

Peppertree Quarry Modification 4

RESPONSE TO SUBMISSIONS

Prepared for Boral Quarries – | June 2016



PEPPERTREE QUARRY MODIFICATION 4

RESPONSE TO SUBMISSIONS REPORT

Prepared for Boral Resources (NSW) Pty Ltd
July 2016

REPORT STATUS - FINAL

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1 INTRODUCTION

1.1 Overview

Boral Resources (NSW) Pty Ltd (Boral) owns and operates the Peppertree Quarry (the Quarry), a hard rock quarry located in Marulan South, New South Wales.

Boral is seeking to modify the current Project Approval (PA 06_0074) under Section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act), to provide for the following (hereafter referred to as the Project):

- Extend daily in-pit operating hours at the Quarry by 6 hours; and
- Develop a new overburden emplacement area.

The modifications proposed above will constitute Modification 4 to the current Project Approval. The Minister for Planning is the consent authority for the Project.

PACT prepared an Environmental Assessment (EA) on behalf of Boral to assess the potential environmental and community impacts associated with the proposed modifications to the current Project Approval.

The Department of Planning and Environment (DPE) placed the EA on public exhibition, which ended on 6 May 2016. In a letter dated 11 May 2016, the DPE requested a response to the issues raised in submissions received from various government agencies and the community.

This report has been prepared in response to these submissions.

1.2 Response to Submissions

At the close of public exhibition of the EA, six submissions had been received from government agencies, while five submissions had been received from members of the public (refer to **Appendix A** for copies of all submissions).

The points raised in each submission are summarised in **Section 2**, followed by Boral's response (in **bold**).

2 RESPONSE TO SUBMISSIONS

2.1 NSW Environment Protection Authority (EPA)

Letter dated 6 May 2016 from Julian Thomson, Unit Head - South East Region, NSW Environment Protection Authority.

The EPA has identified a number of issues in relation to the modification proposal for the Department of Planning and Environment's consideration in its decision whether not to approve the modification

Noise

The EPA has reviewed the noise impact assessment contained within the EA, titled '*Noise Impact Assessment - Peppertree Quarry Mod 4*' (NIA), prepared by Wilkinson Murray and dated February 2016.

The EPA supports the NIA's conclusion that additional noise monitoring stations should be set up at R4 and R17. These additional monitoring stations would provide the proponent with more comprehensive data for the noise emitted by the Quarry.

In addition, low frequency noise was identified in the NIA as a potential impact for the nearest sensitive receivers due to the predicted levels being close to the applicable criterion. Therefore, the EPA suggests that in addition to the current noise parameters monitored at each location, measurement of dB(C) and the frequency characteristics also be included in the noise monitoring 'suite' in order to monitor low frequency noise levels and guard against any impacts to the surrounding community.

Response:

As outlined in the EA, Boral commits to including receivers R4 and R17 (identified in Table 1 and Figure 2 of the EA) in the existing Peppertree Quarry noise compliance monitoring program.

Boral also commits to the measurement of dB(C) (low frequency noise) at all noise compliance monitoring locations.

Surface Water Management

The EPA has also reviewed the surface water impact assessment, titled '*Peppertree Quarry Modification 4 – Surface Water Assessment*' (SWA), prepared by Advisian and dated February 2016.

Given the layout and topography of the area, the EPA is concerned that runoff from the south end of proposed new southern overburden emplacement area (Catchment D) may not flow into the North Pit of the Limestone Mine as stated in the SWA. Drainage plans for the proposed southern overburden emplacement are provided in Figure 4.1 of the SWA and it is noted that a drainage line runs along the south east of the proposed emplacement, but does not continue further along the far southern end of the emplacement area (Catchment D).

Given the sensitivity of the environment to the south of the proposed modification, including Morton National Park, the Shoalhaven River and the Bungonia Gorge, the EPA is concerned that sediment fencing alone may not be adequate to protect the environment from the sediment runoff in the event of a significant rainfall event.

The EPA suggests that instead of (or in addition to) the proposed sediment fences along the southern end of the proposed emplacement area, the proposed catch drain along the south-east of the stockpile should be extended along the southern tip of Catchment D. This proposed catch drain could either flow to the west to enter the drainage line which flows into the North Pit of the Limestone Mine, or north-east and north to the proposed sediment basin on the eastern edge of

Catchment C. This should guard against sediment washing into the neighbouring sensitive environment.

Response:

Boral have considered the EPA's suggestions on the management of sediment and stormwater runoff from the proposed Southern Overburden Emplacement and have amended the proposed surface water management concept as follows:

- The diversion drain for Catchment C has been extended further south-west so that it ends at the catchment divide (with Catchment D);
- The proposed sediment fence along the southern boundary of Catchment D has been replaced with a diversion drain;
- A 'level spreader' has been included at the south-western corner of Catchment D at the diversion drain discharge point. The level spreader will act as an energy dissipater and scour protector, dispersing storm water flows from the diversion drain down the slope to the drainage line that discharges into the north pit of the Marulan South Limestone Mine.

These amendments have been captured in a revised surface water management concept plan, included as Appendix B.

2.2 NSW Office of Environment & Heritage (OEH)

Letter dated 9 May 2016 from Allison Treweek, Senior Team Leader Planning - South East, Regional Operations Group - South, Office of Environment and Heritage, NSW.

OEH comments relate to the new overburden emplacement are of the project.

OEH has reviewed the Biodiversity Assessment Report (BAR) and the Aboriginal Cultural Heritage and Archaeological Assessment (ACHAR) submitted as part of the application to modify the development of Peppertree Quarry.

Our view, is that there is sufficient information to allow the Department of Planning and Environment (DPE) to determine this project. OEH has no objection to the proposed modification works subject to the implementation of the proposed Boral Peppertree Environmental Assessment Report, April 2016 recommendations. Some additions and clarifications have been raised for Aboriginal cultural heritage matters.

Biodiversity

A Biodiversity Offset Strategy has been presented with the BAR in order to offset unavoidable impacts to the White Box Yellow Box Blakely's Red Gum Grassy Woodland and habitat of threatened species. The proposed offset package is considered adequate.

It is recommended that the instrument of determination included reference to the Biodiversity Offset Strategy to formalise the document. The biobanking agreement on the offset site should be registered within 12 months of the works associated with the modification commencing onsite.

It is noted that an offset strategy already exists for the Stage 1 approval for the project. Appendix 3 to conditions at that time identifies an area of 12 hectare's Habitat Management Area to be retained and revegetated. Given area adjoins the currently proposed offset area along the creek line ways that management of lands could be integrated should be explored.

Comments regarding the application of the Framework for Biodiversity Assessment (FBA)/Offset Strategy are summarised below:

The Biodiversity Assessment Report (BAR) review was undertaken using the RBA as a checklist for ensuring that it has been followed correctly.

It appears the data has been entered correctly and the credits that have been generated are

correct. The credit calculations in the online tool have been submitted as part of the application.

One Threatened Ecological Community would be impacted by the modification - White Box Yellow Box Blakely's Red Gum Grassy woodland which 8.1 hectares of the community would be cleared requiring 225 ecosystem credits be generated.

No species credits are required.

The report details that Boral proposes an offset area on the company's land 1.4km to the north which contains 38.22ha of Blakely's Red Gum - Yellow Box woodland (SR670). This has been verified by Niche plot data as meeting the Plant Community Type (PCT) description of White Box Yellow Box Blakely's Red Gum Grassy Woodland.

Page 87 of the report documents that for the credit calculations undertaken that proposed offset area meets 129% of the offset liability of the project with a surplus of 66 credits. While there is a commitment to meet 100% of the credits required for this project it is noted that the final layout of the offset area may use the excess credits on other projects. The exact numbers and areas allocated to meet the offset liability of the project need to be documented in the final adopted Biodiversity Offset Strategy for the modification.

On the rehabilitation of the overburden emplacement, the report documents that there will be progressive and final revegetation to create a stable landform that does not result in the sediment laden runoff, future dust emissions, blends in well with the adjacent natural landscapes of the Morton National park and re-establishes a native bushland dominated by White Box Yellow Box Blakely's Red Gum Grassy Woodland species.

The existing Landscape and Rehabilitation Plan for the existing overburden areas needs to be amended to include the extended area.

Response:

Boral has committed to establishing a Biodiversity Offset Site on their property. Boral is in the process of formally registering the Biodiversity Offset Site with OEH, which also involves the preparation of a Biodiversity Management Plan for the ongoing management of the offset site.

Heritage

In relation to Aboriginal cultural heritage matters; OEH notes that two Aboriginal sites are recorded within the impact area. One of these sites, MQ25, has already been collected during previous works and a new site, MQ120, will be avoided. We support the proposed management recommendations with a number of additions and clarifications. These are outlined below:

OEH has reviewed the Aboriginal and historic heritage impact assessment report for the Peppertree Quarry Modification 4 (dated 31 March 2016), prepared by EMM on behalf of Boral Resources, and provides the following comments.

Aboriginal heritage impact assessment

On the basis of the assessment undertaken to date, OEH is satisfied that the Aboriginal consultation and survey methodology undertaken for the modification area has been consistent with the methodologies already approved under the existing Aboriginal Heritage Management Plan (AHMP). We agree the management recommendations need to be consistent with the approved AHMP unless significant information comes to light that would require a re-assessment of the AHMP.

Additions required to the proposed management recommendations

We support the proposed management recommendations with a number of additions. These are:

Recommendation 1 - The location of the site MQ120 must also be identified in all operational maps relating to the Project, including the AHMP, to ensure it is not inadvertently impacted.

Recommendation 2 - Updating of the AHMP must be undertaken in consultation with OEH.

Clarification regarding the area of archaeological moderate sensitivity

We note that only a portion of the area of archaeological moderate sensitivity (identified on Figure 6.2, page 33) will be subject to impact. While the area was also assessed as not requiring further investigation, due to comparability with other excavations in the area, we require clarification as to how the remaining area of moderate sensitivity be managed? If this area has potential for subsurface Aboriginal objects then we recommend that An Aboriginal Site Recording Form is also submitted to the Aboriginal Heritage Information management System (AHIMS) identifying the area as potential archaeological deposit (PAD) to ensure the archaeological resource of the Project area is adequately recorded.

Draft report by ERM, dated 2012

OEH note that the reference on page 17 is a draft report. Given the length of time since 2012, OEH require clarification from the proponent as to whether a final report is available? If so, this final report must be submitted to OEH for input into AHIMS.

Response:

Additions required to the proposed management recommendations

Boral accepts both the recommendations made by OEH and will include site MQ120 on any sensitive area maps for the Project and in the AHMP.

Clarification regarding the area of archaeological moderate sensitivity

The area mapped as moderate archaeological sensitivity in Figure 6.2 of the Aboriginal cultural and historic heritage assessment and in Figure 13 of the EA is located entirely within the disturbance footprint of the proposed Southern Overburden Emplacement. Areas of moderate archaeological sensitivity are likely to occur outside of this disturbance footprint. However the following management measures have been recommended in the EA to minimise the potential for ground disturbance outside the proposed Southern Overburden Emplacement, thereby avoiding disturbance and associated impacts on areas of potentially moderate archaeological sensitivity:

- Fencing and/or the use of highly visible rope or tape boundaries will be used to delineate the boundary of vegetation clearing/ground disturbance at the edge of the Southern Overburden Emplacement; and**
- Signposting will be used to inform Quarry personnel and site visitors of areas of conservation value, to restrict entry.**

Draft report by ERM, dated 2012

Boral has provided OEH with a copy of the draft report and sought advice on how to finalise the report for OEH's purposes in light of contractual constraints. Accordingly, Boral will finalise the report for submission to OEH for input into AHIMS.

2.3 Water NSW

Letter dated 6 May 2016 from Malcolm Hughes, Manager Environment and Planning, Water NSW.

Water

Water NSW notes the recent audit at the existing quarry site and the findings that there were a number of non-compliances. Water NSW is therefore concerned that the proposed Southern Overburden Emplacement area and associated water management measures may not be managed in accordance with the requirements. Water NSW suggests that additional independent audits should be required to ensure water management measures are properly constructed, maintained

and managed.

Water NSW requests the following existing conditions shall be amended in the consent.

- Condition 26 of Schedule 3 - Replace “Sydney Catchment Authority” with “Water NSW”.
- Amend Condition 26 of Schedule 3 to require the Water Management Plan (including the subplans - Site Water Balance, Erosion and Sediment Control Plan, Surface Water Monitoring Program, and Groundwater Monitoring Program) to be updated to address the construction and operation of the Southern Overburden Emplacement area and haul road. Water NSW would expect to be consulted during the preparation of these updates.

It is requested that Water NSW be included as a stakeholder for the proposal. Further, Water NSW would appreciate being notified when the application has been determined.

Response:

Boral agree to Water NSW’s proposed amendments to Condition 26 of Schedule 3 of the Project Approval.

Water NSW has suggested that additional independent audits should be undertaken to ensure water management measures are properly constructed, maintained and managed. To address Water NSW’s suggestion, Boral propose the following conditions:

- **On completion of construction of the surface water management measures associated with the Southern Overburden Emplacement, the Proponent shall commission an independent audit by a suitably qualified, experienced and independent person, to determine whether the surface water management measures have been properly constructed;**
- **On completion of the independent audit, the Proponent shall submit a copy of the audit report to the Secretary and relevant agencies, with a response to any of the recommendations in the audit report.**

Boral propose that future audits of the maintenance and management of the surface water management structures associated with the Southern Overburden Emplacement, are undertaken as part of the independent environmental audits required under Condition 5 of Schedule 5 of the Project Approval.

2.4 NSW Department of Primary Industries (DPI)

Letter dated 10 May 2016 from Mitchell Isaacs, Director, Planning Policy and Assessment Advice.

Water

DPI has reviewed the planning proposal and provides the following recommendations:

The Environment Assessment should correctly outline that no approvals are required under the Water Management Act 2000 for the modification proposed, provided;

- The proponent ensures the proposed Southern Overburden emplacement area will not substantially alter surface drainage patterns,
- The proponent ensures that the proposed modifications will not impact on groundwater and/or other water users.

The proponent should ensure surface water quality continues to be appropriately managed in accordance with the Peppertree Quarry Water Management Plan. This plan should be amended, where appropriate, to accommodate the expansion proposal and to focus on the highest risk parameter (sediment). This plan and associated water quality testing regime should be designed to achieve and demonstrate no net impacts on receiving waters and should include sampling of water quality during discharge events.

Response:

As presented in the revised surface water management concept (Appendix B) and Section 6.6 of the EA, the Southern Overburden Emplacement has been designed to mimic as closely as possible, pre-development surface drainage patterns. This has been achieved by creating six defined catchment areas over the extent of the emplacement. Surface water runoff from the emplacement area will continue to discharge into the drainage systems that the area currently drains to (i.e. pre-development). Surface water runoff from the emplacement will pass through a combination of diversion drains, sediment basins, sediment fences and level spreaders before discharging into surrounding drainage systems, thereby preventing erosion and sedimentation and maintaining appropriate water quality in receiving waters. Therefore the proposed Southern Overburden Emplacement will not impact on surface water users.

As outlined in Section 6.1.2 of the EA, “The establishment of the new Southern Overburden Emplacement does not require excavations and therefore groundwater and groundwater users will not be impacted”.

The Peppertree Quarry Water Management Plan will be amended to include a water quality testing regime designed to achieve and demonstrate no net impacts on receiving waters. Water quality monitoring will continue to be undertaken in accordance with the Peppertree Quarry Water Management Plan. However as outlined in Section 6.6.2 of the EA, the sediment basins have been designed to capture runoff from the 95th percentile 5 day rainfall and can therefore be expected to overflow 2 to 3 times per year. Undertaking water quality monitoring of the Southern Overburden Emplacement’s sediment basins or associated receiving waters, when they have exceeded their designed capacity i.e. during a 95th percentile 5 day rainfall should not be required.

2.5 NSW Department of Industry - Resources & Energy

Email dated 21 April 2016 from Malcolm Drummond, Senior Geoscientist - Land Use Assessment.

Geotechnical

NSW Department of Industry – Division of Resources & Energy, Geological Survey of NSW has reviewed the EA and has no issues raise in relation to resources or resource sterilisation. The EA document has adequately dealt with the issue of potential resource sterilisation (resulting from the new overburden emplacement).

2.6 Goulburn Mulwaree Council

Letter dated 6 May 2016 from Louise Wakefield, Director Planning and Environment

General

Goulburn Mulwaree Council does not object to the proposed modification however provides the following comments for the Department’s consideration in the assessment of the proposal:

1. Existing noise generation and potential additional impacts has been considered by the applicant and reviewed by Council and Council supports the proposal for ongoing quarterly compliance noise monitoring and potential any potential restrictions to in-pit activities to achieve compliance in relation to noise.
2. Council supports the ongoing implementation of the Peppertree Quarry Air Quality Management Plan and the implementation of a procedure to address measured air quality exceedances and make recommendations to minimise reoccurrences.

3. Council has been in discussion with Boral for some time in relation to cost sharing for the upgrade and continued maintenance of Marulan South Road. Based on anecdotal information and Council's traffic surveys a considerable volume of traffic is attributable to Boral's activities in this area.

4. Council notes in the Environmental Assessment the applicant maintains 'product from the Quarry is transported entirely by rail except in an emergency where it would be transported by road with the written approval of the Secretary of the NSW Dept. of Planning & Environment'.

It is unclear to Council what current traffic movements are attributable to Peppertree Quarry and what impact this proposal will have on the current road network. For example, the Environmental Assessment has not addressed traffic movements to and from the site in relation to ancillary activities and ongoing support of the operations, such as delivery of consumables, maintenance vehicles and staff movements.

Council's concern is the cumulative impact on the road network cannot be assessed.

5. The Environmental Assessment has not provided sufficient detail for Council to understand and assess the local economic benefit of the proposal such as further job creation and effect on the local economy.

6. It is unfortunate to note the proposal involves the removal of 8.1 hectares of native vegetation within the site for southern overburden emplacement. Council would however support the Department's imposition of conditions of consent ensuring the rehabilitation and re-establishment of pre-existing vegetation communities and fauna habitats within the overburden area is undertaken in a timely manner.

7. Council intends to finalise negotiations with Boral in relation to capital and maintenance contributions to Marulan South Road in the near future and acknowledges the appropriate mechanism for such contributions is via a voluntary planning agreement.

Response:

Boral provides the following responses to those comments made by Council that require further discussion:

3, 4 and 7: Quarry products are not transported from Peppertree Quarry by road. The only road traffic movements attributable to Peppertree Quarry are those associated with employee, maintenance and delivery vehicles, or in an emergency if approved in writing by the Director-General in accordance with Schedule 2, Condition 7 of the Project Approval. Traffic movements associated with these operational support vehicles were assessed in the original EA (ERM, 2006). As outlined in Section 6.11 of the EA, all heavy vehicle movements associated with the proposed modifications, will be confined to internal haul roads and will not result in any heavy vehicle movements on the local public road network.

All heavy vehicles movements transporting finished products along Marulan South Road are from the Marulan South Limestone Mine. Traffic impacts associated with the existing and continued operation of the Marulan South Limestone Mine, are currently being assessed under a State Significant Development Application (SSD-7009). Boral have already, and will continue to undertake thorough consultation with Council as part of SSD-7009, until an agreement is reached around proposed upgrades to Marulan South Road and ongoing road maintenance contributions.

5: Further planning and assessment of the proposed extension to in-pit operating hours has revealed the need for four (4) new permanent pit operator positions.

2.7 Local Community

Written comments received from the local community include:

- Penny Cooper - Email dated 6 May 2016;
- John Lepre - Email dated 2 May 2016;
- P and B Mulligan - Letter dated 4 May 2016;
- Hilary Myers - Email dated 4 May 2016;
- Hilary Myers - Email dated 27 August 2015; and
- Roger Myers - Email dated 6 May 2016.

The key matter raised by the local community is the potential noise impacts associated with the proposed modifications, particularly the extension of in-pit operating hours.

Members of the community have also raised concern over potential additional dust and lighting impacts.

One of the community members also raised concern over the additional vehicle movements proposed along Marulan South Road. As discussed in detail in Section 2.7 in response to Council's comments, the proposed modifications will not generate any additional vehicle movements on the local road network.

Response:

General:

As outlined in Section 6.14 of the EA the potential social impacts of the proposed modification relate largely to impacts on general amenity such as noise, air quality (dust), surface water runoff and visual exposure. These potential social impacts have been thoroughly assessed in the EA and a range of mitigation measures (in addition to those presented in the *Marulan South Quarry Environmental Assessment Report* (ERM, 2006), subsequent modifications, Project Approval conditions, the Environmental Protection Licence and approved Environmental Management Strategy and Plans) are recommended to minimise potential noise, air quality, surface water and visual impacts so they are not perceived as a nuisance to neighbouring residents and other sensitive receivers.

Noise:

As the key matter raised by the local community is the noise emissions associated with the existing operations and proposed modifications, particularly the extension of in-pit operating hours, Boral has provided a detailed response to this issue in the following sections.

Introduction

Two residents (Roger and Hillary Myers - 471 Long Point Road and John Lepre - 97 Long Point Road, Tallong) who submitted written comments primarily around noise impacts associated with the extension of in-pit operating hours, have raised concerns with Boral in the past about the noise levels being experienced at their residences from the existing Quarry operations. It is understood that their concerns are that if they perceive the existing operations to generate elevated noise levels, then the proposed modifications have the potential to be more of a nuisance to them than existing operations, as they will result in an extension in night time in-pit activities.

Noise assessment specialists, Wilkinson Murray Pty Ltd were therefore appointed by Boral in the latter half of 2015 to conduct noise monitoring at both the Meyers' and Lepre's residences in order to ascertain the source and level of the noise(s) that were identified as a nuisance by these two residents. By monitoring the noise experienced at these residences,

Boral wished to ascertain:

- Whether noise emissions from the Peppertree Quarry were complying with the operational noise impact assessment criteria; and
- The source of any elevated noise and/or audible low frequency noise, in order to determine whether additional noise mitigation is required to reduce the noise levels from these sources.

Noise Monitoring Methodology

A BarnOwl real time directional unattended noise monitor was installed at 471 Long Point Road for approximately two weeks between 7 August and 21 August 2015 and at 97 Long Point Road for approximately one week between 27 July and 3 August 2015.

The BarnOwl is capable of determining the noise emanating from specified directions. This feature means it is possible to isolate a noise source; in this case, the monitor was set to listen in the direction of the Limestone Mine and the Peppertree Quarry from the residences to determine noise from the Limestone Mine and Peppertree Quarry. It should be noted that other noises which occur in the direction of Boral's operations would be picked up by the monitor. Third octave levels were also recorded to assist in determining the nature of the noise received at each measurement location.

The BarnOwl measured the total A-weighted and C-weighted noise levels for each 15-minute monitoring period (referred to as "All Noise" L_{Aeq} and L_{Ceq}). Additionally a low pass filter (LPF) was activated on the BarnOwl to eliminate higher frequency noise such as insect noise. Studies have indicated that mine noise at distances greater than approximately 1000 metres is dominated by lower frequency noise typically below 1000Hz.

Meteorological data, in particular the wind speed and rain, was obtained from the weather station on Peppertree Quarry. Noise data was excluded when winds at the microphone were estimated to be above 5m/s and/or if it had rained during the 15 minute measurement period.

During BarnOwl noise monitoring, the Meyers' and John Lepre were asked to send a text message to Boral each time they heard a noise that they felt was unusually loud or woke them up.

Data was provided by Boral on when certain operations (train loading, primary belt and STQ belt) were taking place. The lime kiln at the Limestone Mine was operating for the entire time of monitoring at 471 Long Point Road and for the first five days of monitoring at 97 Long Point Road.

Noise Assessment Methodology

The assessment methodology used to review the noise data from the BarnOwl is the 10th percentile exceedance noise level approach. This approach considers that noise levels experienced by a receiver at relatively large distances (at least several hundred metres) from a source can vary considerably under different meteorological conditions, particularly in the evening and at night. Prevailing wind and air temperature gradients will change over the course of the night time period and hence noise levels at receivers will change, even when the noise source level is constant.

Therefore a statistical approach is adopted and a 10th percentile exceedance noise level is calculated from all the measured $L_{Aeq, 15\text{minute}}$, Selected Sources levels.

Noise Monitoring Results - 471 Long Point Road

471 Long Point Road is approximately 1.9 km to the northeast of Peppertree Quarry and 2.6 km from the Limestone Mine. The Myers residence at 471 Long Point Road is identified as Receiver R17 in the Noise Impact Assessment and EA prepared for the proposed modifications.

During the daytime periods, the 10th percentile exceedance noise levels from the Limestone

Mine ranged between 26 and 38 dBA and 21 to 31 dBA from Peppertree Quarry. In the evening periods, a range of 21 to 36 dBA was measured from the Limestone Mine and 14 to 28 dBA from Peppertree Quarry. From the night periods, a range of 15 to 35 dBA was observed from the Limestone Mine and Peppertree quarry showed levels of 18 to 25 dBA.

No complaints were received during the monitoring period.

Low Frequency Noise - 471 Long Point Road

Concern has been raised regarding low frequency by the residents at 471 Long Point Road.

Currently the NSW EPA suggest that the potential for low frequency noise impact can be screened by comparing the L_{Ceq} and L_{Aeq} noise levels. A difference greater than 15 dB could show the potential for low frequency noise. Analysis of the data from the BarnOwl noise monitor identified a number of periods where the C and A-weighted noise level difference was greater than 15 dB. For this location, the C and A-weighted noise level difference being greater than 15 dB does not seem to be attributable to Peppertree Quarry or the Limestone Mine, but rather to natural environmental noise sources e.g. wind.

The highest noise level measured from the direction of the Limestone Mine was 37 dBA at 6am on 12 August 2015 where the event was not excluded on meteorological grounds and which satisfied the 'dBC minus dBA' screening test.

The highest measured contribution of low frequency noise from the Limestone Mine or the Peppertree Quarry measured at 471 Long Point Road can be compared with the human hearing threshold noise curves presented in ISO226 "Normal equal-loudness-level contours" to provide a gauge of low frequency noise contribution measured from the Limestone Mine or the Peppertree Quarry.

Two events which recorded the highest $L_{Ceq, 15min}$, 55 dBC level, and therefore the highest low frequency noise content, occurred at 6:00am on Tuesday 12 August 2015, and 12:30pm on Wednesday 20 August 2015 from the direction of the Limestone Mine. During the event on 12 August, the ISO226 hearing threshold was exceeded in the third octave bands between 50Hz and 125 Hz, suggesting that low frequency noise could be heard at the residence at this time. The measured levels during the event on 20 August were below the ISO226 hearing threshold.

Noise Monitoring Results - 97 Long Point Road

97 Long Point Road is approximately 3.6 km to the northeast of Peppertree Quarry and 5 km from the Marulan South Limestone Mine.

During the monitoring period, noise sources were occasionally identified by the BarnOwl in the specified directions. Levels were less than 30 dBA except for approximately 2 instances, where levels of approximately 32 to 35 dBA were recorded. However, it should be noted that those events occurred when the average wind speed was greater than 5 m/s and were therefore wind affected.

No complaints were received during the monitoring period.

Low Frequency Noise - 97 Long Point Road

Concern has been raised regarding low frequency by the resident of 97 Long Point Road.

Analysis of the data from the BarnOwl noise monitor identified a number of periods where the C and A-weighted noise level difference was greater than 15 dB. For this location the C and A-weighted noise level difference being greater than 15 dB does not seem to be attributable to Peppertree Quarry or the Limestone Mine, but rather to natural environmental noise sources e.g. wind.

Of the events identified and not excluded on meteorological grounds, none of the source levels from the Peppertree Quarry or Limestone Mine were above 25 dBA. Furthermore, no

events from the direction of either the Peppertree Quarry or Limestone Mine exceeded 41 dBC.

The highest measured contribution of low frequency noise from the Peppertree Quarry or Limestone Mine measured at 97 Long Point Road can be compared with the human hearing threshold noise curves presented in ISO226 “Normal equal-loudness-level contours” to provide a gauge of low frequency noise contribution measured from the Peppertree Quarry or Limestone Mine.

The event which recorded the highest $L_{Ceq, 15min}$, 41 dBC level, and therefore the highest low frequency noise content, occurred at 12.30pm on Wednesday 29 July 2015 from the direction of the Peppertree Quarry. A comparison of the measured unweighted third octave bands with the ISO226 human hearing threshold confirms that the maximum low frequency level measured from the Peppertree Quarry or Limestone Mine is well below the threshold of hearing for a normal person.

Conclusion

The Peppertree Quarry operational noise impact assessment criteria for Receiver R17 (as outlined in Section 6.2.1 of the EA) is 35 dBA for the Day Shift (daytime period) and Night Shift (evening and night periods).

Quarterly monitoring of the operational noise levels from the Peppertree Quarry, undertaken in accordance with the Project Approval and the Peppertree Quarry Noise and Blast Management Plan, have demonstrated compliance with operational noise impact assessment criteria.

The 10th percentile exceedance noise levels from the Peppertree Quarry, measured by the BarnOwl real time directional unattended noise monitor at 471 and 97 Long Point Road, were below the Operational Noise Impact Assessment Criteria for the day, evening and night periods.

The low frequency noise measurements and assessment undertaken at both 471 and 97 Long Point Road confirmed that low frequency noise is not currently emanating from the Peppertree Quarry.

The Noise Impact Assessment included in the EA, predicted that the proposed modifications would not result in exceedances of the operational noise impact assessment criteria at any sensitive receiver.

It can therefore be concluded that:

- Peppertree Quarry’s existing operations are compliant with the operational noise impact assessment criteria;
- Peppertree Quarry is predicted to comply with the operational noise impact assessment criteria, when undertaking in-pit operations during extended operating hours.

In addition to the noise mitigation and monitoring measures committed to in Section 6.2.3 of the EA, Boral will continue to engage regularly with the residents of 471 and 97 Long Point Road, as well as any other residences that raise concern over noise emissions, in order to identify noise sources emanating from Peppertree Quarry and to investigate and implement additional reasonable and feasible noise reduction initiatives.

Note: Low frequency noise that was identified by the BarnOwl directional noise monitor as emanating from the Limestone Mine, will be considered further in the Noise Impact Assessment currently being undertaken for the Marulan South Limestone Mine Continued Operations State Significant Development Application.

Cooper submission:

The Cooper’s raised concern over both light and noise emissions from the existing Quarry operations. Boral have recently consulted with the Cooper’s about these two matters and

have agreed to the following:

- To undertake a lighting audit from the Cooper's residence to identify key disturbing light sources. This will assist Boral in revising the existing night light emission reduction strategy; and
- Undertake BarnOwl real time directional unattended noise monitoring at the Cooper's residence during the winter months of 2016 in order to identify the key audible noise sources and enable Boral to implement all reasonable and feasible noise reduction initiatives.

APPENDIX A

GOVERNMENT AGENCY AND
PUBLIC SUBMISSIONS



APPENDIX A



Resource Assessments

Contact: Margaret Kirton

Phone: 9228 6289

Email: Margaret.Kirton@planning.nsw.gov.au

Mr Rod Wallace
Planning & Development Manager (NSW/ACT)
Boral Property Group
Greystanes House, Level 4 South
Lot 107, Clunies Ross Street
Prospect NSW 2148


Dear Mr Wallace

**Peppertree Quarry Modification Application (06_0074 Mod 4)
Request for Response to Submissions**

The exhibition of the modification application for Peppertree Quarry ended on Friday, 6 May 2016.

Please find attached to this letter all submissions received by the Department during the exhibition period. Four submissions were received from members of the community and five submissions were received from government agencies. These submissions are also available on the Department's website at www.majorprojects.planning.nsw.gov.au

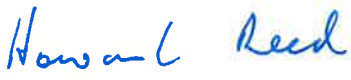
The Secretary now requests that Boral prepare and submit a Response to Submissions (RTS) report, detailing the company's response to each issue raised in these submissions, at its earliest convenience.

The Department has reviewed the submissions and notes that the principal concern of the community is the potential impact of noise from the proposed early morning and late evening in-pit operations. In its RTS report, Boral should therefore focus on the need for the extended hours, and also demonstrate that all reasonable and feasible noise mitigation measures have been incorporated into the project.

Please note that, under clause 113(7) of the *Environmental Planning and Assessment Regulation 2000*, the days occurring between the date of this letter and the date on which your RTS report is received by the Secretary are not included in the deemed refusal period.

If you have any questions about this letter, please contact Margaret Kirton on 9228-6289.

Yours sincerely


Howard Reed
Director
Resource Assessments

11.5.16



Your reference: MP06_0074 Mod 4
Our reference: EF13/3918, DOC16/168766
Contact: Amanda Fletcher (02) 6229 7002

Ms Margaret Kirton
Senior Planner - Resource Assessments
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

6 May 2016

Dear Ms Kirton

Re: Project Approval 06_0074 Modification Request No. 4 – Boral Peppertree Quarry - Marulan

I refer to your email on the 5 April 2016 in which you requested the NSW Environment Protection Authority's (EPA) comments and suggested approval conditions on Boral Resources (NSW) Pty Ltd's Peppertree Quarry at Marulan (Project Approval 06_0074).

The EPA has reviewed the Environmental Assessment (EA) titled '*Peppertree Quarry Modification 4 – Environmental Assessment*', prepared by Element Environment, dated April 2016. The EPA has identified a number of issues in relation to the modification proposal for the Department of Planning and Environment's consideration in its decision whether not to approve the modification.

Noise

The EPA has reviewed the noise impact assessment contained within the EA, titled '*Noise Impact Assessment – Peppertree Quarry Mod 4*' (NIA), prepared by Wilkinson Murray and dated February 2016.

The EPA supports the NIA's conclusion that additional noise monitoring stations should be set up at R4 and R17. These additional monitoring stations would provide the proponent with more comprehensive data for the noise emitted by the Quarry.

In addition, low frequency noise was identified in the NIA as a potential impact for the nearest sensitive receivers due to the predicted levels being close to the applicable criterion. Therefore, the EPA suggests that in addition to the current noise parameters monitored at each location, measurement of dB(C) and the frequency characteristics also be included in the noise monitoring 'suite' in order to monitor low frequency noise levels and guard against any impacts to the surrounding community.

Surface Water Management

The EPA has also reviewed the surface water impact assessment, titled '*Peppertree Quarry Modification 4 – Surface Water Assessment*' (SWA), prepared by Advisian and dated February 2016.

Given the layout and topography of the area, the EPA is concerned that runoff from the south end of proposed new southern overburden emplacement area (Catchment D) may not flow into the North Pit of the Limestone Mine as stated in the SWA. Drainage plans for the proposed southern overburden emplacement are provided in Figure 4.1 of the SWA and it is noted that a drainage line runs along the south east of the proposed

emplacement, but does not continue further along the far southern end of the emplacement area (Catchment D).

Given the sensitivity of the environment to the south of the proposed modification, including Morton National Park, the Shoalhaven River and the Bungonia Gorge, the EPA is concerned that sediment fencing alone may not be adequate to protect the environment from the sediment runoff in the event of a significant rainfall event.

The EPA suggests that instead of (or in addition to) the proposed sediment fences along the southern end of the proposed emplacement area, the proposed catch drain along the south-east of the stockpile should be extended along the southern tip of Catchment D. This proposed catch drain could either flow to the west to enter the drainage line which flows into the North Pit of the Limestone Mine, or north-east and north to the proposed sediment basin on the eastern edge of Catchment C. This should guard against sediment washing into the neighbouring sensitive environment.

I trust these comments are helpful. If you have any queries on this matter please contact me or Michael Heinze at the EPA's South East Regional office in Queanbeyan on (02) 6229 7002.

Yours sincerely



JULIAN THOMPSON
Unit Head – South East Region
NSW Environment Protection Authority



Office of
Environment
& Heritage

DOC16/183323

Ms Margaret Kirton
Senior Planner – Resource Assessments
Department of Planning and Environment
via email: Margaret.Kirton@planning.nsw.gov.au

Dear Ms Kirton

RE: Peppertree Quarry Modification Request (06_0074 Mod 4)

Thank you for referral to Office of Environment and Heritage (OEH) of the Boral Resources (NSW) Pty Ltd application to modify the approval for its operations at Peppertree Quarry at Marulan. The modification proposes the:

- Extension of the in-pit operating hours by 6 hours; and
- Construction of a new overburden emplacement area.

OEH comments relate new overburden emplacement area part of the project.

OEH has reviewed the Biodiversity Assessment Report (BAR) and the Aboriginal Cultural Heritage and Archaeological Assessment (ACHA) submitted as part of the application to modify the development of Peppertree Quarry. Our view, is that there is sufficient information to allow the Department of Planning and Environment (DPE) to determine this project. OEH has no objection to the proposed modification works subject to the implementation of proposed Boral Peppertree Environmental Assessment Report April 2016 recommendations. Some additions and clarifications have been raised for Aboriginal cultural heritage matters.

A Biodiversity Offset Strategy has been presented with the BAR in order to offset unavoidable impacts to the White Box Yellow Box Blakely's Red Gum Grassy Woodland and habitat of threatened species. The proposed offset package is considered adequate.

It is recommended that the instrument of determination include reference to the Biodiversity Offset Strategy to formalise the document. The biobanking agreement on the offset site should be registered within 12 months of the works associated with the modification commencing onsite.

It is noted that an offset strategy already exists for the Stage 1 approval for the project. Appendix 3 to conditions at that time identifies an area of 12 hectare's *Habitat Management Area* to be retained and revegetated. Given area adjoins the currently proposed offset area along the creek line ways that management of lands could be integrated should be explored.

Comments regarding the application of the Framework for Biodiversity Assessment (FBA)/Offset Strategy can be found in **Attachment 1**.

In relation to Aboriginal cultural heritage matters; OEH notes that two Aboriginal sites are recorded within the impact area. One of these sites, MQ25, has already been collected during previous works and a new site, MQ120, will be avoided. We support the proposed management recommendations with a number of additions and clarifications. These are outlined within **Attachment 2**.

Should you wish to discuss the contents of this letter, please contact Miles Boak on (02) 6229 7095 or by email at miles.boak@environment.nsw.gov.au.

Yours sincerely



ALLISON TREWEEK 9/5/16
Senior Team Leader Planning - South East
Regional Operations Group – South

Enclosure:

ATTACHMENT 1 – Detailed comments on Biodiversity Assessment Report

ATTACHMENT 2 – Detailed comments on Aboriginal Cultural Heritage and Archaeological Assessment

ATTACHMENT 1 – Detailed comments on Biodiversity Assessment Report/Offset Strategy

The Biodiversity Assessment Report (BAR) review was undertaken using the Framework for Biodiversity Assessment (FBA) as a checklist for ensuring that it has been followed correctly.

It appears the data has been entered correctly and the credits that have been generated are correct. The credit calculations in the online tool have been submitted as part of the application.

One Threatened Ecological Community would be impacted by the modification – White Box Yellow Box Blakely's Red Gum Grassy woodland which 8.1 hectares of the community would be cleared requiring 225 ecosystem credits be generated.

No species credits are required.

The report details that Boral proposes an offset area on the company's land 1.4 km to the north which contains 38.22 ha of Blakelys Red Gum- Yellow Box woodland (SR670). This has been verified by Niche plot data as meeting the Plant Community Type (PCT) description of White Box Yellow Box Blakely's Red Gum Grassy Woodland.

Page 87 of the report documents that for the credit calculations undertaken that proposed offset area meets 129% of the offset liability of the project with a surplus of 66 credits. While there is a commitment to meet 100% of the credits required for this project it is noted that the final layout of the offset area may use the excess credits on other projects. The exact numbers and areas allocated to meet the offset liability of the project need to be documented in the final adopted Biodiversity Offset Strategy for the modification.

On the rehabilitation of the overburden emplacement the report documents that there will be progressive and final revegetation to create a stable landform that does not result in the sediment laden runoff, future dust emissions, blends in well with the adjacent natural landscapes of the Morton National Park and re-establishes a native bushland dominated by White Box Yellow Box Blakelys Red Gum Grassy Woodland species.

The existing Landscape and Rehabilitation Plan for the existing overburden areas needs to be amended to include the extended area.

ATTACHMENT 2 Detailed comments on the Aboriginal and historic heritage impact assessment

OEH has reviewed the Aboriginal and historic heritage impact assessment report for the Peppertree Quarry Modification 4 (dated 31 March 2016), prepared by EMM on behalf of Boral Resources, and provides the following comments.

Aboriginal heritage impact assessment

On the basis of the assessment undertaken to date, OEH is satisfied that the Aboriginal consultation and survey methodology undertaken for the modification area has been consistent with the methodologies already approved under the existing Aboriginal Heritage Management Plan (AHMP). We agree the management recommendations need to be consistent with the approved AHMP unless significant information comes to light that would require a re-assessment of the AHMP.

Additions required to the proposed management recommendations

We support the proposed management recommendations with a number of additions. These are:

Recommendation 1 - The location of the site MQ120 must also be identified in all operational maps relating to the Project, including the AHMP, to ensure it is not inadvertently impacted.

Recommendation 2 - Updating of the AHMP must be undertaken in consultation with OEH.

Clarification regarding the area of archaeological moderate sensitivity

We note that only a portion of the area of archaeological moderate sensitivity (identified on Figure 6.2, page 33) will be subject to impact. While the area was also assessed as not requiring further investigation, due to comparability with other excavations in the area, we require clarification as to how the remaining area of moderate sensitivity be managed? If this area has potential for subsurface Aboriginal objects then we recommend that an Aboriginal Site Recording Form is also submitted to the Aboriginal Heritage Information Management System (AHIMS) identifying the area as a potential archaeological deposit (PAD) to ensure the archaeological resource of the Project area is adequately recorded.

Draft report by ERM, dated 2012

OEH note that the referenced on page 17 is a draft report. Given the length of time since 2012, OEH require clarification from the proponent as to whether a final report is available? If so, this final report must be submitted to OEH for input into AHIMS.

Our Ref: D2016/39966

Margaret Kirton
Senior Planner
Resource Assessments
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Dear Ms Kirton

Peppertree Quarry Modification Request (06_0074 Mod 4)

I refer to your email received 5 April 2016 seeking WaterNSW's comments and recommended conditions on the Peppertree Quarry modification request (06_0074 Mod 4).

Water NSW has reviewed the Environmental Assessment prepared by Element Environment Pty Ltd (dated April 2016) and offers the following comments for consideration.

Water NSW notes the recent audit at the existing quarry site and the findings that there were a number of non-compliances. WaterNSW is therefore concerned that the proposed Southern Overburden Emplacement area and associated water management measures may not be managed in accordance with requirements. Water NSW suggests that additional independent audits should be required to ensure water management measures are properly constructed, maintained and managed.

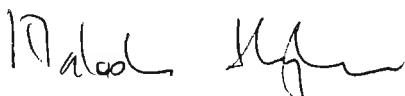
Water NSW requests the following existing conditions shall be amended in the consent.

Recommended Conditions of Approval for the Modification

- Condition 26 of Schedule 3 – Replace "Sydney Catchment Authority" with "Water NSW".
- Amend Condition 26 of Schedule 3 to require the Water Management Plan (including the subplans -Site Water Balance, Erosion and Sediment Control Plan, Surface Water Monitoring Program, and Groundwater Monitoring Program) to be updated to address the construction and operation of the Southern Overburden Emplacement area and haul road. WaterNSW would expect to be consulted during the preparation of these updates.

It is requested that Water NSW be included as a stakeholder for the proposal. Further, Water NSW would appreciate being notified when the application has been determined.

If you wish to discuss further, please contact James Caddey on 48243401 or Nicole Wallwood on (02) 4724 2458.

A handwritten signature in black ink, appearing to read "Malcolm Hughes".

MALCOLM HUGHES
Manager Environment and Planning

6/5/16



Department of Primary Industries

OUT16/18554

Ms Margaret Kirton
Resource Assessments
NSW Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Margaret.Kirton@planning.nsw.gov.au

Dear Ms Kirton

**DPI response to request for comment on proposed Modification to Peppertree Quarry
(06_0074 Mod 4)**

I refer to your email dated 5 April 2016 to the Department of Primary Industries in respect to the above matter. DPI has reviewed the planning proposal and provides the following recommendations:

- The Environmental Assessment should correctly outline that no approvals are required under the *Water Management Act 2000* for the modifications proposed, provided;
 - The proponent ensures the proposed Southern Overburden emplacement area will not substantially alter surface drainage patterns,
 - The proponent ensures that the proposed modifications will not impact on groundwater and/or other water users
- The proponent should ensure surface water quality continues to be appropriately managed in accordance with the Peppertree Quarry Water Management Plan. This plan should be amended, where appropriate, to accommodate the expansion proposal and to focus on the highest risk parameter (sediment). This plan and associated water quality testing regime should be designed to achieve and demonstrate no net impacts on receiving waters and should include sampling of water quality during discharge events.

Yours sincerely

Mitchell Isaacs
Director, Planning Policy & Assessment Advice
10/5/2015

From: [Malcolm Drummond](#)
To: [Margaret Kirton](#)
Cc: landuse.minerals@industry.nsw.gov.au
Subject: RE: Peppertree Quarry Modification Request (06_0074 Mod 4)
Date: Thursday, 21 April 2016 8:08:24 AM

Dear Margaret,

Thank you for the opportunity to provide comment on the above modification.

NSW Department of Industry – Division of Resources & Energy , Geological Survey of NSW (GSNSW) has reviewed the Environmental Assessment (EA) and has no issues raise in relation to resources or resource sterilisation. The EA document has adequately dealt with the issue of potential resource sterilisation (resulting from the new overburden emplacement).

Queries regarding the above information, and future requests for advice in relation to this matter, should be directed to the GSNSW Land Use team at:

landuse.minerals@industry.nsw.gov.au.

Kind Regards

Malcolm Drummond | Senior Geoscientist - Land Use Assessment
NSW Department of Industry | Division of Resources and Energy | Geological Survey of NSW
516 High Street | Maitland NSW 2320 | PO Box 344 | Hunter Region Mail Centre NSW 2310
T: 02 4931 6704 | E: malcolm.drummond@industry.nsw.gov.au
W: www.industry.nsw.gov.au | www.resourcesandenergy.nsw.gov.au

From: Margaret.Kirton@planning.nsw.gov.au [mailto:Margaret.Kirton@planning.nsw.gov.au]
Sent: Tuesday, 5 April 2016 11:03 AM
Subject: FW: Peppertree Quarry Modification Request (06_0074 Mod 4)

Dear all,

Boral Resources (NSW) Pty Ltd has submitted an application to modify the approval for its operations at Peppertree Quarry at Marulan. The modification proposes the:

- Extension of the in-pit operating hours by 6 hours (from the currently approved 7 am - 7 pm to 5 am - 11 pm, seven days a week); and
- Construction of a new overburden emplacement area.

The modification request and the accompanying Environmental Assessment (EA) will be on exhibition from **Wednesday 6 April 2016** until **Friday 6 May 2016**. Hard copies and CDs of the EA will be distributed to agencies before the start of the exhibition.

As well, the EA will be available on the Department's website at

www.majorprojects.planning.nsw.gov.au

It would be appreciated if you would provide your agency's comments on the modification application, and any recommended conditions, by **Friday 6 May 2016**.

Please contact me on 9228-6289 if you have any questions.

Regards Margaret

Margaret Kirton
Senior Planner
Resource Assessments
Department of Planning & Environment
GPO Box 39 | Sydney NSW 2001
T 9228 6289
E Margaret.Kirton@planning.nsw.gov.au



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Contact: Louise Wakefield

6 May 2016

Attention: Director, Resources Assessments
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Dear Sir/Madam

Subject: Submission
Boral Peppertree Quarry – Modification 4 (MP06_0074)

A report was presented to the 3 May 2016 Council Meeting in relation to the proposed modification at Peppertree Quarry. At this meeting Council resolved:

Goulburn Mulwaree Council does not object to the proposed modification however provides the following comments for the Department's consideration in the assessment of the proposal:

1. Existing noise generation and potential additional impacts has been considered by the applicant and reviewed by Council and Council supports the proposal for ongoing quarterly compliance noise monitoring and potential any potential restrictions to in-pit activities to achieve compliance in relation to noise.
2. Council supports the ongoing implementation of the Peppertree Quarry Air Quality Management Plan and the implementation of a procedure to address measured air quality exceedances and make recommendations to minimise reoccurrences.
3. Council has been in discussion with Boral for some time in relation to cost sharing for the upgrade and continued maintenance of Marulan South Road. Based on anecdotal information and Council's traffic surveys a considerable volume of traffic is attributable to Boral's activities in this area.
4. Council notes in the Environmental Assessment the applicant maintains *'product from the Quarry is transported entirely by rail except in an emergency where it would be transported by road with the written approval of the Secretary of the NSW Dept. of Planning & Environment'*.

It is unclear to Council what current traffic movements are attributable to Peppertree Quarry and what impact this proposal will have on the current road network. For example, the Environmental Assessment has not addressed traffic movements to and from the site in relation to ancillary activities and ongoing support of the operations, such as delivery of consumables, maintenance vehicles and staff movements.

Council's concern is the cumulative impact on the road network cannot be assessed.

5. The Environmental Assessment has not provided sufficient detail for Council to understand and assess the local economic benefit of the proposal such as further job creation and effect on the local economy.
6. It is unfortunate to note the proposal involves the removal of 8.1 hectares of native vegetation within the site for southern overburden emplacement. Council would however support the Departments imposition of conditions of consent ensuring the rehabilitation and re-establishment of pre-existing vegetation communities and fauna habitats within the overburden area is undertaken in a timely manner.
7. Council intends to finalise negotiations with Boral in relation to capital and maintenance contributions to Marulan South Road in the near future and acknowledges the appropriate mechanism for such contributions is via a voluntary planning agreement.

Please contact me on (02) 48 234 480 if you require clarification on any of the points raised above.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Louise Wakefield', with a stylized, cursive script.

Louise Wakefield
Director Planning & Development

From: system@acelo.com on behalf of [Penny Cooper](#)
To: [Margaret Kirton](#)
Subject: Submission Details for Penny Cooper (object)
Date: Friday, 6 May 2016 6:45:37 PM

Confidentiality Requested: no

Submitted by a Planner: no

Disclosable Political Donation: no

Name: Penny Cooper
Email: dunny_pen@hotmail.com

Address:
113 Greenhills Road

MARULAN, NSW
2579

Content:

Our lives have already been impacted upon by the lights and noise of the current operations and we wholeheartedly object to the extension of operation hours. Extension of operating hours will further disrupt our peace and quiet and will also lead to further devaluation of our land.

IP Address: - 101.161.31.23

Submission: Online Submission from Penny Cooper (object)
https://majorprojects.affinitylive.com/?action=view_activity&id=148111

Submission for Job: #7210 Peppertree Quarry Mod 4 (06_0074 Mod 4)
https://majorprojects.affinitylive.com/?action=view_job&id=7210

Site: #56 Peppertree (Marulan South) Quarry
https://majorprojects.affinitylive.com/?action=view_site&id=56

From: system@accelo.com on behalf of [John Lepre](#)
To: [Margaret Kirton](#)
Subject: Submission Details for John Lepre (object)
Date: Monday, 2 May 2016 3:02:02 PM

Confidentiality Requested: no

Submitted by a Planner: no

Disclosable Political Donation: no

Name: John Lepre
Email: pepielepre@gmail.com

Address:
147 Long point rd

tallong, NSW
2579

Content:

I wish to object to the extension as I have had a number of personal interactions with Boral over both sites at Marulan South. Currently, at early hours of the morning the Peppertree quarry noise level reaches out to my rural location and I am a few kilometres from the site. I have had ongoing issues with the organisation and in conjunction with the EPA and no party have tried to alleviate the situation. The question I simply want to ask is why is it that the EPA follows due process by default, but, ultimately always grants the submission request from large such organisation. It appears that the individual has no backing and possibly with no financial ability to take on such a large global organisations. I purchased my farm in 2013 in the local area. At no time through the searches and legal process I went through was I informed of these emerging entities. Boral has already eliminated a town in the mane of South Marulan because it could not prevent its pollution outfall to the local community. Why is it that now I have to endure longer hours of the noise and the quarries pollution simply because the organisation seems fit to do so. Sydney ever-expanding concerns are not my concern. Nor should it rest on the future of one small community, Marulan. It should be shared throughout Australia. The simple truth of the matter is Marulan is close and cheap and therefore constitutes some god given right to whatever Boral seems fit to request. I severely object to this expansion and with my limited resources I will try and stop it. I also as stated in the email question the EPA feel that there should be some political intervention into the very action of the EPA in continuing granting these proposals.

IP Address: - 147.200.41.115

Submission: Online Submission from John Lepre (object)
https://majorprojects.affinitylive.com/?action=view_activity&id=147905

Submission for Job: #7210 Peppertree Quarry Mod 4 (06_0074 Mod 4)
https://majorprojects.affinitylive.com/?action=view_job&id=7210

Site: #56 Peppertree (Marulan South) Quarry
https://majorprojects.affinitylive.com/?action=view_site&id=56

4th May 2016

P & B Mulligan
408 South Marulan Road
Marulan NSW 2579

RE: Opposition to Boral Peppertree Proposed expansion MOD 4. 2016

Basic Summary of Objections.

We are totally opposed to the expansion of the Boral Peppertree Granite mining operation proposed at South Marulan.

We purchased our property 13 years ago, well before the Peppertree was proposed and approved.

We were informed last July 2015 of the plan to expand the operations to longer operating hours, which will result in a massive increase in truck traffic, requiring widening of South Marulan Road, Dust, Noise and others industrial issues.

Since mining operations commenced at Peppertree, we have taken little interest in the operations at the plant. We expected Boral to be a good neighbour and operate according to their recent approval conditions.

Since this new expansion was announcement, we have taken a closer interest in their operation to determine how committed Boral was to being a good and responsible neighbour, and how Boral conducted their business operations.

To our shock we found that Boral has little thought for the neighbours close by and down wind for many kilometres.

Excessive dust output from the plant is a daily and nightly issue. The conveyors run 24 hours.

Part of the proposal is to widen South Marulan Road. This will result in a removal of up to 800 roadside established gum trees. Trees whose removal will destroy the rural character that brought us to the South Marulan area. The road widening will change the landscape permanently and irreversibly.

Boral owns the land from their Peppertree plant, all the way to the Hume highway. There should be no need to widen South Marulan road at all. The local council may get some cents per ton, but residents along South Marulan Road will get the dirt, dust, noise and cancer causing diesel fumes from the gravel trucks.

The Peppertree access road should be ON Boral Land, with their own interchange at the Hume Highway.

Boral is committed only to the dollar, and their shareholders, not local residents.

Approval of this expansion will be good for the share price, but it will be blood money, earned on the misery of others who will have to put up with the mess or forced to leave.

It will change the character and landscape of the area forever. People will be employed and the economy will benefit, but a pristine rural area will be lost.

We have many other concerning reasons for opposing this expansion that are not covered in this submission.

We would be more than happy to discuss, and in fact we expect that we should be contacted regarding our opposition to the development and expansion, at any time in the near future, so as to provide further details of our objections.

More details are available on request.

Sincerely

P & B Mulligan

From: system@accelo.com on behalf of [Hilary Myers](#)
To: [Margaret Kirton](#)
Subject: Submission Details for Hilary Myers (object)
Date: Wednesday, 4 May 2016 9:03:55 PM
Attachments: [Quarry proposal 1.pdf](#)

Confidentiality Requested: no

Submitted by a Planner: no

Disclosable Political Donation: no

Name: Hilary Myers
Email: hilarymyers@gmail.com

Address:
471 Longpoint Rd

Tallong, NSW
2579

Content:

At present the noise of the quarry is at times intrusive, particularly early in the morning. The noisiest parts of the operation are those that Boral are proposing to extend the operating hours of, in particular the in-pit crusher. The crusher makes very loud banging noises which will, without doubt, impact on our ability to sleep. At times the crusher sounds like it is just across the road so I hate to think how loud it will sound at 5am when the environmental conditions contribute to even greater noise transmission. Noise monitoring which was undertaken on our property clearly shows that the quarry is already exceeding its allowable limits as dictated to them by the EPA. Expecting us to put up with this noise from 5am until 11pm is unrealistic, if we are unable to sleep due to the noise this only gives us a 6 hour window in which to rest.

We are also concerned about the particulate matter that is often suspended in the air. At times there is so much dust in the air that at night it looks like fog. The particles are very small and cannot be felt but I am concerned as we are obviously inhaling them. If these fine particles are silicates they could cause silicosis. I recently walked down to the lookout at dusk and could see both the Peppertree and Marulan South Quarry. The Peppertree quarry was enveloped in a cloud of dust, whereas the limestone quarry was not dusty at all. Unfortunately I did not have a camera with me but I will endeavour to get some pictures in the near future. I would like some independent monitoring to be done on both the noise and dust levels.

Due to these two issues of noise and dust I strongly object to any extension of the in pit operations of the quarry. In fact I query the 24hour operations as they stand considering that none of the other quarries in the district seem to operate 24 hours a day. The Peppertree quarry was not approved to operate the in-pit crushers throughout the night when it was given the go-ahead, nothing has changed since that time that should allow it to do so now. I have attached a letter that I wrote last year opposing the proposal which contains more of my objections and the reasons for them.

IP Address: 115-69-26-200.dyn.comcen.net.au - 115.69.26.200

Submission: Online Submission from Hilary Myers (object)

https://majorprojects.affinitylive.com/?action=view_activity&id=147971

Submission for Job: #7210 Peppertree Quarry Mod 4 (06_0074 Mod 4)

https://majorprojects.affinitylive.com/?action=view_job&id=7210

Site: #56 Peppertree (Marulan South) Quarry

https://majorprojects.affinitylive.com/?action=view_site&id=56

Hilary Myers

471 Long Point Rd

Tallong NSW 2579

27/08/15

To whom it may concern,

I am writing to oppose the proposed changes in operating hours for the in-pit operations of the Boral Peppertree mine at South Marulan. We are already impacted by the noise of the quarry at certain times but the proposed changes would see the noisiest activities starting at 4am as opposed to 7am and finishing 10pm as opposed to 7pm. This will make an enormous difference to us as it is otherwise very quiet where we have chosen to live and because it is quiet the noise of the quarry at night is quite noticeable. The crusher for the in-pit operation is significantly noisier than the operations being carried out at night at present.

The quarry received approval to go ahead under the present provisions after community consultation and they have made very limited attempts to involve the community in the decision to change the hours of operation. The quarry sent representatives to our area but only contacted residents if they happened to be home at the time, luckily we were home. When we spoke to the representatives of the quarry the man (I forget his name) spoke to us for quite a while before trying to brush over the actual reason for the visit. He mentioned in passing that they were considering some changes but I had to pursue that with him to find out what they were. I had to question him about every aspect of the changes as he was not forthcoming at all. When he asked us what sounds were loudest he did not identify for us what was making the sound. It was the environmental officer (Sharon Mikan) who was helpful and pointed out to the other guy that the noise we were talking about was the in-pit crusher and that is exactly what they are proposing to use at 4am.

As someone who has invested in the area I am very concerned that these proposed changes will negatively impact on both the value of my property and on the quality of life that my family and I enjoy at present. I do not look forward to woken at 4am to the sound of the quarry every day and if my children are woken frequently this could impact on them in many ways including impeding their progress at school. My husband is a very light sleeper and I know that extending the hours of the in-pit operations will have a negative impact on him.

Very few of the quarries around Marulan are allowed to operate 24hrs a day, Peppertree has been granted this privilege with the provision that it keeps the noisier operations to daylight hours. I do not believe that they should be granted any more leeway in this regard.

The quarry aims to increase production and has said that it will move extra materials by road. This also goes against the original development application where the community was assured that all product would be moved by rail. Boral did not help fund the overpass and highway entry/exit that was built to service the quarry vehicles because they argued that they were only using rail. Now they propose to use the road after others have paid for construction of this infrastructure. The road is already in an appalling state and the extra vehicles that they propose to put on it will only degrade it more rapidly.

I am extremely concerned that our communities are increasingly governed by the big business that run rough-shod over our rights. We didn't choose to live here just to have all of the noise and

disruption that the quarry cause with the increase in its production. They were granted permission to build the quarry under certain conditions and they should have to stick to these conditions.

Yours sincerely,

Hilary Myers.

From: system@accelo.com on behalf of [Roger Myers](#)
To: [Margaret Kirtan](#)
Subject: Submission Details for Roger Myers (object)
Date: Friday, 6 May 2016 7:39:26 PM

Confidentiality Requested: no

Submitted by a Planner: no

Disclosable Political Donation: no

Name: Roger Myers
Email: rogkmyers@gmail.com

Address:
471 Longpoint Road

Tallong, NSW
2579

Content:

In the mornings and late evenings, the noise from the quarry can at times be very obvious and will often wake me up in the mornings at the weekend . The noisiest parts of the operation are those that Boral are proposing to extend the operating hours of, in particular the in-pit crusher. The crusher makes very loud banging noises which will, without doubt ,impact on our ability to sleep. In the early morning and late evening, the crusher can sometimes sound like it is just across the road. The proposed extension would mean that the quarry was in operation before my morning alarm and after I go to bed in the evening, and the quarry already wakes me during current operational times if I am on holiday, or at the weekend. Noise monitoring which was undertaken on our property clearly shows that the quarry is already exceeding it's allowable limits as advised by the EPA. Expecting us to put up with this noise from 5am until 11pm is unrealistic, if we are unable to sleep due to the noise this only gives us a 6 hour window in which to rest. The noise monitoring equipment was only positioned once and left for a week. It was lower than the level of the windows in the house and was not placed in the noisiest areas.

We are also concerned about the particulate matter that is often suspended in the air. At times there is so much dust in the air that at night it looks like fog. The particles are very small and cannot be felt but I am concerned as we are obviously inhaling them. If these fine particles are silicates they could cause silicosis. I recently walked down to the lookout at dusk and could see both the Peppertree and Marulan South Quarry. The Peppertree quarry was enveloped in a cloud of dust, whereas the limestone quarry was not dusty at all. Unfortunately I did not have a camera with me but I will endeavour to get some pictures in the near future. I would like some independent monitoring to be done on both the noise and dust levels.

Due to these two issues of noise and dust I strongly object to any extension of the in pit operations of the quarry. In fact I query the 24hour operations as they stand considering that none of the other quarries in the district seem to operate 24 hours a day. The Peppertree quarry was not approved to operate the in-pit crushers throughout the night when it was given the go-ahead, nothing has changed since that time that should allow it to do so now.

IP Address: 115-69-26-200.dyn.comcen.net.au - 115.69.26.200
Submission: Online Submission from Roger Myers (object)
https://majorprojects.affinitylive.com/?action=view_activity&id=148115

Submission for Job: #7210 Peppertree Quarry Mod 4 (06_0074 Mod 4)
https://majorprojects.affinitylive.com/?action=view_job&id=7210

Site: #56 Peppertree (Marulan South) Quarry
https://majorprojects.affinitylive.com/?action=view_site&id=56

APPENDIX B

REVISED SURFACE WATER
MANAGEMENT CONCEPT



APPENDIX B

FIGURE 14
Proposed surface water management concept
ENVIRONMENTAL ASSESSMENT

PEPPERTREE QUARRY MODIFICATION 4

