



***Multiquip Quarries***

ABN: 44 101 930 714

## ***Ardmore Park Quarry***

### **Air Quality Monitoring Program**



Prepared by

R.W. Corkery & Co. Pty Limited

September, 2010





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### **Air Quality Monitoring Program**

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## ACRONYMS AND COMMON TERMS USED THROUGHOUT THIS REPORT

AEMR	-	Annual Environmental Management Report
AQMP	-	Air Quality Monitoring Program
AQMPr	-	Air Quality Monitoring Protocol
CCC	-	Community Consultative Committee
DECCW	-	Department of Environment, Climate Change and Water
DoP	-	Department of Planning
Deposited Dust	-	All particles of sufficient size which settle out from the air.
Dust	-	The term used to describe the range of particles in the air.
EA	-	Environmental Assessment
EMS	-	Environmental Management Strategy
ISO	-	International Standards Organisation
Quarry	-	The Ardmore Park Quarry
Quarry Site	-	The approved area of PA 07_0155
PA	-	Project Approval
PM <sub>10</sub>	-	All particles less than 10µm in diameter suspended in the air
TSP	-	Total suspended particles – all particles suspended in the air



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## 1. INTRODUCTION

The Minister for Planning has conditionally approved extractive and processing operations at Ardmore Park Quarry (“the Quarry”), located approximately 4km south of the village of Bungonia and 25km southeast of Goulburn in the southern tablelands of New South Wales (see **Figure 1**).

This Air Quality Monitoring Program (AQMP) has been prepared by R.W. Corkery and Co. Pty. Limited to provide a program for monitoring dust emissions generated at the Quarry and a protocol for reviewing, reporting and appropriately responding to the results of monitoring in accordance with *Condition 3(9) and 3(10)* of Project Approval (PA) 07\_0155.

Multiquip Quarries (Multiquip) will operate the Quarry under PA 07\_0155, issued by the Minister for Planning on 20 September 2009. *Condition 3(9)* of PA 07\_0155 is as follows.

*The Proponent shall prepare and implement an Air Quality Monitoring Program for the project to the satisfaction of the Director-General. This program shall:*

- a) be prepared in consultation with DECCW, and be submitted to the Director-General for approval prior to carrying out any development on site; and*
- b) include details of how the air quality performance of the project would be monitored, and include a protocol for evaluating compliance with the relevant air quality criteria in this approval.*

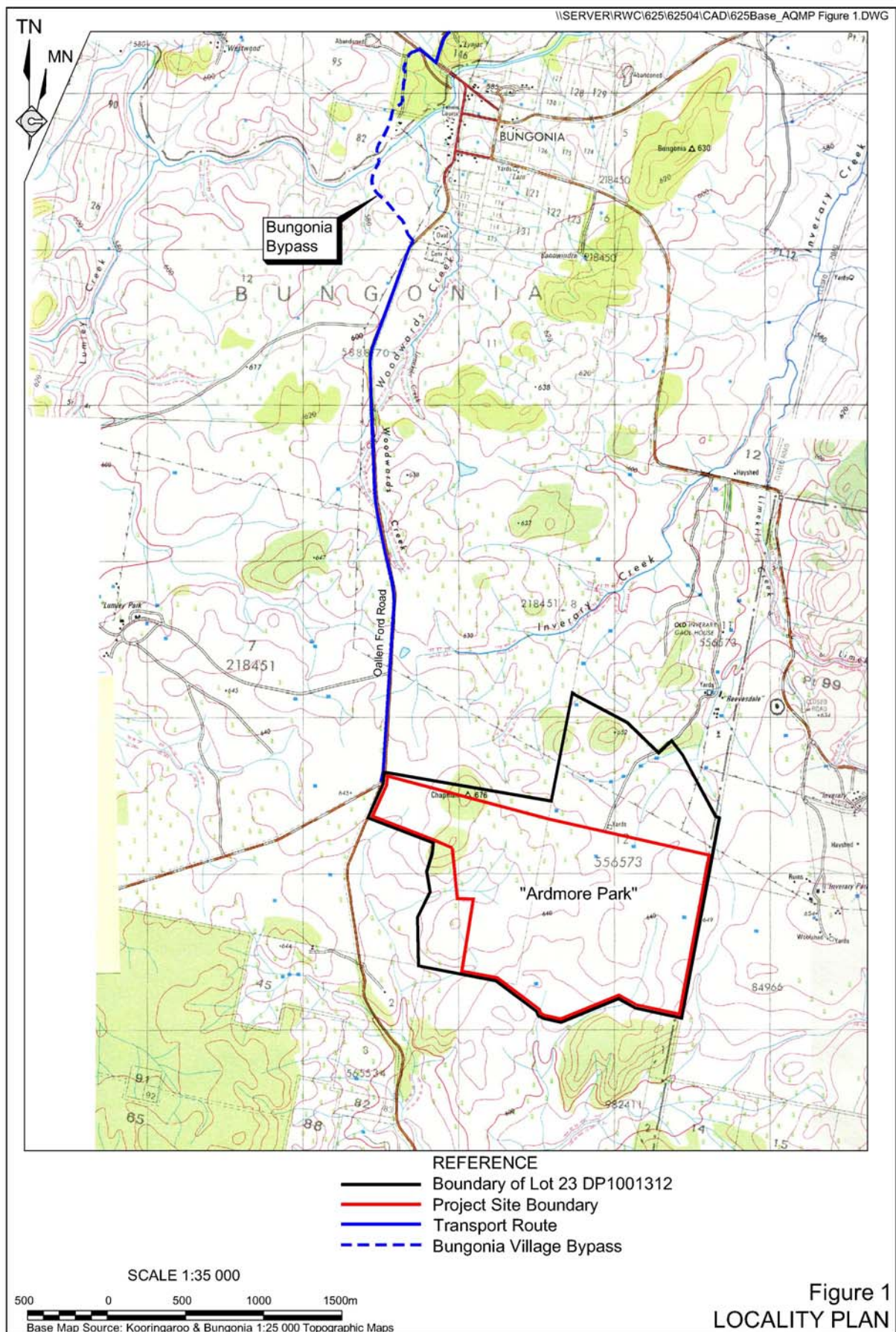
*Condition 3(10)* of PA 07\_0155 is as follows.

*During the life of the project, the Proponent shall ensure that there is a suitable meteorological station in the vicinity of the site that complies with the requirements in the Approved Methods for Sampling of Air Pollutants in New South Wales guideline.*

The AQMP includes:

- a brief description of the Quarry, as approved by PA 07\_0155, and a summary of the predicted dust emission levels that may be received at surrounding residences (Section 2);
- the air quality impact assessment criteria and requirements for the Quarry (Section 3);
- a review of Multiquip’s Environmental Policy and the dust suppression measures and controls that Multiquip has committed to implementing for the life of the Quarry (Section 4);
- the locations, frequency, method and procedures for monitoring dust emissions generated by the Quarry (Section 5);
- an Air Quality Monitoring Protocol (AQMP<sub>Pr</sub>), prepared in accordance with *Condition 3(9)* of PA 07\_0155, which will be implemented for the life of the Quarry (Section 6);





- a description of the responsibilities and accountabilities of Quarry personnel in relation to the AQMP (Section 7); and
- details of regular audits and reviews of the AQMP to be undertaken (Section 8).

The AQMP has been prepared with reference to relevant legislation and guidelines, and is consistent with the commitments in the following documentation which was prepared prior to the granting of PA 07\_0155.

- Air Quality Assessment – included as Part 3 of the *Specialist Consultant Studies Compendium* accompanying the *Environmental Assessment* for the Modified “Ardmore Park” Quarry Project – February 2008.
- *Environmental Assessment* for the Modified “Ardmore Park” Quarry Project – July 2008.
- Final Statement of Commitments (incorporated as *Appendix 2* of PA 07\_0155).

## 2. BACKGROUND

### 2.1 PROJECT OVERVIEW

PA 07\_0155 approves the production of up to 400 000t of sand and hard rock products annually, the exact proportion of each to be determined based on the extraction sequence and market demand. Multiquip anticipates that sand production will vary between 100 000tpa and 400 000tpa, while the production of hard rock products may vary from 0 to 300 000tpa. All quarry products will be despatched by road. Multiquip also proposes to import, through the backloading of trucks delivering quarry products, Virgin Excavated Natural Material (VENM), typically comprising clay and shale excavated at construction sites, to assist in the rehabilitation of the final landform. It is anticipated that for the initial 4 to 5 years of the project, VENM importation will be limited to 20 000tpa, increasing to up to 130 000tpa during the final years of the quarry life.

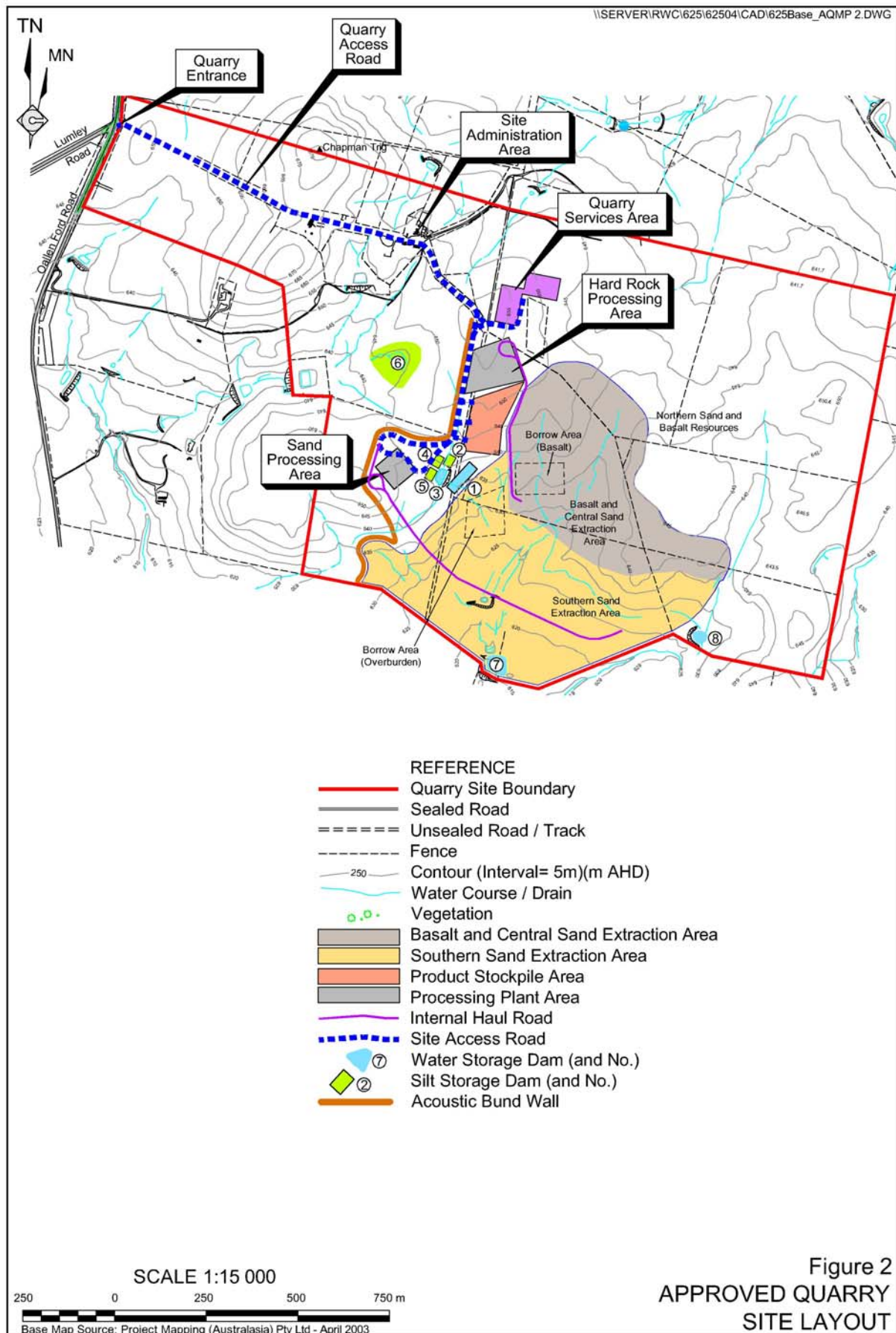
The principal activities associated with the Quarry that may generate dust emissions will include:

- bulk earthworks including earthmoving and excavation during site preparation, vegetation clearing and topsoil removal;
- stockpiling of excavated material, i.e. topsoil and overburden;
- movement of vehicles and construction machinery, both within and in/out of the construction site;
- trucks unloading road base and topsoil;
- graders, rollers and compactors involved in road construction; and
- wind erosion from exposed ground, product, overburden and soil stockpiles, and the Quarry Site noise bund.

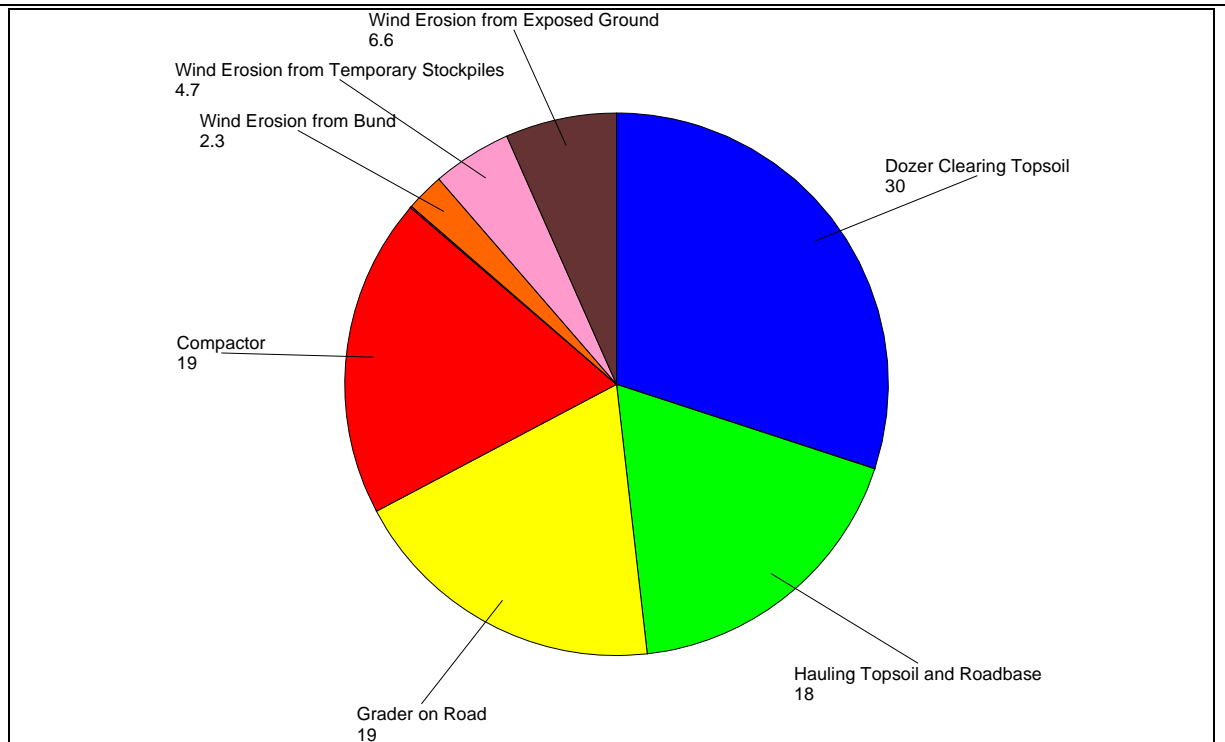
**Figure 2** displays the approved site layout.



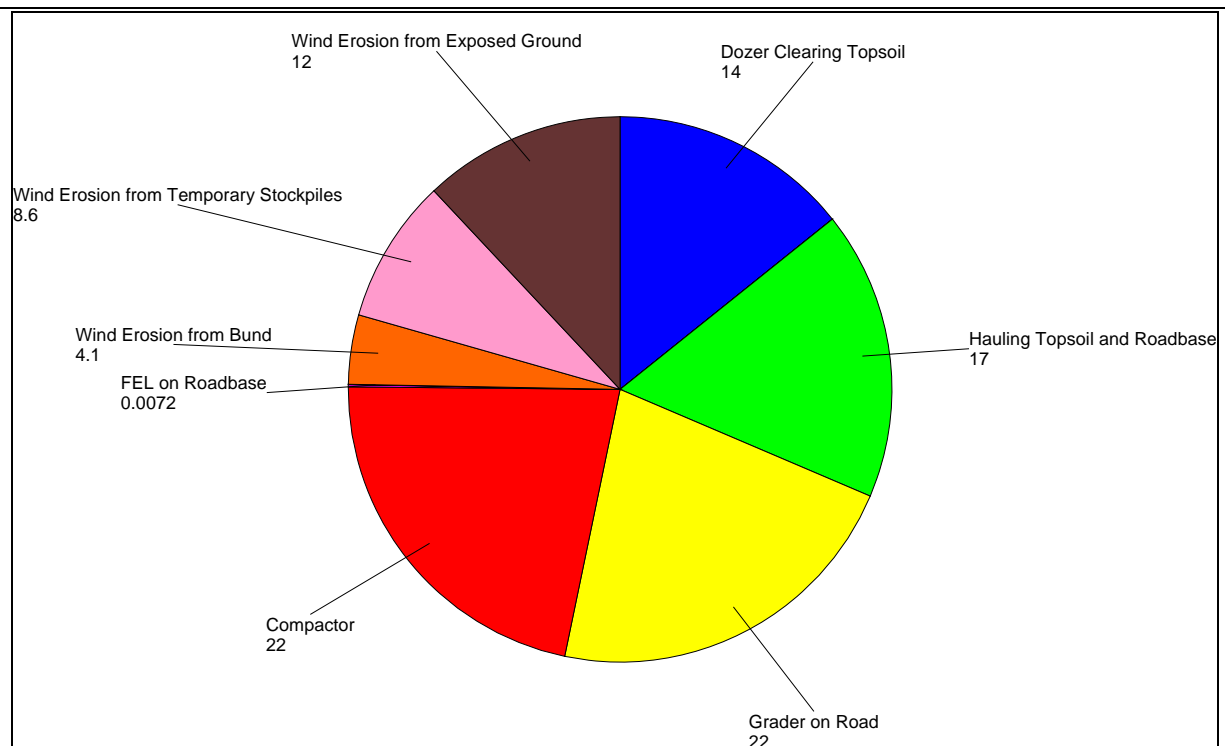




As illustrated by **Figure 3** and **Figure 4**, certain activities have greater potential for dust generation. These include dozer operation, haul trucks, use of the grader / compactor / roller and wind erosion from exposed areas.



**FIGURE 3**  
**% Contribution to TSP Emissions (kg/day)**



**FIGURE 4**  
**% Contribution to PM<sub>10</sub> Emissions (kg/day)**



### 3. APPROVAL REQUIREMENTS

#### 3.1 AIR QUALITY IMPACT CRITERIA

Air quality impact assessment criteria for the Quarry are recorded *Condition 3(7)* of PA 07\_0155 as follows<sup>1</sup>.

##### **Impact Assessment Criteria**

*The Proponent shall ensure that dust generated by the project does not cause exceedances of the criteria listed in Tables 4, 5 and 6 [Tables 1, 2 and 3] at any residence or on more than 25% of any privately owned land.*

**Table 1**  
**Long Term Impact Assessment Criteria for Particulate Matter**

Pollutant	Averaging Period	Criterion
Total suspended particulate (TSP) matter	Annual	90µg/m <sup>3</sup>
Particulate matter < 10µm (PM <sub>10</sub> )	Annual	30µg/m <sup>3</sup>

**Table 2**  
**Short Term Impact Assessment Criterion for Particulate Matter**

Pollutant	Averaging Period	Criterion
Particulate matter < 10µm (PM <sub>10</sub> )	24 hour	50µg/m <sup>3</sup>

**Table 3**  
**Long Term Impact Assessment Criterion for Deposited Dust**

Pollutant	Averaging Period	Maximum increase in deposited dust level	Maximum total deposited dust level
Deposited Dust	Annual	2g/m <sup>2</sup> /month	4g/m <sup>2</sup> /month
Note: Deposited dust is assessed as insoluble solids as defined by Standards Australia, 1991, AS3580.10.1-1991: Methods for Sampling and Analysis of Ambient Air - Determination of Particulates - Deposited Matter - Gravimetric Method.			

#### 3.2 OPERATING CONDITIONS

*Condition 3(8)* of PA 07\_0155 requires that:

*"The Proponent shall ensure any visible air pollution generated by the project is assessed regularly, and that Quarrying operations are relocated, modified, and/or stopped as required to minimise air quality impacts on privately-owned land."*

The results of the AQMP will assist in identifying elements of the Quarry's operations where modifications to procedures or equipment may be effective in reducing dust, odour and/or fume emission levels as required by *Condition 3(8)*.

<sup>1</sup> Note that table numbers referred to in quoted approval conditions relate to tables in PA 07\_0155. Where those tables have been reproduced in this document, the relevant table reference is provided in [square brackets].



### 3.3 PREDICTED AIR QUALITY IMPACTS OF THE PROJECT

Air quality modelling was completed by Heggies Pty Ltd (Heggies, 2008) as part of the Air Quality Assessment undertaken to support the *Environmental Assessment* (RWC, 2008).

Heggies (2008) modelled three scenarios to reflect different stages throughout the life of the Quarry. Each stage took into consideration the location of material extraction, the internal haul route used to transport the extracted material to the processing plants and the location of the processing plants themselves. The stages were considered representative of different operating conditions during the life of the Quarry.

- Scenario 1 – Site Establishment and Initial Production. Mobile crushing and screening plant with temporary stockpiles of basalt, construction of noise bunds, road construction and extraction from borrow areas. This scenario is representative of worst-case construction, site establishment and initial production conditions for Years 1 to 5 of Quarry operations.
- Scenario 2 – Sand extraction in Stage 1 of the southern sand extraction area; basalt extraction in Stage 1 of the basalt and central sand extraction area. This scenario is representative of worst-case operational conditions with regard to the residences located to the west of the Quarry.
- Scenario 3 – Sand extraction in Stage 6 of the southern sand extraction area; both sand and basalt extraction in Stages 1 and 2 of the basalt and central sand extraction area. This scenario is considered representative of worst-case operational conditions with regard to the residences located to the northeast of the Quarry.

The nine closest (non-project related) residences are presented in **Figure 5**.

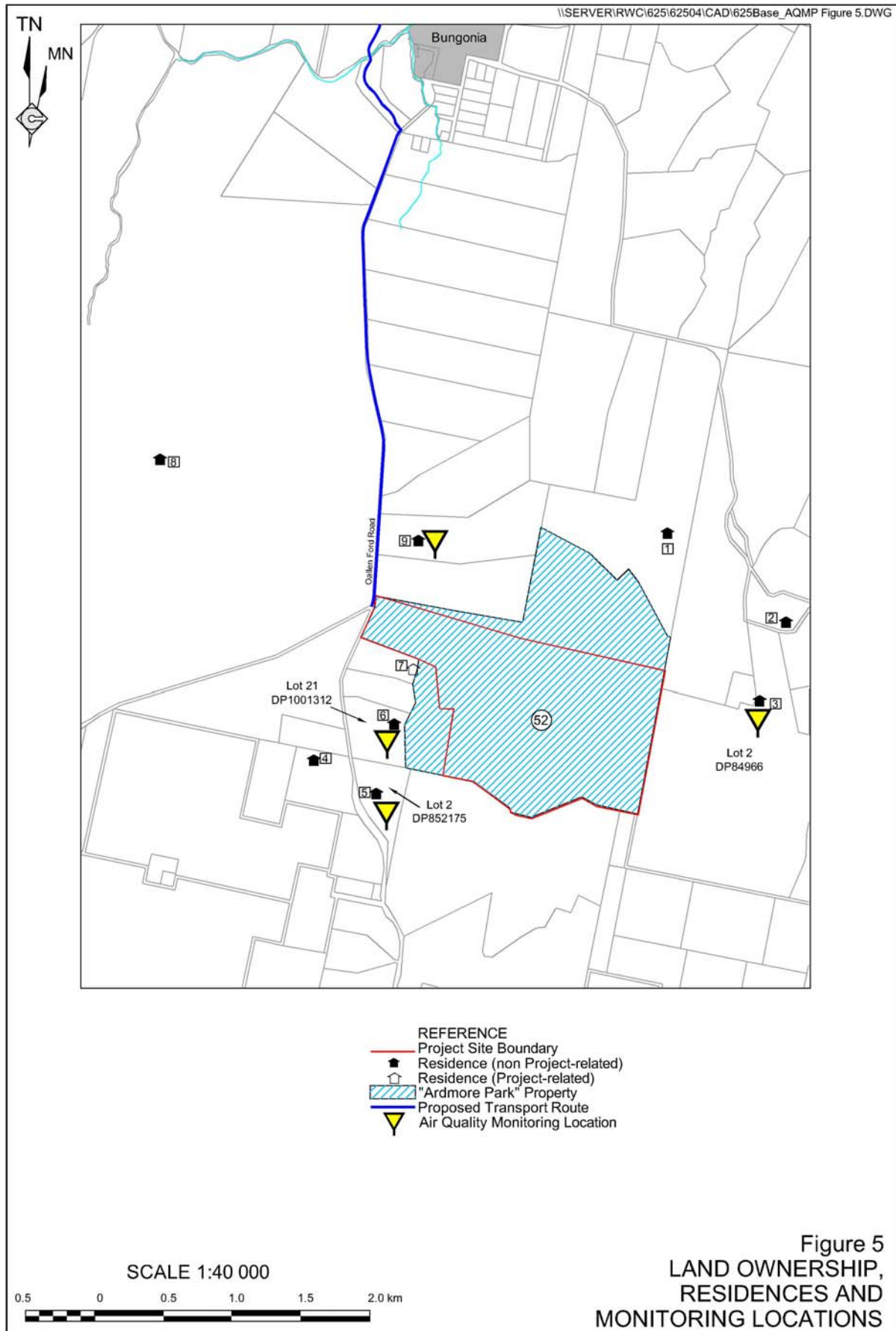
### 3.4 DUST DEPOSITION

**Table 4** shows the results of the Heggies (2008) air quality modelling predictions for dust deposition. The results show the average deposition rates predicted at the residences surrounding the Quarry Site over a one-year time frame. It has been assumed that background levels of dust deposition are of the order of  $2\text{g/m}^2/\text{month}$  for the nearest residences.

**Table 4** indicates that at each of the seven representative residences, the total mean monthly dust deposition rates (expressed as an annual average) associated with the Quarry are predicted to be well below the project goal of  $4\text{g/m}^2/\text{month}$  for all modelled scenarios.

In view of the predicted incremental dust deposition rates at the nearest residences, it is not anticipated that dust deposition on rooves will significantly impact the water supply obtained from rainwater tanks.







**Table 4**  
**Background and Predicted Incremental Dust Deposition at Nearest Residences**

Residence	Dust – Annual Average g/m <sup>2</sup> / month			
	Background	Increment	Background + Increment	Project Goal
<b>Scenario 1</b>				
1	2.0	0.3	2.3	4.0
2	2.0	0.3	2.3	4.0
3	2.0	0.4	2.4	4.0
4	2.0	0.1	2.1	4.0
5	2.0	0.1	2.1	4.0
6	2.0	0.1	2.1	4.0
9	2.0	0.1	2.1	4.0
<b>Scenario 2</b>				
1	2.0	0.3	2.3	4.0
2	2.0	0.3	2.3	4.0
3	2.0	0.5	2.5	4.0
4	2.0	0.2	2.2	4.0
5	2.0	0.3	2.3	4.0
6	2.0	0.5	2.5	4.0
9	2.0	0.3	2.3	4.0
<b>Scenario 3</b>				
1	2.0	0.5	2.5	4.0
2	2.0	0.4	2.4	4.0
3	2.0	0.7	2.7	4.0
4	2.0	0.3	2.3	4.0
5	2.0	0.3	2.3	4.0
6	2.0	0.5	2.5	4.0
9	2.0	0.3	2.3	4.0

## **4. MANAGEMENT SAFEGUARDS AND AMELIORATIVE ACTIONS**

### **4.1 DUST SUPPRESSION CONTROLS**

The following actions will be undertaken to ensure site activities are undertaken without exceeding the DECCW air quality criteria listed in **Tables 1, 2 and 3**.

- Minimise clearing ahead of construction and operational activities.
- Avoid stripping soil in periods of high wind.
- Undertake soil stripping at a time when there is sufficient soil moisture to prevent significant lift-off of dust.
- Use water application to increase soil moisture should stripping occur during periods of high wind or low soil moisture.



- Apply water to the hard rock processing plant feed hopper and crushers.
- Construct bund walls and plant wind breaks as required.
- Locate the mobile crushing plant within the cut section of the hard rock processing area.
- Enclose the dust generating components of the hard rock processing plant with limited openings to allow entry and exit of conveyors and access by project personnel.
- Use a 10 000 litre water truck (or equivalent) to regularly wet the active internal unsealed roads.
- Seed topsoil stockpiles, acoustic bund walls and areas where landform preparation is complete to assist in stabilising the exposed surface.
- Minimise the drop heights between front-end loader buckets and trucks carrying sand/basalt or overburden through operator training and education on the management of dust.
- Cover all trucks carrying Quarry products with approved covers and securely fix the tailgates to prevent windblown dust emission or spillages.

## **4.2 DUST EMISSION MANAGEMENT MEASURES**

In addition to the dust suppression controls identified in Section 4.1, Multiquip will adopt the following measures to identify and manage dust emission levels at residences surrounding the Quarry.

- Air quality monitoring, as described in Section 5.2, will be undertaken at representative residences surrounding the Quarry.
- Discussions will be held with those residents potentially affected by Quarry dust emissions, to identify if any concerns exist.
- The surrounding residents will be informed about the environmental complaints line for Multiquip operations. All residents will be encouraged to contact site management regarding any issue of concern.
- Multiquip will promptly respond to any air quality-related complaint or issue of concern.
- A program of continuous improvement, using the results of air quality monitoring to identify activities where modifications to dust suppression controls and operating procedures would be most effective in reducing dust emissions, will be implemented.



- Where exceedances of air quality criteria are substantiated by monitoring results, the quarrying operations are to be modified or relocated as required. This could include restricting operations in sections of the Quarry under certain meteorological conditions to ensure ongoing compliance with the relevant criteria (see **Tables 1, 2, and 3**).

#### 4.3 LIAISON / NEGOTIATIONS WITH NEIGHBOURING LAND OWNERS

Multiquip would continue to maintain open and honest communications with surrounding land owners through both formal (e.g. Community Consultative Committee, complaints management procedures) and informal (e.g. regular discussions with neighbours, actively seeking out feedback from those most likely to be affected) means. Through these mechanisms, Multiquip anticipates that it would readily become aware of any actual or perceived significant air quality impacts on surrounding neighbours.

In the event that any perceived or measured air quality impacts are reported by landholders, Multiquip would immediately initiate discussions with the affected landholders in order to validate or address the identified issues.

### 5. AIR QUALITY MONITORING PROGRAM

#### 5.1 METEOROLOGICAL MONITORING

A meteorological station will be in operation at the Quarry by November 2010 in accordance with AS 2923-1987 *Ambient Air-Guide for Measurements of Horizontal Wind for Air Quality Applications*. The Multiquip Meteorological Station will be programmed to continuously record the meteorological parameters as shown in **Table 5**.

**Table 5**  
**Meteorological Measurement Parameters**

Measured Parameter	Unit	Sample Interval
Average Temperature	Degrees	10 minutes
Average Relative Humidity	Percent	
Rainfall (10minute)	mm	
Aggregate rainfall	mm	
Average wind speed	km/hr	
Std wind speed	Km/hr	
Average wind direction	Degrees	
Sigma Theta*	Degrees	
* Provision will be made for the measurement of this parameter at the station, should it be required.		




## 5.2 AIR QUALITY MONITORING

### 5.2.1 Introduction

The assessment undertaken by Heggies (2008) indicates that fugitive particulate emissions would be acceptable for all scenario stages modelled and as such air quality is not anticipated to be adversely affected at the nearest residences. However, to demonstrate compliance with the Quarry air quality goals, monitoring will be conducted throughout the life of the Quarry.

The results of the atmospheric dispersion modelling indicate that compliance with the Quarry air quality goals will principally be governed by the amenity (nuisance) goal for dust deposition, as opposed to the health-related criteria associated with ambient PM<sub>10</sub> concentrations. Accordingly, continuous monitoring of dust deposition rates will be undertaken adjacent to Residence 3 (“Inverary Park”), Residence 6, Residence 5 and Residence 9 subject to the agreement of the respective land owners (see **Table 6** and **Figure 5**).

**Table 6**  
**Schedule of Closest Residences and Dust Monitoring Locations**

Residence Number*	Property Name	Easting	Northing	Minimum Distance to Extraction Activities (km)		Distance to Processing Plant (km)
				Scenario 1&2	Scenario 3	
1	“Reevesdale”	770774	6135214	1.6km	1.5km	1.6km
2	“Inverary”	771646	6134656	1.9km	1.8km	2.0km
3	“Inverary Park”	771422	6134072	1.8km	1.3km	1.7km
4	“Darbar Lodge”	768179	6133719	1.1km	1.5km	1.2km
5	“The Osiers”	768643	6133427	0.6km	1.3km	0.8km
6	“Lochmoor Lodge”	768745	6133747	0.5km	0.8km	0.5km
9	5199 Oallen Ford Road	769188	6135182	1.4km	1.2km	1.1km
* See Figure 5					Deposited Dust Monitoring Location	

The locations have been selected (on advice from Heggies) to take into account local meteorological conditions, the proximity of surrounding residences and the locations of likely dust emission sources from the Quarry Site.

Monitoring will be undertaken according to the NSW DECC document “*Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*”. Specifically, monitoring will be conducted in accordance with the following Australian Standards:

- AS 3580.1.1 – 2007 “Methods for Sampling and Analysis of Ambient Air – Guide to siting air monitoring equipment” (NSW DECC Method AM-1).
- AS 3580.10.1 – 1991 “Methods for Sampling and Analysis of Ambient Air – Determination of Particulates – Deposited Matter – Gravimetric Method” (NSW DECC Method AM-19).



A summary of all dust monitoring results will be included in each Annual Environmental Management Report (AEMR). The results from the dust monitoring program will be regularly reviewed to ensure the data being collected is meaningful and, where appropriate, the program will be adjusted in consultation with the DECCW. Operating/management measures will be modified on the basis of the monitoring results, where appropriate.

### 5.2.2 Parameters Measured

The dust deposition gauges will collect dust particles which settle out of the atmosphere. The deposited dust is assessed as insoluble solids, as defined by AS 3580.10.1-1991: *Methods for Sampling and Analysis of Ambient Air – Determination of Particulates – Deposited Matter – Gravimetric Method* of Standards Australia.

### 5.2.3 Monitoring Frequency

Monitoring of deposited dust will be undertaken on a nominal monthly basis, in accordance with AS/NZS 3580.10.1:2003 *Methods for Sampling and Analysis of Ambient Air, Determination of Particulates—Deposited Matter—Gravimetric method*.

### 5.2.4 Monitoring Procedures

#### 5.2.4.1 Dust Deposition Monitoring Procedures

Dust deposition samples are to be collected monthly as follows.

1. Remove the sample bottle and funnel from the sample holder.
2. The inside surface of the funnel should be cleaned and washed down with a limited (approximately 50mL) amount of distilled water into the sample bottle.
3. The stopper and funnel should be removed from the sample bottle and a cap immediately placed on the sample bottle.
4. Complete the labelling of the bottle with the sampling period by placing the date of collection on the bottle (see example below).  
*Multiquip Quarries*  
*Sampling Site Identifier e.g. AP-3*  
*Sampling Period*  
*01/10/11 - 01/11/11.*
5. Note any additional information such as overflow of the sample bottle, ground disturbance or dusty activities around the dust gauge or extraneous matter such as bird droppings within the funnel on a field sheet.
6. Replace the sample bottle and funnel in the sample holder.

#### 5.2.4.2 Sample Despatch

Once sampled each month, the deposited dust sample bottles used to capture the deposited dust will be sent to a NATA accredited laboratory for analysis.



### 5.3 PERIOD TO WHICH THIS AQMP IS RELEVANT

Monitoring at each location will take place for the duration of the Quarrying operation unless:

- the land on which the monitoring unit is located is acquired by Multiquip; or
- measured dust levels remain below air quality criteria for an extended period and suspension of monitoring at this point is mutually agreed to by the land owner, DECCW, DoP and Multiquip.

Should Quarrying operations cease temporarily, e.g. due to changes in market demand, air quality monitoring may be suspended until the resumption of operations.

## 6. AIR QUALITY MONITORING PROTOCOL

### 6.1 REVIEW AND REPORTING MONITORING RESULTS

Following the receipt of the monitoring report from the NATA accredited laboratory, the Environmental / Compliance Officer or other delegated personnel will review and enter the results into an internal database. Apart from entering the result from the monitoring report the Environmental / Compliance Officer will also calculate the rolling 12 month average of deposited dust levels.

In accordance with *Condition 5(3)* of PA 07\_0155, in the event the rolling 12 month average exceeds the criterion listed in **Table 3** or the occurrence of an incident that causes (or may cause) harm to the environment, Multiquip will notify the DoP and the DECCW of the exceedance/incident within 24 hours of detection.

In accordance with *Condition 5(4)*, within 6 days of notifying the Department and other relevant agencies of an exceedance/incident, Multiquip would provide the DoP and these agencies with a written report that:

- a) describes the date, time and nature of the exceedance/incident;
- b) identifies the cause (or likely cause) of the exceedance/incident;
- c) describes what action has been taken to date; and
- d) describes the proposed measures to address the exceedance/incident.

Annually, the data recorded for the preceding 12 months will be reviewed against the long term impact assessment and land acquisition criteria. A summary of the dust deposition monitoring results will be documented in each AEMR and any non-compliances also documented in the Annual Return for the Quarry's Environment Protection Licence (EPL).

### 6.2 RESULT NOTIFICATION

#### 6.2.1 Government Agencies

As described in Section 6.1, any exceedance of impact assessment criteria will be reported to the Director-General of the DoP and the DECCW within 24 hours of being detected.



## 6.2.2 Local Land Owners

In the event an exceedance of air quality criteria is recorded, Multiquip will notify the relevant land owner(s) within 24 hours and will provide him/her a copy of the report provided to the Director-General of the DoP and DECCW within seven days of the exceedance.

## 6.3 AIR QUALITY MONITORING TRIGGERED ACTIONS

The following responses would be triggered by the results of air quality monitoring.

### All Locations with Compliant Air Quality Criteria

- Operations and monitoring to continue as normal.

### Single Exceedance of Short Term Impact Assessment Criteria

If the likely source is controlled by Multiquip, Multiquip will:

- formulate actions to be undertaken to reduce the emitting potential of the source of the elevated emissions;
- implement and submit a report nominating the cause or likely cause of the exceedance and proposed mitigation actions to the Director-General of the DoP, the DECCW and the affected land owner(s) within 6 days of identifying the exceedance (in accordance with the review and reporting procedures of Section 6.1);
- complete the nominated mitigation measures; and
- supply a quarterly monitoring report to land owner until such time as it can be demonstrated that further exceedance of criteria is unlikely or the land owner requests the reporting to be ceased.

### Exceedance of Long Term Criteria

In the event of continuing (annual average) exceedance of deposited dust criteria, Multiquip will implement the following actions.

- The Director-Generals of the DoP and the DECCW, and the affected land owners will be notified, nominating the type and magnitude of the exceedance and the number of affected land owners.
- Review meteorological conditions for the period of monitoring and identify the likely source of the elevated particulate matter emissions.
- Formulate actions to be undertaken to reduce the emitting potential of the source of the elevated emissions.
- Complete and submit a report nominating the cause or likely cause of the exceedance and the proposed mitigation actions.
- In the event the land owner(s) consider the proposed mitigation measures to be acceptable, Multiquip will:



- implement the nominated mitigation measures; and
- supply a quarterly monitoring report to the affected land owner until such time as it can be demonstrated that further exceedance of criteria is unlikely or the land owner requests the reporting be discontinued.
- If further monitoring indicates that the dust levels continue to exceed the relevant criteria, Multiquip will attempt to negotiate an appropriate arrangement with the land owner(s) to further mitigate or compensate for the impacts of the dust emissions.
- Should a negotiated agreement fail to be reached, the matter would be referred to the Director-General of the DoP for conflict resolution (in accordance with *Conditions 4(4) and 4(5) of PA 07\_0155*).

## 7. RESPONSIBILITIES AND ACCOUNTABILITIES

The ultimate responsibility for the implementation of the AQMP is the General Manager of Multiquip Quarries. The General Manager will also be responsible for authorising Multiquip personnel or an external consultant to audit and review this AQMP.

**Table 7** outlines the responsible positions and accountable tasks.

**Table 7**  
**Responsible Positions and Accountable Tasks**

Position	Accountable Task
General Manager	<ul style="list-style-type: none"> <li>• Ensure the AQMP is provided to and understood by the Quarry Manager.</li> <li>• Ensure all reporting and document review is completed in accordance with this AQMP.</li> </ul>
Quarry Manager	<ul style="list-style-type: none"> <li>• Ensure conditional operational hours adhered to.</li> <li>• Ensure the nominated dust suppression and dust emission management controls are in place (as nominated in this AQMP).</li> <li>• Ensure air quality monitoring is undertaken in accordance with these procedures and relevant Australian Standards.</li> <li>• Notify DoP and DECCW within 24 hours of exceedance, and provide written response within 6 days of notification.</li> <li>• Conduct annual review of the AQMP and AQMP<sup>1</sup>.</li> <li>• Ensure air quality monitoring data is accurately reported in the AEMR and Annual Return.</li> </ul>
Environmental / Compliance Officer	<ul style="list-style-type: none"> <li>• Review and analyse monitoring results from the NATA accredited laboratory<sup>1</sup>.</li> <li>• Analyse air quality and relevant weather monitoring data to ensure compliance on a daily, monthly or annual basis.</li> </ul>
Note 1: The Quarry Manager may delegate this task to environmental personnel within Multiquip or an external consultant.	





## 8. AUDIT AND REVIEW

An internal audit and review of this program will occur annually during the preparation of the AEMR and EPL Annual Return for the Quarry, or in the event of changes to the operation which significantly increases the risk of air quality exceedances.

The program will be updated where inadequacies are identified. Changes to the monitoring program other than those specifically identified in this document will not be implemented without prior consultation with the DECCW and the approval of the Director-General of the Department of Planning.

## 9. REFERENCES

- Heggies Pty Ltd (Heggies), 2008.** *Air Quality Assessment of the Modified "Ardmore Park" Quarry Proposal*, Prepared on behalf of Multiquip Quarries – Part 3 of the *Specialist Consultant Studies Compendium* (2008).
- R.W. Corkery & Co. Pty Limited (RWC), 2008.** *Environmental Assessment for the Modified "Ardmore Park" Quarry Project, via Bungonia*. Prepared on behalf of Multiquip.



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