

Development Consent

Section 89E of the *Environmental Planning and Assessment Act 1979*

As delegate of the Minister for Planning, I approve the development 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 ongoing environmental management of the development.

Oliver Holm
Executive Director
Resource Assessments and Compliance

Sydney

18 April 2016

SCHEDULE 1

| | |
|----------------------------|--|
| Application Number: | SSD 7036 |
| Applicant: | Quarry Solutions Pty Ltd |
| Consent Authority: | Minister for Planning |
| Site: | Lot 401 DP633427, Lots 402 and 403 DP802985, Lot 408 DP1166287, Lot A DP397946, Lot A DP389418, Lot 3 DP701197, Lot 2 DP954593, Lot 1 DP954592, Lot 1 DP310756, Lot 1 DP1165893 and Lot 1 DP1225621 ; located off Seelems Road, Coraki, New South Wales. |
| Development: | Coraki Quarry Project |

Red Type – October 2016 Modification

Blue Type – June 2017 Modification

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DEFINITIONS

| | |
|----------------------------------|---|
| Aboriginal item or object | Any item or object that provides evidence of the use of an area by Aboriginal people, as defined under the <i>National Parks and Wildlife Act 1974</i> |
| AHD | Australian Height Datum |
| Annual Review | The review required by condition 9 of Schedule 5 |
| Applicant | Quarry Solutions Pty Ltd or any other person or persons who rely on this consent to carry out the development that is subject to this consent |
| BCA | Building Code of Australia |
| CCC | Community Consultative Committee |
| Conditions of consent | Conditions contained in Schedules 2 to 5 inclusive |
| Council | Richmond Valley Shire Council |
| Day | The period from 7 am to 6 pm |
| Department | Department of Planning and Environment |
| Development | The development described in the EIS |
| DRG | Division of Resources and Geoscience within the Department |
| EIS | Environmental Impact Statement titled <i>Coraki Quarry</i> prepared by Groundwork Plus (dated November 2015) including the associated Response to Submissions (dated February 2015) and additional information provided via email on 11 March 2016, including the attached reports from BAAM Ecological Consultants and Calibre Consulting (both dated 11 March 2016) |
| EPA | NSW 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 issued under the <i>Protection of the Environment Operations Act 1997</i> |
| Evening | The period from 6 pm to 10 pm |
| Feasible | Feasible relates to engineering considerations and what is practical to build or to implement |
| Incident | A set of circumstances that: <ul style="list-style-type: none"> causes or threatens to cause material harm to the environment; and/or breaches or exceeds the limits or performance measures/criteria in this consent |
| GPS | Global Positioning System |
| INP | <i>NSW Industrial Noise Policy</i> (NSW EPA, 2000) |
| Laden Trucks | Trucks transporting quarry products from the development |
| Land | As defined in the EP&A Act, except where the term is used in the noise and air quality conditions in Schedule 3 where it is defined to mean 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 consent |
| Material harm to the environment | Actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial |
| Minister | Minister for Planning, or delegate |
| Mitigation | Activities associated with reducing the impacts of the development |
| Negligible | Small and unimportant, such as to be not worth considering |
| Night | The period from 10 pm to 7 am |
| DPI-Water | Department of Primary Industries - Water |
| OEH | Office of Environment and Heritage |
| POEO Act | <i>Protection of the Environment Operations Act 1997</i> |
| Privately-owned land | Land that is not owned by a public agency or the Applicant (or its subsidiary) |
| Public infrastructure | Linear and other infrastructure that provides services to the general public, such as roads, railways, water supply, drainage, sewerage, gas supply, electricity, telephone, telecommunications, etc |
| Quarrying operations | The extraction, processing, stockpiling and transportation of quarry products on the site and the associated removal of vegetation, topsoil and overburden |
| Quarry products | Includes all saleable quarry products, but excludes tailings and other wastes |
| 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 restoration of land disturbed by the development to a good condition, for the purpose of establishing a safe, stable and non-polluting environment |
| RMS | Roads and Maritime Services |

Secretary
SEE (MOD 1)
SEE (MOD 2)

Site
Statement of Commitments

Secretary of the Department, or nominee
Modification application SSD 7036 Mod 1 and the accompanying letter to the Department from Groundwork Plus dated 19 August 2016
Modification application SSD 7036 Mod 2 and the accompanying letter to the Department from Groundwork Plus dated 10 February 2017, including the response to submissions dated 26 April 2017
The land lots set out in Schedule 1
The Applicant's commitments set out in Appendix 1

SCHEDULE 2 ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

1. In addition to meeting the specific performance criteria established under this consent, 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 Applicant must carry out the development:
 - (a) generally in accordance with the EIS, **SEE (MOD 1)** and **SEE (MOD 2)**; and
 - (b) in accordance with the Statement of Commitments and conditions of this consent.

Note: The Applicant's Statement of Commitments is reproduced in Appendix 1.

3. If there is any inconsistency between the above documents, the most recent document must prevail to the extent of the inconsistency. However, the conditions of this consent must prevail to the extent of any inconsistency.
4. The Applicant must comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of:
 - (a) any strategies, plans, programs, reviews, audits, reports or correspondence that are submitted in accordance with this consent;
 - (b) any reviews, reports or audits undertaken or commissioned by the Department regarding compliance with this consent; or
 - (c) the implementation of any actions or measures contained in these documents.

LAPSING OF CONSENT

5. If the development has not been physically commenced within 5 years of the date of this consent, then this development consent must lapse.

LIMITS ON CONSENT

Quarrying Operations

6. The Applicant may carry out quarrying operations for the development until 30 June 2023.

Note: Under this consent, the Applicant is required to rehabilitate lands associated with the development and carry out additional undertakings to the satisfaction of the Secretary. Consequently this consent will continue to apply in all other respects other than the right to conduct quarrying operations until the rehabilitation of lands associated with the development and those undertakings have been carried out to a satisfactory standard.

7. The Applicant must not extract materials outside of the Extraction Area, or stockpile materials outside of the Stockpile Area and Temporary Stockpile Area, as shown in Appendix 2; nor extract materials below 18 metres AHD.
8. The Applicant must not extract or process more than 1 million tonnes of quarry products in any calendar year.

Quarry Products Transport

9. The Applicant must not dispatch from the development more than 31 laden trucks per hour or more than:
 - (a) 231 laden trucks per day (Monday to Friday); and
 - (b) 105 laden trucks per day (Saturday),unless operating in accordance with condition 2 of Schedule 3, in which case the Applicant may dispatch up to 273 laden trucks per day (Monday to Saturday).

Note: in this condition, 'per hour' means any 60 minutes following the change of hour.

STRUCTURAL ADEQUACY

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

Notes:

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

DEMOLITION

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

PROTECTION OF PUBLIC INFRASTRUCTURE

12. Unless the Applicant and the applicable authority agree otherwise, the Applicant must:
 - (c) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the development; and
 - (d) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development.

Note: This condition does not apply to any damage to roads caused as a result of general road usage or otherwise addressed by contributions required of condition 17 of this consent.

OPERATION OF PLANT AND EQUIPMENT

13. The Applicant must ensure that all the 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.

PRODUCTION DATA

14. The Applicant must:
 - (a) provide annual quarry production data to DRG using the standard form for that purpose; and
 - (b) include a copy of this data in the Annual Review (see condition 9 of Schedule 5).

IDENTIFICATION OF APPROVED EXTRACTION LIMITS

15. By 30 November 2017, or one month prior to commencement of extraction from Lot 1 DP1225621, whichever is earlier, unless otherwise agreed by the Secretary, the Applicant must:
 - (a) engage a registered surveyor to mark out the boundaries of the approved limits of extraction; and
 - (b) submit a survey plan of these boundaries with applicable GPS coordinates to the Secretary.
16. While quarrying operations are being carried out, the Applicant must ensure that these boundaries are clearly marked at all times in a manner that allows operating staff to clearly identify the approved limits of extraction.

CONTRIBUTIONS TO COUNCIL

17. The Applicant must pay to Council a contribution of \$1.12 per tonne of quarry products transported from the development for the maintenance of the local road network. The contribution must be paid quarterly and indexed in line with the provisions of the *Richmond Valley Council Section 94 Heavy Haulage Plan 2013* or any subsequent relevant contributions plan adopted by Council.

Note: If the parties are unable to agree on any aspect of the maintenance contributions, either party may refer the matter to the Secretary for resolution.

CROWN ROADS

18. The Applicant must obtain approval for the closure of the Crown road on the eastern boundary of Lot 401 DP 633427 prior to undertaking the development within the area of the road.

COMPLIANCE

19. The Applicant must ensure that all employees, contractors and sub-contractors are aware of, and comply with, the conditions of this consent relevant to their respective activities.

SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS

NOISE

Hours of Operation

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

Table 1: Operating Hours

| Activity | Permissible Hours |
|--|--|
| Quarrying operations including truck loading and dispatch | 7 am to 6 pm Monday to Friday; 8 am to 1 pm Saturday; and At no time on Sundays or public holidays. |
| Blasting | 9 am to 3 pm Monday to Friday; and At no time on Saturdays, Sundays or public holidays. |
| Maintenance activities | May be conducted at any time, provided that these activities are not audible at any privately-owned residence. |

- The Applicant may operate under the extended operating hours set out in Table 2 only after obtaining written agreements with landowners R1 to R9 (as shown on the plan in Appendix 3), and after advising the EPA and the Secretary in writing of the terms of these agreements.

Table 2: Extended Operating Hours

| Activity | Permissible Hours |
|--|---|
| Quarrying operations including truck loading and dispatch | 6 am to 7 pm Monday to Friday; 6 am to 7 pm Saturday; and At no time on Sundays or public holidays. |
| Maintenance activities | May be conducted at any time. |

- The following activities may be carried out on the site at any time:
 - delivery or dispatch of materials as requested by Police or other authorities; and
 - emergency work to avoid the loss of lives, property and/or to prevent environmental harm.

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

Noise Impact Assessment Criteria

- The Applicant must ensure that the noise generated by the development does not exceed the criteria in Table 3 at any residence on privately-owned land.

Table 3: Noise criteria dB(A)

| Receiver | Day dB(A) (L _{Aeq} (15 min)) | Evening dB(A) (L _{Aeq} (15 min)) | Night dB(A) (L _{Aeq} (15 min)) |
|--------------------------------|--|--|--|
| All privately-owned residences | 35 | 35 | 35 |

Note: Receiver locations are shown on the figure in Appendix 3.

Noise generated by the development is to be measured in accordance with the relevant requirements and exemptions (including certain meteorological conditions) of the *NSW Industrial Noise Policy*. Appendix 4 sets out the meteorological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria.

However, the noise criteria in Table 3 do not apply if the Applicant has an agreement with the relevant landowner to exceed the noise criteria, and the Applicant has advised the EPA and the Secretary in writing of the terms of this agreement.

Operating Conditions

- The Applicant must:
 - implement best practice management to minimise the operational and road transportation noise of the development;
 - minimise the noise impacts of the development during meteorological conditions when the noise criteria in this consent do not apply (see Appendix 4);

- (c) after the commencement of quarrying operations at the development, carry out noise monitoring (at least every 3 months, or as otherwise agreed with the Secretary) to determine whether the development is complying with the relevant conditions of this consent; and
- (d) regularly assess noise monitoring data and modify and/or stop operations associated with the development to ensure compliance with the relevant conditions of this consent, to the satisfaction of the Secretary.

Note: Required frequency of noise monitoring may be reduced if approved by the Secretary.

Noise Management Plan

6. The Applicant must prepare a Noise Management Plan for the development to the satisfaction of the Secretary. This plan must:
 - (a) be prepared in consultation with EPA;
 - (b) be submitted to the Secretary within 6 months of the date of this consent, or prior to the commencement of operations, whichever is earlier, unless otherwise agreed by the Secretary;
 - (c) describe the measures that would be implemented to ensure:
 - compliance with the noise criteria in this consent;
 - best practice management is being employed to minimise operational noise from the development; and
 - the noise impacts of the development are minimised during meteorological conditions under which the noise criteria in this consent do not apply (see Appendix 4);
 - (d) describe the proposed noise management system, including the establishment of acoustic bunds (as shown on the plan in Appendix 5) and other noise controls; and
 - (e) include a monitoring program to be implemented to measure noise from the development against the noise criteria in Tables 3, and which evaluates and reports on the effectiveness of the noise management system of the development.

The Applicant must implement the approved management plan as approved from time to time by the Secretary.

Noise Compliance Review

7. The Applicant must commission a Noise Compliance Review for the development within 3 months of commencement of operations or as otherwise agreed with the Secretary. The review must be undertaken to the satisfaction of the Secretary and:
 - (a) be undertaken by a suitably qualified and experienced acoustic engineer during a period when the quarry is operating;
 - (b) assess whether the development is complying with the noise limits in this consent;
 - (c) include the details of the plant and equipment operating at the time of the review;
 - (d) identify any additional measures to be implemented to ensure compliance; and
 - (e) provide details of any complaints received in relation to noise generated by the development and the action taken in response to those complaints.

Within one month of receiving the Noise Compliance Review report, or as otherwise agreed by the Secretary, the Applicant must submit a copy of the report to the Secretary, with a response to any recommendations contained in the report.

BLASTING

Blasting Criteria

8. The Applicant must ensure that blasting associated with the development does not cause any exceedance of the criteria in Table 4.

Table 4: Blasting criteria

| Receiver | Airblast overpressure (dB(Lin Peak)) | Ground vibration (mm/s) | Allowable exceedance |
|---------------------------------------|---|--------------------------------|---|
| Any residence on privately-owned land | 120 | 10 | 0% |
| | 115 | 5 | 5% of the total number of blasts over a period of 12 months |

However, these criteria do not apply if the Applicant has a written agreement with the relevant owner to exceed the limits in Table 4, and the Applicant has advised the Department in writing of the terms of this agreement.

Blasting Frequency

9. The Applicant may carry out a maximum of 2 blasts per calendar month, unless with the prior approval of the Secretary or unless an additional blast is required following a blast misfire. This condition does not apply to blasts required to ensure the safety of workers on site or other persons.

Note: For the purposes of this condition a blast refers to a single blast event, which may involve a number of individual blasts fired in quick succession in a discrete area of the quarry.

Operating Conditions

10. During blasting operations, the Applicant must:
- implement best practice management to:
 - protect the safety of people and livestock in the areas surrounding blasting operations;
 - protect public or private infrastructure/property in the surrounding area from damage from blasting operations;
 - minimise the dust and fume emissions of blasting;
 - operate a suitable system to enable the local community to get up-to-date information on the proposed blasting schedule for the development;
 - obtain agreement with any private land owner affected by blast exclusion zones that are required to manage flyrock; and
 - carry out regular monitoring to determine whether the development is complying with the relevant conditions of this consent, to the satisfaction of the Secretary.

Blast Management Plan

11. The Applicant must prepare a Blast Management Plan for the development to the satisfaction of the Secretary. This plan must:
- be submitted to the Secretary for approval within 6 months of the date of this consent, or prior to the commencement of blasting, whichever is earlier, unless otherwise agreed by the Secretary;
 - describe the measures that would be implemented to ensure compliance with the blast criteria and operating conditions of this consent;
 - include measures to manage flyrock;
 - include a monitoring program for evaluating and reporting on compliance with the blasting criteria in this consent;
 - include community notification procedures for the blasting schedule; and
 - include a protocol for investigating and responding to complaints.

The Applicant must implement the approved management plan as approved from time to time by the Secretary.

AIR QUALITY

Air Quality Impact Assessment Criteria

12. 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 cause exceedances of the criteria in Table 5 at any residence on privately-owned land.

Table 5: Air quality criteria

| Pollutant | Averaging Period | Criterion | |
|--|------------------|-----------------------------|-------------------------------|
| Particulate matter < 10 µm (PM ₁₀) | Annual | a,d 30 µg/m ³ | |
| Particulate matter < 10 µm (PM ₁₀) | 24 hour | b 50 µg/m ³ | |
| Total suspended particulates (TSP) | Annual | a,d 90 µg/m ³ | |
| ^c Deposited dust | Annual | b 2 g/m ² /month | a,d 4 g/m ² /month |

Notes for Table 5:

- Cumulative impact (ie increase in concentrations due to the development plus background concentrations due to all other sources).
- Incremental impact (ie incremental increase in concentrations due to the development with zero allowable exceedances of the criteria over the life of the development).
- 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.
- Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, or any other activity agreed to by the Secretary.

- e. "Reasonable and feasible avoidance and mitigation measures" includes, but is not limited to, the operational requirements in conditions 14 and 15 to develop and implement an air quality management system that ensures operational responses to the risks of exceedance of the criteria.

Quarry-owned Land

13. 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 cause exceedances of the criteria in Table 5 at any occupied residence on quarry-owned land (including land owned by another quarry owner) unless:
- (a) the tenant has been notified of any health risks associated with such exceedances in accordance with the notification requirements under Schedule 4 of this consent; and
 - (b) the tenant of any land owned by the Applicant can terminate their tenancy agreement without penalty at any time, subject to giving reasonable notice; to the satisfaction of the Secretary.

Operating Conditions

14. The Applicant must:
- (a) implement best practice management to minimise the dust emissions of the development;
 - (b) regularly assess meteorological and air quality monitoring data and relocate, modify and/or stop operations associated with the development to ensure compliance with the air quality criteria in this consent;
 - (c) minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see notes under Table 5);
 - (d) monitor and report on compliance with the relevant air quality conditions in this consent; and
 - (e) minimise the area of surface disturbance and undertake progressive rehabilitation of lands associated with the development, to the satisfaction of the Secretary.

Air Quality Management Plan

15. The Applicant must prepare an Air Quality Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be submitted to the Secretary for approval within 6 months of the date of this consent, or prior to the commencement of operations, whichever is earlier, unless otherwise agreed by the Secretary;
 - (b) describe the measures that would be implemented to ensure:
 - compliance with the relevant conditions of this consent;
 - best practice management is being employed; and
 - the air quality impacts of the development are minimised during adverse meteorological conditions and extraordinary events;
 - (c) describe the proposed air quality management system; and
 - (d) include an air quality monitoring program that:
 - is capable of evaluating the performance of the development;
 - includes a protocol for determining any exceedances of the relevant conditions of consent;
 - effectively supports the air quality management system; and
 - evaluates and reports on the adequacy of the air quality management system.

The Applicant must implement the approved management plan as approved from time to time by the Secretary.

Meteorological Monitoring

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

Greenhouse Gas Emissions

17. The Applicant must implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the development.

SOIL AND WATER

Water Supply

18. The Applicant must ensure that it has sufficient water for all stages of the development and, if necessary, adjust the scale of operations under the consent to match its available water supply, to the satisfaction of the Secretary.

Water Discharges

19. The Applicant must comply with the discharge limits in any relevant EPL, or with section 120 of the POEO Act.

Groundwater

20. In the event that groundwater in excess of negligible quantities is intersected during extraction activities, the Applicant must undertake a hydrogeological investigation, in consultation with DPI - Water, to the satisfaction of the Secretary. The investigation must report on groundwater sources, levels, yield and quality; identify any risks to groundwater users or groundwater dependent ecosystems and propose recommended management measures.

The Applicant must implement reasonable and feasible management measures recommended by the hydrogeological investigation, to the satisfaction of the Secretary.

Water Management Plan

21. The Applicant must prepare a Water Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared by suitably qualified and experienced person/s approved by the Secretary;
 - (b) be prepared in consultation with the EPA and DPI - Water;
 - (c) be submitted to the Secretary for approval within 6 months of the date of this consent, or prior to the commencement of operations, whichever is earlier, unless otherwise agreed by the Secretary;
 - (d) include a:
 - (i) Site Water Balance that includes details of:
 - the volume of water deficit and/or surplus for dry, average and wet years, considering all planned water management infrastructure;
 - sources and security of water supply, including on-site water storages;
 - water use and management on site;
 - any off-site water transfers or discharges including discharge volumes and frequency;
 - reporting procedures; and
 - measures that would be implemented to minimise clean water use on site; and
 - (ii) Surface Water Management Plan, that includes:
 - detailed baseline data on surface water flows and quality in water bodies that could potentially be affected by the development;
 - a detailed description of the surface water management system on site including the:
 - clean water diversion system;
 - erosion and sediment controls;
 - dirty water management system; and
 - water storages;
 - provision of a 40 metre buffer zone between watercourses and quarrying operations; and
 - a program to monitor and report on:
 - any surface water discharges;
 - the effectiveness of the water management system; and
 - surface water flows and quality in local watercourses.

The Applicant must implement the approved management plan as approved from time to time by the Secretary.

TRANSPORT

Transport Routes

22. All laden trucks travelling from the development to the Pacific Highway must travel via Petersons Quarry Road, Lagoon Road, Casino – Coraki Road, Queen Elizabeth Drive and Coraki - Woodburn Road. Trucks returning to the site from the Pacific Highway must return via the same route and enter the development via Seelems Road or Petersons Quarry Road.

This condition does not apply:

- (a) when road closures on the above route are in place;
- (b) when delivering to sites not involving travel on the Pacific Highway, such as within the local area or sites to the northwest or north of the quarry (eg Casino or Lismore); and
- (c) in an emergency to avoid the loss of lives, property and/or to prevent environmental harm.

Road Upgrades

23. The Applicant must cause the following road upgrade works to be undertaken to the satisfaction of the Council or the RMS (whichever is the relevant roads authority):

- (a) prior to trucks returning to the site utilising Seelems Road, provision of a minimum 6 metre sealed carriageway on Seelems Road from Petersons Quarry Road to a point approximately 200 metres west of the entrance to the industrial facility at 30 Seelems Road; and
- (b) prior to commencing despatch of laden trucks from the development, asphaltic concrete/hot mix sealing of the intersections of Petersons Quarry Road and Lagoon Road; Lagoon Road and Casino – Coraki Road; and Woodburn – Coraki Road and the Pacific Highway.

24. Prior to commencing the road upgrade works required under condition 23, the Applicant must:
- (a) notify Council and/or the RMS (whichever is the relevant roads authority) in writing of any existing damage to the sections of road and the intersections listed in condition 23; and
 - (b) lodge a defects liability bond with Council based on 10% of the quantity-surveyed cost of the upgrade works for roads for which the Council is the relevant roads authority.

Monitoring of Product Transport

25. The Applicant must, by the use of a weighbridge, make, and retain for at least 12 months, records of the time of arrival, time of dispatch, weight of load and vehicle identification for each laden truck dispatched from the development. These records must be made available to the Department on request and a summary included in the Annual Review.

Operating Conditions

26. The Applicant must:
- (a) ensure that all laden trucks entering or exiting the site have their loads covered; and
 - (b) ensure that all laden trucks exiting the site are cleaned of materials that may fall on the road, before leaving the site.
 - (c) use its best endeavours to ensure that appropriate signage is displayed on all trucks used to transport product from the development so they can be easily identified by road users.

Transport Management Plan

27. The Applicant must prepare a Transport Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with RMS and Council and submitted to the Secretary for approval within 6 months of the date of this consent, or prior to the commencement of despatch of laden trucks from the development, whichever is earlier, unless otherwise agreed by the Secretary;
 - (b) provide a clear description of the transport routes;
 - (c) describe the processes in place for the control of truck movements;
 - (d) describe the measures to be implemented to minimise noise from transport operations;
 - (e) detail the procedures for receiving and addressing complaints from the community concerning traffic issues associated with heavy vehicles arriving at or leaving the development;
 - (f) describe the driver induction and training processes;
 - (g) include a Drivers' Code of Conduct that details the safe and quiet driving practices that must be used by drivers transporting products to and from the quarry, particularly having regard to school bus routes, [intersections or sections of road where there is potential for close interactions between passing trucks](#), and the location of residential properties and associated private access roads; and
 - (h) describe the measures that would be put in place to ensure compliance with the Drivers' Code of Conduct.

The Applicant must implement the approved management plan as approved from time to time by the Secretary.

Independent Traffic Audit

28. Within 6 months of commencement of transport operations, and every three years thereafter, unless the Secretary directs otherwise, the Applicant must commission a suitably qualified person, whose appointment has been approved by the Secretary, to conduct an independent traffic audit of the development. This audit must:
- (a) have the site verification component of the audit undertaken without prior notice to the Applicant;
 - (b) assess the impact of the development on the performance of the road network;
 - (c) investigate any incidents involving heavy vehicles associated with the development, including reviewing any community complaints;
 - (d) assess the effectiveness of the Drivers Code of Conduct; and
 - (e) recommend any necessary measures to reduce or mitigate any adverse (or potentially adverse) impacts.

Within one month of receiving the audit report, or as otherwise agreed by the Secretary, the Applicant must submit a copy of the audit report to the Secretary, with a response to any of the recommendations contained in the audit report, to the satisfaction of the Secretary.

ABORIGINAL HERITAGE

Aboriginal Cultural Heritage Management Plan

29. The Applicant must prepare an Aboriginal Cultural Heritage Management Plan for the development to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with OEH and the Aboriginal community, and be submitted to the Secretary for approval prior to the commencement of operations; and
 - include:
 - a detailed description of the measures that would be implemented to protect Aboriginal sites outside the quarry disturbance area including the two Indigenous Heritage Non-disturbance Zones (shown in Appendix 2);
 - a description of the measures that would be implemented if any new Aboriginal objects or skeletal remains are discovered during quarrying operations; and
 - protocol for the ongoing consultation and involvement of the Aboriginal community in the conservation and management of Aboriginal cultural heritage on the site.

The Applicant must implement the approved management plan as approved from time to time by the Secretary.

30. If any item or object of Aboriginal heritage significance is identified on land associated with the development, the Applicant must ensure that:
- all work in the immediate vicinity of the Aboriginal item or object ceases immediately;
 - a 10 m buffer area around the item or object is cordoned off with high visibility flagging tape, or the like; and
 - the OEH is contacted immediately.

Work in the vicinity of the Aboriginal item or object may only recommence in accordance with the provisions of Part 6 of the *National Parks and Wildlife Act 1974*.

BIODIVERSITY AND REHABILITATION

31. The Applicant must rehabilitate the lands associated with the development to the satisfaction of the Secretary. This rehabilitation must be generally consistent with the rehabilitation strategy in the EIS and must comply with the objectives in Table 6.

Table 6: Rehabilitation objectives

| Feature | Objective |
|--|--|
| Lands associated with the development (as a whole) | <ul style="list-style-type: none">Safe, stable and non-pollutingFinal landform integrated with surrounding natural landforms as far as is reasonable and feasible, and designed to minimise the visual impacts of the development when viewed from surrounding land |
| Surface Infrastructure | <ul style="list-style-type: none">Decommissioned and removed, unless required for the ongoing operation of Petersons Quarry or as agreed with the Secretary |
| Quarry Benches and Pit Floor | <ul style="list-style-type: none">Revegetated using a combination of pasture species and native vegetation corridors, which link other remnant vegetation on site |

Progressive Rehabilitation

32. The Applicant must rehabilitate the lands associated with the development progressively, that is, as soon as reasonably practicable following disturbance. All reasonable and feasible measures must be taken to minimise the total area exposed for dust generation at any time. Interim stabilisation measures must be implemented where reasonable and feasible to control dust emissions in disturbed areas that are not active and which are not ready for final rehabilitation.

Note: It is accepted that parts of the lands associated with the development that are progressively rehabilitated may be subject to further disturbance in future.

Biodiversity and Rehabilitation Management Plan

33. The Applicant must prepare a Biodiversity and Rehabilitation Management Plan for the site to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with OEH, and be submitted to the Secretary for approval within 6 months of the date of this consent, or prior to the commencement of operations, whichever is earlier, unless the Secretary agrees otherwise;
 - provide details of the conceptual final landform and associated land uses for the site;
 - describe how the management of biodiversity would be integrated with the overall rehabilitation of the site;

- (d) include detailed performance and completion criteria for evaluating the performance of the biodiversity management measures and rehabilitation of the site, including triggers for any necessary remedial action;
- (e) describe the short, medium and long-term measures that would be implemented to:
 - protect and enhance the remnant vegetation and habitat on the site, including the measures to protect the *Macadamia tetraphylla*, endangered ecological communities and threatened species on site;
 - rehabilitate the *Macadamia tetraphylla* buffer area, Hoop Pine Dry Rainforest community, and the Seelems Creek rehabilitation area as shown in Appendix 6;
 - ensure compliance with the rehabilitation objectives, and the progressive rehabilitation obligations in this consent;
- (f) include a program to monitor the effectiveness of these measures, and progress against the performance and completion criteria;
- (g) identify the potential risks to the successful implementation of the plan and include a description of the contingency measures that would be implemented to mitigate these risks; and
- (h) include details of who would be responsible for monitoring, reviewing, and implementing the plan.

The Applicant must implement the approved management plan as approved from time to time by the Secretary.

Conservation and Rehabilitation Bond

- 34. Within 6 months of the approval of the Biodiversity and Rehabilitation Management Plan, the Applicant must lodge a Conservation and Rehabilitation Bond with the Department to ensure that the management of biodiversity and the rehabilitation of the lands associated with the development are implemented in accordance with the performance and completion criteria set out in the Biodiversity and Rehabilitation Management Plan. The sum of the bond must be determined by:
 - (a) calculating the cost of rehabilitating the lands associated with the development taking into account the likely surface disturbance over the next 3 years of quarrying operations; and
 - (b) employing a suitably qualified quantity surveyor or other expert to verify the calculated costs, to the satisfaction of the Secretary.

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

- 35. Within 3 months of each Independent Environmental Audit (see condition 10 of Schedule 5), the Applicant must review, and if necessary revise, the sum of the Conservation and Rehabilitation Bond to the satisfaction of the Secretary. This review must consider the:
 - (a) effects of inflation;
 - (b) likely cost of rehabilitating the site (taking into account the likely surface disturbance over the next 3 years of the development); and
 - (c) performance of the implementation of the rehabilitation of the site to date.

VISUAL IMPACTS

- 36. The Applicant must implement all reasonable and feasible measures to minimise the visual impacts of the development, including establishing the vegetated acoustic bunds shown in Appendix 5, to the satisfaction of the Secretary.

WASTE

- 37. The Applicant must:
 - (a) manage on-site sewage treatment and disposal in accordance with the requirements of its EPL, and to the satisfaction of the EPA and Council;
 - (b) minimise the waste generated by the development;
 - (c) ensure that the waste generated by the development is appropriately stored, handled and disposed of; and
 - (d) report on waste management and minimisation in the Annual Review, to the satisfaction of the Secretary.

LIQUID STORAGE

- 38. The Applicant shall ensure that all liquid tanks and similar storage facilities (other than for water) are protected by appropriate bunding or other containment, in accordance with the relevant Australian Standards.

DANGEROUS GOODS

39. The Applicant must ensure that the storage, handling, and transport of dangerous goods is done in accordance with the relevant *Australian Standards*, particularly AS1940 and AS1596, and the *Dangerous Goods Code*.
40. The Applicant must undertake a transport safety study to the satisfaction of the Secretary and in accordance with *Hazardous Industry Planning Advisory Paper No 11: Route Selection (HIPAP11)* prior to transporting hazardous materials above the threshold contained in *State Environmental Planning Policy 33 Hazardous and Offensive Development*.

BUSHFIRE

41. The Applicant must:
 - (a) ensure that the development is suitably equipped to respond to any fires on site; and
 - (b) assist the NSW Rural Fire Service and emergency services as much as possible if there is a fire in the vicinity of the site.

SCHEDULE 4 ADDITIONAL PROCEDURES

NOTIFICATION OF LANDOWNERS

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

INDEPENDENT REVIEW

2. If an owner of privately-owned land considers the development to be exceeding the relevant criteria in Schedule 3, then he/she may ask the Secretary in writing for an independent review of the impacts of the development on his/her land.
3. If the Secretary is satisfied that an independent review is warranted, then within 2 months of the Secretary’s decision the Applicant must:
 - a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to:
 - consult with the landowner to determine his/her concerns;
 - conduct monitoring to determine whether the development is complying with the relevant criteria in Schedule 3; and
 - if the development is not complying with these criteria then identify measures that could be implemented to ensure compliance with the relevant criteria;
 - b) give the Secretary and landowner a copy of the independent review; and
 - c) **comply with any written requests made by the Secretary to implement any findings of the review.**
4. If the independent review determines that the development is complying with the relevant impact assessment criteria in Schedule 3, then the Applicant may discontinue the independent review with the approval of the Secretary.

If the independent review determines that the development is not complying with the relevant impact assessment criteria in Schedule 3, then the Applicant must:

- (a) implement all reasonable and feasible measures, in consultation with the landowner, to ensure that the development complies with the relevant criteria, and conduct further monitoring to determine whether these measures ensure compliance; or
 - (b) secure a written agreement with the landowner to allow exceedances of the relevant impact assessment criteria;
- to the satisfaction of the Secretary.

If the further monitoring referred to under paragraph (a) above determines that the development is complying with the relevant impact assessment criteria, then the Applicant may discontinue the independent review with the approval of the Secretary.

SCHEDULE 5 ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

1. **If the Secretary requires; the** Applicant must prepare an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must:
 - (a) be submitted to the Secretary for approval within 6 months of the date of this consent or prior to the commencement of operations, whichever is earlier;
 - (b) be prepared in consultation with Council;
 - (c) provide the strategic framework for the environmental management of the development;
 - (d) identify the statutory approvals that apply to the development;
 - (e) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;
 - (f) 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, record, handle and respond to complaints;
 - resolve any disputes that may arise during the course of the development;
 - respond to any non-compliance;
 - respond to emergencies; and
 - (g) include:
 - copies of any strategies, plans and programs approved under the conditions of this consent; and
 - a clear plan depicting all the monitoring to be carried out under the conditions of this consent.

The Applicant must implement the approved management strategy as approved from time to time by the Secretary.

Evidence of Consultation

- 1A. **Where consultation with any public authority is required by the conditions of this consent, the Applicant must:**
 - (a) consult with the relevant public authority prior to submitting the required document to the Secretary for approval;
 - (b) submit evidence of this consultation as part of the relevant document;
 - (c) describe how matters raised by the authority have been addressed and any matters not resolved; and
 - (d) include details of any outstanding issues raised by the authority and an explanation of disagreement between any public authority and the Applicant.

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 and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;
 - (f) a program to investigate and implement ways to improve the environmental performance of the 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: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.

Revision of Strategies, Plans & Programs

3. Within 3 months of the submission of an:
 - (a) incident report under condition 7 below;
 - (b) annual review under condition 9 below;
 - (c) audit report under condition 10 below; and
 - (d) any modifications to this consent,the Applicant must review the strategies, plans and programs required under this consent, to the satisfaction of the Secretary. Where this review leads to revisions in any such document, then within 4 weeks of the review the revised document must be submitted for the approval of the Secretary.

Note: The purpose of this condition is to ensure that strategies, plans and programs are regularly updated to incorporate any measures recommended to improve environmental performance of the development.

Updating and Staging of Strategies, Plans or Programs

4. To ensure that strategies, plans and programs required under this consent are updated on a regular basis, and that they incorporate any appropriate additional measures to improve the environmental performance of the development, the Applicant may at any time submit revised strategies, plans or programs for the approval of the Secretary. With the agreement of the Secretary, the Applicant may also submit any strategy, plan or program required by this consent on a staged basis.

With the agreement of the Secretary, the Applicant may prepare a revision of or a stage of a strategy, plan or program without undertaking consultation with all parties nominated under the applicable condition in this consent.

Notes:

- While any strategy, plan or program may be submitted on a staged basis, the Applicant will need to ensure that the operations associated with the development are covered by suitable strategies, plans or programs at all times.
- If the submission of any strategy, plan or program is to be staged; then the relevant strategy, plan or program must clearly describe the specific stage/s of the development to which the strategy, plan or program applies; the relationship of this stage/s to any future stages; and the trigger for updating the strategy, plan or program.

Adaptive Management

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

Where any exceedance of these criteria and/or performance measures has occurred, the Applicant must, at the earliest opportunity:

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

Community Consultative Committee

6. If directed by the Secretary, the Applicant must establish and operate a Community Consultative Committee (CCC) for the development to the satisfaction of the Secretary. Any such CCC must be operated in general accordance with the [Department's Community Consultative Committee Guidelines for State Significant Projects, November 2016](#) (or its latest version).

Notes:

- The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent.
- In accordance with the guidelines, the Committee should comprise an independent chair and appropriate representation from the Applicant, Council and the local community.

REPORTING

Incident Reporting

7. The Applicant must immediately notify the Secretary and any other relevant agencies of any incident. Within 7 days of the date of the incident, the Applicant must provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.

Regular Reporting

8. 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.

Annual Review

9. By the end of March each year, or other timing as may be agreed by the Secretary, the Applicant must review the environmental performance of the development to the satisfaction of the Secretary. This review must:
 - (a) describe the development (including any rehabilitation) that was carried out in the previous reporting period, and the development that is proposed to be carried out over the current calendar year;
 - (b) include a comprehensive review of the monitoring results and complaints records of the development over the previous calendar year, which includes a comparison of these results against the:
 - relevant statutory requirements, limits or performance measures/criteria;
 - requirements of any plan or program required under this consent;
 - the monitoring results of previous years; and
 - the relevant predictions in the documents listed in condition 2(a) of Schedule 2;
 - (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 current calendar year to improve the environmental performance of the development.

The Applicant must ensure that copies of the Annual Review are submitted to Council and are available to the Community Consultative Committee (see condition 6 of Schedule 5) and any interested person upon request.

INDEPENDENT ENVIRONMENTAL AUDIT

10. Within two years of the date of this consent, and every 3 years thereafter, unless the 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 a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;
 - (b) include consultation with the relevant agencies;
 - (c) assess the environmental performance of the development and whether it is complying with the relevant requirements in this consent and any relevant EPL or necessary water licences for the development (including any assessment, strategy, plan or program required under these approvals);
 - (d) review the adequacy of strategies, plans or programs required under the abovementioned approvals;
 - (e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, strategy plan or program required under the abovementioned approvals; and
 - (f) be conducted and reported to the satisfaction of the Secretary.

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

11. Within 12 weeks of commencing this audit, or as otherwise agreed by the Secretary, the Applicant must submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report, including a timetable for the implementation of any measures proposed to address the recommendations in the report.

ACCESS TO INFORMATION

12. Within 6 months of the date of this consent, until the completion of all works, including rehabilitation and remediation, the Applicant must:
 - (a) make the following information publicly available on its website:
 - the documents listed in condition 2(a) of Schedule 2;
 - current statutory approvals for the development;
 - all approved strategies, plans and programs required under the conditions of this consent;
 - a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;
 - a complaints register, updated monthly;
 - the annual reviews of the development;
 - any independent environmental audit, and the Applicant's response to the recommendations in any audit;
 - minutes of any CCC meetings;

- any other matter required by the Secretary; and
- (b) keep this information up-to-date;
to the satisfaction of the Secretary.

APPENDIX 1: STATEMENT OF COMMITMENTS

Project life

1. The project approval life will be for 7 (seven) years from the date of development consent, subject to the completion of the Pacific Highway upgrade project and noting that closure and rehabilitation activities may extend beyond the 7 (seven) year operational approval period.

Extraction rate

2. The project must not extract more than 1,000,000 tonnes per annum from the Coraki Quarry, noting that the Coraki Quarry is separate from and in addition to the existing Petersons Quarry annual extraction volumes.

Hours of operation

3. Quarry operations will be undertaken between 6am and 7pm Monday to Saturday.
4. Blasting activities will be undertaken between 9am and 3pm Monday to Friday.
5. No operations will be undertaken on a Sunday or on public holidays.

Environmental management

6. The project will be undertaken in accordance with the EMP (refer to EIS Attachment 2). Prior to the commencement of the project the EMP will be updated to reflect relevant conditions of consent and other relevant authorities.

Aboriginal Heritage Management Plan

7. An Aboriginal Heritage Management Plan is to be prepared. Quarry Solutions will carry out the project in accordance with an Aboriginal Heritage Management Plan.
8. The identified Non Disturbance Zones will be protected in situ for the life of the project.

Traffic management

9. Sealing of Seelems Road and the first 200m of the internal access road within Lot 403 DP802985.
10. Implementing and enforcing compliance with a Driver's Code of Conduct.
11. Installation of forward and driver facing cameras on haulage trucks managed by Quarry Solutions.
12. Installation of GPS monitoring devices on haulage trucks managed by Quarry Solutions.
13. Paying for the installation of GPS monitoring devices on all local school buses where permission is provided.
14. Paying the relevant s94 contributions to the Richmond Valley Council.

Biodiversity

15. The measures outlined in the BAAM Biodiversity Assessment Report (refer to EIS Attachment 5) will be implemented including, but limited to the following:
 - Implement a 25m buffer to the *Macadamia tetraphylla* located on Lot 401 and the management and monitoring actions identified in Table 4.1 of the Biodiversity Assessment Report.
 - Engage a fauna spotter to inspect the Hoop Pine dry rainforest community for signs of nesting by the Black-necked Stork during May to January (inclusive). If any nesting activity is identified, a species management plan is to be developed and implemented.
 - Restrict disturbance and access to only those areas absolutely necessary for the construction and the operation of the project. Clearly cordon off all adjacent vegetation and buffer extents that are not to be disturbed by the project, creating 'no go zones' for vehicles, materials, machinery, workers, excavated soil or fallen timber.
 - Implement sediment and erosion control measures, including measures to avoid the spill of earth and rock downslope of the quarry footprint into areas of retained vegetation.
 - Ensure a fauna spotter/catcher is present during clearing and site preparation works.
 - Establish 'go slow zones' (40km/hr) for vehicles and machinery where non-gazetted roads or tracks are located adjacent to patches of native vegetation communities.
 - Limit construction and operational work to 6am and 7pm Monday to Saturday, and any lighting within outdoor areas should comply with relevant Australian Standards and be of low spillage, with no or limited upward spillage.
 - Minimise vehicle and machinery access and subsequent soil compaction and weed transfer risk within and adjacent to retained vegetation.
 - Educate the workforce on the location of significant/sensitive communities and species and potential impacts from unauthorised activities.

Noise

16. The noise mitigation measures specified in Section 2.6.2 of the MWA Noise and Dust Assessment (refer to EIS Attachment 6) are to be implemented and maintained for the project, including the following:
 - Acoustic screening by way of cut, earth bunds and/or barriers to various locations;
 - Use of a proprietary quietened rock drill; and

- Operation of the processing plant at the most shielded location and/or implementation of acoustic treatments as necessary to comply with the relevant noise limits.

Dust

17. The dust control measures specified in Section 4.3.3 of the MWA Noise and Dust Assessment (refer to EIS Attachment 6) are to be implemented and maintained for the project, including the following:

- Watering of all haul roads and access roads at a rate of approximately 2 litres/m²/hour at times when dust emissions are visible from vehicle movements;
- Sealing (e.g. asphalt) part of the access road off Seelems Road for a minimum length of 200 metres west from the Seelems Road entry point;
- Use of effective water sprays on the processing plant;
- Effective water misting sprays to processing plant at transfer points including load-out points from elevated storage bins if utilised;
- Rock drill to have an appropriate dust extraction system with collector fitted to rig and/or wet drilling via water sprays; and
- Management of dust emissions from stockpiles during high wind speed conditions through appropriate use of sprinklers and/or chemical suppressant products as required.

Blasting

18. The following blast management measures will be implemented for the project:

- Establish permanent blast monitoring locations at the two closest neighbouring properties, which are 140 Newmans Road (Lot 4 DP6339) and 200 Lagoon Road (Lot 12 DP6339), Coraki.
- Start developing a blast vibration equation, specific to the Coraki Quarry. A suitably qualified person should be involved in this process, as using incorrect techniques can add additional cost to blast vibration control;
- Commence blasting using a maximum of a 12 m bench height and 89 mm blast holes to ensure compliance with airblast overpressure and blast vibration. After 3 blasts, the results can be reviewed and evaluated as to whether 102 mm blast holes should be implemented. The airblast overpressure and blast vibration compliance must be maintained;
- Establish the recommended Blast Exclusion Zones (BEZ). If required measure the flyrock projection distances from the first 10 blasts and recalibrate the flyrock equations. This will enable optimisation of the BEZ distance. Due to the use of a conservative value for the constant K in the prediction equations it would be expected that the exclusion distance could be reduced, however this must not be taken for granted;
- All blasts must be face profiled, surveyed and bore tracked to ensure airblast overpressure compliance, combined with the ability to control face burst that can cause flyrock incidents;
- Blast volumes should be maximised to reduce the frequency of disturbances to the neighbouring properties. A target blast volume of 18,750m³ and 15 tonnes of bulk explosive load is recommended. Shot sizes should be limited to a maximum of 3 rows deep initially, to minimise vibration reinforcement if utilising a non-electric initiation system. Once actual blast vibration data has been collected and analysed shot sizes may be increased, if the data supports increasing the blast Maximum Instantaneous Charge (MIC) and remaining under 5mm/s;
- Orientate blasts with free faces not directly facing the sensitive receivers, to assist with airblast overpressure control;
- Initiation sequencing for initial blasts, should target no more than a single blast hole MIC of 88kg until the vibration attenuation can be accurately assessed.
- All proposed parameters are for initial blasting at the site. Once actual blast data is available from blasting at the proposed site, then parameters may be optimised using the analysis techniques outlined in this document. Site specific constant (k value) will require calibration for flyrock, blast vibration and airblast overpressure.

Water

19. The surface water management system and water balance scenario prepared by Calibre Consulting (refer to EIS Attachment 8) will be implemented.

20. The project will be operated in accordance with the conditions of the EPL for the project once it is issued by the EPA.

Greenhouse gases and hazards

21. Quarry Solutions will continue to investigate financially practicable initiatives to reduce energy consumption and greenhouse gas emissions.

22. Dangerous goods will be stored in accordance with dangerous goods storage requirements and relevant Australian Standards.

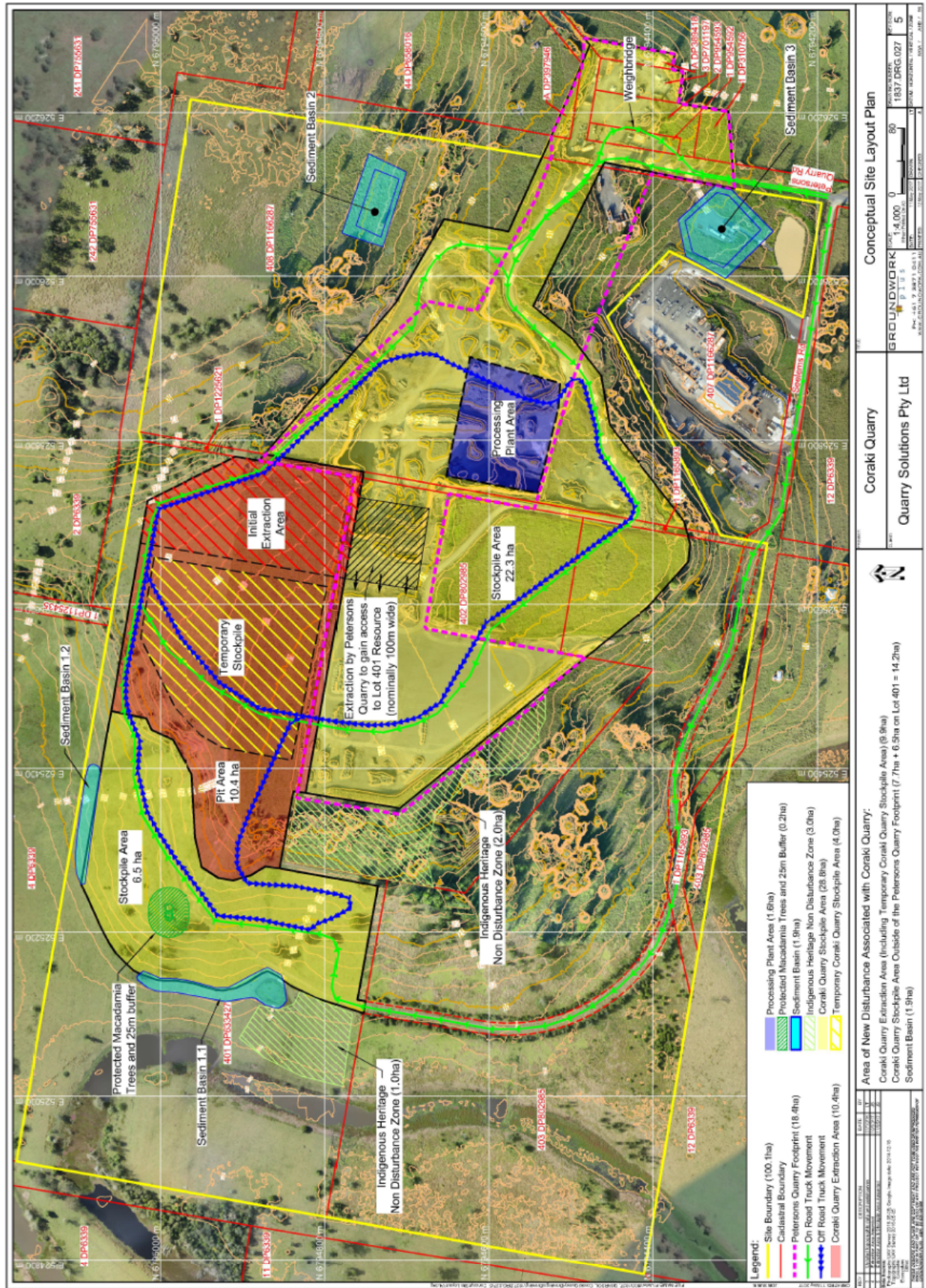
Rehabilitation

23. Upon terminal benches being reached within Lot 401, the areas of disturbance within Lot 401 will be rehabilitated to a safe, stable and non-polluting state, suitable for the recommencement of the previous land use (cattle grazing).
24. Areas of the Petersons Quarry used by the project will be returned to the land owner in a safe and stable state suitable for the continued operation of the Petersons Quarry.

Community engagement

25. Quarry Solutions will operate a free call telephone number for the Coraki Quarry for the life of the project.
26. Quarry Solutions will engage with the community in relation to employment opportunities and traineeships.
27. Quarry Solutions will provide opportunities for educational site visits by local schools and other community groups to visit the quarry.

APPENDIX 2: CONCEPTUAL QUARRY PLAN



LEGEND
 SITE BOUNDARY
 R9 SURROUNDING RESIDENCES (R1-R9)
DRAWING REFERENCE
 GROUNDWATER PLUS SITE LOCATION PLAN
 1837.DWG.002, 13/04/15

CLIENT
 QUARRY SOLUTIONS PTY LTD

PROJECT
CORAKI
NOISE AND DUST
IMPACT ASSESSMENT
 Petersons Quarry Expansion
 Petersons Quarry Rd Coraki NSW

TITLE
AERIAL PHOTOGRAPH
SHOWING SURROUNDING
RESIDENCES

FIGURE 2
 JOB NO: CORAKI
 JOB NO: 15-041
 DATE: 23/09/15
 SCALE: 1:20,000 (A4)
 REV: 15-041-2

mwā
 ENVIRONMENTAL
 Max Wilkins & Associates Pty Ltd t/as mwā Environmental
 Level 15, 24 Adelaide St, Brisbane, QLD 4001, Australia
 P 07 3002 5500 F 07 3002 5506 E mail@mwā.com.au
 WWW.MWAE.COM.AU

APPENDIX 4 NOISE COMPLIANCE ASSESSMENT

Applicable Meteorological Conditions

1. The noise criteria in Tables 3 and 4 in Schedule 3 are to apply under all meteorological conditions except the following:
 - (a) wind speeds greater than 3 m/s at 10 m above ground level; or
 - (b) temperature inversion conditions between 1.5°C and 3°C/100 m and wind speed greater than 2 m/s at 10 m above ground level; or
 - (c) temperature inversion conditions greater than 3°C/100 m.

Determination of Meteorological Conditions

2. Except for wind speed at microphone height, the data to be used for determining meteorological conditions must be that recorded by the meteorological station required under condition 17 of Schedule 3.

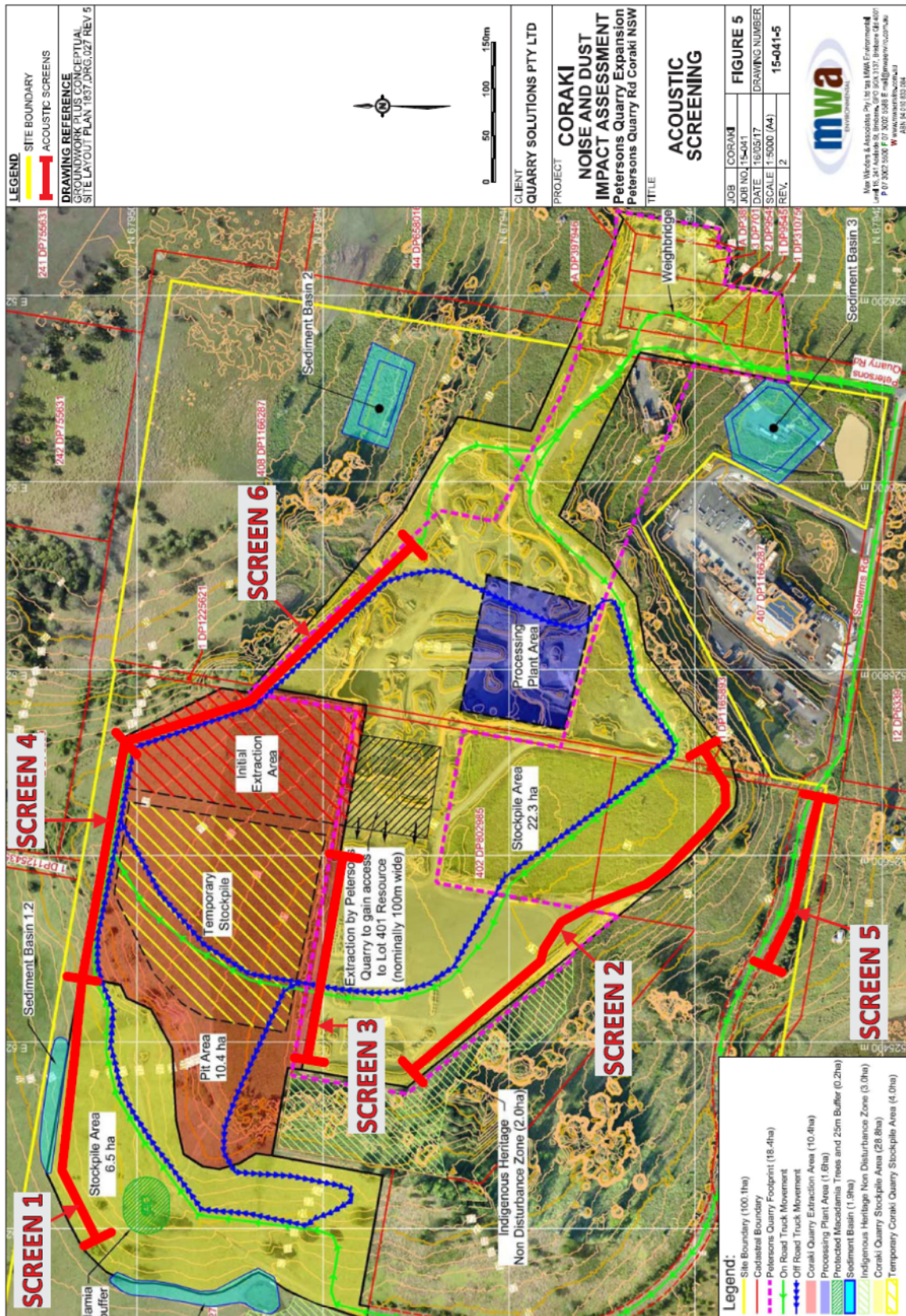
Compliance Monitoring

3. Unless otherwise directed by the Secretary, quarterly attended monitoring is to be used to evaluate compliance with the relevant conditions of this consent.

Note: The Secretary may direct that the frequency of attended monitoring increase or decrease at any time during the life of the development.

4. Unless the Secretary agrees otherwise, this monitoring is to be carried out in accordance with the relevant requirements for reviewing performance set out in the *NSW Industrial Noise Policy* (as amended from time to time), in particular the requirements relating to:
 - (a) monitoring locations for the collection of representative noise data;
 - (b) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment;
 - (c) modifications to noise data collected, including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration; and
 - (d) the use of an appropriate modifying factor for low frequency noise to be applied during compliance testing at any individual residence if low frequency noise is present (in accordance with the INP) and before comparison with the specified noise levels in the consent.

APPENDIX 5: LOCATION OF ACOUSTIC SCREENS (BUNDS)



LOCATION OF MACADAMIA TETRAPHYLLA BUFFER AND ADDITIONAL PLANTING AND REHABILITATION AREAS

