# **Project Approval**

## Section 75J of the Environmental Planning and 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 and/or minimise adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the project.

Sam Haddad

Director-General
as delegate for the Minister for Planning

1

Sydney 2009

**SCHEDULE 1** 

Application No: 07\_0123

Proponent: South Coast Concrete Crushing and Recycling

Approval Authority: Minister for Planning

**Land:** Lot 30, DP 1169494

Project: Nowra Brickworks Quarry

MOD 1 July 2013 – shown in red MOD 2 June 2018 – shown in blue

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#### **DEFINITIONS**

Aboriginal object or place Have the same meaning as the definitions of the terms in section 5 of the

NP&W Act

**Annual Review** The review required by condition 12 of Schedule 5

BCA **Building Code of Australia** 

Community Consultative Committee CCC

Conditions of this approval Conditions contained in Schedules 2 to 5 (inclusive) of this document

Shoalhaven City Council Council

EA (Mod 1)

Land

Mitigation

NP&W Act

Day The period from 7 am to 6 pm on Monday to Saturday, and 8 am to 6 pm

on Sundays and Public Holidays

NSW Department of Planning and Environment Department

Demolition The deconstruction and removal of buildings, sheds and other structures

on the site

DRG Division of Resources and Geoscience within the Department **Dol Water** Department of Industry - Crown Lands and Water Division

Environmental Assessment titled Environmental Assessment for the EA

> Continuation and Expansion of Extractive Operations at the Nowra Brickworks Quarry, South Nowra, prepared by R.W. Corkery & Co Pty Ltd and City Plan Services, dated February 2009, and associated Response to Submissions prepared by City Plan Services and dated August 2009

> Environmental Assessment titled Section 75W Modification Application to Major Project (MP07 0123) for the Continuation of Extractive Operations,

prepared by City Plan Services and dated 3 May 2013

EA (Mod 2) Environmental Assessment titled MP 07\_0123 / Nowra Brick Quarry /

Proposed S75W Modification prepared by City Plan Services and dated

1 March 2018

**NSW Environment Protection Authority EPA** 

**EP&A** Act Environmental Planning and Assessment Act 1979 **EP&A Regulation** Environmental Planning and Assessment Regulation 2000 Environment Protection Licence under the POEO Act **EPL** 

Evening The period from 6 pm to 10 pm

Excavated Natural Material, as defined in Section 1 of the EPA's Excavated Natural Material Order 2014, or latest version **ENM** 

What is possible and practicable in the circumstances **Feasible** 

Imported materials Recycling materials, blending materials, VENM and ENM as described in

the EA and EA (Mod 2)

Incident An occurrence or set of circumstances that:

causes or threatens to cause material harm to the environment;

breaches or exceeds the limits or performance measures/criteria in

this approval

Has the same meaning as the definition of the term in section 4 of the EP&A Act, except where the term is used in the noise and air quality conditions in Schedules 3 and 4 of this approval, where it is defined as

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

Metres

Material harm Is unauthorised harm that:

> involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or

> results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000, (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make

good harm to the environment)

Minimise Implement all reasonable and feasible mitigation measures to reduce the

impacts of the project

Minister Minister for Planning, or delegate

Activities associated with reducing the impacts of the project prior to or

during those impacts occurring

The modifications to the project, as described in EA (Mod 2) Modification 2

The period from 10 pm to 7 am on Monday to Saturday, and 10pm to 8am Night

on Sundays and Public Holidays National Parks and Wildlife Act 1974

Office of Environment and Heritage **OEH** 

Protection of the Environment Operations Act 1997 POEO Act Land that is not owned by a public agency or a mining, petroleum or Privately-owned land

extractive industry company (or its subsidiary)

The development described in the documents listed in condition 2 of **Project** 

Schedule 2

Project layout The plan in Appendix 1 of this approval

South Coast Concrete Crushing and Recycling Pty Ltd (or its successors) **Proponent** or any person carrying out any development to which this approval

Public infrastructure Linear and other infrastructure that provides services to the general

public, such as roads, railways, water supply, drainage, sewerage, gas

supply, electricity, telephone, telecommunications, etc.

Quarrying operations

Quarry products

**RMS** 

Secretary

• extraction, processing, stockpiling and transportation of extractive materials carried out on the site and the associated removal and/or emplacement of vegetation, topsoil and overburden; and

processing, stockpiling, blending and transportation of imported

materials carried out on the site

Includes all saleable quarry products, including products which have been blended with imported materials, but excludes tailings, other wastes and

rehabilitation material for use on the site

Registered Aboriginal Parties As described in the National Parks and Wildlife Regulation 2009 Rehabilitation

The restoration of land disturbed by the project to a good condition, to

ensure it is safe, stable and non-polluting

Reasonable Means applying 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

**NSW Roads and Maritime Services** Secretary of the Department, or nominee

The land defined in Schedule 1 and the project layout Site

The Proponent's commitments in Appendix 2 Statement of Commitments

**VENM** Virgin Excavated Natural Material, as defined in Schedule 1 of the POEO

Act

Waste Has the same meaning as defined in the Dictionary to the POEO Act

# SCHEDULE 2 ADMINISTRATIVE CONDITIONS

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

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

### **Terms of Approval**

- 2. The Proponent must carry out the project generally in accordance with the:
  - (a) EA:
  - (b) EA (Mod 1);
  - (c) EA (Mod 2);
  - (d) project layout; and
  - (e) Statement of Commitments.
- 2A. The Proponent must carry out the project in accordance with the conditions of this approval.
- 3. The conditions of this approval and directions of the Secretary prevail to the extent of any inconsistency, ambiguity or conflict between them and a document referenced in condition 2 of this Schedule. In the event of an inconsistency, ambiguity or conflict between any of the documents referenced in condition 2 of this Schedule, the most recent document prevails.

Note: For the purposes of this condition, there will be an inconsistency between documents if it is not possible to comply with both documents, or in the case of a condition of approval or direction of the Secretary, and a document, if it is not possible to comply with both the condition or direction, and the document.

- 4. Consistent with the requirements of this approval, the Secretary may make written directions to the Proponent in relation to:
  - (a) the content of any strategy, study, system, plan, program, review, audit, notification, report or correspondence submitted under or otherwise made in relation to this approval, including those that are required to be, and have been, approved by the Secretary; and
  - (b) the implementation of any actions or measures contained in any such document referred to in (a) above.

Note: For the purposes of this condition, there will be an inconsistency between documents if it is not possible to comply with both documents, or in the case of a condition of consent or direction of the Secretary, and a document, if it is not possible to comply with both the condition or direction, and the document.

- 5. The Proponent must prepare revisions of any strategies, plans or programs required under this approval if directed to do so by the Secretary. Such revisions must be prepared to the satisfaction of, and within a timeframe approved by, the Secretary.
- 6. By 30 June 2010, the Proponent must surrender all existing development consents for the site to the relevant consent authority, to the satisfaction of the Secretary.

#### **Limits of Approval**

7. The Proponent may undertake quarrying operations on the site until 31 December 2039.

Note: Under this approval, the Proponent is required to decommission and rehabilitate the site and carry out additional requirements. Consequently, this approval will continue to apply in all respects other than to permit the carrying out of quarrying operations, until the rehabilitation of the site and those requirements and undertakings have been carried out to the required standard.

- 8. The Proponent must not:
  - (a) extract more than 364,000 tonnes per year of clay/shale, structural clay and associated materials (in total) from the site;
  - (b) import more than 50,000 tonnes per year of recycling materials to the site;
  - (c) import more than 125,000 tonnes per year of blending materials to the site;
  - (d) import more than 200,000 tonnes per year of VENM/ENM (in total) to the site; or
  - (e) despatch more than 500,000 tonnes per year of quarry products from the site.
- 8A. The Proponent may receive up to three unladen trucks at the site between:
  - (a) 6.00 am and 7.00 am Monday to Saturday; and
  - (b) 6.00 pm and 8.00 pm Monday to Friday; and
  - (c) 4.00 pm and 6.00 pm Saturday.

Note: Operating hours for arrival and despatch of trucks are also controlled under condition 1 of Schedule 3.

#### 9. Deleted.

#### **Structural Adequacy**

The Proponent must 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 6 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**

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

### **Operation of Plant and Equipment**

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

#### **Protection of Public Infrastructure**

- 13. Unless the Proponent and the applicable authority agree otherwise the Proponent must:
  - (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.

Note: This condition does not apply to damage to roads caused as a result of general road usage or otherwise addressed by contributions required by condition 33 of Schedule 3.

### **Compliance**

14. The Proponent must ensure that all of its employees, contractors (and their sub-contractors) are made aware of, and are instructed to comply with, the conditions of this approval relevant to activities they carry out in respect of the project.

## **Applicability of Guidelines**

15. References in the conditions of this approval to any guideline, protocol, Australian Standard or policy are to such guidelines, protocols, standards or policies in the form they are in as at the date of this approval.

However, consistent with the conditions of this approval and without altering any limits or criteria in this approval, the Secretary may, when issuing directions under this approval in respect of ongoing monitoring and management obligations, require compliance with an updated or revised version of such a guideline, protocol, standard or policy, or a replacement of them.

# SCHEDULE 3 SPECIFIC ENVIRONMENTAL CONDITIONS

#### **NOISE**

#### **Hours of Operation**

1. The Proponent must comply with the operating hours set out in Table 1.

Table 1: Operating hours

| Activity             | Permissible Hours                        |
|----------------------|--|
| Quarrying operations | 7.00 am to 6.00 pm Monday to Friday      |
|                      | 7.00 am to 4.00 pm Saturday              |
|                      | At no time on Sundays or public holidays |

Note: Limited truck movements are permitted outside of the permissible hours for quarrying operations, as specified in condition 8A of Schedule 2.

- 1A. The following activities may be carried out outside the hours specified in condition 1 of this Schedule:
  - (a) activities that are inaudible at residences on privately-owned land;
  - (b) the delivery or dispatch of materials as requested by the NSW Police Force or other public authorities for safety reasons; or
  - (c) emergency work to avoid the loss of life, property or to prevent material harm to the environment.

In such circumstances, the Proponent must notify the Department and affected residents prior to undertaking the activities, or as soon as is practical thereafter.

#### **Operational Noise Criteria**

2. The Proponent must ensure that operational noise generated by the project does not exceed the criteria in Table 2 at any residence on privately-owned land.

Table 2: Operational noise criteria dB(A)

| Receiver | Location                          | Day<br>LAeq (15 min) | Evening<br>L <sub>Aeq (15 min)</sub> | Night<br>L <sub>Aeq (15 min)</sub> |
|----------|-----------------------------------|----------------------|--------------------------------------|------------------------------------|
| 1        | 80 Links Road                     | 39                   | 35                                   | NA                                 |
| 2        | 371 Old Southern Road             | 45                   | 35                                   | 35                                 |
| 4        | 243 Princes Highway               | 49                   | 38                                   | 38                                 |
| 5        | South Coast Correctional Facility | 51                   | 37                                   | 37                                 |

Noise generated by the project is to be measured in accordance with the relevant requirements and exemptions (including certain meteorological conditions) of the *NSW Industrial Noise Policy*. Appendix 6 sets out the meteorological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria.

However, the noise criteria in Table 2 do not apply if the Proponent has an agreement with the relevant landowner to exceed the noise criteria, and the Proponent has advised the Department in writing of the terms of this agreement.

Note: Receiver locations are shown in Appendix 3.

#### **Noise Operating Conditions**

- 3. The Proponent must:
  - implement all reasonable and feasible noise mitigation measures to minimise the noise impacts
    of the project;
  - (b) investigate ways to reduce the noise generated by the project;
  - (c) take all reasonable steps to minimise the noise impacts of the project during meteorological conditions when the noise criteria in this approval do not apply (see Appendix 6);
  - (d) carry out regular noise monitoring in accordance with Appendix 6 to determine whether the project is complying with the relevant conditions of this approval; and

(e) modify or stop operations on the site to comply with the relevant conditions of this approval.

#### **Noise Monitoring Program**

- 4. The Proponent must prepare a Noise Monitoring Program for the project to the satisfaction of the Secretary. The Program must:
  - (a) be prepared in consultation with EPA and be submitted to the Secretary for approval within 6 months of the date of this approval;
  - (b) include annual attended noise monitoring;
  - (c) describe the proposed noise management system; and
  - (d) include a noise monitoring program that:
    - is capable of evaluating the performance of the project;
    - includes a protocol for determining any exceedances of the relevant conditions of this approval; and
    - effectively supports the noise management system.

The Proponent must implement the Noise Monitoring Program as approved by the Secretary.

#### **BLASTING AND VIBRATION**

#### **Airblast Overpressure Limits**

5. The Proponent must ensure that the airblast overpressure level from blasting at the project does not exceed the criteria in Table 3.

Table 3: Airblast overpressure impact assessment criteria

| Receiver                               | Airblast overpressure level (dB(Lin Peak)) | Allowable exceedance                                    |
|--|--|---|
| Residential & South Coast Correctional | 115  | 5% of the total number of blasts in any 12 month period |
| Facility                               | 120  | 0%  |
| Commercial                             | 125  | 0%  |

## **Ground Vibration Impact Assessment Criteria**

6. The Proponent must ensure that the ground vibration level from blasting at the project does not exceed the levels in Table 4.

Table 4: Ground vibration impact assessment criteria

| Receiver                               | Airblast overpressure level (dB(Lin Peak)) | Allowable exceedance                                    |  |
|--|--|---|--|
| Residential & South Coast Correctional | 115  | 5% of the total number of blasts in any 12 month period |  |
| Facility                               | 120  | 0%  |  |
| Commercial                             | 125  | 0%  |  |

- 7. The Proponent must carry out blasting on site only between 9 am and 3 pm Monday to Friday. No blasting is allowed on weekends and Public Holidays.
- 8. The Proponent must not carry out more than one blast per week on site.

Note: In the case of a documented misfire, the Proponent may carry out a second blast in the relevant week.

## **Blast Operating Conditions**

9. The Proponent must not undertake blasting within 200 metres of any privately-owned land, unless suitable arrangements have been made with the landowner and any tenants to minimise the risk of flyrock-related impact to the property and to human safety to the satisfaction of the Secretary.

### **Property Inspections**

10. Prior to 30 June 2010, the Proponent must advise all landowners within 500 m of proposed blasting activities, and any other landowner nominated by the Secretary, that they are entitled to a property inspection to establish the baseline condition of the property.

- 11. If the Proponent receives a written request for a property inspection from any such landowner, the Proponent must:
  - (a) commission a suitably qualified person, whose appointment has been approved by the Secretary, to inspect and report on the condition of any building or structure on the land, and recommend measures to mitigate any potential blasting impacts; and
  - (b) give the landowner a copy of this property inspection report.

Note: It is preferable for the property inspection to be carried out prior to the commencement of blasting activities on the site, and the Proponent should facilitate this occurring wherever possible.

## **Property Investigations**

- 12. If any landowner within 500 m of proposed blasting activities, or any other landowner nominated by the Secretary, claims that his/her property, including vibration-sensitive infrastructure such as water supply or underground irrigation mains, has been damaged as a result of blasting at the project, the Proponent must within 3 months of receiving this request:
  - (a) commission a suitably qualified person whose appointment has been approved by the Secretary to investigate the claim and prepare a property investigation report; and
  - (b) give the landowner a copy of the report.

If this independent investigation confirms the landowner's claim, and both parties agree with these findings, then the Proponent must repair the damage to the satisfaction of the Secretary.

If the Proponent or landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Secretary for resolution.

### **Blast Management Plan**

- 13. Prior to 30 June 2010, the Proponent must prepare a detailed Blast Management Plan for the project to the satisfaction of the Secretary. The Plan must:
  - (a) be prepared in consultation with EPA;
  - (b) substantiate blast design to ensure compliance with blast criteria;
  - (c) include protocols for communicating with all neighbouring landholders regarding scheduled blasts:
  - (d) include details of how and at what locations blasting performance would be monitored; and
  - (e) include a blast monitoring protocol for evaluating compliance with the blast criteria in this approval.

The Proponent must implement the Blast Management Plan as approved by the Secretary.

#### **AIR QUALITY**

## **Air Quality Impact Assessment Criteria**

14. The Proponent must ensure that particulate matter emissions generated by the project do not cause exceedances of the criteria in Table 5 at any residence on privately-owned land.

Table 5: Air quality criteria

| Pollutant                                      | Averaging<br>Period | Criterion               |
|--|---------------------|-------------------------|
| Particulate matter < 10 µm (PM <sub>10</sub> ) | Annual              | a,c <sub>30 μg/m³</sub> |
| Particulate matter < 10 μm (PM <sub>10</sub> ) | 24 hour             | <sup>b</sup> 50 μg/m³   |
| Total suspended particulates (TSP)             | Annual              | a,c <sub>90 μg/m³</sub> |

#### Notes to Table 5:

a Cumulative impact (ie increase in concentrations due to the project plus background concentrations due to all other sources).

## **Air Quality Operating Conditions**

15. The Proponent must:

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

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

- (a) implement all reasonable and feasible dust mitigation measures to minimise the dust impacts of the project:
- (b) investigate ways to reduce the dust generated by the project;
- (c) minimise the air quality impacts of the project during adverse meteorological conditions and extraordinary events (see note d under Table 5);
- (d) monitor and report on compliance with the relevant air quality conditions in this approval; and
- (e) minimise the area of surface disturbance and undertake progressive rehabilitation of the site, to the satisfaction of the Secretary.

## **Air Quality Management Plan**

- 16. The Proponent must prepare an Air Quality Management Plan for the project to the satisfaction of the Secretary. This plan must:
  - (a) be prepared in consultation with EPA;
  - (b) be submitted to the Secretary for approval within 3 months of the determination of Modification 2;
  - (c) describe the proposed air quality management system;
  - (d) describe the measures to be implemented to ensure:
    - compliance with the air quality criteria and operating conditions of this approval;
    - best practice management is being employed; and
    - the air quality impacts of the project are minimised during adverse meteorological conditions and extraordinary events; and
  - (e) include an air quality monitoring program that:
    - includes a protocol for determining any exceedances of the relevant conditions of this approval; and
    - effectively supports the air quality management system.

The Proponent must implement the Air Quality Management Plan as approved by the Secretary.

### **Meteorological Monitoring**

16A. For the life of the project, the Proponent must ensure that there is a suitable meteorological station operating in the vicinity of the site that complies with the requirements in the *Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales* guideline.

## **WATER MANAGEMENT**

Note: Under the Water Act 1912 and/or the Water Management Act 2000, the Proponent is required to obtain all necessary approvals and/or water licences for the project.

## Discharge

- 17. Except as may be expressly provided for by an EPL, the Proponent must comply with section 120 of the *Protection of the Environment Operations Act 1997* during the carrying out of the project.
- 18. The Proponent must manage on-site sewage to the satisfaction of the Council and EPA. The facility must comply with the requirements of the *Environment and Health Protection Guidelines On-site Sewage Management for Single Households (1998)*.

### **Soil and Water Management Plan**

- 19. The Proponent must prepare a Soil and Water Management Plan for the project to the satisfaction of the Secretary. This plan must:
  - (a) be prepared in consultation with EPA and Dol Water, and be submitted to the Secretary for approval prior to 30 June 2010; and
  - (b) include a:
    - Site Water Balance;
    - Erosion and Sediment Control Plan;
    - Surface Water Monitoring Program;
    - Ground Water Monitoring Program; and
    - Surface and Groundwater Response Plan.

The Proponent must implement the Soil and Water Management Plan as approved by the Secretary.

#### **Site Water Balance**

- 20. The Site Water Balance must:
  - (a) include details of:
    - sources and security of water supply;
    - water make and use on site;
    - water management on site;
    - any off-site water transfers; and
    - reporting procedures; and
  - (b) investigate and describe measures to minimise water use by the project.

#### **Erosion and Sediment Control**

- 21. The Erosion and Sediment Control Plan must:
  - 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 downstream in Nowra Creek:
  - (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.

## **Surface Water Monitoring**

- 22. The Surface Water Monitoring Program must include:
  - detailed baseline data on surface water flows and quality in Nowra Creek and any other waterbodies that could potentially be affected by the project;
  - (b) surface water and stream health impact assessment criteria;
  - (c) a program to monitor the impact of the project on surface water flows in Nowra Creek, water quality and stream health, including monitoring for major cations and anions; and
  - (d) reporting procedures for the results of the monitoring program.

#### **Groundwater Monitoring**

- 23. The Ground Water Monitoring Program must include:
  - (a) detailed baseline data on ground water levels and quality, based on statistical analysis;
  - ground water impact assessment criteria, including trigger levels for investigating any potentially adverse ground water impacts;
  - (c) a program to monitor ground water levels and quality;
  - (d) a protocol for further ground water modelling to confirm the limits to excavation depth across the site would not adversely affect ground water availability for the environment or local users; and
  - (e) a protocol for the investigation, notification and mitigation of identified exceedances of the ground water impact assessment criteria.

#### **Surface and Groundwater Response Plan**

- 24. The Surface and Groundwater Response Plan must describe the measures and/or procedures that would be implemented to:
  - (a) investigate, notify and mitigate any exceedances of the surface water, stream health and ground water impact assessment criteria, including an increase in salinity levels for Nowra Creek; and
  - (b) mitigate and/or offset any adverse impacts on groundwater dependent ecosystems or riparian vegetation.

## REHABILITATION AND LANDSCAPE MANAGEMENT

## **Biodiversity Offset Strategy**

- 25. The Proponent must:
  - (a) review its proposed Biodiversity Offset Strategy (see Table 8), in consultation with OEH and the Secretary, to seek to identify a replacement for the proposed Southern Biodiversity Offset Area that:
    - is located in the vicinity;
    - is not affected by identified future public infrastructure proposals; and
    - has equivalent (or better) biodiversity values:
  - (b) implement the Biodiversity Offset Strategy (as amended under (a) above, if applicable);
  - (c) ensure that adequate resources are dedicated towards the implementation of the strategy;
  - (d) provide appropriate long term security for the offset areas; and

(e) provide a timetable for the implementation of the offset strategy prior to the clearing of any forested area of the site, or as otherwise agreed by the Secretary, to the satisfaction of the Secretary.

Table 8: Biodiversity Offset Strategy

| Offset Areas                      | Minimum Size   |
|-----------------------------------|----------------|
| Northern Biodiversity Offset Area | 21.5 hectares  |
| Southern Biodiversity Offset Area | 16.19 hectares |
| Total                             | 37.69 hectares |

#### **Landscape and Biodiversity Management Plan**

- 26. The Proponent must prepare a Landscape and Biodiversity Management Plan for the project to the satisfaction of the Secretary. This plan must:
  - (a) be prepared by suitably qualified person(s), approved by the Secretary;
  - (b) be submitted to the Secretary for approval prior to the 30 June 2010; and
  - (c) include a:
    - Rehabilitation and Biodiversity Offset Strategy Management Plan; and
    - Long Term Management Strategy.

The Proponent must implement the Landscape and Biodiversity Management Plan as approved by the Secretary.

Note: The Department accepts that the initial Landscape and Biodiversity Management Plan may not include the detailed Long Term Management Strategy. However, a conceptual strategy must be included in the initial plan, along with a timetable for augmentation of the strategy with each subsequent review of the plan.

- 27. The Rehabilitation and Biodiversity Offset Strategy Management Plan must include:
  - (a) the rehabilitation objectives for the site and offset areas;
  - (b) a description of the measures that would be implemented to:
    - · rehabilitate and stabilise the site;
    - minimise the removal of mature trees;
    - implement the Biodiversity Offset Strategy; and
    - manage the remnant vegetation and habitat on the site and in the offset areas;
  - (c) detailed performance and completion criteria for the rehabilitation and stabilisation of the site;
  - (d) a detailed description of how the performance of the rehabilitation of the quarry areas would be monitored over time to achieve the stated objectives;
  - (e) a detailed description of what measures would be implemented to rehabilitate and manage the landscape of the site including the procedures to be implemented for:
    - progressively rehabilitating and stabilising areas disturbed by quarrying;
    - implementing revegetation and regeneration within the disturbance areas;
    - protecting areas outside the disturbance areas, including the Biodiversity Offset Strategy areas;
    - vegetation clearing protocols, including a protocol for clearing any trees containing hollows and the relocation of hollows from felled trees;
    - managing impacts on fauna, in particular threatened species;
    - controlling weeds and pests;
    - controlling access;
    - bushfire management; and
    - reducing the visual impacts of the project;
  - (f) a description of the potential risks to successful rehabilitation and a description of the contingency measures that would be implemented to mitigate these risks; and
  - (g) details of who is responsible for monitoring, reviewing, and implementing the plan.
- 28. The Long Term Management Strategy must:
  - (a) define the objectives and criteria for quarry closure and post-extraction management;
  - (b) be prepared in consultation with Dol Water, DRG and Council;
  - (c) investigate and/or describe options for the future use of the site;
  - (d) describe the measures that would be implemented to minimise or manage the ongoing environmental effects of the project; and
  - (e) describe how the performance of these measures would be monitored over time.

#### Rehabilitation

29. Backfilling of the quarry void and water storage facility is restricted to the use of materials which are VENM or ENM, to the satisfaction of the Secretary. The Proponent must consult with the Council to identify the proposed alignment of the link road from Warra Warra Road to the Flinders Industrial Estate.

Backfilling within the proposed alignment must use materials and a compaction standard suitable for the future construction of the link road, to the satisfaction of the Secretary.

Note: the conceptual final landform is shown in Appendix 4.

#### **HERITAGE**

## **Aboriginal Cultural Heritage Management Plan**

- 30. The Proponent must prepare and implement an Aboriginal Cultural Heritage Management Plan to the satisfaction of the Secretary. This plan must:
  - (a) be prepared in consultation with OEH and Registered Aboriginal Parties;
  - (b) be submitted to the Secretary for approval prior to 30 June 2010; and
  - (c) include a description of the measures that would be implemented to:
    - (i) manage the discovery of previously unidentified Aboriginal objects or Aboriginal places on the site; and
    - (ii) facilitate ongoing consultation with and involvement of Registered Aboriginal Parties in the conservation and management of Aboriginal cultural heritage on the site.

The Proponent must implement the Aboriginal Cultural Heritage Management Plan as approved by the Secretary.

- 30A. If human remains are discovered on the site, then all work in the area surrounding the discovery must cease, and the area must be secured. The Proponent must immediately notify NSW Police Force and OEH, and work must not recommence in the area until authorised by NSW Police Force and OEH.
- 30B. If any potential Aboriginal object or Aboriginal place is identified on the site, or suspected to be on the site:
  - (a) all work in the immediate vicinity of the object or place must cease immediately;
  - (b) a 10 m buffer area around the object or place must be cordoned off; and
  - (c) OEH must be contacted immediately.
- 30C. Work in the immediate vicinity of a potential Aboriginal object or Aboriginal place may only recommence if:
  - (a) the object or place is confirmed by OEH upon consultation with the Registered Aboriginal Parties not to be an Aboriginal object or Aboriginal Place;
  - (b) the Aboriginal Cultural Heritage Management Plan is revised to include the object or place and appropriate measures in respect of it; or
  - (c) the Secretary is satisfied with the measures to be implemented in respect of the object or place and makes a written direction in that regard.

## **VISUAL**

31. The Proponent must minimise the visual impacts of the project to the satisfaction of the Secretary.

### **WASTE MANAGEMENT**

31A. Except as expressly permitted in an EPL and/or the conditions of this approval, the Proponent must not receive waste on the site for storage, treatment, processing, reprocessing or disposal.

Note: Under the POEO Act, the Proponent is required to obtain an EPL variation to permit the importation of ENM for blending purposes.

- 31B. The Proponent must:
  - (a) maintain accurate records of all imported materials received at the site (including the type, source, date, time and quantity received and details of the transport contractor); and
  - (b) include a copy of this data in the Annual Review.
- 32. The Proponent must minimise the amount of waste generated by the project to the satisfaction of the Secretary.

## TRAFFIC AND TRANSPORT

- 33. The Proponent must make a monetary contribution of \$174,000 to the RMS for the construction of the following elements of the proposed Princes Highway upgrade between Central Avenue and Warra Warra Road:
  - the central median for a length of 60m; and
  - a left turn deceleration lane on the southbound approach to the quarry access road.

- 34. The Proponent must pay the monetary contribution required by condition 33 according to the following schedule:
  - (a) \$54,000 paid prior to 30 June 2010; and
  - (b) \$40,000 paid prior to 30 June in each of the years 2011, 2012 and 2013, unless the RMS commences the proposed upgrade prior to the completion of these payments, in which case any remainder of the contribution not yet paid is payable immediately.
- 35. The Proponent must upgrade the access to the development and land must be dedicated generally in accordance with the RMS's preliminary concept design (see Appendix 5) to ensure the access accommodates swept paths for B-doubles and the future Princes Highway alignment, prior to the completion of the proposed Princes Highway upgrade and to the satisfaction of the RMS.

#### **Road Haulage**

- 36. The Proponent must ensure that:
  - (a) all loaded vehicles entering or leaving the site are covered:
  - (b) all loaded vehicles leaving the site are cleaned of materials that may fall on the road, before they leave the site: and
  - (c) a truck wheel wash facility is constructed on the site prior to \$\overline{40}\$ 30 June 2010, to the satisfaction of the Secretary.

#### **EMERGENCY AND HAZARDS MANAGEMENT**

## **Dangerous Goods**

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

#### Safety

38. The Proponent must secure the project to ensure public safety to the satisfaction of the Secretary.

#### **Bushfire Management**

- 39. The Proponent must:
  - (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 to the extent practicable if there is a fire in the vicinity of the site.

#### **PRODUCTION DATA**

- 40. The Proponent must:
  - (a) provide calendar year annual quarry production data to DRG using the standard form for that purpose; and
  - (b) include a copy of this data in the Annual Review.

# SCHEDULE 4 ADDITIONAL PROCEDURES

#### **NOTIFICATION OF LANDOWNERS**

- 1. As soon as practicable, and no longer than 7 days, after obtaining monitoring results showing:
  - (a) an exceedance of any criteria in Schedule 3, the Proponent must notify the affected landowners in writing of the exceedance, and provide regular monitoring results, at least every 3 months, to each affected landowner until the project is again complying with the relevant criteria; and
  - (b) an exceedance of any air quality criteria in Schedule 3, the Proponent must send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and current tenants of the land (including the tenants of land which is not privately-owned).

#### INDEPENDENT REVIEW

2. If a landowner considers the project to be exceeding the relevant criteria in Schedule 3, they may ask the Secretary in writing for an independent review of the impacts of the project on their land.

If the Secretary is not satisfied that an independent review is warranted, the Secretary will notify the landowner in writing of that decision, and the reasons for that decision, within 21 days of the request for a review.

If the Secretary is satisfied that an independent review is warranted, within 3 months, or as otherwise agreed by the Secretary and the landowner, of the Secretary's decision, the Proponent must:

- (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to:
  - consult with the landowner to determine his/her concerns;
  - conduct monitoring to determine whether the project is complying with the relevant criteria in Schedule 3; and
  - if the project is not complying with these criteria, then identify measures that could be implemented to ensure compliance with the relevant criteria;
- (b) give the Secretary and landowner a copy of the independent review; and
- (c) comply with any written requests made by the Secretary to implement any findings of the review.

# SCHEDULE 5 ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

#### **ENVIRONMENTAL MANAGEMENT**

#### **Environmental Management Strategy**

- 1. The Proponent must prepare an Environmental Management Strategy for the project to the satisfaction of the Secretary. This strategy must:
  - (a) be submitted to the Secretary for approval within 6 months of the determination of Modification 2, unless otherwise agreed by the Secretary;
  - (b) provide the strategic framework for environmental management of the project;
  - (c) identify the statutory approvals that apply to the project;
  - (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;
  - (e) describe the procedures to be implemented to:
    - keep the local community and relevant agencies informed about the operation and environmental performance of the project;
    - receive, record, handle and respond to complaints;
    - resolve any disputes that may arise during the course of the project;
    - respond to any non-compliance; and
    - respond to emergencies; and
  - (f) include:
    - references to any strategies, plans and programs approved under the conditions of this approval; and
    - a clear plan depicting all the monitoring to be carried out under the conditions of this approval.

The Proponent must implement any Environmental Management Strategy as approved by the Secretary.

#### **Evidence of Consultation**

- 2. Where the conditions of this approval require consultation with an identified party, the Proponent must:
  - (a) consult with the relevant party prior to submitting the subject document to the Secretary for approval; and
  - (b) provide details of the consultation undertaken, including:
    - a description of how matters raised by those consulted have been resolved; and
    - details of any disagreement remaining between the party consulted and the Proponent and how the Proponent has addressed any unresolved matters.

However, if the Secretary agrees, a strategy, plan or program may be prepared without consultation being undertaken with an identified party required under a condition of this approval.

## **Management Plan Requirements**

- 3. The Proponent must ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include:
  - (a) a summary of relevant background or baseline data;
  - (b) a description of:
    - the relevant statutory requirements (including any relevant approval, licence or lease conditions);
    - any relevant limits or performance measures/criteria: and
    - the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;
  - (c) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
  - (d) a program to monitor and report on the:
    - impacts and environmental performance of the development; and
    - effectiveness of any management measures (see (c) above);
  - (e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible:
  - (f) a program to investigate and implement ways to improve the environmental performance of the project over time;
  - (g) a protocol for managing and reporting any:
    - incidents;
    - complaints; and
    - non-compliances with statutory requirements;

- (h) a protocol for periodic review of the plan; and
- (i) a document control table that includes version numbers, dates when the management plan was prepared and reviewed, names and positions of the person/s who prepared and reviewed the management plan, a description of any revisions made and the date of the Secretary's approval.

Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.

## **Application of Existing Strategies, Plans and Programs**

4. The Proponent must continue to apply existing management plans, strategies or monitoring programs approved prior to the approval of Modification 2, until the approval of a similar plan, strategy or program following the approval of Modification 2.

## **Revision of Strategies, Plans & Programs**

- 5. Within 3 months of:
  - (a) the submission of an incident report under condition 10 below;
  - (b) the submission of an Annual Review under condition 12 below;
  - (c) the submission of an Independent Environmental Audit report under condition 14 below; and
  - (d) the approval any modifications to this approval,

the Proponent must review the suitability of all strategies, plans and programs required under this approval. Where this review leads to revisions in any such document, then within 6 weeks of the review the revised document must be submitted for the approval of the Secretary.

#### **Notes**

- The purpose of this condition is to ensure that strategies, plans and programs are regularly updated to incorporate any measures recommended to improve environmental performance of the project.
- In the event of an inconsistency between condition 5(d) above and any condition in Schedule 3 of this approval, the latter prevails.

### **Updating and Staging of Strategies, Plans or Programs**

- 6. With the approval of the Secretary, the Proponent may:
  - (a) prepare and submit any strategy, plan or program required by this approval on a staged basis (if a clear description is provided as to the specific stage and scope of the project to which the strategy, plan or program applies, the relationship of the stage to any future stages and the trigger for updating the strategy, plan or program);
  - (b) combine any strategy, plan or program required by this approval (if a clear relationship is demonstrated between the strategies, plans or programs that are proposed to be combined); and
  - (c) update any strategy, plan or program required by this approval (to ensure the strategies, plans and programs required under this approval are updated on a regular basis and incorporate additional measures or amendments to improve the environmental performance of the project).

### **Adaptive Management**

7. The Proponent must assess and manage project-related risks to ensure that there are no exceedances of the criteria and/or performance measures in Schedule 3. Any exceedance of these criteria and/or performance measures constitutes a breach of this approval and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.

Where any exceedance of these criteria and/or performance measures has occurred, the Proponent must as soon as becoming aware of any exceedance:

- (a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not reoccur:
- (b) consider all reasonable and feasible options for remediation (where relevant);
- (c) within 14 days of the exceedance occurring, submit a report to the Secretary describing these remediation options and any preferred remediation measures or other course of action; and
- (d) implement remediation measures as directed by the Secretary; to the satisfaction of the Secretary.

#### **COMMUNITY CONSULTATIVE COMMITTEE**

8. If directed by the Secretary, the Proponent must establish and operate a Community Consultative Committee (CCC) for the project to the satisfaction of the Secretary. Any such CCC must be operated in general accordance with the Department's *Community Consultative Committee Guidelines, November 2016* (or later version).

Notes:

- The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval.
- In accordance with the guidelines, the Committee should comprise an independent chair and appropriate representation from the Proponent, Council and the local community.
- The Proponent may, with the approval of the Secretary, combine the function of this CCC with the functions of other CCCs in the area.

#### **REPORTING**

#### **Incident Reporting**

- 9. The Proponent must immediately notify the Secretary (using the contact name, email address and phone number provided by the Department from time to time) and any other relevant agencies of any incident.
- 10. Within 7 days of the date of the incident, the Proponent must provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested. This report must include the time and date of the incident, details of the incident, measures implemented to prevent re-occurrence and must identify any non-compliance with this approval.

### **Regular Reporting**

11. The Proponent must provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval.

#### **Annual Review**

- 12. By the end of March each year, or other timing as may be agreed by the Secretary, the Proponent must submit a review to the Department reviewing the environmental performance of the project to the satisfaction of the Secretary. This review must:
  - (a) describe the project (including any progressive rehabilitation) that was carried out in the previous calendar year, and the project that is proposed to be carried out over the current calendar year;
  - (b) include a comprehensive review of the monitoring results and complaints records of the project over the previous calendar year, which includes a comparison of these results against the:
    - relevant statutory requirements, limits or performance measures/criteria;
    - requirements of any plan or program required under this approval;
    - monitoring results of previous years; and
    - relevant predictions in the documents listed in condition 2 of Schedule 2;
  - (c) evaluate and report on:
    - the effectiveness of the air quality and noise management systems; and
    - compliance with the performance measures, criteria and operating conditions in this approval.
  - (d) identify any non-compliance over the past calendar year, and describe what actions were (or are being) taken to ensure compliance;
  - (e) identify any trends in the monitoring data over the life of the project;
  - identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and
  - (g) describe what measures will be implemented over the current calendar year to improve the environmental performance of the project.

The Proponent must ensure that copies of the Annual Review are submitted to Council and are available to the Community Consultative Committee (see condition 8 of Schedule 5) and any interested person upon request.

#### INDEPENDENT ENVIRONMENTAL AUDIT

- 13. Within 3 years of the date of this approval, and every 3 years thereafter, unless the Secretary directs otherwise, the Proponent must commission, commence and pay the full cost of an Independent Environmental Audit of the project. This audit must:
  - (a) be led and conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;
  - (b) include consultation with the relevant agencies and the CCC;
  - assess the environmental performance of the project and whether it is complying with the relevant requirements in this approval and any relevant EPL or necessary water licences for the project (including any assessment, strategy, plan or program required under these approvals);
  - (d) review the adequacy of strategies, plans or programs required under the abovementioned approvals:

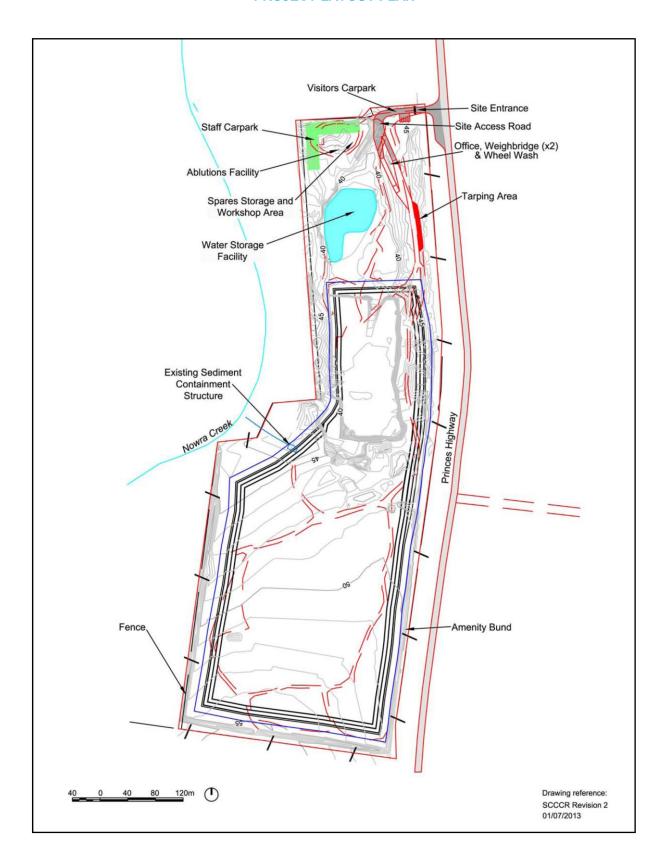
- recommend appropriate measures or actions to improve the environmental performance of the project, and/or any assessment, strategy, plan or program required under the abovementioned approvals; and
- (f) be conducted and reported to the satisfaction of the Secretary.
- 14. Within 12 weeks of commencing this audit, or as otherwise agreed by the Secretary, the Proponent must submit a copy of the audit report to the Secretary and any other NSW agency that requests it, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of these recommendations as required. The Proponent must implement these recommendations, to the satisfaction of the Secretary.

#### **ACCESS TO INFORMATION**

- 15. Within 3 months of the determination of Modification 2, until the completion of all works, including rehabilitation and remediation, the Proponent must:
  - (a) make the following information publicly available on its website:
    - the documents listed in condition 2 of Schedule 2;
    - current statutory approvals for the project;
    - all approved strategies, plans and programs required under the conditions of this approval;
    - regular reporting on the environmental performance of the development in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval;
    - a comprehensive summary of the monitoring results of the project, reported in accordance with the specifications in any conditions of this approval, or any approved plans and programs;
    - summary of the current stage and progress of the project;
    - contact details to enquire about the project or to make a complaint;
    - a complaints register, updated at least monthly;
    - the Annual Reviews of the project;
    - any Independent Environmental Audit as described in condition 13 above, and the Proponent's response to the recommendations in any audit; and
    - any other matter required by the Secretary; and
  - (b) keep this information up-to-date,

to the satisfaction of the Secretary.

# APPENDIX 1 PROJECT LAYOUT PLAN



# APPENDIX 2 STATEMENT OF COMMITMENTS

## Final Statement of Commitments for the Nowra Brickworks Quarry

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| Desired Outcome   | Acti | ion  | Timing  |  |  |
|---|------|--|---|--|--|
| 1. Environmental Management   |      |  |   |  |  |
| Compliance with all conditional requirements in all approvals,  | 1.1  | Comply with all commitments recorded in <b>Table 5.1</b>   | Continuous and as required.                         |  |  |
| licences and leases.  | 1.2  | Comply with all conditional requirements included in the:  |   |  |  |
|   |      | Project Approval;  |   |  |  |
|   |      | Environment Protection Licence;  |   |  |  |
|   |      | Mining Leases; and   |   |  |  |
|   |      | any other approvals.   |   |  |  |
| All operations conducted in accordance with all relevant documentation.   | 1.3  | Undertake all activities in accordance with the accepted Mining Operations Plan, environmental procedures, safety management plan and/or site-specific documentation.  | Continuous and as required.                         |  |  |
|   | 1.4  | provide annual production data to DRG  |   |  |  |
| 2. Area of Activities   |      |  |   |  |  |
| All approved activities are undertaken generally in the location(s) nominated on the figures shown in Sections 2 and 4. | 2.1  | Mark, and where appropriate, survey the boundaries of the areas of proposed disturbance.   | Prior to the commencement of the relevant activity. |  |  |
| 3. Hours of Operation   |      |  |   |  |  |
| All operations are undertaken within the approved operating hours.  | 3.1  | Extraction, processing and VENM/ENM backfilling-related activities.  | Continuous  |  |  |
|   |      | • 7:00am to 6:00pm, Monday to Friday.  |   |  |  |
|   |      | • 7:00am to 4:00pm, Saturday   |   |  |  |
|   | 3.2  | Product despatch.  |   |  |  |
|   |      | • 7:00am to 6:00pm, Monday to Saturday.  |   |  |  |
|   |      | <ul> <li>Up to three unladen trucks would arrive at the<br/>Project Site between 6:00am and 7:00am,<br/>Monday to Saturday and may return to the<br/>Project Site between 6:00pm and 8:00pm,<br/>Monday to Friday and between 4:00pm and<br/>6:00pm Saturday.</li> </ul> |   |  |  |
|   | 3.3  | Maintenance-related activities   |   |  |  |
|   |      | • 7:00am to 6:00pm, Monday to Saturday.  |   |  |  |

| Desired Outcome   | Actio | n  | Timing  |  |  |  |
|---|-------|--|---|--|--|--|
| 4. Hydrology (Surface Water and Groundwater)  |       |  |   |  |  |  |
| All surface water and ground water managed such that water to be discharged from the Project Site complies with all assessment criteria | 4.1   | Maintain and progressively relocate the existing surface water diversion and sediment containment structures.  | As required   |  |  |  |
| complice with all accessiment emona   | 4.2   | Construct, maintain and relocate, as required, surface water diversion structures to ensure that all surface water flows within disturbed sections of the Project Site are directed to the extraction area. The maximum catchment area would be required to be less than 5.9ha. To achieve this, the Proponent would ensure that progressive rehabilitation is undertaken as soon as practicable on sections of the Project Site no longer required for extraction-related operations. |   |  |  |  |
|   | 4.3   | Construct temporary surface water diversion structures on the upslope side of all soil stockpiles or other disturbed areas to limit erosion.   |   |  |  |  |
|   | 4.4   | Install sediment fencing adjacent to the down-<br>slope toe of all soil stockpiles or other disturbed<br>areas.  |   |  |  |  |
|   | 4.5   | Regularly inspect all surface water and sediment control structures for adequacy and repair or upgrade, where required.  | Six monthly and following significant rainfall events |  |  |  |
|   | 4.6   | Install and maintain a suitably sized sump within the active extraction area to collect all surface water runoff and groundwater inflows to the extraction area.   | Following receipt of project approval                 |  |  |  |
|   | 4.7   | Preferentially use water within the extraction area sump for dust suppression-related activities. Surplus water within the extraction area sump would be pumped to the water storage facility.   | As required   |  |  |  |
|   | 4.8   | Preferentially use water within the water storage facility for rehabilitation-related activities or for irrigation within the irrigation area.   |   |  |  |  |
|   | 4.9   | Construct 'grassed buffer areas' adjacent to the site access road and other sealed sections of the Project Site.   | Within 6 months of receipt of project approval        |  |  |  |

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| Desired Outcome  | Action |   | Timing  |  |  |  |
|--|--------|---|---|--|--|--|
| 5. Ecology   |        |   |   |  |  |  |
| Minimise Project-related impacts on flora and fauna within and surrounding the Project Site. | 5.1    | Stage extraction activities such that they preferentially progress from disturbed sections of the Project Site to undisturbed sections.   | Continuous                                    |  |  |  |
|  | 5.2    | Remove native vegetation only from those areas required for operational purposes during the subsequent 12 months.   |   |  |  |  |
|  | 5.3    | Mark hollow-bearing trees to ensure they are readily identifiable.  |   |  |  |  |
|  | 5.4    | Mark the boundaries of areas of native vegetation to be cleared.  | Prior to clearing operations                  |  |  |  |
|  | 5.5    | Erect cage traps in the vicinity of hollow-bearing trees for three consecutive nights.  |   |  |  |  |
|  | 5.6    | Keep any trapped animal in captivity by animal for the period of clearing of native vegetation.   | During clearing operations                    |  |  |  |
|  | 5.7    | Clear non-hollow-bearing trees before clearing other vegetation.  | During clearing operations                    |  |  |  |
|  | 5.8    | Ensure a qualified fauna consultant is present during clearing of hollow-bearing trees.   |   |  |  |  |
|  | 5.9    | Release any trapped animal adjacent to the Project Site.  | Following clearing operations                 |  |  |  |
|  | 5.10   | Break or cut cleared vegetation into manageable sections to be placed on areas undergoing rehabilitation or within other areas of native vegetation surrounding the Project Site. | Following clearing operations                 |  |  |  |
|  | 5.11   | Undertake weed control programs within the Project Site.  | Annually                                      |  |  |  |
|  | 5.12   | Strip, stockpile and spread topsoil and subsoil in accordance with Section 2.3.5.   | During soil stripping programs                |  |  |  |
|  | 5.13   | Progressively rehabilitate all areas of disturbance no longer required for extraction or placement activities.  | Following completion of extraction operations |  |  |  |
|  | 5.14   | Implement the proposed biodiversity offset strategy   |   |  |  |  |

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| Desired Outcome  | Actic | on   | Timing   |  |  |  |  |
|--|-------|--|--|--|--|--|--|
| 6. Traffic and Transportation  |       |  |  |  |  |  |  |
| Limit the impact of Project-   | 6.1.  | Adhere to the approved hours of operation.   | Continuous   |  |  |  |  |
| related traffic  | 6.2.  | Adhere to all speed limits.  |  |  |  |  |  |
| Allow concerned residents or motorists to report any traffic-  | 6.3.  | Establish a complaints register, advertised in the local telephone directory.  | On receipt of project approval   |  |  |  |  |
| related incidents, unsafe operation or general concerns.   | 6.4.  | Investigate all complaints and act decisively on substantiated incidents.  |  |  |  |  |  |
| Ensure all weight restrictions are adhered to  | 6.5.  | Weigh all entering and exiting laden trucks.   | Continuous   |  |  |  |  |
| Limit the tracking of material onto the Princes Highway to minimise dust, particulate matter and debris emissions. | 6.6.  | Seal a 150m section of the site access road from the entrance gate and construct a wheel wash facility.  | Prior to the amount<br>of quarry products<br>despatched from the<br>Project Site<br>exceeding 250 000t<br>per year |  |  |  |  |
|  | 6.7.  | Ensure all loads are covered.  | Continuous   |  |  |  |  |
|  | 6.8.  | Provide a safe area for covering loads.  |  |  |  |  |  |
| Ensure all drivers adhere to the Projects Code of Conduct  | 6.9.  | Require all truck drivers to sign a Driver's Code of Conduct.  | Prior to each driver leaving site for the first time   |  |  |  |  |
| 7. Air Quality   |       |  |  |  |  |  |  |
| Site activities are undertaken without exceeding EPA air quality criteria or goals.                                | 7.1.  | Utilise water sprays and water trucks in all areas of potential dust lift-off to minimise potential dust emissions.                                      | Continuous   |  |  |  |  |
|  | 7.2.  | Utilise a chemical dust lift-off suppression system along unsealed roads, tracks and working areas, as well as with the mobile processing plant(s).      |  |  |  |  |  |
|  | 7.3.  | Utilise efficient mist sprays and wind sheltering equipment on processing equipment.   |  |  |  |  |  |
|  | 7.4.  | Maintain a maximum speed limit within the Project Site of 10km/h.  |  |  |  |  |  |
|  | 7.5.  | Stabilise the unsealed shoulders of the site assess road.  | Prior to the amount of quarry products   |  |  |  |  |
|  | 7.6.  | Install a wheel wash on the site access road to limit tracking of material onto the Princes Highway  | despatched from the<br>Project Site<br>exceeding 250 000t<br>per year  |  |  |  |  |
|  | 7.7.  | Disturb only the minimum area required for operation of the quarry during the subsequent 12 months.  | Continuous   |  |  |  |  |
|  | 7.8.  | Stabilise soil stockpiles to be in place for more than 10 days through the application of cleared vegetation, hydroseeding, hydromulching or equivalent. | Following soil stripping activities  |  |  |  |  |

| Desired Outcome  | Action |   | Timing  |  |
|--|--------|---|---|--|
| 7. Air Quality (Cont'd)  |        |   |   |  |
| Site activities are undertaken without exceeding EPA air quality criteria or goals. (Cont'd) | 7.9.   | Minimise the creation of minor roads and access tracks.   | Continuous  |  |
|  | 7.10.  | Utilise dust aprons, dust extraction systems and/or water injection or sprays during drilling operations.                                   | During drilling operations  |  |
|  | 7.11.  | Adequately stem all blast holes with aggregates.  | During blasting operations  |  |
|  | 7.12.  | Commence rehabilitation as soon as practicable.   | Once an area is no longer required for extraction or placement-related operations |  |
| 8. Noise   |        |   |   |  |
| Project-related noise impacts on   | 8.1.   | Adhere to the approved hours of operation.  | Continuous  |  |
| surrounding residences minimised.  | 8.2.   | Use noise-mitigated mobile and processing equipment.  |   |  |
|  | 8.3.   | Undertake all processing operations within the deepest section of the quarry.   |   |  |
|  | 8.4.   | Maintain all mobile and processing equipment in accordance with the manufacturer's specifications.  |   |  |
|  | 8.5.   | Preferential selection of equipment with lower sound power levels over equipment with higher sound power levels.                            | As equipment renewal is required  |  |
|  | 8.6.   | Progressively install frequency modulated reversing alarms on mobile equipment.   |   |  |
| 9. Blasting  |        |   |   |  |
| Project-related blasting impacts within assessment guidelines.                               | 9.1.   | Design and implement blasts by a suitably qualified blasting engineer and experienced shot-firer.   | Each blast  |  |
|  | 9.2.   | Design blasts to ensure the assessment criteria described in Section 4.7.4.5 are complied with at all residential and commercial receivers. |   |  |
|  | 9.3.   | Modify blast designs, mitigation measures and operating procedures on the basis of monitoring results.                                      | As required   |  |
|  | 9.4.   | Limit blasting operations to between the hours of 9:00am and 4:00pm, Monday to Saturday.  | Each blast  |  |
|  | 9.5.   | Negotiate an appropriate arrangement with the owner of Residence A.   | Prior to completion of<br>Stage 1 of the<br>Project                               |  |

| Desired Outcome  | Action  | Timing   |
|--|---|--|
| 9. Blasting (Cont'd)   |   |  |
| Project-related blasting impacts within assessment guidelines. (Cont'd)        | <ul> <li>9.6. Notify the following organisations verbally of each blast.</li> <li>Shoalhaven City Council.</li> <li>NSW Police.</li> <li>NSW Roads and Maritime Services.</li> <li>The owner of Residence A.</li> <li>Environment Protection Authority.</li> <li>The South Coast Correctional Facility (when constructed).</li> </ul> | On the working day prior to the blast being initiated  |
|  | ,   | Continuous   |
|  | 9.8. Maintain a register of complaints.   |  |
|  | 9.9. Respond promptly to any issue of concern.  |  |
| 10. Aboriginal Cultural Heritage   |   |  |
| Unidentified Aboriginal sites are not disturbed by the Proponent's activities. | 10.1. Ensure representatives of the Aboriginal<br>community are present during activities that<br>would disturb the upper 10cm of soil in the area<br>marked on Figure 5.1.   | During soil stripping operations in the area indicated |
|  | 10.2. Cease all work in the event that an item of suspected Aboriginal cultural heritage is discovered, establish a 20m x 20m buffer around the item and consult with the Department of Environment, Climate Change and Water.  | As required  |
|  | 10.3. Cease all work in the event that suspected human remains are discovered, establish a 50m x 50m buffer around the item(s) and consult with NSW Police and the Department of Environment, Climate Change and Water.   | As required  |
| 11. Soils  |   |  |
| The Proponent's activities do not result in soil degradation or loss.          | 11.1. Strip soils only when they are moist.   | During soil stripping operations                       |
|  | 11.2. Strip topsoils using a scraper, excavator or<br>bulldozer to a depth of between 180mm and<br>250mm below the surface.   |  |
|  | 11.3. Strip subsoils to a depth of between 175mm and 500mm below the base of the topsoil.   |  |
|  | 11.4. Place soils directly on areas undergoing progressive rehabilitation, where practicable.   | During rehabilitation operations                       |

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| Desired Outcome  | Action |   | Timing                                   |
|--|--------|---|--|
| 11. Soils (Cont'd)   |        |   |  |
| The Proponent's activities do not result in soil degradation or loss. (Cont'd) | 11.5.  | Place VENM/ENM in the manner described in Section 2.9.5.  | During VENM/ENM placement operations     |
|  | 11.6.  | Place subsoil over the VENM/ENM to a thickness of approximately 250mm.  | During soil<br>placement<br>operations   |
|  | 11.7.  | Place topsoil to a thickness of approximately 200mm.  |  |
|  | 11.8.  | Apply biosolids to the topsoil at a rate of less than 20 dry tonnes per hectare.  |  |
|  | 11.9.  | Spread between 20mm to 40mm of mulched native vegetation, broken tree debris or bitumen sprayed straw mulch over the topsoil.   |  |
|  | 11.10. | Locate soil stockpiles, where required, at least 2m from existing vegetation, areas of concentrated surface water flows, roads or other hazardous areas.                                  | During soil<br>stockpiling<br>operations |
|  | 11.11. | Construct soil stockpiles as low (less than 2m high), flat, elongated mounds with side slopes no greater than 1:3(V:H). Where practicable, topsoil stockpiles would be less than 1m high. |  |
|  | 11.12. | Stabilise stockpiles to be in place for more than 10 days through the application of mulched or broken vegetation, hydroseeding, hydromulching or equivalent.                             | During soil<br>stockpiling<br>operations |
|  | 11.13. | Erect a sediment fence approximately 1m from the toe on the downslope side of soil stockpiles.  |  |
|  | 11.14. | Use stockpiled soil material for rehabilitation-<br>related operations within 6 months of being<br>stockpiled.  |  |
| Ensure sediment-laden surface water is not permitted to flow off site.         | 11.15. | Maintain and relocate an earth bank to divert all<br>'clean' surface water to a sediment retention<br>structure and level spreader.   | Continuous                               |
|  | 11.16. | Divert all surface water flows from disturbed areas to the water storage facility where practicable.  |  |
|  | 11.17. | Divert all other potentially sediment-laden surface water flows to a sump within the extraction area.   |  |

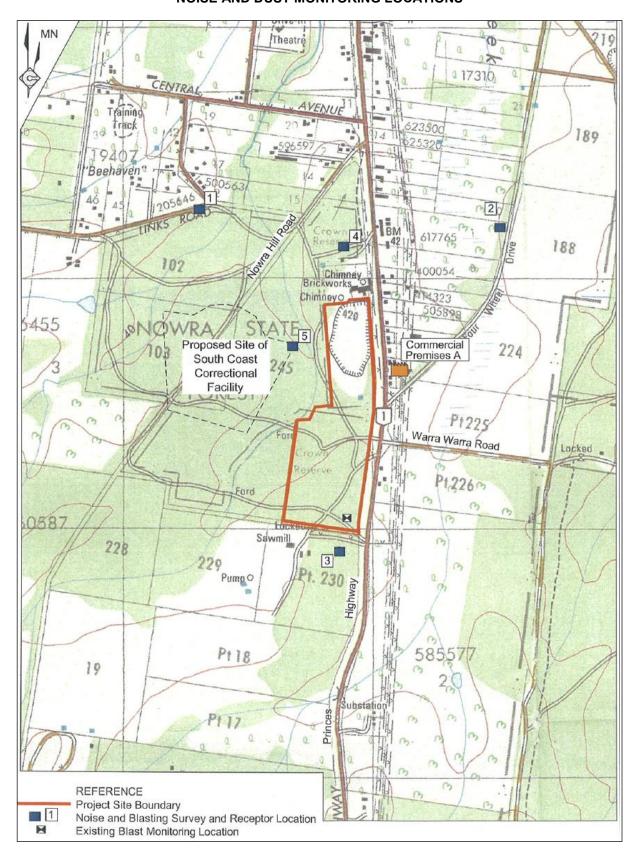
| Desired Outcome  | Action |   | Timing   |
|--|--------|---|--|
| 11. Soils (Cont'd)   |        |   |  |
| Ensure sediment-laden surface water is not permitted to flow off site. (Cont'd)  | 11.18. | Preferentially use water from the extraction area sump for dust suppression and watering of roads and other areas.  |  |
|  | 11.19. | Construct a bio-infiltration facility in accordance with the specifications in Section 4.9.3.   | Prior to discharge of<br>surface water to<br>Nowra Creek |
|  | 11.20. | Preferentially use water within the water storage facility for rehabilitation-related activities.   | Continuous   |
|  | 11.21. | Pump excess water from the extraction are sump to the water storage facility.   | As required  |
|  | 11.22. | Pump water from the water storage facility to a bio-infiltration facility when the concentration of total suspended solids within the water storage facility is less than 50mg/L. |  |
|  | 11.23. | Pump water from the bio-infiltration facility to Nowra Creek.   |  |
| 12. Visibility   |        |   |  |
| Limit impacts to the visual amenity of the area surrounding the Project Site.    | 12.1.  | Maintain the existing perimeter bunds.  | Continuous   |
|  | 12.2.  | Maintain the existing mature trees on the eastern boundary of the Project Site.   |  |
|  | 12.3.  | Adopt a high standard of house keeping.   |  |
| 13. Socio-Economic   |        |   |  |
| Ensure Project-related adverse impacts are minimised and benefits are maximised. | 13.1.  | Give preference to suppliers of equipment, services or consumables located within the Shoalhaven Local Government Area or Illawarra Region, where ever practicable.               | Continuous   |
|  | 13.2.  | Give preference, where reasonable to do so, when engaging new employees to candidates who live within the Shoalhaven Local Government Area.                                       |  |
|  | 13.3.  | Continue to support local junior sporting clubs through sponsorship or in kind support.   |  |
|  | 13.4.  | Review any request by a community organisation for support or assistance during the life of the Project.  | As required  |

| Desired Outcome   | Action |  | Timing  |
|---|--------|--|---|
| 13. Socio-Economic (Cont'd)   | •      |  |   |
| Ensure Project-related adverse impacts are minimised and benefits are maximised. (Cont'd) | 13.5.  | Consult with the residents and community surrounding the Project Site.   | Continuous  |
|   | 13.6.  | Advertise and maintain a community complaints telephone line.  |   |
|   | 13.7.  | Develop and maintain a Complaints<br>Management Plan to ensure prompt response<br>to issues identified by the public.  |   |
| 14. Environmental Monitoring  | •      |  |   |
| Ongoing monitoring of surface and groundwater-related impacts.                            | 14.1.  | Monitor groundwater levels within Piezometers P1 to P8 ( <b>Figure 5.1</b> ).  | Monthly.  |
|   | 14.2.  | Monitor and record groundwater quality within piezometers P2, P3, P5, P6 and P7 ( <b>Figure 5.1</b> ).   | Quarterly   |
|   | 14.3.  | Monitor and record groundwater seepage on rock faces. To be undertaken by a geotechnical engineer.   | Six monthly   |
|   | 14.4.  | Monitor and record surface water quality within the extraction area sump, the water storage facility, the sediment containment structure and within Nowra Creek upstream and downstream of the Project-site discharge point. | Monthly   |
|   | 14.5.  | Determine and record the quality of water pumped from the water storage facility to the bio-infiltration facility.   | During each pumping campaign                                |
|   | 14.6.  | Determine and record the quality of water discharged from the bio-infiltration facility to Nowra Creek.  |   |
|   | 14.7.  | Determine and record the quality of water flowing from the sediment containment structure to Nowra Creek.  | During or immediately following significant rainfall events |
|   | 14.8.  | Determine, using in-line meters, and record the volumes of water pumped:   | During pumping programs                                     |
|   |        | <ul> <li>from the extraction area sump to the<br/>water storage facility;</li> </ul>   |   |
|   |        | <ul> <li>from the water storage facility to the bio-<br/>infiltration facility; and</li> </ul>   |   |
|   |        | <ul> <li>from the bio-infiltration facility to Nowra Creek.</li> </ul>   |   |

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| Desired Outcome  | Action |  | Timing   |
|--|--------|--|--|
| 14. Environmental Monitoring (Co   | nt'd)  |  |  |
| Ongoing monitoring of surface and groundwater-related impacts. (Cont'd)                                  | 14.9.  | Determine and record the volume of water used for extraction, processing, placement and rehabilitation-related operations.   | Daily  |
| Ongoing monitoring of ecology-related impacts.   | 14.10. | Undertake regular monitoring of areas undergoing rehabilitation to determine the success or otherwise of the management, mitigation and ameliorative measures and the rehabilitation programs. | Six monthly                                    |
|  | 14.11. | Take photographs from fixed points to document activities within the Project Site, including rehabilitation progress.  | Six monthly                                    |
|  | 14.12. | Undertake weed inspection programs.  | Annually                                       |
| Ongoing monitoring of air quality-related impacts.   | 14.13. | Maintain the existing network of deposited dust monitoring gauges and determine and record dust deposition rates.  | Monthly  |
|  | 14.14. | Establish a meteorological station capable of measuring temperature at the surface and at a height of 10m, wind direction and speed and rainfall.  | Within 3 months of receipt of project approval |
| Ongoing monitoring of blasting-<br>related impacts.  | 14.15. | Monitor all blasts at the blast monitoring locations indicated on <b>Figure 5.1</b> .  | Each blast                                     |
| 15. Environmental Documentation  |        |  |  |
| A systematic set of documents are in place to guide the planning and implementation of all environmental | 15.1   | Incorporate the environmental procedures in an on-site management system.  | Prior to relevant activity.                    |
| management strategies.   | 15.2   | Update the Mining Operations Plan.   | As required.                                   |
|  | 15.3   | Incorporate relevant environmental data / information in Annual Environmental Management Reports.  | Annually.                                      |
|  | 15.4   | Prepare the following environmental plans for the Project.   | Variously.                                     |
|  |        | <ul> <li>Air Quality Monitoring Program.</li> </ul>  |  |
|  |        | - Noise Monitoring Program.  |  |
|  |        | - Blast Monitoring Program.  |  |
|  |        | <ul> <li>Flora and Fauna Management Plan.</li> </ul>   |  |
|  |        | - Site Water Management Plan.  |  |
|  |        | - Groundwater Management Plan.   |  |
|  |        | <ul> <li>Rehabilitation and Landscape</li> <li>Management Plan</li> </ul>  |  |
|  | 15.5   | Incorporate the environmental procedures in an on-site management system.  | Prior to relevant activity.                    |

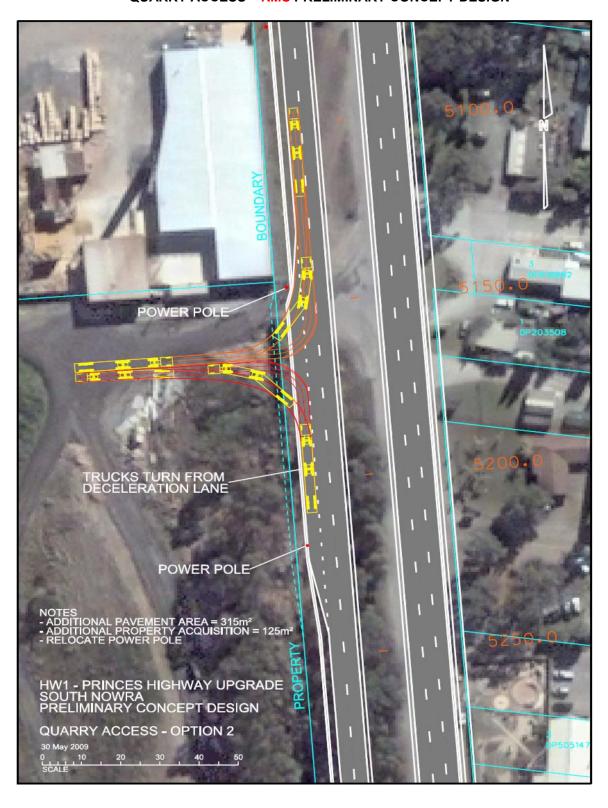
# APPENDIX 3 NOISE AND DUST MONITORING LOCATIONS



# APPENDIX 4 CONCEPTUAL FINAL LANDFORM



# APPENDIX 5 QUARRY ACCESS – RMS PRELIMINARY CONCEPT DESIGN



# APPENDIX 6 NOISE COMPLIANCE ASSESSMENT

### **Applicable Meteorological Conditions**

- 1. The noise criteria in Table 2 are to apply under all meteorological conditions except the following:
  - (a) wind speeds greater than 3 m/s at 10 m above ground level; or
  - (b) temperature inversion conditions between 1.5°C and 3°C/100 m and wind speed greater than 2 m/s at 10 m above ground level; or
  - (c) temperature inversion conditions greater than 3°C/100 m.

#### **Determination of Meteorological Conditions**

2. Except for wind speed at microphone height, the data to be used for determining meteorological conditions must be that recorded by the meteorological station required under condition 16A of Schedule 3.

#### **Compliance Monitoring**

- 3. A noise compliance assessment must be undertaken within six months of the approval of Modification 2. The assessment must be conducted by a suitably qualified and experienced acoustical practitioner and must assess compliance with the noise criteria in Table 2. A report must be provided to the Secretary and EPA within 1 month of the assessment.
- 4. Unless the Secretary agrees otherwise, this monitoring is to be carried out in accordance with the relevant requirements for reviewing performance set out in the *NSW Industrial Noise Policy* (as amended from time to time), in particular the requirements relating to:
  - (a) monitoring locations for the collection of representative noise data;
  - (b) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment;
  - (c) modifications to noise data collected, including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration; and
  - (d) the use of an appropriate modifying factor for low frequency noise to be applied during compliance testing at any individual residence if low frequency noise is present (in accordance with the *NSW Industrial Noise Policy*) and before comparison with the specified noise levels in the approval.