

**WHITEHAVEN COAL MINING PTY LTD**

(A.B.N. 65 086 426 253)

# **ROAD NOISE MANAGEMENT PLAN**

**for the**

**WHITEHAVEN COAL MINE**

**December 2005**



**Road Noise Management Plan**  
**for the**  
**Whitehaven Coal Mine**

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## 1.0 INTRODUCTION

This Road Noise Management Plan has been prepared:

- in accordance with Condition 34 (Schedule 3) of DA 8-1-2005, viz  
*“Within 6 months of this consent, the Applicant shall review (and implement any approved changes to) the Road Noise Management Plan for traffic associated with the development, in consultation with NSC and GSC, and to the satisfaction of the Director-General”*;
- in consultation with GSC and NSC;
- following a review of a similar document prepared and revised in accordance with Condition 3.2(d) of DA 72-03-2000 and Conditions 2.3(f) and 6.4.3(c) of Modification MOD-8-2-2003-1 respectively. The revised plan was approved by the Director-General on 30 March 2004; and
- with reference to relevant legislation and guidelines.

The plan has also been prepared following a review of the Road Noise Management Plan prepared for the East Boggabri Coal Mine (Document Reference 643/15) to ensure consistency between both documents: trucks from both the Whitehaven and East Boggabri Coal Mines will travel along the same sections of Hoad Lane, Blue Vale Road and the Kamilaroi Highway to the Whitehaven CHPP.

It is notable that:

- there have been no complaints with respect to road noise from the Whitehaven Coal Mine since January 2001;
- the few complaints prior to January 2001 pertained to traffic movements on Quia Road prior to its upgrading; and
- Quia Road has not been used for coal haulage activities since mid 2003.

**Figure 1** shows the approved coal transportation route between the Whitehaven Coal Mine and CHPP, the route which is also used by the majority of employees and suppliers to access the mine. A total of eight occupied residences are located within 2 km of public Hoad Lane or Blue

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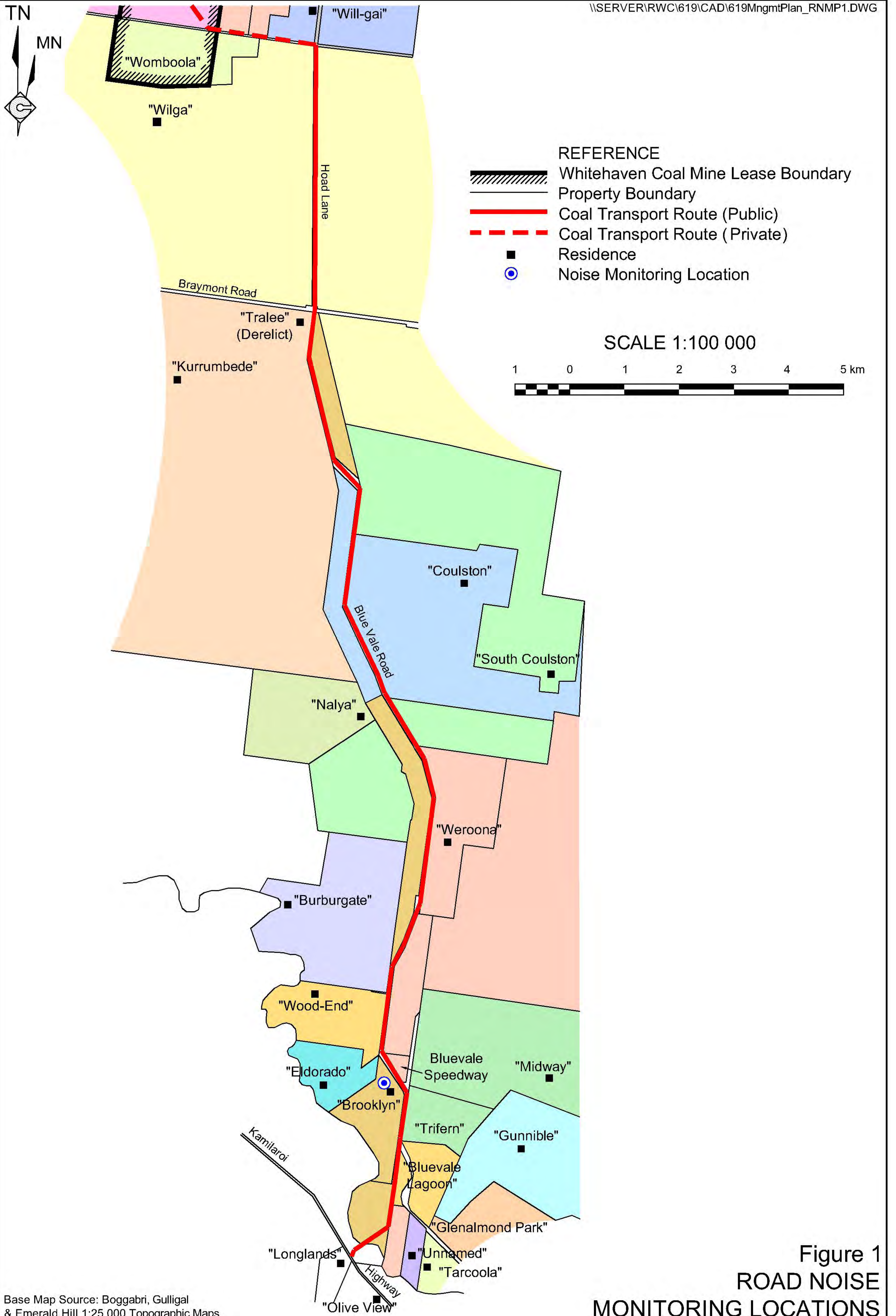


Figure 1  
ROAD NOISE  
MONITORING LOCATIONS

Vale Road as shown on **Figure 1**, the three closest being “Brooklyn” (70m), “Will-gai” (280m) and “Weroona” (300m). “Will-gai” is also located 280m from the private mine access road.

The following sub-sections identify the noise impact assessment criteria which apply to the noise generated by vehicles on the public road network; a road noise monitoring programme to assess and report the level of impact, define the methodology to be employed to determine the noise contribution from the Whitehaven Coal Mine, and the mechanism for the effective and expeditious handling of any complaints pertaining to noise.

## 2.0 ROAD NOISE IMPACT ASSESSMENT CRITERIA

**Table 1** presents the Road Traffic Noise Criteria applicable to Hoad Lane and Blue Vale Road (“collector roads” as defined within the EPA document entitled “Environmental Criteria for Road Traffic Noise” (ECRTN)), public roads which are, and will continue to be, used for the transportation of coal from the Whitehaven Coal Mine to the Whitehaven CHPP.

**TABLE 1**  
**Road Traffic Noise Criteria**

	<b>Day/Evening (dB(A))</b>	<b>Night (dB(A))</b>
Hoad Lane	$L_{Aeq(1\text{ hr})} = 60$	$L_{Aeq(1\text{ hr})} = 55$
Blue Vale Road	$L_{Aeq(1\text{ hr})} = 60$	$L_{Aeq(1\text{ hr})} = 55$

## 3.0 TRAFFIC NOISE MANAGEMENT – Safeguards and Ameliorative Measures

As has been the case throughout the life of the mine, Whitehaven Coal Mining Pty Ltd (WCM) will continue to implement the following safeguards and ameliorative measures to ensure any traffic-related noise impacts on local residents are minimised and consistent with the applicable criteria.

- Strict adherence to the approved hours of operation for coal despatch by road as stipulated in Development Consent *Condition 3(9)*, namely:

- (a) 7 am to 9:15 pm Monday to Saturday;
- (b) at no time on public holidays.
- Maintenance of the mine access road and internal road network to minimise noise generation from loaded and unloaded trucks.
- All product transportation trucks will be maintained in good condition to ensure both body and truck engine noise are within acceptable limits. Quiet technology trucks, eg trucks with air-bag suspensions and aluminium bodies which minimise the noise from unladen trucks in particular, will be used where available. Any new trucks purchased will incorporate high horse power engines which require fewer gear changes, lower operating revs and hence, less noise than older trucks.
- Preferential use of B-doubles in lieu of semi-trailers (where available) in order to reduce overall truck movements.
- To the extent practicable, staggering truck departures from the mine and Whitehaven CHPP to avoid convoy development or periods of concentrated road noise. It should be noted that as all coal transportation trucks will use the single CHPP weighbridge and the limited CHPP ROM coal stockpile area, and a single loading point at either of the Whitehaven and East Boggabri Mine sites, staggering of trucks will automatically occur.
- All trucks hauling coal from the mine will have signs on both driver and passenger doors advising that they are hauling Whitehaven coal and a truck identification number.
- Driver education. Prior to commencement, all permanent and casual truck drivers involved in coal transportation activities are required to undertake an education programme which reinforces:
  - the necessity to comply with all commitments in the Transport Code of Conduct (**Appendix 1**), a copy of which is supplied to all drivers;
  - the need for courteous and safe driving and compliance with WCM's commitments with respect to hours of operation and school buses; and
  - the locations of residences and the need for drivers to drive in a way which minimises compression / exhaust braking and engine revving adjacent to residences, including driving in accordance with noise reduction signs.
- Road noise monitoring as described in Section 4.

- All drivers and mine-related road users will be encouraged to report any evidence of road pavement deterioration which could impact upon noise generation by trucks to WCM management. WCM will then approach the relevant Council, ie NSC or GSC to arrange for any required works. However, given the weekly inspection programme in place as part of the maintenance agreement with GSC, it is likely that this practice would generally be limited to the limited section of Hoard Lane within Narrabri Shire. The nature of the road repair works undertaken will be determined by each individual council.

## 4.0 MONITORING

### 4.1 Method

Monitoring of road transportation noise associated with the Whitehaven Coal Mine will be undertaken at “Brooklyn” in conjunction with the road noise monitoring programme for the East Boggabri Coal Mine in order to verify that the cumulative noise from the two ventures does not exceed the criteria identified in **Table 1**. Traffic noise at the “Will-gai” residence is monitored as part of the operational noise monitoring programme and assessed against the operational criteria applicable for the mine.

Attended monitoring will be used initially in order to accurately determine the noise contribution from traffic noise alone and to ascertain whether further compliance monitoring is warranted and if so, whether it can be conducted using an unattended noise logger.

The attended noise surveys will be undertaken in the following manner:

1. All noise investigations will be carried out in accordance with NSW DEC’s Industrial Noise Policy, 2000 (INP), Environmental Criteria for Road Traffic Noise and applicable Australian Standards.
2. Noise levels will be measured in one-third octave bands using an instrument with IEC Type 1 characteristics as defined in AS 1259-1990 “Sound Level Meters”. The instrument will have current calibration as per manufacturer’s instructions and field calibration will be confirmed before and after measurements with a sound level calibrator.

3. The instrument will be set to A-weighting, “fast” response mode and measurements of  $L_{Aeq}$  (15 minute). Each measurement will be stored at a sampling rate of no greater than 2 seconds for further analysis.
4. Attended road noise surveys will be conducted in conjunction with the operational noise surveys for East Boggabri Coal Mine.
5. At least two measurements of road noise will be taken during each survey: one in the morning after 7.00 am (or in the afternoon before 6.00 pm) and one in the evening after 6.00 pm. Given that:
  - truck departures from the Whitehaven CHPP to each of the Whitehaven and East Boggabri Coal Mines will be staggered to enable:
    - approximately 50% to be loaded with coarse reject at the CHPP for backloading;
    - ensure trucks arrive at the mine sites and load coal without undue delays due to an accumulation of trucks at the loading point; and
    - minimize the potential for convoy development;
  - a maximum of 16 truck movements will occur prior to 7.00 am (and none before 6.30 am) and that noise modelling has demonstrated that the night-time criterion would be satisfied with up to 23 truck movements, no night-time (ie pre-7.00am) monitoring is proposed. However, should day-time road noise levels exceed the predicted levels for that period or complaints be received, compliance monitoring would be extended to the night-time period.
6. Field notes will be taken during each road noise measurement period recording the time and number of truck pass-bys, the mine associated with each truck and all extraneous noise sources.
7. Extraneous noise sources will be filtered from the measured signal using Bruel & Kjaer “Evaluator” Software and the noise level attributable to coal trucks will be identified and compared with the relevant criteria.
8. Truck numbers will be obtained from both mines for the 1 hour monitoring periods.
9. A monitoring report will be prepared which will include, as a minimum:
  - the total number of trucks counted during the monitoring periods (identified as empty or full);

- the numbers of trucks originating from each mine (identified as empty or full);
- the total measured  $L_{Aeq(T)}$  from coal trucks;
- the measured  $L_{Aeq(T)}$  from both mines;
- truck numbers as provided by both mines;
- details of the calculation methodology; and
- wind speed and directional data and a discussion of inversions during each measurement period. The meteorological data will be preferentially sourced from the Gunnedah airport station.

### **Unattended Noise Surveys**

Should the attended noise survey results support the use of unattended surveys and approval of the DEC and Director-General be received, unattended monitoring will be undertaken and conducted as follows.

1. IEC Type 1 noise loggers with current calibration as per manufacturer's instructions will be used.
2. The logger will be placed at "Brooklyn" for at least a six-hour period (incorporating the evening period) to coincide with the attended operational noise survey. The microphone will be fitted with a matching wind shield and will not be placed under trees or near an obvious extraneous noise source (eg, pool pump or air-conditioner).
3. Levels will be measured continuously over the six-hour period at 15 minute statistical intervals. Noise percentiles recorded will include  $L_{Amax}$ ,  $L_{Aeq}$ ,  $L_{A1}$ ,  $L_{A10}$ ,  $L_{A90}$  and  $L_{Amin}$ .
4. Six consecutive  $L_{Aeq(1\text{ hour})}$  values will be determined for each location and included in the report.
5. In the event of exceedances of the road noise criterion, truck numbers for the six-hour period will be sought from both mines.
6. The trucks numbers will be used with previously measured road noise data to calculate the six consecutive  $L_{Aeq(1\text{ hour})}$  road noise levels (for both mines).

7. Logged noise levels above the road noise criterion attributable to other noise sources, eg wind or insects, will be compared with the corresponding calculated value and discussed in terms of potential criterion exceedances, if appropriate.

## **4.2 Frequency**

Road noise monitoring programmes will be undertaken quarterly unless approval is received from the Director-General for an alternative frequency.

## **4.3 Reporting**

The Environmental Officer will compile the results and analyses from all noise monitoring programs and include them in the AEMR for presentation to the relevant parties.

## **5.0 ROAD NOISE COMPLAINT MANAGEMENT PROCEDURES**

Any general complaint received relating to road noise issues will be managed in accordance with the complaints receipt and response procedures identified in the Whitehaven Coal Mine Environmental Management Strategy (Section 6.2) and summarized below.

- (i) Details of the complainant and complaint will be recorded in the complaints log.
- (ii) WCM representatives will liaise with the complainant to ascertain all details, to identify the nature and source of the complaint and provide supplementary information for the log.
- (iii) Investigations will be initiated to verify of otherwise the basis for the complaint. Depending on the nature of the complaint, the investigation may extend to a detailed assessment undertaken by an independent acoustical consultant.
- (iv) Results of the investigation will be provided to the complainant together with advice as to any changed management practices or contingency measures to be implemented as a consequence of the investigation.

## **6.0 REPORTING**

In order to ensure the results of the road noise monitoring programme are open to review by all relevant and potentially affected parties, WCM will:

1. Incorporate noise monitoring results in each AEMR along with:
  - an analysis of the results against the relevant criteria, monitoring results for the previous years and the predictions in the various documents and supplementary information prepared for the development;
  - an identification of trends over the life of the development;
  - the identification and discussion of any non-compliances during the reporting period; and
  - a description of actions implemented to ensure compliance;
2. provide the results to the CCC; and
3. make the results of the monitoring available for public examination at the Gunnedah and Narrabri Council offices.

# Appendix 1

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## Code of Driver Behaviour

## Appendix 1

# WHITEHAVEN COAL MINING PTY LTD

## CODE OF DRIVER BEHAVIOUR

The following rules of behaviour are to be observed by all employees of Whitehaven Coal Mining Pty Ltd, its associated Companies and all employees of Contractors engaged either directly or indirectly by Whitehaven Coal Mining Pty Ltd.

The Rules apply to the operation of all Heavy Vehicles including Coal Transport Trucks accessing the Mine Site.

Whitehaven Coal Mining Pty Ltd and the Principle Contractor will ensure that all Sub Contractors are provided with a copy of these rules and are aware of their importance.

### ALL DRIVERS OF HEAVY VEHICLES ARE TO BE ISSUED WITH A COPY OF THESE RULES

- RULE 1.** Drivers are to observe a **MAXIMUM** speed limit of 40kph on Hoard Lane during the period that the School Buses are operating.
- RULE 2.** All vehicles using Public roads must be roadworthy to RTA standards and comply with the EPA noise and emission criteria.
- RULE 3.** Trucks entering and leaving the premises that are carrying loads must be covered at all times except during loading and unloading.
- RULE 4.** A maximum heavy vehicle speed of 100kph is to be observed on Hoard Lane at all times.
- RULE 5.** Drivers using Hoard Lane must give way to local traffic in a safe manner.
- RULE 6.** Drivers must be educated to reduce heavy vehicle impacts on other road users and adjoining land users.
- RULE 7.** Drivers are to observe the rules and regulations that are applicable to **ALL** individual sites.
- RULE 8.** Drivers are to observe the RTA load weights and are to weigh and deliver each load promptly.

The public will be encouraged to report breaches of the code of behaviour to the Area Manager. Action will be taken by the Area Manager where breaches of the code have been shown to occur. In the case of serious or repeated breaches this may include suspension of the guilty driver from operating on the Whitehaven sites.

Complaints or questions concerning the Code of Behaviour should be directed to the Area Manager on 6742 4337 or 0409 786 019.