

MUDGEES STONE COMPANY PTY LTD



ABN: 89 100 974 365

Oberon White Granite Quarry

Response to Government Agency Submissions

Major Project Application No. 07_0122

Prepared by:



R.W. CORKERY & CO. PTY. LIMITED

June 2011

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1. INTRODUCTION

The following response is provided in relation to the five government agency submissions received regarding Project Application 07_0122 for the Oberon White Granite Quarry together with a response to queries raised by the Department of Planning and Infrastructure. A summary of issues raised by each government agency is provided in *italics* followed by a non-italicised response.

2. DEPARTMENT OF ENVIRONMENT, CLIMATE CHANGE AND WATER

2.1 ISSUE 1 - ABORIGINAL HERITAGE

No contention raised. No response required.

2.2 ISSUE 2 - BIODIVERSITY

Vegetation Clearing. Comment is made within the EA regarding a number of measures that are proposed to be implemented by the proponent prior to the clearing of vegetation. No specific reference is made as to how these measures, will be carried out, who will carry out the nominated activities and which of the proponents representatives will be responsible for ensuring that these tasks are undertaken. These roles and responsibilities need to be defined within a site environmental management plan.

It is the Proponent's intention to outline responsibilities and accountabilities within a Flora and Fauna / Biodiversity Management Plan for ongoing operations at the quarry. The management plan will include details such as a vegetation clearing protocol. The Proponent has committed that the Flora and Fauna / Biodiversity Management Plan would be prepared prior to any further vegetation cleaning within the Project Site.

In the EA, the proponent has committed to establishing a biodiversity offset to compensate for the loss of 7.1 ha of native vegetation prior to the commencement of vegetation clearing. In order for DECCW to consider the offset as proposed, the proponent will have to provide, at a minimum, the following additional information:-

- a) An assessment of the conservation of the vegetation to be impacted;*
- b) An adequate assessment of the condition of both the impact and proposed offset sites;*
- c) Consideration of the likely indirect impacts of the proposal on surrounding vegetation and offset sites;*
- d) Propose an adequate offset, the quantum of which is justified by the suitable metric or other scientific methodology, and which also meets the Departments 'Principles for the use of biodiversity offsets for NSW'; and*
- e) Include a proper description of the proposed offset, including maps.*

A response to these issues has been provided by Gingra Ecological Surveys (see **Appendix A**).



In summary, the proposed offset is considered adequate given the following.

- The proposed offset areas support the same vegetation communities and have the same disturbance history as those proposed to be disturbed. **Figure A** shows the location of the offset in relation to the mapped vegetation communities and quarry components.
- The quantum of the offset is approximately 2.5:1 (offset : native vegetation clearance) which is above the minimum 2:1 offset requirements of the DECCW *Interim Policy For Assessing and Offsetting Biodiversity Impacts of Part 3A Developments*.
- The offset would increase the security for at least one vegetation type considered by Office of Environment and Heritage as over-cleared whilst the compensatory planting areas will reconstruct habitat that will enhance the resilience of the offset area and increase fauna habitat.

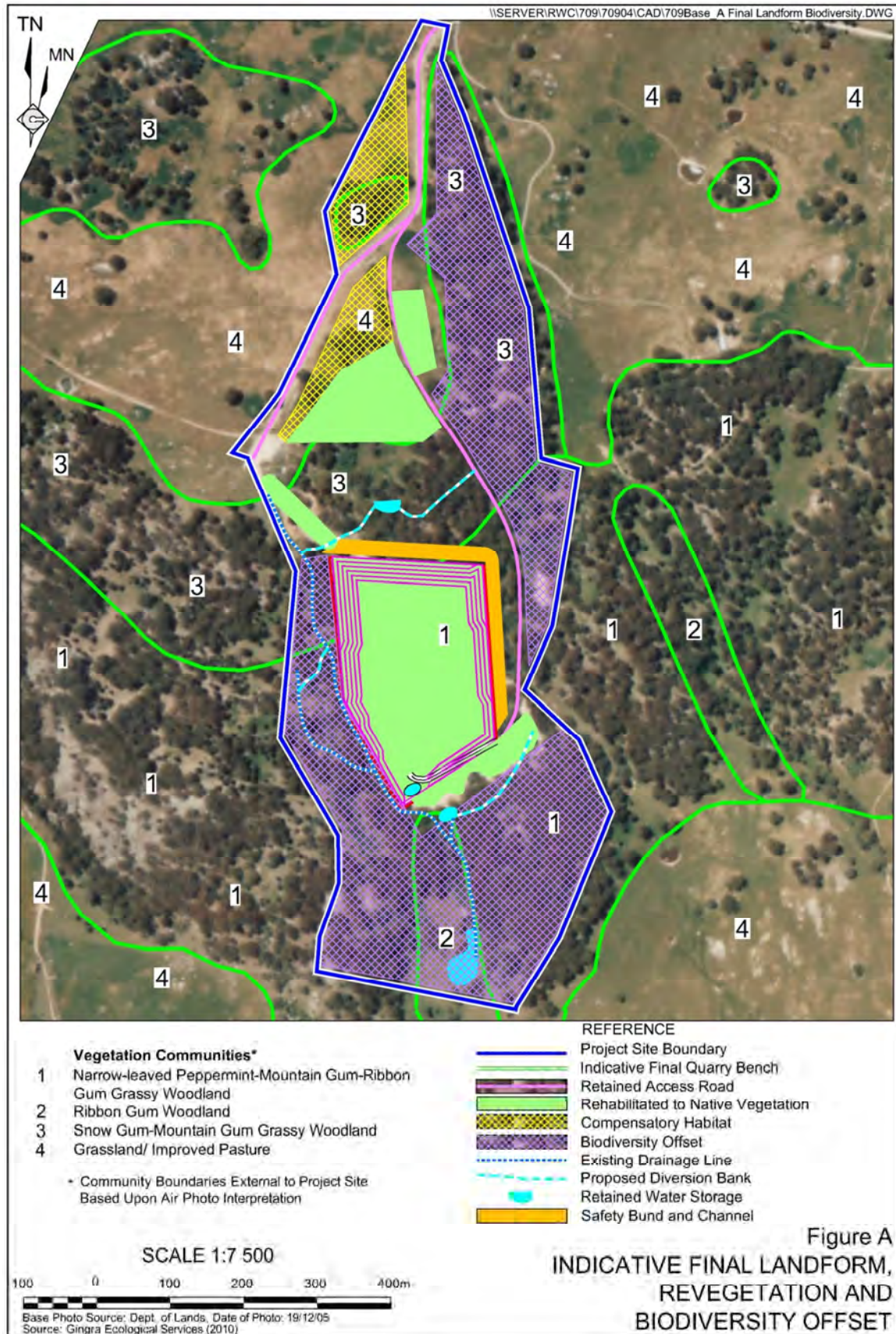
Recommended condition of project approval:-

Vegetation Clearing: The proponent shall prepare and implement an Environmental Management Strategy to the satisfaction of the Director-General. The strategy must:

- a) Be submitted to the Director-General for approval within 6 months of the date of Project Approval;*
- b) Provide the strategic framework for environmental management of the project;*
- c) Identify the statutory approvals that apply to the project;*
- d) Describe the role, responsibility, authority and accountability of all key personnel in the environmental management of the project;*
- e) Describe the procedures that would be implemented to:*
 - Keep the local community and relevant agencies informed about the operation and environmental management of the project;*
 - Receive, handle, respond and record complaints ;*
 - Resolve any disputes that may arise during the course of the project;*
 - Respond to any non-compliance; and*
 - Respond to emergencies; and*
- f) Include:*
 - Copies of the various strategies, plans and programs that are required under the conditions of this approval once they have been approved; and*
 - A clear plan depicting all the monitoring currently being carried out within the project area.*

The Proponent agrees to the preparation of an Environmental Management Strategy incorporating the above details within the above timeframes.





Offsets:

The proponent must develop and implement a biodiversity offset in consultation with, and to the approval of, DECCW within 6 months of the date of Project Approval to compensate for the loss of:

- *7.1 ha of native vegetation (including Narrow-leaved Mountain Gum, Ribbon Gum, Grassy Woodland and Snow Gum, Mountain Gum, Grassy Woodland).*

The Proponent agrees to the implementation a biodiversity offset strategy, however, it is the Proponent's preference to confirm the acceptability of the size and location of the biodiversity offset as proposed within the *Environmental Assessment*. It would then be appropriate for the ongoing management of this biodiversity offset to be further defined within the biodiversity offset strategy.

2.3 ISSUE 3 - AIR QUALITY

There is the need for an appropriate air quality monitoring program to be developed and implemented prior to the commencement of activities. The EA states in a number of locations that the potential dust generated from a number of the activities will be mitigated by the modification or cessation of these activities in unfavourable conditions. The detail of the management of these activities, with respect to dust control, is not provided in the EA and there is no discussion of roles and responsibilities for the implementation of these actions.

Any air quality monitoring program will also need to incorporate the definition of the various meteorological conditions that will trigger the necessary changes in site activities.

Further, a site weather station is required in order to assist with management's decision making with regard to the modification or cessation of site activities in order to minimise the generation of dust during times of adverse weather conditions.

The Proponent accepts the need for an Air Quality Management Plan incorporating a monitoring program. The management plan would include details of the existing air quality, applicable criteria, management measures including accountabilities and responsibilities, monitoring and reporting protocol and monitoring triggers and responses.

In regards to the modification of activities, the only activity relating to air quality which the *Environmental Assessment* states would be modified is to "avoid, where possible, blasting in strong winds from the eastern quadrant that may increase short term dust exposure for nearby sensitive receptors" (Section 4.8.4).

In any event, the Proponent would seek to modify any activity, which, under adverse meteorological conditions is creating excessive visible dust to be dispersed towards surrounding residences / landholdings. It is not expected that a definitive set of meteorological conditions would be defined as the trigger for specific activities as this will vary depending on the location, type and intensity of the activity and other conditions such as moisture content etc. However, the installation of the meteorological station (see Commitment 9.1 of the Draft Statement of Commitments) would assist the Quarry Manager in interpreting local weather conditions and determining appropriate actions (for both noise and air).

For example, stripping of finer materials such as topsoil or weathered granite during hot, dry, conditions with winds from the northeast may be restricted to the calmer morning period or additional water applied using the water cart. Similarly, loading of product materials during adverse conditions may be restricted to the extraction area in order to utilise the topographic shielding of the extraction area.



The Quarry Manager would be responsible for directing the alteration of activities whilst all site personnel would be responsible for reporting significant visible dust generation to the Quarry Manager for consideration of the need to modify any activity. The Quarry Manager would also be responsible for coordinating the air quality monitoring and ensuring that the monitoring is undertaken by a competent person(s).

The Proponent has committed to undertake a program of monitoring to determine the site contribution to deposited dust in the immediate vicinity of the project site. Air modelling indicates that there would be no significant increases in annual average PM_{10} concentrations in the local area and that there would be a low risk of the site activities contributing to exceedances of the 24 hour average PM_{10} criterion. DECCW recommends, however, that in addition to the proposed deposited dust monitoring, the proponent monitor for PM_{10} at an appropriate location on site to validate the results of the dispersion modelling, particularly considering the likelihood that any dust generated on-site may contain silica.

The Proponent accepts the Office of Environment and Heritage's (formerly DECCW) preference to validate the results of modelling. Monitoring for PM_{10} was not originally proposed as the modelling did not indicate that exceedances would occur. It is also noted that modelling has been undertaken at maximum production (ie. 250 000tpa). Therefore, it is requested that any requirement to undertake PM_{10} monitoring does not come into effect until annual production reaches 100 000tpa. Additionally, should the monitoring confirm no exceedances of the applicable criteria for a period of 2 years following operations reaching maximum production that PM_{10} monitoring may cease.

Two statements in the Draft Statements of Commitments, 10.1 and 10.2, refer to the location of the crusher and the fitting of water sprays to the crusher respectively. DECCW recommends that the wording under the 'Timing' column be modified to read "Prior to the commencement of crushing" rather than the existing "During Crushing".

The Proponent accepts this and has amended the wording appropriately for the Final Statement of Commitments.

DECCW recommends that DoP include the following conditions in relation to the monitoring of weather conditions and dust / PM_{10} , at locations to be confirmed. DECCW also recommends that a condition be placed on any approval requiring the proponent to prepare an air monitoring plan to be incorporated into the Environmental Management Strategy.

Monitoring Conditions

- 1. The meteorological weather station must be maintained so as to be capable of continuously monitoring the parameters specified in Condition 2.*
- 2. For each monitoring point specified in the table below the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The licensee must use the sampling method, units of measure, averaging period and sample at the frequency, specified opposite in the other columns.*



Point <location to be confirmed>

| Parameter | Units of Measure | Frequency | Averaging Period | Sampling Method |
|-------------------|------------------|------------|------------------|-----------------|
| Air temperature | °C | Continuous | 1 hour | AM-4 |
| Wind direction | ° | Continuous | 15 minute | AM-2 & AM-4 |
| Wind speed | m/s | Continuous | 15 minute | AM-2 & AM-4 |
| Sigma theta | ° | Continuous | 15 minute | AM-2 & AM-4 |
| Rainfall | mm | Continuous | 15 minute | AM-4 |
| Relative humidity | % | Continuous | 1 hour | AM-4 |

Requirement to monitor concentrations of pollutants discharged**Point <locations (x 3) to be confirmed>**

| Pollutant | Units of measure | Frequency | Sampling Method |
|-----------------------|----------------------------------|-----------|------------------|
| Total Solid Particles | Grams per square metre per month | Monthly | AS3580.10.1-2003 |

Point <location to be confirmed>

| Pollutant | Units of measure | Frequency | Sampling Method |
|------------------|----------------------------|-----------|----------------------|
| PM ₁₀ | Micrograms per cubic metre | Weekly | AS/NZS 3580.9.6-2003 |

The Proponent accepts these monitoring requirements with the above mentioned qualification to PM₁₀ monitoring.

2.4 ISSUE 4 - NOISE

Item 9.5 within Table 5.1 of the Draft Statement of Commitments (Section 5) states that one action on site will be to "Undertake rock hammering for up to 16 hours per month between 9:00am and 5:00pm Monday to Friday". DECCW considers that this commitment is unenforceable. DECCW believes that a more realistic approach, given that rock hammering is one of the loudest operations on the site and was the subject of resident complaints to Council in previous years, is that a window of time each day is available to the proponent to rock hammer (e.g. 10:00 am to 12:00 pm Monday to Friday);

The Proponent accepts the suggested approach of restricting rock hammering to between 10:00am to 1:00pm Monday to Friday as outlined within the recommended conditions (see below).

DECCW also notes that additional activities on site, namely the chipping of excess cleared vegetation and the drilling and subsequent small charge 'popping' of larger boulders have the potential to generate noise. There appears to have been no consideration of the cumulative impacts of these activities on the general noise environment of the operational site. The proponent needs to provide further description of these activities and all necessary mitigation measures to ensure site operations comply with noise limits. These measures need to be consolidated within the Environmental Management Strategy.



In relation to the drilling for small charge popping, as only one drill rig is proposed to be utilised on site, the noise modelling (which includes the operation of a drill rig) remains valid with no cumulative effects.

Section 2.4.5 of the *Environmental Assessment* also confirms that the size of small charge popping would be significantly less than for production blasts with a maximum instantaneous charge (MIC) typically up to 0.25kg compared to a production blast of approximately 100kg. Additionally, as for rock hammering, all small charge popping would be undertaken on the extraction floor within 20m of the extraction faces, where possible, such as to provide additional acoustic shielding. Therefore the potential noise and vibration impacts from the blast associated with small charge popping would be significantly less than production blasts. Additionally, as the blast is completed within a short period of time, no other operations would be undertaken within the extraction area during the actual blast thereby negating any issue of cumulative effects.

It is accepted that chipping / mulching of vegetation was not specifically included within the noise assessment. Spectrum Acoustics confirms that the typical sound power level of mulching vegetation of various sizes is in the order of 110dB(A) which is less than the bulldozer modelled (114dB(A) during average 15 minute assessment period) and also the Drill Rig and Rock Hammer (119dB(A) and 120dB(A) respectively). Vegetation clearing would occur during site establishment and then over a further four 2 week vegetation clearing campaigns. The Proponent confirms that, pending possible weather constraints during a clearing campaign, the vegetation could be cleared and chipped / mulched within 2 weeks without operating the bulldozer or mulcher concurrently. As the bulldozer has a higher sound power level than a typical chipper / mulcher, the predicted noise emissions during vegetation clearing (including chipping / mulching) remain valid.

The proponent states in Item 9.1 within Table 5.1 of the Draft Statement of Commitments (Section 5) that an on-site weather station shall be installed within 6 months of the project approval. This sentence should be modified to read "Within 6 months of project approval or before the commencement of site activities".

As the Oberon White Granite Quarry is currently approved to operate at up to 25 000tpa, in order to remove any ambiguity for the continuation of existing operations, the Proponent respectfully requests that the condition reads as follows.

"Within 6 months of project approval or prior to production exceeding 25 000tpa, whichever is the sooner."

Recommended condition of project approval:-

Noise Limit conditions

1. Noise generated at the premises must not exceed:

- a) 40 dB(A) L_{Aeq} (15 minute) at any time during construction activities; and
- b) 35 dB (A) L_{Aeq} (15 minute) during all day, evening and night time periods.

2. For the purpose of condition 1;

- Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sunday and Public Holidays.
- Evening is defined as the period 6pm to 10pm; and



- *Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sunday and Public Holidays.*
- 3. *The noise limits set out in condition 1 apply under all meteorological conditions except for the following:*
 - a) *Wind speeds greater than 3 meters/second at 10 meters above ground level; or*
 - b) *Stability category F temperature inversion conditions and wind speeds greater than 2 meters/second at 10 metres above ground level; or*
 - c) *Stability category G temperature inversion conditions.*
- 4. *For the purpose of condition 3:*
 - a) *Date recorded by the meteorological station identified at EPA Identification Point <to be confirmed> must be used to determine meteorological conditions; and*
 - b) *Temperature inversion conditions (stability category) are to be determined by the sigma theta method referred to in Part E2 of Appendix E of the NSW Industrial Noise Policy.*
- 5. *To determine compliance:*
 - a) *With the $L_{eq(15 \text{ minute})}$ noise limits in condition 1, the noise measurement equipment must be located:*
 - *Approximately on the property boundary, where any dwelling is situated 30 meters or less from the property boundary closest to the premises; or*
 - *Within 30 meters of a dwelling façade, but not closer than 3m, where any dwelling on the property is situated more than 30 meters from the property boundary closest to the premises; or, where applicable*
 - *Within approximately 50 meters of the boundary of a National Park or Nature Reserve.*
 - b) *With the noise limits in condition 1, the noise measurement equipment must be located:*
 - *At the most affected point at a location where there is no dwelling at the location; or*
 - *At the most affected point within an area at a location prescribed by condition 5(a).*
- 6. *A non-compliance of condition 1 will still occur where noise generated from the premise in excess of the appropriate limit is measured:*
 - *At a location other than an area prescribed by condition 5 (a); and/ or*
 - *At a point other than the most affected point at a location.*
- 7. *For the purposes of determining the noise generated at the premises the modification factors in Section 4 of the NSW Industrial Noise Policy must be applied, as appropriate, to the noise levels measured by the noise monitoring equipment.*

The Proponent accepts the imposition of recommended Conditions 1 to 7 as outlined above.

Requirement to Monitor Noise

- 8. *To assess compliance with Condition 1, attended noise monitoring must be undertaken in accordance with Condition 5 and:*
 - a) *At each one of the locations listed in condition 1;*



- b) *Occur Quarterly in a reporting period;*
- c) *Occur during each day, evening and night period as defined in the NSW Industrial Noise Policy for a minimum of:*
 - *1.5 hours during the day;*
 - *30 minutes during the evening; and*
 - *1 hour during the night.*
- d) *Occur for three consecutive operating days.*

DECCW also recommends that a condition be placed on any approval requiring the proponent to prepare a noise monitoring plan to be incorporated into the Environmental Management Strategy.

The Proponent agrees with the preparation of a Noise Monitoring Plan as a stand-alone document (not as part of the *Environmental Management Strategy*). The following monitoring plan is proposed, however, and would be further detailed within the Noise Monitoring Plan.

- Noise monitoring is undertaken at the commencement of site establishment operations and then following a further 3 months. This will provide for two monitoring events during the site establishment operation which is the key risk period for noise impacts. Noise monitoring would be undertaken in accordance with the requirements of item 8c) in the DECCW submission.
- Following site establishment, noise monitoring is continued on an annual basis until production levels exceed 100 000tpa.
- Once production levels exceed 100 000tpa, monitoring is increased to occur on a quarterly basis.
- Quarterly monitoring is undertake such that, during years when a vegetation clearing campaign is scheduled to occur, one of the quarterly monitoring events is undertaken during the clearing campaign.

The Noise Monitoring Plan would also provide for additional monitoring in the event of genuine noise complaints and would require the activities being undertaken during monitoring to be recorded together with relevant production statistics and included within the monitoring report. Conversely, should monitoring demonstrate compliance and no genuine noise complaints are received, the Proponent would seek to reduce monitoring from quarterly to annually.

Blasting Limit Conditions

- 1) *The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations. Error margins associated within any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.*
- 2) *The airblast overpressure level from blasting operations at the premises must not exceed 115db (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.*



- 3) *Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec any noise sensitive locations. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.*
- 4) *Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.*

Where "Noise sensitive locations" includes buildings used as a residence, hospital, school, child care centre, places of public worship and nursing homes. A noise sensitive location includes the land within 30 meters of the building.

The Proponent accepts these blast limitations.

Blasting Monitoring Conditions

To determine compliance with condition(s):

- a) *Airblast overpressure and ground vibration levels experienced at the following noise sensitive locations must be measured and recorded for all blasts carried out on the premises;*
 - *<Locations to be negotiated between DECCW and the proponent>.*
- b) *Instrumentation used to measure and record the airblast overpressure and ground vibration levels must meet the requirements of Australian Standard AS 2187.2-2006.*

NOTE: A breach of the licence will still occur when airblast overpressure or ground vibration levels from the blasting operations at the premises exceeds the limit specified in conditions 1 to 4 at any "noise sensitive locations" other than the locations identified in the above condition.

The Proponent agrees to the need for blast monitoring and recommends blast monitoring is undertaken either at the closest residence (Residence A) or a point within the southern area of the Project Site. A second monitor may also be placed within the northern area of the Project Site or other surrounding residences from time to time as may be required or requested by residents.

2.5 ISSUE 5 - HOURS OF OPERATION

The proponent has provided a list of key activities at the site, all having the potential to generate noise to varying degrees, and their desired hours of operation for these activities. DECCW notes that many of the time frames for these activities have extended from that currently approved by Oberon Council. DECCW, as the regulator of noise emissions from this facility, considers that the high risk activities with respect to noise generation should not have extended hours.

It is DECCW's experience that most noise complaints for mining operations are made in the evenings, night time and early mornings. DECCW anticipates that allowing an earlier start at the Oberon White Granite Quarry would result in the disturbance of a number of neighbouring residents and complaints being lodged with DECCW's Environment Line. The start up period at a mine site (for a non-24 hour operation) can be relatively noisy in comparison to the



preceding 'night time' period with heavy vehicles and equipment. The proponent has not addressed this possibility in their noise assessment.

DECCW recommends that no changes are made to the start and finish times as proposed by the proponent. DECCW also recommends that no operations of transportation are allowable on Sundays in light of the existing rural community and associated noise environment.

Recommended Conditions of Project Approval:

Hours of Operation

- 1) *All construction work at the premises must only be carried out between the hours of 7.00 am and 5.00 pm Monday to Friday, 8.00 am to 1.00pm on Saturday and at no time on Sundays and Public Holidays.*

- 2) *Activities at the premises, other than construction work, may only be carried out between the hours of:*

Monday to Friday

9.00 am to 5.00 pm for vegetation clearing, dozer operations, basting and small charge popping;

8.00 am to 5.00 pm for drilling;

10.00 am to 1.00 pm for rock hammering;

7.00 am to 5.00 pm for processing and transportation; and

24 hrs for non-audible equipment and site maintenance.

Saturday

8.00am to 5.00pm for processing and transportation;

24hrs for non-audible equipment and site maintenance.

Sunday and Public Holidays

24hrs for non-audible equipment and site maintenance only.

The currently approved hours of operation for all activities including transport, drilling and processing are as follows.

Monday to Friday 7:00am to 5:00pm, excluding public holidays

Saturday & Sunday 8:00am to 5:00pm, excluding public holidays

At the outset, it is noted that the Proponent has in fact proposed a reduction to the approved hours of some activities, including no drilling on weekends, in recognition that these activities can be successfully restricted between Monday and Friday without affecting operations at the quarry.

The only operations which the Proponent has proposed to commence earlier at 6:00am rather than the currently approved 7:00am (Monday to Friday) is product loading and despatch. The Proponent has not proposed to commence operations earlier on weekends. The activities proposed between 6:00am and 7:00am would be restricted to the operation of the front-end loader loading road registered trucks.

As outlined within the noise assessment, the proposed product loading would not result in sleep disturbance or exceedance of criteria at surrounding non-project related residences. It is noted



that an agreement is in place with the closest potentially affected residence ((Residence EE) - to be constructed) on Landholding Number 5.

Despite this, and following discussion with the Office of Environment and Heritage, the Proponent proposes the following.

- No activities are to occur on site prior to 6:30am Monday to Friday except for inaudible maintenance. No product trucks would be allowed to enter the site prior to this time. Any product trucks queued at the entrance before 6:30am would be given a warning and would not be loaded until after 8:00am as penalty. After receiving three warnings, that truck driver would no longer be accepted or loaded at the site. Details of this disciplinary procedure will be included within the truck driver's code of conduct.
- A 'start up' period is provided between 6:30am and 7:00am during which time vehicles would be re-fuelled, pre-start checks completed (greasing and blowing out of air filters etc) and warm up. Product trucks may enter the site and queue in preparation for loading from 7:00am. No product loading would occur during this time.
- Product loading (and processing) would start from 7:00am.

In relation to the proposed extended processing and transportation activities to 6:00pm Monday to Saturdays, the Proponent requests that these hours are retained. It is noted that 6:00pm is still within the 'day time period' with several hours of sunlight remaining after this time during daylight savings. Also, the maximum number of loads of material transported on a Sunday is not proposed to increase beyond the currently approved three loads. This has been retained principally as a contingency measure for urgent customer requirements.

The Proponent also requests the retention of the proposed 7:00am commencement time for drilling Monday to Friday. Although the Office of Environment and Heritage's concern is understood, 7:00am is currently the approved commencement time and potential for noise exceedances could be managed through the proposed suspension of drilling during temperature inversion conditions (3°C/100m or greater) measured using the on-site weather station. During winter months when a strong inversion is present, this could in fact result in the suspension of drilling beyond 8:00am in some instances. An appropriate management procedure for the suspension of drilling would be included within the Noise Management Plan / Monitoring Program.

2.6 ISSUE 6 - WATER

Groundwater

No Contention raised.

Surface Water

DECCW recommends, however, that the Draft Statement of Commitments be modified

- *The preparation and implementation of an appropriate surface water management and monitoring program.*



This program should be incorporated into the Environmental Management Strategy.

The Proponent agrees with the preparation of a stand-alone Surface Water Management and Monitoring Program.

3. NSW INDUSTRY AND INVESTMENT

3.1 ISSUE 1 - PRODUCTION STATISTICS

Industry & Investment NSW collects production statistics throughout the state. To assist in this task, it is requested that if the application is approved, the following condition be included in the approval;

“The operator is required to provide annual production data as requested by Mineral Resources branch of the Industry and Investment NSW.”

The Proponent accepts this requirement.

3.2 ISSUE 2 - AGRICULTURAL ISSUES

There are no specific issues but the proposal's assessment should be considered in relation to the specific guideline for “agricultural issues for extractive industry on rural lands”.

The Project Site is currently utilised for extractive purposes and the further extension of these activities would not further impact upon agricultural issues as outlined within the above guideline (dated July 2010). In particular the Project:

- is consistent with the planning policies and zone objectives as they relate to agriculture;
- would not reduce or remove the long-term agricultural resources with the extraction area being located on land most suitable for light grazing and the Project Site proposed to be returned to controlled grazing and nature conservation;
- would not result in impacts upon water resources or exceed the Maximum Harvestable Dam Right Capacity;
- would not impact upon fish habitats;
- would not impact upon any farm accesses or result in road closures or closure of travelling stock reserves;
- incorporates air quality and noise management measures; and
- would include progressive rehabilitation.



4. ROADS AND TRAFFIC AUTHORITY

4.1 ISSUE 1 - SECTION 138 APPROVAL

The applicant is to comply with all of the RTA's term of concurrence pursuant to Section 138 of the Roads Act 1993 before any transportation of plant, product or other goods or material is commenced following Project Approval.

As the site is currently approved and operating, it is requested that any condition be worded such that the management measures outlined within the *Environmental Assessment* requiring a Section 138 approval (including installation of road signage and reflector posts) be implemented within 6 months following approval to allow for continuity of operations at the quarry.

4.2 ISSUE 2 - CODE OF CONDUCT

The applicant is to prepare and supply a Code of Conduct to all drivers of heavy vehicles (including contractors) transporting plant, product or other goods or materials to or from the project site.

The Code of Conduct is to be given RTA concurrence and distributed to drivers prior to commencement of any transportation, including transportation for the purpose of establishment and construction.

The Code of Conduct is to be revised, RTA approved and redistributed at any time there is a change or changes to the local school bus route within 250 meters of the intersection of Hampton and Ferndale Roads: including changes to operating hours and pick up and drop off points.

The Proponent agrees with the implementation of a Code of Conduct covering the issues raised within RTA's submission. However, as in Section 4.1, as the site is currently approved and operating, it is requested that any condition be worded such that the code of conduct be implemented prior to the commencement of site establishment activities or within 6 months of approval, whichever is the sooner, to allow for continuity of operations.

5. OBERON COUNCIL

5.1 ISSUE 1 - DEVELOPMENT APPLICATION 23/09

Development Application 23/09 for a dwelling on adjoining Lot 12 DP 603429 owned by Mr HR and Mrs SP Webb was refused by Council 17 February 2009 Ordinary Meeting. A new Development Application for a dwelling on the above lot is to be submitted to Council shortly. Pursuant to the Oberon Local Environmental Plan 1998 a dwelling is permissible on the land and this should be considered by the Department of Planning (DoP) in the assessment of the Part 3A Application.

A copy of the objection to Development Application 23/09 and objection to the new Development Application 10.2011.1.1 have previously been provided to the Department for its information and records. In short, the Proponent maintains that other suitable building sites are available within Lot 12 DP 603429 which would not be adversely affected by the quarry operations and would therefore not significantly constrain ongoing operations.



5.2 ISSUE 2 - BUFFER DISTANCE

As the Development Application for the proposed dwelling on Lot 12 in DP 603429 has not yet been submitted to Council, the Proponent/Applicant of the Part 3A Application should be required to comply with the buffer distance requirement of Council's DCP 2001.

Section 3.2.3.3 of the *Environmental Assessment* addresses the requirements of DCP 2001.

5.3 ISSUE 3 - RIGHT OF CARRIAGEWAY

Access to the existing Lot 12 DP 603429 is via the existing Right of Carriageway which traverses Lot 2 in DP 108982. An ongoing maintenance to the Right of Carriageway should be undertaken by the Applicant/Proponent of the Part 3A Application and all cost associated with the maintenance or upgrading of the Right of Carriageway should be borne by the Applicant/Proponent.

The Proponent, being the primary user of the right of carriageway located within Lot 2 DP 108982, would undertake to maintain the road within the right of carriageway.

5.4 ISSUE 4 - INADEQUATE NOISE ASSESSMENT

There are errors with the topographic model that was used for the noise assessment that was undertaken by Spectrum Acoustics for the proposed extension of Oberon White Granite Quarry. Council has been advised that the errors with the topographic model were brought to the attention of RW Corkery and Spectrum Acoustics. Drawings showing the actual surveyed topography between the proposed dwelling on Lot 12 in DP 603429 and the quarry were provided to RW Corkery on 12 August 2010 and on 18 August 2010.

Following provision of this information; Spectrum Acoustics remodelled the noise predictions for the proposed dwelling site on Lot 12 on behalf of RW Corkery. The modelling showed that the revised topography reduces the predicted noise levels under worst case conditions (SSE prevailing wind conditions) by 4 to 5 dBA with the resultant predicted noise levels being 35.8 dBA at year 1, 33.8 dBA at year 2 and 36.9 dBA at year 20. On this basis predicted worse case noise levels at the proposed dwelling site on Lot 12 will be 1 to 2 dBA above the planning goal of 35dBA at years 1 and 20 respectively with operations in between these time periods not expected.

It is noted that the additional noise modelling undertaken by Spectrum Acoustics on behalf of RW Corkery in not included or mentioned in the EA. It is also noted that the errors in the topographic model used by Spectrum Acoustics for the quarry were also not mentioned or rectified even though RW Corkery has included information in the EA (particularly in regard to topography and noise emissions on Lot 12) that it knows is not correct and therefore is false and misleading.

It was brought to the Proponent's attention by (Umwelt (Australia) Pty Limited), on behalf of Mr and Mrs Webb, that the 1:25 000 topographic map does not accurately reflect an area of topographic relief within their landholding, Lot 12 DP 603429, namely a knoll. It was also requested that consideration be given to how this might change the level of noise received at a potential dwelling location (the same location as that proposed in the refused DA 23/09).

Mudgee Stone Company subsequently commissioned Spectrum Acoustics to assess the effect of the knoll on received noise at the proposed dwelling under a selection of scenarios. It was agreed with Umwelt that the appropriate way to assess this was to add a 10m high barrier the length of the knoll within the noise model.



Despite the additional shielding provided by the knoll, the results of the selected scenarios indicated that noise exceedances would still occur under some scenarios during prevailing and adverse weather conditions. As a result of this and the disagreement that the dwelling location suggested by Mr and Mrs Webb was the most suitable site within Lot 12 DP 603429, Mudgee Stone Company declined to commission further noise modelling.

The assertion by Umwelt that the predicted worst case noise levels at the potential dwelling site would be 1 to 2dB(A) above the planning goal of 35dB(A) at Years 1 and 20 respectively with operations in between these years not expected to exceed 35dB(A) is false. Noise between these periods would also likely exceed 35dB(A) at the proposed dwelling location under some conditions and during some activities. In particular, the information provided to Council by Umwelt fails to include the predicted noise levels for Year 5 quarry operations with the operation of a rock hammer which were 38.4dB(A). This information was provided to Umwelt in the same Spectrum Acoustics email as the other noise levels quoted but has not been acknowledged by Umwelt.

It is important to note that the effect of the knoll only has significance for the potential dwelling location and not for other potential dwelling sites located within Lot 12 DP 603429 or received noise at any other surrounding residences. This information was provided to the Proponent following the completion of the August 2010 Noise Assessment. At that time, the potential dwelling location put forward by Mr and Mrs Webb was neither approved nor formally proposed. Therefore, the potential dwelling location and knoll were not included within the noise assessment. At no time has the Proponent or R.W. Corkery & Co Pty Limited attempted to present false or misleading information.

The EA predicts that in excess of 50% of Lot 12 could be adversely affected by noise impacts from the proposed quarry extension but has failed to provide any information as to what mitigation measures may be able to be implemented as part of the proposed quarry development to reduce noise impacts on Lot 12 to an acceptable level. It is noted that a 6 meter high acoustic bund will be proposed to be constructed along the southern boundary of the quarry to reduce noise impacts on dwellings to the southeast of the quarry. Looking at the quarry plan provided in the EA, sufficient space appears to exist to construct a similar acoustic wall along the western side of the quarry. This could significantly reduce noise impacts from future quarry operations on Lot 12.

Similarly no mitigation measures in regard to blasting impacts (vibration and overpressure) or dust impacts on Lot 12 have been considered in the EA.

During the preparation of the noise assessment, additional mitigation measures were considered including the potential use of temporary bunding or shipping containers around the drill rig whilst operating on upper benches. These measures were investigated and found not to be feasible and unlikely to be effective. The reasons being that the temporary bund or shipping containers would need to be placed on the quarry bench in a direct line of sight to any proposed dwelling within Lot 12 DP 603429 (or other surrounding residences). This would not be feasible or safe to do in all cases. Additionally, due to the width restriction on the quarry benches, it would not always be possible to provide a barrier of sufficient length to provide effective shielding to a dwelling or to reduce received noise generally across Lot 12 DP 603429. It was also deemed that the construction of temporary bunding would likely result in noise emissions similar to the operation of the drill rig thereby negating any positive effect.

Additional noise mitigation measures suggested by Umwelt and raised within Council's submission have also been considered. A drainage line is present immediately adjacent the



western boundary of the extraction area. Therefore, any bunding would need to be placed along the western boundary of the quarry site (Lot 2 DP 1089826) which is in the order of 40m or more from the edge of extraction. Noise barriers are most effective when placed immediately adjacent the noise source or the receiver. In this instance, the construction of a bund on the western boundary would not provide any significant noise reduction and would result in the unnecessary clearing of additional vegetation.

Umwelt also suggested the restriction of trucks from the right of carriageway. However, trucks would still require access to the stockpiling area. Therefore, this would not result in a significant increase in the separation distance from truck movements and the potential dwelling location. Considering that trucks are only one component of the received noise, this is also considered unlikely to result in significant reductions in total received noise.

Mitigation measures relating to blasting impacts (vibration and overpressure) and dust impacts are outlined within Sections 4.7.4.2 and 4.8.4 of the *Environmental Assessment*.

It is stressed that the proposed extension of the White Granite Quarry will have significant environmental harm in terms of noise pollution to the proposed dwelling on Lot 12 in DP 603429. The DoP needs to clearly understand this as it has the potential of creating a lot of unnecessary work for Council Health and Building Surveyors and other Council resources when Council receives noise complaints concerning the quarry operations.

The Proponent agrees that noise levels received at the dwelling location as proposed by Mr and Mrs Webb would unlikely be acceptable but reiterates that other suitable locations are available within Lot 12 DP 603429 which would not be significantly affected (and therefore should not create unnecessary work for Council Health and Building Surveyors).

As outlined within Section 4.1.4.3 of the *Environmental Assessment*, it is accepted that a dwelling entitlement on Lot 12 DP 603429 has been approved under Development Consent DA 110/03. However, Condition 3 of DA 110/03 requires that “the location and design of a dwelling on the land shall take into account the presence or potential presence, and the impacts or potential impacts, of any proposed or existing quarry operations on the adjoining lands”.

The Proponent trusts that Council will consider these issues during their determination of the current application (DA 10.2011.1.1) submitted by Mr and Mrs Webb as outlined within the Proponents submission to that application.

5.5 ISSUE 5 - PROPOSED CONDITIONS

a) Building Works

Any proposed building structures on the site will require Development Consent from Council and site works are not to commence until such time as Council has received a Construction Certificate for the proposed works.

The Proponent contends that additional Development Approval from Council is not required for the proposed site works. However, it is accepted that construction and occupation certificates will be required to confirm that the proposed buildings meet relevant building standards.

b) Onsite Wastewater Disposal

Prior to the installation of a septic system on the property, separate approval for this work shall be obtained from Council.



The Proponent would seek the appropriate approval for the installation of the sewage treatment system.

c) *Developer Contributions*

Prior to commencement of works and release of Construction Certificate payment of Section 94 contributions in accordance with the schedule below or those applicable at the time of payment, as prescribed in Councils Annual Fees and Charges Schedule.

| <i>Service</i> | <i>Required Contribution in 2010/2011</i> |
|--|---|
| <i>Public Open Space</i> | <i>\$210.00</i> |
| <i>Emergency Services</i> | <i>\$251.00</i> |
| <i>Rural Roads</i> | <i>\$4092.00</i> |
| <i>Community Facilities</i> | <i>\$210.00</i> |
| <i>Total (if paid in the 2010/2011 financial year)</i> | <i>\$4763</i> |

The Proponent accepts the above calculations and would complete payment subject to receipt of Project Approval.

d) *Recurrent Cost*

In accordance with Oberon Council Contributions Plan (2004) the applicant shall pay to Council for road maintenance an amount of 10 cents (indexed annually on 1 July) per tonne of extracted material exported for the development site. The amount is payable by 14 July every year. Note: the amount is to be determined and reconciled with annual production and volumetric surveys.

The Proponent notes that Ferndale Road and its intersection with Hampton Road were constructed by and at the cost of Mudgee Stone Company Pty Ltd. Additionally, the traffic assessment concluded that the pavement design is in excess of that required for the proposed equivalent standard axels (ESAs) projected over the life of the Project.

The Proponent therefore requests that any Project Approval issued provides for either the payment of the contribution or the negotiation with Council of a Voluntary Planning Agreement. The Proponent also commits to confirming the annual production volumes utilising weighbridge records (as was the practice for the production statistics previously provided to the, then, Department of Industry & Investment NSW – Mineral Resources).

e) *Annual Environmental Monitoring Fee*

The applicant shall pay an annual contribution of \$1000 increased on an annual basis by the CPI, to the Council. The contribution shall be payable when lodging the Annual Environmental performance Report as required by Condition (Condition Number to be inserted by DoP) until the quarry is decommissioned and the site rehabilitation is determined by the Council to be self- sustaining.

As the quarry would be operating under a Project Approval issued by the Department of Planning and Infrastructure and an Environment Protection Licence issued by the Office of Environment and Heritage, the Proponent does not consider it appropriate that an annual contribution be paid to Council for environmental monitoring.



6. NSW OFFICE OF WATER

6.1 ISSUE 1 - RECOMMENDED CONDITIONS

- *The proponent must ensure that it has sufficient water for all stages of the project to the satisfaction of the NSW Office of Water, and if necessary, adjust the scale of quarrying operations to match its water entitlements.*

The water balance completed as part of the Surface Water Assessment prepared by GSSE (2010) indicates that, even during a 10th percentile dry year, there would be an excess of water than is required for operational requirements (principally dust suppression). It is accepted that during dry years the water stored within the on-site dams could potentially become a limiting factor between rainfall events. In such an event the Proponent would modify site activities to ensure that dust generating activities are minimised so as not to result in exceedances of appropriate air quality criteria.

Section 2.3 of this response provides further detail on possibly ways the operations could be monitored and modified to reduce potential dust impacts.

- *The proponent must prepare a Surface Water Management Plan in consultation with and to the satisfaction of the NSW Office of Water prior to commencement of activities.*

The Proponent accepts the need to prepare a Surface Water Management Plan in consultation with the NSW Office of Water and to the satisfaction of the Department of Planning and Infrastructure.

- *The proponent must prepare a Groundwater Management Plan in consultation with and to the satisfaction of the NSW Office of Water prior to commencement of activities.*

As no significant groundwater source is likely to be intercepted and the site activities are such that groundwater quality is highly unlikely to be affected in any way, the Proponent considers that it more appropriate to prepare a Groundwater Monitoring Program. This would include monitoring of any seepage into the extraction area (most likely following rainfall events) and monthly standing water levels within the closest registered groundwater bore, GW801330 located approximately 570m to the southwest of the extraction area and the unregistered exploration hole within C.J. & V.T. O'Neill's property.

- *The proponent must obtain relevant licences to the satisfaction of the NSW Office of Water under the Water Act 1912 or Water Management Act 2000 (whichever is relevant) for all activities which intercept or extract groundwater prior to commencement of these activities.*

The Proponent would seek any required licencing in accordance with the relevant legislation.



7. DEPARTMENT OF PLANNING AND INFRASTRUCTURE

7.1 RIGHT OF CARRIAGEWAY

The Department of Planning and Infrastructure has requested confirmation of the rights and obligations of the Proponent for the right of carriageway between the Project Site and Ferndale Road (carriageway 562300) which traverses Landholding No. 5,

The principal questions and responses to the use of this carriageway are provided as follows. This has been confirmed through legal advice provided by Moore & Co Solicitors.

1. *Is landowners consent required for the use of this carriageway by Mudgee Stone Company Pty Ltd as proposed within Project Application 07_0122 (ie. transportation of up to 250 000tpa of granite and associated movement of employee, supply and contractor vehicles)?*

There are no limitations on the exercise of the rights of carriageway, even in regard to any increased volume of traffic using the rights of way.

2. *What, if any, conditions are associated with the right of carriageway for both the landowner and Mudgee Stone Company Pty Ltd?*

Schedule 8B of the *Conveyancing Act 1919* outlines relevant conditions associated with right of carriageways. A copy of this schedule is reproduced in **Appendix B** of this response.

3. *Who holds responsibility for the maintenance of the right of carriageway and any improvements (such as a sealed pavement)?*

Mudgee Stone Company Pty Ltd, as the registered proprietor of Lot 13 DP 60342 (now Lot 2 1089826) is responsible for maintenance of the carriageway and improvements.

4. *Are there any other issues associated with the right of carriageway or its use that Mudgee Stone Company Pty Ltd, the landowner or the Department of Planning should be aware of?*

There are no further issues.



Appendix A

Gingra Ecological Survey Response to Biodiversity Issues



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17th June 2011

Dear Scott,

Re: Oberon White Granite Quarry Project

The purpose of this letter is to address matters raised by the, then, NSW Department of Environment, Climate Change and Water in a letter of 18th January 2011 relating to the above project.

In terms of ecological management issues the letter of 18th January 2011 is primarily concerned with the proposed offset and the extent to which the offset is satisfactory in terms of the Department's principles for the use of biodiversity offsets. Much of the information sought in the letter is contained within the *Environmental Assessment* for the Project and the supporting specialist studies, and is brought together here to satisfy the information needs identified in the 18th January 2011 letter.

Map of Offset Area

A map identifying offset areas is included as Figure 2.9 within the *Environmental Assessment*.

The areas proposed in the *Environmental Assessment* for use as compensatory habitat/biodiversity offset include areas south and west of the extraction area, an area along the north-eastern boundary and compensatory planting areas on the north-western boundary of the Project Site.

As is stated in Section 5.3 of the Flora Assessment report, the southern, western and north-eastern offset areas cover an area of about 17.2ha, whilst the compensatory planting areas cover an area of about 2.5ha.

In addition, sections of the Project Site currently disturbed or proposed for disturbance will be rehabilitated to native vegetation as part of the post quarry landscape management.

Condition of Impact and Offset Sites

Information about the condition of vegetation on the Project Site is provided in Section 4.2 of the Flora Assessment. Vegetation across the Project Site has been affected by past and recent land use, including clearing, grazing, roading, timber removal and quarry operations. Vegetation at the Project Site has also been impacted by rabbits. Each vegetation map unit (VMU) has a diverse range of exotic species, but with native ground layer species being dominant or co-dominant across those parts of the Project Site where a native tree canopy persists.



The proposed offset area to the south of the impact area includes two vegetation types: Narrow-leaved Peppermint-Mountain Gum-Ribbon Gum Grassy Woodland (VMU 1) and Ribbon Gum Woodland (VMU 2). The condition of the vegetation is generally good with the understorey being dominated by native species. Along drainage lines (principally within VMU 2), the vegetation condition is fair, with exotic species having a cover of at least 50% within the understorey. Exotic species along these drainage lines include Blackberry (*Rubus ulmifolius*), Yorkshire Fog (*Holcus lanatus*) and Spear Thistle (*Cirsium vulgare*). Shrub cover is low, and there is some fallen timber to provide cover for ground dwelling fauna.

The proposed offset area to the west of the impact area includes two vegetation types: Narrow-leaved Peppermint-Mountain Gum-Ribbon Gum Grassy Woodland (VMU 1) and Snow Gum-Mountain Gum Grassy Woodland (VMU 3) which have sections with a discontinuous tree canopy. Understorey condition is generally consistent with that of the southern offset area, with a co-dominance of exotic species along the drainage line and dominance of native understorey plants on higher ground. Fauna habitat condition is similar to that for the southern area described above.

The north-eastern offset area extends across two vegetation types; Narrow-leaved Peppermint-Mountain Gum-Ribbon Gum Grassy Woodland (VMU 1) and Snow Gum-Mountain Gum Grassy Woodland (VMU 3). Condition within the Narrow-leaved Peppermint-Mountain Gum-Ribbon Gum Grassy Woodland (VMU 1) is consistent with that in the southern offset area. Condition within the Snow Gum-Mountain Gum Grassy Woodland (VMU 3) is fair, with a higher proportion of exotic species within the understorey. This grassy woodland has been affected by grazing, with exotic pasture species, forbs and legumes forming a significant component of the understorey. These species include Suckling Clover (*Trifolium dubium*), Sweet Vernal Grass (*Anthoxanthum odoratum*), Perennial Ryegrass (*Lolium perenne*), Cocksfoot (*Dactylis glomerata*), Sheep Sorrel (*Acetosella vulgaris*) and Yorkshire Fog (*Holcus lanatus*). Fauna habitat value is low with an open understorey and low level of fallen timber suitable for providing cover.

Of the 7.1ha of woodland vegetation proposed to be removed, approximately 4.9ha is generally in good condition corresponding to the sections of Narrow-leaved Peppermint-Mountain Gum-Ribbon Gum Grassy Woodland (VMU 1) whilst approximately 2.2ha of vegetation is in fair condition corresponding to the sections of Snow Gum-Mountain Gum Grassy Woodland (VMU 3) within the impact area.

Conservation Status of Vegetation Map Units

Information relating to the conservation status of each vegetation map unit is included in Section 4.3 of the Flora Assessment:

"Vegetation Map Units 1 and 2 correspond most closely to the Tablelands Granite Grassy Woodland vegetation map unit described in Tozer et al (2006). This vegetation, in turn, forms part of the Southern Tablelands Grassy Woodlands vegetation class described by Keith (2004). Keith reports that only a small proportion of the original extent of this vegetation class now remains, the majority persisting as small fragments. Remnants are often subject to grazing with a reduced diversity of native ground layer species and a relatively high proportion of exotic grasses and forbs.

Vegetation Map Unit 3 forms part of the Subalpine Woodlands vegetation class described by Keith (2004). These Subalpine Woodlands have been modified due to clearing and grazing (Keith 2004). Extensive areas of subalpine woodland vegetation are protected within the existing reserve system. Locally these woodlands are present within Kanangra Boyd and Blue Mountains National Parks and Winburndale Nature Reserve.

All the vegetation map units present are disturbed remnants of the original vegetation which would have occurred on the site before agricultural use caused modification."

The majority of the proposed offset areas supports Vegetation Map Unit 1, a vegetation type which falls in the Department's category of a type which is over cleared within the Central West catchment, as well as occurring within an over cleared landscape. The southern offset area also includes all but 0.2ha of the total extent of Ribbon Gum Woodland on the Project Site, another vegetation type categorised by the Department of having been over cleared.

Indirect Impacts

Whilst it is true that the issue of indirect impacts have not been specifically addressed in the Flora Assessment, information within the Assessment indicates that indirect effects will not be significant and that the proposed mitigation measures will be effective in avoiding such impacts.

This is due, in part, to the fact that the Project Site already has a significant level of disturbance, partially arising from the existing quarry operations. This impact is concentrated on higher parts of the Project Site, where grazing intensity appears to have been greatest, and along drainage lines including the drainage line downslope from the existing quarry.

The mitigation measures seek to minimise the extent of bare surfaces and soils during operation of the quarry and to rehabilitated bare areas at the earliest opportunity.

Given the effect of past tree removal, grazing, weed invasion and feral animals and the application of mitigation measures no significant indirect impacts are expected to occur.

Size of Offset

The DECCW interim policy on assessing and offsetting biodiversity impacts of Part 3A developments published in November 2010 relies upon application of the Biobanking Assessment Methodology, although it is not a compulsory requirement that that Methodology be applied for Part 3A proposals.

The interim policy indicates that there is a minimum offset to clearing ratio of 2:1, which may applied in relation to developments such as the current proposal.

The proposed offset to clearing ratio in relation to the Project is approximately 2.5:1 (Section 5.3 of Flora Assessment).

Biodiversity Offset Principles

The Biodiversity Offset principles are published on the Office of Environment and Heritage website: <http://www.environment.nsw.gov.au/biocertification/offsets.htm>.

In terms of the offset areas proposed for the Oberon White Granite Quarry Project they adhere to the principles in the following way:

1. Impacts must be avoided first by using prevention and mitigation measures.

Mitigation measures are discussed in Sections 4 and 5 of the *Environmental Assessment*. They include measures designed to reduce indirect impacts on surrounding bushland, in particular:

- water management will be designed to ensure that sediments are contained within disturbed sections of the Project Site,
- active rehabilitation of disturbed surfaces at the earliest opportunity,
- surface flows across rehabilitation areas will be managed to limit erosion,
- construction of sediment retention ponds and sediment control structures,
- control of surface water along the haul road,
- monitoring of water quality and effectiveness of sediment control,
- restricting activities to defined areas to protect retained vegetation,
- control of noxious weeds, including Blackberry, and,
- exclusion of grazing animals.

2. All regulatory requirements must be met.

The identified offset areas are for biodiversity conservation purposes.

3. Offsets must never reward ongoing poor performance.

Disturbance within existing bushland areas at the Project Site is largely due to impacts of agricultural use prior to the establishment of the quarry operation.

4. Offsets will complement other government programs.

Establishment and management of the offset areas will be consistent with the following goals and targets of the draft Central West Catchment Action Plan 2011-2021:

- Catchment goal CGB1. By 2021, enhance habitat requirements to maintain sustainable populations of native flora to good condition and fauna species to stable state,
- Management target B1. By 2021, 8-16% of priority vegetation communities are being actively managed to achieve a good condition stable state, increase net extent and, where possible, increase connectivity, and,
- Management target B2. By 2021, increase the number of management interventions coordinated to improve habitat of native flora and fauna including threatened species to achieve stable state.

5. Offsets must be underpinned by sound ecological principles.

The management of the proposed offset areas will enhance their habitat value through control of invasive exotic plant species and exclusion of grazing animals. The proposed offset areas have a similar disturbance history to the proposed impact areas and accordingly will protect vegetation of identical value.

The proposed offset area includes at least one vegetation type considered by DECCW to be overcleared within the Central West Catchment.

6. Offsets should aim to result in a net improvement in biodiversity over time.

The management of the proposed offset area will involve threat reduction strategies aimed at exotic weeds and reducing grazing pressure.



The compensatory planting areas will reconstruct habitat in a pattern which will enhance the resilience of the entire offset area through re-establishing vegetation upslope. In the medium to long term these compensatory planting areas will increase habitat for fauna species including small woodland birds. They will act as a buffer for the areas which now support native vegetation.

7. Offsets must be enduring - they must offset the impact of the development for the period that the impact occurs.

It is understood that the Proponent would secure the offset areas in accordance with a covenant or similar method.

8. Offsets should be agreed prior to the impact occurring.

The proposed offset area is clearly defined in Figure 2.9 of the *Environmental Assessment*. The proponent has identified a commitment to establish the offset areas in Clauses 6.5 and 6.6 of the Draft Statement of Commitments.

9. Offsets must be quantifiable - the impacts and benefits must be reliably estimated.

The proposed offset area supports the same patterns of vegetation which exist in the impact area, with the same disturbance history as vegetated sections within the impact area. At least one vegetation type, Narrow-leaved Peppermint-Mountain Gum-Ribbon Gum Grassy Woodland, represents a vegetation class which has been extensively cleared.

The offset areas are contiguous with similar vegetation to the west and east, as illustrated in Figure 2 of the Flora Assessment.

Whilst disturbed by grazing, clearing, timber extraction and weed invasion, the proposed offset areas are in the same condition as native vegetation within the impact area.

Proposed management of the offset area will include weed control and exclusion of grazing.

10. Offsets must be targeted.

The proposed offset areas clearly achieve a like for like outcome, supporting the same vegetation types as the impact area, having the same management history, the same current condition and fauna habitat value.

11. Offsets must be located appropriately.

The proposed offset area is adjacent to the area proposed to be affected by development and have the same environmental characteristics and ecological attributes.

12. Offsets must be supplementary.

The offsets have been established solely to meet the biodiversity conservation needs associated with the Project. No existing protection or conservation funding applies to the proposed offset area.

13. Offsets and their actions must be enforceable through development consent conditions, licence conditions, conservation agreements or a contract.

The implementation of the offset could be conditioned through the Project Approval and subsequent biodiversity management plan.

Yours sincerely,

Roger Lembit
Principal Ecologist



Appendix B

Schedule 8B of the *Conveyancing Act 1912*



Conveyancing Act 1919 No 6

Schedule 8B Rights and obligations implied in certain easements

(Section 196L)

1 Definitions

(1) In this Schedule:

apparatus includes plant.

pipes includes cables, tubes, wires and conduits of all kinds.

service has the same meaning as in section 196L.

(2) For the purposes of this Schedule, a reference to a person who is entitled to the benefit of an easement that gives a right of vehicular or personal access or of an easement for a specified service includes a reference to any person authorised by such a person.

2 Right of vehicular access

Each person entitled to the benefit of an easement that gives a right of vehicular access has at all times an unrestricted right:

- (a) to pass and repass, with or without vehicles, machinery, implements and other equipment of every kind, over the roadways, ramps and land over which the right of access is created, and
- (b) to carry out an inspection of those roadways and ramps and that land.

3 Right of personal access

Each person entitled to the benefit of an easement that gives a right of personal access has at all times an unrestricted right:

- (a) to pass and repass, without vehicles but with or without hand tools, hand implements and other equipment capable of being carried by hand, over the stairs, escalators, lifts, passages, corridors, shafts and other areas over which the right of access is created, and
- (b) to carry out an inspection of those stairs, escalators, lifts, passages, corridors, shafts and other areas.

4 Obligations relating to rights of access

- (1) If an easement that gives a right of vehicular or personal access is created over or appurtenant to a stratum lot, the roadways, ramps, land, stairs, escalators, lifts, passages, corridors, shafts and other areas to which the right relates are to be maintained in good order and repaired:
 - (a) by the person or, if more than one, jointly by the persons indicated as having responsibility for those matters in the instrument by which the right is created or in any instrument in an approved form by which the instrument is varied, or
 - (b) if any such instrument does not indicate who is responsible for those matters, by the person or, if more than one, jointly by the persons entitled to an estate or interest in possession in the dominant tenement.



- (2) If a person has failed to carry out a responsibility imposed by subclause (1) on the person and at least 7 days have passed since that failure first arose, any other person entitled to an estate or interest in possession in the dominant or servient tenement may take all lawful steps necessary to ensure that the responsibility is carried out.

5 Easements for services

- (1) Each person entitled to the benefit of an easement for a specified service has at all times an unrestricted right:
- (a) (except when it is necessary to halt the service for any essential maintenance or repairs relating to the service) to the passage of the service, to any extent consistent with the rights of other persons having the same or similar rights, along or through any existing line of pipes or any existing apparatus that is for the time being within the burdened land, and
 - (b) to carry out an inspection of the pipes or apparatus to which the easement relates, and
 - (c) in order to maintain the efficiency of any such pipes or apparatus:
 - (i) to enter the part of the burdened land in respect of which the easement is created by such route as is reasonable in the circumstances, and
 - (ii) to remain there for such reasonable time as may be necessary for the purpose of replacing, inspecting, cleaning, repairing, maintaining or renewing the pipes or apparatus or any part of the pipes or apparatus and of making such excavations as may be reasonably necessary.
- (2) Any action taken under subclause (1) must be taken in a manner that ensures that:
- (a) the burdened land is disturbed as little as possible, and
 - (b) any excavated surface is restored as nearly as possible to its original state, and
 - (c) any other damage attributable to that action is repaired.

6 Obligations relating to an easement for the provision of services

- (1) If an easement for services is created over or appurtenant to a stratum lot, the pipes or apparatus to which the easement relates are to be maintained in good order and repaired:
- (a) by the person or, if more than one, jointly by the persons, indicated as having responsibility for those matters in the instrument by which the easement is created or in any instrument in the approved form by which that easement is varied, or
 - (b) if any such instrument does not indicate who is responsible for those matters, by the person or, if more than one, jointly by the persons entitled to an estate or interest in possession in the dominant tenement.
- (2) If a person has failed to carry out a responsibility imposed by subclause (1) on the person and at least 7 days have passed since that failure first arose, any other person entitled to an estate or interest in possession in the dominant or servient tenement may take all lawful steps necessary to ensure that the responsibility is carried out.



7 Sharing of costs of maintenance and repair

- (1) The costs of maintenance and repair in respect of an easement that gives a right of vehicular or personal access or an easement for services to which this Schedule applies are to be borne by the persons concerned:
 - (a) in the proportions specified in the instrument by which the right or easement was created or, if the proportions so specified have been varied, those proportions as varied, or
 - (b) where no such proportions are so specified in equal proportions.
- (2) If a person incurs costs referred to in subclause (1), the person may demand in writing from another person the amount that the other person is liable to contribute under that subclause to those costs.
- (3) A demand made under subclause (2) must be accompanied by receipts or invoices or copies of receipts or invoices that evidence the expenditure to which the demand relates.
- (4) If a person fails to comply with any such demand within 7 days after it has been made, the amount demanded may be recovered in a court of competent jurisdiction as a debt due to the person making the demand.

8 Ancillary rights and powers

All easements to which this Schedule applies carry with them such ancillary rights and powers as may be necessary to render them effective.

