



DUNMORE QUARRY

Transport Management Plan

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Boral Resources (NSW) Pty Ltd
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The Transport Planning Partnership Pty Ltd
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1 INTRODUCTION

1.1 Background

In February 2014, a Notice of Modification was issued under delegation on behalf of the Minister for Planning for modifications associated with the Boral Resources (NSW) quarry at Dunmore, hereon referred to as the Dunmore Quarry.

The modifications related to the proposed increased in annual production of the Dunmore Quarry to a maximum of 2.5 million tonnes within any one financial year. Of the approved maximum annual production level, no more than 1.5 million tonnes per year shall be transport by road. The remaining annual tonnages shall be transport by rail.

The modification (DA 470-11-2003_MOD 6) was approved subject to conditions of consent. Included in the conditions was the requirement for the preparation of a Transport Management Plan (TMP).

The condition (No. 60) is reproduced herein:

Condition 60 - Transport Management Plan

The Applicant shall prepare and implement a Transport Management Plan for the development to the satisfaction of the Director General. This plan must:

- a) Be prepared by a qualified traffic consultant, in consultation with RMS and Council and submitted to the Director General for approval by 31 May 2014;*
- b) Include a drivers' code of conduct for the development;*
- c) Describe the measures that would be implemented to ensure:*
 - All drivers of vehicles related to the development comply with the drivers' code of conduct;*
 - Compliance with the relevant conditions of consent; and*
- d) Include a program to monitor the effectiveness of the implementation of these measures.*

1.2 Purpose of this TMP

The purpose of this TMP is to satisfy the requirements of Condition 60 of the consent as detailed above.

It is noted that the approved modification allows for both road and rail haulage of production material from the Dunmore Quarry. However, rail haulage from the quarry would occur from within the Quarry site and as such not interact or interfere with publically accessible areas the TMP has focused on the management arrangement for road haulage such that the operation of the Quarry can occur in an appropriate manner with regard to the surrounding road network.

The TMP has been prepared by The Transport Planning Partnership Pty Ltd (TTPP) on behalf of Boral Resources (NSW) Pty Ltd who operate the Dunmore Quarry.

TTPP is an independent traffic and transport consultancy and its employees are suitably qualified and experience with regard to the preparation of this TMP.

This TMP has been prepared in consultation with NSW Roads and Maritime Services (RMS) and Shellharbour City Council (Council).

This consultation was undertaken simultaneously with the consultation undertaken for the Cumulative Traffic Assessment of the Dunmore, Bass Point and Albion Park quarries as required under Condition 60A of the Dunmore Quarry consent. Feedback obtained from these agencies has been included in Section 2 of this TMP.

This TMP includes the following:

- Details of the consultations with RMS and Council;
- Measures to ensure that the transport related conditions of consent are met;
- Drivers' Code of Conduct; and
- A program for monitoring the effectiveness of the TMP and Drivers' Code of Conduct

As noted above, this TMP sets out program for the monitoring of the effectiveness of the TMP and the associated Drivers' Code of Conduct. A copy of the Dunmore Quarry Driver's Code of Conduct is provided in Appendix A.

It is envisaged that, subject to the results of the monitoring program, the Drivers' Code of Conduct and / or the TMP may need to be updated or modified from time to time to ensure that the objectives of the TMP are being effectively met.

2 CONSULTATION WITH AUTHORITIES

2.1 Background

Both the RMS (Southern Region) and Council's traffic engineering section was contacted regarding the consultation requirement to comply with Condition 60.

The following sections provides a summary of the discussions with RMS and Council.

2.2 Roads and Maritime Services

The RMS was provided by TTPP an outline of the methodology which would be implemented in the preparation of the TMP. Discussions with Mr Chris Millett (RMS) indicated that the RMS did not require a face to face meeting to discuss the TMP associated with the Dunmore Quarry and that the RMS did not have any issues with the proposed methodology.

It is noted that the RMS indicated that further consultation may be required in the preparation of the Cumulative Traffic Assessment required in response to Condition 60A and 60B of the consent.

Notwithstanding the above, the RMS did note in regard to Dunmore Quarry (along with the other two quarries) that they considered the conditions on operation of haulage vehicles to and from the quarry to be sufficient to minimise the implications to the regional road network. These included the amount of material to be hauled per annum, hours of operation and access to the regional road network.

2.3 Shellharbour City Council

Council was also provided by TTPP an outline of the methodology which would be implemented in the preparation of the TMP. Luke Preston (Council) advised that as all truck access to and from the site was via regional roads under the control of RMS that Council was not the relevant authority and suggested that all consultation with regard to the TMP should be directed to the RMS.

3 TRANSPORT MANAGEMENT PLAN (TMP)

3.1 Truck Haulage Routes

All truck haulage of product from the Dunmore Park Quarry occurs and will continue to occur directly via the regional road network.

Access to and from the quarry is provided directly off the Princess Highway via Tabbita Road. Tabbita Road is solely used for vehicle access to and from the quarry. No other properties are accessed via this quarry access road.

The Princess Highway / Tabbita Road intersection is grade separated with acceleration and deceleration lanes for vehicles entering or leaving the Highway respectively via Tabbita Road.

Haulage vehicles are thus able to travel directly both north and south of the Quarry via the regional road network.

The availability of direct access to the regional road network eliminates the need to utilise local roads for product haulage. The use of regional roads significantly minimises the potential amenity and acoustic implications to local residential properties.

It is noted that due to the direct access to the Princes Highway, the consent for the Dunmore Quarry does not restrict vehicle access to particular haulage routes.

Boral Resources Pty Ltd indicated that they expected a strong local market for its additional product noting that the impending closure of Boral's Burrier Quarry, near Nowra. It is estimated that some 60% of haulage trucks will travel to destinations north of the Dunmore Quarry while some 40% will travel south.

3.2 Noise Minimisation

Noise minimisation associated with the haulage of product from the Quarry can be effected with the implementation of and adherence to the following measures:

- Adherence to the approved operating hours of the Quarry as specified in the Consent.
- Utilisation of regional road network for truck movements to and from the Quarry. The use of the local road network for truck movements is not permitted unless in an emergency or with approval from the Secretary.
- Use of truck's compression brakes outside of the Quarry to be restricted unless required for safety reasons.
- When parked or waiting for a period of time, truck engines shall be turned off to eliminate unnecessary engine idle noise.

These, and other noise minimisation measures, are set out in the Drivers' Code of Conduct.

All of the above measures would apply to all periods where truck haulage is undertaken.

3.3 Truck Driver's Code of Conduct

Haulage operations associated with the Dunmore Quarry are undertaken under the direction of a Truck Drivers' Code of Conduct. Implementation of the Code is outlined in section 3.4.1 of this document. The Code is contained in Appendix A.

The Code includes driver behaviour requirements relating to:

- Site safety;
- Road network safety; and
- Noise minimisation.

The Drivers Code of Conduct forms part of the overall site induction program with truck drivers required to read, understand and pledge to uphold the behaviour expected by a truck driver accessing the Dunmore Quarry.

3.4 Monitoring Program

The following monitoring program shall be implemented to ensure that the TMP and Drivers Code of Conduct is performing effectively and achieving the objectives of the various transport related consent conditions.

Monitoring will be based on feedback provided by the surrounding community via formal and informal complaints and positive messages.

It is noted that under the Conditions of Consent for the Quarry's operation there is no restrictions to the hours of operation for road haulage and no limits to the volume of trucks within any given period other than annual production levels. This reflects the Quarry's ability to directly access the regional road network

As such monitoring of truck volumes and hours of operation are not relevant for compliance with the consent.

3.4.1 Implementation of TMP and Driver's Code of Conduct

The TMP and Driver's Code of Conduct shall be included with all new site inductions and truck driver registrations.

Over the course of 12 months, all existing drivers shall be:

- provided access to a copy of the TMP and Driver's Code of Conduct; and
- provided with information regarding the TMP and Driver's Code of Conduct via a toolbox talk or similar.

The intention is that within 6 months all truck drivers will have signed the Drivers' Code of Conduct declaration and agreed to be bound by its behavioural requirements.

It is noted that Dunmore Quarry truck drivers currently operate under the Driver's Code of Conduct.

3.4.2 Annual Driver Training and the Code of Conduct

Annually truck drivers will be required to demonstrate their understanding of the TMP and Drivers Code of Conduct via a refresher course or toolbox talk. This refresher course would include any amendments that were made to the Code of Conduct to improve its effectiveness.

3.4.3 Monitoring and Complaints / Compliments Register

A complaints and compliments register detailing matters such as truck driver behaviour and truck related noise issues for the Dunmore Quarry has been established and maintained by Boral Resources (NSW) Pty Ltd. All complaints are recorded and managed through the Boral Safety Information Management System, SIMS.

The register is reviewed periodically to determine if any systemic issues are arising from the implementation of the Drivers' Code of Contact. This will be extended to the TMP.

A copy of the current Dunmore Quarry Complaints / Compliment Register and Form is attached at Appendix B.

3.4.4 Incident Management and Reporting

Should an incident occur, the Driver's Code of Conduct sets out procedures for Drivers to report, inform and warn relevant personnel or people that may be at risk.

3.4.5 Loads Covered, Clean Trucks and Noise Minimisation

All laden trucks leaving the Quarry shall be inspected at the weighbridge, by the weighbridge operator, to ensure that loads are satisfactorily or can be satisfactorily covered and trucks are clean of quarry materials. A truck inspection and tarp up pull over area on the Quarry access road is available to all vehicles. An upgraded truck inspection and tarp up area is being investigated. Signage reminding all vehicles to cover their loads and ensure their trucks are clean will be put in place for trucks exiting the Quarry.

Monitoring of items relating to noise minimisation, loads being covered and trucks clean of quarry materials, will be implemented and formalised on a 6 monthly basis. These items will form an inspection and are as follows:

- Observe and record the use of compression brakes
- Monitor trucks exiting the quarry for;
 - appropriately covered loads, and
 - free of residual material attached to the vehicles.
- Review the results of the Annual Noise Compliance Assessment.

3.4.6 Review of TMP and Driver's Code of Conduct

The TMP and Driver's Code of Conduct shall be reviewed every two years. This review shall be carried out in association with compliance audits on all haulage contractors.

In addition to the complaints / compliments register, Quarry management will undertake formal observations of compliance at 6 monthly intervals and will document and undertake any remedial actions with employees or sub-contractors that may be necessary as a result of these observations. This formal observation will be carried out in association with the 6 monthly monitoring inspection outlined in section 3.4.5.

The review of the TMP and Driver's Code of Conduct shall include Driver Feedback.

Dunmore Quarry has established a mechanism to enable truck drivers to provide feedback on the implementation of the Drivers Code of Conduct and other measures which could be considered for implementation into the Code.

Dunmore Quarry Management encourages all employees and subcontractors to raise issues associated with operational safety across all site and transport operations.

APPENDIX A

Dunmore Quarry Driver's Code of Conduct

Boral Dunmore Quarry

Driver's Code of Conduct



1. Introduction

Dunmore Quarry is located immediately west of Dunmore Railway Station and the Princes Highway at Dunmore, in the Shellharbour City Council local government area (LGA). Boral is committed to ensuring employees and contractors access and exit the Dunmore Quarry in a safe and responsible manner. All employees and contractors are expected to comply with the relevant legal requirements and accepted community standards whilst travelling to and from work.

This Code of Conduct sets out specific requirements for the Dunmore site to be adopted by all Boral Fleet and contractor heavy vehicle drivers. The Code utilises industry best practice to minimise and manage the traffic impact associated with the movement of heavy vehicles to and from the quarry.

2. Scope

This Driver's Code of Conduct requires that specific measures are developed to focus on opportunities to minimise, mitigate and manage traffic volume, traffic safety and acoustic impact.

The following documents have been reviewed in the formulation of the Driver's Code of Conduct:

- Boral Logistics Truck Driver's Procedures.
- Boral Logistics Driver's Handbook.
- Boral Logistics CoR Accreditation.
- NSW Road Rules.

3. Objectives

The Objectives are to:

- Ensure respect for road users and the environment.
- Encourage the application of the Driver's Code of Conduct for all Boral Fleet and contractor heavy vehicles accessing Tabbita Road.
- Maximise public safety at all times.

4. Heavy Vehicle Routes

Access to Dunmore Quarry is achieved directly off the Princes Highway via Tabbita Road, a road used solely for access to the quarry. Speed limits and restrictions on these roads are discussed further below.

4.1 Princess Highway

The Princes Highway is a divided road with a speed limit of 100km/hr for all vehicles. North of the quarry, the highway bypasses the city centre of Wollongong and most townships in the Illawarra region. However the highway does not bypass the township of Oaks Flats-Albion Park Rail, which has a number of existing traffic signal and roundabout controlled intersections, and reduced speed limits ranging from 70-60 km/hr.

Care at all times should be taken with faster moving vehicles on the highway.

4.2 Tabbita Road Exit

On exiting the Princes Highway at Tabbita Road, the speed limit reduces to 70 km/hr.

Care should be taken when using these exits, particularly when approaching from the north, whereby the exit road turns sharply to the right to underpass the highway.



Figure 1: Princes Highway exit at Tabbita Road southbound



Figure 2: Princes Highway exit at Tabbita Road northbound

4.3 Tabbita Road

The general speed limit on Tabbita Road is restricted to 40 km/hr, and down to 15 km/hr in some sections of the quarry site. All speed limits and signage are to be obeyed at all times.



Figure 3: Tabbita Road Entrance to Dunmore Quarry

In particular, drivers should be aware of the following:

- Mobile quarry plant and equipment, such as dozers, excavators and haul trucks have right of way. Maintain a safe distance from these vehicles at all times.
- There are a number of site offices located off the Tabbita Road entrance to the quarry and as such, drivers should keep a safe distance from light vehicles.

5. Noise Minimisation Controls and Standards

This section designates the specific noise mitigation measures which must be adhered to at all times. This includes rules on compression braking, tipping practices and speed limits for the approach and departure from the quarry site.

- When in close proximity to residential streets, drivers are requested to limit noise from their vehicles and respect the local traffic and residents at all times.
- Compression brakes must not be used in the vicinity of residential dwellings.
- Tailgates must be secure and locked to avoid noise or spillage.
- Loads must be covered and compliant with relevant NSW road rules.
- All loaded vehicles must be cleaned of materials that may fall on the road before leaving site.
- Approach any speed humps at low speed.
- Always observe the posted speed on site and on public roads.
- No tailgating will be permitted.
- Equipment to be used must be fit for task.
- Driver must have a HV Licence and compliance to all authorities.

6. Incident Management and Reporting

To ensure that in the event of an incident, the affect is minimised, a rapid response from the haulage company is required. Drivers are to contact their supervisors immediately and in turn their supervisors are to take action and advise Boral of the issue.

If there is product spillage while loading or en route the driver must immediately inform and warn persons in the area that maybe at risk. The driver must then inform quarry staff or his supervisor of the spillage. All spills must be cleaned up and waste disposed of in an acceptable and environmental manner. Place warning signs where it is fit to do so.

7. Compliance Monitoring

This Code of Conduct will be reviewed every 2 years and compliance audits carried out on all haulage contractors under the Safety Act 2008 and the Chain of Responsibility and Fatigue Management.

In addition daily operations will be monitored for any breaches of required compliance and the haulage contractors are to explain, investigate and demonstrate corrective actions when a compliance breach occurs.

8. Operating Times

In line with the quarry's development approval, distribution by roads is permitted 24 hours, Monday to Saturday. Distribution on Sundays is limited and will only be undertaken with the express permission of the quarry manager.

9. Incident Reporting Numbers

Dunmore Quarry: 02 4237 2000

Boral Logistics: 0401 892 386

APPENDIX B

Dunmore Quarry Complaints & Compliments Register



COMPLAINTS REGISTER

DUNMORE QUARRY

No.	Date	Time	Shoulder 6am-7am	Day 7am-6pm	Evening 6pm-10pm	Night 10pm-6am	Complainant Details (Name, contact details)	Reason	Description of Complaint	Action Taken

*Note: All complaints, with associated corrective actions and responsibilities, need to be entered into the Boral Safety Information Management System (SIMS). This register is just a template and provides an example for the purposes of the Transport Management Plan