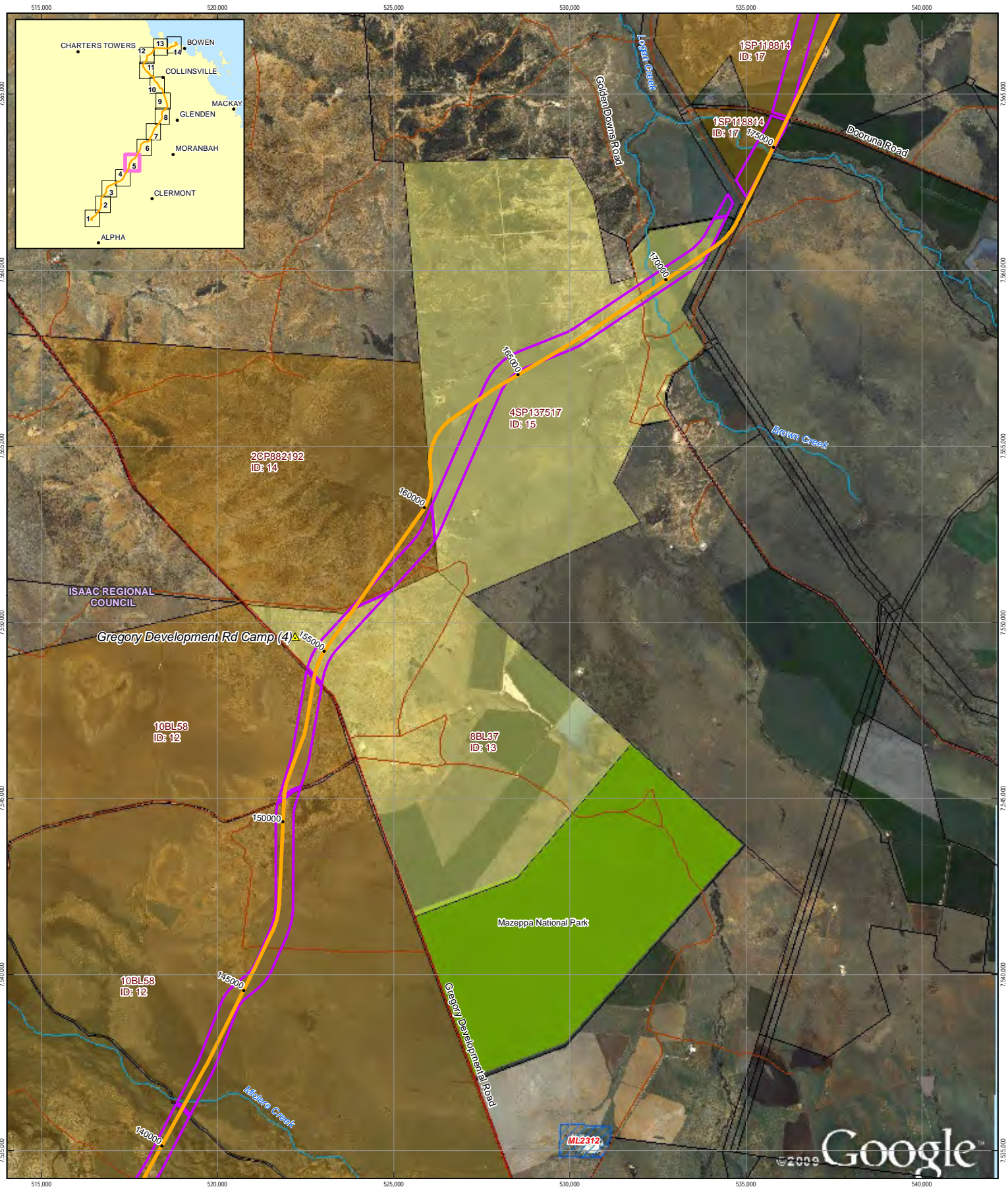
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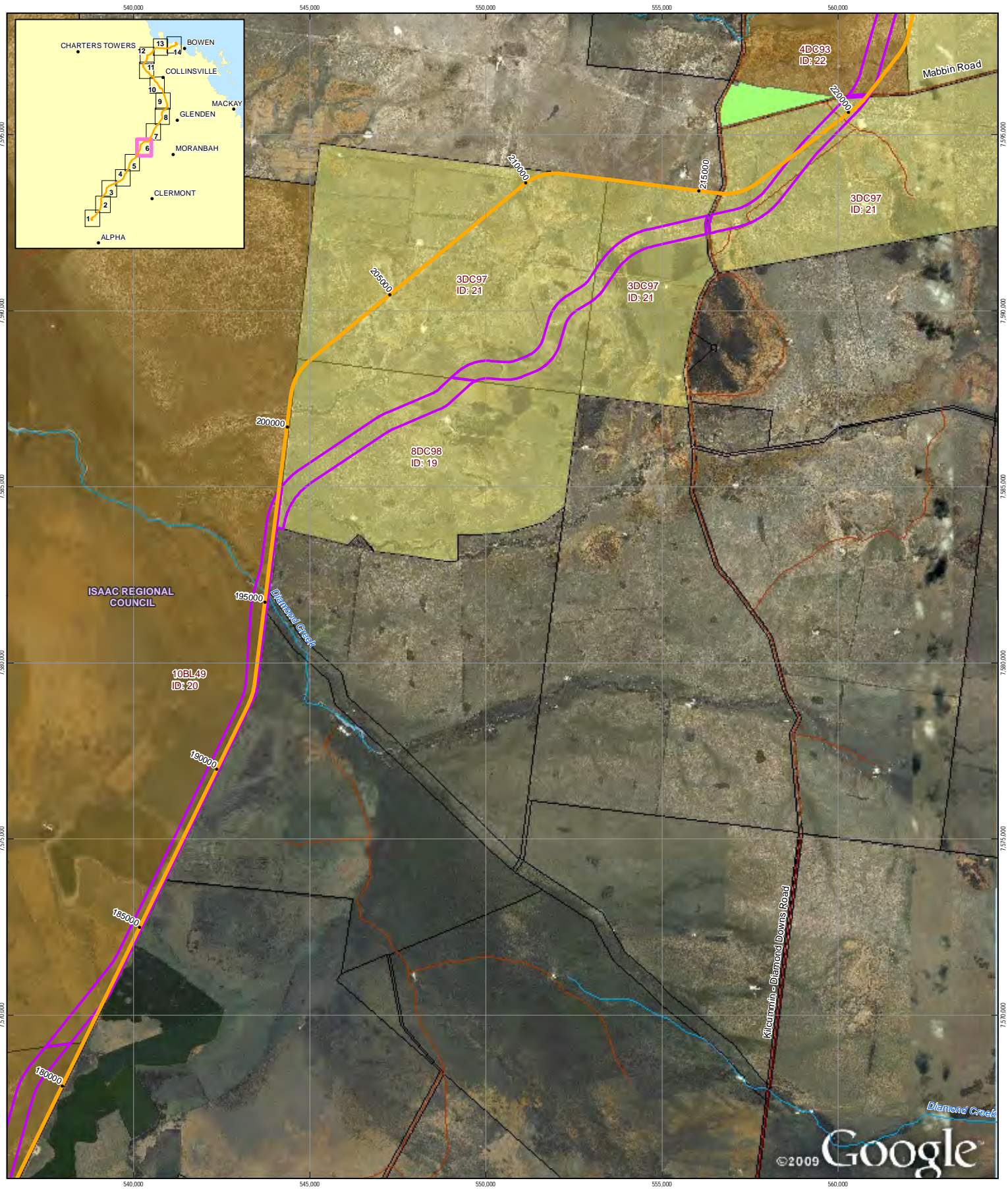
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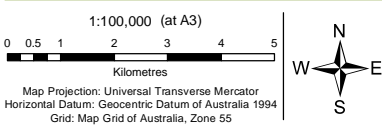


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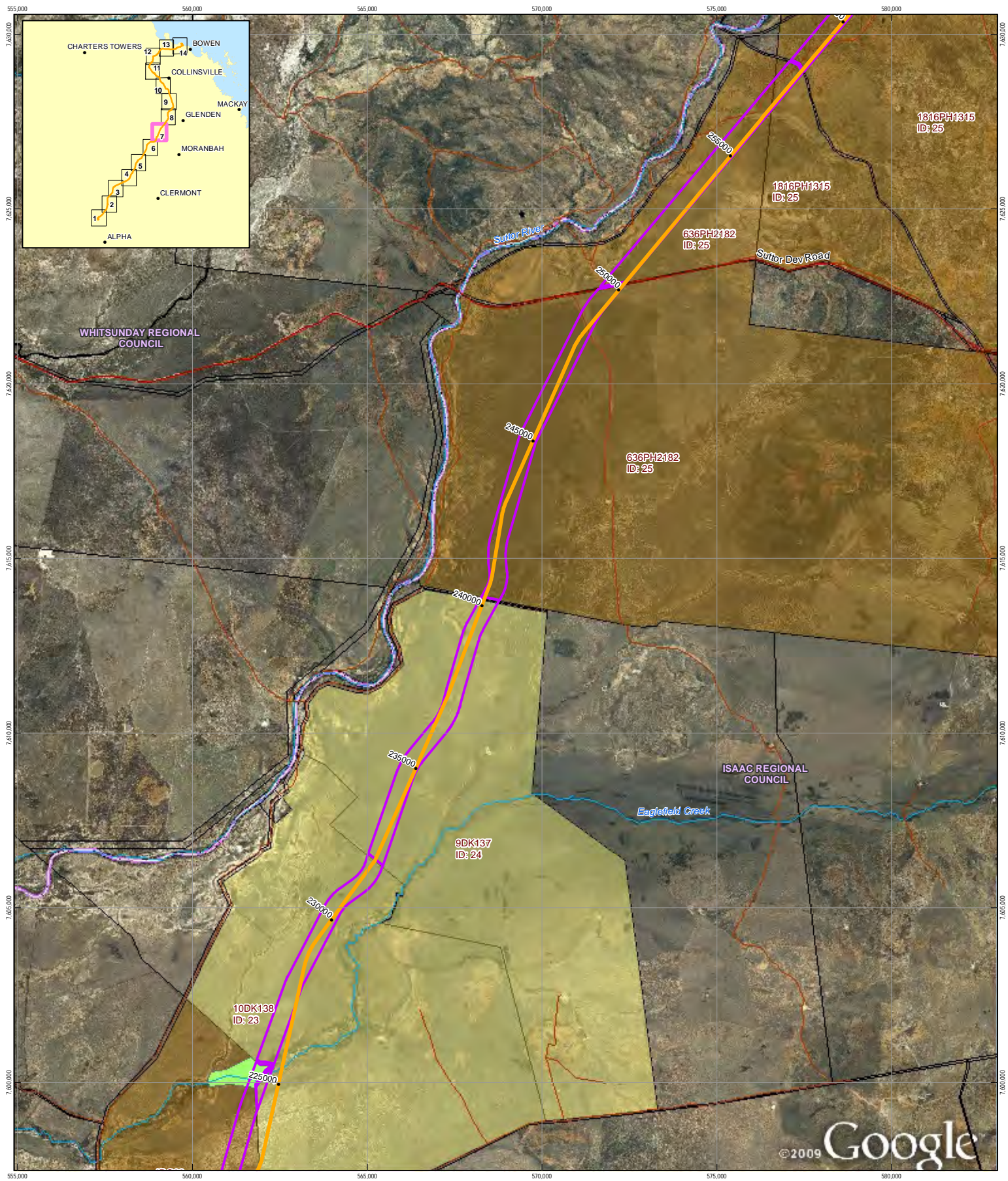
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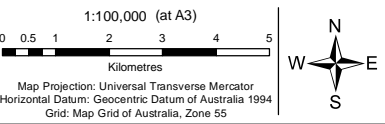




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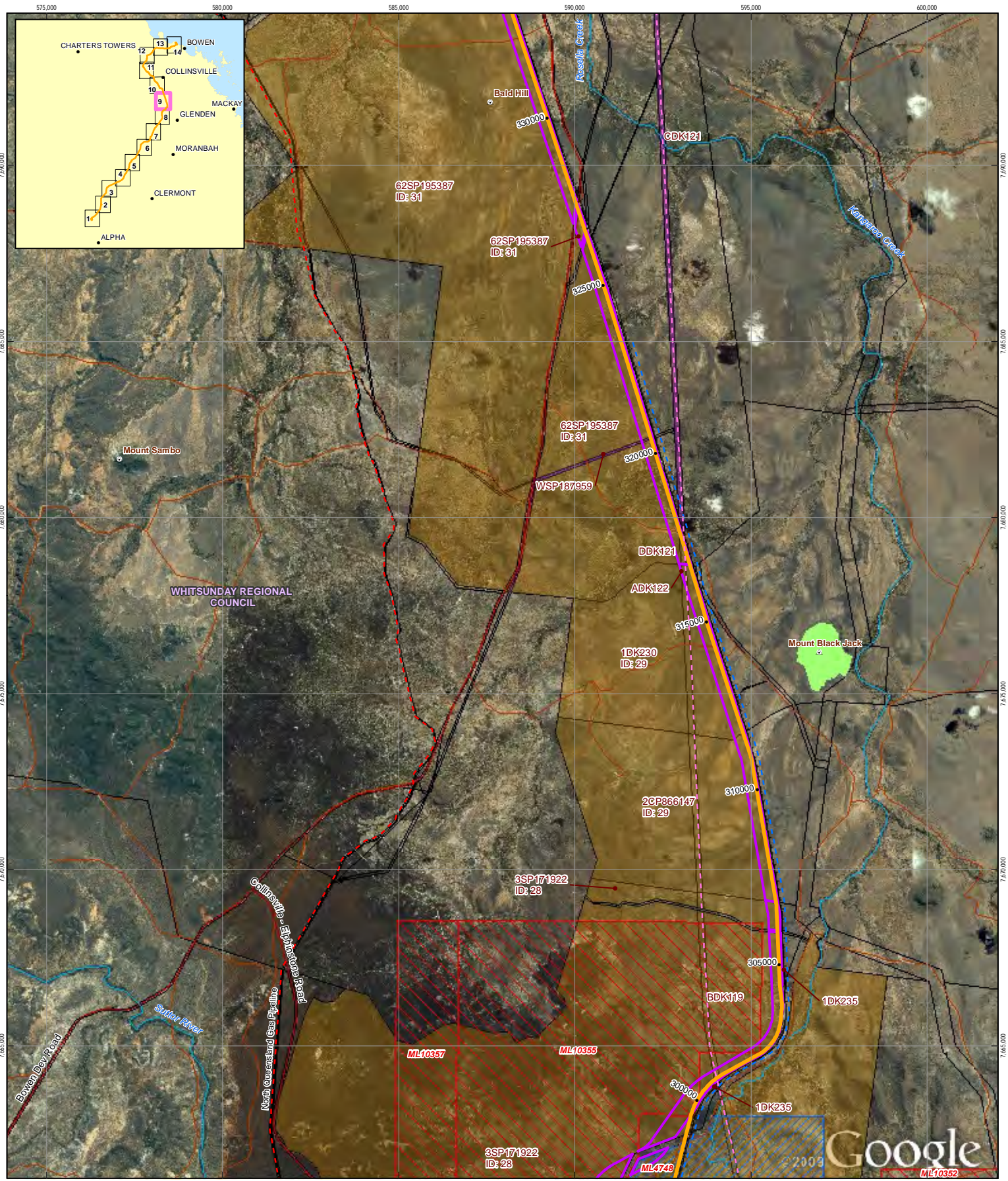










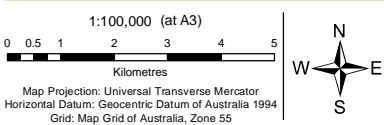


#### LEGEND

Town	Proposed Alignment	Powderline	Nature Refuge	Local Government Area	Tenure	Mining Lease	Mineral Development License
Camp	State Road	Gas Pipeline	Reserve	Cadastral	Freehold	Application	Application
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Depot	Existing Railway	Watercourse	Waterbody	Easement			
Mountain							

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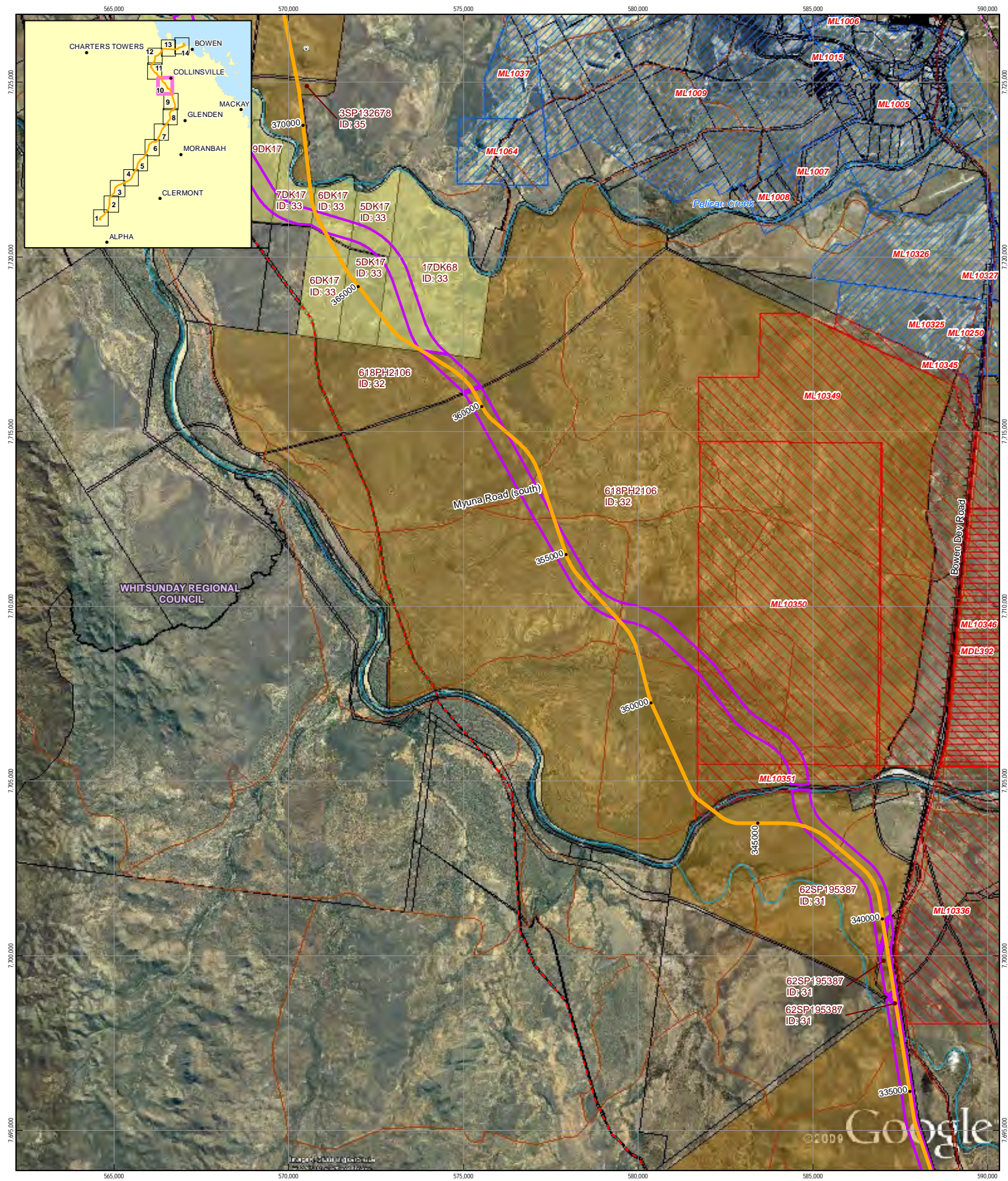
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#### LEGEND

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|-------------------|--------------------|----------------|------------------|-----------------------|-------------|--------------|-----------------------------|
| Town              | Proposed Alignment | Powerline      | Nature Refuge    | Local Government Area | Tenure      | Mining Lease | Mineral Development License |
| Camp              | State Road         | Gas Pipeline   | Reserve          | Cadastral             | Freehold    | Application  | Application                 |
| Marshalling Yards | Local Road         | Water Pipeline | Great Barrier    | IFS Corridor          | Lands Lease | Granted      | Granted                     |
| Depot             | Existing Railway   |                | Reef Marine Park | Waterbody             | Easement    |              |                             |
| Mountain          | Watercourse        |                |                  |                       |             |              |                             |

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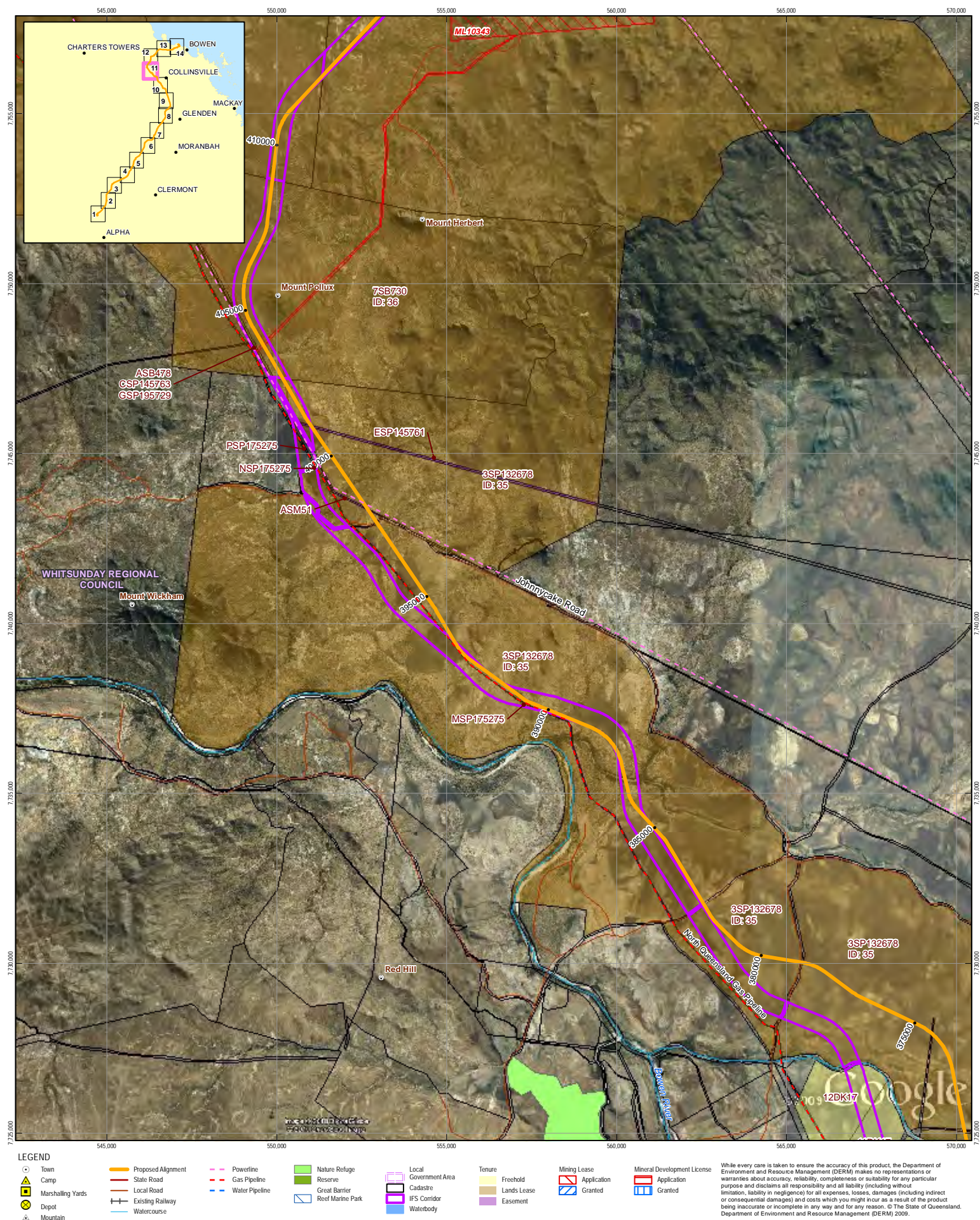
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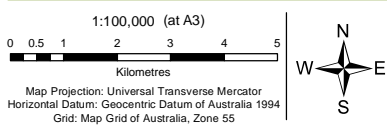








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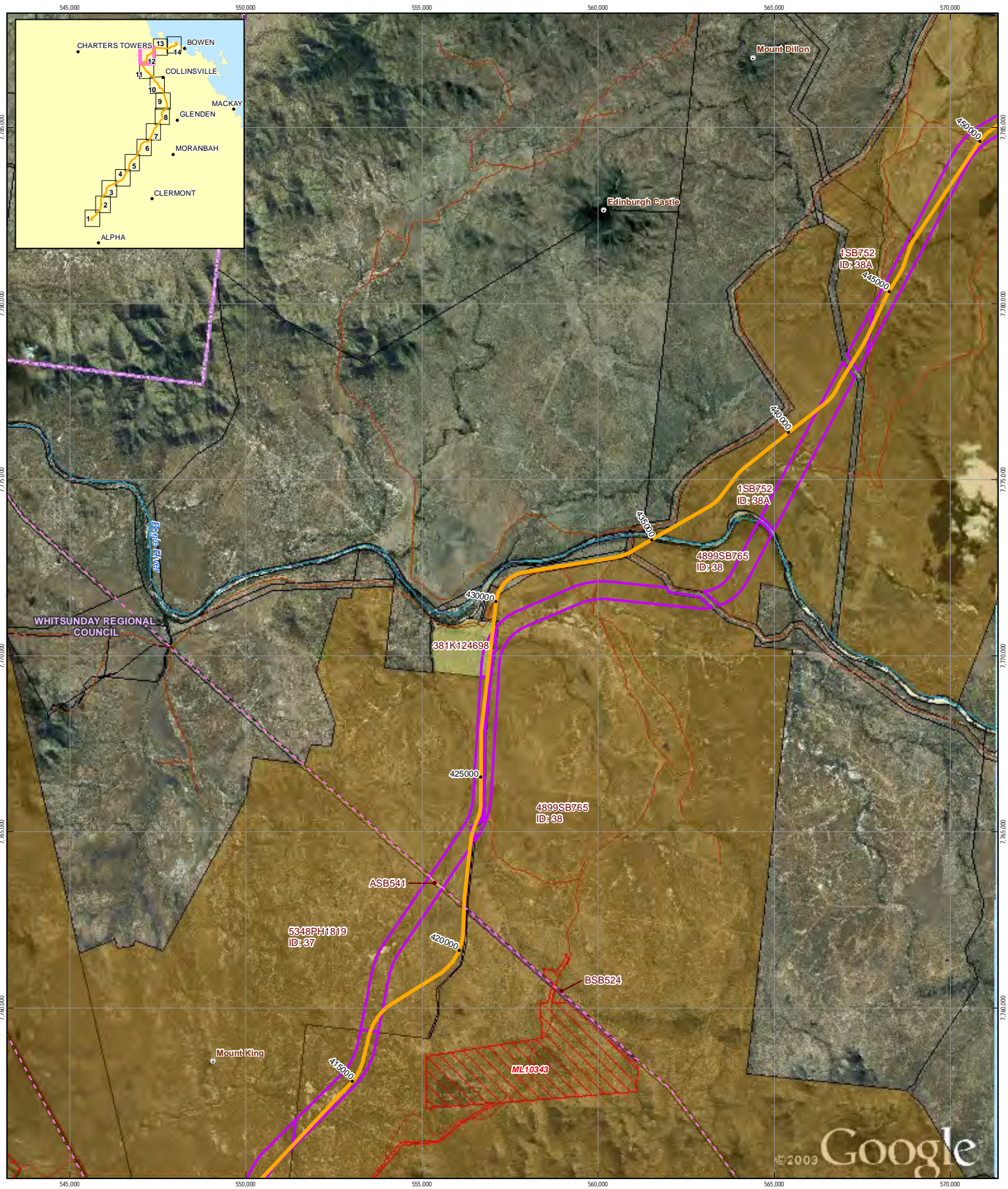
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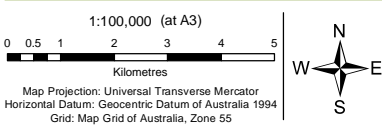


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Town	Proposed Alignment	Powerline	Nature Refuge	Local Government Area	Tenure	Mining Lease	Mineral Development License
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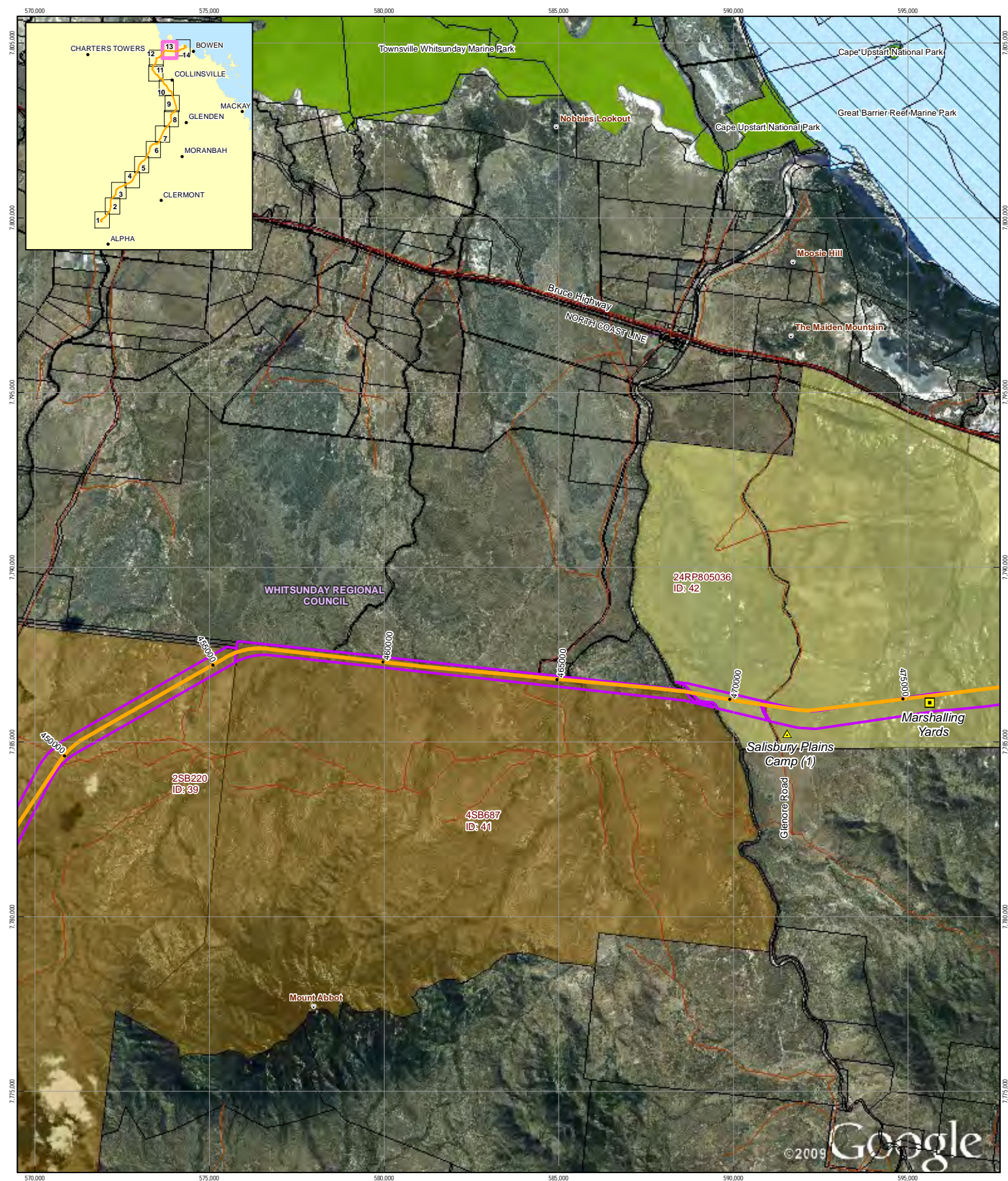
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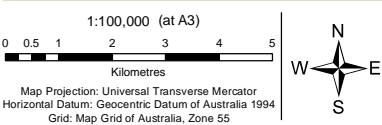








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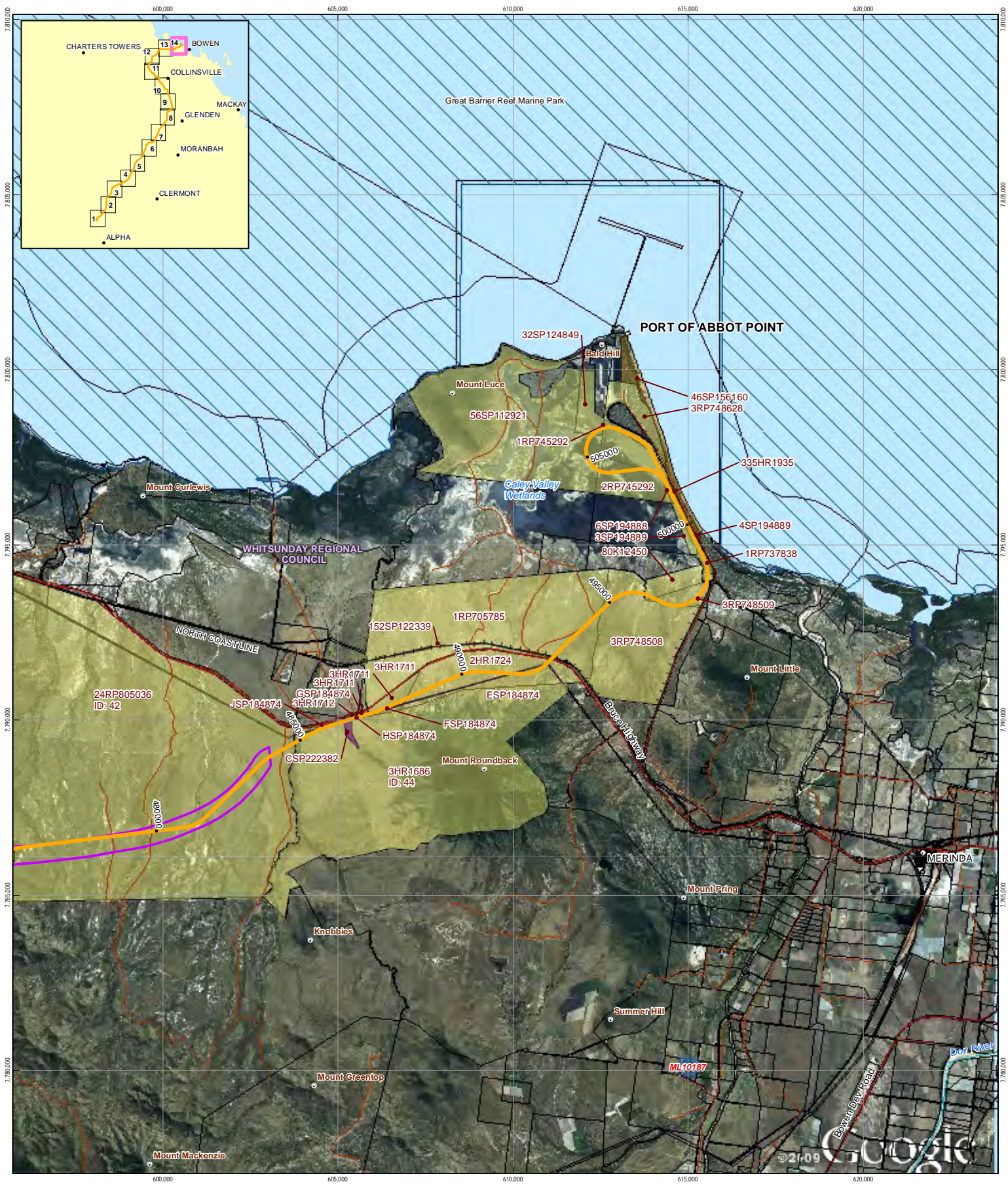
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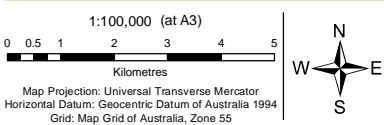


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**Comment – RC406**

*The EIS should delineate the width of the corridor for each section of the rail alignment to facilitate a thorough assessment of potential impacts and review of mitigation measures.*

**Response – RC406**

The majority of the Project corridor will be 60 m wide, accommodating for the railway track, maintenance access road and the fuel farms. The corridor width and associated details at locations where the corridor will exceed 100 m, such as the marshalling yard, will be available at the detailed design stage of the Project.

**5.23.6 Terrestrial Ecology****Comment – RC407**

*The proponent must address any changes to flood plain hydrology during the construction phase of the rail corridor.*

**Response – RC407**

Further assessment will be undertaken as part of the detailed design stage of the Project. This assessment is not provided as part of this SEIS.

**Comment – RC408**

*Rail Route Fauna and Flora Assessment - the environmental impact statement is based on desktop ecological studies without site validation. This results in limited site-specific assessment/evaluation and the requirement to undertake an additional field ecological assessment as a SEIS report does not follow due process. Offset requirements from the project have not been addressed as required by State regulations.*

**Response – RC408**

Desktop studies in addition to on-ground field surveys were conducted as detailed in Volume 3, Section 9 and Volume 6, Appendix F of the EIS. Field surveys were conducted at detailed survey sites as well as rapid survey sites for both flora and fauna. Additional ecological investigations are being undertaken at a number of locations along the alignment that were previously restricted by landowner access. The results and impact assessment will be incorporated into a supplementary document. An Offsets Strategy is currently being developed for the Project, which will initiate investigations into offsetting options for the Project and incorporate relevant state and federal offset policies.

**5.23.7 Economic Impact Study****Comment – RC409**

*Sterilization of Coal Resources - the proposed rail alignment crosses mining leases contrary to statements made in the environmental impact statement documentation. This potentially sterilizes significant, high-value coal resources.*

**Response – RC409**

Every effort has been made to position the Project rail alignment so as not to adversely impact upon mining interests with the potential to contain a mineral deposit yet to be extracted. The support and approval of this new infrastructure corridor would not in itself preclude a lessee's ability to efficiently access an adjoining resource.



In addition, QCoal, who is a key stakeholder regarding this issue has been consulted extensively by Hancock in relation to sterilization. This comment has been addressed in more detail within Volume 2, Appendix AH of the SEIS.

## **5.24 Queensland Rail**

### **5.24.1 Land Use and Tenure**

#### **Comment – RC410**

*The proponent is required to consult with QR National in relation to any proposed development within proximity to the NML and Newlands rail line.*

*Liaison with Queensland Rail Limited is required for any proposed development in proximity to the NCL.*

#### **Response – RC410**

HPPL is undertaking regular discussions with QR National representatives, with this intended to continue as the design progresses to ensure that the Project does not impact on any current or proposed QR National plans.

The proposed crossing of the NCL near Abbot Point is being designed to meet all QR National standards, including clearance.

HPPL has coordinated their design effort with QR Network. Detail of the existing Newlands line and the NML have been obtained as well as detail of future requirements. The design to date ensures there is sufficient clearance between the Project and the QR corridor. Issues such as maintenance access have been considered. During final design of the Project all of the interface issues with QR National will be further examined and incorporated.

#### **Comment – RC411**

*No mention is made of the proposal's impact on the Newlands corridor or expansion plans.*

#### **Response – RC411**

HPPL is currently waiting for this detail to be provided by QR National. HPPL has details of the NML corridor boundary and the Project will not interfere with this boundary.

In the absence of further QR National detail, it has been assumed that the NML corridor has made allowance for future expansion. Nevertheless, HPPL is undertaking regular discussions with QR National representatives, with this intended to continue as the design progresses to ensure that the Project does not impact on any current or proposed QR National plans.

### **5.24.2 Surface Water**

#### **Comment – RC412**

*The alignment plans show significant sections of the rail corridor will be in proximity to the NML and the Newlands rail corridor. The Hydraulic assessment does not adequately address the potential impact resulting from the proposal being in proximity to existing and future QR National rail infrastructure.*

**Response – RC412**

A hydrological assessment of the rail alignment has been undertaken for the Project. This report contained within Volume 2, Appendix Y of the SEIS, includes an assessment of all major drainage crossing points to inform the detained design phase. Retention of existing drainage and overland flow paths will be incorporated into the hydrological design to avoid ponding, scouring and the potential water logging of land surrounding the rail corridor. Measures will be taken to prevent unacceptable changes in afflux due to the proposed railway.

**5.24.3 Transport****Comment – RC413**

*The EIS has not provided details on traffic movements resulting from construction traffic generated at the same time as upgrade of the Newlands rail corridor.*

**Response – RC413**

To the Proponents knowledge the works on the Newlands line will be substantially complete when the works associated with this Project are undertaken.

A Project Logistics Plan has been provided that estimates the movements of Heavy Vehicles. Final Plan is being updated with latest forecast of Heavy vehicle movements. Transport movements' will be further analysed during detail design and communicated with relevant stakeholders (SEIS Volume 2, Appendix AB).

**5.25 South Galilee Coal Project****5.25.1 Introduction****Comment – RC414**

*The rail project will deliver state and nations benefits by opening access to the Galilee Basin's large thermal coal resources.*

**Response – RC414**

The Project is designed to accommodate for haulage of 60 Mtpa of coal. The land that will be acquired will accommodate for construction of additional passing loops, which will accommodate for additional haulage capacity that may be required by third parties.

Hancock is developing a voluntary undertaking under the Australian Competition and Consumer Act 2010 and is in discussions with multiple potential users of the Project railway.

**Comment – RC415**

*Is the rail project of suitable initial capacity and can the capacity be expanded in the future?*

**Response – RC415**

Standard gauge rail has significantly greater capacity than narrow gauge, particularly as it is planned to have trains of approximately 25000 tonnes payload each. The railway is capable of being expanded beyond the initial capacity to over 100 Mtpa.

**Comment – RC416**

*The Hancock EIS does not address this issues, other than in relation to Hancock requirements. As noted above, the other project proponents in the Galilee Basin may well be willing to contribute appropriately to ensure that the initial rail capacity meets the needs of all developments which are proceeding to a similar timeframe. AMCI submits that development conditions should require consultation by Hancock with other potential users of the rail to determine realistic initial Galilee Basin rail requirements, and how these may be accommodated fairly to all parties and to maximise benefits. The State should require to be satisfied that genuine efforts have been made to achieve this end.*

**Response – RC416**

HPPL is preparing an undertaking for third party access and therefore they are actively seeking to negotiate commercial contracts with other mining companies who could utilise the Project to meet their genuine haulage commitments.

**Comment – RC417**

*Future capacity: the design approach to permit capacity expansion seems sound in principle. Development conditions should require that this design approach is carried forward, and reflected in the final design and referenced operational plan, so that the expressed intent to facilitate third party access in the future is realised.*

**Response – RC417**

Noted.

**Comment – RC418**

*Will there be an effective and timely third party access regime?*

**Response – RC418**

Should commercial negotiations fail, the regime controlling the equitable access agreements to the Project by third party will be managed in accordance with Trade Practices Act 1974 and will be regulated by ACCC.

**5.25.2 Description of the Project****Comment – RC419**

*The rail project will deliver state and nations benefits by opening access to the Galilee Basin's large thermal coal resources.*

**Response – RC419**

Both the South Galilee Coal Project (SGCP) and AMCI Joint Venture; Waratah Galilee Coal project are referenced in the Project EIS as potentially sharing the rail infrastructure. It is not economically efficient for there to be more than one rail corridor for coal export from the Galilee Basin to Abbot Point, nor is it economically efficient or in the interest of the region, State or nation for the rail infrastructure capacity to accommodate the proponents demand only. There are other projects in a similar development timeframe which are likely to seek access to the rail and which are willing to contribute to ensure appropriate initial capacity.

The Project rail capacity for haulage of 60 Mtpa of coal has been designed to support the Alpha Mine plus additional capacity for Kevins Corner Mine. With construction of additional passing loops to the



single line track and selective partial duplication, there is potential to further increase the tonnage and thus service other proponents also developing coal projects within the Galilee Basin. The regime controlling the equitable access to the Project by third party is managed in accordance with *Trade Practices Act 1974* and will be regulated by ACCC.

## Comment – RC420

*Is the rail project of suitable initial capacity and can the capacity be expanded in the future?*

## Response – RC420

The stated design flexibility to accommodate capacity increases is vital to achieving the above regional, State and national benefits. Capacity constraints are an established way to deny, or at the very least materially delay, third party access to infrastructure. For example, capacity issues have proved to be a significant impediment to any effective third party access to rail infrastructure in the Pilbara region of Western Australia.

As detailed in Volume 3 Section 1. 3 of the EIS, the Project will enable export of 60 Mtpa of quality thermal coal for a lifespan of approximately 30 years, not 120 Mtpa as mentioned in this submission. Augmentation of the rail infrastructure to accommodate a capacity greater than 60 Mtpa to meet future demands generated via third party access agreements will require further impact assessment and approvals subsequent to this EIS.

## Comment – RC421

*The Hancock EIS does not address this issues, other than in relation to Hancock requirements. As noted above, the other project proponents in the Galilee Basin may well be willing to contribute appropriately to ensure that the initial rail capacity meets the needs of all developments which are proceeding to a similar timeframe. AMCI submits that development conditions should require consultation by Hancock with other potential users of the rail to determine realistic initial Galilee Basin rail requirements, and how these may be accommodated fairly to all parties and to maximise benefits. The State should require to be satisfied that genuine efforts have been made to achieve this end.*

## Response – RC421

The Project is reasonably balanced between the capacity of the mine and the capacity of the rail to achieve efficient utilisation of the proposed infrastructure. In addition, there is flexibility for the capacity of the rail to be increased so as to meet future demands when required by other parties.

Other parties will not seek access to the corridor until their projects have achieved a suitable level of certainty where demand needs to be met by the Project. The construction and development of the rail should not be delayed or impeded upon by the timing and scheduling of other projects.

## Comment – RC422

*Future capacity: the design approach to permit capacity expansion seems sound in principle. Development conditions should require that this design approach is carried forward, and reflected in the final design and referenced operational plan, so that the expressed intent to facilitate third party access in the future is realised.*

## Response – RC422

Noted.

**Comment – RC423**

*Will there be an effective and timely third party access regime?*

**Response – RC423**

The regime controlling the equitable access to the Project by third party will be managed in accordance with *Trade Practices Act 1974* and will be regulated by ACCC.