



Illawarra Coal



Dendrobium Mine Traffic Management Plan

DENMP0043





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VERSION HISTORY

VERSION	DESCRIPTION OF CHANGES	Approved	DATE
1.0	Three yearly review as required by Development Consent	David Oliver	Mar 2008
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2.1	Inclusion of comments from DoP received 13 August 2009	Wayne Price	August 2009
3.0	Triennial Review	Wayne Price	March 2012
4.0	Review and format update	Bryony Andrew	May 2017
5.0	The following changes have been made: <ul style="list-style-type: none"> Updated roles and responsibilities References to parent company changed Update in accordance with Development Consent 	Peter McMillan	June 2018

PERSONS INVOLVED IN THE REVIEW OF THIS PLAN INCLUDE:

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COMPANY	TITLE
Mt Kembla Public School	Principal
Dendrobium Community Consultative Committee	Community Representative
Wollongong City Council	Senior Development Project Officer

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1 INTRODUCTION

1.1 Overview of Operations

This Traffic Management Plan (TMP) addresses the management of road traffic and rail movements associated with operation of the mine and associated infrastructure in accordance with the Dendrobium Development Consent and Environmental Protection Licence 3241.

This Traffic Management Plan is a component of the Environmental Management Strategy for Dendrobium Mine. Common aspects across individual Plans are covered in the Environmental Management Strategy document.

1.2 Plan Objectives

The objectives of this TMP are to:

- Ensure compliance with Development Consent conditions;
- Minimise the potential for traffic conflict and/or personal injury resulting from traffic generated by the Dendrobium Mine;
- Create a road environment where all road users feel safe; and
- Successfully enforce a Drivers' Code of Conduct for all personnel associated with Dendrobium, including a monitoring and reporting process.

1.3 Scope

The scope of this management plan includes the following sites and facilities:

Dendrobium Pit Top - consists of administration building, workshop, machinery and equipment storage areas, people and materials access to the underground workings via the Dendrobium Tunnel, a sedimentation pond and grey water treatment and Oil Water Separation facility.

Kemira Valley Coal Loading Facility – the KVCLF receives coal from underground via the Kemira Valley Tunnel. Coal is transported from underground to KVCLF via a conveyor network. The coal is then fed into a rill tower and deposited onto a 150,000 tonne stockpile from which it is loaded into trains via an enclosed rail-loading chute.

Kemira Valley Rail Line - used to transport the coal from KVCLF to the Dendrobium Coal Preparation Plant.

Ventilation Shaft Number 1 - The No.1 ventilation shaft, located within the Metropolitan Special Area administered by Sydney Catchment Authority (SCA), operates as a downcast shaft (i.e. drawing fresh air into the underground workings). The No. 1 vent shaft is on land owned by Illawarra Coal.

Ventilation Shafts Number 2 and 3 – Also located within the Metropolitan Special Area and within Mining Lease ML1566. Construction of the No.2 and 3 ventilation shafts was completed during 2008. The No.2 shaft operates as an additional downcast shaft whilst the No.3 shaft operates as an upcast shaft.

In addition to the above, the following residential areas of Mt Kembla are also covered by this plan:

- Cordeaux Road and vehicle movements in and around the Pit Top site; and
- Stones Road and vehicle movements in and around the Kemira Valley Coal Loading Facility (KVCLF).

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2 ROLES AND RESPONSIBILITIES

It is the responsibility of all employees and contractors to undertake practices to manage and minimise traffic impacts according to this Management Plan.

Roles and responsibilities associated with environmental management at Dendrobium Mine are defined in the Dendrobium Mine Environmental Management Strategy. The roles and responsibilities specific to the development, implementation and review of this plan are outlined in Table 1.

Table 1: Roles and Responsibilities

Role	Responsibility
Environmental Supervisor -ICH	Implementation and periodic review of this Management Plan.
Community Specialists	Meeting the commitments contained within this management plan for stakeholder engagement.
General Manager	Provide the necessary resources and systems to ensure that requirements of this Management Plan are met.
Contract Service Provider Managers and supervisors Operations Personnel	Comply with South32 project delivery and operational requirements.
Logistics Supervisor	Traffic Management relating to the Kemira Valley Rail Line.
Supply Team or Warehouse Team	Investigation and follow up with delivery drivers and their parent companies.



3 LEGISLATION AND PLANNING

3.1 Legislative Requirements

Legislation relating to traffic management includes:

- Road Transport Act 2013

3.2 Environment Protection Licence Requirements

Environmental Protection Licence 3241 applies to the Dendrobium Mine premises and associated activities, and contains conditions pertaining to Traffic Management Plan.

3.3 Development Consent Conditions

This Traffic Management Plan has been developed in accordance with Schedule 4 of the *Dendrobium Mine Development Consent*, which can be found on the South32 website at the link below.

<https://www.south32.net/what-we-do/places-we-work/illawarra-metallurgical-coal/documents>

4 MANAGEMENT STRATEGIES

There are a number of areas where the Dendrobium operations could potentially generate traffic issues. These areas, and the associated management strategies, are discussed in more detail in the following section.

4.1 Operational Activities and Potential Traffic Issues

4.1.1 Dendrobium Surface Activities

Due to its proximity to Wollongong, Dendrobium Mine employees mostly travel to the site by light vehicle. Employee and contractor numbers vary according to operational activities being undertaken at the time, however generally are around 290 and 100 respectively. Due to the shift times at the Mine, light vehicle movements are spaced out over a 24 hour period rather than concentrated at one time.

Medium and heavy vehicles require access to the site for the purposes of:

- Delivery of materials and equipment;
- Waste bin delivery and removal;
- Providing services where external equipment is required (e.g. regular environmental monitoring, drug and alcohol testing, crane hire etc).

Vehicles accessing the site are required to adhere to the Drivers' Code of Conduct.

4.1.2 Kemira Valley Coal Loading Facility

The Kemira Valley site is designed to operate mostly unattended except for the stockpile equipment operators and site supervisors. Medium to heavy vehicles require access to the site to transport equipment such as earth moving machinery, as well as materials such as fuels, chemicals and lubricants. Vehicles also regularly access the site for maintenance purposes and environmental monitoring.

Vehicles accessing Kemira Valley are also subject to the Drivers' Code of Conduct and associated curfew times.

4.1.3 Ventilation Shafts (1, 2 and 3)

The Ventilation Shafts are generally unattended sites, with access generally limited to a weekly maintenance inspection. Additional access to the site will be infrequent and only for specific works. It would only be during

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these times, and upon decommissioning of the sites that medium or heavy vehicles would require access to the site.

4.2 Traffic Mitigation and Management Measures

4.2.1. Road Traffic Management

Measures are taken to ensure that the effects of traffic on the local communities associated with Dendrobium Mine, and its related sites, are minimised.

Aspects that are focused on, which are discussed in detail below, include:

- Signage and physical structures to notify and control drivers to ensure correct behaviour;
- Driver behaviour – Driver’s Code of Conduct;
- Curfew times for both road and rail;
- Control of materials being transported;
- Encouraging ‘car-pooling’ for employees and contractors; and
- Notification of relevant stakeholders when large loads are required, or road closures are to occur.

Signage and Physical Structures

Physical structures are in place to inform drivers of road conditions in relation to the mine and its associated sites. These include signage, pedestrian refuge areas, widening of roads, improvement of bridges, and painting of road markings both on and off the mine site.

Temporary variable message signs are also used intermittently to inform drivers of the local road conditions, speed limits, and alert them of area of high pedestrian activity (i.e. the Mt Kembla Primary School).

Road maintenance programs for Stones Road will continue as required by Dendrobium’s Development Consent.

Driver Behaviour and Curfew Times

In addition to physical structures and signage, Dendrobium ensures that employees, contractors and visitors focus on their driving behaviour by reinforcing requirements during site inductions and through relevant training documents such as the Environment and Community Awareness Training package. Driver behaviour is controlled across the sites through measures such as the Drivers’ Code of Conduct which is detailed in the following section.

The Allowable Travel Times for travel for vehicles, other than personnel passenger vehicles, to the Pit Top, KVCLF or Ventilation Shaft 1 are as follows:

- Monday to Friday – 7.00am-8.00am, 9.30am-2.30pm, 4.00pm-5.00pm
- Saturday – 8.00am-1.00pm

Dendrobium Mine shift changeover times take into account the Mt Kembla Public School pick up and drop off times.

All drivers, including operators of heavy vehicles, are required to comply with the speed limits designated by signage installed by the Roads and Maritime Service and to drive to road conditions. i.e. slow down in wet conditions and on narrow roads. A heavy vehicle speed limit of 40 km/hr has been imposed on Stones Road.

Drivers’ Code of Conduct

All employees, contractors and visitors accessing the Dendrobium Pit Top, Kemira Valley, or Ventilation Shaft sites will continue to be made aware that responsible driving is a condition of employment at Dendrobium.

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A Drivers' Code of Conduct for vehicles outlines the driving behaviour required of all employees, contractors and visitors (refer to *DENSTD0131 Dendrobium Mine Drivers Code of Conduct*). All personnel are trained about the Code of Conduct as part of the site induction. The requirements of the Code are also reinforced through the Environment and Community Awareness Training.

Any drivers reported or found to be acting in a manner contrary to the Code will be subject to disciplinary action.

Delivery vehicles can only access the mine during the allowable times except for safety or production related emergencies where the Operations Manager is required to approve deliveries outside of the allowable times.

Dendrobium reserves the right to review the contractors' continued working association with the mine following any breaches of the Code.

4.2.2. Rail Traffic Management

All Dendrobium coal is transported from Mount Kembla via the Kemira Valley Coal Loading Facility and associated rail line. No coal will be transported by road. Measures are taken to ensure that the effects of rail traffic on the local communities associated with Dendrobium Mine are minimised. Noise emissions from the rail operations are managed in accordance with the Dendrobium Mine Noise Management Plan.

Night Time Restrictions

Rail movements along the Kemira Rail Line are restricted to between 6am and 11pm, unless otherwise agreed by the Director-General as per Schedule 4, Condition 23 of the Dendrobium Development Consent.

In the event that train movements are required outside of these hours, the Office of Environmental and Heritage will be notified as soon as practicable (but within 24 hours). Notification will include a justification for the need for additional loading cycles.

Noise Emissions

Noise emissions from the rail operations are managed in accordance with the Dendrobium Mine Noise Management Plan.

4.3 Management Strategy Effectiveness

The management strategies discussed above are used to minimise the potential traffic issues relating to the Dendrobium operations. Dendrobium Mine will continue to research and where relevant, develop and implement, traffic management and mitigation measures to ensure that traffic related issues are maintained at community acceptable levels.

5 MONITORING AND REVIEW PROGRAM

5.1 Existing Traffic Monitoring Program

Traffic related issues associated with the Dendrobium operations will continue to be closely monitored to ensure that they are managed to an acceptable level. The ways in which traffic related issues are monitored at Dendrobium include:

- i. Drivers' Code of Conduct; and
- ii. Community Call Line.

Drivers' Code of Conduct

The Drivers' Code of Conduct is an integral part of the traffic management system for the Dendrobium operations. The monitoring of compliance against the Code occurs both internally (via the Dendrobium HSE, Illawarra Coal Community Team and Warehouse employees) and externally (via the community call line – see below). Breaches of the Code of Conduct are followed up immediately with the contract company involved, via

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the process outlined in 'DENSTD0131 Dendrobium Mine Drivers Code of Conduct', to ensure follow-up incidents do not occur.

Community Call Line

Traffic issues (both road and rail) related to the Dendrobium operations can also be identified by members of the local community. The 24 hour community call line allows the local community to provide feedback on these issues to Illawarra Coal Community representative. Enquires/complaints received via the community call line will be followed up by the appropriate Dendrobium personnel via the process outlined in 'IChp0112 Handling Community Complaints Enquiries and Disputes'. Further detail on the community call line is provided in the Dendrobium Mine Environmental Management Strategy.

A spreadsheet is maintained detailing when traffic related complaints are received. This spreadsheet is reviewed on a regular basis to identify any trends.

5.2 Traffic Monitoring Program Review

The Traffic Monitoring Program will be reviewed through Illawarra Coals Internal Environmental Management Plan Governance Check process and externally through the triennial audit or when required (event based).

6 REPORTING

6.1 Monitoring Data and Non-Conformances

All non-conformances to this TMP (i.e. breaches of the Code of Conduct etc) and community complaints are recorded in a computer based incident recording and reporting system. This system keeps track of non-compliances, corrective actions, responsibilities, estimated and actual completions and reporting to Authorities and the community.

Reporting of traffic related issues and non-compliances with the Code of Conduct occur in a range of formats including:

- Internal Reporting;
- Reports to Regulatory Agencies (e.g. Annual Review); and
- Community Reports (e.g. South32/Illawarra Coal Annual Sustainability Reports, Dendrobium News and presentations to the Dendrobium Community Consultative Committee (DCCC)).

The *Dendrobium Mine Environmental Management Strategy* contains further details of these reporting systems.

6.2 Notification of Potential Significant Traffic Events

In the event of a planned operational activity that has the potential to create significant traffic related issues, one of the following notifications will occur prior to the event occurring:

- Notification of the planned activity to the community representatives on the DCCC either at the meeting prior to the event, or, in the case that a meeting is not scheduled close to the event, an email will be sent to the community representatives;
- Notification of the planned activity to potentially affected residences via a letter box drop; or
- Notification of the planned activity to the local community via a Dendrobium newsletter.

Notification will include the scheduled date and approximate time of the traffic movement/s and a description of the traffic movement (i.e. piece of equipment etc).

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7 APPENDIX

Appendix 1: Dendrobium Mine - Dendrobium Drivers' Code of Conduct DENSTD0131

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STANDARD	
SITE: DENDROBIUM	DEPARTMENT: Environment and Community
TITLE OF DOCUMENT: DENDROBIUM DRIVERS' CODE OF CONDUCT	
ORIGINATOR: POSITION:	Amber Cleary
AUTHORISER: POSITION:	Peter McMillan
DENSTD0131	

1. PURPOSE

The Drivers' Code of Conduct is a requirement of the Dendrobium Development Consent. The aim of the Drivers' Code of Conduct is to minimise the impacts of traffic associated with the Dendrobium Mine on local residents by reducing noise and limiting traffic, resulting in a safer traffic environment for everyone. All employees, visitors and contractors engaged to work at Dendrobium Mine or Kemira Valley are required to drive in a responsible manner and adhere to the requirements of the Drivers' Code of Conduct.

2. ALLOWABLE TRAVEL TIMES

NO VEHICLES (other than personnel passenger vehicles transporting people to/from and/or between the mine's workplaces) are to travel to or from the Dendrobium Mine Pit Top or Kemira Valley Coal Loading Facility through the area between the eastern end of the Village (near the Reability Fitness Centre) and the Dendrobium Pit Top entrance at the western end of the Village (as shown on page 3) outside these hours. **These hours also apply during school holidays.** No 'B' Doubles are allowed to travel on Cordeaux Road at any time as an RMS requirement.

ALLOWABLE TRAVEL TIMES	
Monday to Friday	7.00am-8.00am
	9.30am-2.30pm
	4.00pm-5.00pm
Saturday	8.00am-1.00pm
For all enquiries contact Dendrobium Warehouse Co-ordinator on ☎ 4255 4445	

Personnel passenger vehicles are defined as vehicles used to transport people to and from work including trades persons required to travel with their tools of trade in work vehicles to get to and from work. Although personnel passenger vehicles may travel through the Village during the

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curfew times we strongly encourage all personnel to plan their work so travel is not required during the curfew times.

3. RECORDING OF BREACHES

A 24 hour Community Call Line is in place for local residents to lodge complaints against any driver contravening this Code. All complaints are investigated and disciplinary action may be taken. Breach notices may also be issued.

Event reports will be completed by Dendrobium Mine or Kemira Valley personnel where breaches of the Code have been identified.

4. PENALTIES FOR NON-COMPLIANCE

If you are found to be acting contrary to this Code, you or your company may be disciplined:

- 1st occurrence – warning letter
- 2nd occurrence – warning letter and suspension of driver from site for a period
- 3rd occurrence – final warning letter and review of your continued working association with Illawarra Coal

Note that these breach notices apply over a 12month rolling period. Dendrobium reserves the right to review your continued working association with the mine following any breaches of the Code.

5. OTHER REQUIREMENTS

You MUST NOT:

- Drive to or from the Dendrobium Mine Pit Top or Kemira Valley Coal Loading Facility through the curfew zone outside the allowable travel hours (unless in a personnel passenger vehicle)
- Bring oversize trucks to any site without an appropriate escort vehicle
- Exceed the maximum speed limits posted by Roads and Maritime Services (RMS) on any roads (Note: the speed limit between the speed humps on Cordeaux Road is **40 km/hr at all times**, not only during school hours)
- Exceed 40 km/hr along Stones Road **at any time** (if driving a heavy vehicle)
- Overtake in awkward, inappropriate situations or where vision is limited
- Throw rubbish out of your vehicle as you are travelling

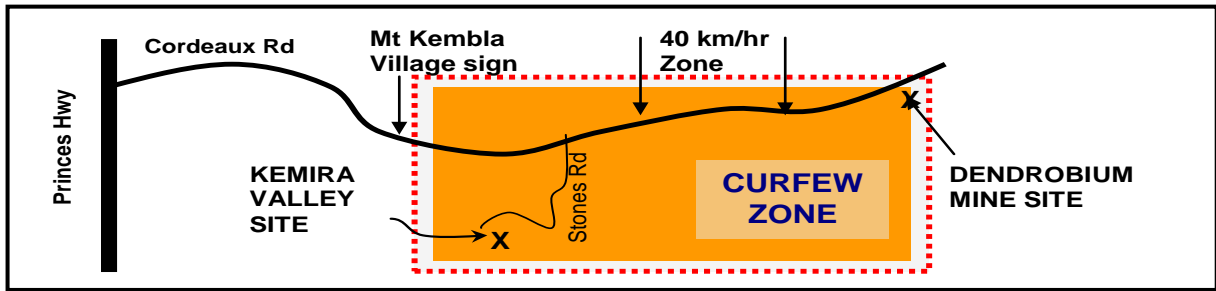
You MUST:

- Use defined routes and take extreme care along Cordeaux Road to the Dendrobium Mine site (from the Princes Highway) and Stones Road to Kemira Valley Site, **particularly in narrow zones, bridges, residential areas and near the Mt Kembla Public School and Day Care Centre**, and always be alert for pedestrians and cyclists. Do not deviate from these routes without prior approval. See map page 3 and diagram below
- Stop at all designated stop signs along Stones Road to Kemira Valley
- Hold a current and valid drivers licence for the class of vehicle that you operate
- Adjust your driving to the road conditions (slow down in wet conditions and on narrow roads).
- Demonstrate driver courtesy
- Limit the use of compression braking (except where it is not safe to do so)
- Comply with the road rules pertaining to your vehicle, including use of mobile phones
- Comply with site parking, speed limits and traffic management requirements

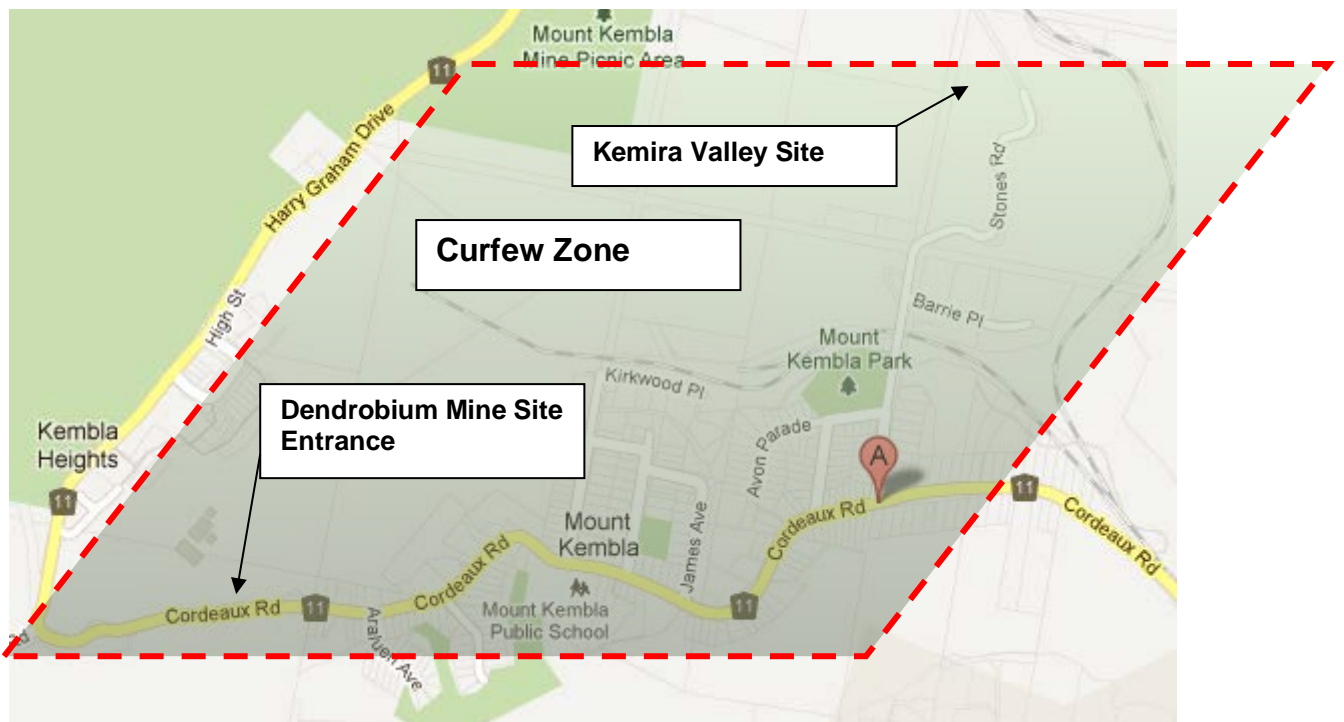
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STANDARD
Dendrobium Drivers Code of Conduct

- Drive in a manner that minimises vehicle noise
- Ensure that loads are properly secured and no loose items can dislodge from trays



Stones Road / Cordeaux Road Intersection



REVIEW

Date	Version	By	Reason
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