

## **APPENDIX B – CONDITIONS OF APPROVAL**

---

# Project Approval

## Section 75J of the *Environmental Planning & Assessment Act 1979*

I approve the project referred to in Schedule 1, subject to the conditions in Schedules 2 to 5.

These conditions are required to:

- prevent, minimise, and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the on-going environmental management of the project.

Kristina Keneally MP  
**Minister for Planning**

Sydney

2009

### **SCHEDULE 1**

<b>Application No.:</b>	05_0137
<b>Proponent:</b>	Somersby Fields Partnership (Vulcan Materials)
<b>Approval Authority:</b>	Minister for Planning
<b>Land:</b>	Lot 41 DP 1046841 and Lot 1 DP 3302768, Peats Ridge Road Somersby
<b>Project:</b>	Somersby Fields Sand Project

## TABLE OF CONTENTS

<b>DEFINITIONS</b>	<b>3</b>
<b>ADMINISTRATIVE CONDITIONS</b>	<b>4</b>
Obligation to Minimise Harm to the Environment	4
Terms of Approval	4
Limits on Approval	4
Management Plans/Monitoring Programs	4
Structural Adequacy	4
Demolition	5
Protection of Public Infrastructure	5
Operation of Plant and Equipment	5
Road Maintenance Contributions	5
<b>ENVIRONMENTAL PERFORMANCE CONDITIONS</b>	<b>6</b>
Acquisition of Affected Properties	6
General Extraction and Processing Provisions	6
Noise	6
Air Quality	8
Meteorological Monitoring	9
Surface and Ground Water	9
Rehabilitation and Landscape Management	10
Aboriginal Heritage	12
Traffic and Transport	12
Visual	12
Waste Management	13
Emergency and Hazards Management	13
Production Data	13
<b>ADDITIONAL PROCEDURES</b>	<b>14</b>
Notification of Landowners	14
Independent Review	14
Land Acquisition	14
<b>ENVIRONMENTAL MANAGEMENT AND MONITORING CONDITIONS</b>	<b>16</b>
Environmental Management Strategy	16
Environmental Monitoring Program	16
Incident Reporting	16
Annual Reporting	16
Independent Environmental Audit	16
Community Consultative Committee	17
Access to Information	17
<b>APPENDIX 1: PROJECT LAYOUT PLANS</b>	<b>18</b>
<b>APPENDIX 2: STATEMENT OF COMMITMENTS</b>	<b>20</b>
<b>APPENDIX 3: RECEIVER LOCATION PLAN</b>	<b>33</b>
<b>APPENDIX 4: REHABILITATION PLAN AND OFFSET STRATEGY</b>	<b>34</b>
<b>APPENDIX 5: INDEPENDENT DISPUTE RESOLUTION PROCESS</b>	<b>37</b>

## DEFINITIONS

AEMR	Annual Environmental Management Report
BCA	Building Code of Australia
CCC	Community Consultative Committee
Council	Gosford City Council
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
DECC	Department of Environment and Climate Change
Department	Department of Planning
Director-General	Director-General of Department of Planning, or delegate
DPI	Department of Primary Industries
DWE	Department of Water and Energy
EA	Environmental Assessment titled <i>Environmental Assessment of the Somersby Fields Project</i> (3 volumes), dated May 2007, including the responses to submissions
EEC	Endangered Ecological Community as defined under the NSW <i>Threatened Species Conservation Act 1995</i>
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPL	Environment Protection Licence issued by DECC under the <i>Protection of the Environment Operations Act 1997</i>
Evening	The period from 6pm to 10pm
Land	Land means the whole of a lot, or contiguous lots owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this approval
Minister	Minister for Planning, or delegate
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
Offset Strategy	The conservation and enhancement program described in the EA
Panel	Independent Hearing and Assessment Panel for the project
Panel report	The Panel's report for the project, dated July 2008
Privately owned land	Land that is not owned by a public agency (excluding Somersby Public School and the DPI Somersby Field Station), or a quarry company (or its subsidiary). <i>Note: For the purposes of this approval, Somersby Public School and the DPI Somersby Field Station are included within the definition of privately owned land.</i>
Project	The development as described in the EA
Proponent	Somersby Fields Partnership (Vulcan Materials), or its successors
Quarrying Operations	Includes all sand extraction, processing, and related transportation activities carried out on site
Reasonable and Feasible	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements. Feasible relates to engineering considerations and what is practical to build
Response to Submissions	The Proponent's response to issues raised in submissions, including those titled: <i>Response to Government Agency Submissions and Non-Confidential Public Submissions</i> , dated February 2008; and <i>Response to Government Agency Submissions and Non-Confidential Public Submissions Regarding Ecological Issues and Biodiversity Offsets</i> , dated April 2008
RTA	Roads and Traffic Authority
Site	The land referred to in Schedule 1
Statement of Commitments	The Proponent's commitments in Appendix 2

## **SCHEDULE 2 ADMINISTRATIVE CONDITIONS**

### **Obligation to Minimise Harm to the Environment**

1. The Proponent shall implement all reasonable and feasible measures to prevent or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the project.

### **Terms of Approval**

2. The Proponent shall carry out the project generally in accordance with the:
  - (a) EA;
  - (b) statement of commitments; and
  - (c) conditions of this approval.

*Notes:*

- The general layout of the project is shown in Appendix 1;
- The statement of commitments is reproduced in Appendix 2.

3. If there is any inconsistency between the above, the conditions of this approval shall prevail to the extent of the inconsistency.
4. The Proponent shall comply with any reasonable requirement/s of the Director-General arising from the Department's assessment of:
  - (a) any reports, plans, programs or correspondence that are submitted in accordance with this approval; and
  - (b) the implementation of any actions or measures contained in these reports, plans, programs or correspondence.

### **Limits on Approval**

5. The Proponent shall not carry out any extraction beyond Stage 1/6 of the quarry, and Stage 1/9 of the quarry, without the written approval of the Director-General. In seeking this approval, the Proponent shall submit a report to the Director-General that has been prepared in consultation with the CCC and relevant government authorities. The report shall include:
  - (a) details of the proposed quarrying operations beyond Stage 1/6 and Stage 1/9;
  - (b) results of consultation conducted during preparation of the report;
  - (c) consideration of the environmental impacts of continued quarrying operations; and
  - (d) a detailed justification for the continued operations, based on the environmental performance of the project to date (and the findings of the completed Independent Environmental Audits, as required by condition 6 of schedule 5).

The Director-General will not unreasonably withhold approval to continue quarrying operations if the Proponent is able to demonstrate an acceptable level of existing environmental performance and that the continued operations will not exceed the predictions in the EA.

*Note: The project staging is shown in Appendix 1.*

6. Subject to approval under condition 5 above, quarrying operations may take place until 30 June 2028.

*Note: Under this approval, the Proponent is required to rehabilitate the site and provide offsets to the satisfaction of the Director-General. Consequently this approval will continue to apply in all other respects other than the right to conduct quarrying operations until the site has been rehabilitated and the offset provided to a satisfactory standard.*

7. The Proponent shall not transport more than 450,000 tonnes of product from the site in a year.

### **Management Plans/Monitoring Programs**

8. With the approval of the Director-General, the Proponent may submit any management plan or monitoring program required by this approval on a progressive basis.

### **Structural Adequacy**

9. The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.

*Notes:*

- Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works;
- Part 8 of the EP&A Regulation sets out the requirements for the certification of the project.

**Demolition**

10. The Proponent shall ensure that all demolition work is carried out in accordance with AS 2601-2001: *The Demolition of Structures*, or its latest version.

**Protection of Public Infrastructure**

11. The Proponent shall:
- (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the project; and
  - (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the project.

**Operation of Plant and Equipment**

12. The Proponent shall ensure that all plant and equipment used at the site is:
- (a) maintained in a proper and efficient condition; and
  - (b) operated in a proper and efficient condition.

**Road Maintenance Contributions**

13. The Proponent shall pay Council a contribution of 1.5 cents per tonne of material trucked from the site for the maintenance and repair of public roads affected by the project. The contribution amount shall be adjusted every 3 years from the date of this approval to account for the effects of inflation (Consumer Price Index).

## SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS

### ACQUISITION OF AFFECTED PROPERTIES

#### Acquisition Upon Request

1. Upon receiving a written request for acquisition from the owner of the land listed in Table 1, the Proponent shall acquire the land in accordance with the procedures in conditions 7-9 of schedule 4.

*Table 1: Land subject to acquisition upon request*

33/N – Daniel

*Note: To interpret the location referred to Table 1, see the figure in Appendix 3.*

### GENERAL EXTRACTION AND PROCESSING PROVISIONS

#### Identification of Boundaries

2. Prior to carrying out any development on site, or as otherwise agreed by the Director-General, the Proponent shall:
  - (a) engage an independent registered surveyor to survey the boundaries of the approved limit of extraction;
  - (b) submit a survey plan of these boundaries to the Director-General; and
  - (c) ensure that these boundaries are clearly marked at all times in a permanent manner that allows operating staff and inspecting officers to clearly identify those limits.

*Note: The limit of extraction is shown on the plan in Appendix 1.*

### NOISE

#### Impact Assessment Criteria

3. The Proponent shall ensure that the noise generated by the quarrying operations does not exceed the noise impact assessment criteria in Table 2.

*Table 2: Noise Impact Assessment Criteria dB(A) L<sub>Aeq</sub> (15min)*

<b>Location</b>	<b>Day</b>	<b>Evening</b>	<b>Night</b>	<b>Night (L<sub>A1</sub> (1 min))</b>
O. Somersby Public School	43	n/a	n/a	n/a
B. DPI (planned) residence	38	35	35	45
E. Scott residence	35	35	35	45
H. Weller residence	35	35	35	45
I. Thompson & Jarvis resid.	36	35	35	45
N. Daniel residence	50	35	35	45
R. Coachwood Nurseries	35	35	35	45
S. Studds residence	40	35	36	45
V. Douglass residence	42	35	35	45
Y. Sultana residence	37	35	35	45

**Notes:**

- To interpret the locations referred to Table 2, see the figure in Appendix 3.
- Noise generated by the project is to be measured in accordance with the relevant requirements of the NSW Industrial Noise Policy.
- The noise limits do not apply if the Proponent has an agreement with the relevant owner/s of these residences/land to generate higher noise levels, and the Proponent has advised the Department in writing of the terms of this agreement.
- The noise limits for the Daniel residence apply whilst the property remains privately owned.

#### Cumulative Noise Criteria

4. The Proponent shall take all reasonable and feasible measures to ensure that the noise generated by the quarrying operations combined with the noise generated by other extractive industries does not exceed the following amenity criteria on any privately owned land, to the satisfaction of the Director-General:

- $L_{Aeq(11 \text{ hour})}$  50 dB(A) – Day;
- $L_{Aeq(4 \text{ hour})}$  45 dB(A) – Evening; and
- $L_{Aeq(9 \text{ hour})}$  40 dB(A) – Night.

Note: Cumulative noise is to be measured in accordance with the relevant procedures in the NSW Industrial Noise Policy.

#### Traffic Noise Impact Assessment Criteria

- The Proponent shall take all reasonable and feasible measures to ensure that the traffic noise generated by the project (after commencement of quarrying operations) does not exceed the traffic noise impact assessment criteria in Table 3:

Table 3: Traffic noise criteria dB(A)  $L_{Aeq(1 \text{ hour})}$

Road	Day/Evening	Night
Peats Ridge Road	60	55

Note: Traffic noise generated by the project is to be measured in accordance with the relevant procedures in the DECC's Environmental Criteria for Road Traffic Noise.

#### Operating Hours

- The Proponent shall comply with the operating hours in Table 4:

Table 4: Operating Hours

Activity	Day	Time
Construction work	Monday – Friday	7.00am to 6.00pm
	Saturday	8.00am to 1.00pm
	Sunday and Public Holidays	None
Quarrying Operations (other than transportation)	Monday – Saturday	7.00am to 6.00pm
	Sunday and Public Holidays	None
Product Transportation	Monday – Friday	5.00am to 10.00pm
	Saturday	5.00am to 4.00pm
	Sunday and Public Holidays	None

#### Notes:

- Product transportation prior to 7.00am and after 6.00pm is restricted as per condition 32 below.
- Maintenance activities may be conducted outside the hours in Table 3 provided that the activities are not audible at any residence beyond the boundary of the site.
- This condition does not apply to delivery of material if that delivery is required by police or other authorities for safety reasons, and/or the operation or personnel or equipment are endangered. In such circumstances, notification is to be provided to DECC and the affected residents as soon as possible, or within a reasonable period in the case of emergency.

#### Additional Noise Mitigation Measures

- The Proponent shall:
  - construct the far-western earth mound and acoustic barrier during school holidays and prior to the commencement of quarrying operations (other than extraction required for construction of the earth mound); and
  - construct the north-eastern acoustic barrier prior to undertaking other site establishment and construction activities in this area of the site (apart from works necessary to service the construction of the acoustic barrier), and prior to the commencement of extraction activities on site.

The acoustic barriers shall be designed to enable fauna movement through the barrier, unless such a design compromises the noise impact assessment criteria being able to be met.

- Upon receiving a written request from the landowner of the land in Table 1 (unless the landowner has requested acquisition), the Proponent shall implement additional noise mitigation measures such as double glazing, insulation, and/or air conditioning at any residence on the land in consultation with the landowner.

These additional mitigation measures must be reasonable and feasible.

If within 3 months of receiving this request from the landowner, the Proponent and the landowner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Director-General for resolution.



## Continuous Improvement

9. The Proponent shall:
- implement all reasonable and feasible best practice noise mitigation measures;
  - investigate ways to reduce the noise generated by the project; and
  - report on these investigations and the implementation and effectiveness of these measures in the AEMR,
- to the satisfaction of the Director-General.

## Noise Monitoring

10. The Proponent shall prepare and implement a detailed Noise Monitoring Program for the project to the satisfaction of the Director-General. This program must:
- be prepared in consultation with DECC, and be submitted to the Director-General for approval prior to carrying out any development on site; and
  - include:
    - a combination of real-time and supplementary attended monitoring measures (including monitoring at the first floor classrooms at Somersby Public School);
    - a noise monitoring protocol for evaluating compliance with the relevant noise limits in this approval; and
    - an early warning alert system for Somersby Public School, including a protocol for relocating, modifying, and/or stopping quarrying operations as required where real-time monitoring results approach the relevant noise limits.

## AIR QUALITY

### Impact Assessment Criteria

11. The Proponent shall ensure that the dust emissions generated by the project do not cause additional exceedances of the air quality impact assessment criteria listed in Tables 5, 6, 7 and 8 at any residence on privately owned land, or on more than 25 percent of any privately owned land.

Table 5: Long term impact assessment criteria for particulate matter

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

Table 6: Short term impact assessment criterion for particulate matter

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

Table 7: Long term impact assessment criteria for deposited dust

<b>Pollutant</b>	<b>Averaging period</b>	<b>Maximum increase in deposited dust level</b>	<b>Maximum total deposited dust level</b>
Deposited dust	Annual	2 g/m <sup>2</sup> /month	4 g/m <sup>2</sup> /month

Note: Deposited dust is 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.

Table 8: Impact assessment criterion for crystalline silica

<b>Pollutant</b>	<b>Unit</b>	<b>Criterion</b>
Chronic Reference Exposure Level (REL) (PM <sub>2.5</sub> )	µg/m <sup>3</sup>	3

Note: Crystalline silica must be analysed in accordance with a test method approved by the Department of Health.

### Operating Conditions

12. 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;
  - ensure that the real-time air quality monitoring and meteorological monitoring data are assessed regularly, and that quarrying operations are relocated, modified and/or stopped as required to ensure compliance with the relevant air quality criteria; and
  - implement all reasonable and feasible measures to minimise dust emissions generated by the project,
- to the satisfaction of the Director-General.

### Air Quality Monitoring

13. The Proponent shall prepare and implement a detailed Air Quality Monitoring Program for the project to the satisfaction of the Director-General. This program must:
- be prepared in consultation with DECC, and be submitted to the Director-General for approval prior to carrying out any development on site; and
  - include:
    - a combination of real-time monitors, high volume samplers and dust deposition gauges to monitor the dust emissions of the project;
    - an air quality monitoring protocol for evaluating compliance with the relevant air quality criteria in this approval; and
    - an early warning alert system for Somersby Public School, including a protocol for relocating, modifying, and/or stopping quarrying operations as required where real-time monitoring results approach the relevant air quality criteria in this approval.

### METEOROLOGICAL MONITORING

14. 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.

### SURFACE AND GROUND WATER

#### Discharges

15. The Proponent shall not discharge any water from the quarry or its associated operations, except as may be expressly provided by an EPL.

#### Compensatory Water Supplies

16. The Proponent shall provide compensatory water supplies to:
- Somersby Public School and the Ozbaglar properties, at the request of the landowner; and
  - any landowner where monitoring indicates that the project is causing a reduction in pumping yield from bores or springs of more than 10%,
- to the satisfaction of the Director-General.

The compensatory water supply measures must provide an alternative long-term supply of water that is equivalent to the loss attributed to the project.

If within 3 months of receiving a request from the landowner, the Proponent and the landowner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Director-General for resolution.

At least 3 months prior to starting quarrying operations on site, the Proponent shall notify the Somersby Public School and the Ozbaglars that they are entitled to compensatory water supplies.

Note: To interpret the location of the Ozbaglar property, see the figure in Appendix 3.

## Site Water Management Plan

17. The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Director-General. This plan must:
- (a) be prepared in consultation with DWE and DECC, and be submitted to the Director-General for approval prior to carrying out any development on site; and
  - (b) include a:
    - Site Water Balance;
    - Erosion and Sediment Control Plan;
    - Surface Water Monitoring Program;
    - Ground Water Monitoring Program; and
    - Surface and Ground Water Response Plan.

*Note: The plan must be prepared in accordance with the recommendations of the Panel report and the Proponent's Statement of Commitments, unless otherwise authorised by the Director-General.*

18. The Site Water Balance must:
- (a) include details of:
    - sources and security of water supply;
    - water use on site;
    - water management on site;
    - any off-site water transfers;
    - reporting procedures; and
  - (b) investigate and describe measures to minimise water use by the project.
19. The Erosion and Sediment Control Plan must:
- (a) be consistent with the requirements of *Managing Urban Stormwater: Soils and Construction, Volume 1, 4<sup>th</sup> Edition, 2004* (Landcom);
  - (b) identify activities that could cause soil erosion and generate sediment;
  - (c) describe measures to minimise soil erosion and the potential for the transport of sediment to downstream waters;
  - (d) describe the location, function, and capacity of erosion and sediment control structures; and
  - (e) describe what measures would be implemented to maintain the structures over time.
20. The Surface Water Monitoring Program must include:
- (a) detailed baseline data on surface water flows and quality in creeks and other waterbodies that could potentially be affected by the project;
  - (b) surface water impact assessment criteria;
  - (c) a program to monitor surface water flows and quality;
  - (d) a protocol for the investigation, notification and mitigation of identified exceedances of the surface water impact assessment criteria; and
  - (e) a program to monitor the effectiveness of the Erosion and Sediment Control Plan.
21. The Ground Water Monitoring Program must include:
- (a) detailed baseline data on ground water levels and quality, based on statistical analysis;
  - (b) groundwater impact assessment criteria for monitoring bores and privately-owned bores;
  - (c) a program to monitor impacts on the groundwater supply of potentially affected landowners, groundwater dependent ecosystems, and on vegetation, including provision for continuous groundwater monitoring; and
  - (d) a protocol for the investigation, notification and mitigation of identified exceedances of the ground water impact assessment criteria.
22. The Surface and Ground Water Response Plan must include:
- (a) a protocol for the investigation, notification and mitigation of any exceedances of the surface and ground water impact assessment criteria;
  - (b) measures to mitigate and/or compensate potentially affected landowners, including provision of alternative long-term supply of water to the affected landowner that is equivalent to the loss attributed to the project; and
  - (c) the procedures that would be followed if any unforeseen impacts are detected during the project.

## REHABILITATION AND LANDSCAPE MANAGEMENT

### Rehabilitation and Offsets

23. The Proponent shall:
- (a) progressively rehabilitate the site in a manner that is generally consistent with the final landform in the EA (as reproduced in Appendix 4); and
  - (b) implement the biodiversity offset strategy described in Appendix 4, to the satisfaction of the Director-General.

## Long Term Security of Offsets

24. Within 2 years of the commencement of quarrying operations, the Proponent shall make suitable arrangements to provide appropriate long term security for the offset areas to the satisfaction of the Director-General.

*Note: The Department acknowledges that the arrangements may provide for staged or delayed implementation for the offset areas within the project disturbance area, in accordance with the extraction in this area.*

## Landscape Management Plan

25. The Proponent shall prepare and implement a Landscape Management Plan for the project to the satisfaction of the Director-General. This plan must:
- (a) be prepared in consultation with DECC and Council, and be submitted to the Director-General prior to the commencement of quarrying operations;
  - (b) include a:
    - Rehabilitation and Offset Management Plan; and
    - Quarry Closure Plan.

*Note: The Department accepts that the initial Landscape Management Plan may not include a detailed Quarry Closure Plan. However, the initial plan must include an outline and a timetable for completion of the detailed Quarry Closure Plan.*

## Rehabilitation and Offset Management Plan

26. The Rehabilitation and Offset Management Plan must include:
- (a) the rehabilitation objectives for the site, offsets and site landscaping;
  - (b) a description of the short, medium, and long term measures that would be implemented to rehabilitate the site and implement the offset strategy;
  - (c) detailed performance and completion criteria for the site rehabilitation and implementation of the offset strategy;
  - (d) a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for:
    - progressively rehabilitating disturbed areas;
    - implementing the offset strategy;
    - protecting vegetation and soil outside the disturbance areas;
    - rehabilitating drainage lines on the site;
    - undertaking pre-clearance surveys;
    - managing impacts on fauna;
    - landscaping the site to minimise visual impacts;
    - conserving and reusing topsoil;
    - collecting and propagating seed for rehabilitation works;
    - salvaging and reusing material from the site for habitat enhancement;
    - controlling weeds and feral pests;
    - controlling access; and
    - bushfire management;
  - (e) a program to monitor the effectiveness of these measures, and progress against the performance and completion criteria;
  - (f) a description of the potential risks to successful rehabilitation and/or revegetation, and a description of the contingency measures that would be implemented to mitigate these risks; and
  - (g) details of who would be responsible for monitoring, reviewing, and implementing the plan.

## Quarry Closure Plan

27. The Quarry Closure Plan must:
- (a) include provision for certification from a qualified geotechnical engineer that the final proposed landform is stable;
  - (b) define the objectives and criteria for closure of the quarry;
  - (c) investigate options for the future use of the site;
  - (d) describe the measures that would be implemented to minimise or manage the ongoing (post closure) environmental effects of the project; and
  - (e) describe how the performance of these measures would be monitored over time.

## Rehabilitation and Offset Bond

28. Within 3 months of the approval of the Landscape Management Plan, the Proponent shall lodge a rehabilitation and offset bond for the project with the Director-General. The sum of the bond shall be calculated at:
- \$2.50/m<sup>2</sup> for the area of new disturbance in each 3 year review period;
  - \$1.00/m<sup>2</sup> for the total area of land previously disturbed by the quarry; and

- \$1.00/m<sup>2</sup> for the on-site offset areas subject to vegetation enhancement (see plan in Appendix 4),  
or as otherwise directed by the Director-General.

*Notes:*

- *If the rehabilitation and offset strategy are completed to the satisfaction of the Director-General, the Director-General will release the bond.*
- *If the rehabilitation and/or offset strategy are not completed to the satisfaction of the Director-General, the Director-General will call in all or part of the bond, and arrange for the satisfactory completion of the relevant works.*

## **ABORIGINAL HERITAGE**

### **Aboriginal Site Conservation**

29. The Proponent shall protect and conserve the area within 30 metres of the eastern boundary, to the satisfaction of the Director-General.

### **Aboriginal Heritage Management Plan**

30. The Proponent shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Director-General. This plan must:
- (a) be submitted to the Director-General for approval prior to carrying out any development on site;
  - (b) include a:
    - a description of the measures that would be implemented to protect the eastern buffer area;
    - a description of the measures that would be implemented if any new Aboriginal objects or relics are discovered during the project; and
    - a protocol for the ongoing consultation and involvement of the Aboriginal communities in the conservation and management of Aboriginal cultural heritage on the site.

## **TRAFFIC AND TRANSPORT**

### **Intersection Upgrade**

31. The Proponent shall construct the site access intersection with Peats Ridge Road, to the satisfaction of Council and the RTA, prior to carrying out any development on site (other than on-site works necessary for the completion of these intersection works, and the construction of the far-western earth mound). The intersection design shall include measures (including physical design measures and signposting) to prevent trucks from turning left when exiting the site.

### **Traffic Restrictions**

32. The Proponent shall:
- (a) ensure that no project-related truck movements occur on Peats Ridge Road west of the site entrance; and
  - (b) restrict truck movements to a maximum of 12 per hour during the evening and night time periods unless otherwise approved by the Director-General.

### **Road Haulage**

33. The Proponent shall ensure that:
- (a) all loaded vehicles entering or leaving the site are covered; and
  - (b) all loaded vehicles leaving the site are cleaned of materials that may fall on the road, before they leave the site.

### **Parking**

34. The Proponent shall provide sufficient parking on-site for all project-related traffic, in accordance with Council's parking codes, and to the satisfaction of the Director-General.

## **VISUAL**

### **Visual Amenity**

35. The Proponent shall minimise the visual impacts of the project to the satisfaction of the Director-General.

### **Lighting Emissions**

36. The Proponent shall:
- (a) take all practicable measures to mitigate off-site lighting impacts from the project; and

- (b) ensure that all external lighting associated with the project complies with *Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting*, to the satisfaction of the Director-General.

### **Advertising**

- 37. The Proponent shall not erect or display any advertising structure(s) or signs on the site without the written approval of the Director-General.

*Note: This does not include traffic management and safety or environmental signs.*

### **WASTE MANAGEMENT**

#### **Waste Minimisation**

- 38. The Proponent shall minimise the amount of waste generated by the project to the satisfaction of the Director-General.

### **EMERGENCY AND HAZARDS MANAGEMENT**

#### **Dangerous Goods**

- 39. The Proponent shall ensure that the storage, handling, and transport of dangerous goods are conducted in accordance with the relevant *Australian Standards*, particularly AS1940 and AS1596, and the *Dangerous Goods Code*.

#### **Safety**

- 40. The Proponent shall secure the project to ensure public safety to the satisfaction of the Director-General.

#### **Bushfire Management**

- 41. The Proponent shall:
  - (a) ensure that the project is suitably equipped to respond to any fires on-site; and
  - (b) assist the rural fire service and emergency services as much as possible if there is a fire on-site.

### **PRODUCTION DATA**

- 42. The Proponent shall:
    - (a) provide annual production data to the DPI using the standard form for that purpose; and
    - (b) include a copy of this data in the AEMR.
-

## **SCHEDULE 4 ADDITIONAL PROCEDURES**

### **NOTIFICATION OF LANDOWNERS**

1. Within 1 month of the date of this approval, the Proponent shall notify the landowner of the land listed in Table 1 in writing that they have the right to require the Proponent to acquire their land at any stage during the project.
2. If the results of monitoring required in Schedule 3 identify that impacts generated by the project are greater than the relevant impact assessment criteria, then the Proponent shall notify the Director-General and the affected landowners and/or existing or future tenants (including tenants of quarry owned properties) accordingly, and provide quarterly monitoring results to each of these parties until the results show that the project is complying with the relevant criteria.

### **INDEPENDENT REVIEW**

3. If a landowner of privately owned land considers that the quarrying operations are exceeding the impact assessment criteria in Schedule 3, then he/she may ask the Director-General in writing for an independent review of the relevant impacts of the project on his/her land.

If the Director-General is satisfied that an independent review is warranted, the Proponent shall within 3 months of the Director-General advising that an independent review is warranted:

- (a) consult with the landowner to determine his/her concerns;
  - (b) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to conduct monitoring on the land, to determine whether the project is complying with the relevant criteria in Schedule 3, and identify the source(s) and scale of any impact on the land, and the project's contribution to this impact; and
  - (c) give the Director-General and landowner a copy of the independent review.
4. If the independent review determines that the quarrying operations are complying with the relevant criteria in Schedule 3, then the Proponent may discontinue the independent review with the approval of the Director-General.
  5. If the independent review determines that the quarrying operations are not complying with the relevant criteria in Schedule 3, and that the quarry is primarily responsible for this non-compliance, then the Proponent shall:
    - (a) implement all reasonable and feasible measures, in consultation with the landowner, to ensure that the project complies with the relevant criteria; and
    - (b) conduct further monitoring to determine whether these measures ensure compliance; or
    - (c) secure a written agreement with the landowner to allow exceedances of the relevant criteria in schedule 3,to the satisfaction of the Director-General.

If the additional monitoring referred to above subsequently determines that the quarrying operations are complying with the relevant criteria in Schedule 3, then the Proponent may discontinue the independent review with the approval of the Director-General.

If the Proponent is unable to finalise an agreement with the landowner, then the Proponent or landowner may refer the matter to the Director-General for resolution.

If the matter cannot be resolved within 21 days, the Director-General shall refer the matter to an Independent Dispute Resolution Process (see Appendix 5).

6. If the landowner disputes the results of the independent review, either the Proponent or the landowner may refer the matter to the Director-General for resolution.

If the matter cannot be resolved within 21 days, the Director-General shall refer the matter to an Independent Dispute Resolution Process (see Appendix 5).

### **LAND ACQUISITION**

7. Within 3 months of receiving a written request from a landowner with acquisition rights, the Proponent shall make a binding written offer to the landowner based on:
  - (a) the current market value of the landowner's interest in the property at the date of this written request, as if the property was unaffected by the project the subject of the project application, having regard to the:
    - existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and
    - presence of improvements on the property and/or any approved building or structure which has been physically commenced at the date of the landowner's written request,

and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of the 'additional noise mitigation measures' in condition 8 of schedule 3;

- (b) the reasonable costs associated with:
  - relocating within the Gosford local government area, or to any other local government area determined by the Director-General;
  - obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is required; and
- (c) reasonable compensation for any disturbance caused by the land acquisition process.

However, if at the end of this period, the Proponent and landowner cannot agree on the acquisition price of the land, and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Director-General for resolution.

Upon receiving such a request, the Director-General shall request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer or Fellow of the Institute, to consider submissions from both parties, and determine a fair and reasonable acquisition price for the land, and/or terms upon which the land is to be acquired.

Within 14 days of receiving the independent valuer's determination, the Proponent shall make a written offer to purchase the land at a price not less than the independent valuer's determination.

If the landowner refuses to accept this offer within 6 months of the date of the Proponent's offer, the Proponent's obligations to acquire the land shall cease, unless otherwise agreed by the Director-General.

- 8. The Proponent shall bear the costs of any valuation or survey assessment requested by the independent valuer, or the Director-General, and the costs of determination referred above.
  - 9. If the Proponent and landowner agree that only part of the land shall be acquired, then the Proponent shall pay all reasonable costs associated with obtaining Council consent for any plan of subdivision (where permissible), and registration of the plan at the Office of the Registrar-General.
-



## **SCHEDULE 5**

### **ENVIRONMENTAL MANAGEMENT AND MONITORING CONDITIONS**

#### **ENVIRONMENTAL MANAGEMENT STRATEGY**

1. The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Director-General. This strategy shall be submitted to the Director-General prior to carrying out any development on site, and must:
  - (a) provide the strategic context for environmental management of the project;
  - (b) identify the statutory requirements that apply to the project;
  - (c) describe in general how the environmental performance of the project would be monitored and managed;
  - (d) describe the procedures that would be implemented to:
    - keep the local community and relevant agencies informed about the construction, operation and environmental performance of the project;
    - receive, handle, respond to, and record complaints;
    - resolve any disputes that may arise during the life of the project;
    - respond to any non-compliance;
    - manage cumulative impacts; and
    - respond to emergencies; and
  - (e) describe the role, responsibility, authority, and accountability of the key personnel involved in the environmental management of the project.

#### **ENVIRONMENTAL MONITORING PROGRAM**

2. The Proponent shall prepare an Environmental Monitoring Program for the project to the satisfaction of the Director-General. This program must be submitted to the Director-General prior to carrying out any development on site, and consolidate the various monitoring requirements in Schedule 3 of this approval into a single document.

#### **INCIDENT REPORTING**

3. Within 24 hours of detecting an exceedance of the limits/performance criteria in this approval or the occurrence of an incident that causes (or may cause) material harm to the environment, the Proponent shall notify the Department and other relevant agencies of the exceedance/incident.
4. Within 6 days of notifying the Department and other relevant agencies of an exceedance/incident, the Proponent shall provide the Department and these agencies with a written report that must:
  - (a) describe the date, time, and nature of the exceedance/incident;
  - (b) identify the cause (or likely cause) of the exceedance/incident;
  - (c) describe what action has been taken to date; and
  - (d) describe the proposed measures to address the exceedance/incident.

#### **ANNUAL REPORTING**

5. Within 12 months of the commencement of construction activities, and annually thereafter, the Proponent shall submit an AEMR to the Director-General and relevant agencies. This report must:
  - (a) identify the standards and performance measures that apply to the project;
  - (b) describe the works carried out in the last 12 months, and the works that will be carried out in the next 12 months;
  - (c) include a summary of the complaints received during the past year, and compare this to the complaints received in previous years;
  - (d) include a summary of the monitoring results for the project during the past year;
  - (e) include an analysis of these monitoring results against the relevant:
    - impact assessment criteria/limits;
    - monitoring results from previous years; and
    - predictions in the EA;
  - (f) identify any trends in the monitoring results over the life of the project;
  - (g) identify any non-compliance during the previous year; and
  - (h) describe what actions were, or are being, taken to ensure compliance.

#### **INDEPENDENT ENVIRONMENTAL AUDIT**

6. Within 2 years of the date of the commencement of quarrying operations, and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:
  - (a) be conducted by a suitably qualified, experienced, and independent team of experts whose appointment has been approved by the Director-General;
  - (b) assess the environmental performance of the project, and its effects on the surrounding environment;

- (c) assess whether the project is complying with the relevant standards, performance measures and statutory requirements;
- (d) review the adequacy of any strategy/plan/program required under this approval; and, if necessary,
- (e) recommend measures or actions to improve the environmental performance of the project, and/or any strategy/plan/program required under this approval.

*Note: The audit team should include experts in the field of noise, air quality, water and flora and fauna impact assessment.*

- 7. Within 1 month of completion of each Independent Environmental Audit, the Proponent shall submit a copy of the audit report to the Director-General and relevant agencies, with a response to any of the recommendations in the audit report.
- 8. Within 3 months of submitting a copy of the audit report to the Director-General, the Proponent shall review and if necessary revise the:
  - (a) strategies/plans/programs required under this approval; and
  - (b) rehabilitation and offset bond, to consider the:
    - effects of inflation;
    - changes to the total area of disturbance; and
    - performance of the rehabilitation against the completion criteria of the Landscape Management Plan,
 to the satisfaction of the Director-General.

#### **COMMUNITY CONSULTATIVE COMMITTEE**

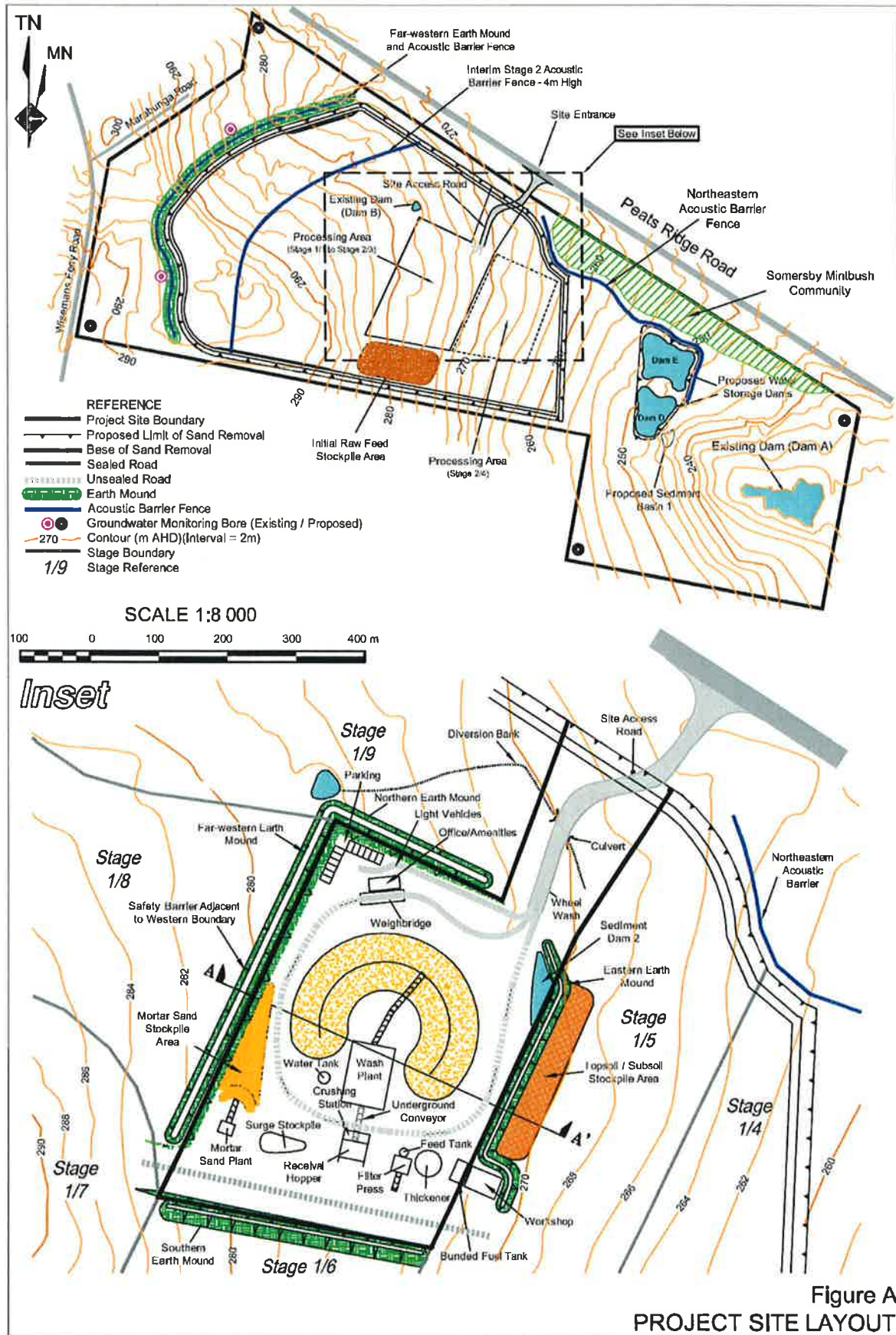
- 9. Prior to carrying out any development on the site, the Proponent shall establish a Community Consultative Committee (CCC) for the project to the satisfaction of the Director-General, in accordance with the Department's *Guideline for Establishing and Operating Community Consultative Committees for Mining Projects*.

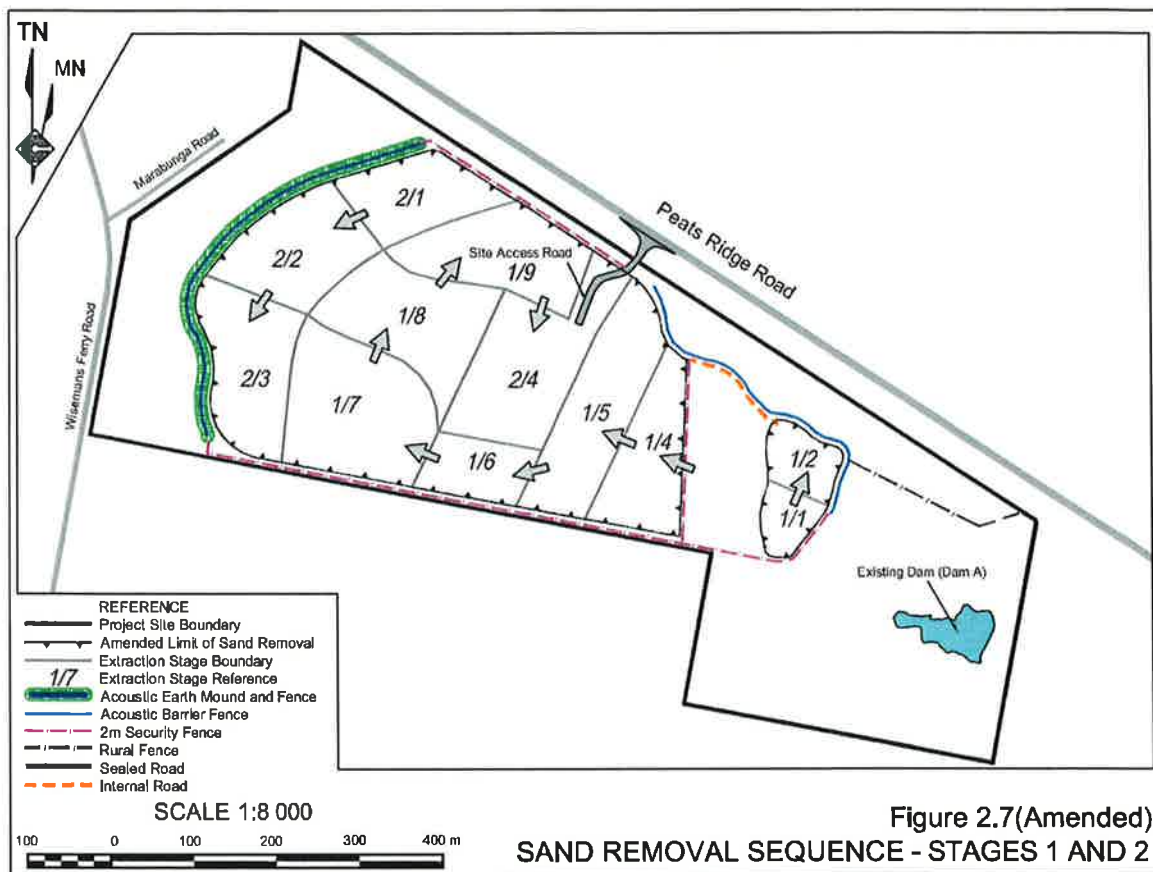
The CCC must include representation from the Somersby Public School, if available.

#### **ACCESS TO INFORMATION**

- 10. Within 1 month of the approval of any strategies/plans/programs required under this approval (or any subsequent revision of these strategies/plans/programs), or the completion of the audits or AEMR required under this approval, the Proponent shall:
  - (a) provide a copy of the relevant document/s to the relevant agencies and to members of the general public upon request; and
  - (b) ensure that a copy of the relevant document/s is made publicly available on its website and at the site.
- 11. During the project, the Proponent shall:
  - (a) make a summary of monitoring results required under this approval publicly available on its website and at the site; and
  - (b) update these results on a regular basis (at least every 3 months).

## APPENDIX 1 PROJECT LAYOUT PLANS





## APPENDIX 2 STATEMENT OF COMMITMENTS

**Table 2A**  
**Statement of Commitments for Site Operations and Management**

Desired Outcome	Action	Timing
<b>1. Area of Activities</b>		
All approved activities are undertaken in the area(s) nominated on the approved plans and figures.	1.1 The boundaries of the areas of sand removal will be surveyed and permanent markers placed at 50m intervals. Each marker will be numbered and its location recorded on the site layout plan.	Prior to any vegetation clearing within the sand removal areas.
	1.2 The locations of all security fencing and the far-western earth mound will be surveyed.	Prior to fence and earth mound construction.
	1.3 The centre line of the site access road will be surveyed and pegged.	Prior to construction of the site access road.
	1.4 The boundary of the processing area will be surveyed and pegged at 50m intervals.	Prior to the clearing of the processing area.
<b>2. Operating Hours – Site Establishment and Construction</b>		
Construction activities managed in accordance with the approved operating hours.	2.1 Earthmoving Activities: 7:00am to 6:00pm Monday to Friday. 8:00am to 1:00pm Saturday.	Continuous.
	2.2 Non-audible maintenance and equipment installation: 6:00am to 10:00pm Monday to Saturday.	Continuous.
	2.3 Construct the far-western earth mound and acoustic barrier during proclaimed school holidays only (see also Item 10.6).	Establishment of operations.
<b>3. Operating Hours – Operations</b>		
Operating hours of work managed in accordance with the approved consent conditions.	3.1 Sand removal and processing: 7:00am to 6:00pm Monday to Saturday.	Continuous
	3.2 Product transportation: 5:00am to 10:00pm Monday to Friday; 5:00am to 4:00pm Saturday.	Continuous
	3.3 Non-audible maintenance: 5:00am to 10:00pm Monday to Saturday.	Continuous
<b>4. Workforce Competencies and Training</b>		
All employees and contractors are trained and assessed as competent to undertake those activities influencing the environment.	4.1 All employees and contractors will be required to demonstrate competency for any task undertaken on site.	Prior to commencement of activity.
	4.2 In the event that the required level of competency has not been achieved, training would be provided or sought.	Following an assessment of competency.
<b>5. Waste Management</b>		
Manage fuel and oils on site to prevent leakage and soil contamination.	5.1 Install and maintain appropriately sized and designed bunds around all oil / fuel storages on site unless double-lined tanks are used.	During construction phase.
	5.2 Install concrete floors on all maintenance areas.	During construction phase.
	5.3 Collect all used oils in one location and employ a specialist collection / recycling contractor for such products.	Continuous.

**Table 2A (Cont'd)**  
**Statement of Commitments for Site Operations and Management**

Page 2 of 3

Desired Outcome	Action	Timing
<b>5. Waste Management (Cont'd)</b>		
Minimise general waste and recycle wherever possible.	5.4 Install separate containers for the collection of recyclable items and employ a recognised licenced recycling contractor for collection.	Continuous.
	5.5 Employ a licensed waste collection contractor for all general waste / garbage at least on a weekly basis.	Continuous.
<b>6. Bushfire Management</b>		
Manage the Project Site in a manner that minimises the risk of creating a bushfire or allowing a bushfire to travel through the site.	6.1 Install on site pumping facilities and appropriate hoses from Dam A for use in bushfire fighting.	During construction phase.
	6.2 Ensure that the Somersby Bushfire Brigade visits the site each year to be fully aware of water storage on site and access, if required for fire-fighting purposes.	Annually.
	6.3 Allow water in all dams to be used for bush fire fighting efforts.	Continuous.
	6.4 Ensure there is a permanent cleared zone around the processing plant and that all on-site mobile equipment are fitted with fire extinguishers maintained to the manufacturer's specifications.	During construction phase and ongoing.
	6.5 Ensure the entire site is a "No Smoking" area.	Continuous.
	6.6 Require, as a condition of employment, that there be "No Smoking" by employees, during employment hours and while on or in Company property.	As each person is employed.
	6.7 Construct and maintain a service vehicle accessway generally around the perimeter of the site.	As required.
	6.8 All fallen and lopped native trees will be placed on the ground within the fauna and flora conservation areas.	As required.
<b>7. Documentation</b>		
All operational procedures are documented to ensure consistency in implementation throughout the project life.	7.1 Operational procedures will be prepared for each site activity that could potentially impact upon the local environment.	All procedures would be compiled prior to the commencement of the nominated activity.
A systematic set of documents is in place to guide the planning and implementation of all necessary environmental strategies.	7.2 An environmental management strategy will be prepared to record the set of documents required throughout the life of the project and the trigger points for their preparation.	Prior to the commencement of site activities.
All operational procedures relevant to site establishment and construction activities are prepared.	7.3 Procedures manuals will be prepared relating to: <ul style="list-style-type: none"> <li>• Protection of Threatened Species;</li> <li>• Vegetation Clearing;</li> <li>• Soil Stripping and Stockpiling;</li> <li>• Operation of Earthmoving Equipment;</li> <li>• Installation of Sediment Controls;</li> <li>• Revegetation Activities;</li> <li>• Translocation of Threatened Species;</li> <li>• Hydrocarbon Management; and</li> <li>• Environmental Monitoring.</li> </ul>	Prior to commencement of nominated activity.



**Table 2A (Cont'd)**  
**Statement of Commitments for Site Operations and Management**

Page 3 of 3

Desired Outcome	Action	Timing
<b>7. Documentation (Cont'd)</b>		
All operational procedures relevant to site operations and product transportation are in place.	7.4 Procedures manuals will be prepared relating to: <ul style="list-style-type: none"> <li>• Site Security;</li> <li>• Operation of the Wash Plant;</li> <li>• Operation of the Mortar Sand Plant;</li> <li>• Operation of the Filter Press;</li> <li>• Placement of dewatered clay fines;</li> <li>• Rehabilitation;</li> <li>• Operation and Maintenance of the Wheel Wash Facility;</li> <li>• Fire fighting;</li> <li>• First aid;</li> <li>• Environmental Monitoring; and</li> <li>• Driver's Code of Conduct.</li> <li>• Maintenance, monitoring and data collection in relation to all environmental monitoring equipment.</li> </ul>	Prior to commencement of nominated activity.  Each manual would be reviewed and updated biennially.
An annual report is prepared for government agencies and the community.	7.5 The annual environmental management report will report on the activities and environmental monitoring conducted during the reporting period and the planned activities and environmental monitoring for the ensuing 12 months.	Submitted within 2 months of the completion of the reporting period.
Annual production data is provided to the Mineral Resources Division of the Department of Primary Industries.	7.6 Data recording the quantity and value of construction materials produced on site will be compiled on the form supplied.	Annually
A biannual newsletter regarding the project's progress and performance.	7.7 Compile a summary of each annual environmental management report for circulation as a newsletter to the local community.	Prepare and circulate at the time when the annual report is prepared and 6 months thereafter.
	7.8 A similar summary document will be prepared for the intermediate 6 month period.	Annually
A biannual newsletter regarding the project's progress and performance.	7.9 Each newsletter will be circulated to interested surrounding residents and posted on the Proponent's web site.	6 monthly
All insurance aspects.	7.10 Ensure all necessary insurance cover is in place.	Commencement and continuous.

**Table 2B**  
**Statement of Commitments for Management of Environmental Issues**

Page 1 of 9

Desired Outcome	Action	Timing
<b>8. Groundwater</b>		
Ongoing monitoring of groundwater throughout the life of the project and effective communication of results to land owners within 1km of the Project Site.	<p>8.1 Install, maintain and monitor four permanent groundwater monitoring wells generally at the locations shown on <b>Figure B</b> (in the EA)</p> <p>8.2 Establish baseline data for 15 representative bores on properties surrounding the project site.</p> <p>8.3 Provide all monitoring results to interested land owners within 1km of the Project Site together with a comparison of groundwater levels and those predicted on the groundwater computer model developed by RCA Australia (see Commitment 18.2).</p> <p>8.4 Communicate with any land owner who could be affected by the monitored groundwater saturation thickness if it is more than 10% below the level forecast in the groundwater computer model.</p>	<p>As part of the construction phase.</p> <p>Prior to the commencement of sand removal.</p> <p>Annually</p> <p>As required.</p>
Existing registered bores demonstrated to be affected by the project (see 8.6) are either deepened or re-drilled to provide a water supply comparable or better than from the existing bore.	<p>8.5 Maintain a water supply to Somersby Public School by providing an improved / deeper bore for the Department of Education and Training (or other agreed arrangements) to address the reduction of the saturated groundwater thickness at the bore on the Somersby School property. Other arrangements could include the supply of water from the Somersby Fields Site.</p> <p>8.6 Land owners whose registered bores are shown by monitoring to experience a reduction in saturated thickness of more than 10%, as a result of the project, will have their groundwater bore deepened and /or re-drilled.</p>	<p>Before construction phase commences.</p> <p>Progressively.</p>
Alternative sources of water are provided to those land owners with spring water flows that are adversely affected by the project.	8.7 Provide alternative water supply arrangements with all such land owners or other nominated compensation.	Written undertakings have already been provided to six land owners. The alternative water supply would be provided when monitoring results indicate that project activities have commenced influencing the integrity of the nominated spring.
Manage the impact of the project on groundwater and in a manner that minimises the effect on other land owners.	<p>8.8 Participate actively in the Somersby Plateau Cumulative Impacts Consultative Committee.</p> <p>8.9 Ensure final landform and revegetation is planned so that the long term predicted groundwater levels are achieved as soon as possible.</p>	<p>Continuous</p> <p>Continuous</p>
Note: Full details of all groundwater monitoring to be undertaken will be included in the Groundwater Management Plan for the project.		



**Table 2B (Cont'd)**  
**Statement of Commitments for Management of Environmental Issues**

Page 2 of 9

Desired Outcome	Action	Timing
<b>9. Surface Water</b>		
Maintain low flows beyond Dam A into the DPI Dam.	9.1 Construct a weir and install an overflow pipe to direct small surface flows around Dam A. These works are to be constructed with negligible removal of native vegetation in the vicinity of the works.	During the site establishment period.
Record baseline water quality.	9.2 Monitoring will include: Measurement of pH, EC, TSS, major cations/anions at representative surface water occurrences.	Prior to commencement of site establishment and construction.
Record water quality during site establishment and construction.	9.3 Monitoring will include: Measurement of pH, EC, TSS, Oil and Grease at overflow from Dam A.	Monthly / events.
Record water quality during life of operations.	9.4 Monitoring will include: Surface Water Quality: Measure pH, EC, TSS, Oil and Grease from overflow from Dam A.	Quarterly / events.
<b>10. Noise</b>		
Project is designed to minimise noise impact on all adjoining land owners.	10.1 On-site acoustic barriers and earth mounds will be constructed as per Appendix E of Part 7 of the <i>Specialist Consultant Studies Compendium</i> . The northeastern noise barrier will be designed to enable fauna passage through the fence (see Action 15.9) without compromising noise attenuation. 10.2 Enclose and operate the wash plant within a building. 10.3 Use alternative warning systems to reversing alarms on all on-site mobile plant. 10.4 Ensure that the best available technology and best management practices are used to minimise adverse acoustical impacts.	Far-western and Northeastern barriers - during the early stages of the construction phase. Mid-western barrier – prior to Stage 1/7. In the early stages of construction phase. Continuous Continuous
Construction phase will be planned and timed to minimise noise impacts on neighbours.	10.5 Acoustic barriers and earth mounds will be among the first items to be constructed. 10.6 Construction of the far-western earth mound nearest to Somersby Public School will be conducted during proclaimed school holidays.	During construction phase. During construction phase.
Noise monitoring will be undertaken and the results reported to neighbours.	10.7 Noise monitoring will be undertaken at those locations recommended in Part 7 of the <i>Specialist Consultant Studies Compendium</i> or as adjusted by the Environment Protection Licence or project approval.	At intervals agreed with DEC.
Noise monitoring will be undertaken and the results reported to neighbours.	10.8 Provide results of noise monitoring to neighbours. 10.9 Noise monitoring results will be included in the reports to the School Principal and the Parents and Citizens Association as per Action 11.7.	Quarterly (if no exceedance) Within 1 week (if exceedance) Monthly.
A 24-hour telephone number will be available to receive any noise complaints. These complaints will be answered quickly with the results of relevant noise monitoring made available to the complainant.	10.10 Complaints on noise will be logged and managed in the manner recommended in Sections 9.5.2 and 9.5.3 of Part 7 of the <i>Specialist Consultant Studies Compendium</i> .	Continuous

**Table 2B (Cont'd)**  
**Statement of Commitments for Management of Environmental Issues**

Page 3 of 9

Desired Outcome	Action	Timing
<b>10. Noise (Cont'd)</b>		
Record parameters of the local environment being affected during site establishment and construction.	10.11 Monitoring will include: Record $L_{Aeq}$ (15 minute) noise levels from operations at Sites SN-1 to SN-4 or at any other site nominated in the project approval or Environment Protection Licence.	Related to activity.
Employees and contractors will be sensitive to the noise impacts on neighbours.	10.12 All hours of work will be strictly within approved limits (i.e. mobile plant / truck engines will not be started before these nominated hours).	Continuous
	10.13 Reversing alarms will not be fitted to any equipment used on site.	Continuous
	10.14 Induction of staff will highlight noise management responsibilities of every employee / contractor.	As required.
Record parameters of the local environment being affected by the operation.	10.15 Monitoring will include: Record $L_{Aeq}$ (15 minute) noise levels from operations and $L_{Aeq}$ (1 hour) from transport operations.	Quarterly for first 2 years (subject to review after 2 years) / related to activity.
<b>11. Air Quality</b>		
Operate in a manner that ensures all air quality standards in the Environment Protection Licence are fully met.	11.1 Seal those roads on site that are to be used by delivery trucks and light vehicles (see <b>Figure A</b> in Appendix 1).	During the construction phase.
	11.2 Keep sealed roads clean and water all other on-site access ways up to five times per day, as required.	Operational Days (subject to weather).
	11.3 Water stockpiles and exposed sandy areas to minimise dust.	As required.
	11.4 Minimise area of exposed ground.	Continuous.
	11.5 Progressively rehabilitate / stabilise available areas of disturbance.	Continuous
	11.6 Enclose processing plant for washing and screening within a building.	During construction phase.
Ensure the impact on air quality at the Somersby Public School is minimised and remains better than any threshold level established by the DECC.	11.7 Report the air quality monitoring results to the School Principal and the Parents and Citizens Association.	Monthly.
	11.8 Provide access for the School Principal and the Parents and Citizens Association to the Proponent's air quality consultants.	6 monthly (if requested).
	11.9 Develop an early warning alert reporting system with the School Principal and the Parents and Citizens Association for the air quality monitored at or near the School which identifies periods when the 24 hour $PM_{10}$ dust levels attributable to "natural" and potentially the project-related contribution is $>40\mu g/m^3$ .	As needed.

**Table 2B (Cont'd)**  
**Statement of Commitments for Management of Environmental Issues**

Page 4 of 9

Desired Outcome	Action	Timing
<b>11. Air Quality (Cont'd)</b>		
Ensure the impact on air quality at the Somersby Public School is minimised and remains better than any threshold level established by the DECC. (Cont'd)	11.10 Based on the most up-to-date experience and reported scientific results, re-run the air quality model (adjusted if necessary) reporting the results to the School Principal and the Parents and Citizens Association as shown.	Once during construction phase. Annually in Stage 1. Every 6 months in Stage 2.
	11.11 Report the re-runs of the model to the NSW Department of Planning.	As above.
Undertake continuous monitoring to confirm that the nominated air quality goals are being met by the project.	11.12 Monitoring will include: <ul style="list-style-type: none"> <li>Maintaining existing deposited dust gauges at Sites SD-1 to SD-5 (see <b>Figure B</b> in the EA) or at other approved locations and PM<sub>10</sub> monitor at an agreed site (subject to periodic review for relevance).</li> <li>Establish a continuous PM<sub>10</sub> dust monitor (such as a TEOM monitor) at the Somersby Public School or an alternative agreed location.</li> <li>On-site meteorological monitoring will be undertaken to record relevant parameters.</li> </ul>	Deposited dust – monthly.  PM <sub>10</sub> – continuous.
	11.13 Maintain a register of air quality concerns and record action taken.	Continuous.  As required
Ensure immediate land owners are aware of results of dust monitors.	11.14 Provide the results of dust and meteorological monitoring to the owners of properties where dust monitors are installed.	Quarterly.
<b>12. Health Issues</b>		
Ensure the pupils and staff at Somersby Public School experience only negligible changes in silica exposure.	12.1 Monitor dust (PM <sub>10</sub> ) prior to the commencement of sand extraction to establish continuous background levels for PM <sub>10</sub> and silica.	For a period of one month at least one month prior to the commencement of sand removal activities.
	12.2 Monitor dust (PM <sub>10</sub> ) and if PM <sub>10</sub> concentrations measured at the PM <sub>10</sub> continuous monitor exceeds 40µg/m <sup>3</sup> throughout the agreed period, the major dust generating activities on site will be curtailed until the PM <sub>10</sub> dust level has reduced to a level less than 40µg/m <sup>3</sup> for a period of > 30 minutes.	PM <sub>10</sub> – continuously.
Ensure the pupils and staff at Somersby Public School experience only negligible changes in silica exposure.	12.3 Analyse PM <sub>10</sub> samples from a high-volume sampler to establish the concentration of silica in the dust collected at the PM <sub>10</sub> monitoring location.	Initially monthly for 12 months – subject to review and consultation with NSW Health.
	12.4 Provide a silicosis and health impact report each year to the School Principal and the Parents and Citizens Association.	Annually.
Surrounding land owners are kept informed annually regarding monitored dust levels.	12.5 Undertake an annual review of 24 hour average PM <sub>10</sub> levels and deposited dust levels and relate to deposited dust levels at other sites.	Annually.

**Table 2B (Cont'd)**  
**Statement of Commitments for Management of Environmental Issues**

Page 5 of 9

Desired Outcome	Action	Timing
<b>12. Health Issues (Cont'd)</b>		
Ensure all site employees and contractors are fully protected against the risk of respirable silica.	12.6 Monitor occupational respirable silica regularly on site with the frequency to be determined by the results obtained and discussions with WorkCover.	Continuous
	12.7 If the results exceed the NOHSC standard of 0.1mg/m <sup>3</sup> TWA, immediately cease operations until the exposure can be managed and reduced via isolation of the employee from the source, engineering controls, administrative controls and personal protective equipment or a combination of all of these actions.	As required.
<b>13. Traffic and Transport</b>		
Somersby Public School staff and pupils are not affected by traffic from the project and in a way that endangers their safety.	13.1 Construct the entrance to the Project Site in accordance with the RTA-approved design that will prevent trucks from turning left when exiting the Project Site.	From the start of construction (with temporary arrangements until permanent arrangements constructed).
	13.2 Require all trucks without exception to travel to and from the site entrance to the F3 directly on Peats Ridge Road.	From start of construction and throughout the entire project.
	13.3 Require all truck drivers to sign contracts that they will be dismissed if they break any road rule while driving on Peats Ridge Road or any Somersby local road – particularly in the event they disobey Action 13.2.	On engagement of each driver.
Trucks enter and exit site (on Peats Ridge Road) without incidents and have the minimum effect on traffic flow.	13.4 Construct the site entrance intersection in Peats Ridge Road as per Figure 12 in report (Cardno (NSW) Pty Ltd – Part 8 of the Specialist Consultant Studies Compendium).	At the start of the construction phase.
	13.5 Instruct drivers on need to enter Peats Ridge Road traffic flow safely when a gap in traffic exists.	On engagement of each driver.
Truck noise is confirmed to be approved hours of operation and is measured and does not breach noise consent standard. (See also Actions 10.13 to 10.15).	13.6 Ensure all truck drivers do not exit the F3 onto Peats Ridge Road prior to 5:00am (re-inforced in the Code of Conduct).	On engagement of each driver.
	13.7 Ensure all drivers are aware of all relevant approval conditions for the project and enforce those conditions.	On engagement of each driver.
	13.8 Provide a 24-hour telephone number for complaints re: trucks and truck noise.	Continuous.
	13.9 Require drivers to avoid the use of compression braking on Peats Ridge Road.	Continuous.
	13.10 Limit truck movements during early morning and late evenings to maximum levels specified in Section 2.7.4 of the <i>Environmental Assessment</i> or to levels required to meet noise criteria at affected residences.	Continuous.
	13.11 Establish a register to record complaints and note remedial action taken.	Continuous.

**Table 2B (Cont'd)**  
**Statement of Commitments for Management of Environmental Issues**

Page 6 of 9

Desired Outcome	Action	Timing
<b>13. Traffic and Transport (Cont'd)</b>		
Environmental impact of trucks is minimal and does not breach approval standards.	13.12 Ensure wheel wash is always clean, effective and used by all trucks.	Continuous.
	13.13 Ensure trucks are well maintained to minimise exhaust emissions.	Continuous.
Best practice traffic and transport management is used both on-site and off-site.	13.14 Implement all recommendations by Traffic Specialist Consultant (Cardno (NSW) Pty Ltd) on Tables 14 and 15 of their report (Part 8 of the Specialist Consultant Studies Compendium).	Continuous.
<b>14. Flora Management</b>		
The Proponent will ensure that its operations are carried out in a manner that provides the best safeguards for flora.	14.1 Only disturb/clear vegetation in the area of sand removal for the next 12 months.	Each clearing campaign.
	14.2 Transfer topsoil, wherever possible, directly onto final rehabilitation areas in order to maximise seed stock retention.	Soil removal campaigns.
	14.3 Collect seeds from felled vegetation for future revegetation programs.	Each clearing program (subject to appropriate season).
	14.4 Undertake a program of weed control.	Continuous
	14.5 Remove all pine trees and exotic grasses on the Project Site and progressively replace with mixed Eucalypt woodland species.	During Stages 1 and 2.
Long-term retention and protection of valuable native trees and bushland along the eastern boundary of the Project Site.	14.6 Provide a 30m wide buffer zone along the eastern boundary of the Project Site (see <b>Figure A</b> in Appendix 1). This buffer zone coincides with the area with some archaeological sensitivity and would be preserved within the Eastern Precinct.	At the start of the construction phase.
	14.7 Inform all contractors and employees about the various zones on site where access is prohibited / restricted and that they are not to be entered except for specific operational purposes.	Continuous
<b>15. Fauna Management</b>		
Protect natural habitat and threatened species on the site and retain maximum natural vegetation.	15.1 Retain and augment the buffer strip between the Project Site and Peats Ridge Road.	Continuous
	15.2 Retain the natural habitat on the eastern boundary of the Project Site.	Continuous
	15.3 Rehabilitate the site sensitively.	Progressively throughout project life
	15.4 Minimise all sediment to the headwaters of four creeks on the site.	Continuous
	15.5 Remove the exotic pines beyond the sand removal area in the southwestern corner of the Project Site.	Progressively throughout Project Life.

**Table 2B (Cont'd)**  
**Statement of Commitments for Management of Environmental Issues**

Page 7 of 9

Desired Outcome	Action	Timing
<b>15. Fauna Management (Cont'd)</b>		
Retain the natural habitat on the eastern side of the Project Site.	15.6 Protect and enhance existing vegetation to create the eastern fauna / flora corridor.	Progressive / continuous.
	15.7 Exclude employees and contractors from entering this area except for specific operational purposes.	Continuous
	15.8 Retain all native trees and the diverse fauna in the area east of Dam A.	Continuous
Fencing installed on site is fauna friendly and does not prevent fauna access or reduce noise attenuation.	15.9 Construct the northeastern noise barrier with ground passage provided for fauna.	During site establishment
	15.10 Construct security fencing in areas of fauna movement without barbed wire and with ground passage provided for fauna.	During site establishment
Retain remnant vegetation on the western side of the Project Site and replace exotic vegetation with native vegetation.	15.11 Progressively remove all Radiata Pine and weeds from western side of Project Site to create the western fauna corridor.	Progressive / continuous.
	15.12 Transfer biomass and topsoil from sand removal areas to corridor.	Progressive / continuous.
Adopt preventative management procedures to avoid injuries / harm to individual fauna.	15.13 Inspect hollow-bearing trees prior to their removal for the presence of hollow dependent fauna.	As required.
	15.14 Engage a wildlife carer during the felling of any hollow-bearing trees.	As required.
Protection of habitat for native animals is well managed.	15.15 Ensure honey bee hives are prohibited and removed from the site.	Continuous
	15.16 Avoid using <i>Gambusia holbrooki</i> in all dams / water storage for the control of mosquito breeding.	Continuous
	15.17 Wherever possible, place felled and fallen native timbers on rehabilitated areas as logs and ground cover habitats and refuges for native fauna.	Continuous
	15.18 Only remove vegetation in the areas of sand removal / operations / stockpiling / transport and do so in a timely manner to expose the least possible area at any point of time.	Continuous
	15.19 Relocate hollow logs from the areas of sand removal to undisturbed areas.	Continuous
	15.20 Ensure the two fauna corridors (eastern and western end) are always fenced (see Action 15.10).	Continuous
Effective mitigation measures for threatened species	15.21 Install nesting boxes suitable for use by Eastern Pygmy-possums.	Prior to removal of any hollow-bearing trees.
Completion of rehabilitation areas in a manner able to provide habitat for native animals.	15.22 Achieve a standard of rehabilitation that will encourage native animals to recolonise in the revegetated landform.	Throughout rehabilitation program.
	15.23 Identify opportunities to recreate suitable habitat for Red-crowned Toadlets adjoining known suitable habitat areas on and adjacent the Project Site.	During rehabilitation of Stage 1.
Site is rehabilitated in a manner consistent with the habitat protection for native animals	15.24 Rehabilitate the site on a progressive basis throughout the life of the project.	Continuous
	15.25 Use seed stock from local trees that are consistent with the composition of the original local vegetation community in site rehabilitation.	Continuous

**Table 2B (Cont'd)**  
**Statement of Commitments for Management of Environmental Issues**

Page 8 of 9

Desired Outcome	Action	Timing
<b>16. Visual</b>		
It is not impossible for people to see sand removal / processing activities from the west (Somersby Public School); north (Peats Ridge Road) or east (Somersby Field Station).	16.1 Maintain the buffer zone on all these boundaries.	Continuous
	16.2 Design the entrance road with a curve so it is not possible to see the operation from the site entrance.	During construction phase.
	16.3 Work with Gosford City Council on the road reserve of Peats Ridge Road to maintain its health and density.	Continuous.
Apart from the exposure caused by the airstrip, maintain an adequate buffer zone to the south to prevent visual sighting of the operations.	16.4 Maintain the buffer zones as required on the southern boundary.	Continuous.
	16.5 Replant a 15m wide screen of native vegetation on the Ross property immediately south of the Project Site.	During Year 1 of operations.
	16.6 Replant promptly the area of pine trees near Wisemans Ferry Road on this boundary when they are removed, for replanting with natives.	As required.
<b>17. Soils and Land Capability</b>		
Soil material on site is used effectively in rehabilitation.	17.1 Strip areas required in the manner recommended in Part 11 of the Specialist Consultant Studies Compendium and store / re-use soils as per this report.	During each campaign.
<b>18. Environmental Monitoring</b>		
Record parameters of the local environment during site establishment and construction.	18.1 Monitoring will include: <ul style="list-style-type: none"> <li>• Surface Water Quality:- Measure pH, EC, TSS, Oil and Grease at overflow from Dam A.</li> <li>• Groundwater Levels</li> </ul>	<p>Prior to activity / monthly / events.</p> <p>Automatic Water Level Recorder on four site piezometers.</p> <p>Quarterly in bores measured manually on adjoining properties.</p>
Record parameters of the local environment during site establishment and construction.	<ul style="list-style-type: none"> <li>• Groundwater Quality <ul style="list-style-type: none"> <li>○ Field pH and EC in the four on-site piezometers.</li> <li>○ Full set of analytes in the four on-site piezometers.</li> </ul> </li> <li>• Noise: Record <math>L_{Aeq}</math> (15 minute) from operations at Sites SN-1 to SN-4 260m from Somersby Public School (Stage 1) or at other sites nominated in the project approval or Environment Protection Licence.</li> <li>• Deposited Dust – Re-establish deposited dust gauges at Sites SD-1 to SD-5 260m from Somersby Public School (Stage 1) or at other sites nominated in the project approval or Environment Protection Licence (see <b>Figure B</b> in the EA).</li> </ul>	<p>Monthly</p> <p>Annually</p> <p>Related to activity (in consultation with Somersby Public School.</p> <p>Monthly.</p>

**Table 2B (Cont'd)**  
**Statement of Commitments for Management of Environmental Issues**

Page 9 of 9

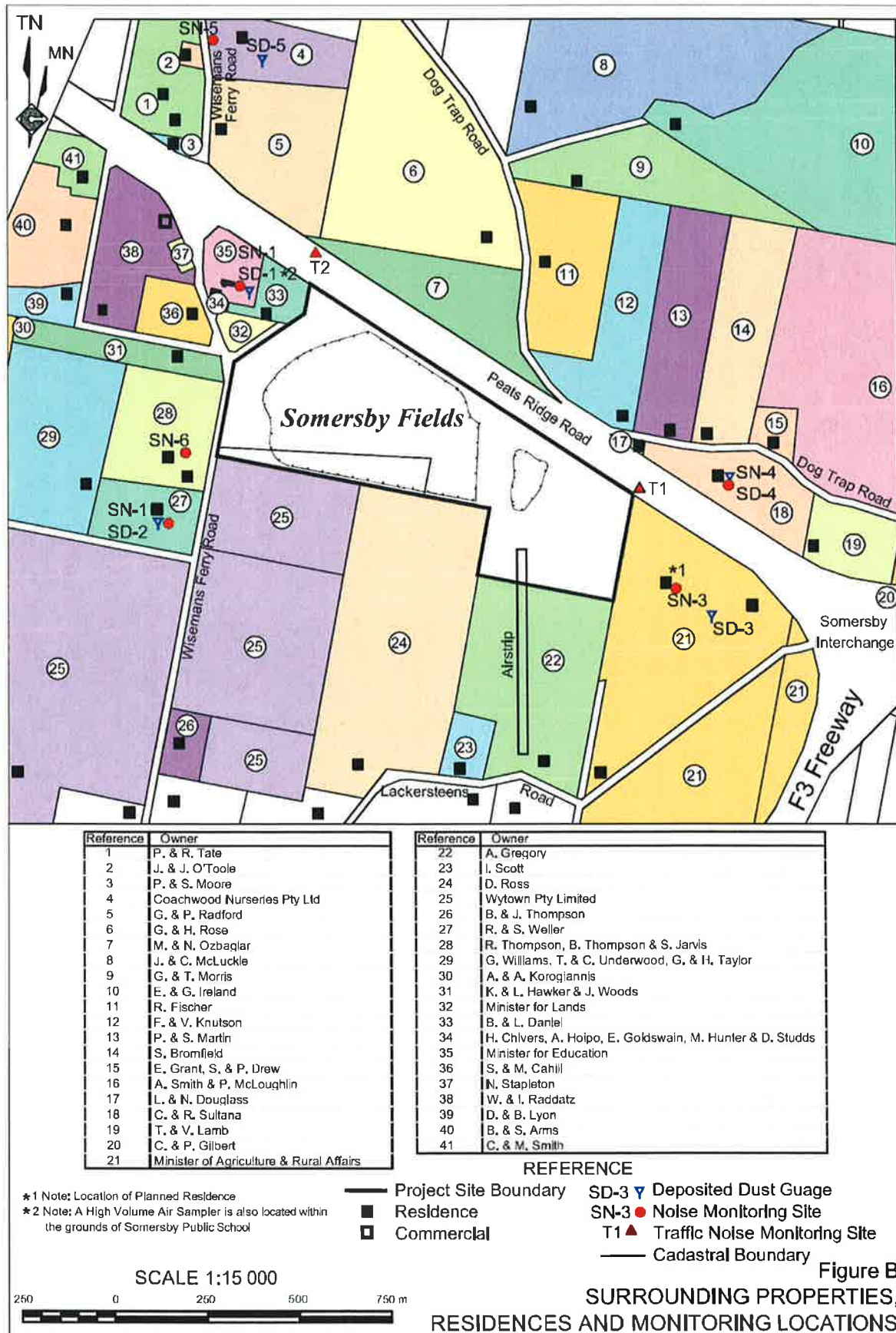
Desired Outcome	Action	Timing
<b>18. Environmental Monitoring (Cont'd)</b>		
Record parameters of the local environment during site establishment and construction. (Cont')	<ul style="list-style-type: none"> <li>PM<sub>10</sub> – Establish a continuous PM<sub>10</sub> monitor in an agreed location at or near the Somersby Public School.</li> </ul>	Continuous measurements.
Record parameters of the local environment being affected during operations.	<p>18.2 Monitoring will include:</p> <ul style="list-style-type: none"> <li>Surface Water Quality: Measure pH, EC, TSS, Oil and Grease from overflow from Dam A.</li> <li>Water Storage Volumes</li> <li>Groundwater Levels</li> </ul> <ul style="list-style-type: none"> <li>Groundwater Quality               <ul style="list-style-type: none"> <li>Field pH and EC in the four on-site piezometers.</li> <li>Full set of analytes in the four on-site piezometers.</li> </ul> </li> <li>Noise: Record LAeq (15 minute) from operations at sites SN-1 to SN-4 and LAeq (1 hour) from transport operations.</li> </ul>	<p>Quarterly / events.</p> <p>Monthly.</p> <p>Automatic Water Level Recorder on four site piezometers.</p> <p>Quarterly in bores measured manually on adjoining properties.</p> <p>Monthly</p> <p>Annually</p> <p>Quarterly for first 2 years (subject to review after 2 years) / related to activity (in conjunction with Somersby Public School).</p>
Record parameters of the local environment being affected during operations.	<ul style="list-style-type: none"> <li>Deposited Dust: Maintain deposited dust gauges at Sites SD-1 to SD-5 260m from Somersby Public School (Stage 1) or at other sites nominated in the project approval or Environment Protection Licence.</li> <li>PM<sub>10</sub> – maintain the continuous PM<sub>10</sub> monitor at nominated locations.</li> </ul>	Continuous measurements.
Demonstrate dust and noise levels can satisfy DEC criteria during Stage 1 – at a comparable distance to that between Stage 2 and Somersby Public School.	<p>18.3 Establish dust and noise monitoring approximately 260m from Stage 1 operations.</p>	Following the date of commencement of operations – at the completion of site establishment.
Note: Full details of all monitoring to be undertaken will be included in the Environmental Monitoring Plan for the project.		



**Table 2C**  
**Statement of Commitments for Community-Related Issues and Consultation**

Desired Outcome	Action	Timing
<b>19. Indigenous Heritage</b>		
Effective protection provided for archaeologically sensitive areas.	19.1 Provide buffer zone 30m wide along the eastern boundary of the Project Site (to be covered by a Section 88b commitment (see EA Figure 2.16).	At start of construction period.
Employees who are sensitive to and respectful of possible Aboriginal heritage on the site.	19.2 Inform all contractors and employees of the 30m buffer zone.	From the start of their employment.
	19.3 Inform all contractors and employees of their responsibility under the National Parks and Wildlife Act 1974 if any bone, stone artefacts etc. are found.	From the start of their employment.
Pupils at Somersby Public School better understand local Aboriginal heritage.	19.4 Offer Somersby Public School the opportunity for pupils, under appropriate guidance, to visit the site and learn of Aboriginal heritage of the Somersby area.	From the 2 <sup>nd</sup> year of operations.
<b>20. Somersby Community Relationships</b>		
Local Somersby community has confidence Somersby Fields is meeting the required environmental standards.	20.1 Establish a Community Consultative Committee (CCC).	Prior to construction commencing.
	20.2 Report to the CCC and in the community newspaper on environmental results.	Quarterly.
	20.3 Provide the CCC with access to specialist consultants to build credibility about the monitoring program.	Every 6 months (if requested).
To be a good contributory member of the local Somersby community.	20.4 Undertake annually a community and a school survey and report findings to the CCC and in the community newspaper.	Annually.
	20.5 Develop and publicise a Community plan and update it annually.	Prior to construction commencing and then annually.
	20.6 Provide easy access for residents to query / complain / respond on any aspect of the project.	Prior to construction commencing.
To be a good contributory member of the local Somersby community.	20.7 Support local community events.	As appropriate.
	20.8 Commit that the site's end use will not be for hard rock quarrying or as a waste facility.	As part of approval process.
To achieve a good understanding and acceptance of the activities on the Project Site within the Somersby Public School community to avoid the need for counselling etc.	20.9 Develop a program with the school Principal and P & C Association to identify the most effective manner in which information about the project can be conveyed to the parents and students.	Prior to construction commencing and as often as required.
Support educational program at Somersby Public School and elsewhere.	20.10 Offer access for pupils to areas of educational interest on site re: geology, ecology, water chemistry etc.	As appropriate.
	20.11 Work with TAFE and other training organisations to encourage local take up of employment and support local employees to green light trade skills.	As appropriate.
Develop ways of operating which best meet the requests of the Somersby community.	20.12 Use the CCC Forum to develop ways to improve relationship with Somersby community.	Quarterly.
	20.13 Work with Gosford City Council's Cumulative Impact Consultative Committee for extractive industries on the Somersby Plateau.	As per committee meeting schedule.

# APPENDIX 3 RECEIVER LOCATION PLAN



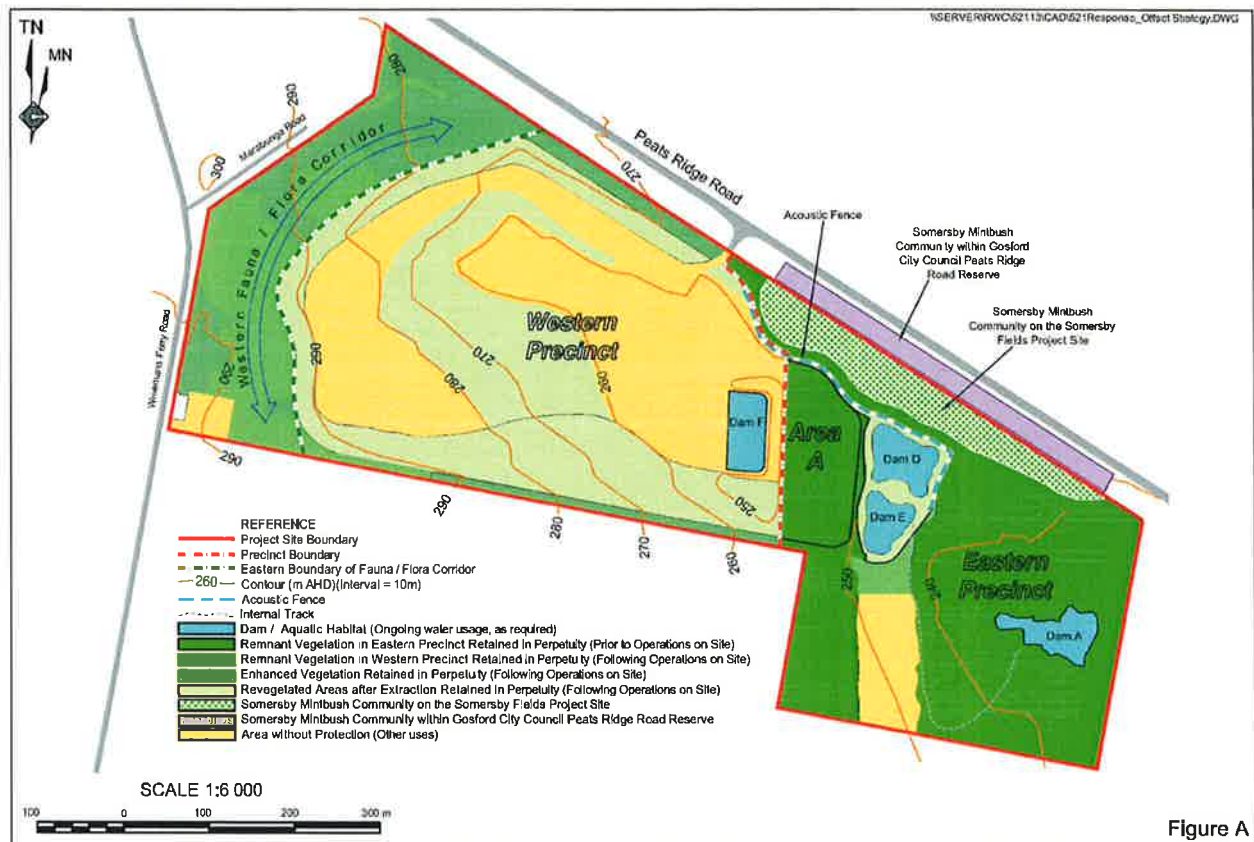
## APPENDIX 4 REHABILITATION PLAN AND OFFSET STRATEGY



Figure 2.19  
REHABILITATION - STAGES 1 AND 2



## SOMERSBY FIELDS PROJECT - BIODIVERSITY OFFSET STRATEGY: SITE COMPONENTS



### Biodiversity Offset Package

#### 1. Management and Protection of Native Vegetation within the Eastern Precinct

The native vegetation within the Eastern Precinct (as defined on **Figure A** above) will be managed and protected in perpetuity (in accordance with condition 24 of schedule 3). The Rehabilitation and Offset Management Plan will provide for:

- the management of all native vegetation beyond the approved areas of disturbance recorded on **Figure A** (and listed in (iii) and (iv) below);
- the management of the *Prostanthera junonis* population within the Eastern Precinct and the defined area within the adjoining Peats Ridge Road Reserve;
- the initial use of the areas nominated for the:
  - construction of an access road to the area nominated as Dam D;
  - recovery of sand from areas nominated within and immediately surrounding Dams D and E;
  - erection of an acoustic barrier; and
  - works required to Dam A to satisfy DPI (Agriculture) regarding ongoing baseline flows.
- the ongoing use of the areas nominated for:
  - water use and management purposes involving Dams A, D and E;
  - access to Dams A, D and E via the nominated tracks;
  - progressive rehabilitation of the area between the northern end of the airstrip and Dam E;
  - the retention of the acoustic barrier until the end of extraction activities in Stage 1/6; and
  - all relevant activities nominated in the Rehabilitation and Offset Management Plan.

The retention of all native vegetation described in (i) above and the protection/management of the *Prostanthera junonis* population within the Eastern Precinct will be the subject of a Section 88B covenant under the *Conveyancing Act 1919* (as amended). This covenant will be completed prior to the commencement of any site activities.

#### 2. Management of GCC Peats Ridge Road Reserve Population

The Proponent will manage the *Prostanthera junonis* population within the nominated area of the Peats Ridge Road Reserve shown on **Figure A** above (in accordance with an agreement with Gosford City Council) and in accordance with the Rehabilitation and Offset Management Plan for the project.

<b>3. Quarantining of the Former Extraction Stage 1/3 as Fauna Habitat</b>		
The former extraction stage originally nominated as Stage 1/3 (Amended) and displayed on <b>Figure A</b> above as Area A is to be retained in its natural form as fauna habitat.		
<b>4. Enhancing Native Vegetation in the Western Fauna and Flora Corridor</b>		
The native vegetation within the western fauna and flora corridor depicted on <b>Figure A</b> above will be enhanced by removing all non-native vegetation and progressively planting native vegetation throughout the corridor over a period of 5 years. All activities within the western fauna and flora corridor will be undertaken in accordance with the Rehabilitation and Offset Management Plan for the project.		
<b>5. Progressive Rehabilitation of Disturbed Areas</b>		
The area within the proposed area of disturbance will be progressively rehabilitated in accordance with Section 3.12 of the <i>Environmental Assessment</i> and the Rehabilitation and Offset Management Plan for the project.		
<b>6. Protection of Native Vegetation within the Western Precinct</b>		
The existing and enhanced native vegetation and revegetation achieved through the progressive rehabilitation of disturbed areas within the Western Precinct will be protected in perpetuity through a covenant under Section 88B of the <i>Conveyancing Act 1919</i> . The covenant will be completed prior to the return of the remaining rehabilitation bond for the project.		
<b>7. Contribute to a Fund for <i>Prostanthera junonis</i> Research and Implementation Activities</b>		
The Proponent will contribute funds (see schedule below) to enable an independent program of research to be conducted over all known <i>Prostanthera junonis</i> populations. The research program would address:		
<table><tr><td><ul style="list-style-type: none"><li>• Physical Characteristics;</li><li>• Mycorrhizal and Bacteria Associations;</li><li>• Fire and Light Infiltration;</li><li>• Seasonality and Climate Change.</li></ul></td><td><ul style="list-style-type: none"><li>• Seed Viability;</li><li>• Breeding System;</li><li>• Translocation; and</li></ul></td></tr></table>	<ul style="list-style-type: none"><li>• Physical Characteristics;</li><li>• Mycorrhizal and Bacteria Associations;</li><li>• Fire and Light Infiltration;</li><li>• Seasonality and Climate Change.</li></ul>	<ul style="list-style-type: none"><li>• Seed Viability;</li><li>• Breeding System;</li><li>• Translocation; and</li></ul>
<ul style="list-style-type: none"><li>• Physical Characteristics;</li><li>• Mycorrhizal and Bacteria Associations;</li><li>• Fire and Light Infiltration;</li><li>• Seasonality and Climate Change.</li></ul>	<ul style="list-style-type: none"><li>• Seed Viability;</li><li>• Breeding System;</li><li>• Translocation; and</li></ul>	
It is proposed the research program will be conducted for a period of up to 7 years during and after which the research outcomes will be implemented across known populations.		
The Proponent will contribute funds to the research and implementation program in the following manner. The Proponent will pay:		
<ul style="list-style-type: none"><li>• 5 cents per tonne of sand sold for the first two million tonnes which is currently forecast to be on all sand sold during the first 7 years of operation;</li><li>• 7 cents per tonne of sand sold for the next two million five hundred thousand tonnes which is currently forecast to be all sand sold from years 8 to 12; and</li><li>• 9 cents per tonne of sand sold for the final one million five hundred thousand tonnes which is currently forecast to be on all sand sold from year 13 onwards.</li></ul>		
These payments will commence on the first day of sand sales. The incremental increases throughout the life of the project anticipate cost of living increases – hence, the nominated rates will not be subject to CPI or related increases.		
<b>8. Support for Preparation of the Red-Crowned Toadlet Recovery Plan</b>		
The Proponent will support the preparation of a recovery plan for the Red-crowned Toadlet up to a value of \$25 000 payable at the commencement of extraction.		
<b>9. Employ an Environmental Officer with Botanical Training</b>		
The Environmental Officer employed by the Proponent will have botanical training to enable the person to manage the <i>Prostanthera junonis</i> population within and adjoining the Somersby Fields property. The Environmental Officer will allocate 30% of their working hours to the management/implementation of the outcomes from the research program referred to in 7. above from Year 8 to the end of the project life.		

*Note: It is intended that a single document, ie. the Rehabilitation and Offset Management Plan, will be prepared to cover all aspects of vegetation management on site including the management of the Prostanthera junonis population, all existing native vegetation, areas of enhanced native vegetation and revegetation of all disturbed areas.*

**APPENDIX 5  
INDEPENDENT DISPUTE RESOLUTION PROCESS**

