

Project Approval

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

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.

Richard Pearson
Deputy Director-General, DASP
as delegate for the Minister for Planning

Sydney

2010

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

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Blue type represents March 2011 Modification

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DEFINITIONS

AEMR	Annual Environmental Management Report
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
Day	The period from 7.00am to 6.00pm, Monday to Saturday
DECCW	Department of Environment, Climate Change and Water
Department	Department of Planning
Director-General	Director-General of the Department of Planning, or delegate
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
EEC	Endangered Ecological Community
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPL	Environment Protection Licence under the <i>Protection of the Environment Operations Act 1997 (POEO Act)</i>
HWC	Hunter Water Corporation
I&I NSW	Department of Industry and Investment, trading as Industry & Investment NSW
Independent Dispute Resolution Process	The independent dispute resolution process described in Appendix 5
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 to the environment	Material harm to the environment as defined in the <i>Protection of the Environment Operations Act 1997</i>
Markwell offset site	The Proponent's biodiversity offset site at Markwell, Lot 89 DP753189
Minister	Minister for Planning, or delegate
NOW	NSW Office of Water, within DECCW
Privately-owned land	Land that is not owned by a public agency or a quarrying company (or its subsidiary)
Project	The development as described in the EA
Proponent	ATB Morton Pty Limited, or its successors in title
Quarrying operations	The extraction, processing and transportation of extractive materials and the associated removal of vegetation, topsoil and overburden
Reasonable and feasible	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements. Feasible relates to engineering considerations and what is practical to build
Response to Submissions	The Proponent's response to the issues raised in submissions, dated May 2010 and contained within the <i>Final Project Report</i>
RTA	Roads and Traffic Authority
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

SCHEDULE 2 ADMINISTRATIVE CONDITIONS

Obligation to Minimise Harm to the Environment

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

Terms of Approval

2. The Proponent shall carry out the project generally in accordance with the:
 - (a) EA;
 - (b) Statement of Commitments;
 - (c) [the modification application for MOD 2 and supporting letter titled *Proposed Modification to Salt Ash Sand Extraction Project \(MP 07_0094\)*, dated 18 February 2011; and](#)
 - (d) [conditions of this approval.](#)

Note: The general layout of the project is shown in the figure in Appendix 1.

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

Limits on Approval

5. 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 to the satisfaction of the Director-General. Consequently this approval will continue to apply in all other respects other than the right to conduct quarrying operations until the site has been rehabilitated and revegetated to a satisfactory standard.

6. The Proponent shall not extract sand or other extractive materials or carry out any work in the extraction area below a level of 1.0 m above the maximum predicted groundwater level (see condition 18 of schedule 3), other than the construction of any bores approved by NOW.
7. The Proponent shall not permit the dispatch of more than 3 laden truck movements from the site per hour, when averaged over a working day.

Note: The hours of truck operation are to be in accordance with condition 3 of schedule 3.

8. The Proponent shall not transport more than 201,000 tonnes of extractive materials from the site each calendar year.

Management Plans/Monitoring Programs

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

Protection of Public Infrastructure

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

Structural Adequacy

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

Compliance

13. Prior to the commencement of quarrying operations on the site, the Proponent shall commission an independent person, approved by the Director-General, to certify in writing to the satisfaction of the Director-General that the Proponent has complied with all relevant conditions of approval.

Section 94 Contributions

14. For the life of the project, the Proponent shall 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 shall 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.

SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS

IDENTIFICATION OF BOUNDARIES

1. Prior to the commencement of quarrying operations, the Proponent shall:
 - (a) engage a registered surveyor to mark out the boundaries of the approved limits of extraction;
 - (b) submit a survey plan of these boundaries to the Director-General; and
 - (c) ensure that these boundaries are clearly marked at all times in a permanent manner that allows operating staff and inspecting officers to clearly identify those limits.

NOISE

Impact Assessment Criteria

2. The Proponent shall 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	<i>L_{Aeq} (15 min) dB(A)</i>
JP1	40
JP2	43
JP3	39
JP4	37
NB1	36
All other receivers	35

Notes:

- Receiver locations are shown in the Figure in Appendix 2.
- Noise from the site is to be measured at the most affected point within the residential boundary, or at the most affected point within 30 metres of the dwelling where the dwelling is more than 30 metres from the boundary, to determine compliance with the identified noise limits, except where otherwise specified below.
- Where it can be demonstrated that direct measurement of noise from the project is impractical, alternative means of determining compliance may be acceptable (see Chapter 11 of the NSW Industrial Noise Policy).
- The modification factors presented in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise level where applicable.
- The identified noise emission limits apply under meteorological conditions of wind speed up to 3m/s at 10 metres above ground level.

Hours of Operation

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

Table 2: Operating Hours

Day	Construction	Operations (including on-site truck movements)	Maintenance (only if inaudible at privately- owned residences)
Monday – Friday	7:00 am to 6:00 pm	7:00 am to 5:00 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 shall implement additional noise mitigation measures, such as double glazing, insulation, and/or air conditioning at the residence, in consultation with the landowner. These additional mitigation 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 Director-General for resolution.

Continuous Improvement

5. The Proponent shall:
 - (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 AEMR,to the satisfaction of the Director-General.

Construction Noise Management Plan

6. The Proponent shall prepare and implement a Construction Noise Management Plan for the project to the satisfaction of the Director-General. This plan must:
 - (a) be submitted to the Director-General for approval prior to carrying out any 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 shall prepare and implement a Noise Monitoring Program for the project's construction activities and quarrying operations to the satisfaction of the Director-General. This program must:
 - (a) be submitted to the Director-General 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.

AIR QUALITY

Impact Assessment Criteria

8. The Proponent shall ensure that dust generated by the project does not cause additional exceedances of the criteria listed in Tables 4 to 6 at any privately-owned land.

Table 4: Short Term Impact Assessment Criteria for Particulate Matter

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

Table 5: Long Term Impact Assessment Criteria for Particulate Matter

Pollutant	Averaging period	Criterion
Total suspended particulates (TSP)	Annual	90 µg/m ³
Particulate matter < 10 µm (PM ₁₀)	Annual	30 µg/m ³

Table 6: Long Term Impact Assessment Criteria for Deposited Dust

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

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

Dust Management

9. The Proponent shall 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 Director-General.

Dust Monitoring Program

10. The Proponent shall prepare and implement a Dust Monitoring Program for the project to the satisfaction of the Director-General. This program must:
- be submitted to the Director-General for approval prior to carrying out any construction activities;
 - include details of how the air quality performance of the project would be monitored, and include a protocol for evaluating compliance with the relevant air quality criteria in this approval.

SOIL AND WATER

Pollution of Waters

11. Except as may be expressly provided for by an EPL, the Proponent shall comply with section 120 of the *Protection of the Environment Operations Act 1997* in carrying out the project.

Wastewater Treatment

12. The Proponent shall manage on-site sewage to the satisfaction of Council and DECCW. 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, shall be contained wholly within the site.

Management and Monitoring

14. The Proponent shall prepare and implement a Soil and Water Management Plan for the project to the satisfaction of the Director-General. This plan must:
- (a) be prepared in consultation with NOW;
 - (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 Director-General for approval prior to commencing quarrying operations, and to carrying out any construction activities in the case of the Erosion and Sediment Control Plan.
15. The Erosion and Sediment Control Plan shall:
- (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 shall 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 shall 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 shall 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. The Proponent shall:
- (a) implement the Biodiversity Offset Strategy summarised in Table 8;
 - (b) ensure that adequate resources are dedicated towards the implementation of this offset;
 - (c) provide appropriate long term security for this offset area; and
 - (d) provide a timetable for the implementation of the offset strategy within 6 months from the date of this approval, or otherwise agreed by the Director-General, to the satisfaction of the Director-General.

Table 8: Biodiversity Offset Strategy

Offset Area	Conservation Requirement
Markwell offset site	120 ha

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

Rehabilitation and Landscape Management

20. The Proponent shall rehabilitate the site to the satisfaction of the Director-General.
21. The Proponent shall 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 DECCW 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 shall 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 bund along the southern boundary of the quarry access road, to the satisfaction of the Director-General

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

Landscape Management Plan

23. The Proponent shall prepare and implement a Landscape Management Plan for the project to the satisfaction of the Director-General. This plan must:
 - (a) be prepared:
 - by suitably qualified person(s), approved by the Director-General; and
 - in consultation with Council;
 - (b) be submitted to the Director-General for approval prior to commencing quarrying operations; and
 - (c) include:
 - a Rehabilitation and Biodiversity Offset Strategy 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.

24. The Rehabilitation and Biodiversity Offset Strategy 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;
 - implement the Biodiversity Offset Strategy as shown in Appendix 4; 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 and 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;
 - 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 shall lodge a rehabilitation bond for the project with the Director-General. The sum of the bond shall be calculated at \$2.50/m² for the area to be disturbed for the first 3 years of quarrying operations, to the satisfaction of the Director-General.

Notes:

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

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

ABORIGINAL CULTURAL HERITAGE

Aboriginal Cultural Heritage Management Plan

28. The Proponent shall prepare and implement an Aboriginal Cultural Heritage Management Plan to the satisfaction of the Director-General. This plan must:
- (a) be prepared in consultation with all relevant local Aboriginal communities;
 - (b) be submitted to the Director-General for approval prior to commencement of construction activities; and
 - (c) 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.

TRAFFIC AND TRANSPORTATION

Road Haulage

29. Prior to commencement of quarrying operations, the Proponent shall upgrade the intersection of Nelson Bay Road and Janet Parade to **an auxiliary right turn lane (AUR)** type intersection, to the satisfaction of Council and RTA.
30. Prior to commencement of quarrying operations, the Proponent shall:
 - (a) design, construct and seal the access haul road and its intersection with Janet Parade;
 - (b) install and subsequently maintain a shaker grid or equivalent on the quarry access road; and
 - (c) install appropriate truck turning warning signage along Janet Parade;
 to the satisfaction of Council.

Traffic and Transport Management Plan

31. Prior to commencement of quarrying operations, the Proponent shall prepare and implement a Traffic and Transport Management Plan, to the satisfaction of the Director-General. The plan must include:
 - (a) a drivers code of conduct for the project to minimise the impacts of trucks on local residents; and
 - (b) the measures that would be put in place to ensure compliance with the drivers code of conduct.
32. The Proponent shall ensure that:
 - (a) all vehicles do not exceed a speed of 40 kph on the site;
 - (b) all loaded vehicles entering or leaving the site are covered; and
 - (c) 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

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

VISUAL

Visual Amenity

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

Advertising

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

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

WASTE MANAGEMENT

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

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 Director-General 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 shall 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) shall 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 shall secure the project to ensure public safety to the satisfaction of the Director-General.

PRODUCTION DATA

40. The Proponent shall:
- (a) provide annual quarry production data to I&I NSW 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 shall notify, in writing, the owner of residence JP2 of his/her entitlement to additional noise mitigation measures and the landowners of all other residences accessed from Janet Parade of their right to request monitoring in accordance with condition 2 below.
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 shall:
 - (a) notify the Director-General, 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 tenants (including tenants of mine-owned properties) 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 air quality or noise impact assessment criteria in Schedule 3, then he/she may ask the Director-General in writing for an independent review of the impacts of the project on his/her land.

If the Director-General is satisfied that an independent review is warranted, the Proponent shall within 2 months of the Director-General's decision:

- (a) commission a suitably qualified, experienced and independent expert, whose appointment has been approved by the Director-General, to:
 - consult with the landowner to determine his/her concerns;
 - conduct monitoring to determine whether the project is complying with the relevant impact assessment criteria in Schedule 3; and
 - if the project is not complying with these criteria then:
 - determine if more than one source, including the project, is responsible for the exceedance, and if so the relative share of each source towards the impact on the land;
 - identify the measures that could be implemented to ensure compliance with the relevant criteria; and
 - (b) give the Director-General and landowner a copy of the independent review.
4. If the independent review determines that the project is complying with the relevant impact assessment criteria in Schedule 3, then the Proponent may discontinue the independent review with the approval of the Director-General.

If the independent review determines that the project is not complying with the relevant impact assessment criteria in Schedule 3, and that the project is primarily responsible for this non-compliance, then the Proponent shall:

- (a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent expert, 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 impact assessment criteria,
- to the satisfaction of the Director-General.
5. If the independent review determines that the relevant impact assessment criteria in Schedule 3 are being exceeded, but that more than one source, including the project, is responsible for this non-compliance, then the Proponent shall, together with the relevant sources:
 - (a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent expert, and conduct further monitoring until there is compliance with the relevant criteria; or

- (b) secure a written agreement with the landowner and other relevant sources to allow exceedances of the relevant impact assessment criteria in schedule 3, to the satisfaction of the Director-General.

SCHEDULE 5
ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

1. The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Director-General. The strategy must:
 - (a) be submitted to the Director-General 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.

Management Plan Requirements

2. The Proponent shall 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 Director-General, some of these requirements may be waived where they are either not relevant or necessary.

Annual Review

3. By 1 November 2011, and annually thereafter, the Proponent shall review the environmental performance of the project to the satisfaction of the Director-General. This review must:
 - (a) describe the works (including rehabilitation) that were carried out in the previous year, and the works that are proposed to be carried out over current 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 the submission of an:
 - (a) annual review under condition 3 above;
 - (b) incident report under condition 6 below;
 - (c) 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 Director-General.

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.

Community Consultative Committee

5. The Proponent shall establish a Community Consultative Committee (CCC) for the Project to the satisfaction of the Director-General. This CCC must be operated in general accordance with the *Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects* (Department of Planning, 2007, or its latest version) to the satisfaction of the Director-General.

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 Reporting

6. The Proponent shall notify the Director-General and any other relevant agencies of any incident associated with the project as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident, the Proponent shall provide the Director-General and any relevant agencies with a detailed report on the incident.

Regular Reporting

7. The Proponent shall 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, and to the satisfaction of the Director-General

INDEPENDENT ENVIRONMENTAL AUDIT

8. By 31 December 2013, and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:
- (a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Director-General;
 - (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 Director-General.

9. Within 6 weeks of the completing of this audit, or as otherwise agreed by the Director-General, the Proponent shall submit a copy of the audit report to the Director-General, together with its response to any recommendations contained in the audit report.

ACCESS TO INFORMATION

10. From 1 November 2011, the Proponent shall:
- (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 Director-General; and
 - (b) keep this information up-to-date, to the satisfaction of the Director-General.

APPENDIX 1 PROJECT SITE

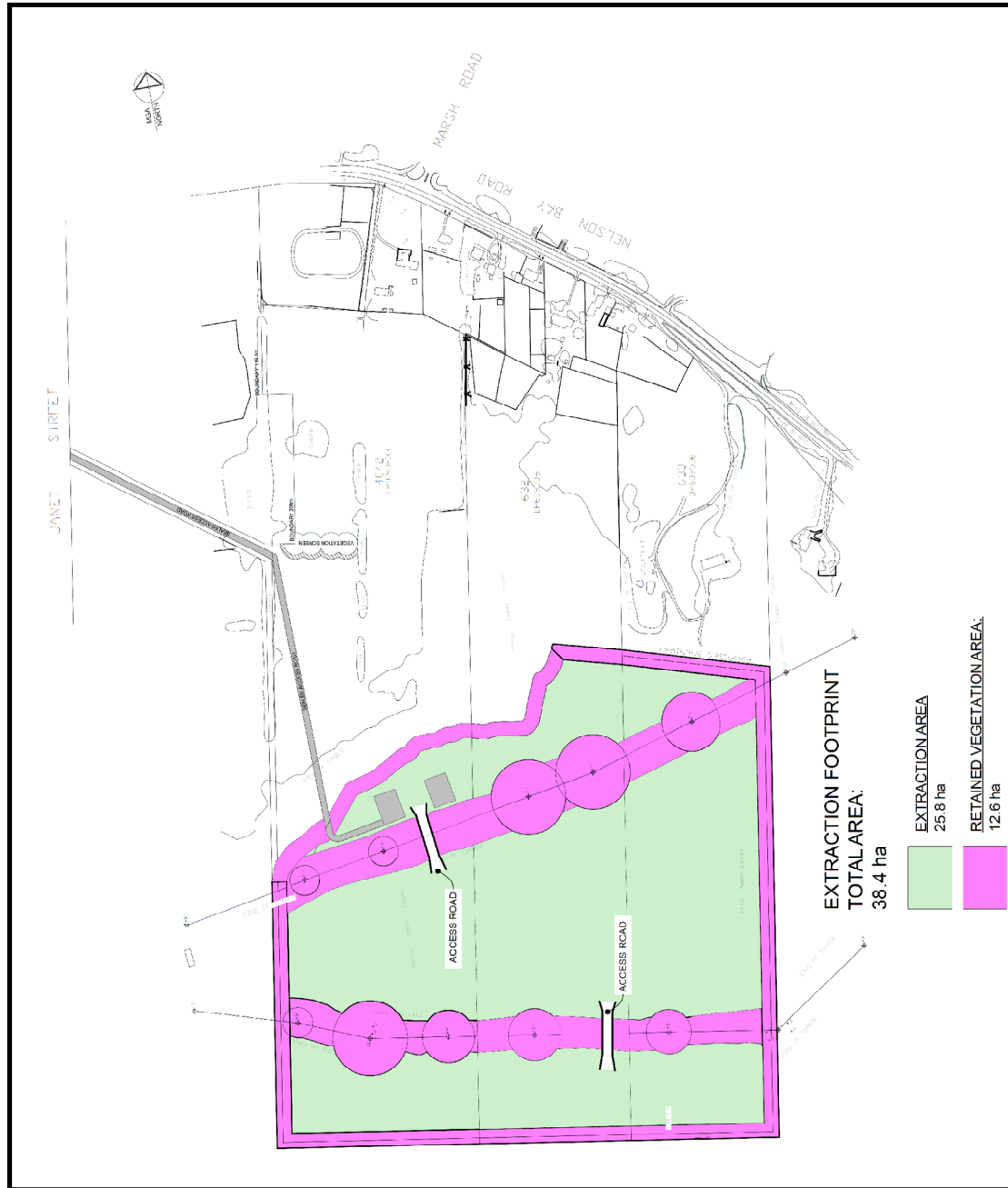


Figure 1: Project site

APPENDIX 2
NOISE RECEIVER LOCATIONS

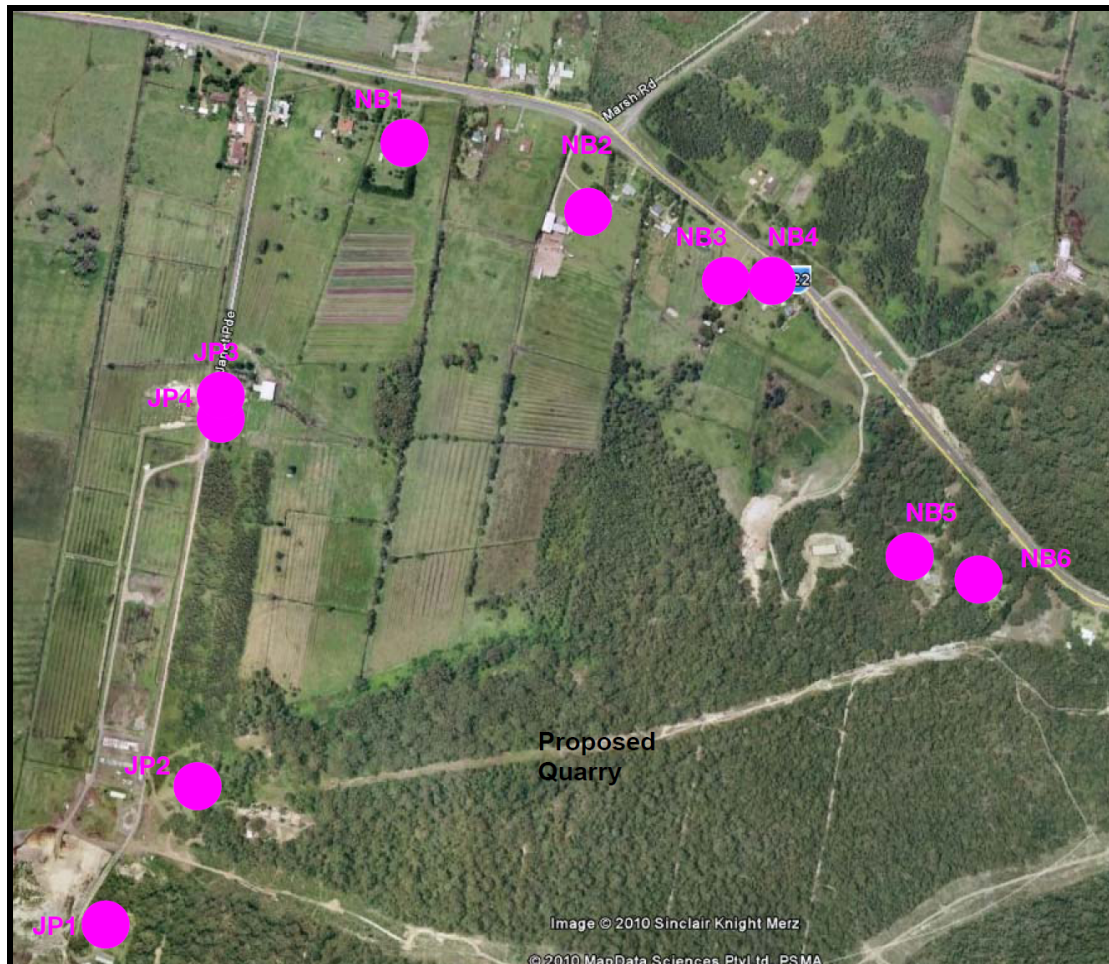


Figure 3: Noise receivers

**APPENDIX 3
STATEMENT OF COMMITMENTS**

Table 5.1 – Statement of Commitments

Impact	Commitment
1. Ecology	<ul style="list-style-type: none"> <p>• Environmental Offset Prior to the commencement of clearing and earthworks on the Salt Ash site, an 88b instrument will be in place over at least 51.2 hectares of Lot 89, DP7531898 to manage the site in perpetuity in accordance with DECCW requirements. Alternately a Voluntary Conservation Agreement will be entered into over at least 51.2 hectares of Lot 89, DP7531898.</p> <p>• 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 DECCW estate.</p> <p>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.</p> <p>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 DECCW estate.</p> <p>The re-use of hollows and establishment of nest boxes provides habitat for a range of species including: -</p> <ul style="list-style-type: none"> ○ Brush – tailed Phascogale ○ Squirrel Gliders; and ○ microbats <p>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</p>

	<p>provide suitable den sites for quolls</p> <ul style="list-style-type: none"> • Buffer Zones The following buffer zones / exclusion zones are proposed to be established prior to, and maintained throughout the life of the quarry: - <ul style="list-style-type: none"> ○ 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 DECCW 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. <p>All buffer zones are to be surveyed and marked (flagging tape / plastic mesh fencing) prior to the commencement of clearing works.</p> <p>Buffers will generally be consistent with the figure provided in Appendix B</p>
<p>2. Vegetation Management - Salt Ash</p>	<p>A comprehensive Vegetation Management Plan will be prepared to address the staged clearing program within the extraction footprint. This plan is to be endorsed by NSW DoP prior to the commencement of clearing or earthworks. The plan shall have regard to the following matters, as outlined in the Orogen 2008 report: -</p> <ul style="list-style-type: none"> • Vegetation Clearing Management <ul style="list-style-type: none"> ○ 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.

	<ul style="list-style-type: none"> • 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: - <ul style="list-style-type: none"> ○ 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. <p>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 DECCW prior to the commencement of clearing operations for each stage.</p> • 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 (NPWS, 2001)</i>. • Staged Rehabilitation Prior to the commencement of works a site rehabilitation plan is to be endorsed by DoP. This plan should have regard for: - <ul style="list-style-type: none"> • Staging of rehabilitation; • Retention and reuse of materials from clearing process; • Seedbanking; • 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	<p>A vegetation management plan shall be prepared for the Offset Site. This Plan shall be endorsed by DECCW prior to the commencement of clearing on the Salt Ash site. The plan shall give regard to the following: -</p> <ul style="list-style-type: none"> • 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 • Funding details of long term financial commitment to any proposed conservation measures.

4. Aboriginal Cultural Heritage	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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 <i>Water Sharing Plan for the Tomago Tomaree Stockton Groundwater Sources, 2003</i>. • 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 DoP 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 <i>Water Sharing Plan for the Tomago Tomaree Stockton Groundwater Sources, 2003</i>. • A groundwater monitoring network shall be developed to the satisfaction of DoP 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 by a registered contractor to remove the need for onsite fuel storage. No maintenance of equipment or storage of chemicals will occur on site;

	<ul style="list-style-type: none"> • 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 DoP. • An approval to install and operate an on site effluent disposal system shall be obtained in accordance with Section 68 of the <i>Local Government Act, 1993</i> prior to the commencement of operations.
7. Visual Impact	<ul style="list-style-type: none"> • 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 and Vibration	<p>The proposed hours of operation are: -</p> <ul style="list-style-type: none"> • Monday – Friday: - 7am – 5pm • Saturday: - 8am – 1pm • Sundays and Public Holidays: - No operations <p>Prior to the commencement of construction or operations a noise management plan shall be prepared and endorsed by DoP and shall incorporate measures generally consistent with the following recommendations: -</p> <ul style="list-style-type: none"> • 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 not be limited to, the following:

	<ul style="list-style-type: none"> • Avoid the use of radios/stereos outside. • Avoid shouting and slamming doors. • Keep truck drivers informed of designated routes and parking areas, etc. • 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. <p>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 NSW Interim Construction Noise Guidelines and endorsed by NSW DoP and the RTA prior to the commencement of works associated with the intersection.</p>
9. Management Plans Required	<p>The following management plans shall be prepared and endorsed by the relevant authority prior to the commencement of works / operations.</p> <ul style="list-style-type: none"> • 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.
10. Essential Operational Licenses required	<ul style="list-style-type: none"> • 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 DECCW on an annual basis

APPENDIX 4 BIODIVERSITY OFFSET STRATEGY

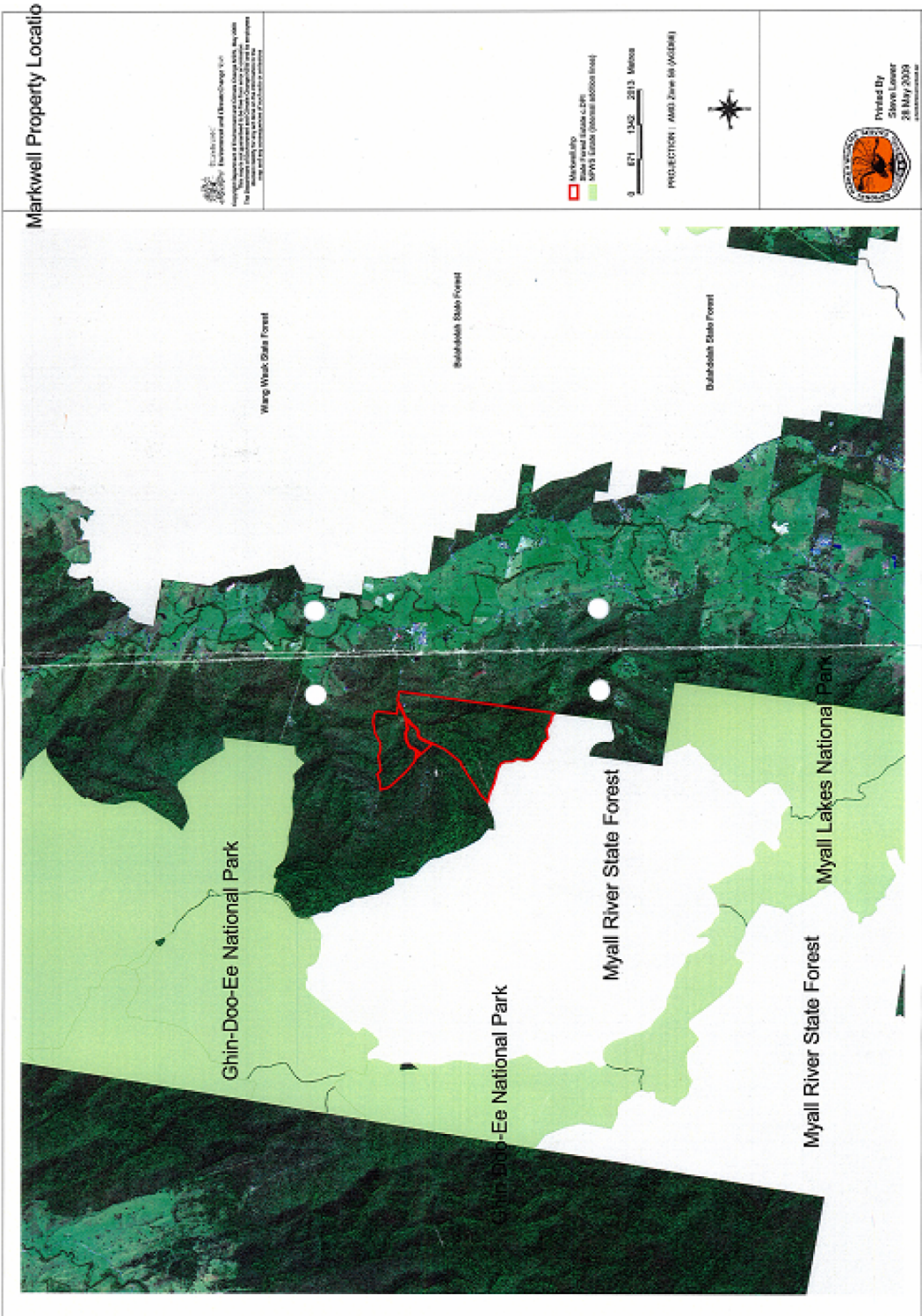


Figure 4: Markwell site

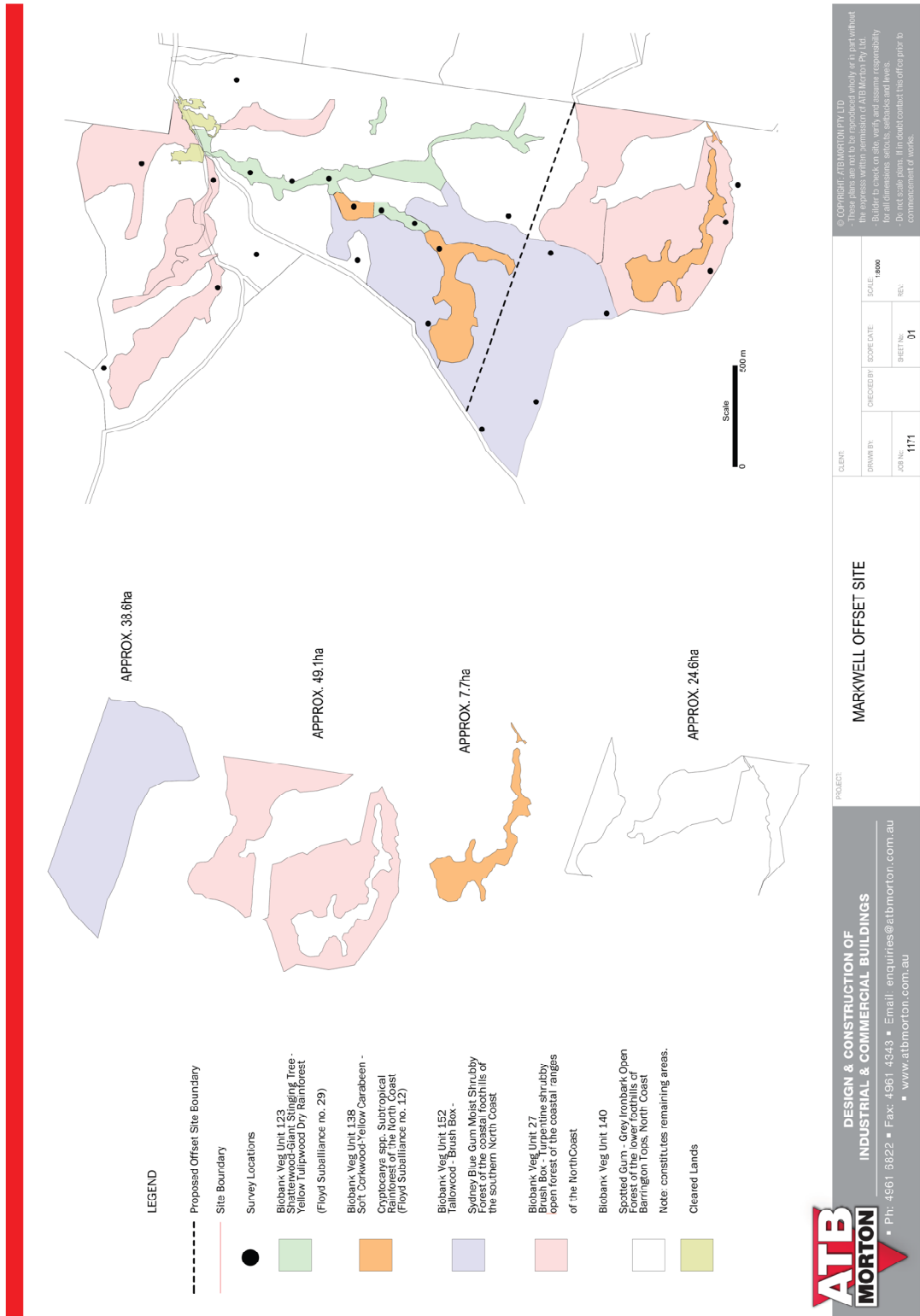


Figure 5: Biodiversity Offset site (120 ha portion)

**APPENDIX 5
INDEPENDENT DISPUTE RESOLUTION PROCESS**

