

Development Consent

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.

Chris Wilson

Executive Director

Development Assessment Systems & Approvals

Sydney

2013

SCHEDULE 1

Project Application:	09_0091
Proponent:	Sibelco Australia Limited
Approval Authority:	Minister for Planning and Infrastructure
Land:	Lots 11, 12, 13 DP601306; Lot 408 DP1041934; and Lots 1, 2 DP408240.
Project:	Tanilba Northern Dune Extension Project

Red type represents September 2020 Modification (SSD MP09_0091 MOD 1)

TABLE OF CONTENTS

DEFINITIONS	3
ADMINISTRATIVE CONDITIONS	5
Obligation to Minimise Harm to the Environment	5
Terms of Consent	5
Limits on Consent	5
Staged Submission of any Strategy, Plan or Program	5
Protection of Public Infrastructure	6
Operation of Plant and Equipment	6
Section 94 Contributions	6
Notification of Commencement	6
ENVIRONMENTAL PERFORMANCE CONDITIONS	7
Identification of Boundaries	7
Noise	7
Air Quality	8
Soil and Water	9
Biodiversity	10
Rehabilitation and Landscaping	11
Aboriginal Cultural Heritage	12
Traffic and Transportation	12
Visual	13
Waste Management	13
Emergency and Hazards Management	14
Production Data	14
ADDITIONAL PROCEDURES	12
Notification of Landowners	15
Independent Review	15
ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING	16
Environmental Management	16
Reporting	17
Auditing	18
Access to Information	18
APPENDIX 1: DEVELOPMENT LAYOUT	19
APPENDIX 2: NOISE RECEIVER LOCATIONS	20
APPENDIX 3: STATEMENT OF COMMITMENTS	21
APPENDIX 4: BIODIVERSITY OFFSET STRATEGY	26

DEFINITIONS

Annual Review	The review required by condition 3 of schedule 5
Applicant	Sibelco Australia Limited, or any other person carrying out any development under this consent
BCD	Biodiversity & Conservation Division within the Department
Biodiversity Offset Strategy	The long term conservation and management under BioBanking Agreement 225 of the Applicant's offset site at Lemon Tree Passage, being Lots 21-24 DP579700 and depicted conceptually in Appendix 4
Conditions of this consent	Conditions contained in schedules 2 to 5 inclusive
Council	Port Stephens Council
Day	The period from 7.00am to 6.00pm, Monday to Saturday
Department	Department of Planning, Industry and Environment
Development	The development described in the document/s listed in condition 2 of Schedule 2
DPIE Water	Water Group within the Department
DST	Daylight Savings Time
EA	Environmental Assessment of the development titled <i>Tanilba Northern Dune Extraction Extension - Environmental Assessment Report</i> prepared by ERM Australia Pty Limited, dated June 2012 and the Applicant's response to the issues raised in submissions, dated November 2012
EPA	Environment Protection Authority
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>
EST	Eastern Standard Time
Feasible	Feasible relates to engineering considerations and what is practical to build
HWC	Hunter Water Corporation
Incident	A set of circumstances that causes or threatens to cause material harm to the environment, and/or breaches or exceeds the limits or performance measures/criteria in this consent
Land	Land means the whole of a lot, or contiguous lots owned by the same landowner, in a current plan registered at the NSW Land Registry Services Office at the date of this consent
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>
MEG	Regional NSW – Mining, Exploration and Geoscience
Minister	Minister for Planning and Public Spaces, or delegate
Modification 1	The modification to the development as described in MR (MOD 1)
MR (MOD 1)	The Modification Report titled “MP09_0091 – Tanilba Northern Dune Extension Project – Modification” prepared by Kleinfelder Australia Pty Ltd, dated 6 December 2019

Planning Secretary	Planning Secretary under the EP&A Act, or nominee
Privately-owned land	Land that is not owned by a public agency or a quarrying company (or its subsidiary)
Quarrying operations	The extraction, processing and transportation of extractive materials on the site and the associated removal of vegetation, topsoil and overburden
Reasonable	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
Rehabilitation	The treatment or management of land disturbed by the development for the purpose of establishing a safe, stable and non-polluting environment
Statement of Commitments	The Applicant's commitments in Appendix 3
Site	Land to which the Development Consent applies, as listed in schedule 1 and shown in Appendix 1
TfNSW	Transport for NSW

SCHEDULE 2 ADMINISTRATIVE CONDITIONS

Obligation to Minimise Harm to the Environment

1. The **Applicant 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 **development**.

Terms of **Consent**

2. The development may only be carried out:
 - (a) in compliance with the conditions of this consent;
 - (b) in accordance with the Statement of Commitments in Appendix 3;
 - (c) in accordance with all written directions of the Planning Secretary;
 - (d) generally in accordance with the EA and MR (MOD 1); and
 - (e) generally in accordance with the Development Layout Plans in Appendix 1.

*Note: The general layout of the **development** 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 **consent** shall prevail to the extent of any inconsistency.
4. The **Applicant must** comply with any reasonable requirement/s of the **Planning Secretary** arising from the Department's assessment of:
 - (a) any reports, plans, programs or correspondence that are submitted in accordance with this **consent**; and
 - (b) the implementation of any actions or measures contained in these reports, plans, programs or correspondence.

Limits on **Consent**

5. The **Applicant** may carry out quarrying operations on the site until 31 December 2020.

*Note: Under this **consent**, the **Applicant** is required to rehabilitate and revegetate the site and provide and implement a Biodiversity Offset Strategy to the satisfaction of the **Planning Secretary**. Consequently this **consent** 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 **Applicant must** not transport more than 150,000 tonnes of extractive materials from the site in any calendar year.
7. The **Applicant must** ensure that no more than three hectares of the site would be exposed (ie cleared but not re-vegetated) at any one time.

Staged Submission of any Strategy, Plan or Program

8. With the approval of the **Planning Secretary**, the **Applicant** may submit any strategy, plan or program required by this **consent** on a progressive basis.

Protection of Public Infrastructure

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

Operation of Plant and Equipment

10. The **Applicant 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

11. For the life of quarrying operations under the **development**, the **Applicant must** pay Council a Section 94 contribution rate in accordance with the *Port Stephens Section 94 Development Contributions Plan 2007*.

Notification of Commencement

12. The **Applicant must** notify the Department of its intention to commence quarrying operations at least two weeks prior to the commencement of quarrying operations.

SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS

IDENTIFICATION OF BOUNDARIES

1. Prior to the commencement of quarrying operations, the **Applicant must**:
 - (a) engage a registered surveyor to mark out the boundaries of the approved limits of extraction; and
 - (b) 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 **Applicant must** ensure that the operational noise generated by the **development** 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</i>_{Aeq (15 min)} dB(A)
R1, R2, R3 and all residences in Oyster Cove	37
All other receivers	35

Notes:

- Receiver locations are shown in the Figure in Appendix 2; and
- Noise generated by the **development** 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 **Applicant must** only conduct quarrying operations on the site:
 - (a) between 7.00 am and 6.00 pm EST, Monday to Friday;
 - (b) between 7.00 am and 7.00 pm DST, Monday to Friday; and
 - (c) at no time on Saturday, Sunday or public holidays.

Operating Conditions

4. The **Applicant must**:
 - (a) implement best practice noise management to minimise the construction, operational and traffic noise of the development;
 - (b) maintain the effectiveness of any noise suppression equipment on site at all times and ensure defective equipment is not used operationally until fully repaired; and
 - (c) conduct extraction activities in a south to north direction so that the topography shields the sensitive receivers,to the satisfaction of the **Planning Secretary**.

Noise Monitoring Program

5. The **Applicant must** prepare and implement a Noise Monitoring Program for the development to the satisfaction of the **Planning Secretary**. This program must:
 - (a) be submitted to the **Planning Secretary** for approval prior to commencing quarrying operations;
 - (b) include quarterly attended noise monitoring during at least the first two years of quarrying operations, to be conducted on days when at least 30 truck dispatches occur from the site; and
 - (c) include details of how the noise performance of the **development** would be monitored, and include a noise monitoring protocol for evaluating compliance with the noise criteria in this **consent**.

AIR QUALITY

Impact Assessment Criteria

6. The **Applicant must** ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the **development** do not exceed the criteria listed in Tables 2 to 4 at any privately-owned land.

Table 2: Long term criteria for particulate matter

Pollutant	Averaging Period	^d Criterion
Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³
Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³

Table 3: Short term criterion for particulate matter

Pollutant	Averaging Period	^d Criterion
Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 50 µg/m ³

Table 4: Long term criteria for deposited dust

Pollutant	Averaging Period	Maximum increase in deposited dust level	Maximum total deposited dust level
^c Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month

Notes to Tables 2 to 4:

- ^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 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**.
- ^d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed by the **Planning Secretary** in consultation with the **EPA**.

Dust Management

7. The **Applicant must**:

- (a) implement best management practice to minimise the dust emissions of the **development**;
- (b) regularly assess air quality monitoring data and relocate, modify, and/or stop operations on site as may be required to ensure compliance with the relevant conditions of this **consent**;
- (c) minimise any visible off-site air pollution; and
- (d) minimise surface disturbance of the site, other than as permitted under this **consent**.

Dust Monitoring Program

- 8. The **Applicant must** prepare and implement a Dust Monitoring Program for the **development** to the satisfaction of the **Planning Secretary**. This program must:
 - (a) be submitted to the **Planning Secretary** for approval prior to commencing quarrying operations;
 - (b) include a program for the use of a water tanker on unsealed roads;
 - (c) include details of how the air quality performance of the **development** would be monitored, and a protocol for evaluating compliance with the relevant air quality criteria in this **consent**.

SOIL AND WATER

Pollution of Waters

- 9. Except as may be expressly provided for by an EPL, the **Applicant must** comply with section 120 of the *Protection of the Environment Operations Act 1997* in carrying out the **development**.

Management and Monitoring

- 10. The **Applicant must** not extract sand or other extractive materials or carry out any work in the extraction area below a level of 0.7 m above the predicted maximum groundwater elevation (see condition 14 of schedule 3), other than the construction of any bores approved by **DPIE Water**.
- 11. The **Applicant must** ensure that the final landform of the extraction area must be at least 1 metre above the predicted maximum groundwater elevation.
- 12. The **Applicant must** prepare and implement a Soil and Water Management Plan for the **development** to the satisfaction of the **Planning Secretary**. This plan must:
 - (a) be prepared:
 - by suitably qualified person(s), approved by the **Planning Secretary**; and
 - in consultation with HWC and **DPIE Water**;
 - (b) include a(n):
 - Erosion and Sediment Control Plan; and
 - Groundwater Monitoring Program; and
 - (c) be submitted to the **Planning Secretary** for approval prior to commencing quarrying operations.
- 13. 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*, (DECC 2008), 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.
- 14. 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 groundwater levels and quality;

- (d) a protocol for the investigation, notification and mitigation of any identified exceedances of the groundwater impact assessment criteria;
- (e) the outcome of groundwater modelling to establish the predicted maximum groundwater elevation for the site;
- (f) a program to monitor any impacts of the **development** on groundwater dependent ecosystems, and
- (g) a contingency plan to manage any acid sulfate soils and potentially acid sulfate soils encountered during quarrying operations.

BIODIVERSITY

Biodiversity Management Plan

15. The Applicant must prepare and implement a Biodiversity Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:
 - (a) be prepared:
 - by suitably qualified person(s), whose appointment has been approved by the Planning Secretary; and
 - in consultation with Council and BCD;
 - (b) be submitted to the Planning Secretary for approval;
 - (c) address both the development site and the Biodiversity Management Area (formerly the Northern Offset Area);
 - (d) provide for the retention of hollow-bearing trees, wherever practicable;
 - (e) ensure the establishment and on-going monitoring (of no less than 6 years) of a least 2 nest boxes for each tree hollow removed during clearing;
 - (f) include a program to undertake targeted surveys for *Uperoleia mahonyi* (Mahony's Toadlet);
 - (g) identify any areas within the Biodiversity Management Area requiring rehabilitation and/or re-vegetation and a program to implement these works;
 - (h) include a detailed description of the measures and procedures to be implemented for:
 - enhancing the quality of existing vegetation, fauna habitat and wildlife corridors;
 - landscaping the site to minimise any visual impacts of the development;
 - maximising the salvage of resources within the approved disturbance area – including vegetative, soil and cultural heritage resources – for beneficial reuse in the Biodiversity Management Area and/or rehabilitation areas;
 - minimising the impacts of the development on fauna, including undertaking pre-clearance surveys and minimising the use of insecticides, herbicides, pesticides and biocides;
 - controlling weeds and feral pests;
 - maintenance of a buffer zone at the northern edge of the extraction area;
 - controlling access;
 - minimising edge effects; and
 - bushfire management; and
 - (i) include:
 - management measures;
 - monitoring procedures;
 - performance indicators; and
 - reporting frameworks,

with particular reference to the Mahony's Toadlet, Koala and Wallum Froglet.

Long-term Security for Offset

16. By 31 December 2020, or otherwise agreed by the Planning Secretary, the Applicant must:
 - (a) implement the Biodiversity Offset Strategy via the approved BioBanking Agreement 225 (BA225) as approved by the Minister for the Environment on 23 January 2019, in respect of the established biobank site at Lemon Tree Passage, being Lots 21-24 DP579700 (see Appendix 4);
 - (b) retire at least 397 ecosystem credits within BA225; and

- (c) manage the Biodiversity Management Area (formerly the Northern Offset Area) in accordance with the approved Biodiversity Management Plan, until all requirements of this development consent have been met.

REHABILITATION AND LANDSCAPING

Landscape Management Plan

17. The **Applicant must** prepare and implement a Landscape Management Plan for the **development** to the satisfaction of the **Planning Secretary**. This plan must:
- (a) be prepared:
 - by suitably qualified person(s), approved by the **Planning Secretary**; and
 - in consultation with Council and HWC;
 - (b) be submitted to the **Planning Secretary** for approval prior to commencing quarrying operations; and
 - (c) include:
 - a Rehabilitation Management Plan; and
 - a Long Term Management Strategy.
18. The Rehabilitation Management Plan must include:
- (a) 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 rehabilitation would be monitored over time to measure achievement of the performance and completion criteria and the rehabilitation 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;
 - vegetation clearing protocols, including a protocol for clearing any trees containing hollows and the relocation of hollows from felled trees;
 - managing impacts on fauna, particularly threatened fauna and **Mahony's Toadlet**;
 - controlling weeds and pests;
 - controlling access;
 - bushfire management; and
 - reducing the visual impacts of the **development**;
 - (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.
19. 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 **development**; and
 - (d) describe how the performance of these measures would be monitored over time.

Rehabilitation Bond

20. Prior to commencing quarrying operations, the **Applicant must** lodge a rehabilitation bond for the **development** with the **Planning Secretary**. The **Applicant** may lodge the rehabilitation bond in two portions. The first portion for 4.5 hectares must be lodged with the Department prior to commencing quarrying operations, with no land disturbance to exceed 4.5 hectares until the second portion of the bond is accepted by the Department.

The sum of the bond shall be calculated at \$2.50/m² for the area to be disturbed by quarrying operations, to the satisfaction of the **Planning Secretary**.

If rehabilitation and revegetation works have been completed in accordance with the Rehabilitation Management Plan and to the satisfaction of the **Planning Secretary**, the **Planning Secretary** will release the rehabilitation bond.

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

21. Within 3 months of each Independent Environmental Audit (see condition 8 of schedule 5), the **Applicant must** review, and if necessary revise, the sum of the rehabilitation bond to the satisfaction of the **Planning Secretary**. This review must consider:
- (a) the effects of inflation; and
 - (b) performance under the Rehabilitation Management Plan to date.

ABORIGINAL CULTURAL HERITAGE

Aboriginal Cultural Heritage Management Plan

22. The **Applicant must** prepare and implement an Aboriginal Cultural Heritage Management Plan to the satisfaction of the **Planning Secretary**. This plan must:
- (a) be prepared in consultation with all relevant local Aboriginal communities;
 - (b) be submitted to the **Planning Secretary** for approval prior to commencing quarrying operations; and
 - (c) include:
 - measures for the protection and management of site 38-4-0318 within Lot 13 DP601306;
 - a program to complete prospective pre-clearance surveys of the extraction area in consultation with Aboriginal stakeholders;
 - measures for ongoing consultation with local Aboriginal communities and the involvement of these communities in pre-clearance surveys and the ongoing management of any Aboriginal cultural heritage values identified within the site;
 - an Aboriginal cultural education program for the induction of personnel and contractors involved in quarrying operations; and
 - a description of the measures that would be implemented if any new Aboriginal objects or skeletal remains are discovered during the **development**.

TRAFFIC

Haulage Route

23. All extractive materials dispatched from the site must be delivered to Sibelco's Salt Ash Sand Processing Plant by the most direct route available.

Road Signage

24. Prior to commencing quarrying operations, the **Applicant must**:
- (a) install "Trucks Crossing" and "Trucks Entering" warning signs on Nelson Bay Road on both the western and eastern approaches to the intersection of Lemon Tree Passage Road; and
 - (b) pay the full cost of this installation,
- to the satisfaction of **TfNSW**.

On-Site Traffic Management

25. The **Applicant must** ensure that:
- (a) all vehicles do not exceed a speed of 25 kph on the site;
 - (b) all loaded vehicles entering or leaving the site have their loads covered; and
 - (c) all loaded vehicles leaving the site are cleaned of sand and other materials that may fall on the road, before leaving the site.

Traffic Management Plan

26. The **Applicant must** prepare and implement a Traffic Management Plan for the **development**, to the satisfaction of the **Planning Secretary**. This plan must:
- (a) be submitted to the **Planning Secretary** for approval prior to commencing quarrying operations;
 - (b) include a drivers' code of conduct to minimise the impacts of **development**-related trucks on local residents and road users; and
 - (c) describe the measures that would be put in place to ensure compliance with the drivers' code of conduct.

VISUAL

Visual Amenity

27. The **Applicant must** minimise the visual impacts of the **development** to the satisfaction of the **Planning Secretary**.

WASTE MANAGEMENT

28. The **Applicant must** minimise the amount of waste generated by the **development** to the satisfaction of the **Planning Secretary**.
29. The **Applicant must** ensure that wastewater and/or sewage disposal is not undertaken on the site.
30. The **Applicant must** not undertake any refuelling or maintenance of vehicles or equipment on the site, except to the extent necessary to remove vehicles or equipment from the site in the case of breakdowns.
31. The **Applicant 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 **Planning 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

32. The **Applicant must** ensure that chemicals and/or petroleum products are not stored on site.

Safety

33. The **Applicant must** ensure public safety at the site to the satisfaction of the **Planning Secretary**.

PRODUCTION DATA

34. The **Applicant must**:
- (a) provide annual quarry production data to **MEG** 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. If the results of the monitoring required in schedule 3 identify that the impacts generated by the **development** 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 **Applicant must**:
 - (a) notify the **Planning Secretary**, the affected landowners and tenants (including tenants of any quarry-owned properties) accordingly, and provide monitoring results to each of these parties until the results show that the **development** 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

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

If the **Planning Secretary** is satisfied that an independent review is warranted, then within 2 months of the **Planning Secretary's** decision the **Applicant must**:

- (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the **Planning Secretary**, to:
 - consult with the landowner to determine his/her concerns;
 - conduct monitoring to determine whether the **development** is complying with the relevant criteria in schedule 3; and
 - if the **development** 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 **Planning Secretary** and landowner a copy of the independent review.

SCHEDULE 5 ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

1. The **Applicant must** prepare and implement an Environmental Management Strategy for the **development** to the satisfaction of the **Planning Secretary**. The strategy must:
 - (a) be submitted to the **Planning Secretary** for approval prior to the commencement of quarrying activities;
 - (b) provide the strategic framework for environmental management of the **development**;
 - (c) identify the statutory approvals that apply to the **development**;
 - (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the **development**;
 - (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 **development**;
 - receive, handle, respond to, and record complaints;
 - resolve any disputes that may arise during the course of the **development**;
 - 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 **consent** once they have been approved; and
 - a clear plan depicting all the monitoring to be carried out in relation to the **development**.

Management Plan Requirements

2. The **Applicant must** ensure that the Management Plans required under this **consent** 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 **development** 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 **development**; 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 **development** 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 **Planning Secretary**, some of these requirements may be waived where they are either not relevant or necessary.*

Annual Review

3. Within 12 months of the commencement of quarrying operations, and annually thereafter, the **Applicant must** review the environmental performance of the **development** to the satisfaction of the **Planning Secretary**. 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 **development** 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 **development**;
 - (e) identify any discrepancies between the predicted and actual impacts of the **development**, 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 **development**.

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 5 below;
 - (c) the submission of an audit report under condition 8 below; and
 - (d) any modifications to this **consent**,the **Applicant must** review, and if necessary revise, the strategies, plans, and programs required under this **consent** to the satisfaction of the **Planning 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 **development**.*

REPORTING

Incident Reporting

5. The **Applicant must** notify the **Planning Secretary** and any other relevant agencies of any incident associated with the **development** as soon as practicable after the **Applicant** becomes aware of the incident. Within 7 days of the date of the incident, the **Applicant must** provide the **Planning Secretary** and any relevant agencies with a detailed report on the incident.

Regular Reporting

6. The **Applicant must** provide regular reporting on the environmental performance of the **development** on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this **consent**, and to the satisfaction of the **Planning Secretary**.

AUDITING

Independent Environmental Audit

7. Within 1 month of the completion of quarrying operations, unless the **Planning Secretary** directs otherwise, the **Applicant must** commission and pay the full cost of an Independent Environmental Audit of the **development**. This audit must:
 - (a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the **Planning Secretary**;
 - (b) include consultation with the relevant agencies;
 - (c) assess the environmental performance of the **development** and assess whether it is complying with the relevant requirements in this **consent** and any relevant EPL (including any assessment, plan or program required under these approvals);
 - (d) review the adequacy of strategies, plans or programs required under the abovementioned **consent** or licences; and
 - (e) 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 **Planning Secretary**.*

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

ACCESS TO INFORMATION

9. From 1 July 2013, the **Applicant 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 **development**, which have been reported in accordance with the various plans and programs approved under the conditions of this **consent**, updated on a quarterly basis;
 - a complaints register, updated on a quarterly basis;
 - copies of any Annual Reviews;
 - copies of any Independent Environmental Audit, and the **Applicant's** response to the recommendations in any audit;
 - copies of the development consent and approved management plans for existing adjacent quarrying operations; and
 - any other matter required by the **Planning Secretary**; and
 - (b) keep this information up-to-date,to the satisfaction of the **Planning Secretary**.

APPENDIX 1 DEVELOPMENT LAYOUT

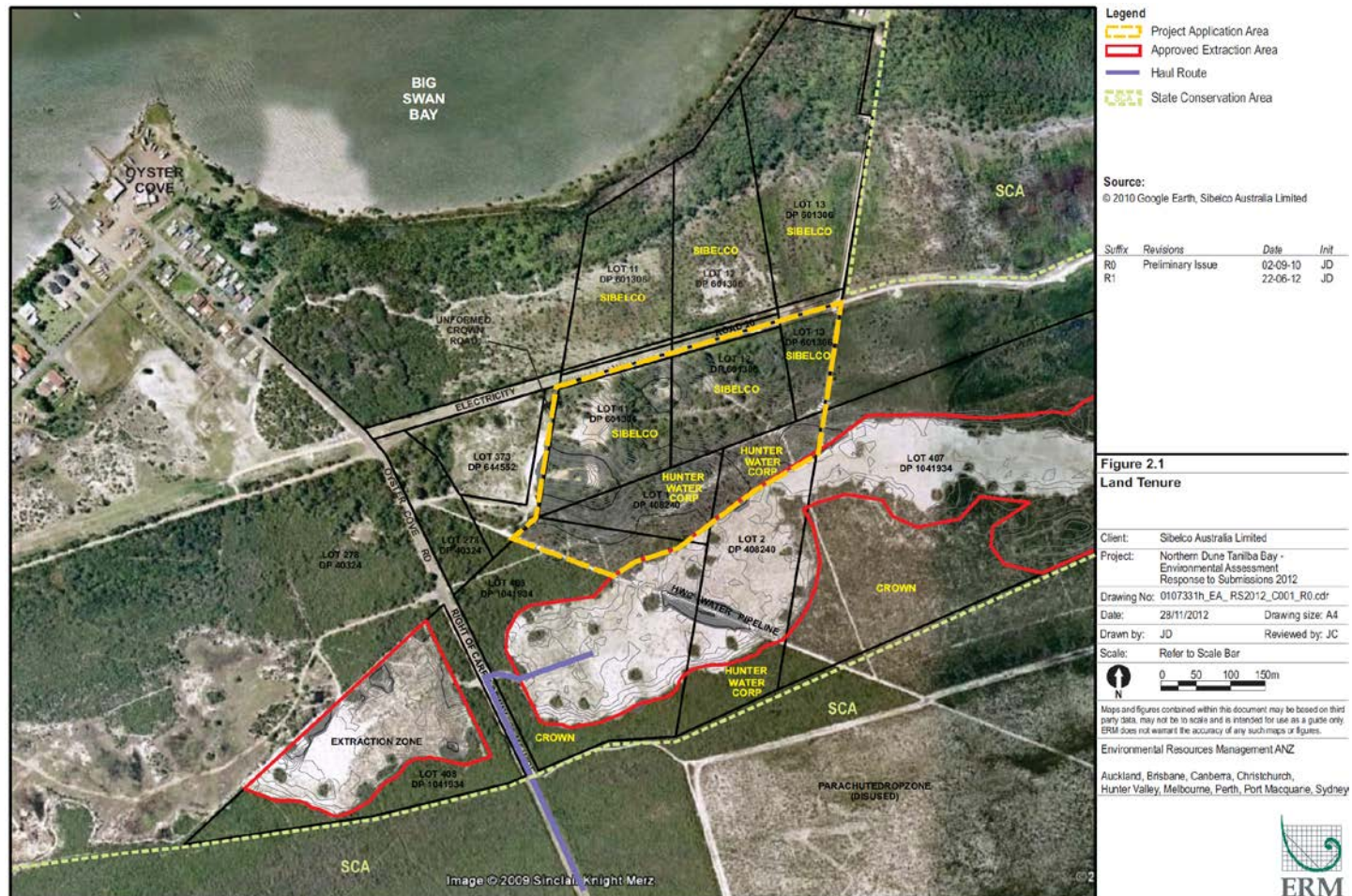


Figure 1: Development site

APPENDIX 2 NOISE RECEIVER LOCATIONS

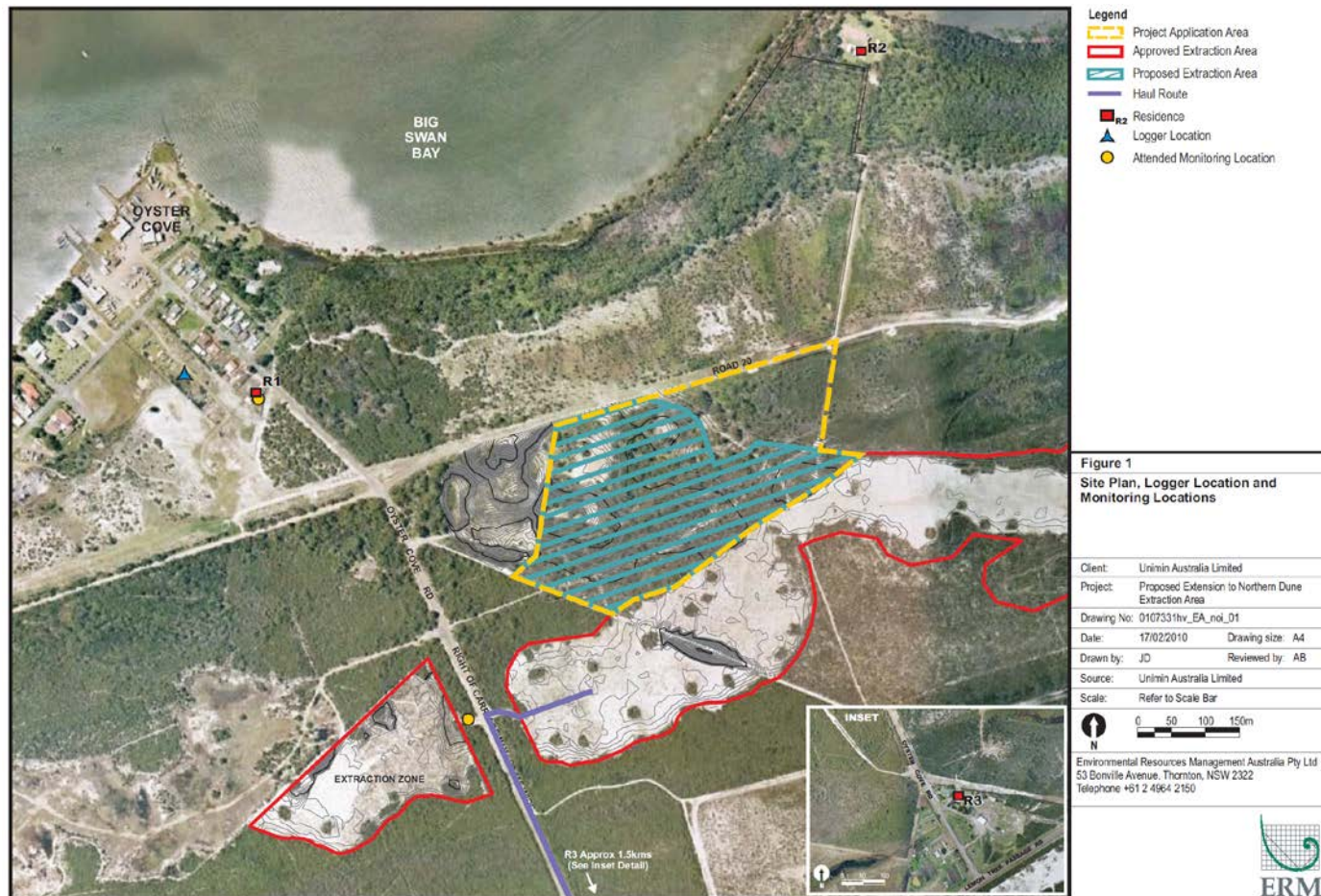


Figure 2: Noise receivers

**APPENDIX 3
STATEMENT OF COMMITMENTS**

Issue	Mitigation Measure/Commitment
Environmental Management Plan	<p>The currently approved EMP will be applied over all 9 EMPs and updated as necessary to meet the needs of the extension area. These include;</p> <ul style="list-style-type: none"> • EMP1 - Environmental Induction and Training • EMP2 - Hydrocarbon Spill Procedure • EMP3 - Operations Management Procedure • EMP4 - Extraction Depth and Area Monitoring • EMP5 - Groundwater • EMP6 - Cultural Heritage • EMP7 - Vegetation Rehabilitation • EMP8 - Landform Rehabilitation • EMP9 - Erosion and Sediment Control
Groundwater Monitoring	<p>The Groundwater Management Plan (GMP) in place for the existing operation will be updated to incorporate ongoing monitoring at additional bores SAL4 and SAL5 in accordance with the existing approved monitoring regime.</p> <p>Current environmental management commitments will be adopted for the extraction extension, including:</p> <ul style="list-style-type: none"> • groundwater quality and level monitoring, and reporting as part of the approved groundwater management plan; • regular review of environmental performance through the AEMR process; • maintenance of a minimum 1.0 m vertical buffer between the predicted maximum groundwater elevation and the final landform (extraction will occur to 0.7 m above predicted maximum groundwater elevation, with final rehabilitated landform being 1.0 m above these elevations following placement of 0.3 m topsoil); • staged rehabilitation of extraction areas; • avoiding storing machinery or hazardous materials onsite; and • avoiding servicing or refuelling equipment onsite.
Noise Emissions	The currently approved EMP would continue to be applied, and updated as necessary to meet the needs of the proposed extension area.

Issue	Mitigation Measure/Commitment
	<p>All reasonable steps would be undertaken to reduce noise emissions during extraction and transport.</p> <ul style="list-style-type: none"> sequentially extracting from the south to the north, so that the topography will naturally help shield the sensitive receptors to the north against operational noise emissions; ensuring all machines are in good working condition, with particular attention to exhaust silencers, engine covers and other noise reduction devices; all work and transport will be restricted to daylight hours, typically from 7:00am to 6:00pm Monday to Friday, but when light permits continuing to 7:00pm; and site imposed speed limits up to 25 km/hr to be enforced to minimise noise generation.
Air Emissions	Air emissions related management measures are already in place and proposed to continue as part of the extension of operations to reduce the generation of particulate emissions.
	A water tanker will be used on all unsealed roads on an as-needs basis, dependant on weather conditions.
	Sand extraction cells will be progressively rehabilitated throughout the life of the extraction. It is anticipated that no more than three hectares will be exposed at any one time.
Surface and Groundwater Quality	Surface water management principles will be implemented to prevent contamination of surface (and therefore groundwater) quality. Management and monitoring actions stipulated in the current approved Groundwater Management Plan for current operations will be followed for the proposed extraction extension .
	<p>Additional documents will be produced for the extraction extension area to mitigate any impacts to the quality of the groundwater, the adjoining forested wetlands and, to aid in the rehabilitation of the extraction area post sandmining including:</p> <ul style="list-style-type: none"> Surface Water Management Plan to prevent runoff, pollution and sedimentation from the extraction area entering into adjoining forested wetlands; Vegetation and Weed Management Plan for rehabilitation of the proposed sand extraction area; and Offset Strategy in the form of a Biobanking Agreement over Lot 21, 22, 23 and 24 DP 579700 and associated Biodiversity Management Plan (BMP) which will detail management actions to be undertaken on the remaining portions of Lots 11, 12 and 13 DP 601306. The BMP will cover vegetation, weed, fire and stormwater management, minimisation of edge effects, control of public access and management of habitat enhancement measures.
	Hollow bearing trees 16, 17, 18 and 20 (refer to Figure 2.2, Northern Dune Submission Report) to be retained.

Issue	Mitigation Measure/Commitment
Ecology	<ul style="list-style-type: none"> • avoidance of the use of biocides and implementing erosion and sediment controls; • incorporating implementation of pre-clearing surveys, a fauna displacement mitigation protocol, Koala mitigation measures, nestbox installation and monitoring, and a monitoring plan for the Wallum Froglet as detailed in Annex M of the EA; • staged rehabilitation of the extraction area (to be supported by a Landscape Management Plan), to be conducted in the same fashion as successful rehabilitation of the Applicant's existing approved extraction areas directly to the south; and • implementation of an Offset Strategy as detailed in "MP09_0091 – Tanilba Northern Dune Extension Project – Modification" dated 6 December 2019.
Vegetation Clearing	At least one week prior to any vegetation clearing, a survey of habitat trees will be conducted in the planned clearing area in accordance with the survey methodology outlined in the approved Landscape Management Plan .
	Pre-clearing surveys will be conducted to check for the presence of any Koalas within the proposed extraction area.
	Hollow-bearing trees will be left standing for two nights after the surrounding vegetation has been cleared to encourage any native fauna species utilising the habitat hollows to self-relocate. The actual felling of any habitat trees will be attended by a suitably experienced fauna ecologist in order to ensure the safety of any fauna found to be in the hollows. On all occasions, trees having potential habitat hollows should be 'soft felled' by an experienced machine operator in accordance with the procedure outlined in the approved Landscape Management Plan .
Fauna Displacement Protocol	A fully qualified, experienced and licensed ecologist will supervise clearing and encourage movement of any displaced animals into adjoining vegetation.
	Captured fauna and/or displaced fauna will be relocated to adjacent habitat by an ecologist. During tree removal or any other construction activity, Fauna Displacement protocols outlined in the approved Landscape Management Plan will be followed in the case of an injured animal.
Wallum Froglet Management Plan	<p>A management plan for the Wallum Froglet (<i>Crinia tinnula</i>) will be developed in accordance with the management guidelines outlined under Section 6 of the National Recovery Plan for the Wallum Sedgefrog and Other Wallum- dependent Frog Species. In particular this will include specifications on:</p> <ul style="list-style-type: none"> • minimising affects from soil disturbance; • ensuring sufficient retention of vegetation particularly around breeding sites; and • monitoring the habitat condition and frog numbers to ensure the threats to the species are properly managed. This should be undertaken with sufficient regularity and should preferably be carried out a year or more before development starts and continue for the duration of extraction operations, including rehabilitation works.

Issue	Mitigation Measure/Commitment
Nestbox Installation and Monitoring Program	A nestbox installation and monitoring program will be implemented on a ratio of 2:1 to replace 38 hollows present in the 17 hollow-bearing trees mapped within the proposed extraction area. Nestboxes should be erected prior to clearing commencing in order to provide alternative den and/or nest sites for any displaced fauna.
	Nestboxes are to be erected within the Biodiversity Management Area on Lots 11, 12 and 13 DP 601306 . Nest box designs should be selected to replace the natural hollow sizes removed (ie, 20 small, 16 medium and 2 large) and will target insectivorous bats, gliders and possums. Annual monitoring for a minimum 6-year period post installation is recommended to record uptake of the nestboxes and to attend to any maintenance issues. Confirmation of annual inspection of the nestboxes and documentation of results will be communicated in the Annual Environmental Management Report.
Vegetation Management and Monitoring Plan	<p>Weed Management and Vegetation Management and Monitoring Plans will be prepared for the rehabilitation area and the Biodiversity Management Area on Lots 11, 12, 13 DP 601306, which will include a thorough and intensive program to protect the adjoining forested wetland communities against weed invasion, and surface and underground run-off that may occur both during and after sand extraction activities. The management and monitoring plans will consider:</p> <ul style="list-style-type: none"> • the nature and control of sediment run-off during the extraction phase particularly as a result of an exceptional storm event; • the volume, path and content of stormwater discharging from the site during and after extraction; • the handling of hydrocarbon spills on the site ; • existing flow regime of surface and groundwater flow from the proposed extraction area into the forested wetlands; and • weed invasion
Biodiversity Offset Strategy	A biodiversity offset strategy will be adopted as outlined in “MP09_0091 – Tanilba Northern Dune Extension Project – Modification” dated 6 December 2019. In perpetuity biodiversity offsets are proposed on Lot 21, 22, 23 and 24 DP 579700 (the offset lands). A Biobanking Agreement (BA225) has been placed over these offset lands, which results in permanent protection and management of the land resulting in numerous ecological benefits.
Aboriginal Heritage	Ground disturbing activities will be conducted in accordance with the approved Aboriginal Cultural heritage Management Plan, as outlined in the approved Environmental Management Plan, and any relevant consent conditions.
Bushfire	<ul style="list-style-type: none"> • provision of a separation distance (minimum of 10 m) between stockpiles of combustible material and remnant vegetation;
	<ul style="list-style-type: none"> • managing operations and the site to minimise likelihood of ignition sources through good ‘housekeeping’ (for example, all waste in bins);
	<ul style="list-style-type: none"> • emergency planning procedures in the event of a fire occurring on the site;
	<ul style="list-style-type: none"> • fitting of all earth moving machinery with spark arresting mufflers and haul trucks have serviceable exhaust systems to prevent accidental ignition of vegetation; and

Issue	Mitigation Measure/Commitment
	<ul style="list-style-type: none"> equipping the operations to assist in the management of any fires on-site, including presence of fire extinguishers, water cart (as contracted), and the site front-end loader and bulldozer for any requisite fire fighting purposes.
Waste Management	<ul style="list-style-type: none"> no burning of waste;
	<ul style="list-style-type: none"> any noxious plant species will be removed from the site, bagged and disposed of at a licensed landfill;
	<ul style="list-style-type: none"> any waste will be removed daily and recycled or disposed of directly at a licensed landfill; and
	<ul style="list-style-type: none"> the site will be maintained and kept free of rubbish and cleaned up at the end of each working day.

APPENDIX 4 BIODIVERSITY OFFSET STRATEGY

