



**TITLE: AIR QUALITY MANAGEMENT PLAN**

**Badgerys Creek Quarry and Brick Making Project  
235 Martin Road, Badgerys Creek, NSW, 2171**

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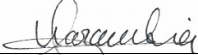
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<b>Document Preparation and Control</b>	<b>Document Review</b>
Todoroski Air Sciences	Monique Elbarbary
<b>Document Approval</b>	<b>Signature</b>
Nelma Arancibia	

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09	21/02/2023	Amended	Following DPE review

## GLOSSARY AND ABBREVIATIONS

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Ambient air quality	The surrounding air quality at a particular place and time made up of all sources in the environment near and far.
AQMP	Air Quality Management Plan
CoC	Conditions of Consent for MP10_0014
CSR	CSR Limited
Deposited dust	Insoluble solids, also known as deposited particulates or deposited dust, are measured using AS/NZS 3580.10.1:2003 and represent particles that settle from the ambient air into a container along with rainwater. The samples are usually collected over a $30 \pm 2$ day period and are reported in g/m <sup>2</sup> /month.
DPE	Department of Planning and Environment
DRG	Division of Resources and Geoscience, within DPE.
Emissions	A discharge of a substance such as plant or vehicle exhaust into the environment.
EMS	Environmental Management Strategy
ENM	Excavated Natural Material
EP&A Act	Environmental Planning and Assessment Act 1979
Fill	Virgin Excavated Natural Material and Excavated Natural Material
Incident	An occurrence or set of circumstances that causes or threatens to cause material harm to the environment, and/or breaches or exceeds the limits or performance measures/criteria in the conditions of approval.
LGA	Local Government Area
Mod	Modification
MP	Major Project
Non-compliance	An occurrence or set of circumstances that is a breach of conditions of approval 10_0014, or EPL 684, or ML 1771.
PM <sub>10</sub>	Particulate Matter with an EAD less than 10 µm is known as PM10. PM10 is a subset of TSP.
PM <sub>2.5</sub>	Particulate Matter with an EAD less than 2.5 µm is known as PM2.5. PM2.5 is a subset of PM10 and TSP.
RTS	Response to Submissions
Secretary, the	Planning Secretary under the EP&A Act, or nominee of the DPIE
TSP	Total Suspended Particulates (TSP) are particles having an approximate Equivalent Aerodynamic Diameter (EAD) of less than 50 µm and are therefore usually suspended in the atmosphere due to their small size.
VENM	Virgin Excavated Natural Material
WSA	Western Sydney Airport

# 1 INTRODUCTION

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## 1.1 Context

This Air Quality Management Plan (AQMP or Plan) forms part of the Environmental Management Strategy (EMS) for the CSR Building Products Limited (CSR) site at Badgerys Creek (Figure 1). The site was formerly owned and operated by Boral Company however was acquired by PGH Bricks and Pavers (a subsidiary of CSR) in 2016. The site comprises of a previous mothballed brick manufacturing building which has now been demolished and exhausted quarry pits which have been filled with water over time.

This plan has been prepared following The Department of Planning and Environment's (DPE) determination of Badgerys Creek Quarry and Brick Making Project (MP10\_0014) on 27/09/2011 and more recently modification 5 on 19/01/2022.

A brief description of each modification is shown below;

- Mod 1 - Mothballed the site and allowed minor maintenance requirement
  
- Mod 2 - It allowed for raw material exportation and building products storage (this modification has not been enacted)
  
- Mod 3 - Construct a new brick manufacturing plant incorporating new equipment and a new pit (Pit No. 3).
  
- Mod 4 - Rehabilitation of the site including dewatering of old pits and import of VENM to fill the pits.
  
- Mod 5 - Importation of excavated natural material

This AQMP has been prepared to address the requirements of the Conditions of Consent (CoC), the Statement of Commitments (SoC) and applicable legislation to the extent that they apply to *Phase 1* of the Development. This Plan supersedes all other AQMPs written to comply with this Consent.

## 1.2 Background

The Badgerys Creek Site is located at 235 Martin Road, Badgerys Creek, 41 kilometres to the southwest of Sydney, within the Liverpool City Council Local Government Area (LGA). Primary access to the site is provided through Martin Road at the north-eastern corner of the site. This vehicle access currently terminates at the northern site boundary, although the road reservation continues through the site. Features of the existing site are shown on Appendix B.

The Site as shown in the abovementioned appendix, is a consolidation of lots which occupies an irregular shaped area of 200ha located to the south of Elizabeth Drive. The site is bound to the east by South Creek and to the west by Badgerys Creek while the large Inghams Enterprise site adjoins to the south and Australian Native Landscapes and rural residential properties adjoin to the north. The old brickmaking facility was located towards the centre of the site (the building has now been demolished with the concrete hardstand remaining in place) surrounded by excavated pits (a number of which are filled with water) and stockpiles.

## 2 PURPOSE AND OBJECTIVES

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### 2.1 Purpose

CSR Building Products Limited (CSR) will implement all practicable measures to prevent or minimise harm to the environment that may result from the construction, operation or rehabilitation of the Badgerys Creek Quarry and Brick Making Project. This Air Quality Management Plan (AQMP) has been prepared to:

- describe the measures to ensure the relevant conditions of approval for Phase 1 of the Badgerys Creek Quarry and Brick Making Facility are complied with;
- describe the measures to ensure commitments in the Environmental Assessment in relation to air quality are implemented;
- describe the air quality monitoring program to evaluate the performance of the Badgerys Creek operations;
- describe the trigger action response plan to manage dust emissions from the site within prescribed criteria;
- outline community engagement procedures in relation to air quality issues;
- describe the protocol to determine exceedance with relevant conditions of the project approval; and
- outline reasonable and feasible measures to maintain greenhouse gas emissions at 2007 levels, including offsetting any increases through efficiency measures.

This AQMP also satisfies the Conditions of Consent (CoC) for the development, in particular Schedule 2, condition 13 Air Quality Management Plan.

### 2.2 Objectives

This AQMP provides the basis for the management of air quality (specifically dust issues) and to minimise risk of impact during the Project. The construction methodology will be designed to minimise, mitigate, and manage generation of dust and other air quality emissions from source.

To achieve this objective, CSR will address the following issues;

- Ensure impacts from dust emissions and deposition during construction works are minimised for the nearest sensitive receivers
- Use monitoring to assess the effectiveness of dust mitigation/control measures that are being applied during construction works
- Compliance and conformance with all Conditions of Consent (CoCs)

### 2.3 Targets

The following targets have been established for the management of air during the operational lifetime of the facility:

- Ensure full compliance with the relevant legislative requirements and CoC;
- Minimise air emissions; and

- Minimise environmental non compliances

## 2.4 Proposed Development

The proposed development under Modifications 5 are shown as well as the processes through the four envisaged development phases are provided on the diagrams in Appendix A as follows:

Phase 1	-	2021 to 2027
Phase 2	-	2027 to 2031
Phase 3	-	2031 to 2034
Phase 4	-	2034 onwards

This Air Quality Management Plan applies to Phase 1 of the Project and includes;

- Construction Activities
- Dewatering of pits 1, 2 and 3; and
- Quarrying activities in Pit 3
- Fill import for quarry rehabilitation activities and preferential backfilling of Pits 1, 2 and 3

Phase 1 of the Project also allows for construction activities and brickmaking activities, however, the construction and operation of the brick factory does not form part of the current operations

Hereafter, Phase 1 is referred to as 'the Project'. The Project layout including the location of pits to be dewatered and shown on Appendix A.

### 3 ENVIRONMENTAL REQUIREMENTS

The principal controls and constrains specified in the Consent in relation to air are detailed in the following:

**Table 1: Air quality criteria**

<b>Pollutant</b>	<b>Averaging Period</b>	<b>Criterion</b>	
Particulate matter < 2.5 µm (PM <sub>10</sub> )	Annual	a,d 8 µg/m <sup>3</sup>	
Particulate matter < 2.5 µm (PM <sub>10</sub> )	24 hour	b 25 µg/m <sup>3</sup>	
Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	a,d 25 µg/m <sup>3</sup>	
Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	b 50 µg/m <sup>3</sup>	
Total suspended particulates (TSP)	Annual	a,d 90 µg/m <sup>3</sup>	
<sup>c</sup> Deposited dust	Annual	<sup>b</sup> 2 g/m <sup>2</sup> /month	<sup>a,d</sup> 4 g/m <sup>2</sup> /month

**Notes**

<sup>a</sup> Total impact (ie increase in concentrations due to the development plus background concentrations due to all other sources).

<sup>b</sup> Incremental impact (ie increase in concentrations due to the development alone, with zero allowable exceedances of the criteria over the life of the development).

<sup>c</sup> Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method.

<sup>d</sup> Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents or any other activity agreed by the Secretary.

**Schedule 3, Condition 10:**

The Applicant must:

- (a) implement best practice management to minimise the dust emissions of the development;
- (b) implement all air quality management and mitigation measures that were committed to in the EA (Mod 3 and 4);
- (c) implement real-time monitoring of 24-hour average PM10 and meteorological conditions;
- (d) regularly assess meteorological and air quality monitoring data and relocate, modify and/or stop operations on site to ensure compliance with the air quality criteria in this consent;
- (e) minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see note d under Table 4);
- (f) monitor and report on compliance with the relevant air quality conditions in this consent; and
- (g) minimise the area of surface disturbance and undertake progressive rehabilitation of the site, to the satisfaction of the Secretary.





*Schedule 3, Condition 14:*

*For the life of the development, the Applicant must ensure that there is a suitable meteorological station operating in the vicinity of the site that complies with the requirements in the Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales guideline and is capable of measuring meteorological conditions in accordance with the NSW Noise Policy for Industry (EPA, 2017).*

*Schedule 3, Condition 15:*

*The Applicant must ensure that no offensive odours, as defined by the POEO Act, are emitted from the site.*

*Schedule 3, Condition 16:*

***The Applicant must implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site.***

### **3.1 Interface with Environmental Management Strategy**

In operational terms, the AQMP aims to minimise the risk of impacts to Air Quality and minimise Greenhouse Gas emissions from the Project at CSR's Badgerys Creek facility. In this way, the AQMP supports the Environmental Management Strategy (EMS) of Badgerys Creek Quarry and Brick Making Facility by helping minimise harm to the environment.

### **3.2 Strategic Framework for Environmental Management**

In addition to meeting the specific performance measures and criteria established under the development approval, CSR will implement all reasonable and feasible measures to prevent, and if prevention is not reasonable and feasible, minimise, any material harm to the environment that may result from the construction or operation of the project, and any rehabilitation required under the approval.

### 3.3 Minister’s Conditions of Consent

The conditions of consent relevant to this AQMP are listed in Table 2 below;

Schedule	Condition Number	Condition of Project Approval	Location of where addressed in AQMP																					
3	9	<p><b>Air Quality Impact Assessment Criteria</b></p> <p>The Applicant must ensure that particulate matter emissions generated by the development do not cause exceedance of the criteria in Table 4 at any residence on privately-owned land.</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging Period</th> <th>Criterion</th> </tr> </thead> <tbody> <tr> <td>Particulate matter &lt; 2.5 µm (PM<sub>10</sub>)</td> <td>Annual</td> <td>a,d 8 µg/m<sup>3</sup></td> </tr> <tr> <td>Particulate matter &lt; 2.5 µm (PM<sub>10</sub>)</td> <td>24 hour</td> <td>b 25 µg/m<sup>3</sup></td> </tr> <tr> <td>Particulate matter &lt; 10 µm (PM<sub>10</sub>)</td> <td>Annual</td> <td>a,d 25 µg/m<sup>3</sup></td> </tr> <tr> <td>Particulate matter &lt; 10 µm (PM<sub>10</sub>)</td> <td>24 hour</td> <td>b 50 µg/m<sup>3</sup></td> </tr> <tr> <td>Total suspended particulates (TSP)</td> <td>Annual</td> <td>a,d 90 µg/m<sup>3</sup></td> </tr> <tr> <td><sup>c</sup> Deposited dust</td> <td>Annual</td> <td><sup>b</sup> 2 g/m<sup>2</sup>/month    <sup>a,d</sup> 4 g/m<sup>2</sup>/month</td> </tr> </tbody> </table> <p><i>Notes to Table 4:</i>  <sup>a</sup> Total impact (ie increase in concentrations due to the development plus background concentrations due to all other sources).  <sup>b</sup> Incremental impact (ie increase in concentrations due to the development alone, with zero allowable exceedances of the criteria over the life of the development).  <sup>c</sup> Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method.  <sup>d</sup> Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents or any other activity agreed by the Secretary.</p>	Pollutant	Averaging Period	Criterion	Particulate matter < 2.5 µm (PM <sub>10</sub> )	Annual	a,d 8 µg/m <sup>3</sup>	Particulate matter < 2.5 µm (PM <sub>10</sub> )	24 hour	b 25 µg/m <sup>3</sup>	Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	a,d 25 µg/m <sup>3</sup>	Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	b 50 µg/m <sup>3</sup>	Total suspended particulates (TSP)	Annual	a,d 90 µg/m <sup>3</sup>	<sup>c</sup> Deposited dust	Annual	<sup>b</sup> 2 g/m <sup>2</sup> /month <sup>a,d</sup> 4 g/m <sup>2</sup> /month	Section 6.0, Table 7.2
Pollutant	Averaging Period	Criterion																						
Particulate matter < 2.5 µm (PM <sub>10</sub> )	Annual	a,d 8 µg/m <sup>3</sup>																						
Particulate matter < 2.5 µm (PM <sub>10</sub> )	24 hour	b 25 µg/m <sup>3</sup>																						
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3	10	<p><b>Operating Conditions</b></p> <p>The Applicant must:</p> <ul style="list-style-type: none"> <li>(a) implement best practice management to minimise the development dust emissions of the development;</li> <li>(b) implement all air quality management and mitigation measures that were committed to in the EA (Mod 3 and 4);</li> <li>(c) implement real-time monitoring of 24-hour average PM10 and meteorological conditions;</li> <li>(d) regularly assess meteorological and air quality monitoring data and relocate, modify and/or stop operations on site to ensure compliance with the air quality criteria in this consent;</li> <li>(e) minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see note d under Table 4);</li> <li>(f) monitor and report on compliance with the relevant air quality conditions in this consent; and</li> <li>(g) minimise the area of surface disturbance and undertake progressive rehabilitation of the site, to the satisfaction of the Secretary.</li> </ul>	Section 6 Section 6.1 Section 7.3 Section 6.1, Table .26.3 Section 7, Table 6.33 Section 7.0, Section 9.0																					
3	10A	During Phase 4, the Applicant may request the Secretary’s agreement to reduce or waive certain air quality monitoring requirements if the Applicant can demonstrate that they are no longer necessary.	Not applicable to this Plan																					

Schedule	Condition Number	Condition of Project Approval	Location of where addressed in AQMP
3	11	The Applicant must ensure compliance with stack emission limits and gaseous pollutant load limits included in any EPL applicable to the site.	Not applicable to this Plan
3	12	Within 14 months of commencement of increased production of bricks to 300,000 tonnes per year, or as otherwise required by the EPA, the Applicant must submit an Air Quality Verification Assessment to the EPA, and must provide a copy of this assessment to the Secretary. The Air Quality Verification Assessment must be completed in accordance with the requirements of the EPL for the premises.	Not applicable to this Plan
3	13	<p><b>Air Quality Management Plan</b></p> <p>The Applicant must prepare an Air Quality Management Plan for the development to the satisfaction of the Secretary. This plan must:</p> <ul style="list-style-type: none"> <li>(a) be prepared in consultation with relevant WSA authorities;</li> <li>(b) be submitted to the Secretary for approval prior to commencing Phase 1, unless otherwise agreed by the Secretary;</li> <li>(c) describe the proposed air quality management system;</li> <li>(d) describe the measures to be implemented to ensure: <ul style="list-style-type: none"> <li>• compliance with the air quality criteria and operating conditions of this consent;</li> <li>• best practice management is being employed; and</li> <li>• the air quality impacts of the development are minimised during adverse meteorological conditions and extraordinary events;</li> </ul> </li> <li>(e) describe measures to ensure that all the commitments in the EA (Mod 3 and 4) in relation to air quality are implemented;</li> <li>(f) include a program to ensure surface disturbance associated with quarrying operations is minimised;</li> <li>(g) include an air quality monitoring program that: <ul style="list-style-type: none"> <li>• is capable of evaluating the performance of the development and informing day to day operational decisions;</li> <li>• includes a protocol for determining any exceedances of the relevant conditions of this consent and</li> <li>• effectively supports the air quality management system; and</li> </ul> </li> <li>(h) include a program to: <ul style="list-style-type: none"> <li>• notify affected landowners of the potential health-related impacts associated with dust;</li> <li>• respond effectively to enquiries or complaints.</li> </ul> </li> </ul> <p>The Applicant must implement the Air Quality Management Plan as approved by the Secretary.</p>	<p>Appendix B Appendix B</p> <p>6.0 6.1, Table 7.2 6.0 Table 6.3</p> <p>6.1</p> <p>Not applicable to this Plan</p> <p>Section 9.2 and Appendix C</p>

Schedule	Condition Number	Condition of Project Approval	Location of where addressed in AQMP
3	14	<p><b>Meteorological Monitoring</b></p> <p>For the life of the development, the Applicant must ensure that there is a suitable meteorological station operating in the vicinity of the site that complies with the requirements in the Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales guideline and is capable of measuring meteorological conditions in accordance with the NSW Noise Policy for Industry (EPA, 2017).</p>	Section 7.3
3	15	<p><b>Odour</b></p> <p>The Applicant must ensure that no offensive odours, as defined by the POEO Act, are emitted from the site.</p>	Section 3.4
3	16	<p><b>Greenhouse Gas Emissions</b></p> <p>The Applicant must implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site.</p>	Section 6.1
4	1	<p><b>Notification of Landowners</b></p> <p>As soon as practicable, and no longer than 7 days, after obtaining monitoring results showing:</p> <p>(a) an exceedance of any criteria in Schedule 3, the Applicant must notify the affected landowners in writing of the exceedance, and provide regular monitoring results, at least every 3 months, to each affected landowner until the development is again complying with the relevant criteria; and</p> <p>(b) an exceedance of any air quality criteria in Schedule 3, the Applicant must send a copy of the NSW Health fact sheet entitled “Mine Dust and You” (as may be updated from time to time) to the affected landowners</p>	Section 9.2
5	2	<p><b>Evidence of Consultation</b></p> <p>Where the conditions of this consent require consultation with an identified party, the Applicant must:</p> <p>(a) consult with the relevant party prior to submitting the subject document to the Secretary for approval; and</p> <p>(b) provide details of the consultation undertaken, including:</p> <ul style="list-style-type: none"> <li>• the outcome of that consultation, matters resolved and unresolved; and</li> <li>• details of any disagreement remaining between the party consulted and the Applicant and how the Applicant has addressed any unresolved matters.</li> </ul> <p>However, if the Secretary agrees, a strategy, plan or program may be prepared without consultation being undertaken with an identified party required under a condition of this consent.</p>	Appendix B
5	3	<p><b>Management Plan Requirements</b></p> <p>The Applicant must ensure that the management plans required under this consent are prepared in accordance with any relevant guidelines, and include:</p>	

Schedule	Condition Number	Condition of Project Approval	Location of where addressed in AQMP
		<p>(a) a summary of relevant background or baseline data;</p> <p>(b) a description of:</p> <ul style="list-style-type: none"> <li>• the relevant statutory requirements (including any relevant approval, licence or lease conditions);</li> <li>• any relevant limits or performance measures/criteria; and</li> <li>• the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;</li> </ul> <p>(c) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;</p> <p>(d) a program to monitor and report on the:</p> <ul style="list-style-type: none"> <li>• impacts and environmental performance of the development; and</li> <li>• effectiveness of any management measures (see (c) above);</li> </ul> <p>(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;</p> <p>(f) a program to investigate and implement ways to improve the environmental performance of the development over time;</p> <p>(g) a protocol for managing and reporting any:</p> <ul style="list-style-type: none"> <li>• incidents;</li> <li>• complaints; and</li> <li>• non-compliances with statutory requirements;</li> </ul> <p>(h) a protocol for periodic review of the plan; and</p> <p>(i) a document control table that includes version numbers, dates when the management plan was prepared and reviewed, names and positions of the person/s who prepared and reviewed the management plan, a description of any revisions made and the date of the Secretary's approval.</p> <p><i>Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.</i></p>	<p>Section 7.4, 7.5</p> <p>Section 4.0 Section 7.3 Section 7.0</p> <p>Section 6.1</p> <p>Section 7.3 Section 8</p> <p>Section 9</p> <p>Section 9.2 and Appendix C</p> <p>Section 8</p> <p>Section 9.2</p> <p>Section 8</p>

### 3.4 Aspects and Impacts

The Project will generate some amount of dust and greenhouse emissions as described in Table 3 below. The processes and materials handled at the project do not have potential to generate offensive odours.

**Table 3: Air quality aspects and impacts for Phase 1**

Air Quality Aspect	Potential Environmental Impacts
Dust from earthworks associated with backfilling pits with VENM.	<ul style="list-style-type: none"> <li>• Health and amenity impact on neighbouring residential dwellings.</li> <li>• Dust settling on private property.</li> <li>• Generation of greenhouse gas emissions.</li> </ul>
Wheel generated dust from access roads and haul roads.	
Exhaust emissions from earth moving equipment.	

### 3.5 Risk Assessment

CSR maintains an Environmental Risk Register for the Badgerys Creek Quarry operation. This register ranks the following air quality impacts (including greenhouse gas emissions) as low to medium risks:

- Dust from VENM emplacement, internal haulage, and stockpiles.
- Dust from materials handling.
- Exhaust emissions from mobile plant

The Air Quality Impact Assessment for the project also identified dust, particularly PM<sub>10</sub> to be the primary pollutant of concern, with the highest dust concentrations predicted to occur to the north of the site.

The above risks will be mitigated by the management measures outlined in this AQMP.

## 4 REGULATORY FRAMEWORK

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### 4.1 Codes, Standards and Guidelines

The following legislation is relevant to the project:

- NSW *Protection of the Environment Operations Act 1997* (PoEO Act);
- NSW Protection of the Environment (General) Regulation 2022 (POEO General Regulation);
- NSW Protection of the Environment Operations (Clean Air) Regulation 2021; and
- (Commonwealth) *National Greenhouse and Energy Reporting Act 2007* (NGER Act).
- Ambient air monitoring guidance note, Environment Protection Authority, January 2022
- Approved Methods for Modelling and Assessment of Air Pollutants in NSW, Environment Protection Authority, August 2022
- Australian Standards for siting, sampling and testing as detailed in section 7.2.
- National Environmental Protection Measure for Ambient Air Quality.
- National Greenhouse and Energy Reporting Guidelines.

### 4.2 Permits and Licences.

#### 4.2.1 Environment Protection Licence 684

The site is subject to Environment Protection Licence (EPL) 684, issued under the NSW POEO Act. The EPL includes the following requirement in relation to air quality management and monitoring measures:

- The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.

Reporting protocols are included in section 9.0.

## 5 TRAINING AND RESOURCE REQUIREMENTS

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### 5.1 Training

The induction for all site personnel and contractors working on site (as described in detail in Section 5.2 of the EMS) will cover air quality and greenhouse gas management procedures, in particular the control of dust and emissions. The following specialised training will be required for the stated plant personnel as part of the effective implementation of the AQMP:

- operation and maintenance of the on-site meteorological station – Environmental Officer;
- changing filters on the HVAS – Environmental Officer;
- operation and maintenance of the real-time dust monitor – Environmental Officer; and
- any new reporting requirements under the NGERs scheme – Environmental Manager.

### 5.2 Resource Requirements

CSR will engage specialised, and where relevant NATA accredited, technical service providers for the following tasks:

- Deployment and calibration of dust monitoring equipment.
- Sampling and testing of dust deposition gauges.
- Testing of HVAS filters.



## 6 AIR QUALITY MANAGEMENT SYSTEM

CSR will manage air quality impacts to ensure that particulate matter emissions from the Project do not cause exceedances of the criteria in Table 7 at any residence on privately owned land.

### 6.1 Air Quality Impact Mitigation Measures and Responsibilities

The general air quality management measures in Appendix 6 of the Project Approval will be implemented (Table 4)

**Table 4 General air quality measures**

Action	Responsibility	When	Reference
The Applicant will prepare an Air Quality Management Plan (AQMP) for the project to the satisfaction of the Secretary. The AQMP will outline the purpose, methodology and expected outcomes of the dust monitoring, and will include the following content:	Site Manager	Prior to works	This plan
1. Dust fraction to be measured, i.e., TSP, PM10, PM2.5 etc.	Site Manager	Table 7.2	Table 7.2
2. Equipment to be used to measure selected dust fraction.	Site Manager		
3. Frequency of the monitoring, i.e., sample collection schedule.	Site Manager		
4. Duration of the monitoring program.	Site Manager	Section 7.2.1	Section 7.2.1
5. Location of the monitoring station/s.	Site Manager	Prior to works	Figure three
6. Standards/guidelines that are to be followed for location/construction of the monitoring station, equipment calibration, collection of samples and analysis of samples.	Site Manager	Duration of monitoring	Section 7.2.1
7. Calibration methodology and schedule.	Site Manager	Duration of monitoring	Section 7.2.1
8. Reporting procedure.	Site Manager	Duration of monitoring	Section 9
9. Regulatory guidelines and compliance criteria.	Site Manager	Duration of monitoring	Section 4, Table 7.2
10. Action levels and contingency measures in the event that pollutant concentrations approach or are likely to exceed the relevant compliance criteria.	Site Manager	Duration of monitoring	Table 6.33

Action	Responsibility	When	Reference
11. A consultation program that involves nearby agricultural producers and residents, in order to determine if the dust mitigation measures are being affective.	Site Manager	Duration of monitoring	EMS Chapter 10 and Section 9.8
The existing HVAS will be moved to as close to the northern boundary of the property and the closest sensitive receiver as possible.	Site Manager	Prior to works	Section 7.2.1, Figure three
The existing deposited dust gauges will be relocated to appropriate positions as close to the property boundaries and nearest sensitive receivers as possible.	Site Manager	Prior to works	Section 7.2.1, Figure three

The FILL emplacement specific measures in **Table 5** will be implemented.

**Table 5 FILL emplacement**

Action	Responsibility	When
Control dust from ground disturbance by spraying with water	Contractors	As required
Control dust from loading of material to haul trucks by reducing bucket drop heights	Contractors	During loading
Control dust from material haulage by limiting speeds on haul roads to 15 km/h	Contractors	During loading
Haul roads should be watered using water carts such that the road surface has sufficient moisture to minimise visible on-road dust generation but not so much as to cause pooling and mud/dirt track out to occur.	Contractors	During dry weather
Disturbed soil surfaces to be revegetated in accordance with the RMP for the Project Site.	Contractors	Rehabilitation
Unloading of trucks to be controlled using water sprays/dust suppression when generating excessive visible dust.	Contractors	During unloading operations
Operational practices to be reviewed to ensure 'best practice' techniques are being employed and that operational equipment is working efficiently.	Contractors	At all times
Operate and maintain vehicles and mobile plant to keep emissions at reasonable levels	Contractors and	At all times
Shut down engines when plant are idle over prolonged periods	Contractors and	At all times
Consult with neighbouring agricultural producers and residents to assess the effectiveness of dust mitigation measures in accordance with the Community Consultation Plan	Site Manager	As required

**Table 5** presents the Trigger Action Response Plan (TARP) which includes suggested dust trigger levels and sets out the corresponding response if the trigger is reached.

The suggested dust trigger levels will be refined and modified on an ongoing basis as the actual performance is confirmed, operational experience increases and as the operations change over time. Consideration of the

prevailing winds and dispersion conditions is paramount in this method of analysis and it is anticipated that as operator experience with the operations and surrounding influences develops, more appropriate trigger levels will be developed over time.

Reactive controls may include operational measures such as scheduling certain operations during favourable meteorological conditions or to alternative areas and may, in extreme cases, require all dust generating activities to cease. Appropriate actions should take into account the type of dust source (i.e. wind sensitive or wind insensitive) and the prevailing meteorological conditions in undertaking dust mitigating action.



Table 6 Trigger action response plan

Event	Potential Adverse Outcome	Trigger Level	Actions to be Implemented	Responsibility
1 – Alert level	Dust impacts on surrounding communities	1-hour average PM <sub>2.5</sub> >25 µg/m <sup>3</sup> where monitor is downwind of activity 1-hour average PM <sub>10</sub> >50 µg/m <sup>3</sup> where monitor is downwind of activity	<ul style="list-style-type: none"> <li>• Check forecast for that day</li> <li>• Identify potential operational risk areas</li> <li>• Notify onsite managers to be on alert</li> </ul>	Environmental officer
2 – Remedial action level	Dust impacts on surrounding communities	1-hour average PM <sub>10</sub> >150 µg/m <sup>3</sup> where monitor is downwind of activity 1-hour average PM <sub>2.5</sub> >75 µg/m <sup>3</sup> where monitor is downwind of activity	<ul style="list-style-type: none"> <li>• Increase dust suppression.</li> <li>• Where possible relocate dust generating activities away from downwind residential receptors.</li> <li>• Visual observation of dusty activity, apply additional dust control as necessary.</li> </ul>	Environmental officer
3 – Action level	Dust impacts on surrounding communities	1-hour average PM <sub>10</sub> >150 µg/m <sup>3</sup> for 3 consecutive hours and where monitor is downwind of activity 1-hour average PM <sub>2.5</sub> >75 µg/m <sup>3</sup> for 3 consecutive hours and where monitor is downwind of activity	<ul style="list-style-type: none"> <li>• Cease some or all dust generating activities when the elevated dust concentrations are not caused by an external regional pollution event such as bushfires, prescribed burning, dust storms or fire incidents and cannot be overcome by level 1 and 2 actions.</li> </ul>	Environmental officer



24-hour Air Quality Goal exceeded	Dust impacts on surrounding communities	PM <sub>10</sub> >50µg/m <sup>3</sup> on HVAS	<ul style="list-style-type: none"> <li>• Notify relevant parties (9.2); and</li> <li>• investigate circumstances (including prevailing meteorological conditions, site operations, background concentrations),</li> <li>• ensure dust mitigation measures (6.1) have been followed, and</li> <li>• implement additional dust mitigation measures that target the main source of dust identified through investigation of site operations.</li> </ul>	Operations Manager
Event	Potential Adverse Outcome	Trigger Level	Actions to be Implemented	Responsibility
Annual average Air Quality Goals exceeded	Dust impacts on surrounding communities	Insoluble Solids >4g/m <sup>2</sup> /month PM <sub>10</sub> >25µg/m <sup>3</sup> on HVAS	<ul style="list-style-type: none"> <li>• Notify relevant parties (9.2); and</li> <li>• investigate circumstances (including prevailing meteorological conditions, site operations, background concentrations),</li> <li>• ensure dust mitigation measures (6.1) have been followed, and</li> <li>• implement additional dust mitigation measures that target the main source of dust identified through investigation of site operations.</li> </ul>	Operations Manager



Adverse weather conditions	Dust impacts on surrounding communities	Prolonged period of hot, dry, windy weather	Ensure disturbed areas have been appropriately stabilised with vegetation and/or surfactants. Suspend or modify all non-essential earth-moving activities and reduce truck speeds. Quarry Manager to review activities and notify operators as to when operations may re-commence. Review monitoring to determine whether exceedances have occurred.	Quarry Manager
Complaints	Adverse community perception and/or dust impacts on surrounding community	Complaint received regarding adverse air quality	Investigate in accordance with the <a href="#">Community and Stakeholder Consultation Procedure</a> .	HSE Manager

## 6.2 Greenhouse Gas Mitigation and Management Measures

Greenhouse gas emissions from the operations will be calculated annually and be used to identify trends in greenhouse gas emissions and energy use and identify areas to improve/reduce its emissions.

Greenhouse gas mitigation and management practices include:

- Regular reviews and investigate ways to reduce energy consumption during project planning phases and reviewing energy efficient alternatives;
- Carefully planning and managing site operations to minimise the distance travelled by all vehicles on site;
- Monitoring the consumption of fuel and regularly maintaining diesel and petrol powered equipment to ensure operational efficiency; and,
- Monitoring the total site electricity consumption and investigating avenues to minimise electricity use.

## 6.3 Progressive Rehabilitation

Progressive rehabilitation works will be undertaken on the Project. Once the dewatering works are completed, the rehabilitation works within pits 1, 2 and 3 can commence. Appropriate measures will be undertaken to minimise dust creation by ensuring water trucks are running along the area where rehabilitation works are undertaken.

## 7 MONITORING AND PERFORMANCE CRITERIA

### 7.1 General

Inspection, monitoring, and auditing will be undertaken to assess and record whether activities are in compliance with regulatory requirements and the objectives outlined in the Environmental Management Strategy, which guides Project site operations.

### 7.2 Environmental Monitoring

A summary of parameters to be monitored and their performance criteria are in the tables below. Monitoring locations are on Figure Three.

### 7.3 Operational Monitoring and Inspections

Table 7 summarises specific performance criteria relating to operational activities within the site and responsibilities and accountabilities. 8 summarises the ambient air quality criteria.

All monitoring equipment is located in accordance with AS3580.1.1 to the greatest extent practicable whilst still meeting the requirements of the project approval and are shown on Figure Three. The monitoring program will continue until reviewed in accordance with section 8.0.

**Table 7 Air quality monitoring requirements**

Condition	Action	Equipment	Responsible Staff	Accountability	When
S3 C9	Particulate matter emissions generated by the Project will not exceed criteria ( ) at any residence on privately owned land	High Volume Air Sampler (HVAS) Real-time dust monitor (DustTrak aerosol monitor)  Depositional dust gauges	Laboratory	HSE Officer	During all operations  Excluding extraordinary events
S3 C14	Operate a meteorological station in the vicinity of the site	Meteorological station will measure wind speed, direction, sigma theta, temperature at 10m and 2m, relative humidity and rainfall and be capable of sending relevant alarms. The weather station would comply with the requirements in the <i>Ambient air monitoring guidance note (NSW EPA,</i>	Laboratory	HSE Officer	During all operations



		2022) and be capable of measuring meteorological conditions in accordance with the <i>NSW Noise Policy for Industry (EPA, 2017)</i>			
--	--	---	--	--	--

**Table 8 Ambient air quality criteria**

Pollutant	Averaging Period	Method	Criterion
Particulate Matter < 10 µm (PM <sub>10</sub> )	Annual	HVAS: AS3580.9.6 and DustTrak aerosol monitor (real-time dust monitor)	<sup>a,d</sup> 25 µg/m <sup>3</sup>
Particulate Matter < 10 µm (PM <sub>10</sub> ) (real-time monitoring)	24 hours	HVAS: AS3580.9.6 and DustTrak aerosol monitor (real-time dust monitor)	<sup>b</sup> 50 µg/m <sup>3</sup>
Particulate Matter < 2.5 µm (PM <sub>2.5</sub> )	Annual	DustTrak aerosol monitor (real-time dust monitor)	<sup>a, d</sup> 8 µg/m <sup>3</sup>
Particulate Matter < 2.5 µm (PM <sub>2.5</sub> )	24 hours	DustTrak aerosol monitor (real-time dust monitor)	<sup>b</sup> 25 µg/m <sup>3</sup>
Total Suspended Particulates (TSP)	Annual	Ratio calculated from PM <sub>10</sub>	<sup>a,d</sup> 90 µg/m <sup>3</sup>
Deposited Dust (Insoluble Solids)	Annual	Deposition gauges AS3580.10.1	<sup>b</sup> 2 g/m <sup>2</sup> /month <sup>a,d</sup> 4 g/m <sup>2</sup> /month

**Notes:**

<sup>a</sup> Total impact (i.e., increase in concentrations due to the project plus background concentrations due to all other sources).

<sup>b</sup> Incremental impact (i.e., increase in concentrations due to the project alone, with zero allowable exceedances of the criteria over the life of the project).

<sup>c</sup> Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: *Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method*.

<sup>d</sup> Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents or any other activity agreed by the Secretary.

The air quality monitoring network is shown in Figure Three in Appendix A. The air quality monitoring network includes one HVAS, four dust deposition gauges, one real-time DustTrak aerosol monitor and a meteorological station.

The HVAS has a PM<sub>10</sub> inlet and is sampled in accordance with AS3580.9.6, which is 24 hours every 6 days. Dust Deposition Gauges are sampled in accordance with AS3580.10.1, which is every 30 ± 2 days.

The meteorological station will comply with the requirements in the *Ambient air monitoring guidance note (NSW EPA, 2022)*. The weather station will measure and record wind speed and wind direction at 10 metres (m) above

ground, sigma-theta (the standard deviation of horizontal wind directions), temperature at 10m and 2m and relative humidity and rainfall.

The equipment will be calibrated and maintained generally in accordance with the relevant Australian Standards and tested by a NATA accredited laboratory.

Real-time monitoring of 24-hour average PM<sub>10</sub> impacts will be conducted using a DustTrak aerosol monitor. The DustTrak aerosol monitor is capable of measuring PM<sub>2.5</sub> and PM<sub>10</sub> simultaneously with data available in real-time to assist with the dust management of the operations. The DustTrak aerosol monitor is portable and can be relocated as necessary to measure dust concentrations downwind of the activities occurring onsite dependant on the prevailing weather conditions.

### 7.3.1 TSP to PM10 ratio

The ratio of PM<sub>10</sub> / TSP is determined from the relationship of the Ambient Air Quality Criteria (refer to ) for PM<sub>10</sub> of 25µg/m<sup>3</sup> and TSP of 90µg/m<sup>3</sup> calculated to be 3.6 (90/25). This ratio will be used to calculate TSP impacts during operations at the Badgerys Creek site from the on-site High Volume Air Sampler with a PM<sub>10</sub> inlet.

This methodology is based on the known relationship of PM<sub>10</sub> as a subset of TSP and the applicable assessment criteria (in accordance with the *Approved Methods for Modelling and Assessment of Air Pollutants in NSW (NSW EPA, 2022)*). This approach would likely result in a conservative estimate of the ambient TSP levels as it is almost invariably the case that PM<sub>10</sub> is the limiting criterion for extractive operations in NSW.

### 7.3.2 Expected Outcomes

The HVAS with a PM<sub>10</sub> inlet was installed on the site in December 2016. Since then, there have been no activities on the site and so the air quality monitoring and meteorological results, shown on the following graphs, can be considered localised background levels.

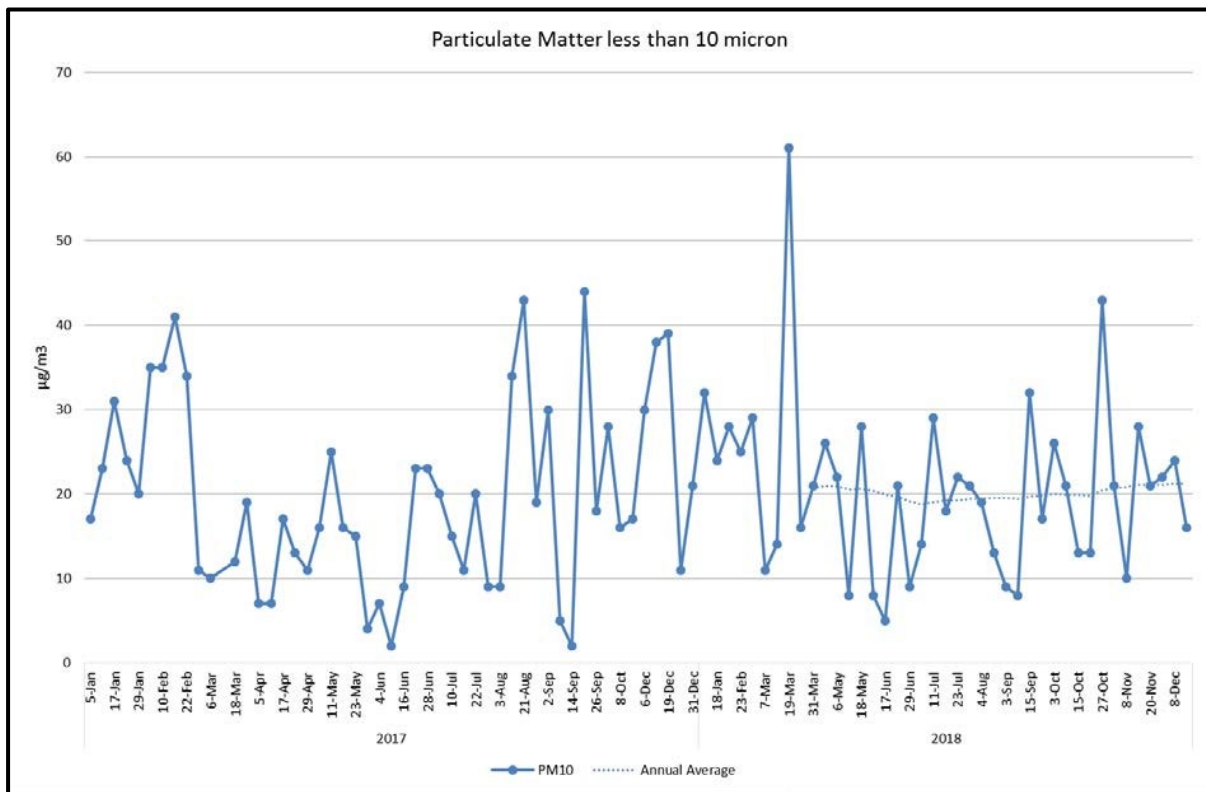


Figure 0-1 (Graph 1) HVAS Results for 2017 – 2018

The Annual Average for PM<sub>10</sub> for 2017 was 20 µg/m<sup>3</sup> and for 2018 was 21 µg/m<sup>3</sup>.

The winds during 2017-2018 were predominantly from the southwest in the mornings, and the west and northeast in the afternoons.

The 24-hour average PM<sub>10</sub> result exceeded the impact criterion of 50µg/m<sup>3</sup> on 19<sup>th</sup> March 2018, when no activities were occurring on the site. On this day, other air quality monitors at Liverpool and Bringelly also recorded elevated levels and would indicate a regional dust event was the cause of the elevated reading.

The DustTrak was installed on the site in July 2021. Since then, there has been demolition / construction works at the site. The 24-hour average DustTrak levels for the 2022 calendar period is shown in the graph. The results indicate levels below the impact criterion of 50µg/m<sup>3</sup>.

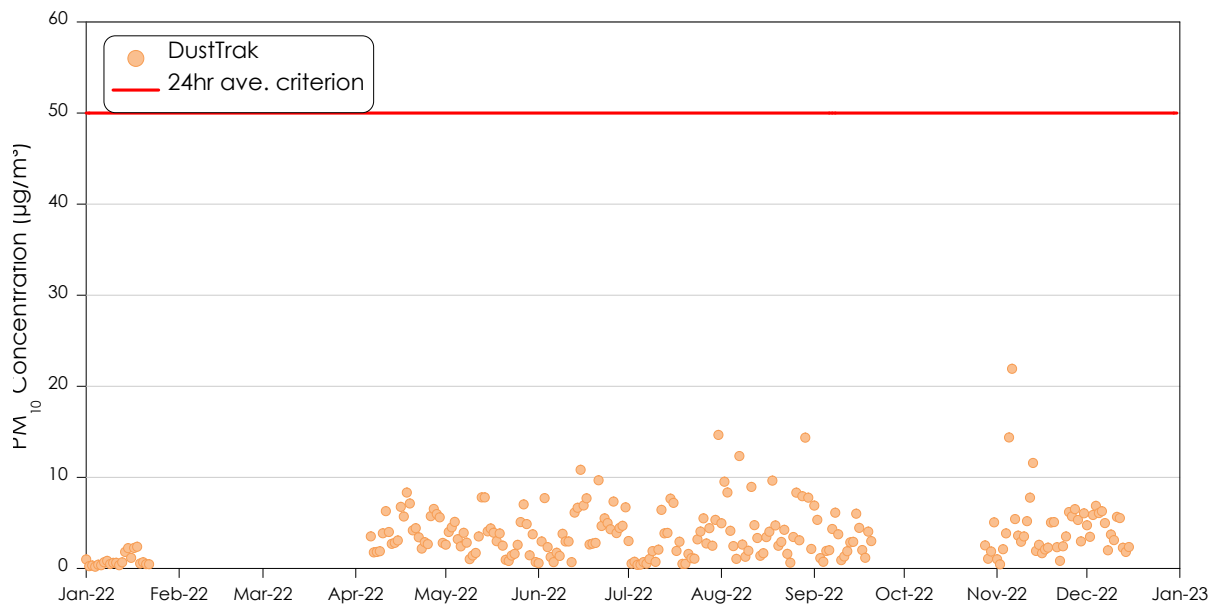


Figure 0-2 (Graph2) DustTrak results for 2022

A weather station was commissioned on the site in July 2021. Annual and seasonal windrose from the data collected at the station is presented in the figure below. The windroses reflect the expected wind distribution patterns of the area with winds typically from the southwest.

### Annual and seasonal windroses Badgerys Creek Weather Station (July 2021 - June 2022)

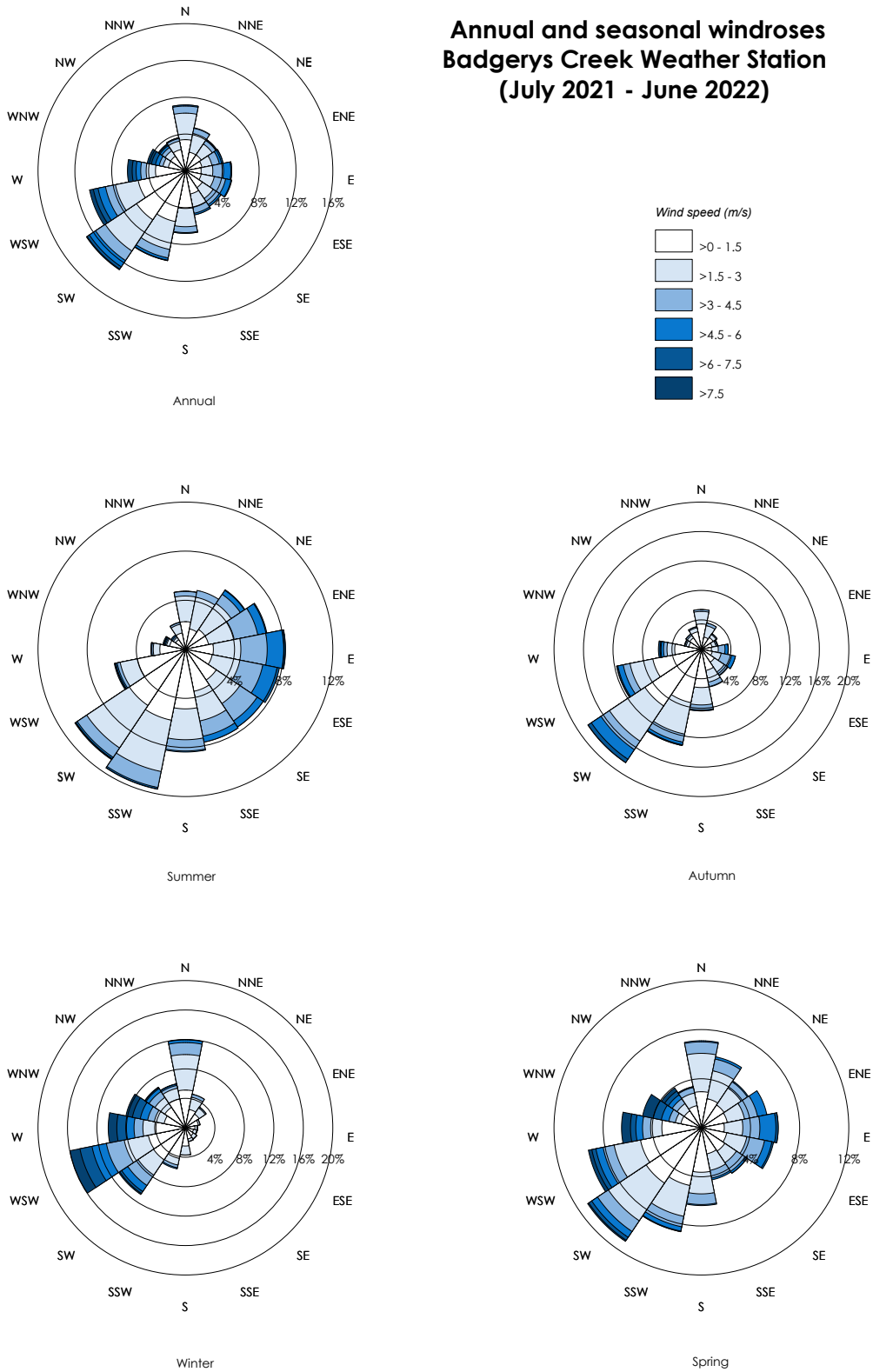


Figure 0-3 Annual and seasonal windroses for weather station

#### **7.4 Inspections**

Monitoring of the implementation of this plan will be undertaken as part of quarterly site inspections by CSR management and HSE Personnel. On-going monitoring of these activities is essential to ensure compliance with regulatory requirements and conditions of approval.

## 8 EVALUATION AND REVIEW

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### 8.1 Annual review

Prior to commencement of FILL import, and annually thereafter, CSR will review the environmental performance of the project in accordance with Section 9.1.1 of the EMS.

As part of this review and through the Community Consultation Committee, the nearby agricultural producers, WSA and residents will be consulted regarding the effectiveness of the dust mitigation measures. The results of this consultation and any proposed actions will be reported as part of the review.

The annual review report will be submitted to the Secretary of the DPEDPE, Council and the Community Consultative Committee. It will also be available on the website, once approved and to any interested person on request.

### 8.2 Plan and Program Revision

This plan will be reviewed and revised within three (3) months of the following:

- the submission of an Incident Report (refer 9.2);
- the submission of an annual review (refer 8.1);
- the submission of an Independent Environmental Audit report; and
- any modification to the conditions of approval (unless the condition requires otherwise).

This is in accordance with the intent of the conditions of approval to ensure that strategies, plans, and programs are updated on a regular basis, incorporate any recommended measures to improve the environmental performance of the Project, and update for new technologies and Best Practice procedures.

All approved management plans, strategies and programs will be implemented until any updated measures have been approved by the relevant authorities.

## 9 REPORTING

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CSR will provide regular reporting in accordance with the project approval and EPL conditions. All monitoring results and environmental performance will be published on the website, in accordance with procedures detailed in the EMS.

### 9.1 Regular Reporting

#### 9.1.1 Reporting under the Conditions of Approval

In accordance with the conditions of approval and as detailed in Chapter 9 of the EMS, CSR will provide regular reporting to the DPEDPE, EPA, WSA and other interested stakeholders.

#### 9.1.2 Information Required on the Website

As detailed in Section 9.1.4 of the EMS, CSR will provide regular reporting on the environmental performance of the Project on its website.

### 9.2 Incident and Non-compliance Reporting

As soon as possible after CSR becomes aware of a non-compliance against any of the conditions of approval, or any other incident, notification will be made via phone and/or email in accordance with the protocol detailed in Section 9.2 of the EMS.

As soon as practicable, and no longer than 7 days, after obtaining monitoring results showing:

- a) an exceedance of any criteria in Table 7, CSR will notify the affected landowners in writing of the exceedance, and provide regular monitoring results, at least every 3 months, to each affected landowner until the project is again complying with the relevant criteria; and
- b) an exceedance of any air quality criteria in Table 7, CSR will send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and current tenants of the land (including the tenants of land which is not privately-owned).



## 10 REFERENCES

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NSW EPA (2022a)

Ambient air monitoring guidance note, Environment Protection Authority, January 2022

NSW EPA (2022b)

Approved Methods for Modelling and Assessment of Air Pollutants in NSW, Environment Protection Authority, August 2022.

# Appendix A

Figures

FIGURE 1 - SITE LOCATION



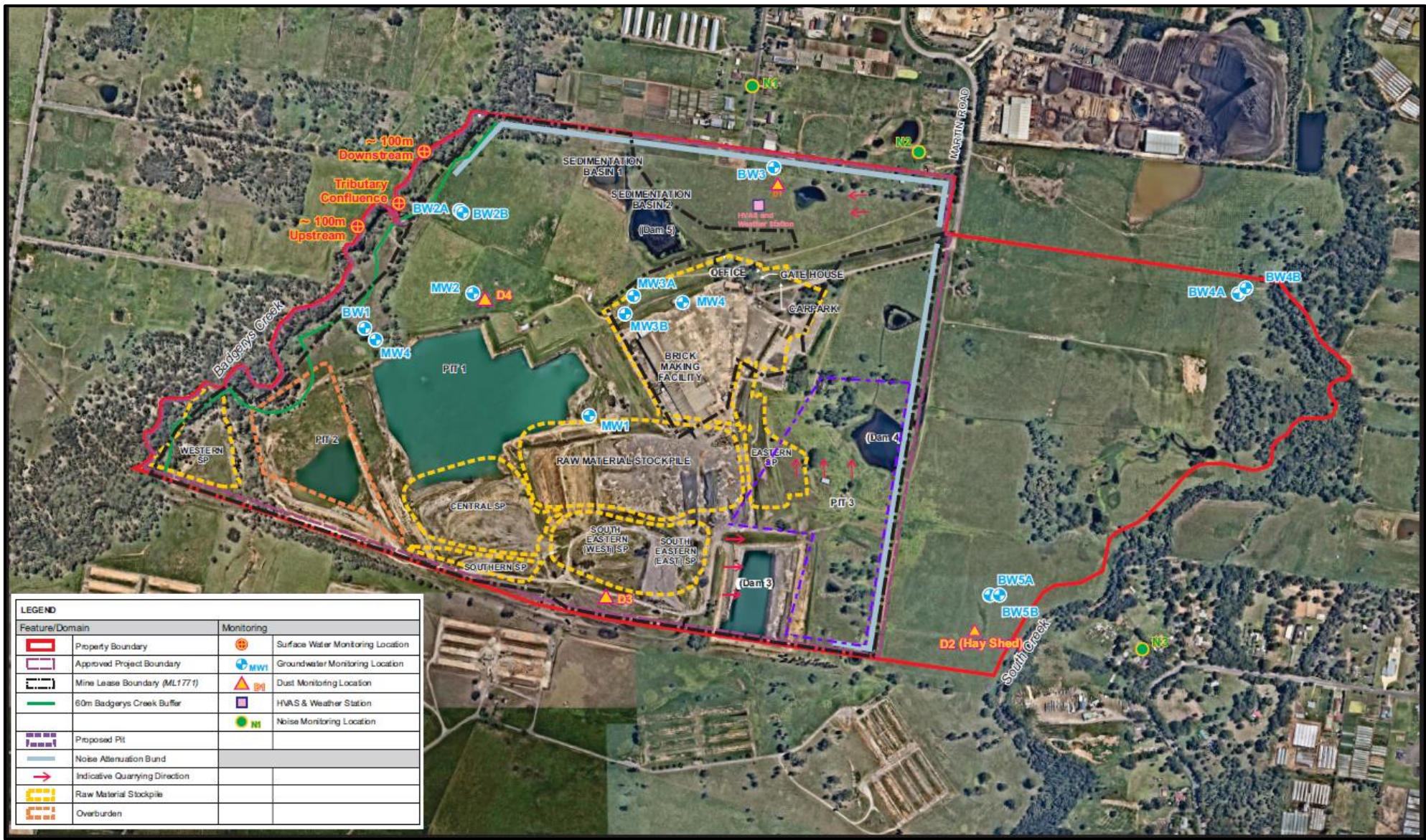
# FIGURE 2 - PROJECT LAYOUT PLAN

Figure 1  
Overview of Preferred Project

CSR ADVANCED MANUFACTURING HUB  
Modification 3 and 4



**FIGURE 3 - ENVIRONMENTAL MONITORING POINTS**





# Appendix B

## Evidence of Consultation

**From:** [Tim Smith](#)  
**To:** [Elbarbary, Monique](#)  
**Cc:** [Arancibia, Nelma](#); [Planning and Safeguarding](#); [Kirk Osborne](#)  
**Subject:** [SEC=OFFICIAL] RE: Major Projects - Badgerys Creek Quarry & Brickworks - Traffic Management Plan (MP10\_0014-PA-27) (WSA)  
**Date:** Thursday, 2 February 2023 9:07:13 AM

---

[EXTERNAL]

## OFFICIAL

Hi Monique,

Confirming that WSA has no comments in relation to the below Air Quality Management Plan.

Kind regards,

Tim

**Tim Smith**  
Planning Manager  
Airport Planning and Design

+61 429 008 963  
[tsmith@wsaco.com.au](mailto:tsmith@wsaco.com.au)  
PO Box 397 Liverpool NSW 1871



## OFFICIAL

---

**From:** Elbarbary, Monique <MELBARBARY@csr.com.au>  
**Sent:** Wednesday, 1 February 2023 1:18 PM  
**To:** Tim Smith <tsmith@wsaco.com.au>; Kirk Osborne <kosborne@wsaco.com.au>  
**Cc:** Arancibia, Nelma <NARANCIBIA@csr.com.au>; Planning and Safeguarding <planning@wsaco.com.au>  
**Subject:** RE: Major Projects - Badgerys Creek Quarry & Brickworks - Traffic Management Plan (MP10\_0014-PA-27) (WSA)

Good afternoon Tim and Kirk,

The attached is the Air Quality Management Plan that has been developed to comply with MP10\_0014 Badgerys Creek Quarry & Brickworks Schedule 3, Condition of Consent 13.

This plan is submitted to Western Sydney Airport (WSA) for the purpose of consultation.

Please provide a response by Friday 28<sup>th</sup> February 2023.

Regards,

Monique Elbarbary | Development Manager

CSR Limited

39 Delhi Rd Level 6, North Ryde, NSW, 2113, Australia

T: +61 2 9964 1149 | M: +61 403 121 193 | E: [MELBARBARY@csr.com.au](mailto:MELBARBARY@csr.com.au)

[www.csr.com.au](http://www.csr.com.au)

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# Appendix C

Approved EMS Section 9.5

## 9.5 *Incident and Non-compliance Reporting*

For the purposes of this EMS, an ‘incident’ is an occurrence or set of circumstances that:

- causes or threatens to cause material harm to the environment; and/or
- breaches or exceeds the limits or performance measures/criteria in the Project Approval

A ‘non-compliance’ is an occurrence, set of circumstances or development that is a breach of the Project Approval.

Common types of environmental incidents include:

- sewage spills (to land or to water)
- hydrocarbon spills (to land or to water)
- sediment discharge (to land or to water)
- unexpected finds (cultural heritage); and
- damage to heritage items or protected flora and fauna.

Possible non-compliances include non-compliance with the management measures outlined in this EMS, and mitigation strategies/ management measures outlined in the management plans.

Where detected, any non-compliance or environmental impact exceeding specified limits are investigated by the Environmental Advisor to determine the extent of possible non-conformance. The non-compliance is corrected as soon as possible with necessary action taken to prevent recurrence.

All non-compliances are reported and clearly identify the corrective/ preventative actions to be taken and the close-out date.

### 9.5.1 **Responsibility**

The Site Manager is responsible for ensuring that the appropriate management response and handling procedures are instigated and carried through in the event of an incident and/or non-compliance. All employees, contractors and subcontractors are to:

- Notify the Site Manager of any hazard or potential hazard that may result in an incident and/or non-compliance, regardless of the nature or scale; and
- Take immediate action (where it is safe to do so) to prevent, stop, contain and/or minimise any adverse impact associated with an incident and/or non-compliance.

The induction and toolbox talks will be used to ensure all site employees, contractors and subcontractors are aware of and understand their obligations for incident and/or non-compliance response.

### 9.5.2 **Notification Requirements**

#### 9.5.2.1 **Incidents**

Section 147 of the POEO Act defines material harm as:

(a) harm to the environment is material if:

(i) it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or

(ii) it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000 (or such other amount as is prescribed by the regulations), and

(b) loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.

Notification responsibilities for incidents that have caused or threaten to cause material harm to the environment are detailed in Section 148 of the POEO Act. In summary, these are broadly categorised as:

#### **Duty of an employee or any person undertaking an activity:**

Any person engaged as an employee or undertaking an activity with regard to the project will, immediately after becoming aware of any potential incident (even if outside of normal business hours), notify the Site Manager of the incident and all relevant information about it. The Site Manager will be available 24 hours a day, seven days a week and have the authority to stop or direct works.

#### **Duty of an employer or occupier of the premises to notify:**

The employer or occupier of the premises (in this case, the Site Manager) on which the incident occurred, who is notified (or otherwise becomes aware of) of the incident, will immediately notify the relevant authorities about the incident and all relevant information.

Under the POEO Act, “relevant authority” means any of the following:

- The appropriate regulatory authority – DPI&E and/or the EPA;
- If DPI&E an/or the EPA is not the appropriate regulatory authority – the local authority for the area in which the pollution incident occurs (i.e. Council);
- NSW Public Health Unit;
- SafeWork NSW; and
- Fire and Rescue NSW.

Table 21 lists the contact details for these authorities. The person reporting the pollution incident will provide the following key details:

- Location of the pollution incident/emergency;
- Nature of the pollution incident/emergency;
- Their name and contact details; and
- Details of any required assistance.

Table 21 Relevant authorities

	Contact	Details
DPI&E	Compliance Unit	1300 305 695 or 02 9228 6111 compliance@planning.nsw.gov.au
EPA	Environment Line	131 555 info@environment.nsw.gov.au
	Head office (Sydney)	02 9995 5000
Liverpool City Council	Main switchboard	1300 36 2170
NSW Public Health Unit	Western Sydney Local Health District	(02) 8890 5555
SafeWork NSW	Incident Notification Hotline	131 050 Select Option 3 to report a “Serious Incident or Fatality” – this will result
		in the incident being recorded and the appropriate person being contacted.
Emergency Services	NSW Police NSW Fire and Rescue NSW Ambulance Service	131 444 1300 729 579 Emergency: 000
Division of Resources and Geosciences, Mine Safety and/or Environment Sustainability Unit		1300 814 609 cau@planning.nsw.gov.au
Community Consultation Committee		TBC

Once becoming aware of an incident, CSR will immediately (within 24 hours) notify the DPI&E, via the Major Projects website, and other relevant agencies if an incident, or potential incident, causes (or may cause) harm to the environment. The notification must identify the development (including the development application number and the name of the development if it has one) and set out the location and nature of the incident.

### 9.5.2.2 Non-compliances

DPI&E will be notified via the Major Projects website within seven days of becoming aware of any non-compliance.

A non-compliance notification will identify the development and the application number for it, set out the condition of consent that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.

A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.

### 9.5.3 Incidents and non-compliance procedure

Upon becoming aware of an incident and/or non-compliance, the procedure outlined below will be followed.

#### 1. Preventative action

Where possible and safe to do so, immediate action will be taken to prevent, stop, contain and/or minimise the environmental impact of the incident and/or non-compliance.

In the unlikely event that an incident and/or non-compliance requires the evacuation of the site, actions will be completed in accordance with evacuation procedures. All employees and contractors are to be made aware of the location of emergency assembly areas through site inductions, signage and regular toolbox talks.

#### 2. Assistance

If adequate internal resources are not available and the incident and/or non-compliance threatens public health, property or the environment, it is essential that Fire and Rescue NSW be contacted by telephoning “000” for emergency assistance.

Contacting Fire and Rescue NSW does not negate the notification requirements in the above table.

#### 3. Notify

Under the provisions of the POEO Act, there is a duty to notify any incident that has caused or threatens to cause material harm to the environment and all relevant information about the incident. The specific duties to notify are outlined above.

If there is a serious incident or emergency, it is more than likely that Fire and Rescue NSW will take control and manage the required investigation and remedial activities. Any instructions issued will be strictly adhered to.

DPI&E and other relevant authorities be provided with a written incident notification via the Major Projects website within 24 hours after the incident.

A written notification will:

- Identify the development and application number;
- Provide details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident);
- Identify how the incident was detected;
- Identify when the Applicant became aware of the incident;
- Identify any actual or potential non-compliance with conditions of consent;
- Describe what immediate steps were taken in relation to the incident;
- Identify further action(s) that will be taken in relation to the incident; and
- Identify a project contact for further communication regarding the incident.
- Non-compliances will be notified in accordance with Section 9.2.2.2.

#### 4. Investigate

Immediately investigate the cause of the incident and/or non-compliance.

#### 5. Remedial action

Address the cause of the incident and/or non-compliance and mitigate any further environmental impact. In some instances, outside resources such as specialist contractors/consultants may be required.

#### 6. Record

It is imperative that an honest assessment of the situation is carried out and documented in order to minimise the potential for similar events in the future. On this basis, every incident is to be recorded in an Incident Report. A copy of the completed report will be maintained for at least five years.

A detailed incident report be provided to the DPI&E within 30 days of the incident occurring.

The detailed incident report will include:

- A summary of the incident.
- Outcomes of an incident investigation, including identification of the cause of the incident.
- Details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence.
- Details of any communication with other stakeholders regarding the incident.
- All non-compliances are recorded.

#### 7. Preventative action

Once the incident and/or non-compliance has been suitably handled, appropriate measures will be identified and implemented to reduce the possibility of re-occurrence.

#### 9.5.4 Incidents and non-compliance register

An Incidents and Non-Compliance Register will be maintained and will contain the following:

- A copy of the environmental incident and non-compliance notification requirements and handling procedure described above.
- Site evacuation procedures.
- A separate reference sheet containing the contact details for the site contacts and the contact details for the regulatory authorities listed in Section 9.2.2.
- Blank hard copies of the Incident Report.
- Copies of all completed Incident Reports which are to be maintained for at least five years after the event to which they relate.

#### 9.5.5 Minor environmental incidents

There is the possibility of minor environmental incidents occurring as part of this project. A 'minor environmental incident' is where there has been no potential or actual material harm to the environment. Examples are excessive dust sighted by the project team or a small contained hydrocarbon spill that does not leave a site boundary and are cleaned up without residual on-site environmental harm.

Minor environmental incidents will still be handled under the process outlined in Section 9.2.3 except there will be no requirement for government notification. All minor or major incidents will be recorded in the Incidents and Non-Compliance Register. A minor incident does not constitute a non-compliance with the Project Approval.

#### 9.5.6 Incident reporting

Within 7 days following the incident or non-compliance, an Incident Report will be submitted to the above stakeholders including the following information:

- Time and date of the incident;
- Details of the incident and/or non-compliance (including the condition and instrument breached);
- Measures implemented, or to be implemented to ensure the event ceases and to prevent a re-occurrence;
- Remediation options to be implemented and/or any other course of action taken or to be taken.

EPA and MEG require notification on specific forms that can be found on the relevant websites.

Where the incident relates to an exceedance of monitoring criteria, the results of the monitoring will be supplied to the affected landowners for the following three months as a minimum and until the results are again compliant. If the exceedance relates to an air quality criteria, the affected landowners and current tenants will be supplied with a copy of the NSW Health Fact Sheet "Mine Dust and You".