



INVINCIBLE COLLIERY TRANSPORT MANAGEMENT PLAN

Shoalhaven Coal Pty Limited (Castlereagh Coal)



INVINCIBLE COLLIERY

(Southern Extension)

Transport Management Plan

Document Status Register

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Table of Contents

1.0	INTRODUCTION	5
1.1	Background	5
1.2	Purpose and Scope	5
1.3	Document Objectives	6
1.4	Document Structure	10
2.0	TRAFFIC MONITORING	14
2.1	Existing Traffic Environment	14
2.2	Traffic Routes and Transport Limits	14
2.2.1	Commuter Traffic and Shift Timetables	15
2.3	Monitoring of Truck Movements	16
2.4	Environmental Inspections	16
3.0	TRAFFIC MANAGEMENT	17
3.1	Proactive Management Measures	17
3.1.1	Driver's Code of Conduct and Transport Management Policy	24
3.1.2	Training and Awareness	25
3.2	Reactive Management Measures	25
3.2.1	Contingency Plan	27
4.0	STAKEHOLDER ENGAGEMENT	29
4.1	TMP Consultation	29
4.2	External Communications	29
4.3	Incidents, Non-Compliance and Complaints	29
5.0	ROLES AND RESPONSIBILITIES	30
6.0	REVIEW AND REPORTING	31
6.1	Reporting	31
6.1.1	External Reporting	31
6.1.2	Stakeholder Reporting	31
6.1.3	Adaptive Management	31
6.2	Auditing	31
6.3	Review and Improvement	31
6.3.1	Improvement of Environmental Performance	31
6.3.2	TMP Review	32
6.3.3	Independent Review	32
7.0	REFERENCES	33
8.0	ABBREVIATIONS	34

Figures

Figure 1.1	Regional Locality	12
Figure 1.2	Conceptual Project Layout	13
Figure 3.1	Heavy Vehicle Transport Routes	28

Tables

Table 1	Transport Related Project Approval Conditions	7
Table 2	Relevant EA Transport Management Commitments	10
Table 3	Relevant Environment Protection Licence Conditions	10
Table 4	Traffic Management and Mitigation Measures	17
Table 5	Traffic Triggers and Responses	25
Table 6	TMP Roles and responsibilities	30
Table 7	Abbreviations	34

Appendices

Appendix 1	Stakeholder Consultation
Appendix 2	Traffic Management Policy Drivers Code of Conduct

1.0 INTRODUCTION

1.1 Background

Shoalhaven Coal Pty Limited (Shoalhaven Coal), trading as Castlereagh Coal Pty Ltd (Castlereagh Coal), owns the Invincible Colliery (Invincible), a coal mine located approximately 25 kilometres (km) north-west of Lithgow in New South Wales (NSW) (refer to Figure 1.1). The town of Cullen Bullen is located approximately 3 km north-west of Invincible.

In 2015, the Manildra Group's Shoalhaven Coal purchased Invincible, and the nearby Cullen Valley Mine, to secure continued supply of a specialty coal product, known as 'nut' coal, for the Shoalhaven Starches Plant located at Bomaderry on the NSW South Coast (refer to Figure 1.1). More recently, Shoalhaven Coal was purchased in November 2021 via a 100% share transaction by an all-Australian locally based ownership team which is primarily focusing on supply of coal to the power stations and domestic markets in NSW. The Invincible Colliery has a long history of mining, with operations dating back to 1901. Open cut mining has been carried out at Invincible at various times ranging from the 1940s through to the mine being placed into care and maintenance in 2013 when the available coal within the approved mining area was exhausted. The existing operations are shown in Figure 1.2.

During 2016, Shoalhaven Coal sought to modify the Invincible Project Approval (PA) 07_0127 (Mod 5) to extend open cut mining operations to the south of the existing approved mining area (Southern Extension). The modification was approved by the Planning Assessment Commission (PAC) on 2 February 2018. The Project Approval permits mining operations to be carried out until 31 December 2025. Castlereagh Coal recommenced open cut coal mining operations at Invincible in July 2023.

The Project Approval (Mod 5) for the Southern Extension includes:

- extending the open cut mining area to mine down to, and including, the Lithgow Seam to the south of the existing mine in the Southern Extension Area;
- maximum mining and production rates of up to 1.2 Mtpa product coal;
- removal and emplacement of overburden and the extraction of coal between the hours of 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and public holidays (Daytime);
- processing of coal onsite and/or transport of coal from site between the hours of 7am to 10pm on Monday to Saturday, and 8am to 10pm on Sundays and public holidays (daytime and evening);
- the undertaking of maintenance activities and safety procedures as directed by DRG at any time;
- product coal transport arrangements (with coal to be transported from the site by road truck);
- use of existing open cut voids and former underground workings for temporary water storage;
- continued use of existing Invincible infrastructure (including maintenance work, and minor upgrades and operation of the existing Invincible Coal Preparation Plant (Invincible CPP); and
- rehabilitation of the Southern Extension and all existing disturbance areas at Invincible by reshaping and backfilling mining areas to remove voids and revegetating the reshaped landform with locally endemic woodland and forest communities.

1.2 Purpose and Scope

This Transport Management Plan (TMP) document has been prepared to describe the operational traffic management strategies, procedures, controls and monitoring programs to be implemented for the management of potential traffic impacts arising from the operation of Invincible Colliery.

Other management documents that should be read in conjunction with this TMP include:

- Invincible Colliery Environmental Management Strategy

1.3 Document Objectives

The objectives of this document are to:

- Detail the transport routes associated with the operation of the Invincible;
- Identify the code of conduct for employees and contractors accessing Invincible;
- Identify and describe traffic related management and mitigation measures that will be implemented by site operations; and
- Outline measures to mitigate traffic safety issues and disruption to local road users.

This TMP addresses the relevant requirements of the Project Approval and Environmental Protection Licence (EPL) 1095. The Project Approval conditions, and Environmental Assessment (EA) management commitments as detailed within the Invincible Colliery Southern Extension Environmental Assessment (Umwelt, 2016) relevant to this plan are provided in **Tables 1 and 2**. EPL 1095 licence conditions relevant to this plan are provided in **Table 3**.

Table 1 Transport Related Project Approval Conditions

Condition	Description	Section/s Addressed
Schedule 2 – Administrative Conditions		
Coal Extraction & Transport		
7	<p>The Proponent must not:</p> <ul style="list-style-type: none"> (a) Extract or transport more than 1.2 million tonnes of product coal per calendar year from the site; (b) Permit more than 146 laden coal truck movements from the site per day; averaged over a week, with a maximum of 16 laden coal truck movements per hour; (c) Permit more than 10 laden coal truck movements to the Shoalhaven Starches Plant per day, averaged over a week. 	Section 3.1
Hours of Operation		
8	<p>The Proponent:</p> <ul style="list-style-type: none"> (a) must only undertake the removal and emplacement of overburden and the extraction of coal, excluding the activities referred to in (c) below, during the day; (b) must only process coal on site and/or transport coal from the site during the day and evening; and (c) may undertake maintenance activities, and safety procedures as directed by DRG, at any time. <p><i>Note Project Approval definitions: ‘Day’ is the period 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and public holidays. ‘Evening’ is the period 6pm to 10pm.</i></p>	Section 3.1
Schedule 3 – Specific Environmental Conditions		
Coal Haulage		
39	The Proponent must ensure that all coal haulage from the project within the Lithgow local government area is conveyed only on the Castlereagh Highway, the Great Western Highway and Boulder Road, except with the approval of the Secretary.	Section 3.1
40	<p>The Proponent must:</p> <ul style="list-style-type: none"> (a) keep accurate records of the: <ul style="list-style-type: none"> • amount of coal transported from the project in each calendar year (on a monthly basis); • number of coal truck movements generated by the project to the Mt Piper Power Station and Shoalhaven Starches Plant (on a daily basis); and (b) include these records in the Annual Review. 	Section 3.1
Operating Conditions		
41	<p>The Proponent must:</p> <ul style="list-style-type: none"> (a) implement all reasonable and feasible mitigation measures to minimise the traffic impacts of the project on public roads; (b) ensure all laden vehicles leaving the site are covered; (c) ensure that all trucks leaving the site pass through an effective and operating wheel cleaning facility to minimise any dust/debris on public roads; and 	Section 3.1

Condition	Description	Section/s Addressed
	(d) minimise haulage during school bus times*.	
Transport Management Plan		
42	Prior to recommencing mining operations, unless the Secretary agrees otherwise, the Proponent must prepare a Transport Management Plan for the project to the satisfaction of the Secretary. This plan must:	This document
	(a) be prepared in consultation with RMS and Council;	Section 4.1
	(b) include a driver's code of conduct for the project;	Section 3.1.1
	(c) describe the measure that would be implemented to ensure: <ul style="list-style-type: none"> • compliance with the operating conditions in this approval; • drivers are aware of potential safety issues along the haulage route; • drivers of project-related vehicles comply with the driver's code of conduct; • compliance with the relevant conditions of this consent; and 	Section 3.1 and Section 3.1.1
	(d) include a program to monitor and report on the effectiveness of the implementation of these measures and compliance with the operating conditions.	Section 3.1 and Section 3.2
43	The Proponent must implement the approved Transport Management Plan for the Project.	Noted
Schedule 5 – Environmental Management, Reporting and Auditing		
Management Plan Requirements		
3	The proponent must ensure that the management plans under this approval are prepared in accordance with any relevant guidelines, and include:	Section 2.1 Section 3.1 and Section 3.2 Section 3.1 Section 2.3 and 2.4 and Section 3.1 and 3.2
	(a) detailed baseline data;	
	(b) a description of: <ul style="list-style-type: none"> • the relevant statutory requirements (including and relevant approval, licence or lease conditions); • any relevant limits or performance measures/criteria; • the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures; 	
	(c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;	
	(d) a program to monitor and report on the: <ul style="list-style-type: none"> • impacts of environmental performance of the project; • effectiveness of any management measures (see c above); 	
	(e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;	

Condition	Description	Section/s Addressed
	<p>(f) a program to investigate and implement ways to improve the environmental performance of the project over time;</p> <p>(g) a protocol for managing and reporting any:</p> <ul style="list-style-type: none"> • Incidents; • complaints; • non-compliances with statutory requirements; and • exceedances of the impact assessment criteria and/or performance criteria; and <p>(h) a protocol for periodic review of the plan.</p>	
5	<p>Within 3 months of:</p> <ul style="list-style-type: none"> • the submission of an annual review under condition 4 above; • the submission of an incident report under condition 7 below; • the submission of an audit report under condition 9 below; or • any modification to the conditions of this approval, (unless the conditions require otherwise), <p>the Proponent must review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Secretary. Where this review leads to revisions in any such document, then within 4 weeks of the review, unless the Secretary agrees otherwise, the revised document must be submitted to the Secretary for approval.</p> <p><i>Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the project.</i></p>	Section 6.3.2
6	To ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the project, the Proponent may submit revised strategies, plans or programs required under this approval at any time. With the agreement of the Secretary, the Proponent may also submit any strategy, plan or program required by this consent on a staged basis.	Section 6.3.1
7	The Secretary may approve a revised strategy, plan or program required under this consent, or the staged submission of any of these documents, at any time. With the agreement of the Secretary, the Proponent may prepare the revised or staged strategy, plan or program without undertaking consultation with all parties nominated under the applicable condition in this consent.	Section 6.3.1
9	The Proponent must immediately notify the Secretary and any other relevant agencies of any incident. Within 7 days of the date of the incident, the Proponent must provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.	Section 4.3
10	The Proponent must provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval.	Section 6.1.1

* Road haulage which occurs between Invincible Colliery and Mt Piper Power Station will be minimised between 7.45am and 8.15am and 4.00pm - 4.30pm Monday to Friday coinciding with School Bus movements. Note: There are no pickup or drop-off points located between Invincible Colliery and the entry to Mt Piper Power Station.

Table 2 Relevant EA Transport Management Commitments

Safeguard	Description	Section/s Addressed
EA Section 6.11.13 (Umwelt 2016)	<p>Castlereagh Coal will:</p> <ul style="list-style-type: none"> Require truck loading to occur in the Invincible Mine Infrastructure Area, with a wheel wash operated to wash tyres, where required, prior to leaving the site. Educate staff regarding the need to travel in a safe manner through the regional road network as an extension of the broader safety programs in place at Invincible. Undertake all transport activities strictly in accordance with the Project Approval. Minimise truck movements during periods when buses carrying school children are travelling on the section of road between the Invincible Colliery and Mt Piper Power Station. Undertake all deliveries of "oversize" loads in accordance with RMS and Council restrictions on transport hours and safety / warning requirements. Ensure all truck drivers operate in accordance with a Transport Policy and Code of Conduct. Obtain a Workplace Health and Safety Management Plan and a "Code of Conduct" for all drivers from each transport contractor. Enforce a covered load policy to all trucks transporting coal from the Invincible Colliery. Develop a road closure protocol for implementation during blasting activities (No blasting activities to be undertaken). 	Section 3.0

Table 3 Relevant Environment Protection Licence Conditions

Condition	Description	Section/s Addressed
04.1	From the 1 January 2011, a truck wheel wash with sprays must be maintained and operated at the premises to minimise the tracking of dirt and coal fines from the premises. The licensee may only decommission the truck wheel wash where an alternate mitigation measures to address the tracking of dirt and coal fines is approved by the Director General, NSW Department of Planning and Infrastructure	Section 2.2

The following guidelines, policies and standards are relevant to any road works required as part of continued operations at Invincible:

- Austrroads, 2009, Guide to Road Design, <https://www.onlinepublications.austrroads.com.au/items/AGRD>
- Roads and Maritime Service, 2015-2017, RMS Road Design Guide - Supplement to Austrroads Guides, <http://www.rms.nsw.gov.au/business-industry/partners-suppliers/document-types/supplements-austrroads-guides/road-design.html>

1.4 Document Structure

This TMP document is structured as follows:

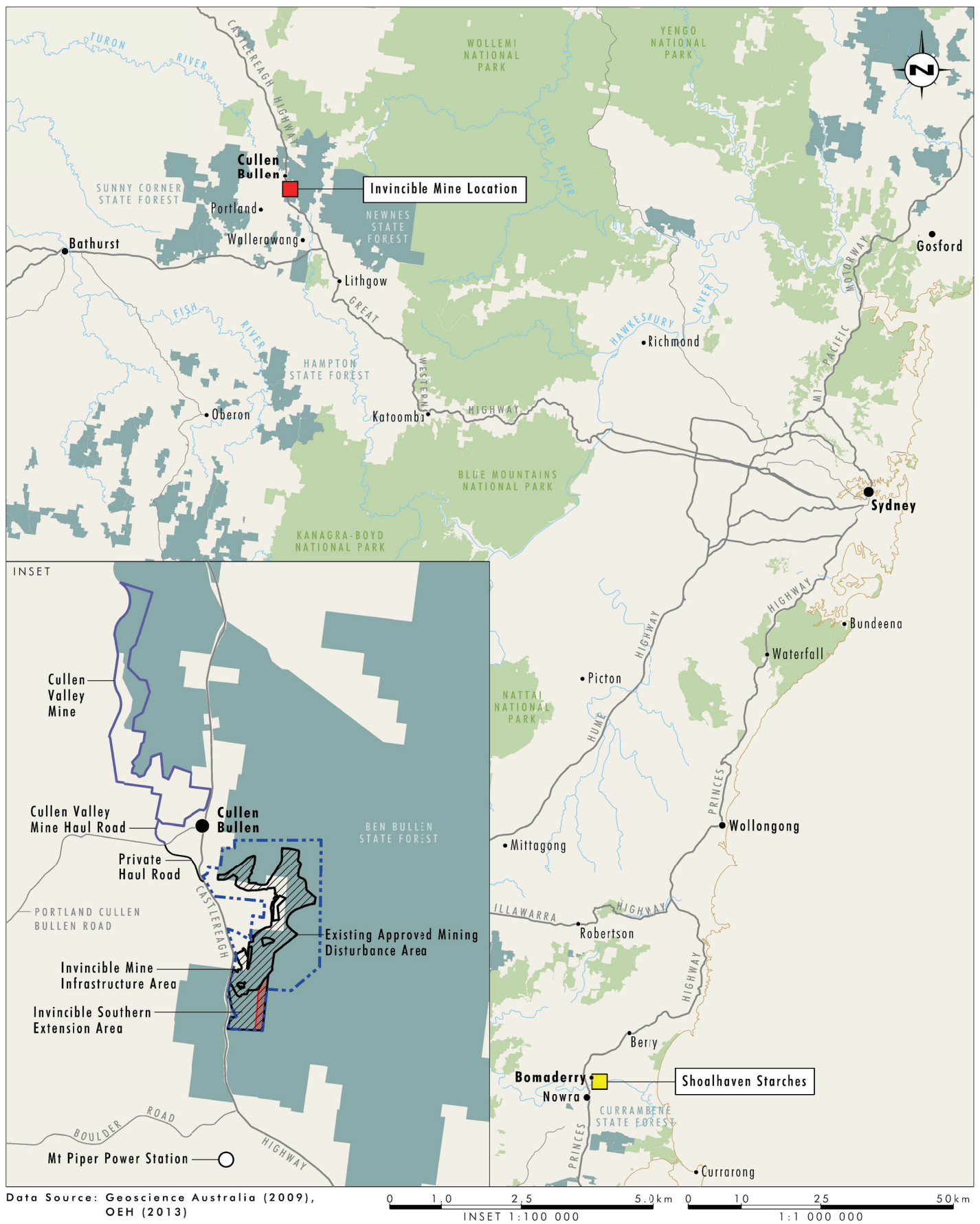


FIGURE 1.1
Locality Plan

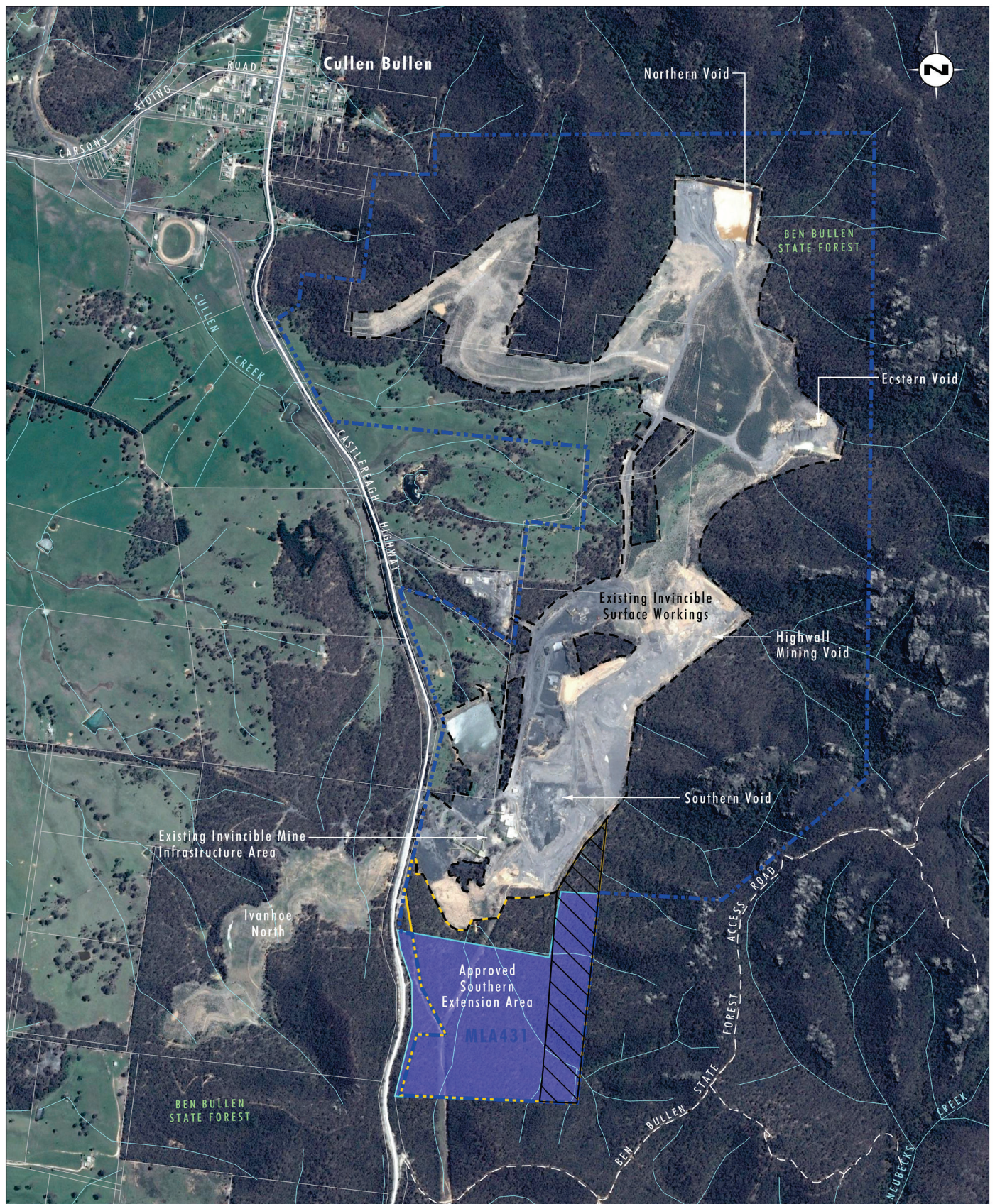


Image Source: Google Earth - CNES/Astrium (Oct 2016)
Data Source: LPI (2016), Forest Corporation of NSW (2015)

0 0.25 0.5 1.0 km
1:20 000

Legend

- Existing Approved Mining Disturbance Area
- Approved Southern Extension Area
- Mining Restriction Area
- Invincible Project Approval Boundary
- MLA431

FIGURE 1.2

Invincible Southern Extension Project
and Existing Operations

- **Section 1** introduces Invincible and outlines the purpose, scope and objectives of this TMP;
- **Section 2** outlines the existing traffic environment, traffic routes and transport limits and truck movement monitoring and road network inspections in place for Invincible;
- **Section 3** describes the management and mitigation measures that will be implemented to minimise traffic impacts from Invincible;
- **Section 4** outlines stakeholder engagement completed in the preparation of this TMP and procedures for the response to traffic impacts incidents and complaints;
- **Section 5** provides an overview of the roles and responsibilities of Invincible personnel in relation to traffic management;
- **Section 6** outlines the reporting requirements for this TMP; and
- **Sections 7 and 8** provide a list of reference documents and abbreviations used in this TMP.

2.0 TRAFFIC MONITORING

2.1 Existing Traffic Environment

The main transport route to the site is the Castlereagh Highway which runs in a north south direction immediately to the west of the operation. Castlereagh Highway has two travel lanes (one in each direction), wide sealed shoulders with marked centreline and edgelines, together with guideposts and reflectors. Guardrail and wire fencing is provided in those sections where required, together with advisory warning signs and directional signposting. Existing signage is in place on this section of Castlereagh Highway to notify of temporary road closures associated with blasting at Invincible, however no blasting activities are planned to be undertaken. The Invincible mine access road intersects the Castlereagh Highway on the eastern side and forms a channelised intersection. Ivanhoe Mine Access Road also intersects Castlereagh Highway on the western side at this location. Ivanhoe Mine is closed and currently undergoing rehabilitation. As such, the Ivanhoe Mine Access Road is not currently used and is unlikely to be used by large volumes of traffic.

Boulder Road forms a channelised T junction intersection with Castlereagh Highway on its western side. Boulder Road provides a road link to Portland and also vehicle access to Mt Piper Power Station. In the section adjacent to Mt Piper Power Station, Boulder Road is a two lane road (single lane in each direction) and has a posted speed limit of 60 km/h.

The access road to the coal storage area for the Mt Piper Power Station is located to the west of the Castlereagh Highway (refer to **Figure 3.1**). This access road forms a T junction with Boulder Road. Cullen Valley and Invincible are the only approved suppliers of coal to Mt Piper which use the Castlereagh Highway and the Boulder Road intersection.

The existing local road network experiences peak hour flows in the morning between 8.00 am to 9.00 am. The afternoon peak hour for Castlereagh Highway/Invincible intersection occurs between 3.15 pm to 4.15 pm and at the Castlereagh Highway/Boulder Road intersection between 3.00 pm to 4.00 pm (Umwelt, 2016).

The coal haulage transport route between Invincible Colliery and Mt Piper power station includes the following road / intersections:

- Castlereagh Highway/Invincible mine access road / Ivanhoe mine access;
- Castlereagh Highway/Boulder Road; and
- Boulder Road/Access road to Mt Piper Power Station's coal area.

The road network, including the principal intersections are illustrated on **Figure 3.1**.

2.2 Traffic Routes and Transport Limits

All traffic related to the Southern Extension Project, including commuter vehicles, haul trucks, oversize equipment and deliveries, will access Invincible via the existing Invincible Mine Access Road. Heavy vehicle transport routes and access points are shown on **Figure 3.1**.

In accordance with Schedule 2 Condition 8(b), transport for coal haulage from the site will only occur during the day and evening as defined in the Project Approval. Shoalhaven Coal will ensure that all coal haulage from the project within the Lithgow local government area is conveyed only on the Castlereagh Highway, the Great Western Highway and Boulder Road with compliance to be confirmed as part of environmental inspections (Section 2.4). Should coal haulage be required on any supplementary haul route, Shoalhaven Coal will seek further approval from DPHI prior to commencement of haulage. In accordance with Schedule 2 Condition 7 of the Project Approval Shoalhaven Coal must not:

- Extract or transport more than 1.2 million tonnes of product coal per calendar year from the site;

- Permit more than 146 laden coal truck movements from the site per day, average over a week, with a maximum of 16 laden coal truck movements per hour;
- permit more than 10 laden coal truck movements to the Shoalhaven Starches Plant per day, averaged over a week.

Consultation with Lithgow Buslines confirms that during School Term, one school bus passes the Invincible Colliery on the Castlereagh Highway between 7.45am and 8.15am weekday mornings and between 4.00pm and 4.30pm weekday afternoons. There are no designated pickup or drop-off points within the Coal Haulage Transport Route between Invincible Colliery and Mt Piper Power station. Shoalhaven Coal and Lithgow Buslines have agreed to consult where changes to schedules or bus routes / times are proposed. The minimisation of truck movements during the ½ hour morning and afternoon School bus schedule, and at all other times is an inherent outcome of the loading and weighbridge process described further in this section.

Scheduling / timing of haul truck movements from the mine is dictated by the loading and weighbridge process which creates a minimum of 5 – 6 minutes of confirmed separation between trucks loading and leaving site. Truck registrations are recorded prior to loading, and timing is confirmed by the weighbridge software system (Gedge System) which records date, time, gross, tare and net mass which is printed daily and logged to a spreadsheet for management review. The loading and weighbridge process provides a defined spatial and temporal buffer between trucks using the designated haul route. These practices demonstrably separate trucks to a minimum 5-minute gap providing a robust tool for reducing the risks associated with interactions with general traffic and minimising potential interactions with School Bus's, however, should it be deemed necessary upon the advice of Lithgow Buslines, Shoalhaven Coal agrees to consider prohibiting haul truck movements during the ½ hour periods where changing circumstances may elevate the risk of negative interactions. The minimum 5-minute separation also ensures that no nose to tail platoons of haul trucks traversing the haul route cause disruption, whilst similarly providing adequate spacing associated with the entry and exit of the small number of commuter and other vehicles attending site.

Due to the Invincible Southern Extension being a simple continuation of previous open cut operations carried out by site mining personnel, no additional construction related vehicle movements or additional construction related shifts will occur.

A truck wheel wash with sprays will be maintained and operated at the premises and all truck loads will be covered prior to leaving site to minimise the tracking of dirt, coal fines and dust from the premises associated with Coal Haulage.

2.2.1 Commuter Traffic and Shift Timetables

Commuter traffic includes employee and contractors, with a combined workforce of between 22 and 35 positions during project life presenting the equivalent potential number of private commuter vehicle movements per day. The majority of commuters reside within the Lithgow, Portland and Cullen Bullen local areas, accessing the site from the Castlereagh Highway via the existing Invincible Mine Access Road. **Tables 4 and 5** describe the mitigation measures, identified risks reduction methods, triggers and corrective actions to be implemented to manage commuter traffic risk and encourage safe travel practices.

Shifts Timetables – Will be within approved Day and Evening Operating hours of Monday to Saturday, Sundays and public holidays. Generally, the following shifts times will apply:

- Monday to Friday - 6.30am to 4.30pm
- Monday to Thursday - 12.00pm to 10.00pm (Coal processing and maintenance)
- Saturday and Sunday – 7.30am to 3.00pm (As required maintenance overtime shifts)

*Note: Shift Start times allow for half hour of preparation and pre-start briefings.

2.3 Monitoring of Truck Movements

In accordance with Schedule 3 Condition 40 of the Project Approval, Shoalhaven Coal will keep accurate records of the following:

- the amount of product coal transported from the site in each calendar year (on a monthly basis); and
- the number of coal truck movements generated by the project to the Mt Piper Power Station and the Shoalhaven Starches Plan (on a daily basis).

Truck registrations are recorded prior to loading at site, and timing is confirmed by the weighbridge software system (Gedge System) which records date, time, gross, tare and net mass which is printed daily and logged to a spreadsheet for management review. This system provides accurate data tracking enabling compliance with Schedule 2 Condition 7 of the Project Approval. Records are reviewed for compliance on the following schedule:

- daily and weekly by the Mine Manager to ensure truck movements remain within approved limits.
- monthly by the Mine Manager to ensure coal transport tonnages remain within approved limits.
- Within 1 working day following a complaint related to truck movements

These records will be included in the Annual Review and a summary will be published on the Castlereagh Coal website every 6 months.

2.4 Environmental Inspections

Environmental staff will undertake monthly and trigger based inspections of the local road network as part of the monthly environmental inspection program. The monthly environmental inspection will include an inspection of:

- the haul roads, site access road and Castlereagh Highway intersection for damage to road surfaces;
- the Castlereagh Highway/site access road intersection for accumulated coal or debris and maintained as necessary by removing the material;
- laden coal haul trucks leaving the site to confirm use of wheel wash and loads are adequately covered
- Checks to ensure haul truck movements do not deviate from the designated haul route.

3.0 TRAFFIC MANAGEMENT

3.1 Proactive Management Measures

Shoalhaven Coal is committed to implementing all reasonable and feasible measures to minimise the potential traffic impacts on public roads and ensure the safety of employees, contractors (Commuters) and the local community. A range of traffic management and mitigation measures plus performance and compliance indicators will be utilised to measure effectiveness and monitor compliance associated with transport safety and potential impacts as a result of traffic movements. A summary is provided in **Table 4**. Confirmed ineffective traffic management and mitigation measures and non-compliances determined through the performance and compliance indicator review process will be remedied and managed in accordance with Reactive Management Measure outlined in **Section 3.2**.

Table 4 Traffic Management and Mitigation Measures

Management and Mitigation Measure	Timing	Responsibility	Performance and Compliance Indicator
Truck and Commuter Vehicle Movement Measures			
No more than 1.2 million tonnes of product coal is to be transported from the site per calendar year. Monitor using weighbridge records. Records stored in electronic format and reviewed in accordance with record review schedule Section 2.3.	Ongoing	Mine Manager	Monthly review of coal transport tonnages from weigh bridge records assessed against annual transport tonnage limits to measure effectiveness and monitor for exceedance of this requirement
Laden coal truck movements not to exceed 146 per day, averaged over a week, with a maximum of 16 laden coal truck movements per hour. Monitor using weighbridge records. Records stored in electronic format and reviewed in accordance with record review schedule Section 2.3. Requirements introduced and reinforced during induction training and TBTs.	Ongoing	Mine Manager	Daily and weekly review of truck movements from weighbridge records assessed against laden truck movement limits to measure effectiveness and monitor for exceedance of this requirement.
Laden coal truck movements to the Shoalhaven Starches Plant not to exceed more than 10 per day, averaged over a week. Monitor using weighbridge records. Records stored in electronic format and reviewed in accordance with record review schedule Section 2.3. Requirements introduced and reinforced during induction training and TBTs.	Ongoing	Mine Manager	Daily and weekly review of truck movements from weighbridge records assessed against laden truck movement limits to measure effectiveness and monitor for exceedance of this requirement.

Management and Mitigation Measure	Timing	Responsibility	Performance and Compliance Indicator
<p>No trucks permitted to arrive, load or dispatch outside the hours of 7.00 am to 10.00 pm Monday to Saturdays. No trucks permitted to arrive, load or dispatch outside the hours of 8.00 am to 10.00 pm on Sundays or public holidays.</p> <p>Monitor using weighbridge records. Records stored in electronic format. Arrival, load and despatch times introduced and reinforced during induction training and TBTs. Driver's Code of Conduct and Transport Management Policy requirement. Workplace observation – Take 5.</p>	Ongoing	Mine Manager	Daily monitoring of truck movements from weighbridge records and daily Take 5s assessed against arrival, load and despatch times to measure effectiveness and monitor for non-adherence to this requirement.
<p>All truck haulage from site within Lithgow Council area to be conveyed on Castlereagh Highway, Great Western Highway and Boulder Road, except with the approval of the Secretary. A heavy vehicle transport route is designated - Figure 3.1. Monitoring conducted as part of Environmental Inspections Section 2.4. Rules form part of Induction training process with regular TBT reinforcement. Driver's Code of Conduct and Transport Management Policy requirement. Workplace observations – Take 5.</p>	Ongoing	Mine Manager or delegate	Monthly and trigger based checks of truck movements on public roads and daily Take 5s to measure effectiveness and monitor for non-adherence to this requirement. Ensure up to date site induction and training records are maintained as part of the site Safety Management System demonstrating completion of training and signoff of Transport Policy and Code of Conduct requirements.
<p>Keep accurate records of the number of coal truck movements generated by the project to the Mount Piper Power Station and the Shoalhaven Starches Plant (on a daily basis), and include in Annual Review.</p> <p>Monitor using weighbridge records. Records stored in electronic format and reviewed in accordance with record review schedule Section 2.3.</p>	Ongoing	Mine Manager and Environmental Staff	Daily and weekly review of truck movements from weighbridge records assessed against truck movement limits to measure effectiveness and monitor for non-adherence to this requirement.

<p>Minimise when required haulage during periods when buses carrying school children are travelling on the section of road between Invincible Colliery and Mount Piper Power Station (i.e., 7.45am to 8.15am and 4.00pm to 4.30pm)</p> <p>Minimise movements via adherence to the loading / weighbridge process providing a minimum 5 – minute gap between trucks leaving site. Monitor using weighbridge records. Records stored in electronic format and reviewed in accordance with record review schedule Section 2.3. Continue to consult with Lithgow Buslines. Additional monitoring conducted via Workplace observation – Take 5.</p>	Ongoing	Mine Manager or Delegate	Ensure completion of training and signoff of Transport Policy and Code of Conduct requirements.
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Management and Mitigation Measure	Timing	Responsibility	Performance and Compliance Indicator
<p>Undertake all deliveries of “oversize” loads in accordance with RMS and Council restrictions on transport hours and safety/warning requirements.</p> <p>Monitored against procedure for general deliveries and oversize load requirements. Consult with suppliers and communicate delivery requirements as part of supplier onboarding. Workplace observation – Take 5.</p>	Ongoing	Mine Manager or delegate	Monthly review of delivery records and daily Take 5s to measure effectiveness and monitor for non-adherence to this requirement.
<p>Ensure all road closure activities are undertaken in accordance with the Blast Management Plan and associated ‘Road Closure Protocol’ (No blasting activities to be undertaken).</p>	Nil	Mine Manager	No Blasting Activities to be undertaken.
<p>Direct all commuter traffic access to the site from the Castlereagh Highway via the existing Invincible Mine Access Road only.</p> <p>Mine access from the Castlereagh Highway is the only point accessible to commuter traffic. Rules also form part of Induction training process with regular TBT reinforcement. Workplace observation – Take 5.</p>	Ongoing	Mine Manager or delegate	<p>Combined the following tools and records are used to measure effectiveness and monitor for non-adherence to this requirement.</p> <p>Daily Take 5 workplace observations. Weekly review of complaints register. Up to date site induction and training records are maintained as part of the site Safety Management System demonstrating completion of training and signoff of Transport Policy and Code of Conduct requirements.</p>

Management and Mitigation Measure	Timing	Responsibility	Performance and Compliance Indicator
<p>Conduct regular consultation with stakeholders including Lithgow Council, Lithgow Buslines and the Community Consultative Committee to discuss and address issues.</p> <p>Biannual CCC meetings scheduled.</p> <p>Consultation register held onsite.</p> <p>Community newsletters.</p>	Ongoing	Mine Manager or delegate	<p>Combined the following tools and records are used to measure effectiveness and monitor for non-adherence to this requirement.</p> <p>Confirmation of stakeholder consultation requirements from records of biannual CCC meetings including minutes. Records from site consultation register, newsletters and TBT's.</p> <p>Maintenance of Castlereagh Coal website records.</p>
Site Operational Control Measures			
<p>A wheel wash with sprays for trucks to use prior to leaving site will be maintained and operated at the premises to minimise dust/debris on public roads.</p> <p>All truck loads will be covered prior to leaving site to prevent spillage and dust generation.</p> <p>Monitored by loading operators and driver vigilance; Environmental Inspections Section 2.4. Rules form part of Induction training process with regular TBT reinforcement.</p> <p>Driver's Code of Conduct and Transport Management Policy requirement. Workplace Observation – Take 5.</p>	Ongoing	Mine Manager/ Environmental staff/Drivers/Coal loader operators	<p>Combined the following tools and records are used to measure effectiveness and monitor for non-adherence to this requirement.</p> <p>Daily Take 5 workplace observations. Weekly review of complaints register. Monthly or trigger based environmental inspections. Up to date site induction and training records are maintained as part of the site Safety Management System demonstrating completion of training and signoff of Transport Policy and Code of Conduct requirements.</p>

Management and Mitigation Measure	Timing	Responsibility	Performance and Compliance Indicator
<p>Ensure all truck drivers and commuters operate in accordance with a Transport Policy and Code of Conduct for Drivers.</p> <p>The Transport Policy and Code of Conduct form part of Induction training process with regular TBT reinforcement. Workplace observation – Take 5.</p>	Prior to starting work onsite and ongoing	Mine Manager	<p>Combined the following tools and records are used to measure effectiveness and monitor for non-adherence to this requirement.</p> <p>Daily Take 5 workplace observations. Up to date induction and training records are maintained as part of the site Safety Management System demonstrating completion of training and signoff of Transport Policy and Code of Conduct requirements.</p> <p>Feedback via newsletters and toolbox talks.</p> <p>Weekly review of complaints register regarding driver conduct.</p>
<p>Shoalhaven Coal will require a Workplace Health and Safety Management Plan and a 'Code of Conduct' for all drivers from each transport contractor.</p> <p>Provision of the SMP and drivers code of conduct from transport contractors must be received and reviewed as part of the Contractor onboarding process prior to engagement.</p>	Ongoing	Mine Manager	<p>Up to date contractor records are managed within the site Contractor database to measure effectiveness and monitor for non-adherence to this requirement.</p> <p>Contractor management requirements are reviewed annually or trigger based due to changes in Legislation, Standards or site requirements.</p>

Management and Mitigation Measure	Timing	Responsibility	Performance and Compliance Indicator
Trucks and associated plant and equipment to be maintained in a proper and efficient condition and operated in an efficient manner. Documented introduction to site checklist and signoff for all trucks and plant against relevant standards and legislation. Documented daily pre-start inspection checklist for all mobile (including haul trucks) and fixed plant equipment with additional inspections determined by standards and OEM schedules. All requirements currently exist under Mechanical Engineering Principal Control Plan. All truck and plant equipment inspections and schedules managed with site MEX Workorder System. Workplace observation – Take 5.	Prior to equipment use onsite and ongoing	Mine Manager	Up to date records relating to all trucks and plant are held and managed within the site MEX Workorder System and daily Take 5 workplace observations to measure effectiveness and monitor for non-adherence to this requirement. Records are reviewed in accordance with standards and EOM schedules.
<p>The site induction, Transport Policy and Code of Conduct and various ongoing site communication mediums for transportation operators and employees and contractors (commuters) will cover mechanisms to reduce the potential for transport and commuter impacts, including:</p> <ul style="list-style-type: none"> Noise minimisation Awareness of risk factors such as road and weather conditions (ice, sleet, water and gravel roads), wildlife, drugs and alcohol, mobile phone usage, fatigue & journey distance, vehicle condition (roadworthiness) and licencing Emphasise requirements for all vehicles entering site to be registered and appropriately insured Visual aids highlighting road user risk factors will be posted in muster areas and other appropriate locations Newsletters and toolbox talks will be used to update road safety messages, adverse events and known / emerging hazards, i.e., Planned roadworks. Where appropriate, carpooling will be supported to reduce the number of commuter vehicle movements to and from site. Site based drug and alcohol testing will be implemented as part of the site Safety Mgt System process. 	Upon induction of new drivers including employees and contractors and trigger based following adverse events and incident reports.	Mine Manager	<p>Combined the following tools and records are used to measure effectiveness and monitor for non-adherence to this requirement.</p> <p>Up to date induction and training records are maintained as part of the site Safety Management System demonstrating completion of training and signoff of Transport Policy and Code of Conduct requirements.</p> <p>Up to date records of attendance at monthly communication meetings, and pre-start toolbox talks demonstrate ongoing exposure and updates to requirements</p>

Management and Mitigation Measure	Timing	Responsibility	Performance and Compliance Indicator
<p>The site incident reporting systems and complaints process and register are used to report unsafe road conditions and related road network safety risks and record community complaints.</p> <p>The incident and non-compliance reporting process in place forms part of the site safety management system requirements as outlined in Section 4.4.</p> <p>The community complaints process in place is outlined in Section 4.3</p> <p>The Castlereagh Coal website provides direct links to a direct call telephone number for complaints and information in addition to a direct email address and a fillable form.</p> <p>Incident reports are reviewed at the daily management meeting.</p> <p>The complaints register is reviewed weekly and updated as soon as reasonably practicable following receipt and investigation of a complaint. Complaint records are posted on the Castlereagh Coal website.</p>	Ongoing as per performance and compliance indicator	Environmental staff	Incident reports a reviewed daily and the complaints register reviewed weekly with records used to measure effectiveness and monitor for non-adherence to this requirement
<p>Monthly and trigger based inspections of the local road network by Environmental staff will include:</p> <ul style="list-style-type: none"> the haul roads, site access road and Castlereagh Highway intersection for damage to road surfaces; the Castlereagh Highway/site access road intersection for accumulated coal or debris and maintained as necessary by removing the material; laden coal haul trucks leaving the site to determine if loads are adequately covered Checks to ensure haul truck movements do not deviate from the designated haul route. <p>Records of inspections and outcomes will be maintained within the site environmental reporting system, reported to management and presented to the workforce at site Monthly Communication Meetings.</p>	Monthly or trigger based	Environmental staff	Monthly review of Environmental Inspection records to measure effectiveness and monitor for non-adherence to this requirement.

3.1.1 Driver's Code of Conduct and Transport Management Policy

The transport of coal is undertaken by road registered and appropriately insured vehicles including semi-trailers, truck and dog trailers and B doubles. All drivers including employee and contractor commuters are required to comply with Invincible Colliery's Driver's Code of Conduct and Transport Management Policy and all private vehicles entering site must be road registered and be appropriately insured (refer to **Appendix 2**).

All employees and contractors must read and sign the induction documentation (refer to **Appendix 2**), stating that they have read and agreed to comply with the Transport Management Policy and Code of Conduct prior to undertaking the transportation of coal from Invincible Colliery or conducting active duties onsite. Any driver who fails to comply with the Drivers Code of Conduct may be disciplined and refused access to the site.

The Invincible Colliery Transport Management Policy also sets out specific expectations for haulage drivers accessing the site. The policy requires haul truck drivers to:

- use the wheel wash facility prior to leaving site;
- cover all loads when travelling from site;
- minimise truck movements during school bus hours;
- undertake all transport activities in accordance with the Project Approval; and
- use only the heavy vehicle transport route designated in Figure 3.1 during coal haulage.

3.1.2 Training and Awareness

All personnel and contractors working at Invincible will undergo a site induction. The site induction will include:

- information on this TMP, including transport operating conditions in the Project Approval;
- Invincible Transport Policy and Code of Conduct for Drivers (**Appendix 2**);
- potential safety issues along the haulage and commuter route;
- familiarisation with mitigation measures, identified risks reduction methods, triggers and corrective actions to be implemented to manage commuter traffic risk and encourage safe travel practices.

Following the induction process ongoing communications as defined within Table 4 - Traffic Management and Mitigation Measures will be undertaken to reinforce these controls.

3.2 Reactive Management Measures

In addition to the operational controls outlined in Section 3.1, specific reactive management measures will be implemented during the operation of the mine to remedy ineffective management and mitigation measures and manage non adherence to requirements determined through the performance and compliance indicator review process. Triggers, response and corrective actions are outlined in Table 5 below. The response and corrective actions will contribute to informing the Contingency Plan in Section 3.2.1.

Table 5 Traffic Triggers and Responses

Triggers	Response and Corrective Actions
Ineffective Management or Mitigation Measures	<p>Where management and mitigation measures are found to be ineffective or requiring review through the performance and compliance indicator review process (Table 4), the Mine Manager or his delegate will:</p> <ul style="list-style-type: none"> • Facilitate a review of the management or mitigation measure in consultation with appropriate stakeholders including haulage contractors, drivers and operational personnel to implement effective remedies; and • Implement appropriate changes to the TMP, related management plans, policies or guidelines that require updating to give effect to the proposed remedies;

Triggers	Response and Corrective Actions
Community Complaint (Coal Haulage and Commuter Traffic)	<p>Following a complaint appropriate action will be taken within 1 working day to determine the cause of the complaint and identify appropriate actions to remedy the complaint where it is sustained, and results in a non-adherence to management and mitigation measures and / or non-compliance. The following details will be recorded and actions taken:</p> <ul style="list-style-type: none"> • The date and time of the complaint; • Method by which the complaint was made; • Personal details of the complainant which were provided by the complainant; • Nature of the complaint; • Action taken in relation to the complaint, including follow up with the complainant; • If no action taken, the reasons why no action was taken; and • Take disciplinary action in accordance with the Transport Management Policy and Drivers Code of Conduct Transport where required.
Exceedance of Coal haulage and Transport Movement Criteria	<p>Where exceedances or non-adherence to management and mitigation measure requirements are found through the performance and compliance indicator review process (Table 4), the Mine Manager or his delegate will:</p> <ul style="list-style-type: none"> • Facilitate an investigation of the exceedance or non adherence in consultation with appropriate stakeholders including haulage contractors, drivers and operational personnel; • Implement effective corrective actions and remedies including appropriate changes to the TMP, related management plans, policies or guidelines that require updating to give effect to the proposed remedies; • Take disciplinary action in accordance with the Transport Management Policy and Drivers Code of Conduct Transport where required; • Where an exceedance of the Project Approval transport limits is confirmed, the Mine Manager will immediately notify the Secretary and any other relevant agencies of the exceedance; • Within 7 days of becoming aware of the exceedance, a report will be provided to the Secretary and any relevant agencies, along with any further reports requested. The report must include the time, date and details of the incident, measures implemented to prevent re-occurrence and any non-compliance with the Project Approval; • Any exceedance of the Project Approval transport limits will be reported in the Annual Review; • Where ongoing or regular exceedances of the transport limits occur, the Mine Manager will facilitate a review of the management or mitigation measure in consultation with appropriate stakeholders including haulage contractors, drivers and operational personnel to implement effective remedies; and • Implement appropriate changes to the TMP, related management plans, policies or guidelines that require updating to give effect to the proposed remedies.
Breach of the Invincible Transport Policy and Drivers Code of Conduct	<p>Breaches identified through the performance and compliance indicator review process due to a failure to comply with the requirements of the Transport Policy and Code of Conduct for Drivers (refer to Appendix 2) may trigger disciplinary action and result in refused access to the site.</p>

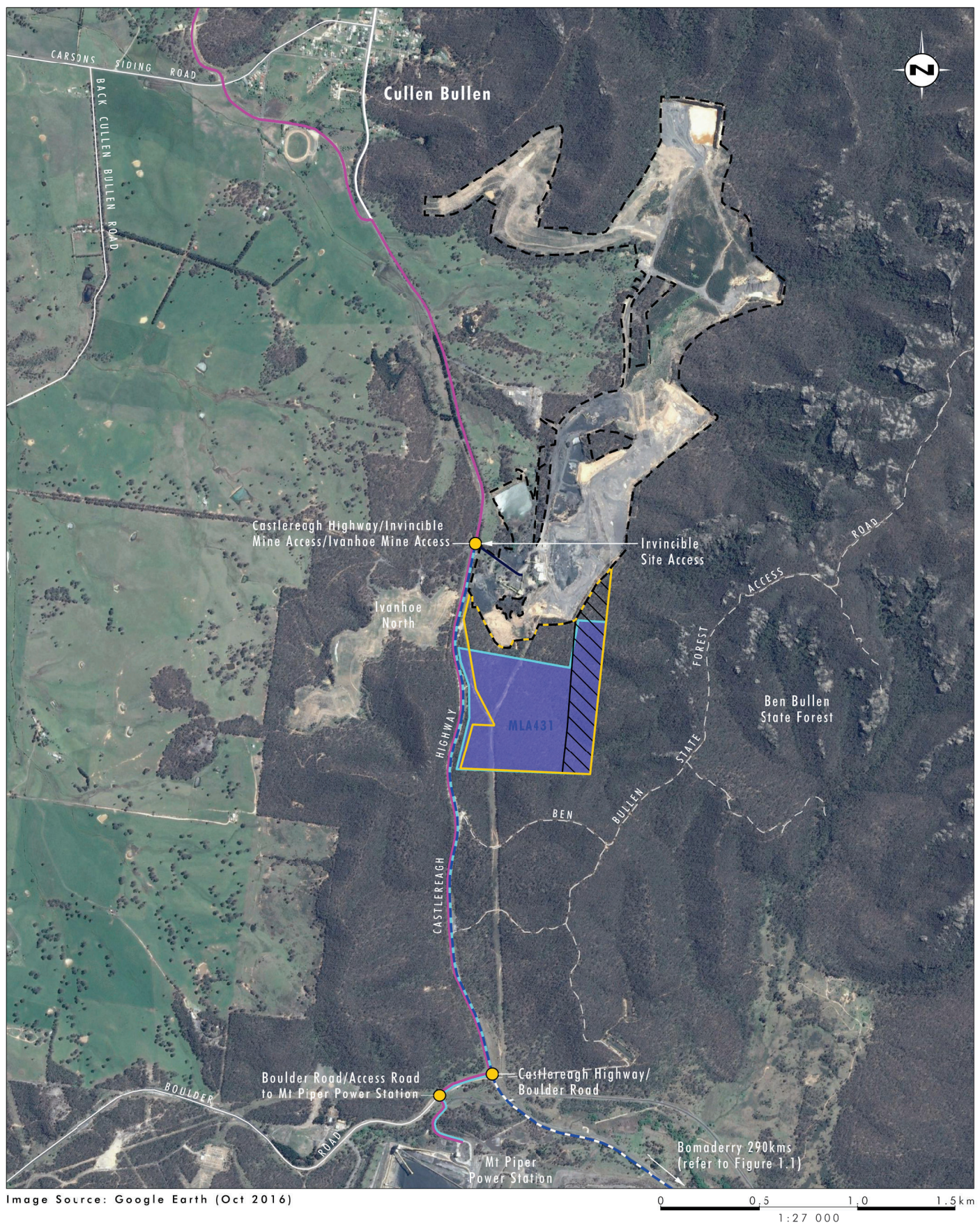
3.2.1 Contingency Plan

Invincible Colliery will implement a contingency plan to manage unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible when:

- unpredicted impacts with negative consequences which have or may result in exceedance of impact assessment criteria occur; and / or
- the performance and compliance indicator review process determines management and mitigation measures to be ineffective resulting in exceedances and / or non-adherence with impact assessment criteria requirements;

The Mine Manager or delegate will be responsible for implementation of the contingency plan including:

- implementation of responses and corrective actions to the unpredicted impact or trigger event consistent with Table 5 and / or other corrective actions determined appropriate to mitigate or eliminate the unintended consequence;
- consideration of the cessation of activities contributing to the unpredicted impact which have or may result in exceedance of impact assessment criteria until responses and corrective actions have been implemented which reduce the ongoing impacts to levels below relevant impact assessment criteria; and
- documenting the unpredicted impact or trigger event and the responses and corrective actions implemented to mitigate or eliminate the unintended consequence.



Legend

- Existing Approved Mining Disturbance Area
- Approved Southern Extension Area
- Mining Restriction Area
- MLA431
- Mine Access
- Transport Route to Mt Piper Power Station
- Transport Route to Bomaderry
- Transport Route from Cullen Valley Mine
- Principal Intersection

FIGURE 3.1
Heavy Vehicle
Transport Routes

4.0 STAKEHOLDER ENGAGEMENT

4.1 TMP Consultation

Correspondence with regulatory agencies relating to this revision of the TMP is included as Appendix 1.

4.2 External Communications

Following receipt of comments from RMS (TfNSW) regarding coal haulage coinciding with school bus operating hours and pick up and drop off stops within the coal haulage route, Shoalhaven Coal consulted closely with Lithgow Buslines the operator of local School Buses. Lithgow Buslines confirmed there are no designated pickup or drop off stops within the route, and that that Invincible Coal Haulage operations as planned within this TMP will have little to no effect on bus operations. Correspondence included in Appendix 1.

4.3 Incidents, Non-Compliance and Complaints

Schedule 5 Condition 3 (g) requires a protocol for managing and reporting any incident and complaints, non-compliances with statutory requirements and exceedances of the impact assessment criteria. Schedule 5 Condition 9 of the Project Approval requires a proponent to immediately notify the Secretary and any other relevant agencies of any incident. Within 7 days of the incident, the proponent must provide the Secretary and any other relevant agencies with a detailed report on the incident, and such further reports as may be requested a written report of the exceedance within 7 days of the exceedance being reported to DPHI.

The written report will contain:

- a description of the date and time of the exceedance;
- details of the nature (or likely cause) of the exceedance;
- a description of the actions taken to prevent re-occurrence; and
- identification of any non-compliance with the Project Approval.

Complaints relating to truck movements and employee / contractor commuter traffic are to be managed in accordance with following requirements:

- Following receipt of a transport related complaint as per Section 3.2 Table 5, appropriate response and corrective action will be taken within 1 working day to determine the cause of the complaint and identify appropriate actions to remedy the complaint where it is sustained and results in a non-adherence to management and mitigation measures and / or non-compliance.

The complaints and information contact telephone number is posted on signage at the entry to Invincible Colliery. The Castlereagh Coal website also provides the telephone number in addition to a direct email address and a fillable form:

- Telephone – 0492 007 958
- Email – info@ccoal.com.au

The Complaints register is reviewed weekly and is published on the Castlereagh Coal website monthly . A summary of complaints will be provided in the Annual Review (refer Section 6.1).

5.0 ROLES AND RESPONSIBILITIES

Environmental management at the mine is the responsibility of all employees and contractors, with the Mine Manager having overall responsibility for environmental management of the operations. The environmental responsibilities for key personnel at the mine are outlined in **Table 6** below.

Table 6 TMP Roles and responsibilities

Ref	Control Measure	Responsibility
1.	<ul style="list-style-type: none"> • Approve appropriate resources for the effective implementation of this TMP • Coordinate the review of this TMP in accordance with the requirements of the Project Approval. 	Shoalhaven Coal Owner's Representative
2.	<ul style="list-style-type: none"> • Provide that sufficient resources are allocated for the implementation of this TMP • Coordinate the implementation of transport management controls and strategies in accordance with this TMP • Coordinate the transport monitoring requirements of this TMP, and evaluate and report monitoring results as required • Assist with the review of this TMP as required. 	Mine Manager
3.	<ul style="list-style-type: none"> • Coordinate transport related incident investigations and reporting as required by legislation and internal standards and guidelines • Assist with the review of this TMP as required. 	Environmental Staff
4.	<ul style="list-style-type: none"> • Comply with all requirements in this TMP • Report all potential environmental incidents to the Mine Manager immediately • Seek approval from the Mine Manager prior to making changes to infrastructure/processes which may result in increased transport risks. 	All employees and contractors
	<ul style="list-style-type: none"> • Comply with the Drivers Code of Conduct • Comply with all requirements in this TMP 	All employees and contractors

6.0 REVIEW AND REPORTING

6.1 Reporting

6.1.1 External Reporting

Shoalhaven Coal will submit an Annual Review by the end of March each year in accordance with Schedule 5 Condition 4 of the Project Approval, or other timing as may be agreed by the Secretary. The Annual Review will be made available to the public through the CCC and the Castlereagh Coal website (<http://ccoal.com.au>).

The Annual Review will report on the compliance with the transport related operating conditions and any investigations related to any exceedances of Project Approval transport limits. In addition, the Annual Review will report on the effectiveness of the transport management controls utilised at the mine and identify whether any additional management controls are required to be implemented.

6.1.2 Stakeholder Reporting

In accordance with Schedule 5, Condition 8 of the Project Approval (Mod 5), Invincible is required to operate a CCC to oversee the environmental performance of the mine. While in operation, the CCC will meet at least twice a year and will review and provide advice on environmental performance including this document, monitoring results, audit reports or complaints.

6.1.3 Adaptive Management

In accordance with Schedule 5 Condition 2 of the Project Approval, Shoalhaven Coal will assess and manage transport related risks to ensure compliance with the limits and operating conditions outlined in the Project Approval.

Where a transport related exceedance has occurred, Shoalhaven Coal will, to the satisfaction of the Secretary:

- take all reasonable and feasible measures to ensure the exceedance ceases and does not recur;
- consider all reasonable and feasible options for remediation (where relevant);
- submit a report to the DPHI describing those options and any preferred remediation measures or other course of action, and
- implement remediation measures as directed by the Secretary of DPHI.

6.2 Auditing

In accordance with Schedule 5, Condition 11 of the Project Approval (Mod 5), Castlereagh Coal will commission an Independent Environmental Audit within 1 year of recommencing mining operations and every 3 years thereafter for submission to DPHI, unless otherwise approved. This audit report will consider the effectiveness of the TMP and provide environmental management advice to ensure its ongoing effectiveness.

6.3 Review and Improvement

6.3.1 Improvement of Environmental Performance

Invincible Colliery will investigate and implement ways to improve environmental performance of the project over time which will include an ongoing management process to:

- monitor best practice environmental management Standards, Guidelines and other publications and adopt recommendations and changes which will lead to improvement of environmental performance; and
- review the application of proactive and reactive management procedures in line with the frequencies and requirements within this TMP, adopting trigger-based response and corrective actions to ineffective management and mitigation measures and non-compliance issues determined through the performance and compliance indicator review process.

The outcomes of above will be used to ensure strategies, plans and programs are updated on a regular basis and incorporate any recommended measures to improve environmental performance of the project. In accordance with Schedule 5 Conditions 6 and 7, revised strategies, plans and programs can be submitted at any time and may be submitted on a staged basis with the agreement of the Secretary. The revised strategies, plans and programs may be approved at any time, and may be prepared without undertaking consultation with all parties nominated under the applicable condition of consent with the agreement of the Secretary.

6.3.2 TMP Review

Ongoing monitoring and review of the performance and implementation of this TMP will be undertaken in accordance with Condition 5 Schedule 5 of the Project Approval (Mod 5), which states that review of a management plan will occur within 3 months of the submission of an:

- annual review under Schedule 5 Condition 4;
- incident report under Schedule 5 Condition 7;
- independent Environmental Audit report under Schedule 5 Condition 9; and
- any modifications to the conditions of this approval.

Invincible Colliery will notify DPHI in writing of any review of this TMP. Should a review lead to any revisions to this TMP, the revised document will be submitted to DPHI within 4 weeks of the review. Updated versions of this TMP will be made publicly available on the Castlereagh Coal website in accordance with Schedule 5 Condition 13 of the Project Approval (Mod 5).

6.3.3 Independent Review

In the event a landowner considers the mine is exceeding transport limits, the landowner may request an independent review of mine traffic movements. The independent review will be conducted in accordance with the procedure described in Schedule 4 Condition 4 of the Project Approval.

7.0 REFERENCES

Austroads 2009, Guide to Road Design, <https://www.onlinepublications.austroads.com.au/items/AGRD>

NSW EPA, 2015, *Environment Protection Licence 1095*

Transport and Urban Planning Pty Ltd, 2016, *Traffic and Transport Impact Assessment for Invincible Southern Extension Project at Castlereagh Highway Cullen Bullen*. Report prepared for Castlereagh Coal Pty Ltd

Umwelt (Australia) Pty Ltd, 2016, *Invincible Southern Extension Project Environmental Assessment, Section 75W Modification*. Report prepared for Castlereagh Coal Pty Ltd

8.0 ABBREVIATIONS

Table 7 Abbreviations

Term	Definition
CCC	Community Consultative Committee
Project Approval	Project Approval 07_127 (Mod 5)
EP&A Act	NSW Environmental Planning and Assessment Act 1979
EA	Environmental Assessment
EMS	Environmental Management System
DA	Development Application
Driver Policy	Procedure detailing requirements and expectations of all employees and contractors operating vehicle associated with operations
DPHI	Department of Planning, Housing and Infrastructure, formerly know as Department of Planning and Environment (DPE)
Incident	A set of circumstances that: <ul style="list-style-type: none"> • causes or threatens to cause material harm to the environment; and/or • breaches or exceeds the limits or performance measures/criteria in this approval
Roads and Maritime	Roads and Maritime Services
Secretary	The Secretary of the NSW Department of Planning and Environment, including any authorised delegate or nominee.
TMP	Transport Management Plan

APPENDIX 1

Stakeholder Consultation

1647178 & 1645337:LGS
Economic Development and Environment



29 November 2018

Luke Bettridge
bettridge@umwelt.com.au

Dear Luke

Invincible Colliery Draft Rehabilitation Management Plan and Draft Transport Management Plan

I refer to your letter received 26 November 2018 and your request for review of the Invincible Colliery Draft Rehabilitation Management Plan.

Council considers that the Draft Rehabilitation Management Plan and Draft Transport Management Plan adequately highlights the relevant issues and therefore has no objection to the Draft Plans.

Please do not hesitate to contact me who is available between 8.15 am and 10.30 am on (02) 6354 9999, Monday to Friday; in Council's Economic Development and Environment should you require any additional information in relation to this matter.

Yours Sincerely

Lauren Stevens
DEVELOPMENT PLANNER



08 January 2019

SF2016/212566; WST10/00049/08

Mr Luke Bettridge
Umwelt
75 York Street
TERALBA NSW 2284

Dear Mr Bettridge

Invincible Colliery Transport Management Plan

Thank you for your letter dated 28 November 2018 (via Mr Graham Goodwin, Castlereagh Coal) forwarding the Transport Management Plan (TMP), prepared to satisfy Schedule 3, Condition 42 of PA 07_0127 to Roads and Maritime Services for comment.

It is noted the approved modification to the mine's Project Approval (PA 07_0127) required the Blast Management Plan and Transport Management Plans to be prepared in consultation with Roads and Maritime, however Shoalhaven Coal (which owns Invincible Colliery), are at this stage **not** proposing to use explosives and is therefore seeking agreement from the Secretary not to prepare the Blast Management Plan.

Roads and Maritime's comments therefore only relate to the TMP component.

The mine has been in care and maintenance since 2013, having exhausted maximum extraction under the approval at that time. A modification was approved in February 2018 with no alteration to previously approved mining methods, increase to annual production limits or changes to approved transport methods or rates. The modification applied to the extension of approved mining operations to 2025.

The TMP has been reviewed and Roads and Maritime makes the following comments for your consideration:

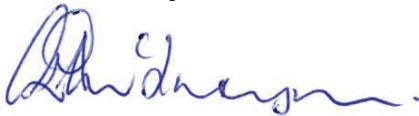
- The TMP did not adequately identify risks of mine commuter traffic and the measures employed by the mine to manage these risks. Further analysis of the impacts to mine commuter traffic and detailed mitigation measures, including strategies to inform staff of risks and measures both regulated and voluntary, to manage safe commuter trips, is required. Risks include, but are not limited to, fatigue, driving under the influence, types of vehicles used, wildlife, gravel roads, end of shift and long distance journeys, climatic conditions affecting road conditions and mobile phone use in vehicles. Roads and Maritime's Western Road Safety Unit assist many industries such as mines in our region with the development of strategies for inclusion in TMPs. Contact details can be supplied at your request.

Roads and Maritime Services

- It was noted in the TMP that road haulage occurring between the colliery and Mt Piper Power Station will be minimised between 8.30am-9.00am and 3.00pm-3.30pm Monday to Friday. Further evidence is requested of consultation with local school bus companies to gauge where along the haulage route school bus pick up and drop off areas exist. Roads and Maritime requests haulage operations be prohibited during these times at these locations.
- Further detail to be provided on the strategies for effectively monitoring and reporting on the effectiveness of measures and compliance with the TMP and driver code of conduct.
- Staff/personnel transport arrangements (construction and operation) including shift timetables and measures to be employed to encourage safe staff travelling practices. Scheduling of haulage vehicle movements to minimise convoy lengths of platoons and shift changeover times scheduled to not coincide with local school bus pick up/drop off times are to be included.
- Details of any future access intersection improvements works in accordance with the *Austroads Guide to Road Design* and Roads and Maritime supplements.

I trust this information is of assistance. Should you require further information please contact the undersigned on 02 6861 1453.

Yours faithfully



Andrew McIntyre
Acting Network & Safety Manager
Western

Response to RMS Comments Transport Management Plan
July 2022

The TMP has been reviewed and Roads and Maritime makes the following comments for your consideration:

☐ The TMP did not adequately identify risks of mine commuter traffic and the measures employed by the mine to manage these risks. Further analysis of the impacts to mine commuter traffic and detailed mitigation measures, including strategies to inform staff of risks and measures both regulated and voluntary, to manage safe commuter trips, is required. Risks include, but are not limited to, fatigue, driving under the influence, types of vehicles used, wildlife, gravel roads, end of shift and long distance journeys, climatic conditions affecting road conditions and mobile phone use in vehicles. Roads and Maritime's Western Road Safety Unit assist many industries such as mines in our region with the development of strategies for inclusion in TMPs. Contact details can be supplied at your request.

Response: See Section 2.2.1 Commuter Traffic and Shift Timetables. See Table 4 Traffic Management and Mitigation Measures. See Section 3.1.1 Drivers code of conduct and transport management policy. See Section 3.1.2 Training and Awareness. Section 3.2 Reactive Management Measures.

☐ It was noted in the TMP that road haulage occurring between the colliery and Mt Piper Power Station will be minimised between 8.30am-9.00am and 3.00pm-3.30pm Monday to Friday. Further evidence is requested of consultation with local school bus companies to gauge where along the haulage route school bus pick up and drop off areas exist. Roads and Maritime requests haulage operations be prohibited during these times at these locations.

Response: Shoalhaven Coal consulted closely with Lithgow Bus Lines regarding this matter agreeing to ongoing consultation. See footer Table 1 and Section 2.2. See Table 4 additions. See Section 4.2 External Communications. See Table 1 Invincible Colliery Transport Management Policy Requirements regarding school bus hours. See appendix 1 Stakeholder Consultation.

☐ Further detail to be provided on the strategies for effectively monitoring and reporting on the effectiveness of measures and compliance with the TMP and driver code of conduct.

Response: Section 3, Table 4 performance and compliance indicator. Section 3.1.2 Training and Awareness. Section 3.2 Reactive Management Measures. Section 4.4 and 4.4 Community Complaints and Incidents and Non Compliances.

☐ Staff/personnel transport arrangements (construction and operation) including shift timetables and measures to be employed to encourage safe staff travelling practices. Scheduling of haulage vehicle movements to minimise convoy lengths of platoons and shift changeover times scheduled to not coincide with local school bus pick up/drop off times are to be included.

Response: Section 2.2 and 2.2.1

☐ Details of any future access intersection improvements works in accordance with the *Austrroads Guide to Road Design* and Roads and Maritime supplements.

Response: There are no future access intersection working proposed.

From: Walter Bodnar <wbodnar@lithgowbuslines.com.au>

Sent: Wednesday, 6 July 2022 2:03 PM

To:

Cc: Geoff Ferris <gferris@buslinesgroup.com.au>; Chris Moule <cmoule@buslinesgroup.com.au>; Virginia Sheil <vsheil@lithgowbuslines.com.au>

Subject: RE: Attention Wally Bodnar

,
Further to your below I have been advised by Buslines management team that this will have little to no effect on our bus operations and Buslines does not have anything to add to the TMP..

Regards,

Walter Bodnar | Manager



24 Donald Street, PO Box 319, Lithgow NSW 2790

T 02 6352 3888

wbodnar@lithgowbuslines.com.au | www.lithgowbuslines.com.au

From:

Sent: Wednesday, 6 July 2022 9:06 AM

To: Walter Bodnar <wbodnar@lithgowbuslines.com.au>

Subject: FW: Attention Wally Bodnar

Good morning Wally, are you available for a quick phone chat so I can finalise the consultation regarding the Invincible Colliery Transport Management Plan. I am available this afternoon after 2.00pm if that's suitable.

From:

Sent: Monday, 27 June 2022 3:03 PM
To: info@lithgowbuslines.com.au
Subject: FW: Attention Wally Bodnar

Hi Wally, a quick follow-up on our chat and the email below so we can close out the matters we discussed.

Happy to chat if needed.

Regards

For and on Behalf of Castlereagh Coal



From:
Sent: Thursday, 16 June 2022 3:20 PM
To: 'info@lithgowbuslines.com.au' <info@lithgowbuslines.com.au>
Cc:

Subject: FW: Attention Wally Bodnar

Hi Wally, please see additional information below relative to approved truck movements between Invincible and Mout Pipper Power Station including hours of operation.

Traffic Routes and Transport Limits

In accordance with Schedule 2 Condition 8(b), transport for coal haulage from the site will only occur during the day and evening as defined in the Project Approval. Shoalhaven Coal will ensure that all coal haulage from the project within the Lithgow local government area is conveyed only on the Castlereagh Highway, the Great Western Highway and Boulder Road. Should coal haulage be required on any supplementary haul route, Shoalhaven Coal will seek further approval from DPE prior to commencement of haulage. In accordance with Schedule 2 Condition 8 of the Project Approval Shoalhaven Coal must not:

- Permit more than 146 laden coal truck movements from the site per day, average over a week, with a maximum of laden coal truck movements per hour;
- Permit more than 10 laden coal truck movements to the Shoalhaven Starches Plant per day, averaged over a week (These approved movements will not be occurring).

Hours of Operation

The Proponent:

- (a) must only undertake the removal and emplacement of overburden and the extraction of coal, excluding the activities referred to in (c) below, during the day;
- (b) must only process coal on site and/or transport coal from the site during the day and evening; and
- (c) may undertake maintenance activities, and safety procedures as directed by DRG, at any time.

Note Project Approval definitions: 'Day' is the period 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and public holidays. 'Evening' is the period 6pm to 10pm.

As per our conversation today, I provide the following summary for your comment:

- There is one morning and one afternoon return bus route between Lithgow and Capertee each weekday which pick up school children with the following approximate times the bus will pass Invincible Colliery with children aboard:
 - Mornings between 0745m and 0815
 - Afternoons between 1600 and 1630
 - Comment:
- There are no designated pickup or drop-off points between Invincible Colliery and Mount Piper Power Stations
 - It is noted however that adjacent the entry to Invincible Colliery the bus is often flagged down by an adult to board two children to and from school, noting that this pickup and drop off is not a designated point
 - Castlereagh Coal have agreed to consult with this person regarding the restart of mining operations and increased vehicle movements with preference for the children to board and alight from the bus at a designated pickup / drop-off point
 - Comment:
- You perceive the likelihood of negative interactions between haul trucks and a bus carrying school children as quite low, acknowledging that Castlereagh Coal have a consented requirement and commitment to minimise movements between Invincible Colliery and Mt Piper Power Station during the hours that buses are in the vicinity.
 - Castlereagh Coal and Lithgow Buslines agree to consult with each other where changes to schedules or bus routes / times are proposed
 - Should it be deemed necessary and upon advice of Lithgow Buslines, Castlereagh Coal agree to consider prohibiting haul truck movements between the following hours
 - Mornings between 0745m and 0815
 - Afternoons between 1600 and 1630
 - Comment:

I have also requested the site Environmental Manager approach the person who flags down the bus adjacent the Colliery tomorrow morning to initiate further consultation.

Happy to discuss anything further you may need from me.

Regards

For and on Behalf of Castlereagh Coal



From:

Sent: Friday, 10 June 2022 12:31 PM

To: 'info@lithgowbuslines.com.au' <info@lithgowbuslines.com.au>

Cc: 'kr@cha.net.au' <kr@cha.net.au>; 'Kyle Egan' <kyle.egan@ccoal.com.au>

Subject: Attention Wally Bodnar

Good morning Wally, thanks for taking the time to talk to me this morning regarding the School Bus Route relative to the preparation of the Transport Management Plan for the Invincible Colliery.

As you may be aware, Invincible Colliery (and Cullen Valley Mine) are under new ownership. The new owners are presently preparing management plans toward initiation of the approved Southern Extension area at Invincible Colliery, which includes road transport of product coal from the Colliery to the Mount Piper Power Station. I have attached for your information a plan showing the entry/exist points between at mine and the power station with the highway in between. I have also attached excerpts from the draft transport management plan highlighting the important components of the plan. In particular please note that the plan proposes to minimise road haulage between the two points between the hours of 8.30am – 9.00am and 3.00pm – 3.30pm Monday to Friday in order to reduce potential on road interactions between trucks and school buses.

For your information, stakeholder consultation has been undertaken with both Lithgow Council and TfNSW (RMS) in preparation of the plan. Council have stated satisfaction with the proposed plan which includes the minimisation of haulage during the times noted above, Transport for NSW have requested evidence of consultation with Lithgow Buslines to determine where (if any) pickup and drop-off points existing along the Castlereagh Highway between Invincible Colliery and the entry to the Mount Piper Power Station. As per our conversation this morning, I provide this information and request a response to the following questions;

1. Are there existing (or proposed) pickup and drop-off points associated with school buses along the Castlereagh Highway section between Invincible Colliery and the Mount Piper Power Station?
 - a. If so, could you please mark the attached plan showing those locations.

2. Does Lithgow Buslines hold any concerns regarding the safe operation of its school bus runs and interactions with trucks hauling coal between the Colliery and the Power Station should the Transport Management Plan be implemented, and fully adopt the commitments and requirements including minimising truck movements during the pre and post school hours Monday to Friday as per the attached tables.
 - a. If so, please indicate your concerns and recommendations.

Please don't hesitate to contact me direct to discuss in person as required.

For and on Behalf of Castlereagh Coal



Mr Kevin Reed
Director
PO Box 3011
BOWENFELS NSW 2790

12/09/2022

Subject: Transport Management Plan for Invincible Colliery (Condition 43, Schedule 3 of MP 07_0127)

Dear Mr Reed

I refer to your submission of the Invincible Colliery Transport Management Plan, dated July 2022, for approval as required by condition 43, Schedule 3 of MP 07_0127. I also acknowledge your response to the Department's review comments and requests for additional information.

I note the Transport Management Plan (version R1, dated August 2022) has been:

- Prepared in consultation with Transport for NSW and Lithgow City Council; and
- Contains the information required by the conditions of approval.

As nominee of the Planning Secretary, I approve the Invincible Colliery Transport Management Plan (version R1, dated August 2022) under condition 43, Schedule 3 of MP 07_0127.

You are reminded that if there is any inconsistency between the approved document and the conditions of approval, then the requirements of the conditions of approval prevail.

Please ensure you make the document and this approval letter publicly available on the project website.

Please ensure that the approved plan is placed on the project website at your earliest convenience.

If you wish to discuss the matter further, please contact Melanie Hollis on 8217 2043.

Yours sincerely

A handwritten signature in black ink that reads "Jessie Evans".

Jessie Evans
Director, Resource Assessments
Resource Assessments

As nominee of the Planning Secretary

APPENDIX 2

**Invincible Transport Policy and Drivers
Code of Conduct**

Appendix 2 - Invincible Colliery Transport Management Policy and Drivers Code of Conduct

This Transport Management Policy sets out the expectations of Invincible Colliery for all drivers including haul truck operators and employee and contractor personnel entering the site. This document forms a key component of the Invincible Colliery Driver's Code of Conduct. All drivers must read and acknowledge the requirements of this policy.

Table 1 Invincible Colliery Transport Management Policy Requirements

Requirement
All drivers must complete the required induction prior to driving on site and / or conducting site based operational activities.
All trucks and other vehicle entering the site must have current road registration and appropriate insurances.
All vehicles are required to adhere to the regulated speed limit and road signage at all times.
Haul trucks must only the designated heavy vehicle transport route during coal haulage.
No haul trucks are to arrive at the site prior to 7:00 am.
No haul trucks are permitted to leave the site prior to 7:00 am Monday to Saturday and 8.00 am to 6.00 pm on Sundays and public holidays.
No haul trucks are permitted to leave the site after 10:00 pm.
All haul truck drivers are required to remain vigilant regarding the minimum 5 – minute gap between trucks leaving site to ensure safety during school bus hours - 7.45am and 8.15am and 4.00pm - 4.30pm Monday to Fridays during school terms. Whilst no bus pickup and drop off points for children are located upon the coal haulage route, extra caution should be exercised by all drivers around schools and along the Castlereagh Highway as a general rule.
Trucks are not permitted to use exhaust / compression brakes at any time in the Cullen Bullen area.
All earth mining fleet equipment on the Invincible mine site including water-carts have right of way at all times.
All vehicles are to adhere to the 20km/hr speed limit on site at all times.
Haul truck drivers are only permitted to exit trucks at designated areas outside of pit areas. Commuters must only park and exit / enter private vehicles in designated parking areas.
Haul truck drivers must wear appropriate hi-visibility and seatbelts must be worn at all times by all drivers both onsite and on public roadways.
All trucks entering the site must have a fully operational C/B radio so as to communicate with loader drivers.
All trucks entering the site must have a mechanism to cover the laden vehicle before leaving site.
All haul truck drivers must follow loader driver instructions at all times to ensure safe access, loading and departure.
Haul truck drivers must utilise the truck wash facility prior to leaving the site and after loads have been adequately covered.
Trucks must ensure they do not obstruct designated haul roads.
All trucks to be loaded must park where instructed and in designated parking areas.
All drivers must notify Invincible of any incidents or hazards as soon as they become aware of the event.
Invincible Colliery reserves the right to deny any vehicle to the site which shows signs of defect.
Any driver who fails to comply with this Transport Management Policy may be disciplined and refused access to the site.

I have read the above Transport Management Policy for Invincible Colliery and agree to adhere to the requirements of this policy. I understand that I may be disciplined and refused entry to the site if I fail to comply with this policy.

Name (print):	Date:
Signature:	Vehicle Registration: