Submitter No.	668	Issue Reference:	9115
Submitter Type	NGO	TOR Category	Transport
Name	Road Accident Action Group (RAAG)	Relevant EIS Section	Executive Summary 2.1.2 Transport; Exec Summary 3.1.17.1 Transport Methods and Routes; Exec Summary 3.2.16.1 Transport Methods and Routes; Appendices V5; Appendix 21, Figure 3.6

DETAILS OF THE ISSUE

- No mention/recognition of impacts on connecting roads/highways, or road safety on these,
- No mention or recognition of Heavy Vehicle (HV) Fatigue Management legislation, for vehicles transporting goods during the construction phase, this will include fuel
- No mention of the "Chain of Responsibility" with HV Fatigue Management legislation
- The Bowen Development road has no Rest Areas, or even recognised stopping places suitable for rest, in its entire length, these workers will invariably be driving long distances to and from shifts
- Large growth in traffic volume will result from the development of the mine. This includes increases of several hundred percent on the Capricorn Highway, although from a low base, and
- Lack of passing lanes.

As these connecting roads/highways have very high incidence of fatigue related crashes, serious thought needs to be made that HV Fatigue related crashes are not increased. Waratah needs to recognise HV Fatigue Management legislation and the Chain of Responsibility and put steps in place to comply, such as:

- Waratah Coal could assist with provision of suitable rest facilities on the existing Bowen Development Road that has no HV Rest Areas
- Waratah Coal should incorporate suitable Dual Rest Areas on new roads – we can assist in a number of ways with this also
- As part of the RAAG Rest Areas and Stopping Places Project (RASP) the submitter has identified site locations for Rest Areas and stopping places throughout the Bowen Basin including the Bowen Development Road, using crash data, strategic locations, Guidelines for Rest Areas in Qld, consultation with TMR, Regional Councils, large trucking operators
- The submitter requests that Waratah Coal liase with them regarding the RASP, and
- Waratah Coal should work closely with DTMR regarding passing lanes – this may need financial contribution from the Proponent.

PROPONENT RESPONSE

Waratah Coal welcomes the opportunity to liaise with the DTMR and RAAG during the preparation of Heavy Vehicle Fatigue Management Plans, which may include financial contributions towards rest areas, overtaking lanes, etc., on various roads used for the transportation of materials and goods during both construction and operations.

Waratah Coal intends to maximise the use of the railway corridor and the railway line and minimise the use of the road network for transport of material during construction and thereafter for operations. Refer to Issue Reference 17203 in Part C – Transport for more details.

Submitter No.	356	Issue Reference:	9116
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Page 23, Vol 5, Appendix 21 Staffing Operations

DETAILS OF THE ISSUE

This acknowledges that there will be a component of the workforce that will be made up of the local population. If the assumed mix of local versus FIFO changes, it may mean that additional construction personnel will come from surrounding areas in particular major regional centres. This may have a significant impact on SCR network. The EIS does not address the need to minimise the number of employee transport on the road network. The issue of driver fatigue counter-measures has not been addressed.

Any change in the method of transportation of construction personnel will require assessment of the impact on the SCR network. This is appropriately captured with a revised RIA. Further information is required on how the proponent intends to address increased safety risk from construction and operational workforce driving longer distances to their place of permanent residence.

PROPONENT RESPONSE

The project will impact on the SCR network, and particularly the Capricorn and Peak Downs Highways and Alpha-Clermont Road. The FIFO workers will be bused from Alpha to the mine site. However, the mine workforce (including construction workforce) will include both local residents and a DIDO component. Waratah Coal will develop and implement a fatigue management policy to regulate distances and timing for employees, contractors and sub-contractors driven or who drive to/from work.

Waratah Coal will also consider the provision of a bus from nearby local centres when there are sufficient workers from one centre to warrant the service.

Submitter No.	668	Issue Reference:	9117
Submitter Type	NGO	TOR Category	Transport
Name	Road Accident Action Group (RAAG)	Relevant EIS Section	4.1 Social-Mine; 6.1 Hazard and Risk Assessment; Appendices – V5, Appendix 21

DETAILS OF THE ISSUE

- Concern for the impact on local traffic
- There needs to be recognition in the EIS of large increases of traffic on connecting highways. The cumulative effect of four other very large mines in the region will cause long delays for the above be it oncoming or following, leading to frustrated motorists who attempt radical, very high speed overtaking manoeuvres often resulting in tragedy
- Traffic Incidents – offsite
- Serious planning is needed on connecting highways (i.e. sufficient passing lanes) during the construction period, the cumulative effect during construction of all mines in the Galilee Basin on local road traffic will be immense
- There will also be a large increase in local traffic as these towns grow
- The RASP project has identified a serious lack of infrastructure throughout the Bowen Basin, virtually no toilets for hundreds of kilometres, which is a serious concern for females and families
- The submitter wishes to have input to the *SIMP* by identifying impacts on families travelling in the Bowen Basin

- Legislation on Heavy Vehicle Fatigue Management and" Chain of Responsibility" may have been overlooked, as it is not mentioned,
- RAAG would like to provide research to assist with more in depth study of offsite traffic incidents.

PROPONENT RESPONSE

Traffic levels will increase as a result of mine development in the Galilee Basin. Waratah Coal would welcome input from the RAAG when preparing fatigue management strategies for the project. It is suggested that the proposed Galilee Basin CSIA Roundtable should also consult with the RAAG when assessing infrastructure needs for Alpha and surrounding areas. This may be an appropriate opportunity to lobby the LNP to access funding under the Royalties for Regions Initiative for road and highway upgrades.

Submitter No.	**356**	Issue Reference:	**12028 /17192**
Submitter Type	Government	TOR Category	**Transport**
Name	**DTMR**	Relevant EIS Section	Vol 3, Ch 10, S10.2.3 & S 10.3.2.3.2 Page 402, S10.2.4 & S10.2.4.2

DETAILS OF THE ISSUE

The proposed coal dust mitigation measures are inadequate. The proposed mitigation measures comprising partial covers (undefined) and wetting down the surface of loaded coal is not dissimilar to the former long-standing practice in the coal transport on the QR National rail system. This former level of "standard" treatment was determined to be inadequate by the Department of Environment and Resource Management (DERM) when it gave a directive in 2007 to QR National to undertake the Environmental Evaluation of Fugitive Coal Dust Emissions from Coal Trains Goonyella, Blackwater and Moura Coal Systems. QR National was already using water as a wetting treatment at recognised dust extinction levels and this was still considered inadequate. The claim that wetting with water binds surface coal particles and provides a crust that is resistant to dust lift-off is grossly misleading. Over a 468km journey, the coal surface water content is soon degraded and loses its effectiveness.

It is recommended that the section 10.2.4.2 Operational Activities be changed to read as follows: "To meet air quality objectives and achieve effective management of coal loss and coal dust deposition to track during the operational phase of the railway,

PROPONENT RESPONSE

In addition to the commitments presented in section 10.4 of the EIS, Waratah Coal commits to the following dust control measures:

- Waratah Coal proposes to use tippler wagons (gondola) rather than the more traditional bottom dump coal wagons. With the use of tippler wagons, coal hang-up should be negligible or eliminated. Bottom dump wagons are more frequently associated with coal hang up, particularly in wet weather, and
- In addition to the tippler wagons, Waratah Coal's solution to mitigation of coal dust is to provide a cover to the top of the wagons. It is intended these covers will be made of fibreglass. These covers have been proven in service, operating in conditions ranging from –40°C to +40°C. The railcar cover system meets the criteria for a closed transport vehicle specified in the United States Code of Federation Regulations (CFR), Title 49, Transportation (Subsection 173.403(c)).

The added benefit of this practice is to provide better train aerodynamics, particularly in the unloaded condition where considerable fuel savings are expected, which in turn, results in lower emissions.

See also Issue Reference 12027 in Part C –0A – Project Description for more information on the proposed covers.

Submitter No.	**1840**	Issue Reference:	**4117**
Submitter Type	Council	TOR Category	Social / Economy / **Transport** / Waste
Name	**Barcaldine Regional Council**	Relevant EIS Section	3.1.17

DETAILS OF THE ISSUE

It is expected that the townships of Jericho and Alpha will expand to provide services associated with the mine and any increase in the local population which services the mine site.' What will be the cumulative effects on the towns from all f the proposed developments. Including the following:

- Increase demands on local transport network
- Increase demand on local sewerage systems
- Increase demand on local waste management system, and
- Increase demand on all essential services.

Capacity of the local services may be compromised with the cumulative effects of other proposals.

PROPONENT RESPONSE

As described in the *SIMP* (see SIMP in *Appendices – Volume 2* of this SEIS), Waratah Coal would prefer to address the cumulative social and economic impacts by using the proposed Galilee Basin Cumulative Social Impact Assessment (CSIA) Rountable. It is expected that this forum will address the impacts of increased demand on essential services.

With regards to sewerage and waste the demands on sewerage and waste of the project have been investigated and they are summarised below:

- There are five Barcaldine Regional Council (BRC) waste management facilities, at Alpha, Aramac, Barcaldine, Jericho and Muttaburra, with the mine site located closest to the Alpha facility. All facilities accept general municipal waste, with the Barcaldine landfill also accepting regulated waste. Waste oil is accepted at the BRC Depot in Barcaldine. There are no transfer stations within the BRC.
- The project is expected to generate approximately 217,000 m^3 of waste across the 34-year mine life, including the construction, operation and decommissioning phases. A landfill facility will be constructed on-site to accept all general waste. Regulated waste will require transportation to the Barcaldine landfill for treatment, while all recyclable material will be transported to off-site facilities via licensed contractors.
- The project may indirectly contribute to the increased demand on the local sewerage and waste management systems. The majority of the mine workforce will be housed in purpose-built accommodation on the mining lease, which will be serviced by package sewage treatment facilities.
- Some contractors are expected to establish a base in Alpha or Jericho – if the workforces of these contractors reside in the townships, this will increase the overall level of sewage and domestic waste produced by the town.

The overall effects and mitigation measures will be determined during the detailed technical studies being undertaken, and during development of the EM Plan, as well as through negotiations and discussions with relevant stakeholders.

Submitter No.	425	Issue Reference:	17041, 17042
Submitter Type	Individual	TOR Category	Land (Land Use & Tenure) / Social (Community Engagement) / **Transport**
Name	**Names withheld**	Relevant EIS Section	Vol 2 16.5.4

DETAILS OF THE ISSUE

- Disturbance of cattle
- Access roads

PROPONENT RESPONSE

Operational issues such as disturbance of cattle will be negotiated with the affected landowners as part of ongoing consultation.

It should be noted that Waratah Coal abides by a Code of Conduct which sets out requirements for appropriate behavior on landowners' properties. Waratah Coal also use experienced contractors who understand that speed should be limited to reduce disturbance to cattle and generation of dust, that gates should be left as they were found etc. Waratah Coal's contractors are also bound by Waratah Coal's Code of Conduct.

Submitter No.	355	Issue Reference:	17191
Submitter Type	Individual	TOR Category	**Transport**
Name	**Names withheld**	Relevant EIS Section	

DETAILS OF THE ISSUE

Transport road from Capricorn Hwy to mine is going through the submitters property and will disturb the cattle and the running of the grazing business.

Submitter proposed that Waratah Coal should buy the property.

PROPONENT RESPONSE

Waratah Coal understands that the Jericho-Degulia Road runs through the submitter's property. This is a gazetted road and well used by the general community, however, Waratah Coal does not intend to use this road for access to its mine site.

The access off the Capricorn Highway to the mine site proposed by Waratah Coal is via Saltbush Road which is also a gazetted road and to our knowledge runs alongside the submitter's property and not through the property.

Submitter No.	356	Issue Reference:	17202 / 11034
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Vol 5 Appendix 21 Section 4.2, p65

DETAILS OF THE ISSUE

This section indicates that a number of construction camps will require access to the state controlled roads. No detailed information has been provided on the proposed access locations to these camps with the state controlled roads and also the standard of access required.

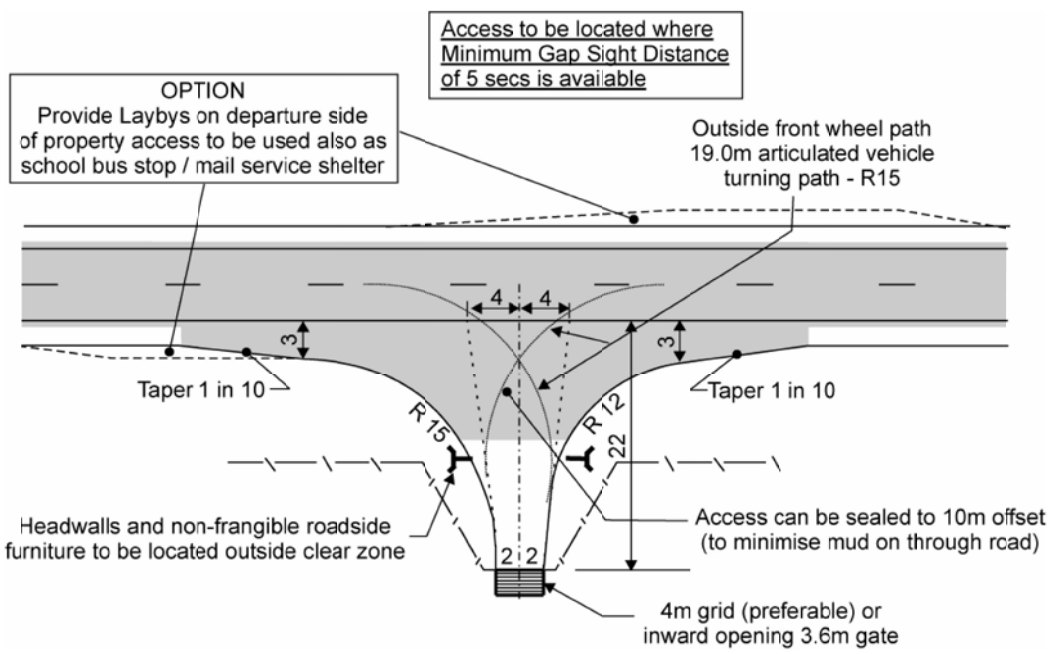
Information on specific access locations and the proposed form is required along with analysis to support the justification as to the standard of access proposed.

PROPONENT RESPONSE

Construction labour resources and associated transport volumes will be calculated during the detailed planning and design phases. It is expected that the majority of transportation will be carried out by local bus services and when the vehicle volumes are determined, discussions with the local authorities will be held to determine standard of roads required and what upgrades are required.

The access design will be based on Figure 1[1].

Figure 1. Rural Property Access Specifically Designed for Articulated Vehicles



1 DTMR. 2006. *Road Planning and Design Manual*. Queensland Government.

Submitter No.	356	Issue Reference:	17203 / 11035
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Vol 5, Appendix 21 Section 4.3, p69

DETAILS OF THE ISSUE

The EIS states some of the materials required for construction of the rail line (track, sleepers and ballast) will be transported to site on the track itself. Recent experience with similar rail works in this area indicates that significant use of existing state controlled roads will occur for this type of activity, particularly during the construction of earthworks and associated capping layers.

When the sources of material for the project are known, the proponent must include these details in a finalised road impact assessment (RIA).

PROPONENT RESPONSE

The construction of the railway line above formation level will provide minimum disruption to road users. The intention is for all rail and concrete sleepers to be delivered to a site near Abbot Point. These materials will be delivered to the work sites on the corridor by work trains travelling along the railway track as it is constructed. Ballast will initially be transported in the same way with the crushed ballast being produced at a quarry near Abbot Point and transported along the railway by ballast wagons as it is constructed. At some point near half way, the ballast will be sourced from a nearby quarry site where the ballast trains will then originate from. See Table 1.

The earthworks is being designed such that there is a mass haul balance which results in bulk transport being more effective and efficient to be along the rail corridor. Original investigations sited possible quarry locations along the rail corridor thus reducing haulage on public roads for manufactured material and capping layers.

Please refer to *Traffic Engineering* report in *Appendices – Volume 2* of this SEIS.

Table 1. Amount and Delivery Method of Rail Construction Materials

Rail Line	453km	Delivery
Rails	910km of track, plus switches	Delivered by rail
Sleepers	200/km = 91000	Delivered by rail
Base Material	455km × 4m × 500mm (910000m^3)	Road

Base material will be supplied by local quarries therefore creating minimal impact to the road network. Individual TIA's to be undertaken as part of each quarry approval.

Submitter No.	356	Issue Reference:	17204 / 11036
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Vol 5, Appendix 21 Section 4.5, p65

DETAILS OF THE ISSUE

This indicates that the proposed rail access track will connect to the public road network. No detailed information has been provided on the proposed access locations of the service roads with the state controlled roads and also the standard of access required.

Information on specific access locations and the proposed form is required along with analysis to support the justification as to the standard of access proposed.

PROPONENT RESPONSE

To allow access to the full length of the rail construction, a service road will be constructed along the full length of the line. After the construction phase is completed, this track will be retained for service maintenance and emergency access. This track will be at least 4.5m wide, formed by an unsealed gravel surface. Formed width of 6m should be provided to allow passing opportunities along selected lengths of the access road.

This access track will connect to the public road network at each intersection of the line with roads. Due to the irregular road crossings, particularly in the southern section of the rail line, additional connections may be required through private property. Generally, access to the rail line should be provided at least every 50km.

The intersection of the service road and public road may be immediately adjacent to the proposed line as regular traffic is only expected to occur during construction. Once the line is operational, access to the service road will be occasional and as such there will be very limited interaction between vehicles turning to the service road and train operations.

Submitter No.	356	Issue Reference:	17205 / 11047
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Vol 3, Ch 13, S13.3.6, Figure 3, p456

DETAILS OF THE ISSUE

This section refers to Figure 3 which identifies an "initial access" haul route from Alpha to the rail site. This haul route will cross the Western Rail Line just outside Alpha at a level crossing protected by flashing lights (understood to be the Clermont-Alpha Road). This section identifies that very high numbers of heavy vehicles will traverse this level crossing. Further analysis is required in this section to show whether Queensland Rail accepts the level of protection for this level crossing; or alternately identifies a requirement for an increased level of level crossing protection.

PROPONENT RESPONSE

During the detailed design phase, the increased safety risk of this level crossing, as well as all level crossings, will be assessed for both the construction phase and operation phase. We intend to use the Australian Level Crossing Assessment Model (ALCAM) to carry out this safety assessment. We have engaged the services of an experienced operator of ALCAM and the Chairman of the ALCAM committee (Victorian Public Transport department) has formally approved the use of the ALCAM system by Waratah Coal.

The safety assessment will determine what mitigation measures need to be taken during the construction phase and whether the same or different mitigation measures are required for the operation phase.

Please refer to *Traffic Engineering* report in *Appendices – Volume 2* of this SEIS.

Submitter No.	**356**	Issue Reference:	**17206 / 11048**
Submitter Type	Government	TOR Category	**Transport**
Name	**DTMR**	Relevant EIS Section	Vol 3, Ch 13, S13.3.4, P457

DETAILS OF THE ISSUE

The proponent has indicated that the bulk of the equipment and materials to be delivered to the site during construction of the railway include prefabricated concrete members, structural steel works, fuel, quarry materials, bridge girders, steel rails and concrete sleepers

The proponent is requested to provide more detail on the magnitude of the transport task for the delivery of construction and operational inputs for the mine. This information would include tonnages/volumes, number of vehicle movements for each type of input and from where these inputs are sourced.

PROPONENT RESPONSE

The construction of the railway line above formation level will provide minimum disruption to road users. The intention is for all rail and concrete sleepers to be delivered to a site near Abbot Point. These materials will be delivered to the work sites on the corridor by work trains travelling along the railway track as it is constructed. Ballast will initially be transported in the same way with the crushed ballast being produced at a quarry near Abbott Point and transported along the railway by ballast wagons as it is constructed. At some point near half way, the ballast will be sourced from a nearby quarry site where the ballast trains will then originate from.

Concrete products used in the earthworks construction may be batched near the construction sites in special purpose batching plants or transported along designated heavy vehicle routes. At this stage it is estimated that approximately 1600 bridge girders will be required which would result in 5 return truck movements per day.

It is intended to use the rail corridor for the transport of bulk products to the mine site once the railway has been completed. Fuel for example will be transported using a train consist of 95,000 litre fuel tanker wagons.

Once a detailed design is complete, a more comprehensive estimate of quantities and vehicle movements can be completed.

Submitter No.	420	Issue Reference:	11001
Submitter Type	Government	TOR Category	Hazard & Risk / **Transport**
Name	**Queensland Health**	Relevant EIS Section	

DETAILS OF THE ISSUE

Motor vehicle accidents associated with heavy vehicle traffic, fatigue and FIFO/DIDO workforces are an established issue in the Bowen Basin. Accident impacts are evident on police, health and emergency services, in addition to increased risks from higher traffic volumes to grey nomads and tourists.

The actions being proposed by the proponent to mitigate traffic and transport issues could be more effectively implemented and monitored if consolidated into a single Traffic and Travel Safety Plan. The proponent is encouraged to undertake local level traffic and travel safety education in an attempt to transfer the intended high occupational health and safety standards in the mining industry to the local community.

PROPONENT RESPONSE

To address this issue the proponent proposes a combined review of fatigue management and rest areas west of Emerald. The review should be coordinated by RAAG and include the following stakeholders:

- DTMR (Main Roads)
- South Galilee Coal Mine
- Kelvin's Corner Coal Mine
- North Alpha Coal Mine
- Waratah Coal
- Regional Councils
- QPS, and
- QTA

It is expected that the review will lead to developing guidelines for a uniform Road User Management Plan. The RUMP will then form part of employee induction training for all staff working on site.

Submitter No.	565	Issue Reference:	11002
Submitter Type	Individual	TOR Category	**Transport**
Name	**Name withheld**	Relevant EIS Section	

DETAILS OF THE ISSUE

- Roads being over utilised by traffic from current mines.

PROPONENT RESPONSE

Please refer to *Traffic Engineering* report in *Appendices – Volume 2* of this SEIS. The report concludes from the analysis undertaken that the local roads will not be over utilised by mine traffic in the future and that the mine generated traffic will not cause significant issue on the road network.

Submitter No.	670	Issue Reference:	11003
Submitter Type	Individuals	TOR Category	Transport
Name	Names withheld	Relevant EIS Section	

DETAILS OF THE ISSUE

- Transport methods and routes – Proponent should address safety and standard of our roads (early in development of mine).

PROPONENT RESPONSE

To address this issue the proponent proposes a combined review of fatigue management and rest areas west of Emerald. The review should be coordinated by RAAG and include the following stakeholders:

- DTMR (Main Roads)
- South Galilee Coal Mine
- Kelvin's Corner Coal Mine
- North Alpha Coal Mine
- Waratah Coal
- Regional Councils
- QPS, and
- QTA.

It is expected that the review will lead to developing guidelines for a uniform Road User Management Plan. The RUMP will then form part of employee induction training for all staff working on site.

Submitter No.	417	Issue Reference:	11004
Submitter Type	Council	TOR Category	Transport
Name	Isaac Regional Council	Relevant EIS Section	

DETAILS OF THE ISSUE

The EIS should clearly identify any transport reallocation on rural roads on or on adjacent the project site. The existing EIS project traffic assessment clearly promotes the state highways as the preferred transport corridor for the workforce and supplies to the site. Cumulative impacts from alternative travel to work journey paths needs to be considered given the maintenance hierarchy and suitability of additional use capacity of the surrounding rural roads infrastructure. Long term cumulative impacts have not been considered in the EIS from alternative travel paths and the corresponding maintenance demands that will be incurred across the net work.

PROPONENT RESPONSE

Please refer to *Traffic Engineering* report in *Appendices – Volume 2* of this SEIS. The report shows only a small percentage of heavy vehicles are likely to use this route due to traffic distribution and FIFO.

Submitter No.	417	Issue Reference:	11005
Submitter Type	Council	TOR Category	Transport
Name	Isaac Regional Council	Relevant EIS Section	

DETAILS OF THE ISSUE

The EIS should commit to full grade separation of all road and rail intersections to prevent collision death and trauma of corridor users. The EIS should also provide extensive stock and rural service underpasses to prevent alienation of the rail corridor rural lands. A failure to do so in the implementation phase of the infrastructure sets an unwelcome and unproductive legacy for future rural generations.

PROPONENT RESPONSE

While it is understood that DTMR desires grade separation for all roads crossed by rail line, this is not considered a necessary provision for the minor roads identified. Where the rail line crosses Suttor Development Road and the Bowen Development Road, the existing traffic volumes are in the order of 40 VPD. As such, grade separation is not warranted as conflict between trains and vehicles will be very infrequent.

Each crossing location will require a detailed field assessment to determine if suitable sight distance is achievable. If not, there are several measures which can be taken before reverting to signals and boom gates, including clearance of obstructions and providing amended road alignments.

Assessment of all at-grade level crossings will be carried out using the ALCAM (Australian Level Crossing Assessment Model) model where the national committee's chairman has formally approved the use of the ALCAM system by Waratah Coal.

Submitter No.	1840	Issue Reference:	11006
Submitter Type	Council	TOR Category	Transport
Name	Barcaldine Regional Council	Relevant EIS Section	1.2.1

DETAILS OF THE ISSUE

Internal road network – Please advise on how impacts to the surrounding road networks will be addressed.

PROPONENT RESPONSE

Please refer to *Traffic Engineering* report in *Appendices – Volume 2* of this SEIS.

Submitter No.	357	Issue Reference:	11007
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Vol 3, Ch 13, S13.7, p468

DETAILS OF THE ISSUE

No commitment is given to provide grade-separation of the project rail line and the North Coast Line.

Section 13.7 should be amended to show commitments to the provision of grade-separation of the rail line and North Coast Line, which will be as agreed with Queensland Rail for the timing of delivery of grade-separation.

PROPONENT RESPONSE

Grade separation of the two railway lines will not be necessary as the Waratah Coal rail line will terminate on the southern side of the existing QR North Coast Line and will not cross the NCL. Coal will be transferred by conveyors from the rail line Coal area to the port handling area.

Submitter No.	**358**	Issue Reference:	**11008**
Submitter Type	Government	TOR Category	**Transport**
Name	**DTMR**	Relevant EIS Section	Vol 4, Ch 1, S1.2.2.1 & S1.2.2.2, p7

DETAILS OF THE ISSUE

Further to the inconsistencies around whether the rail line crosses the North Coast Line, these sections should clarify whether there will be any rail crossing of the North Coast Line and to what standard.

Clarify in s1.2.2.1 and s1.2.2.2 :

- whether there will be any rail crossing of the North Coast Line and to what standard, or
- where there is a conveyor traversing the North Coast Line, s1.2.2.2 should clearly identify how this will be achieved to standards agreed with Queensland Rail.

PROPONENT RESPONSE

Grade separation of the two railway lines will not be necessary as the Waratah Coal rail line will terminate on the southern side of the existing QR North Coast Line and will not cross the NCL. Coal will be transferred by conveyors from the rail line Coal area to the port handling area.

Submitter No.	**356**	Issue Reference:	**11009**
Submitter Type	Government	TOR Category	**Transport**
Name	**DTMR**	Relevant EIS Section	Vol 1, Ch 8, Section 8.8.15.1, p236

DETAILS OF THE ISSUE

The first paragraph under this section refers to the temporary nature of the rail construction works and its likelihood of not coinciding with other works in the surrounding area.

Given that there are proposed multiple developments in the Galilee Basin, all scenarios need to be considered in relation to the cumulative impacts.

PROPONENT RESPONSE

Please refer to *Traffic Engineering* report in *Appendices – Volume 2* of this SEIS. Critical operation of the road network will occur once construction of the rail lines has finished. Cumulative impacts have been calculated for these critcal operations and therefore consider mine operating as opposed to construction (including rail corridor).

Submitter No.	356	Issue Reference:	11010
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Vol 5, Appendix 21 Executive Summary, p16

DETAILS OF THE ISSUE

Reference is made to a new road and access to the Bruce Highway for access to the coal terminal. No analysis of this has been undertaken within the TIA to justify the proposal referenced in Figure 5.6 of the Appendix 21 of the TIA. 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 proposed access may conflict with existing and future Bruce Highway alignments. The TMR road chainage reference does appear to reflect the notional location shown in Figure 4.1 of Volume 5 Traffic and Transport.

Clarification is required on the location of proposed crossing of the Bruce Highway in relation to TMR road inventory chainages. Analysis is required in accordance with Part 13 of the RP&D manual and SIDRA to confirm the suitability of the intersection configuration proposed

PROPONENT RESPONSE

The proposed port has been removed from this project and is no longer a component. Waratah Coal is flexible on the location of any access road and welcomes any consultation with DTMR.

Submitter No.	356	Issue Reference:	11011
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	13 – Transport

DETAILS OF THE ISSUE

The EIS does not assess whether the project will have any marine transport impacts including all impacts resulting from the transportation of material to construct the facility and during its operation

The EIS should consider and address relevant cumulative impacts on and mitigations strategies for marine safety and safety of the environment related to: a) the transportation of export coal via Queensland waters beyond port facilities as part of the logistics chain; and b) ship-sourced pollution related to the transportation of export coal via Queensland waters The preferred format for presentation of this information is through the development of management plans for:

- vessel traffic management
- aids to navigation, and
- prevention of ship-sourced pollution.

PROPONENT RESPONSE

The proposed port has been removed from this project and is no longer a component. By way of comment, existing port facilities at Townsville, Abbot Point, Bowen, Mackay and Gladstone will be considered as access ports for the importation of construction materials.

Submitter No.	356	Issue Reference:	11012
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Vol 1, Ch 5, Section 5.4.8, p80

DETAILS OF THE ISSUE

Tables 27, 28 and 29 do not contain sufficient detail to quantify the impacts. Please clarify the value of the units used throughout the three tables.

PROPONENT RESPONSE

Please refer to *Traffic Engineering* report in *Appendices – Volume 2* of this SEIS. It is intended to use the rail corridor for the transport of bulk products to the mine site once the railway has been completed. Fuel for example will be transported using a train consist of 95,000 litre fuel tanker wagons.

Submitter No.	356	Issue Reference:	11013
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Vol 1, Ch 5, Section 5.5, p90

DETAILS OF THE ISSUE

Table 39 and 40 do not contain sufficient detail to quantify the impacts.

The tables need to include the values of the ratings used and background information to understand the results.

PROPONENT RESPONSE

The Cumulative Impact Assessment (CIA) will be finalised by February 2013.

Submitter No.	356	Issue Reference:	11014
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Vol 2, Ch 13, Section 13.2.8, p356

DETAILS OF THE ISSUE

This section makes reference to the requirement for mine staff to cross the existing rail line between Alpha and Jericho.

There is a need to consider the risks of short-stacking of vehicles at the intersections where the railway line is in close proximity.

PROPONENT RESPONSE

Two design approaches considered. The first is to configure the road between the rail line and the highway, such that queuing length is significantly increased. This would include an "S-shaped" road section where the new road would run parallel to the highway and rail line in between the conflict points. This may also include a left turn slip and merge lane onto the highway to limit the delay and queuing of vehicles approaching from the north.

The second option is to locate the intersection where the train line is at least 200m away. This separation will allow sufficient queuing space between the intersection and the crossing point. As such, further detailed investigation is required, which may result in minor adjustment to the location and configuration of this intersection.

During detailed design, the safety/design of this level crossing will be carried out using the ALCAM (Australian Level Crossing Assessment Model) model where the national committee chairman has formally approved use of the ALCAM system by Waratah Coal.

Submitter No.	**356**	Issue Reference:	**11015**
Submitter Type	Government	TOR Category	**Transport**
Name	**DTMR**	Relevant EIS Section	Vol 2, Ch 13, Section 13.3.1, p357

DETAILS OF THE ISSUE

Tables 1, 2, 3 & 4 appear to be a generalisation of road segments and data. When the proponent updates the Road Impact Assessment and Road Use Management Plan, TMR will require a more detailed analysis.

PROPONENT RESPONSE

Please refer to *Traffic Engineering* report in *Appendices – Volume 2* of this SEIS for further details. The tables within it show a breakdown of uniform road sections. The data supplied is uniform and is in accordance with DTMR data sources.

Submitter No.	**356**	Issue Reference:	**11016**
Submitter Type	Government	TOR Category	**Transport**
Name	**DTMR**	Relevant EIS Section	Vol 2, Ch 13, Section 13.3.1.6, p358; Vol 5, Ch 21, Section 3.10.9, p51

DETAILS OF THE ISSUE

These sections indicate that there is no flooding regularly occurring to the west of Alpha. The EIS should correctly state that flooding on the Capricorn Highway occurs regularly in the wet season west of Alpha.

PROPONENT RESPONSE

Waratah Coal acknowledges flooding on the Capricorn Highway occurs west of Alpha.

Submitter No.	356	Issue Reference:	11017
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Vol 2, Ch 13, Section 13.3.1.7, p358; Vol 5, Ch 21, Section 3.10.11, p53

DETAILS OF THE ISSUE

These sections indicate that there is only a single school bus operating in the region.

DTMR is aware that there are a number of school buses operating in the region, subsequently further consideration should be made as to whether project traffic may increase the road safety risks for school buses operating in the region.

PROPONENT RESPONSE

There are 6 bus routes affected by the proposed heavy vehicle routes P994, P1519, S368, P1293, P1113, P954, P980. There are 11 routes in total covering Emerald to Barcaldine.

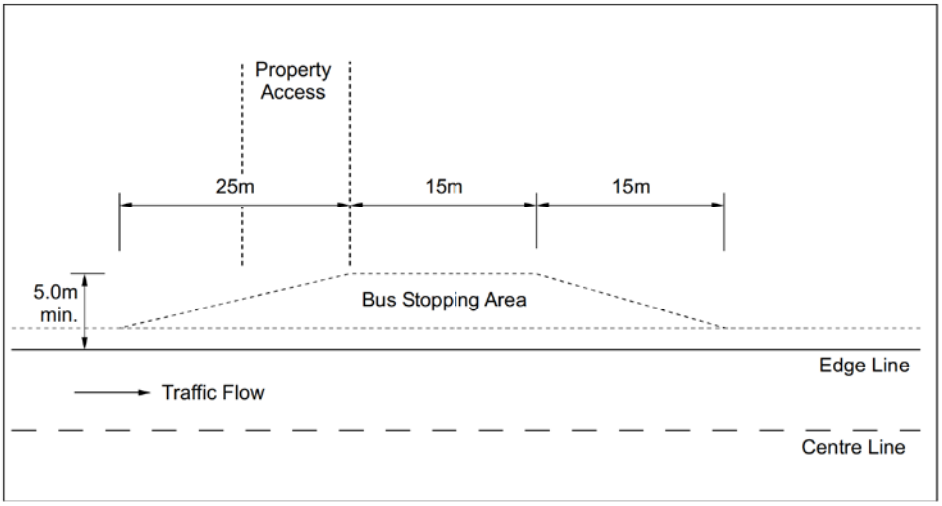
The area has 6 schools, refer student numbers below:

- Alpha State School – 80 Students
- Jericho State School – 16 students
- Emerald State High School – 613 students
- St Patricks Primary – 680 students
- Emerald Christian College – 186 students, and
- Marist College Emerald – 500 students.

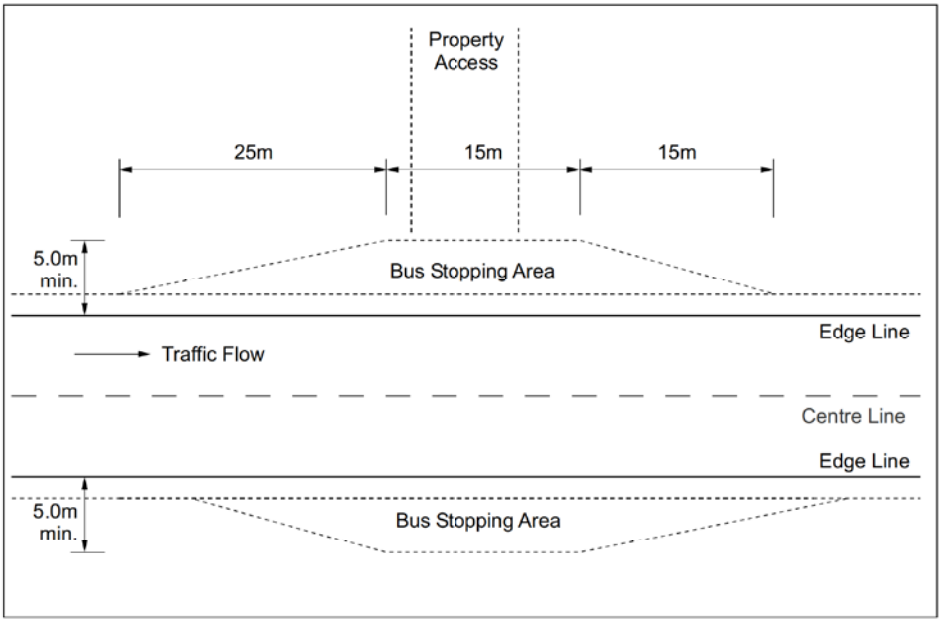
Under the existing low traffic volume environment, these unformed, casual pick-up areas are considered appropriate. However, should traffic volumes increase significantly, consideration may need to be given to providing more formalised bus facilities, including shelters, traffic signage and sealed bus stopping areas well clear of the carriageway. Refer to Figure 2 – Typical Mid-Block School Bus Stop Layouts[2].

2 Qld Transport and Department of Main Roads. 2000. *Guide for the Road Safety Management of Rural Bus Routes and Bus Stops, Draft.*

Figure 2. Typical Mid-Block School Bus Stop Layouts



(a) School bus stopping area adjacent to property access



(b) School bus stopping area across property access and/or opposite property access

Submitter No.	356	Issue Reference:	11018
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Vol 2, Ch 13, Section 13.4.3, p360

DETAILS OF THE ISSUE

The reference to Table 5 in the text is for estimated traffic generation external to the mine site, whereas Table 5 is headed "Estimated Mine Site Traffic". This requires clarification as to which figures are included in Table 5.

PROPONENT RESPONSE

Waratah Coal acknowledges that table 5 should read as "Estimated Mine Off-Site Traffic"

Submitter No.	356	Issue Reference:	11019
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Vol 2, Ch 13, Section 13.4.4, p360; Vol 5, Ch 21, Section 3.7.2, p32

DETAILS OF THE ISSUE

These sections consider traffic travelling east, west or north and doesn't provide sufficient information on the origins and destinations for both Light and Heavy Vehicles.

PROPONENT RESPONSE

Please refer to *Traffic Engineering* report in *Appendices – Volume 2* of this SEIS.

Submitter No.	356	Issue Reference:	11020
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Executive Summary, Section 3.1.17.2, p46; Vol 2, Ch 13, Section 13.5, p361

DETAILS OF THE ISSUE

This section addresses Capacity, Safety and Pavement Impacts for roads. This section does not address the possible road width, vertical and horizontal alignment issues and need for provision of overtaking opportunities.

PROPONENT RESPONSE

Please refer to EIS Appendix 21 section 3.8.3 Intersection Analysis and the *Traffic Engineering* report in *Appendices – Volume 2* of this SEIS.

Submitter No.	356	Issue Reference:	11021
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Vol 2, Ch 13, Section 13.6.1.4, p368; Vol 5, Ch 21, Section 3.10.4, p49; Vol 5, Ch 21, Section 4.10.3, p88

DETAILS OF THE ISSUE

These sections make reference to using the 2007 version of the Manual of Uniform Traffic Control Devices. The latest version of the Manual of Uniform Traffic Control Devices is the 2010 version, which was issued on 30th April 2010. At all times, the latest version of this manual should be used.

PROPONENT RESPONSE

Waratah Coal acknowledges the requirement to use the latest version of the Manual of Uniform Traffic Control Devices.

Submitter No.	356	Issue Reference:	11022
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Vol 2, Ch 13, Section 13.6.1.7, p368; Vol 3, Ch 13, Section 13.5.11, p466; Vol 5, Ch 21, Section 3.10.11, p53; Vol 5, Ch 21, Section 4.10.9, p91

DETAILS OF THE ISSUE

These sections make reference to "unformed casual pick-up areas" in relation to buses. Clarification about where these stops are and an analysis regarding their current and proposed usage is required.

PROPONENT RESPONSE

Under the existing low traffic volume environment, these unformed, casual pick-up areas are considered appropriate. However, should traffic volumes increase significantly, consideration may need to be given to providing more formalised bus facilities, including shelters, traffic signage and sealed bus stopping areas well clear of the carriageway. Refer Figure 2 – Typical Mid-Block School Bus Stop Layouts, at Issue Reference 11017 in Part C – Transport.

Submitter No.	356	Issue Reference:	11023
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Vol 2, Ch 13, Section 13.6.2, p369

DETAILS OF THE ISSUE

This section refers to using proposed boom gates and signals at the OLC at Saltbush Road to prevent queuing across the rail line. This may prevent queuing, but does not solve the issue with short-stacking at this location.

PROPONENT RESPONSE

Where Saltbush Road intersects the Highway, the rail line is located approximately 35m to the north. This spacing is considered inappropriate for vehicle queuing at the future railway or highway intersection. For example, a single road train with a design length of 53.5m would have the rear trailer overhang the rail line while giving way at the Capricorn Highway. A similar conflict would occur where a road train waits for a passing train and obstructs the highway.

As such, two design approaches considered. The first is to configure the road between the rail line and the highway, such that queuing length is significantly increased. This would include an "S-shaped" road section where the new road would run parallel to the highway and rail line in between the conflict points. This may also include a left turn slip and merge lane onto the highway to limit the delay and queuing of vehicles approaching from the north.

The second option is to locate the intersection where the train line is at least 200m away. This occurs approximately 1.8km west of Saltbush Road. This separation will allow sufficient queuing space between the intersection and the crossing point. This would locate the intersection approximately 9km from Alpha. It is noted in suitable road grades along the highway alignment, but excessive grades for rail. As such, further detailed investigation is required, which may result in minor adjustment to the location of this intersection.

The crossing of the mine access road and rail line may be provided as signals only (no boom gates). Boom gates are generally required where:

- Vehicular-train exposure at level crossings (veh/day x trains/week) exceeds 50,000
- Where sufficient sight distances are not available, and
- Where curved rail lines provide inappropriate approach angles.

This road will carry 2,300 vpd, over a train line with less than 10 trains/ week. Therefore, vehicle/ train exposure is less than 23,000. However, to provide additional safety, boom gates may be installed particularly in the Option 1 access road intersection where the boom gates will limit opportunities for vehicles to queue on the tracks.

During detailed design, the safety/design of this level crossing will be carried out using the ALCAM (Australian Level Crossing Assessment Model) model where the national committee chairman has formally approved the use of the ALCAM system by Waratah Coal.

Submitter No.	356	Issue Reference:	11024
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Executive Summary, Section 3.2.16.1, p59; Vol 3, Ch 13, Section 13.5.4.2, p462; Vol 5, Ch 21, Section 1, p16; Vol 5, Ch 21, Section 4.8.5.2, p77

DETAILS OF THE ISSUE

These sections refer to the suitability of level crossings at State Controlled Roads (SCRs).

The Department requires all new crossings of SCRs by the rail network to be grade-separated.

PROPONENT RESPONSE

While it is understood that DTMR desires grade separation for all roads crossed by rail line, this is not considered a necessary provision for the minor roads identified. Where the rail line crosses Suttor Development Road and the Bowen Development Road, the existing traffic volumes are in the order of 40 VPD. As such, grade separation is not warranted as conflict between trains and vehicles will be very infrequent.

Each crossing location will require a detailed field assessment to determine if suitable sight distance is achievable. If not, there are several measures which can be taken before reverting to signals and boom gates, including clearance of obstructions and providing amended road alignments.

Assessment of all at-grade level crossings will be carried out using the ALCAM (Australian Level Crossing Assessment Model) model where the national committee chairman has formally approved the use of the ALCAM system by Waratah Coal.

Submitter No.	356	Issue Reference:	11025
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Vol 5, Ch 21, Section 3.8.3, p34

DETAILS OF THE ISSUE

This section refers to Level of Service for Intersections only in relation to capacity. Additional considerations need to be taken into account when analysing intersections (e.g.: turn radii, sight distance)

PROPONENT RESPONSE

Waratah Coal will review other aspects when analyzing proposed intersections. It should be noted appropriate design vehicles are used to model suitability of intersection radii. Please refer to *Traffic Engineering Report* in *Appendices – Volume 2* of this SEIS.

Submitter No.	356	Issue Reference:	11026
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Vol 5, Ch 21, Section 3.9.1, p43

DETAILS OF THE ISSUE

Table 3-4 "Existing Vehicle Loading – Capricorn Highway (Alpha to Emerald)" quotes ESA figures from the 2003 Road Planning and Design Manual.

Please use the current Road Planning and Design Manual and review and update the ESA figures.

PROPONENT RESPONSE

Waratah Coal acknowledges that the Road Planning and Design Manual August 2004 is the latest reference. Please refer to *Traffic Engineering Report* in *Appendices – Volume 2* of this SEIS.

Submitter No.	356	Issue Reference:	11027
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Vol 2, Ch 13, Section 4.4, p360

DETAILS OF THE ISSUE

This section indicates that only 5% of construction and operational traffic associated with the mine will be distributed north of the site. This seems a rather small figure given the proximity of a Mackay as a major service provider and the proximity of the mine along Alpha Clermont Road. In addition, no allowance has been made for movements north of Emerald along the Dawson and Peak Downs Highways. Mackay is a major provider of services for the Bowen and Galilee Basins and no allowance has been made for this in this section.

An amended Road Impact Assessment (RIA) is to be undertaken which includes the broader State controlled road network, explaining the rationale for trip allocations for project traffic.

PROPONENT RESPONSE

Please refer to *Traffic Engineering Report* in *Appendices – Volume 2* of this SEIS. This references the proximity of Gladstone and Rockhampton to the east. It also focuses to a lesser extent on Blackwater, Emerald and Dingo which are the main attractions for mine generated development trips.

Submitter No.	356	Issue Reference:	11028
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Vol 2, Ch 13, Section 5.4, p462

DETAILS OF THE ISSUE

This indicates that the rail network will intersect the State Controlled Road (SCR) network and cross at two locations (Bruce Highway and Gregory Developmental Road) with grade-separated crossings with further crossings of the Suttor Developmental and Bowen Developmental Roads which are proposed to be at-grade. No justification has been provided on the proposal to construct at grade crossings.

The Department requires all new crossings of SCRs by the rail network to be grade-separated. As such further investigations into the potential to grade-separate the crossings of Suttor Developmental and Bowen Developmental Roads is required.

PROPONENT RESPONSE

While it is understood that DTMR desires grade separation for all roads crossed by rail line, this is not considered a necessary provision for the minor roads identified. Where the rail line crosses Suttor Development Road and the Bowen Development Road, the existing traffic volumes are in the order of 40 VPD. As such, grade separation is not warranted as conflict between trains and vehicles will be very infrequent.

Each crossing location will require a detailed field assessment to determine if suitable sight distance is achievable. If not, there are several measures which can be taken before reverting to signals and boom gates, including clearance of obstructions and providing amended road alignments.

Assessment of all at-grade level crossings will be carried out using the ALCAM (Australian Level Crossing Assessment Model) model where the national committee chairman formally approved the use of the ALCAM system by Waratah Coal.

Submitter No.	356	Issue Reference:	11029
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Vol 5, Appendix 21 Staffing Operations, p23

DETAILS OF THE ISSUE

This acknowledges that there will be a component of the workforce that will be made up of the local population. If the assumed mix of local versus FIFO changes, it may mean that additional construction personnel will come from surrounding areas in particular major regional centres. This may have a significant impact on SCR network. The EIS does not address the need to minimise the number of employee transport on the road network. The issue of driver fatigue counter-measures has not been addressed.

Any change in the method of transportation of construction personnel will require assessment of the impact on the SCR network. This is appropriately captured with a revised RIA. Further information is required on how the proponent intends to address increased safety risk from construction and operational workforce driving longer distances to their place of permanent residence.

PROPONENT RESPONSE

To address this issue Waratah Coal proposes a combined review of fatigue management and rest areas west of Emerald. The review should be coordinated by RAAG and include the following stakeholders:

- DTMR (Main Roads)
- South Galilee Coal Mine
- Kelvin's Corner Coal Mine
- North Alpha Coal Mine
- Waratah Coal
- Regional Councils
- QPS, and
- QTA.

It is expected that the review will lead to developing guidelines for a uniform Road User Management Plan. The RUMP will then form part of employee induction training for all staff working on site. Please refer to *Traffic Engineering* report in *Appendices – Volume 2* of this SEIS.

Submitter No.	**356**	Issue Reference:	**11030**
Submitter Type	Government	TOR Category	**Transport**
Name	**DTMR**	Relevant EIS Section	Vol 5, Appendix 21, Section 3.7, p32

DETAILS OF THE ISSUE

As per previous comments, this section indicates that only 5% of construction and operational traffic will be distributed north of the site. TMR does not agree with this distribution.

In addition, the analysis does not appear to include major regional centres (Mackay) as destinations. Given the proximity of Mackay as a major service provider for the Bowen and Galilee Basins and the proximity of the mine along Alpha Clermont Road, these assumptions do not appear to reflect the potential distributions. No allowance has been made for movements north of Emerald along the Dawson and Peak Downs Highways.

Following discussion with DTMR's Mackay Regional Office about trip allocations, an updated RIA should be undertaken with amended distributions

PROPONENT RESPONSE

Please refer to *Traffic Engineering* report in *Appendices – Volume 2* of this SEIS. This references the proximity of Gladstone and Rockhampton to the east. It also focuses to a lesser extent on Blackwater, Emerald and Dingo which are the main attractions for mine generated development trips.

Submitter No.	356	Issue Reference:	11031
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Vol 5, Appendix 21, Section 3.8.3, p34

DETAILS OF THE ISSUE

The analysis undertaken of the intersections with the SCR has only taken capacity into consideration. No analysis has been undertaken in relation to Part 13 of the RP&D manual to assess the impact of additional turning movements. An assessment in accordance with Part 13 of the RP&D manual should be undertaken on the impact that additional turning movements will have on the safety of intersections with the SCR.

PROPONENT RESPONSE

No road in the local area is expected to carry more than 3,000 vpd, inclusive of background traffic growth and direct mine traffic. As such, the provision of adequate two-lane, two-way carriageways will retain a Level of Service A on all roads. It should be noted that current turn volumes on all rural roads are subjected to less than 5 vpd currently, as such, no turn lanes are warranted. In the future, further development on these roads may warrant increase turn facilities. This would be associated with development along these roads, therefore impact of the mine is indirect. Individual TIA's to be undertaken as part of each quarry approval.

Submitter No.	356	Issue Reference:	11032
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Vol 5, Appendix 21 Section 3.9, p42

DETAILS OF THE ISSUE

The EIS indicates that no haulage access to the mine site will be provided from the north via the Clermont-Alpha Road. As such no further analysis has been undertaken. This is an as of right public road and a Type 2 Road Train route. It is not clear how the proponent is able to demonstrate compliance with such an undertaking. This is inconsistent with the statements made in Volume 2, Rail Chapter 13 which indicates that the Alpha-Clermont Road will initially be used for access.

In addition Figures 3, 4 and 5 indicate other SCRs which may be used as haul roads for construction of the Rail. The TIA also indicates that the majority of heavy vehicle movements will not extend past Emerald. This is inconsistent with current patterns within the Bowen Basin and given the proximity of Mackay as a major Regional Centre and service provider for both the Bowen and Galilee Basins, TMR does not agree with subsequent approach to omit assessment of potential impacts for the balance of the SCR in this area

An amended RIA taking into consideration the proximity of Mackay as a major provider of services and also the balance of the SCR which may be used as a haulage route for materials required during construction of mine and rail needs to be undertaken.

PROPONENT RESPONSE

Please refer to *Traffic Engineering* report in *Appendices – Volume 2* of this SEIS.

Submitter No.	356	Issue Reference:	11033
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Vol 5 Appendix 21, Section 3.9.1 & Table 3.4, p43

DETAILS OF THE ISSUE

Table 3.4 adopts an average ESA per vehicle type for the unloaded and loaded scenario. This analysis is not consistent with the methodology outlined in TMR's Guidelines for Assessment of Road Impacts of Development. There is a requirement to separately assess loaded vehicle impacts with an appropriate ESA factor.

Amended RIA will need to be undertaken taking into consideration impact on pavements adopting a loaded vehicle and its associated ESA factor.

PROPONENT RESPONSE

Assumptions have been made regarding back ground traffic in accordance with Austroads technical report AP T61/06.

Submitter No.	356	Issue Reference:	11037
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Vol 5, Appendix 21 Section 5.6.3, p105

DETAILS OF THE ISSUE

Reference is made to a new road and access to the Bruce Highway for access to the coal terminal. No analysis of this has been undertaken within the TIA to justify the standard of the intersection referred to in Figure 5.6. No inventory location (i.e. chainage for gazetted start of road) is given to enable TMR to locate the intersection in relation to the network. 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 access may conflict with future and existing Bruce Highway alignments

An assessment in accordance with Part 13 of the RP&D manual to determine the minimum standard required for this intersection. In addition capacity analysis via SIDRA will also be required to determine the intersections standard required to accommodate a ten year design horizon. The intersection will need to be referenced to a TMR inventory to enable the location to be considered further. The proponent is to work with Mackay/Whitsunday Regional Office in the development of more detailed intersection layouts to ensure that any conflict with existing and future Bruce Highway road corridors and infrastructure is avoided

PROPONENT RESPONSE

The proposed port has now been removed from this project and is no longer a component.

Assessment and design of any new access road will be carried out in accordance with RPDM in consultation with local authorities. Proposed alignments will specifically take into account the potential conflicts and existing dwelling access points.

Submitter No.	**356**	Issue Reference:	**11038**
Submitter Type	Government	TOR Category	**Transport**
Name	**DTMR**	Relevant EIS Section	Vol 5, Appendix 21, Section 5.7, p109

DETAILS OF THE ISSUE

This section indicates that heavy vehicle movement destination may include Collinsville. No analysis or consideration has been given in Section 5.7 about the potential impact on Bowen Developmental Road. The updated RIA will need to be undertaken considering the impact on pavements including the Bowen Developmental Road.

PROPONENT RESPONSE

Please refer to *Traffic Engineering* report in *Appendices – Volume 2* of this SEIS. The TIA indicates minimal mine traffic is generated on these roads, therefore no further analysis has been carried out.

Submitter No.	**356**	Issue Reference:	**11039**
Submitter Type	Government	TOR Category	**Transport**
Name	**DTMR**	Relevant EIS Section	Page 117, Vol 5, Appendix 21 Section 6

DETAILS OF THE ISSUE

No consideration has been given to potential cumulative impacts on SCR roads such as Bowen Developmental, Gregory Developmental, Suttor Developmental, Alpha Clermont, and the Peak Downs and Dawson Highways.

The updated RIA will need to be undertaken which assesses potential impacts on the broader SCR network.

PROPONENT RESPONSE

Please refer to *Traffic Engineering* report in *Appendices – Volume 2* of this SEIS. This report indicates that there will be minimal mine-generated traffic on these roads.

Submitter No.	**356**	Issue Reference:	**11040**
Submitter Type	Government	TOR Category	**Transport**
Name	**DTMR**	Relevant EIS Section	Vol 1, Ch 2 S2.2.2 Table 3, p24

DETAILS OF THE ISSUE

Item "Approval to interfere with a railway line" This item is thought to refer to s255 TIA and identifies that the relevant authority is the Department of Transport and Main Roads (TMR). The correct relevant authority for a s255 TIA assessment is Queensland Rail.

PROPONENT RESPONSE

Waratah Coal will associate with the relevant authority Queensland Rail when seeking approval to interfere with a railway line.

Submitter No.	356	Issue Reference:	11041
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Vol 1, Ch 2 S2.2.2.14, p29

DETAILS OF THE ISSUE

Further to the above comment, this section should identify that the approval of the railway manager (Queensland Rail) is required for any interference with the North Coast Railway Line.

Amend s2.2.2.14 to include the sentence: "The approval of the railway manager (Queensland Rail) is also required for any interference with the North Coast Railway Line."

PROPONENT RESPONSE

Grade separation of the two railway lines will not be necessary as the Waratah Coal rail line will terminate on the southern side of the existing QR North Coast Line and will not cross the NCL. Coal will be transferred by conveyors from the rail line Coal area to the port handling area.

Waratah Coal acknowledges however, that "The approval of the railway manager (Queensland Rail) is also required for any interference with the North Coast Railway Line" to outline the requirements of the *Transport Infrastructure Act 1994*.

Submitter No.	356	Issue Reference:	11042
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Vol 2 Mine, Ch 13, S13.2.8, p356; S13.3.2, p359; S13.5.2.2, p363; S13.6.1.2, p367; 13.6.2, p369

DETAILS OF THE ISSUE

These sections of the EIS make no mention of the requirement for the project proponent to seek approval for the arrangements for the rail crossings with Queensland Rail.

These sections should also acknowledge that agreement with Queensland Rail will need to be reached on the timing, level of protection and location of the level crossing. S13.2.8 should also cross reference with Vol 3 s13.3.6 to identify any level crossing upgrade requirements resulting from the increase in heavy vehicle haulage.

PROPONENT RESPONSE

Waratah Coal acknowledges the requirement for approval from Queensland Rail in regards to rail crossing upgrades.

Submitter No.	356	Issue Reference:	11043
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Vol 2, Ch 13, S13.4 & S13.4.3, p360

DETAILS OF THE ISSUE

The proponent has indicated that:

- during the construction phase of the mine approximately 290 heavy vehicles per day visiting the site to supply equipment and materials including mining equipment, building supplies, fuel, concrete, structural steel and mechanical plant and equipment, and
- during the operational phase of the mine there will be approximately 180 heavy vehicles per day visiting the mine to supply services and equipment for the including fuel, explosives, mechanical parts, waste disposal, camp and office consumables and, etc.

The proponent is requested to provide more detail on the magnitude of the transport task for the delivery of construction and operational inputs for the mine. This information would include: tonnages/volumes; number of vehicle movements for each type of input; where these inputs are sourced; and transport routes and timing. Additionally, given the close proximity of the mine site to the Central Western rail line (Rockhampton-Longreach), the proponent is requested to investigate the feasibility of utilising rail as a option to deliver construction supplies and operational inputs for the mine and provide a summary of the outcomes of consultation with potential rail operators. In addition, as the mine when operating will be connected to the Port of Abbot Point, with a train provisioning facility that will incorporate diesel fuel facilities, it is recommended that the proponent investigate the use of rail to deliver bulk fuel to the mine site. It is understood that Hancock Coal are investigating such options.

PROPONENT RESPONSE

Please refer to *Traffic Engineering* report in *Appendices – Volume 2* of this SEIS. An upgraded trip generation has been provided. This has included a significantly reduced trip generation based on previous experience and further detailed inventory supplied by the proponent.

Submitter No.	356	Issue Reference:	11044
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Vol 2, Ch 13, S13.8, p370

DETAILS OF THE ISSUE

This section does not show commitments to the provision of safe level crossings previously stated in 13.6.1.1 and 13.6.2 and which will be as agreed with Queensland Rail for the timing of delivery, level of protection and location of the mine access road level crossing over the Western Rail Line.

PROPONENT RESPONSE

Waratah Coal acknowledges that commitments previously stated in 13.6.1.1 and 13.6.2 are required to be stated in 13.8. Assessment of all at-grade level crossings will be carried out using the ALCAM (Australian Level Crossing Assessment Model) model where the national committee's chairman has formally approved the use of the ALCAM system by Waratah Coal.

Submitter No.	356	Issue Reference:	11045
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Vol 3, Ch 1, S1.1.2.5, p10

DETAILS OF THE ISSUE

Section 1.1.2.5 identifies that the rail will not cross the North Coast Line whereas sections 13.1 and 13.2.8.6 state that it will. The North Queensland Bulk Ports "Inland Coal Terminal Site Selection Study Abbot Point Coal Terminal" (2 Sept 2010) also identifies a crossing of the North Coast Line.

The EIS should establish a consistent position in the relevant sections of the EIS (e.g. Vol 3 s1.1.2.5, s13.1, s13.2.8.6, s13.4.3, s13.5.4 and Vol 4), on whether the rail line will cross the North Coast Line and also identify the method of this crossing, as agreed with Queensland Rail.

PROPONENT RESPONSE

Grade separation of the two railway lines will not be necessary as the Waratah Coal rail line will terminate on the southern side of the existing QR North Coast Line (NCL) and will not cross the NCL. Coal will be transferred by conveyors from the rail line Coal area to the port handling area.

Submitter No.	356	Issue Reference:	11046
Submitter Type	Government	TOR Category	Transport
Name	DTMR	Relevant EIS Section	Vol 3, Ch 10, S10.2.3 & S10.3.2.3.2, p396

DETAILS OF THE ISSUE

The potential impacts of coal dust emissions are not adequately assessed or addressed, as the methodology used (the Environmental Evaluation of Fugitive Coal Dust Emissions from Coal Trains Goonyella, Blackwater and Moura Coal Systems, QR National 2008), only considered the impact of dust deposition and total suspended particles (TSP) beyond the rail corridor. The Environmental Evaluation and this EIS has not identified or considered the substantial impact of coal loss and coal dust deposition within the rail corridor, on railway ballast fouling and its consequent impacts on rail safety and maintenance costs, on the efficient operation of the railway, on other railway users and on the Queensland government through reduced exports and loss of royalties

Section 10.2.3.2 should be expanded to assess the impact of the impact of coal loss and coal dust deposition on railway ballast fouling, its consequent impact on operations, rail safety and maintenance costs on the operation of the railway, other railway users and on the Queensland government through rail system efficiency losses and consequent loss of coal exports and lost royalties

PROPONENT RESPONSE

It is not practical to slow trains in sensitive dust areas and it is arguable that the inefficiencies in doing this would adversely add to the environmental conditions.

The major sources of dust emissions from coal trains are from:

1. the bottom of the wagons where the 'bottom dump doors' are operating incorrectly
2. the top of the wagons in the empty trains particularly when the loaded train has not been fully unloaded, and
3. the top of the wagons in the loaded train.

Waratah Coal proposes to use tippler wagons (gondola) rather than the more traditional bottom dump coal wagons. Condition 1 will be eliminated and Condition 2 reduced due to the use of tippler wagons (gondola type) where coal hang-up should be negligible or eliminated compared with bottom dump wagons where this action occurs quite frequently particularly in wet weather.

In addition to the tippler wagons, Waratah Coal's solution to mitigation of coal dust is to provide a cover to the top of the wagons. These covers will eliminate Condition 3 and the reduced Condition 2. Waratah Coal has already had discussions with a large International company which specialises in providing covers to rail wagons. It is intended these covers will be made of fibreglass similar to the ones that have been proven in service, operating in conditions ranging from -40°C to +40°C including certification from the USA Department of Transportation (DOT) that this Railcar Cover System meets the criteria for a closed transport vehicle specified in Title 49 CFR 173.403(c) which allows transportation of contaminated material.

The added benefit of this practice is to provide better train aerodynamics, particularly in the unloaded condition where considerable fuel savings are expected which in turn results in lower emissions.

Submitter No.	**356**	Issue Reference:	**11049**
Submitter Type	Government	TOR Category	**Transport**
Name	**DTMR**	Relevant EIS Section	Vol 5, Appendix 21 Section 3.4 Table 3.1, p27

DETAILS OF THE ISSUE

The TIA has omitted assessment of potential impacts on a number of State-controlled roads, such as the Bowen Developmental Road, Gregory Developmental Road Dawson and Peak Downs Highways.

The RIA must include all potentially-affected sections of the broader State-controlled road network, which are reflected in other parts of the EIS (Figures 4.3 & 4.4 on p67 & 68).

PROPONENT RESPONSE

Please refer to *Traffic Engineering* report in *Appendices – Volume 2* of this SEIS.

Submitter No.	**364**	Issue Reference:	**11050**
Submitter Type	Government	TOR Category	**Transport**
Name	**DEEDI (Mining and Petroleum Operations)**	Relevant EIS Section	General Comment – Transportation

DETAILS OF THE ISSUE

Impact on the Peak Downs Highway

The Draft EIS makes reference to road impacts of increased traffic volume on the Capricornia Highway however makes little/no reference to increased traffic volume on the Peak Downs Highway and potential impacts on the supply and transportation of goods and services, including cattle to the region. The Draft EIS should therefore consider the cumulative impacts of increased traffic on the Peak Downs Highway.

PROPONENT RESPONSE

Please refer to *Traffic Engineering* report in *Appendices – Volume 2* of this SEIS.

Submitter No.	416	Issue Reference:	11051
Submitter Type	Government	TOR Category	Transport
Name	Queensland Police Service	Relevant EIS Section	Vol 1, 8.8.15.2 (Table 22)

DETAILS OF THE ISSUE

The preparation of individual Road Use Management Plans by individual haulage companies will make monitoring and compliance issues associated with road transport untenable.

QPS requested that only one road use management plan (RUMP) is submitted and that all transport contractors comply with the proponents approved plan. QPS requests stakeholder engagement in the preparation of the RUMP.

PROPONENT RESPONSE

To address this issue Waratah Coal proposes a combined review of fatigue management and rest areas west of Emerald. The review should be coordinated by RAAG and include the following stakeholders:

- DTMR (Main Roads)
- South Galilee Coal Mine
- Kelvin's Corner Coal Mine
- North Alpha Coal Mine
- Waratah Coal
- Regional Councils
- QPS, and
- QTA.

It is expected that the review will lead to developing guidelines for a uniform Road User Management Plan. The RUMP will then form part of employee induction training for all staff working on site.

Submitter No.	416	Issue Reference:	11052
Submitter Type	Government	TOR Category	Transport
Name	Queensland Police Service	Relevant EIS Section	Vol 2, 13.5.7

DETAILS OF THE ISSUE

There are no restrictions for over-dimensional and heavy mass vehicle movement.

There are a number of permits from regulatory authorities (DTMR, QPS, ERGON, etc.) that are required to move over-dimensional and heavy mass vehicles. QPS is the final permit-issuing authority for these permits. Central Police Region has a centralised permit issuing section located in Rockhampton for all permits issued within this region. For permits originating outside Central Region, permits are issued from Brisbane. The movement of over-dimensional and heavy mass vehicles, subject to permit requirements, may require police escort(s). Resourcing of vehicles and police officers to meet the demand for all current mining construction activities across Central Region places extreme pressure on their availability to escort loads within project constraints. QPS requests engagement with the proponents in respect to the level of resources required and available to meet the demand for special service escort activities for over dimensional and excess mass loads. QPS notes comments in 13.8, however the QPS requires early engagement from the Proponent regarding advance notice and planning of the schedule requirements.

PROPONENT RESPONSE

As suppliers for materials and equipment which require over-dimension transport to the site are identified, further route assessment and application for appropriate permits will be undertaken. This shall include a review of the DTMR Conditions of Operation Database, which provides an updated source of restrictions for OD vehicles, including around temporary roadwork. Please refer to *Traffic Engineering* report in *Appendices – Volume 2* of this SEIS.

Submitter No.	**668**	Issue Reference:	**11053**
Submitter Type	NGO	TOR Category	**Transport**
Name	**Road Accident Action Group (RAAG)**	Relevant EIS Section	6.2 Mitigation Measures

DETAILS OF THE ISSUE

- RAAG Inc fully recognises Commonwealth and State Legislation covers most instances of risk to the community. However, it must be recognised much of this legislation is in catch up mode due to the cumulative effects of unprecedented rapid growth in the Bowen and Galilee Basin.
- Fatigue related crashes in the Bowen Basin are nearly three times the state average, and possibly the highest in Australia.
- Heavy Vehicle Fatigue Legislation has only been enacted recently, and certainly there is not full recognition in industry to the penalties that apply for non compliance with the Chain of Responsibility.
- cumulative impact on road wear and tear of hundreds of fuel tankers on the road to supply fuel to the mine

PROPONENT RESPONSE

To address this issue Waratah Coal proposes a combined review of fatigue management and rest areas west of Emerald. The review should be coordinated by RAAG and include the following stakeholders:

- DTMR (Main Roads)
- South Galilee Coal Mine
- Kelvin's Corner Coal Mine
- North Alpha Coal Mine
- Waratah Coal
- Regional Councils
- QPS, and
- QTA.

It is expected that the review will lead to developing guidelines for a uniform Road User Management Plan. The RUMP will then form part of employee induction training for all staff working on site.

Please refer to *Traffic Engineering* report in *Appendices – Volume 2* of this SEIS for cumlative impacts on road pavement.

Submitter No.	**416**	Issue Reference:	**11054**
Submitter Type	Government	TOR Category	**Transport** / Health & Safety
Name	**Queensland Police Service**	Relevant EIS Section	Vol 2, 13.2.5

DETAILS OF THE ISSUE

The assessment of vehicle safety based upon historical information will provide bias in interpretation because of the changing nature of the road usage from typically rural to servicing a number of major mining industrial projects.

The measurement of traffic crashes will need to be closely monitored for the inter-relationship between the various Galilee projects as they begin, in order to determine if and when additional safety measures are required due to the changing nature of the mix of types of vehicles.

PROPONENT RESPONSE

Please refer to *Traffic Engineering* report in *Appendices – Volume 2* of this SEIS.

Submitter No.	**417**	Issue Reference:	**11055**
Submitter Type	Council	TOR Category	**Transport** / Social
Name	**Isaac Regional Council**	Relevant EIS Section	

DETAILS OF THE ISSUE

The EIS should address the process of the road transport impacts from the change in operational work method of operating transitional work forces and not housing workers locally and the significant impact the development will have on the service levels of social and built infrastructure.

PROPONENT RESPONSE

Built infrastructure impacts operating FIFO work force:

- Reduction in road traffic with the use of buses to transport workers from the airport to site

Built infrastructure impacts operating DIDO work force:

- Increase in maintenance required for local roads
- Intersection improvements required due to increase in road traffic
- Increase impact on service vehicle operations due to more residential development
- Increase impact on Emergency Services due to an increase in road traffic

Please refer the *Social Impact Management Plan* contained in *Appendices – Volume 2* of this SEIS.

Submitter No.	**1840**	Issue Reference:	**11056**
Submitter Type	Council	TOR Category	**Transport** / Social
Name	**Barcaldine Regional Council**	Relevant EIS Section	13

DETAILS OF THE ISSUE

Includes annotation for proposed airport.

Subcontractors may use FIFO... or use accommodation in Alpha or Jericho

There is no indication on the need for escort/support services including police resources for wide transport/heavy loads etc. Please note impacts and expected resource requirements during stages proposed.

PROPONENT RESPONSE

Waratah Coal is not planning on constructing an airport, all air traffic is proposed to come through the existing Alpha Airport.

Waratah Coal expects up to 10% DIDO from local areas including Alpha and Jericho. Please refer to *Traffic Engineering* report in *Appendices – Volume 2* of this SEIS for amended figures.

As part of the construction and operation phases of the development it is necessary that some indivisible components will be delivered by Over Dimensional (OD) vehicles. Where OD access is required it is necessary to provide pilot vehicles and police escorts, dependent on the size of the vehicle. These requirements are shown below in the figure contained in Volume 2. DTMR also maintains a "Conditions of Operation Database" for OD operation. This should be reviewed periodically along the full length of OD haulage routes to ensure adequate access is available. Once confirmed, permits for such movements are required from DTMR for the operation of OD vehicles.

Submitter No.	**664**	Issue Reference:	**17190**
Submitter Type	Council	TOR Category	Social / **Transport** / Water Resources
Name	**Whitsunday Regional Council**	Relevant EIS Section	

DETAILS OF THE ISSUE

Rail Line Route

The proposed rail line route will connect the mine (near the town of Alpha within the Barcaldine Regional Council area) to the coal stockyards and terminal within the APSDA. Over the proceeding 15-20 years the capacity of the rail is to increase to 400Mt per annum. The proposed 'gradual' increase of rail capacity over the proceeding 15-20 years will require significant further construction. No project timeframe or housing plans for these works are provided as part of this EIS, this inturn, severely distorts the impact the project will have on housing and employment in the region.

Field assessments in 2010 determined a 1.6km wide corridor of investigation for the proposed rail route. The alignment proposed within this EIS has varied slightly to this 1.6km wide corridor. The EIS states that the proposed alignment is yet to be finalised. The proposed rail route will be better defined following airborne laser scanning, outlining that the current proposed alignment is 'indicative, not definitive'. Fluctuation of 50m or 100m of the rail corridor might not appear to have a large overall affect on the outcome on a regional scale, yet at a site based investigation this fluctuation can have significant impacts on the utilisation and value of a single property. To provide certainty to property owners and to calculate the true environmental and social impacts the department should ensure the proponent include detailed design and timelines that reflect the entire life of the project (15-20 years).

This would include projected number of workers required and plans for their accommodation over the projected 15-20 year period. By not providing this information the proponent is misleading the department in its intentions. The Department can not reasonably consider the impact of the rail line without plans of the final route.

PROPONENT RESPONSE

The rail construction workers will be based in work camps, including at Merinda. The operational workforce, for both the port and rail, will be based permanently in or near Bowen.

Waratah Coal will liaise with the Whitsunday Regional Council in regard to construction numbers and rosters, work camp locations and design (and other relevant features) prior to the finalisation of the work camps.

Waratah Coal has commissioned a concept design of the 453km of rail corridor (from the boundary of the APSDA to the beginning of the rail loop at the mine site) – see *Railway Concept Design* report in *Appendices – Volume 2* of this SEIS. This engineering provides the vertical alignment of the rail, which in turn provides the width required for the rail easement. At present, 421km of the rail vertical alignment has been engineered (with the balance 32km awaiting the completion of the Digital Terrain Model (DTM)), which will be completed as soon as possible.

The final railway easement will be an average width of 49.5m[3]. In relatively flat terrain the rail will be 40m wide and in areas where cross-slope cuttings are required the width of the easement will be wider – up to a maximum width of 184m (however there are only two areas exceeding 150m). The easement includes both the rail and a service road. In the 32km of the corridor which have not yet been engineered, a footprint area of 40m was assumed based upon the relatively flat topography.

3 Average width was calculated by dividing the total area of the rail footprint (2215ha) by the length of the rail (453km).

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