Construction Transport Management Plan

BUL-BC-113-240-PLN-0001
Construction Transport Management Plan

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1. Introduction

1.1 Project Background

The Bulga Coal Complex (Complex) is located approximately 12kms south west of Singleton and approximately 4km north of Broke village. The Complex consists of the existing Bulga Surface Operation and the Bulga Underground Operation. The location of the Complex is shown on Figure 1.

The Bulga Optimisation Project (Project) is the extension of the Bulga Surface Operation’s mine life to approximately 2035. The Project involves a construction phase for the realignment of infrastructure. During this time an increase in traffic is expected due to the construction activities. The existing mine workforce is planned to remain at the current levels though the construction phase.

This Construction Transport Management Plan (CTMP) has been prepared to comply with Development Consent DA SSD-4960, Schedule 3, Condition 46 for the Project. Condition 46 states: The Applicant shall prepare and implement a Transport Management Plan for the development to the satisfaction of the Secretary. This Plan must:

a) Be prepared in consultation with the RMS, Council, the Department of Lands and the owner of the mushroom composting facility, and submitted to the Secretary for approval prior to commencing construction on Broke Road realignment;

b) Describe measures that would be implemented to minimise the construction traffic impacts of the development, particularly on the Golden Highway/Putty Road/Mitchell Line of Road intersection;

c) Include the detailed plans for the:
   - Proposed haul road crossing of the crown Road between the two parts of the eastern emplacement Area; and
   - The new rail siding adjacent to the existing Saxonvale Rail Spur; and

d) Include a program to monitor and report on the amount of coal transported from the Bulga mine complex in each calendar year

In relation to the above conditions:

- Item a) is addressed in Section 1.4
- Item b) is dealt with in Section 7
- Item c):
  - Plans are provided for the Haul road crossings in Appendix B
  - The rail siding will not be constructed in the initial phase of the Project and design drawings have not been developed. A revised Construction Transport Management Plan will be developed in consultation with the relevant authorities when the rail
siding is to be constructed. At this stage, construction is expected to commence in 2014. For this reason, Condition C, in relation to the rail siding, is not addressed in this CTMP

- Item d) Coal volumes will continue to be reported as is the current practice through the Annual Environmental Management Report.

### 1.2 Objective

This CTMP identifies the traffic management requirements for the construction aspects of the Project and the general approach to be adopted through this period. In doing this, it also seeks to address the items within DA SSD-4960, Schedule 3, Condition 46 as stated above.

The scope of this plan includes:

- The provisions for the safe movement of vehicular and other traffic,
- The access to properties and the construction sites,
- The provision of traffic controllers, signs, road markings,
- Lighting and barriers, and
- The construction of temporary road ways, crossings and turning lanes as required for the safe management of traffic.

The traffic will be managed so that:

- The movement of traffic, for both the public and workers, continues safely and efficiently,
- The road network operates at an appropriate Level of Service, consistent with current performance
- Delays and disruptions are kept to a minimum

This plan does not include detailed individual Site Traffic Management Plans (STMPs). Individual construction area Site Traffic Management Plans shall be developed through the course of the Project. STMPs describe in detail the work activity, the extent of the impacted traffic and the management and responsibilities for the plans and the work area. The STMPs will be consistent with this CTMP and the Project Surface Transport Management Plan and other Project plans and procedures. STMPs will be prepared for each of the six major construction areas as outlined in Section 1.3

Traffic Control Plans (TCPs) will form part of the STMPs and identify the specific control measures to be implemented for each STMP and each area. TCPs will describe the temporary requirements including signage and barriers and the placement of these items. TCPs will detail traffic control crews and/or signals, delineation devices, temporary speed zones etc. which must be in place and
maintained for the duration of the activity or the impacted work area and include all requirements of the Road Occupancy License (ROL), Section 138 permit. TCPs are dealt with in more detail in Section 10. Individual STMPs will be designed in association with the construction, environmental, quality and any other Plans as required. They will be submitted for approval by the relevant road authority prior to commencement of construction.

1.3 Project Description

To enable extension of the mine life to 2035, significant construction or re-location of existing infrastructure is required at and through the Complex. The Project can be divided into 6 main areas;

- Road relocations and associated services which include;
  - Broke Road (approximately 9kms)
  - Bulga Underground Operations access road (approximately 2kms)
  - Singleton Council Potable water line
  - Broke Fordwich PID infrastructure
  - Telstra services
- Relocation of TransGrid 330kV transmission lines 81 and 82 (each approximately 4kms)
- Construction of a water management system including pumps, pipes, drains, sedimentation dams and a large storage dam
- Construction of haul road bridges
- Construction and relocation of electrical high voltage lines
- Mine infrastructure upgrades to workshop and offices

1.4 Construction Transport Management Plan Consultation

As required by Condition 46 (a), the stakeholders listed in Table 1 below were consulted in the development of the CTMP. Each party was sent a copy of the Draft Construction Transport Management Plan and Table 1 summarises the consultation with each party.

<table>
<thead>
<tr>
<th>Table 1 Consultation references</th>
</tr>
</thead>
<tbody>
<tr>
<td>Party</td>
</tr>
<tr>
<td>-----------------</td>
</tr>
<tr>
<td>RMS</td>
</tr>
<tr>
<td>Singleton Council</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Department of Lands</td>
</tr>
</tbody>
</table>
Monthly meetings will be held with council to deal with traffic related matters

Local Area Command shall be informed of long term traffic measures

1.5 Project Traffic Impact Assessment

As part of the environmental assessment process, a traffic study was completed by Transport and Urban Planning and submitted as part of the Project’s Environmental Impact Statement (EIS) in April 2013. A revised modelling study was produced on the 21st of March 2014, which removed the Warkworth Extension (WE) Project from the traffic numbers on the Golden Highway/Putty Road intersection as the WE Project is no longer approved. The revised modelling study has been used in the preparation of this Plan.

The original EIS traffic assessment traffic generation is shown in the excerpt from the EIS in below Figure 1.

Section 3 of the revised study notes that the traffic generation from original EIS will result in an overall reduction in the traffic generation in the AM (6.00am to 7.00am) and PM (5.00pm to 6.00pm) peak hours on the road network in the area.

- A reduction of 201 vehicle trips and 44 trips in the AM and PM peak hours respectively, associated with the Warkworth Extension Project; and
- A reduction of 62 and 48 vehicle trips in the AM and PM peak hours in years 1 and 2 respectively, associated with the Bulga Optimisation Project.

This gives a revised Total trips (workforce) generated of 117 AM and 131 PM

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### Peak Hour Traffic Generation

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM</td>
<td>22</td>
<td>25</td>
<td>23</td>
</tr>
<tr>
<td>PM</td>
<td>30</td>
<td>33</td>
<td>30</td>
</tr>
<tr>
<td>AM</td>
<td>44</td>
<td>46</td>
<td>44</td>
</tr>
<tr>
<td>PM</td>
<td>62</td>
<td>65</td>
<td>62</td>
</tr>
<tr>
<td>AM</td>
<td>135</td>
<td>138</td>
<td>135</td>
</tr>
<tr>
<td>PM</td>
<td>163</td>
<td>166</td>
<td>163</td>
</tr>
</tbody>
</table>

Source: JCM

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THIS DOCUMENT IS UNCONTROLLED UNLESS VIEWED ON THE INTRANET
Figure 1 Excerpt of Peak Hour Traffic Generation from EIS

Analysis of the Golden Highway / Putty Road; Mitchell’s Line of Road intersection without the WE Project traffic shows the level of service is predicted to be at level D in year 1 and level C in year 4 during the morning peak hour.

1.6 Road network

The Figure 2 shows the major roads in the area and to the site.
Figure 2 Locality Plan
1.6.1 Golden Highway/ Mitchell’s Line of Road

Designated as route B84, the Golden Highway runs east from Dubbo towards Newcastle. It runs through Denman, Jerry’s Plains and Mount Thorley, joining the New England Highway at Belford, south of Singleton. The Golden Highway uses around 2 km of the Putty Road east of the Mount Thorley industrial estate near Singleton and then turns east onto Mitchell’s Line of Road while the Putty Road continues to Singleton.

A key feature of the Golden Highway in relation to this CTMP is the intersection of Putty Road and Mitchell’s Line of Road.

Mitchell’s Line of Road is a single carriageway two lane rural road posted at a speed limit of 100km/h. It has a lower speed limit towards the intersection with the New England Highway.

1.6.2 Putty Road

Putty Road is a designated State Route (69) between Windsor and Singleton. Putty Road is generally a single carriageway, two-lane rural road posted at a speed limit of 100km/h outside urban areas. Traffic from Singleton joins the Golden Highway as Putty Road at the Mitchell line road intersection.

1.6.3 Broke Road (Payne’s Crossing)

Broke Road is a single carriageway, two-lane rural road posted at a speed limit of 100km/h outside of Broke and other urban areas, where the speed limit is 60km/h. Broke Road is a regional road connecting the Golden Highway with Broke, Wollombi and Cessnock. Singleton Council is the road authority within the extent of the Project study.

Broke Road is the primary access to the Complex through a number of formal intersections and property access roads. The intersection of Broke Road with the Golden Highway is a Seagull type intersection.

1.6.4 Charlton Road

Charlton Road is a single carriageway two-lane rural road linking the villages of Bulga and Warkworth to Broke via the Putty Road and Wallaby Scrub Roads respectively. Charlton Road has a posted speed limit of 100km/h.

The Average Annual Daily Traffic (AADT) volumes reflecting two-way traffic are shown in Table 2 below.
Table 2 AADT Traffic Volumes

<table>
<thead>
<tr>
<th>Road (1)</th>
<th>Average Weekday (5 day Average)</th>
<th>Average Weekday (7 day Average)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broke Road (North)</td>
<td>2513</td>
<td>2129</td>
</tr>
<tr>
<td>Broke Road (South)</td>
<td>1645</td>
<td>1421</td>
</tr>
<tr>
<td>Charlton Road</td>
<td>794</td>
<td>654</td>
</tr>
<tr>
<td>Wallaby Scrub Road</td>
<td>901</td>
<td>852</td>
</tr>
<tr>
<td>Golden Highway (1)</td>
<td>10948</td>
<td>9355</td>
</tr>
</tbody>
</table>

Notes:

1) The location of all traffic count locations is shown on Figure 2.

1.7 Road Restrictions

Restricted Vehicle Access within the road network has been identified from the Roads and Maritime Services Restricted Vehicle Access website. The applicable approvals for the road network at the time of this report are detailed in Table 3.

Table 3 - Restricted Vehicle Access Summary

<table>
<thead>
<tr>
<th>Road</th>
<th>26m B-Double</th>
<th>Over-height (4.6m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broke Rd (North)</td>
<td>No restriction</td>
<td>Yes there is a restriction</td>
</tr>
<tr>
<td>Broke Rd (South)</td>
<td>Yes the restriction terminates prior to Broke</td>
<td>Yes there is a restriction</td>
</tr>
<tr>
<td>Charlton Road</td>
<td>Yes the restriction is only south of Cobcroft Road</td>
<td>Yes there is a restriction</td>
</tr>
<tr>
<td>Wallaby Scrub Road</td>
<td>Yes there is a restriction</td>
<td>Yes there is a restriction</td>
</tr>
<tr>
<td>Golden Highway</td>
<td>No restriction</td>
<td>No restriction</td>
</tr>
</tbody>
</table>


2 Scope
The Construction Transport Management Plan applies to all the areas of construction mentioned above in relation to the public road network. Access points of specific note are the following:

- Broke Road access to the Northern Dam area
- Broke Road access to the Mushroom Composters access road for the construction of water management, high voltage relocations and a haul road bridge
- The new tie-in to the existing Broke Road (in 3 locations in Q4 2015)
- Broke Road access to the 330kV line to the west of Broke Road
- Broke Road access to and from the mine (from west of Broke Road) for construction materials. This is a new construction intersection
- Broke Road access through the Bulga Surface Operation intersection for the majority of construction materials and log on for personnel
- Broke Road access through the existing intersections to Bulga Surface Operations and Bulga Underground Operations
- Broke Road access off existing intersections to access the water management and new Broke Road construction areas
- Charlton Road/Broke Road intersection
- Charlton Road access to the Whybrow Dam through the existing entry point
- Access for water management deliveries off Charlton Road through existing access roadways

Access to the construction compound for all work areas for log on /log off is via Broke Road at the Bulga Surface Operations intersection.

Traffic Control Plans are to be prepared for all major access points to the site. The plans will be monitored throughout construction and revised if necessary. In particular, access to site through the Golden Highway/Putty Road intersection shall be monitored through the Construction Phase of Project, given its current level of service.

All construction vehicles entering or exiting work areas shall comply with the requirements of this Construction Transport Management Plan and the corresponding Site Traffic Management Plan applicable to the area in which they are operating. The Site access points are detailed in Figure 3.

This Construction Transport Management Plan does not apply to the ongoing Bulga Surface and Bulga Underground Operations.
Figure 3 Site Access Points
3 Responsibilities

Table 4 below confirms the authorised persons responsible for managing the CTMP and contact numbers. These details will form the basis of the detail plans developed, approved and implemented on-site. The nominated contractor will be responsible for implementing the detailed management plans.

Table 4 Contact Details

<table>
<thead>
<tr>
<th>Company and Title</th>
<th>First Name</th>
<th>Surname</th>
<th>Contact Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulga Community Line</td>
<td></td>
<td></td>
<td>1800 332 693</td>
</tr>
<tr>
<td>Glencore</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Manager</td>
<td>Aaron</td>
<td>Worley</td>
<td>0428 036 972</td>
</tr>
<tr>
<td>Safety Manager</td>
<td>Kellie</td>
<td>Wallis</td>
<td>0408 533 582</td>
</tr>
<tr>
<td>Logistics Manager</td>
<td>Gary</td>
<td>Dorn</td>
<td>0418 117 267</td>
</tr>
<tr>
<td>Emergency (Police, Ambulance and Fire)</td>
<td></td>
<td></td>
<td>000</td>
</tr>
</tbody>
</table>

Peak hour traffic generation from the construction workforce is expected to be approximately 130 light vehicles/hour and approximately 13 heavy vehicles/hour. Heavy vehicle types will consist of trucks and trailers, semi-trailers, B-doubles, low loaders (including wide loads), concrete agitators, cranes and a variety of other construction vehicles.

The performance of the road network (intersections) resulting from the construction traffic is summarised in Section 5 below. Although the performance of the network is considered to be appropriate, a range of options are available to improve performance if on-site monitoring establishes the intersections are not performing as predicted. Possible treatments are outlined in Section 7.1.
4 General work Hours and Mine shift Change

Table 5 Work Hours

<table>
<thead>
<tr>
<th>Area</th>
<th>Shift</th>
<th>Shift</th>
<th>Shift</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>6.30-18.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bulga Surface Operations</td>
<td>07.00-19.00</td>
<td>19.00-07.00</td>
<td></td>
</tr>
<tr>
<td>Bulga UG Operations</td>
<td>07.00-15.30</td>
<td>14.00-24.00</td>
<td>22.30-08.30</td>
</tr>
</tbody>
</table>

It is not anticipated that substantial sections of the construction will require night work. Where Construction night work is required it shall be planned and appropriate controls put in place.

5 Performance

The roads mainly affected by the construction phase of the Project are Broke Road, and to a lesser extent Charlton Road and the Golden Highway.

The construction access will be subject to the area specific TCPs included in the STMP.

The intersections of Broke Road with the Bulga Surface and Bulga Underground Operations’ access roads will continue to operate under the existing arrangements unless additional requirements are required for specific purposes, e.g. delivery of oversize equipment.

All primary intersections affected by the construction works have been modelled and results reported in the Environmental Impact Statement (reference: Appendix 16 Sections 4 and 7). In summary, all intersections were found to performance at, or slightly less than their current level of service, as summarised in Table 6 below:

Table 6 Intersection Level of Service

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Current LoS</th>
<th>Construction LoS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6AM</td>
<td>5PM</td>
</tr>
<tr>
<td>Broke Rd /Charlton Rd</td>
<td>B</td>
<td>B</td>
</tr>
</tbody>
</table>
Mitchell’s Line of Road/Putty Road intersection shows a fall in performance from C to D. However, this is considered manageable as D represents “near capacity” but not warranting a change to the control mode. This intersection will be monitored and additional controls implemented (if required) if the intersection does not perform as expected with the addition of the Project construction traffic. The impact of construction traffic shall be monitored throughout the life of the Project. Mechanisms are available to manage impacts if necessary and options are outlined in Section 7.1.

5.1 Community complaints line

Bulga Coal operates a Community Complaints line, 24 hours a day, 7 days a week.

The Community complaints line number is 1800 332 693.

5.2 Public Transport and other Road users

A school bus operates between Broke and Singleton; however as noted in Table 5 the construction shift start and finish times (06.30-18.00) are generally outside public transport operations. Prior to, and throughout construction, contact will be made with relevant transport operators to confirm and clarify operations and construction activities.

There is limited cyclist and pedestrian traffic on the affected roads.

5.2.1 The Crown Road – Mushroom Composters Pty Ltd Access

Mushroom Composters access shall be maintained with as little disruption as practical. If or when required, a temporary detour for the Mushroom Composters will be established. The detour will comply with the specification and relevant standards.
Mushroom Composters Pty Ltd will be advised in advance of the opening of any detours. TCPs and details of the detour will be provided to Mushroom Composters Pty Ltd through the consultation and construction processes.

6 Construction Details

6.1 Construction Programmes

The majority of construction is over the initial 18 month period with the water management system construction and site work extending past this time. It is proposed to have the 330kV power lines, Broke Road and the haul road bridges complete within the initial 18 months of the Project.

In relation to impacts and performance of the key intersections, the peak period will be over 12 months from approximately Q1 2015 to Q4 2015. Outside these periods, the intersections are expected to operate at current LoS.

6.2 Construction Deliveries

Deliveries will vary over the Project and consist of:

- Construction plant and office establishment
- Gravel, sand and road base
- Concrete and precast concrete products
- Steel for both buildings and 330kV tower construction
- Poles, conductors and associated material for the HV and 330kV line relocation
- HDPE pipe and pumps and associated material for the water management system

No deliveries will be permitted outside the hours of 6:00am to 6:00pm Monday to Friday without prior authorisation from the Project Manager.

7 Traffic Management Controls

7.1 Timing of the works

One of the most effective ways to reduce the impact of the construction phase on the road network will be suitable timing of operations. Work on public roads shall be timed to minimise disturbance to local traffic flows. Work during times of peak traffic flow (such as peak hours in the morning and evening, special events etc.) shall be avoided where practicable.
DA SSD-4960, Schedule 3, Condition 46 states that the CTMP must;

a) **Describe measures that would be implemented to minimise the construction traffic impacts of the development, particularly on the Golden Highway/Putty Road/Mitchell Line of Road intersection:**

The following measures will be in place;

- Tool box talks for construction are due to commence at 6.30am which allow for construction traffic to enter before mine traffic
- Contractors are, where practical, to share transport through car pooling.

The road network is expected to operate appropriately as outlined in Section 5. Should road network performance be found not to operate as predicted with the above measures in place, the following strategies could be assessed and implemented if appropriate:

- Staged arrival and departure times
- Shift change timing adjustments to avoid peak(s)
- Route restrictions to avoid certain intersections and/or movements.

These measures could apply to specific or particular vehicle modes. Heavy vehicle deliveries are most readily managed in this respect.

### 7.2 Speed limits

The speed limit on Broke Road is 100 km/h. A reduction may be required where construction is taking place adjacent to the road. Changes to the speed limit shall form part of a TCP and be approved by the relevant authority.

### 7.3 Signage

TCPs shall include drawings showing the exact location of all signs. Signage shall comply with AS 1742.3 and to RMS specifications and specifically the RMS Guide to Traffic control at worksites. Signs not in use will be covered or removed. Signage will be used to inform the public of changes to the road conditions.

Variable message Boards may be used where considered appropriate.

### 7.4 Stakeholder Management

The Complex will continue to consult and inform stakeholders of the plans and changes with regard to the construction phase of the Project. Consultation will be through face to face meetings, regular
website updates, newsletters and other methods where necessary. As noted in Signage above, signage will be also used to inform the public.

Initially the major change to the local traffic conditions will be increased traffic volumes and changes to intersections to manage the construction traffic access of local roads. At the end of construction the major change will be the opening of the new Broke Road.

All major changes to the traffic conditions shall be communicated to the community in accordance with the Road Authorities’ conditions of approval. Where there are to be significant disruptions to the public traffic, public notices will be provided regarding the disruption of, or changes to, the road network.

7.5 Delivery Coordination

Deliveries will be coordinated in an effort to minimise the delays and disruptions to both the public road users and construction traffic on site.

7.6 Management of Oversize / Over mass loads

All vehicles carrying oversize loads shall comply with the RMS requirements and refer to the Operating Conditions: Specific Permits for oversize over mass vehicles and loads.

Where the general permit limits are exceeded a specific permit must be obtained by direct application to the RMS. The Logistics Manager shall be notified and the notification shall include the TCP for the delivery.

Details of the operating conditions and permit requirements are to be found on the RMS website.

7.7 Management of Haul Operations

Construction haul trucks will cross Broke Road at Access 4 under strict traffic controls. The location of this Access is shown in Figure 4. Further details are provided in Appendix A.
Figure 4 - Site Access 4

The haul road crossing has been identified as a primary focus area due to the interaction of haul vehicles and public traffic and the potential disruption and safety concerns. As such, a draft TCP is provided in Appendix A that shows how this interaction can be effectively managed. A formal TCP will be completed and submitted for approval and this plan will confirm anticipated traffic delays. All work will comply with the relevant standards and industry practices, including the RMS Guide to Traffic Control at Worksites manual.

It is anticipated that the average number of haul vehicle movements is expected to be 20 vph at the peak. As such, interruptions to Broke Road traffic are expected to be short. Haulage at this crossing will be undertaken outside of the peak traffic hours. During haulage operations, Broke Road will be opened on the approach of a vehicle from either direction on Broke Road. In the event that a haul truck has been held for 45 seconds (or such time agreed with SC) then the haul road will be opened to allow all waiting trucks to cross Broke Road.

The operation of this crossing will also be subject to a STMP and shall minimise the impacts on Broke Road. Broke Road shall be maintained free of gravel or other deleterious materials at all times. The road pavement shall be maintained in a suitable condition for the duration of the project.

Any construction equipment operating within a public road reserve or interacting with public traffic will be subject to traffic management procedures, including maintenance of positive radio communications with unique identification.

7.8 Fatigue Management

Driver fatigue is a significant safety hazard for the road transport industry. National heavy vehicle driver fatigue reforms were introduced in 2008 and the laws apply to fatigue-regulated vehicles.

A fatigue-regulated heavy vehicle is; a vehicle with a gross vehicle (GVM) of over 12 t, a combination when the total of the GVM is over 12 t, buses over 4.5 t fitted to carry more than 12 adults (including the driver), a truck, or a combination including a truck, with a GVM of over 12 t with a machine or implemented attached.

Drivers operating heavy vehicles over 4.5 t are required to comply with the Heavy Vehicle National Law (HVNL).

8 Emergency Management
All accidents on the public road network shall be handled by external services (i.e. Police, Ambulance, Fire Brigade etc.)

All construction areas and work activities will have area specific emergency plans which will be included in the Project Emergency and Incident Management Plan. Initial first aid response may be provided by Project representatives if requested.

Where there is traffic control on Broke Road, right of way will be provided for emergency vehicle access.

A mutual assistance agreement has been established with the Bulga Surface and Bulga Underground Operations. This includes the use of the helipads and other specialist facilities.

All STMPs will include a section on Emergency Management.

9 Incident management

The Project has established the following procedures for the management of incidents and emergency situations;

XC41200113204 Emergency and Incident Management Plan

XC41200113306 Emergency Evacuation

XC41200113208 Incident Management

Personnel working on the Project will be trained in these procedures through the site familiarisation and supervisor training. Copies of the plans are available on request.

All STMPs will include a section on Incident Management.

10 Traffic Control Plans

Traffic Control Plans will be developed as part of the Site Traffic Management Plan. They shall be developed by the relevant contractor, approved and implemented prior to any work involving traffic. The requirements of the Construction Traffic Management Plan shall be incorporated into all STMP and TCPs.

All TCP’s will comply with the relevant standards and industry practices, including the RMS Guide to Traffic Control at Worksites manual.
The objective of the TCP is to support the STMP and ensure that:

- All traffic movements have been planned for safety and efficiency
- The Project construction traffic causes as little disruption to the public as possible where practicable
- Hazards have been identified and suitable mitigation measures are in place prior to the work commencement
- All traffic movements comply with the CTMP, the Project Surface Transport Management Plan and all relevant Authorities, regulations, specifications procedures and standards

When Traffic Control Plans relating to public road are no longer to be used SC is to be notified.

10.1 Numbering of TCPs

TCPs will be numbered in accordance with the Project Coding Procedure and shall have the descriptor “TCP” included in the number code.

10.2 Development and Submission of TCP

TCPs shall be developed, submitted and implemented allowing sufficient time for risk assessments, reviews, approvals and advertising as required.

Any design calculations (that were used in the development of the TCP) shall form part of any submission. The flow chart for TCPs is detailed below in Figure 5.
Figure 5 - TCP Flow Chart
10.3 Communication of STMPs and TCPs

Details of any new or amended TCPs shall be communicated as required by the approving authority.

Local Area command shall be informed of long term traffic measures

Details of any new or amended STMPs and TCPs shall be disseminated to relevant stakeholders prior to implementation.

11 Control and revision history

1.1 Revisions

<table>
<thead>
<tr>
<th>Version</th>
<th>Date reviewed</th>
<th>Review team (consultation)</th>
<th>Nature of the amendment</th>
</tr>
</thead>
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<tr>
<td>1</td>
<td>28/7/14</td>
<td></td>
<td>Heading no 4.21 changed -4.2.1 updated after meeting with Singleton Council and RMS</td>
</tr>
<tr>
<td>2</td>
<td>30/7/14</td>
<td>RMS and SC</td>
<td>Changes proposed by SC</td>
</tr>
<tr>
<td>3</td>
<td>2/9/2014</td>
<td></td>
<td>Removal of Appendix C and D – Information included for consultation only and available in E-mails and EIS traffic Study and not forming part of the Plan</td>
</tr>
<tr>
<td>4</td>
<td>29/10/2014</td>
<td>Glencore</td>
<td>Format change Minor changes to wording in response to Department of Planning and Environment draft review. Notably Table 3 and Section 7.7</td>
</tr>
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12 Appendix A

12.1 Construction Haul Road Crossing Draft TCPs

Drawings Nos BOP-GHD-08-020-SK-0072, 73 and 74
Plan

Construction Transport Management Plan

Status: Submission
Effective: 2/12/2014
Version: 1.0
Review:

THIS DOCUMENT IS UNCONTROLLED UNLESS VIEWED ON THE INTRANET
13 Appendix B

13.1 Proposed haul road crossing of the crown road between the two parts of the eastern emplacement Area

Drawings

BOP GHD 08 020 S 0020

BOP GHD 08 020 S 0021