

Project Approval

Section 75J of the *Environmental Planning and Assessment Act 1979*

As delegate for the Minister of Planning, I approve the project application 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.

SIGNED 29 OCTOBER 2010 Sydney	Chris Wilson A/Deputy Director-General 2010
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SCHEDULE 1

project Application:	07_0094
Proponent:	ATB Morton Pty Ltd
Approval Authority:	Minister for Planning
Land:	Lot 4042 DP1090633; Lot 632 DP609506; and Lot 633 DP609506.
project:	Salt Ash Sand project

August 2011 modification in red type (MOD 1)
March 2011 modification in blue type (MOD 2)
August 2014 modification in green type (MOD 3)
October 2018 modification in purple type (MOD 4)

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DEFINITIONS

Annual Review	The review required by condition 3 of schedule 5
BCA	Building Code of Australia
Conditions of this approval	Conditions contained in schedules 2 to 5 inclusive
Construction activities	Physical activities required to be completed prior to commencement of quarrying operations; including the construction of the processing plant, access road and adjacent bund
Council	Port Stephens Council
Department	NSW Department of Planning and Environment
DoI	NSW Department of Industry – Crown Lands and Water
DRG	Division of Resources and Geoscience within the Department
EA	Environmental Assessment of the project titled <i>Environmental Assessment Proposed Sand Quarry Lot 4042, DP 1090633, Lot 632, DP 609506 & Lot 633 DP 609506, Nelson Bay Road, SALT ASH</i> prepared by ATB Morton Pty Limited, dated February 2010 including the <i>Final Project Report</i> , dated May 2010, containing the Proponent's Response to Submissions
EA (MOD 1)	Environmental Assessment titled <i>Salt Ash Sand Quarry and Tomalla Offset Biobank Assessment Report</i> , dated 20 May 2011 and prepared by ATB Morton Pty Limited; and supporting documentation titled <i>Tomalla Botanical Survey and Vegetation Mapping – Offset Investigation: Lot 2 DP 707938, Tomalla, NSW</i> prepared by Orogen Pty Limited and dated November 2010
EA (MOD 2)	Environmental Assessment titled <i>Proposed Modification to Salt Ash Sand Extraction project (MP 07_0094)</i> , dated 18 February 2011 prepared by ATB Morton Pty Limited
EA (MOD 3)	Environmental Assessment titled <i>Proposed modification to Salt Ash Sand Extraction project (MP 07_0094)</i> , dated 2 May 2014 and prepared by ATB Morton Pty Limited
EA (MOD 4)	Environmental Assessment titled <i>Modification to Redisand Salt Ash Sand project approval 07_0094</i> , dated November 2017 and response to submissions documents dated April 2018 and May 2018 prepared by ATB Morton Pty Limited
EEC	Endangered Ecological Community, as defined under the <i>Biodiversity Conservation Act 2016</i> and/or <i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</i>
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPA	NSW Environment Protection Authority
EPL	Environment Protection Licence under the <i>Protection of the Environment Operations Act 1997 (POEO Act)</i>
Feasible	Means what is possible and practical in the circumstances
HWC	Hunter Water Corporation
Incident	An occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance
km/h	Kilometres per hour
Laden trucks	Trucks transporting quarry products from the site and/or trucks transporting topsoil or mulch to the site
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
m AHD	metres Australian Height Datum
Material harm	Is harm that: - involves actual or potential harm to the health or safety of human beings or to the environment 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) This definition excludes “harm” that is authorised under either this approval or any other statutory approval
Minister	NSW Minister for Planning, or delegate
Mitigation	Activities associated with reducing the impacts of the project

Modification 4	The modifications to the project, as described in EA (MOD 4)
Non-compliance	An occurrence, set of circumstances or development that is a breach of this approval
OEH	Office of Environment and Heritage
Privately-owned land	Land that is not owned by a public agency or a quarrying company (or its subsidiary)
Project	The project as described in the documents listed in condition 2 of Schedule 2
Project layout	The layout of the project as shown in the figure in Appendix 1
Proponent	ATB Morton Pty Limited, or any person carrying out any project under 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.
Quarry product	Includes all saleable quarry products, but excludes tailings and other wastes and rehabilitation material
Quarrying operations	The extraction, processing, stockpiling and transportation of extractive materials carried out on the site and the associated removal, storage and/or emplacement of vegetation, topsoil and overburden
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
Rehabilitation	The restoration of land disturbed by the development to a good condition, to ensure it is safe, stable and non-polluting
Response to Submissions	The Proponent's response to the issues raised in submissions, dated May 2010 and contained within the <i>Final Project Report</i>
RMS	NSW Roads and Maritime Services
Secretary	Planning Secretary under the EP&A Act, or nominee
SEPP	State Environmental Planning Policy
Statement of Commitments	The Proponent's commitments in Appendix 3
Site	Land to which the project Approval applies, as listed in schedule 1 and shown in Appendix 1
Tomalla offset site	The Proponent's offset site at Tomalla, Lot 2, DP707938

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/or minimise any material harm to the environment that may result from the construction, operation or rehabilitation of the project.

TERMS OF APPROVAL

2. The Proponent must carry out the project generally in accordance with the:
 - (a) EA;
 - (b) Statement of Commitments;
 - (c) EA (MOD 1);
 - (d) EA (MOD 2);
 - (e) EA (MOD 3);
 - (f) EA (MOD 4); and
 - (g) project layout.
- 2A. The Proponent must carry out the project in accordance with the conditions of this approval.
3. Consistent with the requirements in 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 condition 3(a).
4. 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/s listed in condition 2. In the event of an inconsistency, ambiguity or conflict between any of the document/s listed in condition 2, the most recent document prevails to the extent of the inconsistency, ambiguity or conflict.

LIMITS ON APPROVAL

5. Quarrying operations may take place on the site until 31 December 2030.

Note: Under this Approval, the Proponent is required to rehabilitate and revegetate the site and provide and implement a Biodiversity Offset Strategy to the satisfaction of the Secretary. 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 revegetated and the biodiversity offset strategy implemented to a satisfactory standard.
6. The Proponent must not extract sand or other extractive materials or carry out any work in the extraction area below a level of 1 m above the maximum predicted groundwater level (see condition 18 of schedule 3), other than the construction of any bores approved by Dol.
7. The Proponent must not transport more than:
 - (a) 4 laden trucks per hour;
 - (b) 42 laden trucks per day, Monday to Friday; and
 - (c) 18 laden trucks per day on Saturdays.

Note: Truck movements are further restricted by the operating hours in condition 3 of Schedule 3.
8. The Proponent must not transport more than 400,000 tonnes of extractive materials from the site in a calendar year.

STAGED SUBMISSION OF ANY STRATEGY, PLAN OR PROGRAM

9. 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);

- (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); and
- (d) stage or update a strategy, plan or program without consultation being undertaken with all parties required to be consulted in the relevant condition in this approval.

PROTECTION OF PUBLIC INFRASTRUCTURE

10. 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.

STRUCTURAL ADEQUACY

11. The Proponent **must** ensure that any 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.

OPERATION OF PLANT AND EQUIPMENT

12. The Proponent **must** ensure that all plant and equipment used at the site, or to transport extractive materials from the site, is:
 - (a) maintained in a proper and efficient condition; and
 - (b) operated in a proper and efficient manner.

SECTION 94 CONTRIBUTIONS

13. For the life of the project, the Proponent **must** pay Council \$0.10 per tonne of extractive material transported from the site on a quarterly basis, in accordance with Council's Section 94 Contributions Plan 2007 for the maintenance of Janet Parade, Salt Ash. Each payment **must** be:
 - (a) based on weighbridge records of the quantity of extractive material transported from the site in the relevant quarter;
 - (b) paid within 21 days of the end of the relevant quarter;
 - (c) adjusted in line with the Consumer Price Index calculated from the date of approval and applied annually from the first day of operation.

EVIDENCE OF CONSULTATION

14. Where 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:
 - (i) the outcome of that consultation, matters resolved and unresolved; and
 - (ii) details of any disagreement remaining between the party consulted and the Proponent and how the Proponent has addressed the matters not resolved.

COMPLIANCE

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

APPLICABILITY OF GUIDELINES

16. 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.
17. 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 ENVIRONMENTAL PERFORMANCE CONDITIONS

IDENTIFICATION OF BOUNDARIES

1. Prior to the commencement of quarrying operations, the Proponent **must**:
 - (d) engage a registered surveyor to mark out the boundaries of the approved limits of extraction;
 - (e) submit a survey plan of these boundaries to the **Secretary**; and
 - (f) 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.

NOISE

Impact Assessment Criteria

2. The Proponent **must** ensure that the operational noise generated by the project does not exceed the noise impact assessment criteria in Table 1 at any residence on privately-owned land.

Table 1: Noise Impact Assessment Criteria

Receiver	Morning shoulder period 6:00 am – 7:00 am <i>L_{Aeq} (15 min) dB(A)</i>	Day 7:00 am – 6:00 pm <i>L_{Aeq} (15 min) dB(A)</i>
JP1	35	40
JP2	35	43
JP3	35	39
JP4	35	37
NB1	35	36
All other receivers	35	35

Notes:

- (a) Receiver locations are shown in the Figure in Appendix 2; and
- (b) Noise generated by the project is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy.

Hours of Operation

3. The Proponent **must** comply with the operating hours in Table 2.

Table 2: Operating Hours

Day	Construction Activities	Quarrying Operations (including truck movements)	Maintenance (only if inaudible at privately-owned residences)
Monday – Friday	7:00 am to 6:00 pm	6:00 am to 6:00 pm	Any time
Saturday	8:00 am to 1:00 pm	8:00 am to 1:00 pm	Any time
Sundays and Public Holidays	No construction activities	No quarrying operations	Any time

Additional Noise Mitigation Measures

4. Upon receiving a written request from the owner of:
 - (a) residence JP2; or
 - (b) any residence on Janet Parade, where noise monitoring shows that the noise generated by the project is greater than or equal to 43 dB(A) *L_{Aeq} (15 minute)*,
 the Proponent **must** implement additional noise mitigation measures (such as double glazing, insulation, and/or air conditioning) at the residence in consultation with the landowner. These measures must be reasonable and feasible.

If within 3 months of receiving this request from the owner, the Proponent and the owner 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 **Secretary** for resolution.

Continuous Improvement

5. The Proponent **must**:
- (a) implement all reasonable and feasible noise mitigation measures;
 - (b) investigate ways to reduce the noise generated by the project; and
 - (c) report on these investigations and the implementation and effectiveness of these measures in the Annual Review,
- to the satisfaction of the **Secretary**.

Construction Noise Management Plan

6. The Proponent **must** prepare and implement a Construction Noise Management Plan for the project to the satisfaction of the **Secretary**. This plan must:
- (a) be submitted to the **Secretary** for approval prior to carrying out any construction activities on the site;
 - (b) include:
 - identification of each work area and access route;
 - identification of the specific activities that would be carried out and associated noise sources and access routes;
 - the construction noise and vibration objectives identified in the EA;
 - assessment of potential noise and vibration impacts from the proposed construction methods (including noise from construction traffic) against the objectives identified in the EA;
 - where objectives are predicted to be exceeded, an analysis of reasonable and feasible noise mitigation measures that can be implemented to reduce construction noise impacts;
 - description of management methods and procedures and specific noise mitigation measures that would be implemented to control noise and vibration during construction operations, including the early erection of operational noise control barriers and alternatives to reversing alarms and the measures identified in Section 8 of the Proponent's Statement of Commitments in Appendix 3;
 - procedures to notify residents of construction operations that are likely to affect their noise and vibration amenity; and
 - measures to receive, record and monitor complaints.

Noise Monitoring Program

7. The Proponent **must** prepare a Noise Monitoring Program for the project's construction activities and quarrying operations to the satisfaction of the **Secretary**. This program must:
- (a) be submitted to the **Secretary** for approval prior to carrying out any construction activities;
 - (b) include quarterly attended noise monitoring on a day on which truck dispatches meet or exceed the daily average; and
 - (c) include details of how the noise performance of the project would be monitored, and include a noise monitoring protocol for evaluating compliance with the noise criteria in this approval.

The Proponent must implement the program as approved by the Secretary.

AIR QUALITY

Impact Assessment Criteria

8. The Proponent must ensure that particulate matter emissions generated by the development do not cause exceedances of the criteria in Table 3 at any residence on privately-owned land.

Table 3: Air quality criteria

Pollutant	Averaging period	Criterion	
Particulate matter < 10 µm (PM ₁₀)	Annual	a, c 25 µg/m ³	
	24 hour	b 50 µg/m ³	
Particulate matter < 2.5 µm (PM _{2.5})	Annual	a, c 8 µg/m ³	
	24 hour	b 25 µg/m ³	
Total suspended particulate (TSP) matter	Annual	a, c 90 µg/m ³	
^d Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month

Notes:

^a Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to all other sources).

^b Incremental impact (i.e. incremental increase in concentrations due to the development on its own).

^c Excludes extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents or any other activity agreed by the Planning Secretary.

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

Dust Management

9. The Proponent **must** maintain the site in a condition that minimises or prevents the emission of dust or sand from the site, including the prompt and effective rehabilitation of all disturbed areas, to the satisfaction of the **Secretary**.

Air Quality Management Plan

10. Within 3 months of approval of Modification⁴, the Proponent must prepare an Air Quality Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (a) be prepared by a suitably qualified and experienced person/s;
 - (b) be prepared in consultation with the EPA;
 - (c) describe the measures to be implemented to ensure:
 - (i) compliance with the air quality criteria and operating conditions in this approval;
 - (ii) best practice management is being employed; and
 - (iii) air quality impacts of the project are minimised during adverse meteorological conditions and extraordinary events;
 - (d) describe the air quality management system; and
 - (e) include an air quality monitoring program that:
 - (i) is capable of evaluating the performance of the project against the air quality criteria;
 - (ii) adequately supports the air quality management system; and
 - (iii) includes a protocol for identifying any air quality-related exceedance, incident or non-compliance and for notifying the Department and relevant stakeholders of these events.

The Proponent must implement the plan as approved by the Secretary.

SOIL AND WATER

Pollution of Waters

11. 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* in carrying out the project.

Wastewater Treatment

12. The Proponent **must** manage on-site sewage to the satisfaction of Council and **OEHL**. The facility must comply with the requirements of the *Environment and Health Protection Guidelines – On-site Sewage Management for Single Households (1998)*, or latest version.

Soil Management

13. All earthworks, including acoustic bunding works, **must** be contained wholly within the site.

Management and Monitoring

14. 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 **Dol**;
 - (b) include a(n):
 - Erosion and Sediment Control Plan;
 - Surface Water Monitoring Program;
 - Groundwater Monitoring Program;
 - Acid Sulfate Soils Management Plan; and
 - (c) be submitted to the **Secretary** for approval prior to commencing quarrying operations, and to carrying out any construction activities in the case of the Erosion and Sediment Control Plan.

The Proponent must implement the plan as approved by the Secretary.

15. The Erosion and Sediment Control Plan **must**:

- (a) be consistent with the requirements of *Managing Urban Stormwater, Soils and Construction Volume 2E Mines and Quarries*, (Commonwealth Government), or the latest edition;
 - (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 off site;
 - (d) describe the location, function, and capacity of erosion and sediment control structures; and
 - (e) describe what measures would be implemented to maintain these structures over time.
16. The Surface Water Monitoring Program **must** include:
- (a) detailed baseline data on surface water quality;
 - (b) surface water impact assessment criteria;
 - (c) a program to monitor surface water quality; and
 - (d) a protocol for the investigation, notification and mitigation of identified exceedances of the surface water impact assessment criteria.
17. The Ground Water Monitoring Program **must** include:
- (a) detailed baseline data on groundwater levels and quality, based on statistical analysis;
 - (b) groundwater impact assessment criteria;
 - (c) a program to monitor ground water levels and quality;
 - (d) a program to monitor ground water level effects on groundwater dependent vegetation, and
 - (e) a protocol for the investigation, notification and mitigation of identified exceedances of the groundwater impact assessment criteria.
18. The Acid Sulfate Soils Management Plan **must** include:
- (a) the outcome of groundwater modelling to establish the maximum predicted groundwater level for the site;
 - (b) measures to avoid the extraction of acid sulfate soils and potentially acid sulfate soils; and
 - (c) a contingency plan to manage any acid sulfate soils and potentially acid sulfate soils inadvertently encountered during extraction and processing operations.

REHABILITATION AND LANDSCAPING

Biodiversity Offset Strategy

19. By 1 February 2015, the Proponent **must**:
- (a) enter into a Biobanking agreement for the offset area with the Minister for Environment and Heritage, in accordance with Part 7A of the *Threatened Species Conservation Act 1995*, to implement the Biodiversity Offset Strategy summarised in Table 6;
 - (b) ensure that adequate resources are dedicated towards the implementing the Biodiversity Offset Strategy; and
 - (c) provide appropriate long term security for this offset; to the satisfaction of the Secretary.

Table 6: Biodiversity Offset Strategy

Offset	Minimum number of Ecosystem Credits to be retired
Tomalla offset site	1857

Note: the Tomalla offset site is shown in the Figure in Appendix 4.

Rehabilitation and Landscape Management

20. The Proponent **must** rehabilitate the site to the satisfaction of the Secretary.
21. The Proponent **must** maintain, except for the purposes of access to the areas of quarrying operations as shown in Figure 1 of Appendix 1:
- (a) a minimum 50 metre buffer of undisturbed vegetation between extraction areas and the nearest edge of OEHS estate;
 - (b) a minimum 50 metre buffer of undisturbed vegetation between the extraction areas and any Swamp Sclerophyll Forest EEC;
 - (c) a minimum 50 metre buffer of undisturbed vegetation on each side of the northern power line easement on the project site.
 - (d) a minimum 30 metre buffer of undisturbed vegetation between the extraction areas and the boundary of the site, unless a private agreement exists with the relevant landowner to reduce this buffer adjacent to that relevant landowner's property and a copy of this agreement is provided to the Department;
 - (e) minimum 30 metre buffer of undisturbed vegetation on the northern margin of the extraction areas; and
 - (f) a buffer of undisturbed vegetation on land below 8 m AHD on the northern margin of quarrying operations.
22. Prior to the commencement of quarrying operations, the Proponent **must** establish, and subsequently vegetate and maintain:

- (a) a 6 metre high acoustic bund around the project's fixed plant; and
- (b) a 3 metre high acoustic fence along the southern boundary of the quarry access road,
- (c) to the satisfaction of the Secretary

Note: The vegetated bunds must be detailed in the Landscape Management Plan.

Landscape Management Plan

23. The Proponent must prepare a Landscape 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; and
 - in consultation with Council;
 - (b) be submitted to the Secretary for approval prior to commencing quarrying operations; and
 - (c) include:
 - a Rehabilitation Management Plan; and
 - a Long Term Management Strategy.

Note: The Department accepts that the initial Landscape 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.

The Proponent must implement the plan as approved by the Secretary.

24. The Rehabilitation Management Plan must include:
- (a) the rehabilitation objectives for the site;
 - (b) a description of the measures that would be implemented to:
 - rehabilitate and stabilise the site;
 - minimise the removal of mature trees; and
 - manage the remnant vegetation and habitat on the site;
 - (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 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 groundwater dependent ecosystems;
 - vegetation clearing protocols, including a protocol for clearing any trees containing hollows and the relocation of hollows from felled trees;
 - managing impacts on fauna;
 - controlling terrestrial and aquatic 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.
25. The Long Term Management Strategy must:
- (a) define the objectives and criteria for quarry closure and post-extraction management;
 - (b) investigate and/or describe options for the future use of the site;
 - (c) describe the measures that would be implemented to minimise or manage the ongoing environmental effects of the project; and
 - (d) describe how the performance of these measures would be monitored over time.

Rehabilitation Bond

26. Prior to commencing quarrying operations, the Proponent must lodge a rehabilitation bond for the project with the Secretary. The sum of the bond must be calculated as either:
- (a) \$2.50/m² for the area to be disturbed for the first 3 years of quarrying operations; or
 - (b) in accordance with the *NSW Industry and Investment Rehabilitation Cost Estimate Guidelines 2010*, to the satisfaction of the Secretary.

Notes:

- If capital and other expenditure required by the Rehabilitation Management Plan is largely complete, the Secretary may waive the requirement for the lodgement of a bond in respect of the remaining expenditure.

- *If the rehabilitation of the site area is completed to the satisfaction of the Secretary, then the Secretary will release the bond. If the rehabilitation of the site is not completed to the satisfaction of the Secretary, then the Secretary will call in all or part of the bond, and arrange for the completion of the relevant works.*

27. Within 3 months of each Independent Environmental Audit (see condition 8 of schedule 5), the Proponent **must** review, and if necessary revise, the sum of the rehabilitation bond to the satisfaction of the **Secretary**. This review must consider:
- the effects of inflation;
 - the area proposed to be disturbed in the next 3 years and any changes to the total area of disturbance; and
 - the performance of the rehabilitation to date.

ABORIGINAL CULTURAL HERITAGE

Aboriginal Cultural Heritage Management Plan

28. The Proponent **must** prepare an Aboriginal Cultural Heritage Management Plan to the satisfaction of the **Secretary**. This plan must:
- be prepared in consultation with all relevant local Aboriginal communities;
 - be submitted to the **Secretary** for approval prior to commencement of construction activities; and
 - include:
 - measures for ongoing consultation with local Aboriginal communities and the involvement of these communities in the ongoing management of Aboriginal cultural heritage values of the project site;
 - a sub-surface archaeological investigation program for the site;
 - a description of the measures that would be implemented to salvage any identified Aboriginal objects within the disturbance area;
 - a description of the measures that would be implemented to protect any Aboriginal objects outside the disturbance area;
 - measures to provide an keeping place for salvaged Aboriginal objects;
 - an Aboriginal cultural education program for the induction of personnel and contractors involved in construction activities; and
 - a description of the measures that would be implemented if any new Aboriginal objects or skeletal remains are discovered during the project.

The Proponent must implement the plan as approved by the Secretary.

TRAFFIC AND TRANSPORTATION

Road Upgrades

29. Prior to commencing increased trucking approved under Modification 4 and stipulated in condition 7 of Schedule 2, the Proponent must upgrade the intersection of Nelson Bay Road and Janet Parade to a channelised right turn (CHR) type intersection in consultation with Council and to the satisfaction of RMS.

Note: Conditions of approval do not guarantee RMS's final consent to the specific road work, traffic control facilities and other structures or works, for which it is responsible, on the road network. RMS must provide a final consent for each specific change to the classified (State) road network prior to the commencement of any work.

30. Prior to commencement of quarrying operations, the Proponent **must**:
- design, construct and seal the access haul road and its intersection with Janet Parade;
 - install and subsequently maintain a shaker grid or equivalent on the quarry access road; and
 - install appropriate truck turning warning signage along Janet Parade, to the satisfaction of Council.

On-Site Traffic Management

31. The Proponent **must** ensure that:
- all vehicles do not exceed a speed of 40 km/h on the site;
 - all loaded vehicles entering or leaving the site are covered; and
 - all loaded vehicles leaving the site are cleaned of sand and other materials that may fall on the road, before they leave the site.

Parking

32. The Proponent **must** provide sufficient parking on-site for all project-related traffic in accordance with Council's parking codes.

Traffic Management Plan

33. Prior to commencement of quarrying operations, the Proponent **must** prepare a Traffic Management Plan for the project, to the satisfaction of the **Secretary**. The plan must:
- (a) be submitted to the **Secretary** for approval prior to the commencement of quarrying operations;
 - (b) describe the measures that would be put in place to ensure compliance with the driver's code of conduct; and
 - (c) include a driver's code of conduct for the project to minimise the impacts of trucks on local residents.

The Proponent must implement the plan as approved by the **Secretary**.

Transport Operating Conditions

- 33A The Proponent must:
- (a) ensure that all laden trucks entering or exiting the site have their loads covered;
 - (b) ensure that all laden trucks exiting the site are cleaned of material that may fall from vehicles, before leaving the site;
 - (c) take all reasonable steps to minimise traffic safety issues and disruption to local road users; and
 - (d) take all reasonable steps to ensure that appropriate signage is displayed on all trucks used to transport quarry products from the site so they can be easily identified by other road users.

VISUAL

Visual Amenity

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

Advertising

35. The Proponent **must** not erect or display any advertising structure(s) or signs on the site without the written approval of the **Secretary**.

Note: This condition does not require approval for any business identification, traffic management and safety or environmental signs.

WASTE MANAGEMENT

36. The Proponent **must** minimise the amount of waste generated by the project to the satisfaction of the **Secretary**.
37. The Proponent must not cause, permit or allow any waste generated outside the site to be received at the site for storage, treatment, processing, reprocessing or disposal or any waste generated at the site to be disposed of at the site, except with the approval of the **Secretary** and as expressly permitted by a licence under the *Protection of the Environment Operations Act 1997*.

Note: This condition only applies to the storage, treatment, processing, reprocessing or disposal of waste at the site if it requires an EPL under the Protection of the Environment Operations Act 1997.

EMERGENCY AND HAZARDS MANAGEMENT

Dangerous Goods

38. The Proponent **must** ensure all chemicals and/or petroleum products on site are stored in accordance with Australian Standard AS1940-2004, *The Storage and Handling of Flammable and Combustible Liquids*, and in appropriately bunded areas with impervious flooring and of sufficient capacity to contain 110% of the largest container stored within the bund. The flooring and bund(s) **must** be designed in accordance with:
- the requirements of relevant Australian Standards; and
 - DECC's *Storing and Handling Liquids: Environmental Protection – Participants Manual*;

Safety

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

PRODUCTION DATA

40. The Proponent **must**:
- (a) provide 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 (see condition 3 of Schedule 5) .

SCHEDULE 4 ADDITIONAL PROCEDURES

NOTIFICATION OF LANDOWNERS

1. By the end of November 2010, the Proponent **must** notify, in writing, the owner of residence JP2 of his/her entitlement to additional noise mitigation measures.
2. If the results of the monitoring required in schedule 3 identify that the impacts generated by the project on site are greater than the relevant impact assessment criteria, and there is no negotiated agreement in place to allow the impact, then within 2 weeks of obtaining the monitoring results the Proponent **must**:
 - (a) notify the **Secretary**, the affected landowners and tenants (including tenants of quarry-owned properties) accordingly, and provide monitoring results to each of these parties until the results show that the project is complying with the relevant criteria in schedule 3; and
 - (b) in the case of exceedances of the relevant air quality criteria, send the affected landowners and/or tenants a copy of the NSW Health fact sheet entitled "*Mine Dust and You*" (as may be updated from time to time).

INDEPENDENT REVIEW

3. If a landowner of privately-owned land considers the project to be exceeding the relevant criteria in schedule 3, then he/she may ask the **Secretary** in writing for an independent review of the impacts of the project on his/her land.

If the **Secretary** is satisfied that an independent review is warranted, then within 2 months 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 the measures that could be implemented to ensure compliance with the relevant criteria; and
 - (b) give the **Secretary** and landowner a copy of the independent review.
4. If the independent review determines that the project is complying with the relevant criteria in schedule 3, then the Proponent may discontinue the independent review with the approval of the **Secretary**.

If the independent review determines that the project is not complying with the relevant criteria in schedule 3, then the Proponent **must**:

- (a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent person, and conduct further monitoring until the project complies with the relevant criteria; or
- (b) secure a written agreement with the landowner to allow exceedances of the relevant criteria, to the satisfaction of the **Secretary**.

SCHEDULE 5
ENVIRONMENTAL MANAGEMENT, AUDITING AND REPORTING

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

1. The Proponent **must** prepare an Environmental Management Strategy for the project to the satisfaction of the **Secretary**. The strategy must:
 - (a) be submitted to the **Secretary** for approval prior to the commencement of construction activities;
 - (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 that would be implemented to:
 - keep the local community and relevant agencies informed about the operation and environmental performance of the project;
 - receive, handle, respond to, and record 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:
 - copies of the various strategies, plans and programs that are required under the conditions of this approval once they have been approved; and
 - a clear plan depicting all the monitoring to be carried out in relation to the project.

The Proponent must implement the strategy as approved by the Secretary.

Management Plan Requirements

2. The Proponent **must** ensure that the Management Plans required under this approval are prepared in accordance with any relevant guidelines, and include:
 - (a) detailed 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 project or any management measures;
 - (c) a description of the measures that would 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 project; and
 - effectiveness of any management measures (see (c) above);
 - (e) a contingency plan to manage any unpredicted impacts and their consequences;
 - (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;
 - non-compliances with statutory requirements; and
 - exceedances of the impact assessment criteria and/or performance criteria; and
 - (h) a protocol for periodic review of the plan.

*Note: At the discretion of the **Secretary**, some of these requirements may be waived where they are either not relevant or necessary.*

Application of Existing Strategies, Plans and Programs

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

Annual Review

3. By the end of March each year, the Proponent **must** review the environmental performance of the project to the satisfaction of the **Secretary**. This review must:

- (a) describe the works (including rehabilitation) that were carried out in the previous **calendar** year, and the works that are proposed to be carried out over current **calendar** year;
- (b) include a comprehensive review of the monitoring results and complaints records of the project over the past year, which includes a comparison of these results against:
 - the relevant statutory requirements, limits or performance measures/criteria;
 - the monitoring results of previous years; and
 - the relevant predictions in the EA;
- (c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;
- (d) identify any trends in the monitoring data over the life of the project;
- (e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and
- (f) describe what measures will be implemented over the next year to improve the environmental performance of the project.

Revision of Strategies, Plans & Programs

4. Within 3 months of:
 - (a) the submission of an annual review under condition 3 above;
 - (b) the submission of an incident report under condition 6 below;
 - (c) the submission of an audit report under condition 8 below; and
 - (d) any modifications to this approval,
 the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the **Secretary**.

Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the project.

5. The Proponent shall establish and operate a Community Consultative Committee (CCC) for the project in general accordance with the **Community Consultative Committee Guidelines: State Significant Projects (2016)**, or its latest version), and to the satisfaction of the **Secretary**. This committee must be operating prior to the commencement of any construction activities on site.

Note: 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 Guideline, the Committee should comprise an independent chair and appropriate representation from the Proponent, Council, recognised environmental groups and the general community in the area of the project.

REPORTING

Incident Notification

6. The Proponent must notify the Department and any other relevant agencies immediately after it becomes aware of an incident. The notification must be in writing to compliance@planning.nsw.gov.au and identify the project (including the project approval number and name) and set out the location and nature of the incident.

Non-Compliance Notification

7. Within seven days of becoming aware of a non-compliance, the Proponent must notify the Department of the non-compliance. The notification must be in writing to compliance@planning.nsw.gov.au and identify the project (including the project approval number and name), set out the condition of this approval that the project is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.

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

AUDITING

Pre-commencement Compliance Audit

8. Prior to the commencement of quarrying operations on the site, the Proponent **must** commission an independent person, approved by the **Secretary**, to certify in writing to the satisfaction of the **Secretary** that the Proponent has complied with all relevant conditions of approval.

Independent Environmental Audit

9. By 31 December 2013, and every 3 years thereafter, unless the **Secretary** directs otherwise, the Proponent **must** commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:

- (a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the **Secretary**;
- (b) include consultation with the relevant agencies;
- (c) assess the environmental performance of the project and assess whether it is complying with the relevant requirements in this approval and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);
- (d) review the adequacy of strategies, plans or programs required under the abovementioned consents, licences or leases;
- (e) recommend measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under these approvals; and
- (f) be completed within 2 months of the approval of the audit team.

*Note: This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the **Secretary**.*

- 10. Within 6 weeks of the completing of this audit, or as otherwise agreed by the **Secretary**, the Proponent **must** submit a copy of the audit report to the **Secretary**, together with its response to any recommendations contained in the audit report.

ACCESS TO INFORMATION

- 11. From 1 November 2011, the Proponent **must**:
 - (a) make the following information publicly available on its website:
 - a copy of all approved strategies, plans and programs;
 - a summary of all monitoring results of the project, which have been reported in accordance with the various plans and programs approved under the conditions of this approval;
 - a complaints register, updated on a quarterly basis;
 - copies of the minutes of CCC meetings;
 - copies of any Annual Reviews (over the last 5 years);
 - copies of any Independent Environmental Audit, 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 SITE



Figure 1: project site

APPENDIX 2:
NOISE RECEIVER LOCATIONS

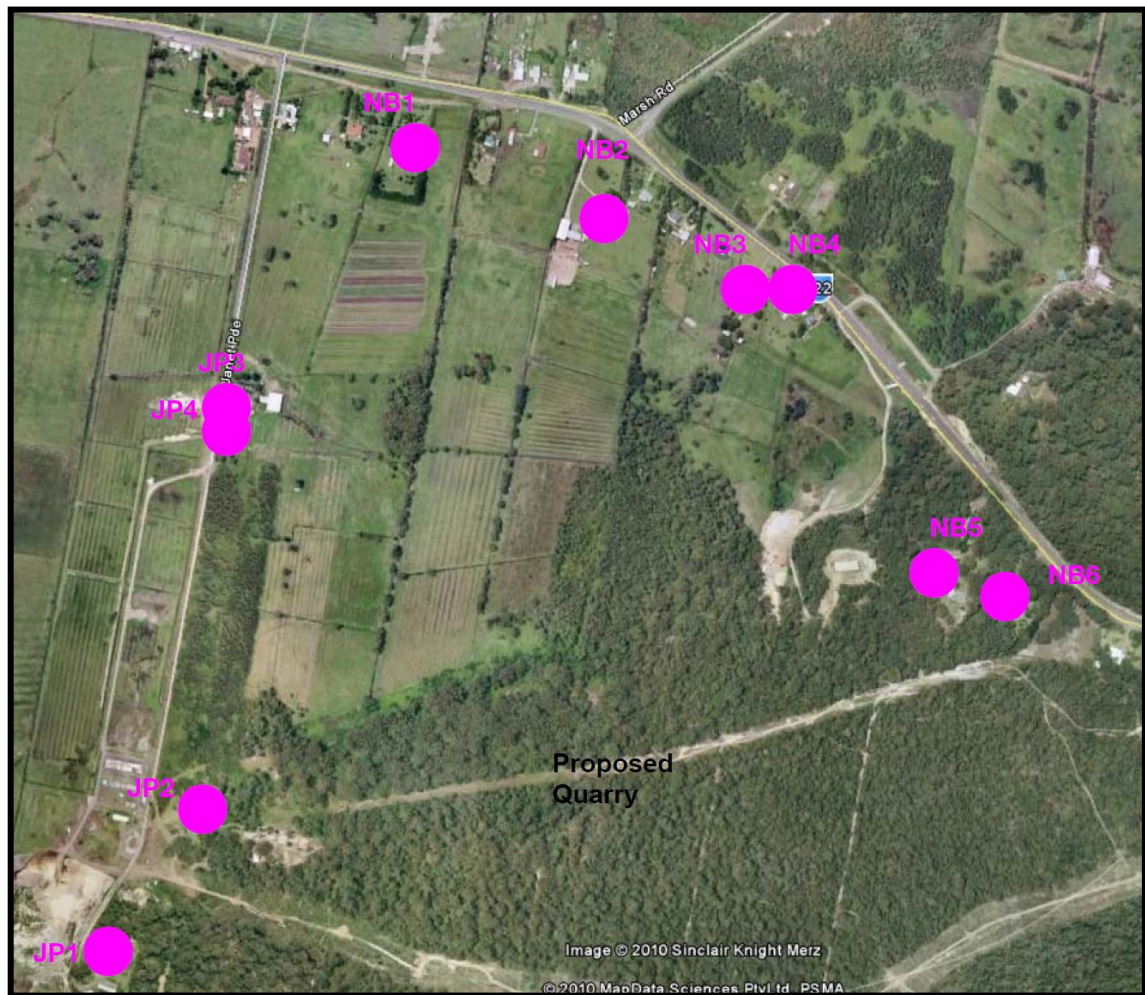


Figure 3: Noise receivers

**APPENDIX 3:
STATEMENT OF COMMITMENTS**

Impact	Commitment
1. Ecology	• Environmental Offset By 1st February 2015, the required number of biodiversity credits are to be retired. • Hollow bearing tree management To compensate the loss of up to 212 hollow bearing trees identified in the extraction foot print it is proposed to salvage branch hollows (up to 30 cm in diameter) from those existing hollow bearing trees proposed for removal for subsequent re-erection onto host trees which the subject site, such as the buffer zones or retained swamp forest habitat, and / or on adjoining Office of Environment and Heritage estate. Hollows will be placed at least 3 metres from the base of the host tree and in a favourable orientation to minimise exposure. Host trees should be in good health. All salvaged hollows shall be re-erected within twelve (12) weeks from completion of staged clearing operations. Damaged hollows would be repaired (where possible) or replaced with nest boxes. Where required, nest boxes are to be laced in host trees in retained habitats such as buffer zones and retained swamp forest habitat and if possible, in adjoining Office of Environment and Heritage estate. The re-use of hollows and establishment of nest boxes provides habitat for a range of species including: ○ Brush – tailed Phascogale; ○ Squirrel Gliders; and ○ Microbats. Existing logs and other suitable ground debris salvaged during clearing operations are to be retained in forested habitats within the subject site. The provision ground debris within the site would be expected to provide shelter and nesting habitat for small terrestrial mammals, additional habitat for the Brush – tailed Phascogale and Squirrel Gliders. Cleared trees supporting trunk hollows would provide suitable den sites for quolls. • Buffer Zones The following buffer zones / exclusion zones are proposed to be established prior to, and maintained throughout the life of the quarry: ○ A fifty (50) metre buffer shall be established on both sides of the northern Energy Australia power line. This will create a 130-metre-wide 'exclusion zone (including the 30 metre cleared area); ○ A fifty (50) metre wide buffer zone is proposed along the site boundary adjoining Office of Environment and Heritage Estate to minimise edge effects; ○ Remaining site boundaries will be provided with a twenty-metre-wide vegetated buffer; and ○ A twenty (20) metre wide buffer zone is also proposed between the northern edge of the quarry face and the retained swamp forest habitats on the site. All buffer zones are to be surveyed and marked (flagging tape / plastic mesh fencing) prior to the commencement of clearing works. Buffers will generally be consistent with the figure provided in Appendix B.
2. Vegetation Management -	A comprehensive Vegetation Management Plan will be prepared to address the staged clearing program within the extraction footprint. This plan is to be

Salt Ash	endorsed by NSW Department of Planning and Environment prior to the commencement of clearing or earthworks. The plan shall have regard to the following matters, as outlined in the Orogen 2008 report: • Vegetation Clearing Management ○ All contractors conducting clearing, earthworks or construction activities within the subject site are to be informed of the restrictions to the clearing of vegetation outside the exclusion fencing. A construction protocol would be prepared requiring all earthworks, machinery and personnel be strictly controlled and restricted to the extraction footprint. No storage of materials, vehicle parking or other disturbance would be undertaken outside the exclusion fencing. Contractors would be supplied with the construction protocol regarding the clearing restrictions through a work induction program; ○ Trees are to be felled away from the retained bushland on the subject site back into the extraction area; and ○ Domestic fauna (ie dogs) are prohibited from entering the subject site with Contractors. • Weed Management A Weed Management Program is to be adopted to control weeds in buffer zones, retained swamp forest habitats and future extraction stages to minimise edge effects and future extraction stages. The program is to comprise annual monitoring to assess weed coverage and determine the need for future weed control. • Pre Clearing Surveys Fauna surveys are required prior to vegetation clearing for each staged extraction area. Surveys shall target Threatened species known or potentially occurring in the locality and will involve the following steps four nights prior to staged clearing activities: - ○ Searches for nests of threatened raptors; ○ Searches for whitewash or other signs of roosting or nesting of Powerful and Masked Owls; ○ Stag watching and Anabat survey of hollow bearing trees in each staged extraction area to determine presence of Microchiropteran bats; ○ Scat searches and visual inspection for recent Koala occupation of all trees proposed for felling; and ○ Elliot trapping surveys for Squirrel Gliders and Brush – Tailed Phascogale. Any identified species must be appropriately monitored, and clearance obtained prior to commencement of clearing in identified habitat / nesting sites. The results of such surveys would be made available to Office of Environment and Heritage prior to the commencement of clearing operations for each stage. • Translocation of Threatened Fauna Where it is proposed to translocate a threatened fauna species, this process shall be undertaken in accordance with <i>Policy of the Translocation of Threatened Fauna in NSW</i> (NPWS, 2001). • Staged Rehabilitation Prior to the commencement of works a site rehabilitation plan is to be endorsed by NSW Department of Planning and Environment. This plan should have regard for: ○ Staging of rehabilitation; ○ Retention and reuse of materials from clearing process; ○ Seedbanking;
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	○ Use of endemic species; ○ Recovery of any groundwater dependent ecosystems, including swamp sclerophyll forest; ○ Proposed final landforms; and ○ Ongoing monitoring.
3. Vegetation Management – Offset Site	A vegetation management plan shall be prepared for the Offset Site. This Plan shall be endorsed by Office of Environment and Heritage prior to the commencement of clearing on the Salt Ash site. The plan shall give regard to the following: • Weed Management and monitoring; • Management of retained native vegetation and habitat; • Feral animal control; • Fire management; • Public access management; • Minimisation of edge effects and fragmentation; • Long term monitoring commitments; • Details of rehabilitation programs / measures; • Measures to ensure conservation in perpetuity; and • Funding details of long term financial commitment to any proposed conservation measures.
4. Aboriginal Cultural Heritage	• An Aboriginal Cultural Heritage Management Plan should be developed in consultation with the local Aboriginal community. This document will guide the management of Aboriginal cultural heritage resources and heritage values for the duration of the Salt Ash Sand extraction project. • A detailed Research Design and Methodology should be developed for the Salt Ash sand extraction project. This document will outline procedures for undertaking monitoring, surface collection and archaeological excavation within the project area. • Archaeological excavation should be undertaken as recommended in the AHMS (2008) report. This excavation should be done with the full consultation and involvement of the Aboriginal community. The excavation should only be conducted once project approval has been granted in order to ensure that archaeological sites are not destroyed without reason. • Consultation established with the Aboriginal community should continue for the duration of the project until all matters pertaining to Aboriginal heritage have been resolved. • The AHMS should incorporate a designated keeping place within the site. The size and location of the keeping place should be endorsed by the Aboriginal community.
5. Air Quality	• Any unsealed haulage routes are to be watered to suppress dust prior to the commencement of haulage. • Monitoring of air quality is to occur in accordance with the licensing requirement imposed on the project.
6. Water Management	• No excavation is permitted into the sandbed lower than 1 metre above the highest predicted groundwater table for the extraction area. • All operations relating to the extraction of groundwater, including the sinking of bores must be done in compliance with the Water Sharing Plan for the Tomago Tomaree Stockton Groundwater Sources, 2003. • A Groundwater Management Plan is to be developed prior to the commencement of extraction operations to the satisfaction of the Department of Planning. The management plan is to include ongoing monitoring requirements. • A Groundwater Impact Model shall be developed to the satisfaction of NSW Department of Planning and Environment which presents details on drawdown limits to neighbouring bores, including those on Lot 220, DP 1049608. The model shall also establish cut off criteria to avoid exposure of Potential Acid Sulphate Soil materials and determine cease to pump limits in accordance with Section 36 of the Water Sharing Plan for the Tomago Tomaree Stockton Groundwater Sources, 2003.

	• A groundwater monitoring network shall be developed to the satisfaction of NSW Department of Planning and Environment which shall monitor the effectiveness of cut off criteria and compliance with the 1 metre minimum buffer to highest predicted groundwater table as determined within the model and demonstrate minimal interference with neighbouring bores and wells. • Any refuelling of equipment used for the proposal will be undertaken within a designated area, in close proximity to a spill kit and the workshop. Where practical repairs to mobile plant will be undertaken within the workshop. • Prior to the commencement of sand washing on site a license for groundwater extraction is to be obtained or details of alternative arrangements are to be submitted to NSW Department of Planning and Environment. • An approval to install and operate an onsite effluent disposal system shall be obtained in accordance with Section 68 of the Local Government Act, 1993 prior to the commencement of operations.
7. Visual Impact	• For the life of the project an 8-metre ridge line (RL 8m AHD) along the northern boundary of the vegetated sand dune is to be maintained. • Buffers, as required for ecological mitigation measures, are to be similarly maintained to mitigate visual impacts associated with the development. • Vegetation screens are to be established and maintained to shield the plant amenities building. • Ongoing and progressive revegetation during the sand extraction operation is required. Revegetation is to commence on the completion of extraction from any area. • Sand extraction to occur in accordance with the approved extraction staging plan. • Full revegetation post staged extraction and upon finalisation of the mine.
8. Noise & Vibration	The proposed hours of operation are: • Monday – Friday: - 6:00am – 6:00pm; • Saturday: - 8:00am – 1:00pm; and • Sundays and Public Holidays: - No operations Prior to the commencement of construction or operations a noise management plan shall be prepared and endorsed by NSW Department of Planning and Environment and shall incorporate measures generally consistent with the following recommendations: • Construction of the required noise attenuation barrier adjacent to the Janet Parade residence shall be constructed prior to major earthworks for the quarry access road construction; • Examine different types of machinery that perform the same function and compare the noise level data to select the least noisy machinery. • Place as much distance as possible between the plant or equipment and residences. • Regularly train and communicate with workers and / or contractors regarding the use of equipment in ways to minimise noise. This could include, but is not be limited to, the following: ○ Avoid the use of radios/stereos outside; ○ Avoid shouting and slamming doors; and ○ Keep truck drivers informed of designated routes and parking areas. ○ Periodically check the site and neighbouring residences for noise problems so that solutions can be quickly applied. • Consult with affected neighbours about scheduling activities to minimise noise impacts. • Schedule noise activities around times of high background noise (eg local road traffic) where possible to provide masking or to reduce the amount that the construction noise intrudes above the background. • Nominate an off-site truck parking area, away from residences, for trucks

	arriving prior to gates opening. Examine and implement, where feasible and reasonable, the option of acoustical treatment to residences affected by construction noise, such as to windows at the building façade. However, alternative means of ventilation may be required where windows are close and airflow into a building does not meet building requirements. Note also that the effectiveness of closing existing windows may be limited by the performance of the window seals and/or building façade construction. The application for the upgrade to the Nelson Bay Road / Janet Parade Intersection shall incorporate a Construction Noise Impact Assessment and Management Plan. This plan shall be prepared in accordance with the <i>NSW Interim Construction Noise Guidelines</i> and endorsed by NSW Department of Planning and Environment and the RMS prior to the commencement of works associated with the intersection.
9. Management Plans Required	The following management plans shall be prepared and endorsed by the relevant authority prior to the commencement of works / operations: - Vegetation Management Plan (Extraction Site); - Vegetation Management Plan (Offset Site); - Aboriginal Cultural Heritage Management Plan; - Groundwater Management Plan and Impact Model; - Construction and Operational Noise Management Plan. Continued monitoring of mosquitos within the site in addition to the identification and reduction of aquatic breeding sites will be undertaken. Measures will include not allowing irrigation water to lie undisturbed and checking irrigation lines for leaks.
10. Essential Operational Licenses required	- The operator is to obtain an Environmental Protection License for the proposal in accordance with the <i>Protection of the Environment Operations Act, 1997</i>; - The operator shall adhere to any ongoing monitoring requirements specified in the license; - Prior to the commencement of any operations the operator will make available and publicise a contact phone number which will enable the general public to reach an appropriate person to address and action any concerns raised. The operator shall maintain a log of all enquiries received and actions undertaken to address the enquiry. A copy of the log shall be supplied to Office of Environment and Heritage on an annual basis.

APPENDIX 4: BIODIVERSITY OFFSET STRATEGY

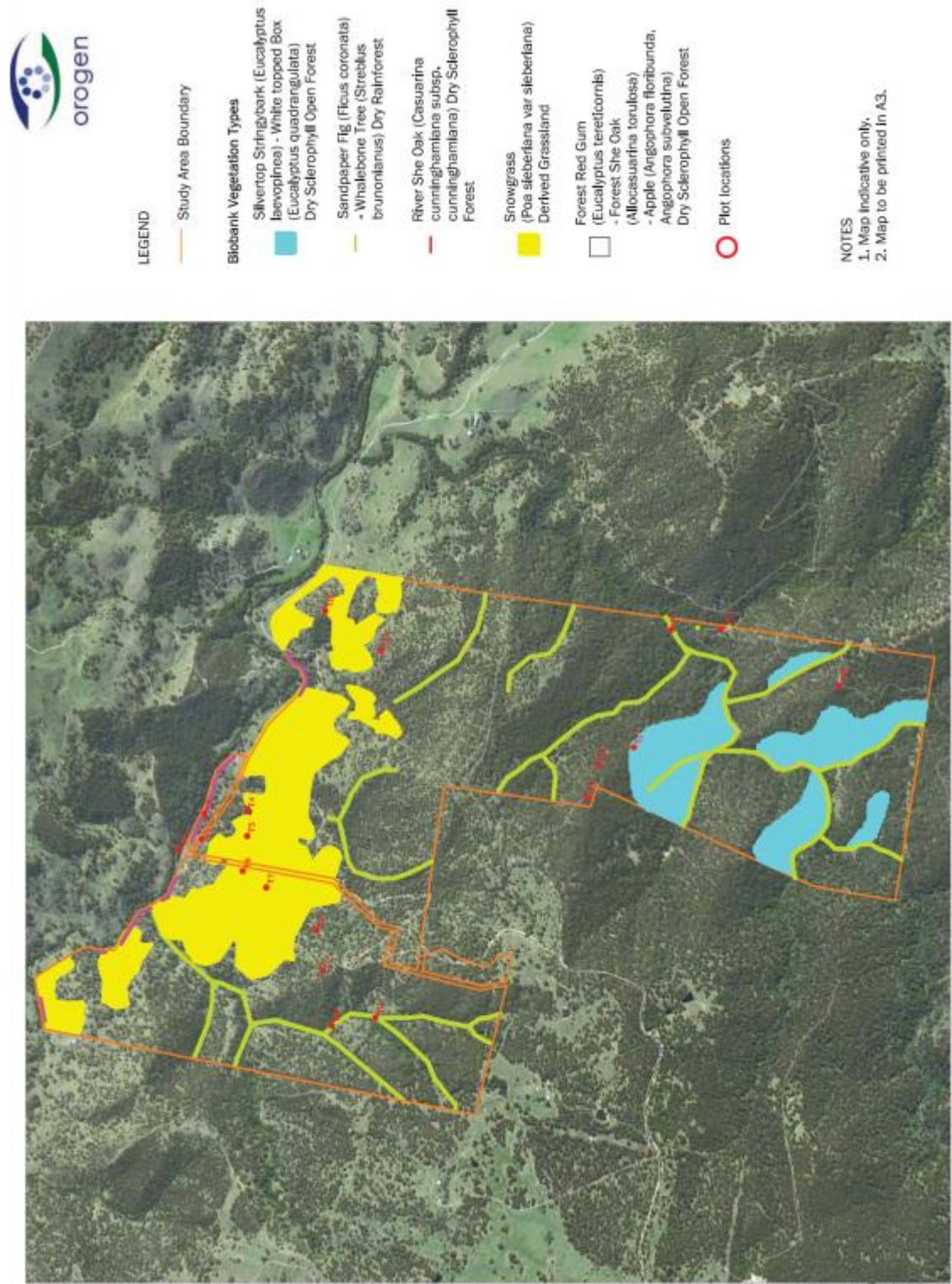


Figure 4: Tomalla offset site