# Appendices

(Total No. of pages including blank pages = 350)

Appendix 1 2020 Internal Compliance Review (46 pages)

Appendix 2 Monitoring Data and Records (82 pages)

Appendix 3 2020 Nest Box Monitoring Report (176 pages)

Appendix 4 2020 Community Consultative Committee Meeting Minutes (10 pages)

Appendix 5 2020 Community Complaints Register (6 pages)

Appendix 6 Non-Compliances (6 pages)

Appendix 7 Bush Regeneration Annual Report 2020 (22 pages)

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# Appendix 1

# 2020 Internal Compliance Review

(Total No. of pages including blank pages = 46)

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# Part 1 - Project Approval 10_0183

**Colour Code for Compliance Assessment**

- Compliant
- Compliant Ongoing / In Progress
- Non-compliant
- Administrative Non-Compliance
- Noted / Not Applicable / Not Yet Applicable
- Not Activated / Not Yet Activated

# Part 1 - Project Approval 10_0183

| Condition No. | Project Approval condition | Verification | Comments | Compliance |
|---|---|---|---|---|
| **SCHEDULE 2 ADMINISTRATIVE CONDITIONS** | | | | |
| **OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT** | | | | |
| **1.** | In addition to meeting the specific performance criteria established under this approval, the Proponent must implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation, or rehabilitation of the project. | | | **Noted** |
| | **TERMS OF APPROVAL** | | | |
| **2.**<br><br>**2A.** | The Proponent, in acting on this approval, must carry out the project:<br>(a) in compliance with the conditions of this approval;<br>(b) in accordance with the statement of commitments; and<br>(c) in accordance with all written directions of the Secretary.<br><br>The Proponent, in acting on this approval, must carry out the project:<br>(a) generally in accordance with the EA;<br>(b) generally in accordance with the EA (Mod 1); and<br>(c) generally in accordance with the project layout.<br>*Notes:*<br>• The general layout of the project is shown in Appendix 1 and Appendix 2.<br>• The statement of commitments is reproduced in Appendix 3. | • Environmental Assessment, Nov 2011<br>• Environmental Assessment, Section 6<br>• Statement of Commitments, Nov 2011<br>• Project Approval 10_0183<br>• Environmental Assessment (MOD1) (March 2018) | The Teralba Quarry Extension Project is being developed generally in accordance with the Environmental Assessment November 2011, and the Environmental Assessment for Modification 1, the conditions of Project Approval (as modified) and general layout of the project presented in Appendix 1 and Appendix 2 of the Project Approval. The following non-compliances to PA10_0183 occurred during the reporting period.<br>• 3 x blast overpressure exceedances.<br>• 3 x discharge water quality exceedances.<br>• 1 x missed monthly water monitoring. | **Non-Compliant** |
| **3.** | If there is any inconsistency between the documents identified in condition 2A, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency. | | | **Noted** |
| **4.** | Consistent with the requirements of this approval, the Secretary may make written directions to the Proponent in relation to:<br>(a) the content of any strategy, study, system, plan, program, review, audit, notification, report or correspondence submitted under or otherwise made in relation to this approval, including those that are required to be, and have been, approved by the Secretary; and<br>(b) the implementation of any actions or measures contained in any such document referred to in (a) above. | | No requests were made in 2020. | **Noted** |

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|---|---|---|---|---|
| **4A.** | The Proponent must comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of:<br>(a) any strategies, plans, programs, reviews, audits, reports or correspondence submitted in accordance with this approval (including any stages of these documents);<br>(b) any reviews, reports or audits commissioned by the Department regarding compliance with this approval; and<br>(c) the implementation of any actions or measures contained in these documents. | | Metromix has prepared and submitted the reports, strategies, plans, programs, reviews, audits required by the conditions of this Project Approval. | **Compliant Ongoing** |
| **COMPLIANCE** | | | | |
| **4B.** | The Proponent must ensure that all employees, contractors and sub-contractors are made aware of, and instructed to comply with, the conditions of this approval relevant to activities they carry out in respect of the project. | | | **Noted** |
| **LIMITS ON APPROVAL** | | | | |
| **Quarrying Operations** | | | | |
| **5.** | The Proponent may carry out quarrying operations on the site until 31 December 2038.<br>*Note: Under this approval, the Proponent is required to rehabilitate the site and carry out additional undertakings to the satisfaction of the Secretary. Consequently, this approval will continue to apply in all other respects other than the right to conduct quarrying operations until the rehabilitation of the site and those undertakings have been carried out to a satisfactory standard*. | | | **Noted** |
| **Extractive Material Limits** | | | | |
| **6.** | The Proponent must not carry out quarrying operations below 20m AHD in the Southern Extension Area or below 24 m AHD in the Mid Pit Extraction and Northern Extension Areas.<br>*Note: This condition does not apply to the construction of any bores approved by NOW or pollution and sediment control structures described in the EA*. | | Quarrying operations have not occurred to below 20m AHD in the Southern Extraction or Southern Extension Area, or below 24 m AHD in the Mid Pit Extraction and Northern Extension Areas. | **Compliant Ongoing** |
| **7.** | The Proponent must not extract more than 1.2 million tonnes of extractive materials from the site in any calendar year. | | Extraction of materials from the Teralba Quarry site was less than 1.2 million tonnes from January 2020 to December 2020 (approximately 630,746t). | **Compliant** |
| **Extractive Material Transport** | | | | |
| **8.** | The Proponent must not:<br>(a) transport more than 1 million tonnes of quarry products from the site in any calendar year; or<br>(b) dispatch more than 326 laden trucks from the site on any day; or<br>(c) dispatch more than 241 laden trucks per day or 20 per hour westwards along Rhondda Road;<br>(d) dispatch more than 85 laden trucks per day or 8 per hour eastwards through Teralba;<br>(e) dispatch laden trucks for travel through Teralba between 6 pm and 6 am; or | • Teralba Truck Movements, January 2020 to December 2020 | Transport of extracted materials from the Teralba Quarry between January 2020 and December 2020 indicated:<br>(a) less than 1 million tonnes of extracted material were transported from the site between January 2020 and December 2020;<br>(b) laden trucks dispatched from the Teralba Quarry site did not exceed 326 on any day;<br>(c) laden trucks travelling westwards along Rhondda Road did not exceed 241 per day or 20 per hour period; | **Compliant** |

<table>
<tr><th>Condition No.</th><th>Project Approval condition</th><th>Verification</th><th>Comments</th><th>Compliance</th></tr>
<tr><td></td><td>(f) receive un-laden trucks via the Railway Street entrance between 6 pm and 7 am.</td><td></td><td>(d) laden trucks travelling eastwards through Teralba did not exceed 85 per day;<br>(e) laden trucks have not travelled eastward through Teralba prior to 6 am;<br>(f) un-laden trucks were not received via the Railway Street entrance between 6 pm and 7 am.</td><td></td></tr>
<tr><td>9.</td><td>The Proponent must shall limit the total hourly truck dispatch rates from the site to the levels shown in Table 1.<br>Table 1 – Truck Dispatch Hours<br><table><tr><th>Dispatch Period</th><th>Max Hourly Dispatch</th></tr><tr><td>6:00am – 7:00am</td><td>Up to 28 loaded trucks</td></tr><tr><td>7:00am – 6:00pm</td><td>Up to 20 loaded trucks</td></tr><tr><td>6:00pm – 5:00am</td><td>Up to 6 loaded trucks</td></tr><tr><td>5:00am – 6:00am</td><td>Up to 12 loaded trucks</td></tr></table>Note: Dispatch times and maximum hourly rates westwards along Rhondda Road or eastwards through Teralba are further limited by condition 8 above.</td><td>See Teralba Truck Movement numbers</td><td>Hourly dispatch rates were at or within project approval rates in 2020.</td><td>Compliant</td></tr>
<tr><td colspan="5">Receival of Concrete, Virgin Excavated Natural Material and Excavated Natural Material</td></tr>
<tr><td>10.</td><td>The Proponent must not receive on site more than 120 tonnes of recycled concrete per day or stockpile more than 2,500 tonnes of concrete material on the site.</td><td></td><td>A total of 25 568t of concrete washout were imported to the pugmill area (the application area for EPL 13015) during the reporting period and 32 454t of concrete washout was processed into recycled concrete roadbase product. These levels remain consistent with approved operations.<br><br>No more than 2,500t of material is stored at the Quarry Site (separate to the area specified in EPA Licence No 13015 for the former Civil Lake site).</td><td>Compliant</td></tr>
<tr><td>11.</td><td>The Proponent must not receive on site more than 100,000 tonnes of virgin excavated natural material or excavated natural material in any calendar year.</td><td></td><td>No VENM or ENM received from January 2020 to December 2020.</td><td>Compliant</td></tr>
<tr><td colspan="5">SURRENDER OF CONSENTS</td></tr>
<tr><td>12.</td><td>By the end of December 2013, or as otherwise agreed by the Secretary, the Proponent must surrender the development consent (DA 130/42) for existing operations on the site in accordance with Section 104A of the EP&A Act.<br>Note: The conditions or other requirements of this project approval do not prevent the continued carrying out of development which may be undertaken pursuant to DA 130/42, prior to the surrender of that consent.</td><td>Letter to DP&I re Surrender of DA 130/42 , 23 Dec 2013</td><td>Metromix surrendered DA 130/42 on 23 December 2013.</td><td>Compliant</td></tr>
<tr><td colspan="5">STRUCTURAL ADEQUACY</td></tr>
<tr><td>13.</td><td>The Proponent must ensure that any new buildings and structures, and any alterations, or additions to existing buildings and structures, are constructed:<br>a) in accordance with the relevant requirements of the BCA; and<br>b) to the satisfaction of the Subsidence Advisory NSW.<br>Notes:</td><td></td><td>No new buildings were constructed on site between January 2020 and December 2020.</td><td>Not Applicable</td></tr>
</table>

| Condition No. | Project Approval condition | Verification | Comments | Compliance |
|---|---|---|---|---|
| | • Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works.<br>• Part 8 of the EP&A Regulation sets out the requirements for the certification of the project.<br>• Under Section 15 of the Mine Subsidence Compensation Act 1961 the Proponent is required to obtain approval from the Subsidence Advisory NSW for the construction, erection or alteration of any improvements on the site. | | | |
| **DEMOLITION** | | | | |
| **14.** | The Proponent must ensure that all demolition work on site is carried out in accordance with AS 2601-2001: The Demolition of Structures, or its latest version. | | No demolition of buildings or structures occurred between January 2020 and December 2020. | **Not Applicable** |
| **PROTECTION OF PUBLIC INFRASTRUCTURE** | | | | |
| **15.** | The Proponent must:<br>(a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the project; and<br>(b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the project. | | No public infrastructure was damaged or relocated as a result of the project between January 2020 and December 2020. | **Not Activated** |
| **PLANNING AGREEMENT** | | | | |
| **16.** | Within 12 months of the date of this approval, unless otherwise agreed by the Secretary, the Proponent must enter into a planning agreement with the Council in accordance with Division 6 of Part 4 of the EP&A Act that provides for payment to the Council for road maintenance levies. The agreement must include provision for those matters set out in condition 17 below.<br>If there is any dispute between the Proponent and Council relating to the preparation or implementation of the planning agreement, then either party may refer the matter to the Secretary for resolution. | | Metromix has consulted with the Council in relation to a planning agreement in accordance with Division 6 of Part 4 of the EP&A Act that provides for payment to the Council for road maintenance levies.<br><br>Metromix agreed to pay the Council the $0.066/t/km plus rise and fall. | **Compliant** |
| **ROAD MAINTENANCE** | | | | |
| **17.** | During the life of the project, for each calendar year, the Proponent must pay Council $0.066 per tonne per kilometre for every tonne of quarry products transported from the site on roads for which Council is liable for road maintenance funding. Each payment must be:<br>(a) based on weighbridge records of the quantity of quarry products transported from the site;<br>(b) paid by the date required by the invoice issued by Council; and<br>(c) increased over the life of the project in accordance with the CPI. | | Six monthly payments to Council are in place and a planning agreement has been registered on the title. | **Compliant Ongoing** |
| **OPERATION OF PLANT AND EQUIPMENT** | | | | |
| **18.** | The Proponent must ensure that all plant and equipment used at the site is:<br>(a) maintained in a proper and efficient condition; and<br>(b) operated in a proper and efficient manner. | | Metromix has a workshop on-site and the Metromix plant and equipment used on site is maintained and operated in a proper and efficient condition | **Compliant Ongoing** |
| **STAGED SUBMISSION OF ANY STRATEGY, PLAN OR PROGRAM** | | | | |
| **19.** | With the approval of the Secretary, the Proponent may submit any strategy, plan or program required by this approval on a progressive basis.<br>*Notes:* | • Environmental Management Strategy, 2018 | Staging of submission of strategies, plans or programs was not required during the reporting period. | **Compliant Ongoing** |

| Condition No. | Project Approval condition | Verification | Comments | Compliance |
|---|---|---|---|---|
| | • While any strategy, plan or program may be submitted on a progressive basis, the Proponent will need to ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times; and<br>• If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program. | • Air Quality Management Plan, 2019<br>• Blast Management Plan, 2020<br>• Noise Management Plan, 2018<br>• Transport Management Plan, 2019<br>• Waste Management Plan, 2019<br>• Water Management Plan, 2020<br>• Biodiversity and Rehabilitation Management Plan, 2019<br>• Heritage Monitoring and Management Plan 2019<br>• Lower Level Management Plan 2018 | | |
| **PRODUCTION DATA** | | | | |
| **20.** | The Proponent must:<br>(a) provide annual quarry production data to DRG using the standard form for that purpose; and<br>(b) include a copy of this data in the Annual Review (see condition 4 of Schedule 5). | | Annual production data for July 2019 to June 2020 was reported to MEG (formerly known as DRG) and the data will be included in the Annual Review (see Appendix 2). | **Compliant Ongoing** |
| **SCHEDULE 3<br>ENVIRONMENTAL PERFORMANCE CONDITIONS<br>IDENTIFICATION OF APPROVED LIMITS OF EXTRACTION** | | | | |
| **1.** | Prior to carrying out quarrying operations under this approval, the Proponent must:<br>(a) engage a registered surveyor to mark out the boundaries of the approved limits of extraction within the Extraction Areas; and<br>(b) submit a survey plan of these boundaries to the Secretary. | • Boundary Survey Plan, Southern Extension, Moutrie Survey, Jun 2013<br>• Compendium of Documents for DP&I, Sep 2013 | The boundaries of the approved limits of extraction for the Teralba Quarry lease activities have been marked out by a registered surveyor and the boundaries marked with coloured poles for the various activity areas. | **Compliant** |
| **2.** | While ever quarrying operations are being carried out, the Proponent must ensure that these boundaries are clearly marked at all times in a permanent manner that allows operating staff and inspecting officers to clearly identify the limits of extraction within the Southern, Southern Extension, Mid Pit and Northern Extension Extraction Areas. | | The boundaries of the approved limits of the Teralba Quarry lease activities have been marked with coloured poles for the various areas:<br>• White poles - Stage 1A,<br>• Yellow poles – quarry extraction limits<br>• Blue poles - Pugmill Area<br>• Green poles – Downer EDI<br>Signage is to be placed on the posts to specifically identify each of the active areas of works within the Teralba Quarry lease boundaries. | **Compliant Ongoing** |

| Condition No. | Project Approval condition | Verification | Comments | Compliance |
|---|---|---|---|---|
| **EXTRACTION MANAGEMENT** | | | | |
| **Operating Conditions** | | | | |
| **3.** | The Proponent must ensure that:<br>(a) the underlying historical coal workings within the Great Northern coal seam pose not greater than a negligible risk to the safety of quarry workers, including risks from sudden unplanned collapses, release of noxious gases or explosion of flammable gases; and<br>(b) quarrying operations pose not greater than a negligible risk to the heating or combustion of the underlying historical coal workings within the Great Northern coal seam. | • Teralba Quarry Extension Geotechnical Assessment, Mar 2006<br>• Preliminary comments on Quarry Operations – Interactions with On-site Coal Resource, 28 Nov 2012<br>• Lower Level Extraction Plan 2016. | The management of the Teralba Quarry operations above the underlying historical coal workings within the Great Northern coal seam address the requirements that the safety of quarry workers, including risks from sudden unplanned collapses, release of noxious gases or explosion of flammable gases and the risk of heating or combustion of the underlying historical coal workings within the Great Northern coal seam, are considered and management measures implemented to ensure negligible risk.<br><br>On 27 August 2019, Quarry personnel arrived at the Quarry and identified a small crevice had opened as a result of a recent blast exposing the underground workings at the base of Bench 5 in the vicinity of Stage 1B. All operations in this location ceased immediately and a 10m exclusion zone was cordoned off to restrict access. Following consultation with the Resources Regulator a large mound of overburden material was placed adjacent to the opening and a protective barrier was established. No extraction activities are currently occurring in the vicinity of the prohibited area and it is proposed that operations in this location would not recommence until a strategy for safe operation is developed in consultation with the Resources Regulator. No consultation is required at this stage as they do not plan to extract from this area at this point in time.<br><br>This was managed in accordance with the Lower Level Extraction Management Plan. Gas monitoring is undertaken as needed. | **Noted** |
| **Lower Level Extraction Management Plan** | | | | |
| **4.** | The Proponent must prepare and implement a Lower Level Extraction Plan for all extraction activities within 17.5 vertical metres of historical coal workings within the Great Northern coal seam, to the satisfaction of the Secretary. This plan must:<br>(a) be submitted for approval to the Secretary prior to undertaking any such quarrying operations and within 12 months of the date of this approval;<br>(b) be prepared by suitably qualified persons approved by the Secretary;<br>(c) provide for the achievement of the measures set out in condition 3 above;<br>(d) describe the measures that would be implemented to ensure: | • Lower Level Extraction Plan, September 2016<br>• Teralba Quarry Extension Geotechnical Assessment, Mar 2006<br>• Preliminary comments on Quarry Operations – | A Lower Level Extraction Management Plan was completed in September 2016 and approved in November 2016. Extraction above the coal seam commenced in early 2017. | **Compliant** |

<table>
<tr><th>Condition No.</th><th>Project Approval condition</th><th>Verification</th><th>Comments</th><th>Compliance</th></tr>
<tr><td></td><td>• best management practice quarrying operations are being employed on site;<br>• individual responsibilities of workers, contractors and management are detailed and understood; and<br>• compliance with the relevant conditions of this approval;</td><td>Interactions with On-site Coal Resource, 28 Nov 2012</td><td></td><td></td></tr>
<tr><td></td><td>(e) include a Spontaneous Combustion Management Plan, which has been prepared in consultation with DRG and Oceanic Coal Pty Ltd, to manage the potential risks and impacts of spontaneous combustion or heating of coal, and which:<br>• includes a detailed assessment, of the risks of spontaneous combustion and subsurface heating for each of the existing and proposed Extraction Areas;<br>• clearly identifies responsibilities to address management of spontaneous combustion and subsurface heating risks, for both day to day operations and long term management; and<br>• includes appropriate short and long term contingency plans.<br>The Proponent must implement the plan as approved by the Secretary.</td><td></td><td></td><td></td></tr>
<tr><td colspan="5">NOISE</td></tr>
<tr><td>5.</td><td>The Proponent must ensure that the noise generated by the project does not exceed the criteria in Table 2 at any residence on privately-owned land.<br>Table 2: Noise criteria dB(A)
<table>
<tr><th>Location</th><th>Day 6-7am</th><th>Day 7am-6pm</th><th>Evening 6-10pm</th><th>Night 10pm-6am</th></tr>
<tr><td>A</td><td>38</td><td>38</td><td>37</td><td>35</td></tr>
<tr><td>B</td><td>42</td><td>46</td><td>36</td><td>35</td></tr>
<tr><td>C</td><td>42</td><td>42</td><td>35</td><td>35</td></tr>
<tr><td>D, E, G, H, I</td><td>35</td><td>35</td><td>35</td><td>35</td></tr>
<tr><td>F</td><td>37</td><td>38</td><td>38</td><td>35</td></tr>
</table>
Notes:<br>• Receiver locations are shown in Figure 2 Appendix 1.<br>• Noise generated by the project is to be measured in accordance with the relevant requirements and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy.<br>However, these criteria do not apply if the Proponent has a written agreement with the relevant landowner to exceed the criteria, and the Proponent has advised the Department in writing of the terms of this agreement.</td><td>Noise compliance reporting prepared by Spectrum Acoustics<br><br>Landowner contracts</td><td>Noise monitoring was conducted for the Teralba Quarry in August 2020.<br><br>Landowners at 8 Rhondda Rd (Location C) and 63 Victoria St (Location F) Teralba agreed not to continue monitoring at their address, however, reserve the right to request the re-instatement of noise monitoring if required.</td><td>Compliant</td></tr>
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<table>
<tr><th>Condition No.</th><th>Project Approval condition</th><th>Verification</th><th>Comments</th><th>Compliance</th></tr>
<tr><td colspan="5">Hours of Operation</td></tr>
<tr><td>6.</td><td>The Proponent must comply with the operating hours set out in<br>Table 3: Operating Hours
<table>
<tr><th>Day</th><th>Receipt of Concrete or VENM</th><th>Loading/Dispatch of trucks</th><th>Extraction & Processing Operations</th></tr>
<tr><td>Mon-Fri</td><td>7am – 5pm</td><td>4am Monday to Midnight Friday</td><td>7am – 7pm</td></tr>
<tr><td>Saturday</td><td>7am – 2pm</td><td>Midnight Friday to 6pm Saturday</td><td>7am – 2pm</td></tr>
<tr><td>Sundays and Public Holidays</td><td>None</td><td>None</td><td>None</td></tr>
</table>
Note: Maintenance activities may occur at any time provided they are inaudible at privately-owned residences.</td><td></td><td>All activities at the Teralba Quarry occurred within the approved operating hours during the period from 1 January 2020 to 31 December 2020.</td><td>Compliant</td></tr>
<tr><td colspan="5">Operating Conditions</td></tr>
<tr><td>7.</td><td>The Proponent must:<br>(a) implement best practice noise management to minimise the construction, operational and traffic noise of the project;<br>(b) minimise the noise impacts of the project during meteorological conditions when the noise limits in this approval do not apply;<br>(c) maintain the effectiveness of any noise suppression equipment on plant at all times and ensure defective plant is not used operationally until fully repaired;<br>(d) regularly assess noise monitoring data and relocate, modify, and/or stop operations on site to ensure compliance with the relevant conditions of this approval; to the satisfaction of the Secretary.</td><td>• Noise Management Plan 2018</td><td>The Noise Management Plan Section 9 outlines control measures to be implemented and describes the noise management practices to be implemented on the site:<br>(a) Section 9.4 addresses noise management associated with Traffic Operations (e.g. beepers have been removed and vehicles and equipment fitted with quackers to reduce noise emissions);<br>(b) Section 9.3 addresses operational noise management under adverse weather conditions;<br>(c) Section 9.3 addresses effectiveness of any noise suppression equipment on plant and maintenance to ensure defective plant is not operated until it is fully repaired.<br>(d) Section 10 outlines Evaluation of Compliance</td><td>Compliant</td></tr>
<tr><td colspan="5">Noise Management Plan</td></tr>
<tr><td>8.</td><td>The Proponent must prepare and implement a Noise Management Plan for the project to the satisfaction of the Secretary. This plan must:<br>(a) be submitted for approval to the Secretary within 4 months of the date of this approval;<br>(b) describe the measures that would be implemented to ensure:<br>• best management practice is being employed on site;<br>• the noise impacts of the project are minimised during any meteorological conditions when the noise limits in this approval do not apply; and<br>• compliance with the relevant conditions of this approval; (c) describe the proposed noise management system in detail; and<br>(d) include a monitoring program that:<br>• is capable of regularly evaluating the performance of the project, including noisy individual items of plant, such as haulage trucks and the bulldozer;</td><td>• Noise Management Plan, 2018<br>• Letter from DP&I re Approval of Noise Management Plan, 2 Oct 2018</td><td>An updated Noise Management Plan was approved on 2 October 2018.<br>(a) The original Noise Management Plan was submitted to DP&I on 31 July 2013;<br>(b) The Noise Management Plan Section 9 describes Control Measures for noise from the quarry and transport operations, and management under adverse weather conditions. Section 10 describes Noise Monitoring Protocol and Evaluation of Compliance.<br>(c) The Noise Management Plan describes the overall noise management system<br>(d) Noise Management Plan Section 10 describes the Noise Monitoring Protocol and Evaluation of Compliance.</td><td>Compliant</td></tr>
</table>

<table>
<tr><th>Condition No.</th><th>Project Approval condition</th><th>Verification</th><th>Comments</th><th>Compliance</th></tr>
<tr><td></td><td>• includes a protocol for determining any exceedances of the relevant conditions in this approval at locations listed in Table 2; and<br>• evaluates and reports on the effectiveness of the noise management system on site.<br>The Proponent must implement the plan as approved by the Secretary.</td><td></td><td>(e) Noise Management Plan Section 11 addresses Corrective and Preventative Actions and Section 12 address Information and Communication and Incident Reporting.</td><td></td></tr>
<tr><td colspan="5">BLASTING</td></tr>
<tr><td colspan="5">Blasting Criteria</td></tr>
<tr><td>9.</td><td>The Proponent must ensure that the blasting on the site does not cause exceedances of the criteria in Table 4.<br>Table 4: Blasting criteria
<table>
<tr><th>Location</th><th>Airblast Overpressure (dB(Lin Peak)</th><th>Ground Vibration (mm/s)</th><th>Allowable Exceedance</th></tr>
<tr><td></td><td>120</td><td>10</td><td>0%</td></tr>
<tr><td></td><td>115</td><td>5</td><td>5% of the total number of blasts over a 12 mth period</td></tr>
</table>
However, these criteria do not apply if the Proponent has a written agreement with the relevant owner or infrastructure provider / owner, and the Proponent has advised the Department in writing of the terms of this agreement.</td><td></td><td>21 blasts were conducted between January 2020 and December 2020 all of which were monitored. There were no recorded vibration measurements greater than 5mm/s and majority of the blasts recorded overpressure less than 115bB(L) with the exception of three blasts.<br><br>No agreements have been made with any relevant landowners in relation to blasting.</td><td>Non-Compliant</td></tr>
<tr><td colspan="5">Blasting Hours</td></tr>
<tr><td>10.</td><td>The Proponent must only carry out blasting on site between 10 am and 4 pm Monday to Friday inclusive. No blasting is allowed on weekends or public holidays, or at any other time without the written approval of Secretary.</td><td>• Blast Monitoring Results Teralba Quarry, 2020 – Appendix 2</td><td>All blasts conducted at the Teralba Quarry have occurred between 10:00am and 4:00pm, i.e. between 10:57am and 3.23pm.</td><td>Compliant</td></tr>
<tr><td colspan="5">Blasting Frequency</td></tr>
<tr><td>11.</td><td>The Proponent must not carry out more than 1 blast a day on site, unless an additional blast is required following a blast misfire.<br>Note: A blast may involve a number of explosions within a short period, typically less than two minutes.</td><td>• Blast Monitoring Results Teralba Quarry, 2020 – Appendix 2</td><td>All blast conducted in 2020 were single blasts.</td><td>Compliant</td></tr>
<tr><td colspan="5">Property Inspections</td></tr>
<tr><td>12.</td><td>If the Proponent receives a written request from the owner of any privately-owned land within 500 m of proposed blasting for a property inspection to establish the baseline condition of any buildings and/or structures on his/her land, or to have a previous property inspection report updated, then within 2 months of receiving this request the Proponent must:<br>(a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to:<br>• establish the baseline condition of any buildings and/or structures on the land, or update the previous property inspection report; and<br>• identify any measures that should be implemented to minimise the potential blasting impacts of the project on these buildings and/or structures; and<br>(b) give the landowner a copy of the new or updated property inspection report.</td><td></td><td>No written requests were received during the reporting period.</td><td>Not Activated</td></tr>
</table>

| Condition No. | Project Approval condition | Verification | Comments | Compliance |
|---|---|---|---|---|
| **Property Investigations** | | | | |
| **13.** | If the owner of any privately-owned land claims that the buildings and/or structures on his/her land<br>• have been damaged as a result of blasting on site, then within 2 months of receiving this claim in<br>• writing from the landowner the Proponent must:<br>• commission a suitably qualified, experienced and independent person, whose appointment is<br>• acceptable to both parties, to investigate the claim; and<br>(b) give the landowner a copy of the property investigation report.<br>If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Proponent must repair the damages to the satisfaction of the Secretary.<br>If the Proponent or landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Secretary for resolution. | | | **Not Activated** |
| **Operating Conditions** | | | | |
| **14.** | During blasting operations, the Proponent must:<br>(a) implement best management practice to:<br>• protect the safety of people and livestock in the surrounding area;<br>• protect public or private infrastructure/property in the surrounding area from any damage; and<br>• minimise the dust and fume emissions of any blasting; and<br>(b) operate a suitable system to enable the public to get up-to-date information on the proposed blasting schedule on site, to the satisfaction of the Secretary. | • Blast Management Plan, Dec 2020 | The Blast Management Plan provides<br>(a) Section 7 Surrounding Residences and Potential Blast-Related Impacts and Section 8 Control Measures for properties, safety, fly-rock / dust / fume management, and airblast overpressure;<br>(b) Section 14 addresses Publication of Blast Information on the Metromix website and monitoring results will also be presented at CCC Meetings. | **Compliant** |
| **15.** | The Proponent must not undertake blasting within 500 metres of:<br>(a) any public road without the approval of Council; or<br>(b) any land outside the site not owned by the Proponent, unless:<br>• the Proponent has a written agreement with the relevant landowner to allow blasting to be carried out closer to the land, and the Proponent has advised the Department in writing of the terms of this agreement, or<br>• the Proponent has:<br>– demonstrated to the satisfaction of the Secretary that the blasting can be carried out closer to the land without compromising the safety of the people or livestock on the land, or damaging the buildings and/or structures on the land; and<br>– updated the Blast Management Plan to include the specific measures that would be implemented while blasting is being carried out within 500 metres of the land. | | Lake Macquarie City Council has confirmed approval for Metromix to blast within 400m of Rhondda Road, assuming that suitable notification is provided to Council and the control measures described in this document are implemented. The Blast Management Plan has been updated to reflect this change. Metromix has also demonstrated to the satisfaction of the Secretary that blasting may occur safely within 400m of land outside the Teralba Quarry and consulted with relevant landowners on the matter. | **Compliant** |
| **Blast Management Plan** | | | | |
| **16.** | The Proponent must prepare and implement a Blast Management Plan for the project to the satisfaction of the Secretary. This plan must:<br>(a) be submitted to the Secretary for approval within 4 months from the date of project approval; | • Letter to DP&I re Submission of Blast Management Plan, 6 Sep 2013 | A Blast Management Plan was prepared to satisfy Project Approval Schedule 3 condition 16 and submitted to DP&I on 6 September 2013. DP&I approved the Blast Management Plan on 10 October | **Compliant** |

<table>
<tr><th>Condition No.</th><th>Project Approval condition</th><th>Verification</th><th>Comments</th><th>Compliance</th></tr>
<tr><td></td><td>(b) be prepared in consultation with the Council and interested members of the local community potentially affected by blasting operations;<br>(c) describe the measures that would be implemented to ensure:<br>• best management practice is being employed; and<br>• compliance with the relevant conditions of this approval; (d) include a road closure management plan for blasting within 500 metres of a public road, that has been prepared in consultation with Council;<br>(e) include a specific blast fume management protocol to demonstrate how emissions will be minimised including risk management strategies if blast fumes are generated; and<br>(f) include a monitoring program for evaluating the performance of the project including:<br>• compliance with the applicable criteria; and<br>• minimising fume emissions from the site.<br>The Proponent must implement the plan as approved by the Secretary.</td><td>• Blast Management Plan, Sep 2013<br>• Letter from DP&I re Approval of Blast Management Plan, 10 Oct 2013<br>• Updated Blast Management Plan (Dec 2020)<br>• Letter from DPIE regarding approval of updated Blast Management Plan (December 2020)</td><td>2013. An updated Blast Management Plan was prepared and approved by DPIE in December 2020:<br>(b) The updated Blast Management Plan was prepared in consultation with the Lake Macquarie City Council;<br>(c) Blast Management Plan Section 8 presented Control Measures;<br>(d) Blast Management Plan Section 7.2.3 states “Rhondda Road is approximately 400m north of the closest blasting location within the Southern Extension. Given these distances and the flyrock assessment by Orica, there will be no need to notify any residents or close Rhondda Road for short periods during a blast.”<br>(e) Blast Management Plan Section 7.2.4 addresses blast fume potential and management;<br>(f) Blast Management Plan Section 9 provides blast and fume monitoring and Section 10 addresses Evaluation of Compliance.</td><td></td></tr>
<tr><td colspan="5">AIR QUALITY</td></tr>
<tr><td colspan="5">Air Quality Criteria</td></tr>
<tr><td>17.</td><td>The Proponent must ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the project do not exceed the criteria in Tables 5 to 7 at any residence on privately- owned land, or on more than 25% of any privately-owned land.<br>Table 5: Long-Term Impact Assessment Criteria for Particulate Matter
<table>
<tr><th>Pollutant</th><th>Averaging Period</th><th>Criterion</th></tr>
<tr><td>Total Suspended Particulates</td><td>Annual</td><td>90µg/m3</td></tr>
<tr><td>Particulate Matter <10 µm (PM10)</td><td>Annual</td><td>30 µg/m3</td></tr>
</table>
Table 6: Short Term Impact Assessment Criteria for Particulate Matter
<table>
<tr><th>Pollutant</th><th>Averaging Period</th><th>Criterion</th></tr>
<tr><td>Particulate Matter <10 µm (PM10)</td><td>24 hour</td><td>50 µg/m3</td></tr>
</table>
Table 7: Long-Term Impact Assessment Criteria for Deposited Dust
<table>
<tr><th>Pollutant</th><th>Averaging Period</th><th>Max increase in Deposited Dust Level</th><th>Max Total Deposited Dust Level</th></tr>
<tr><td>Deposited dust</td><td>Annual</td><td>2g/m2/mth</td><td>4g/m2/mth</td></tr>
</table>
Notes to Tables 5-7:<br>a - Total impact (i.e. incremental increase in concentrations due to the project plus background concentrations due to all other sources);<br>b - Incremental impact (i.e. incremental increase in concentrations due to the project on its own);</td><td>• Air Quality Management Plan, Section 8, Sep 2013<br>• Updated Air Quality Management Plan, December 2019</td><td>The Air Quality Management Plan Section 8 presents potential dust sources and key control procedures and measures adopted for the management of particulate matter emissions generated by the project to ensure dust emissions from the Teralba Quarry activities do not exceed the criteria in Tables 5 to 7 at any residence on privately-owned land.<br><br>The Air Quality Management Plan Section 9 describes the Air Quality Monitoring program to be conducted:<br>• Five (5) dust deposition gauges are located to the east of the Teralba Quarry and on the outskirts of Teralba:<br>– Hillside Crescent (established June 2004)<br>– Myrtle Street (established June 2004)<br>– Rhondda Road (established June 2004)<br>– Rodgers Street (established April 2011)<br>– York Street (established 1 February 2019 to replace the location at Margaret Street after the landowner requested this gauge be removed).<br>• A High Volume Air Sampler (HVAS) with $PM_{10}$ was installed at Rodgers St, Teralba in July 2014.</td><td>Non-Compliant</td></tr>
</table>

| Condition No. | Project Approval condition | Verification | Comments | Compliance |
|---|---|---|---|---|
| **17. (Cont'd)** | c - Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method.<br>d - Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed by the Secretary in consultation with EPA. | | Two exceedances of the 24 hour PM10 criteria occurred between January 2020 and December 2020 due to bushfires in the region. | |
| **Greenhouse Gas Emissions** | | | | |
| **18** | The Proponent must implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site. | | | **Noted** |
| **Operating Conditions** | | | | |
| **19.** | The Proponent must:<br>(a) implement best management practice to minimise the dust emissions of the project;<br>(b) regularly assess air quality monitoring data and relocate, modify, and/or stop operations on site as may be required to ensure compliance with the relevant conditions of this approval,<br>(c) minimise the air quality impacts of the project during adverse meteorological conditions and extraordinary events (see Note d to Tables 5-7 above);<br>(d) minimise any visible off-site air pollution; and<br>(e) minimise surface disturbance of the site and undertake progressive rehabilitation of the site; and<br>(f) monitor and report on compliance with the relevant air quality conditions in this approval, to the satisfaction of the Secretary. | • Air Quality Management Plan, Sep 2013<br>• Updated Air Quality Management Plan, Dec 2019 | (a) the measures established over many years by Metromix are generally consistent with best management practices and have been adopted in the Air Quality Management Plan. These measures have been effective in controlling dust from the quarry activities. Some additional controls (not necessarily consistent with best management practice) have been effective in controlling dust emissions from the Quarry Site to acceptable levels.<br>(b) If monitoring results approach the criteria identified in Project Approval Schedule 3 condition 17, the Quarry Manager or Quarry Supervisor will review:<br>i) the meteorological data for the corresponding period;<br>ii) the locations and duration of activities on site during the corresponding period; and<br>iii) data on activities at the nearby asphalt plant.<br>If Teralba Quarry is determined to be the source of the elevated dust levels, the Quarry Manager will initiate corrective and preventative actions. Metromix will report the event to the EPA in accordance with the Pollution Incident Response Management Plan as soon as practicable after the incident and a report submitted to the DPIE and EPA within 7 days of the exceedance in accordance with Project Approval Schedule 5 condition 7.<br>(c) An automated meteorological station is installed on the Teralba Quarry site. The station retrieves data from the logger and transmits it directly to a computer at the quarry site office. | **Compliant** |

| Condition No. | Project Approval condition | Verification | Comments | Compliance |
|---|---|---|---|---|
| **19. (Cont'd)** | | | (d) During periods of high wind speeds Teralba Quarry activities capable of generating dust are curtailed in the higher exposed areas. Water is applied to internal roads and blasts are not scheduled or initiated.<br>(e) When areas within the Quarry Site are no longer required for operational purposes, they are rehabilitated in accordance with the Biodiversity and Rehabilitation Management Plan. | |
| **Air Quality Management Plan** | | | | |
| **20** | The Proponent must prepare and implement an Air Quality Management Plan for the project to the satisfaction of the Secretary. This plan must:<br>(a) be prepared in consultation with Council, and submitted for approval to the Secretary within 4 months of the date of this approval;<br>(b) describes the measures that would be implemented to ensure:<br>• best management practice is employed;<br>• the air quality impacts of the project are minimised during adverse meteorological conditions and extraordinary events; and<br>• compliance with the relevant conditions of this approval;<br>(c) describes the proposed air quality management system; and<br>(d) includes an air quality monitoring program that:<br>• is capable of evaluating the performance of the project;<br>• includes a protocol for determining any exceedances of the relevant conditions of approval;<br>• adequately supports the air quality management system; and<br>• evaluates and reports on the adequacy of the air quality management system.<br>The Proponent must implement the plan as approved by the Secretary. | • Letter from DP&I re Approval of Air Quality Management Plan, 10 Oct 2013<br>• Updated Air Quality Management Plan (Dec, 2019)<br>• Letter from DPIE approving management plan dated 12 December 2019 | The Air Quality Management Plan was prepared to satisfy this Project Approval condition and was approved by DP&I on 10 October 2013. It was updated and approved by DPIE in December 2019:<br>(a) The Air Quality Management Plan was prepared in consultation with Lake Macquarie City Council and a draft copy of the Plan provided to Council for review and comment on 26 June 2013.<br>Informal discussions were also held with the EPA, particularly with respect to the proposed air quality monitoring program and locations and type of air quality monitoring.<br>(b) measures implemented are:<br>• consistent with best management practices effective in controlling dust from the quarry activities;<br>• during periods of high wind speeds (typically from the western quadrant): Teralba Quarry activities capable of generating dust are curtailed in the higher exposed areas.<br>• monitoring results are assessed by the Quarry Manager or Quarry Supervisor for compliance with relevant conditions;<br>(c) the Air Quality Management Plan presents the air quality management system for the Teralba Quarry;<br>(d) Sections 9, 10 and 11 address air quality monitoring and compliance | **Compliant** |
| **METEOROLOGICAL MONITORING** | | | | |
| **21** | For the life of the project, the Proponent must ensure that there is a suitable meteorological station operating in the vicinity of the site that:<br>• complies with the requirements in the Approved Methods for Sampling of Air Pollutants in New South Wales guideline; and<br>• is capable of continuous real-time measurement of temperature lapse rate, in accordance with the NSW Industrial Noise Policy, or as otherwise approved by EPA. | • Environment Protection Licence No. 536<br>• Meteorological data | The Environment Protection Licence No. 0536 condition M5 describes the requirements for a meteorological station to be available on the Teralba Quarry site.<br>A meteorological monitoring station is located in a satisfactory location on the Northern Extension Area and measures wind speed and direction, temperature, rainfall and relative humidity. | **Compliant** |

| Condition No. | Project Approval condition | Verification | Comments | Compliance |
|---|---|---|---|---|
| **21. (Cont'd)** | | | The station results are relayed to the computer system in the Teralba Quarry office and are continuously available for on site management of activities. | |
| **SOIL & WATER** | | | | |
| | *Note: The Proponent is required to obtain the necessary water licences for the project under the Water Act 1912 and/or the Water Management Act 2000* | • WAL 40303 | Metromix holds Water Access Licence 40303 for 1407ML/year for water pumped from Dam A. | **Compliant** |
| **Water Supply** | | | | |
| **22** | The Proponent must ensure it has sufficient water during all stages of the project, and if necessary, adjust the scale of quarrying operations on site to match its available supply. | • Monitoring records | Sufficient water supply for the Teralba Quarry activities is available from the Mine Adit of the historic underground coal workings. | **Compliant** |
| **Surface Water Discharges** | | | | |
| **23** | The Proponent must ensure that all surface water discharges from the site comply with the discharge limits in any EPL which regulates water discharges from the site, or with Section 120 of the POEO Act. | • Environment Protection Licence No. 536<br>• Monitoring records | The Environment Protection Licence No. 0536 Variation condition P1.2, identifies EPA approved water discharge points 4 and 5 to be monitored monthly and during discharge (when water is available) for pH, EC, and total suspended solids (TSS) respectively, points 6 and 7 monitored within 8 hours of commencement of discharge for pH, EC and TSS, and volume discharged from point 7. | **Noted Compliant** |
| **On-Site Sewage Management** | | | | |
| **24** | The Proponent must manage on-site sewage to the satisfaction of Council and the EPA. | | Onsite sewage is treated in an onsite sewerage / wastewater treatment plant that has no discharge to the environment. | **Compliant** |
| **Storage of Chemicals & Petroleum Products** | | | | |
| **25** | The Proponent must ensure that all chemicals and/or petroleum products on site are held in appropriately bunded areas with impervious flooring and sufficient capacity to contain 110% of the largest container stored within the bund, and in accordance with Australian Standard AS1940-2004 -The Storage and Handling of Flammable and Combustible Liquids. The flooring and bund(s) must be designed in accordance with:<br>• the requirements of relevant Australian Standards; and<br>• DECC's Storing and Handling Liquids: Environmental Protection – Participants Manual. | | Petroleum products on site (diesel and oils) are held in appropriately bunded areas with impervious flooring and sufficient capacity to contain 110% of the largest container stored within the bund (in accordance with AS1940-2004 and the DECC *Storing and Handling Liquids: Environmental Protection Manual*).<br>Waste oil is placed in the bunded shipping container and the waste oil collected for recycling by Trans-Pacific. | **Compliant** |
| **Water Management Plan** | | | | |
| **26** | The Proponent must prepare and implement a Water Management Plan for the project to the satisfaction of the Secretary. This plan must be prepared in consultation with Council and NOW by suitably qualified and experienced person/s whose appointment has been approved by the Secretary, and be submitted to the Secretary for approval within 6 months of the date of this approval and prior to any extraction activities within the Northern Extension area.<br>In addition to the standard requirements for management plans (see condition 3 of Schedule 5), this plan must include: | • Water Management Plan, 2020 | The Water Management Plan was prepared in consultation with the Lake Macquarie City Council , DPI – Water.<br>The most recent version of the WMP was approved in December 2020. | **Compliant** |

| Condition No. | Project Approval condition | Verification | Comments | Compliance |
|---|---|---|---|---|
| **26. (Cont'd)** | (a) Site Water Balance that:<br>• includes details of:<br>– sources and security of water supply, including contingency planning;<br>– water use on site;<br>– water management on site;<br>– reporting procedures, including comparisons of the site water balance each calendar year; and<br>• describes the measures that would be implemented to minimise clean water use on site; | • Water Management Plan, Oct 2020<br>• Specialist Consultant Studies Compendium for the Teralba Quarry Extensions EA, Jun 2012<br>• Part 3 –Surface Water Assessment –BMT-WBM Pty Ltd (2011)<br>• WAL 40303 | (a) The site water balance was prepared as part of the Environmental Assessment for the project:<br>• Water Management Plan Section 7.3.1 addresses Water Supply - potable water is sourced directly from the local water mains. Non-potable water is extracted under WAL 40303 from the Mine Audit Dam A;<br>• Flow monitoring (from the installed water flow meters) and water quality data collected is reported as part of the EPL Annual Return and Annual Review under the Project Approval;<br>• Water is recirculated throughout the operation of the processing plant, with waste water or slurry pumped to the silt cells for settlement. | **Compliant** |
| | (b) Surface Water Management Plan, that includes:<br>• detailed baseline data on surface water flows and quality in the watercourses that could be affected by the project;<br>• a detailed description of the surface water management system on site, including the:<br>– clean water diversion systems;<br>– erosion and sediment controls; and o water storages;<br>• design objectives and performance criteria for proposed:<br>– erosion and sediment control structures;<br>– water storages; and<br>– control of water pollution from rehabilitated areas of the site;<br>• performance criteria, including trigger levels for investigating any potentially adverse impacts, for surface water quality of local watercourses and Lake Macquarie;<br>• a program to monitor:<br>– the effectiveness of the water management system;<br>– surface water flows and quality in local watercourses and Lake Macquarie; and<br>– ecosystem health of local watercourses and Lake Macquarie;<br>• a plan to respond to any exceedances of the performance criteria, and mitigate and/or offset any adverse surface water impacts of the project; and<br>• a detailed review the dirty water management system to:<br>– determine whether the capacity, integrity, retention time and management of the system are sufficient to ensure that water discharged from the site meets the performance criteria and propose any upgrades necessary to meet these criteria;<br>– assess appropriate options to improve storage and retention times in accordance with The Blue Book - Managing Urban Stormwater (MUS): Soils and Construction (Landcom); and | • Water Management Plan, Oct 2020 | (a) A Surface Water Management Plan has been prepared as part of the Water Management Plan Section 7:<br>• Section 7.1.5 addresses Existing Surface Water Quality<br>• Section 7.3 addresses Site Water Management and Section 8 addresses clean water diversion and erosion and sediment controls<br>• Section 8 addresses design objectives and performance criteria for site water management;<br>• Section 9.2 addresses performance criteria, including trigger levels performance criteria, including trigger levels;<br>• Section 9.3 addresses monitoring locations and frequency;<br>• Section 11 outlines corrective and preventative actions to respond to any exceedances of the performance criteria;<br>• Section 8 provides a review of the dirty water management system and outlines options to improve storage and retention times in accordance with The Blue Book<br>During the reporting period three exceedances of the criteria for total suspended solids as noted in the AQMP were recorded. The exceedances were caused by a high rainfall event in July 2020. In November 2020, monthly water quality at EPL Point 4 was inadvertently missed. | **Non-Compliant** |

| Condition No. | Project Approval condition | Verification | Comments | Compliance |
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| **26 (Cont'd)** | (c) Groundwater Management Plan, that includes:<br>• detailed baseline data on groundwater yield and quality in the area, that could be affected by the project;<br>• groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts;<br>• a program to monitor:<br>– surface water inflows into the groundwater system beneath the site;<br>– the impacts of the project on:<br>o the local coal seam aquifer;<br>o any groundwater bores on privately-owned land that could be affected by the project; and<br>o groundwater dependent ecosystems; and<br>• seepage/leachate from water storages or backfilled voids (including historical coal workings) on site; and<br>• a plan to respond to any exceedances of the groundwater assessment criteria;<br>*Note: The Secretary may require the Proponent to implement upgrades and other changes identified under paragraph (b), in accordance with condition 4 of Schedule 2.*<br>The Proponent must implement the plan as approved by the Secretary. | Water Management Plan (2020), Section 7.5 | (c) A Groundwater Management Plan has been incorporated in the Water Management Plan Section 7.2:<br>• Sections 7.2.1 to 7.2.3 outline baseline groundwater yield and quality in the area of the Teralba Quarry;<br>• Section 9.4 and 9.5 outlines the monitoring program for surface water inflows, local seam aquifers, groundwater bores and groundwater dependent ecosystems;<br>• Section 11 outlines corrective and preventative actions to respond to any exceedances of the groundwater assessment criteria; | **Compliant** |
| **VISUAL** | | | | |
| **Protection of Ridgelines** | | | | |
| **27** | The Proponent must ensure that any clearing of visually prominent ridgeline vegetation is done in a progressive manner, so as to provide for a maximum of 6 months of future quarrying operations. | View of Quarry from Speers Point (**Plate 10**) | The Teralba Quarry plan for the clearance of ridgeline vegetation is cognisant of the visual impact associated with the ridgelines and progressive minimal clearing is being practised in relation to the extension works to reduce potential impact. | **Compliant Ongoing** |
| **28** | The Proponent must ensure that the:<br>(a) eastern facing quarry benches of the Southern Extension are vegetated with native endemic understory species and trees as soon as practicable following the completion of extraction of those benches; and<br>(b) revegetation of the quarry benches is managed to ensure that a tree canopy is regenerated, as soon as practicable, to be consistent with and visually integrated into the surrounding tree canopy, to the satisfaction of the Secretary. | | (a) Works on the eastern faces of the Southern Extension Area (Stage 1A) commenced in December 2013.<br>(b) Regeneration of native endemic understorey and tree canopy will commence on the western benches in Stage 1B (North) of the Southern Extension when the recovery of resource is complete from the upper face areas. | **In Progress** |
| **Operating Conditions** | | | | |
| **29** | The Proponent must<br>(a) implement all reasonable and feasible measures to minimise the visual impacts and any offsite lighting impacts of the project; and<br>(b) maintain and improve the effectiveness of the vegetated plantings on the quarry benches, over the life of the project. | | (a) Visual impacts of the quarry operations have been minimised for the Southern Extension Area quarry works and there are no offsite lighting impacts from the current works;<br>(b) Revegetation of the completed areas of the Teralba Quarry is continuing. | **Compliant Ongoing** |

| Condition No. | Project Approval condition | Verification | Comments | Compliance |
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| **Advertising Signage** | | | | |
| **30** | The Proponent must not erect or display any advertising structure(s) or signs on the site without the written approval of the Secretary.<br>*Note: This condition does not require approval for any business identification, traffic management, and/or safety or environmental signs.* | | Signs erected at the entrance to the Teralba Quarry site are only related to the company identification, safety and environment, and traffic signs. | **Compliant** |
| **TRANSPORT** | | | | |
| **Intersection Investigation and Wheel Wash** | | | | |
| **31** | Within 6 months of the date of this approval the Proponent must:<br>(a) commission a suitably qualified and experienced person endorsed by the Secretary to undertake a road safety audit report of the intersection of York Street and Anzac Parade in consultation with Council;<br>(b) submit the report and any recommendations to the Secretary for approval; and<br>(c) implement any recommendations of the road safety audit to upgrade the intersection of York Street and Anzac Parade to the satisfaction of Council. | • Project Approval 10_0183, granted 22 Feb 2013<br>• Guide to Road Safety Part 6:Road Safety Audit, Austroads, 2009<br>• Guidelines for Road Safety Audit Practices, RMS, 2011<br>• Letter to DP&I re Road Safety Audit Report, 14 Aug 2013 | (a) GTA Consultants undertook a road safety audit for the intersection of York Street and Anzac Parade Teralba in consultation with Lake Macquarie City Council;<br>(b) The Road Safety Audit Report and consequent letters were submitted to the Director-General;<br>(c) The road safety audit identified primary issues that would be addressed by Council as part of their ongoing maintenance and cannot be reasonably related to the operations at Metromix. | **Compliant** |
| **32** | The Proponent must install truck wheel wash facilities within 6 months of the date of this approval at all quarry exits and following such installation, must ensure that all trucks have their tyres and vehicles cleaned of mud, dirt and dust prior to exiting the site, so as to avoid tracking dirt onto public roads, to the satisfaction of the Secretary. | | Wheel wash facilities are installed at the quarry exits (bottom/top wheel washes) to ensure truck tyres are cleaned of mud, dirt and dust prior to exiting the site, to avoid tracking dirt onto public roads. Additional sprays were install on the Top Exit Truck Wheelwash during the second half of 2016 and additional hard pavements were also completed in the second half of 2016 prior to the Top Gate Wheel Washes. | **Compliant** |
| **Operating Conditions** | | | | |
| **33** | The Proponent must construct the tunnel and conveyor under Rhondda Road to the satisfaction of Council. | | The commencement of quarrying of the Northern Extension, that will require the construction of a tunnel and conveyor under Rhondda Road, did not occur during the reporting period. | **Not Yet Applicable** |
| **34** | Within 6 months of the date of this approval, the Proponent must cease transporting quarry material by truck between the quarry pits. | | Transport of quarry materials between the Northern and Southern Extension pits ceased on 22 August 2013. | **Compliant** |
| **35** | The Proponent may only transport quarry products from the site on the designated Haulage Routes (see Appendix 4), except in circumstances where the final destination of the quarry products can only be accessed by other roads. | | Transport of products from the Teralba Quarry site only occurs on the designated Haulage Routes identified in the Project Approval in Appendix 4 and the Traffic Management Plan. | **Compliant** |

| Condition No. | Project Approval condition | Verification | Comments | Compliance |
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| **36** | The Proponent must ensure that all heavy vehicles:<br>(a) do not exceed an on-site speed limit of 30 km per hour;<br>(b) exiting the site to the east via the bottom gate (i.e. to Railway Street) during the Day Shoulder period do not exceed the on-site speed limit and minimise noise as far as reasonable between Railway Street and the end of the existing engineering works; and<br>(c) entering or leaving the site have their loads covered. | | (a) On-site is limited to 30kph as noted by signage;<br>(b) Exit speed to Railway Street is limited to 30kph;<br>(c) All trucks must cover their loads or drivers face disciplinary action in accordance with the Drivers Code of Conduct. | **Compliant** |
| **37** | During the AM peak period and PM peak period, the Proponent must implement all reasonable and feasible measures to minimise project-related traffic delays and congestion at the intersection of Toronto and Five Islands Roads and along York Street, to the satisfaction of the Secretary. | • Traffic Management Plan, Dec 2019<br>• Teralba Quarry Truck Movements | Hourly truck rates are managed to minimise project-related traffic delays and congestion at the intersection of Toronto and Five Islands Roads and along York Street. | **Compliant** |
| **38** | Only trucks owned by the Proponent, its shareholders or approved contractors and fitted with airbag suspension may transport quarry products from the site between 6 pm and 6 am. | | All trucks owned by Metromix, and its approved contractors are fitted with airbag suspension. | **Compliant** |
| **Maintenance** | | | | |
| **39** | The Proponent must regularly maintain the pavement of the on-site road that connects to Railway Street to minimise dust generation and potholes, to the satisfaction of the Secretary. | | The pavement of the on-site road (after the wheel wash) that connects to Railway Street is well maintained. | **Compliant Ongoing** |
| **Monitoring of Product Transport** | | | | |
| **40** | The Proponent must:<br>(a) keep accurate records of:<br>– the amount of quarry products transported from the site (monthly and annually); and<br>– all laden truck movements from the site (hourly, daily, weekly, monthly and annually); and<br>(b) publish these records on its website on a quarterly basis. | • Traffic Management Plan, Dec 2019<br>• Teralba Quarry Truck Movements<br>• www.metromix.com.au | (a) Quarry product records are maintained on Monthly Transport Tonnages for Council charges (tonnage is not reported on the website as it is considered confidential information) but is available to the CCC and in the Annual Review;<br>(b) All laden truck movements from the site are recorded in accordance with this condition;<br>(c) Truck movements recorded are placed on the Metromix website typically on a monthly basis. | **Compliant** |
| **Road Signage** | | | | |
| **41** | Deleted. | | | |
| **42** | Prior to carrying out quarrying operations under this approval, the Proponent must install “Trucks entering” warning signs 200 metres either side of the quarry entrances on public roads. | | “Trucks entering” warning signs have been erected 200 metres either side of the quarry entrances on public roads. | **Compliant** |
| **Parking** | | | | |
| **43** | The Proponent must provide sufficient parking on-site for all project-related traffic in accordance with Council’s parking codes and in consultation with Council. | | No Council Parking Code was available for the Teralba Quarry site. Metromix has adequate parking on site for all project-related traffic. | **Compliant** |

| Condition No. | Project Approval condition | Verification | Comments | Compliance |
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| **Transport Management Plan** | | | | |
| **44** | The Proponent must prepare and implement a Transport Management Plan for the project to the Secretary. This plan must:<br>(a) be prepared by a suitably qualified traffic consultant in consultation with the RMS and Council, and submitted to the Secretary for approval within 4 months of the date of this approval;<br>(b) include a drivers' code of conduct for the project;<br>(c) describe the measures that would be implemented to ensure:<br>– drivers are aware of potential safety issues along the haulage routes in particular near schools;<br>– drivers of project-related vehicles comply with the drivers' code of conduct;<br>– compliance with the relevant conditions of this approval; and<br>(d) include a program to monitor the effectiveness of the implementation of these measures.<br>The Proponent must implement the plan as approved by the Secretary. | • Transport Management Plan, Oct 2013<br>• Updated Transport Management Plan, Dec 2019. | A Traffic Management Plan was prepared in June 2013 to satisfy this condition and was approved by DP&I on 10 October 2013. An updated version was approved by DPIE in December 2019:<br>(a) The Traffic Management Plan was prepared by GTA Consultants in conjunction with R W Corkery & Co, in consultation with the RMS and Lake Macquarie City Council;<br>(b) Traffic Management Plan Appendix 1 provides the Drivers Code of Conduct;<br>(c) Traffic Management Plan Section 6.2 describes Competence Training and Awareness that includes site traffic rules, safe site delivery, Drivers Code of Conduct, maximum hourly despatch rates and operation and maintenance of wheel washes.<br>(d) Traffic Management Plan Section 8 describes Performance and Monitoring of the truck and transport management plan requirements.<br>There were no identified departures from the Teralba Quarry Driver's Code of Conduct during the period from January 2020 to December 2020. | **Compliant** |
| **BUSHFIRE MANAGEMENT** | | | | |
| **45** | The Proponent must:<br>a) ensure that the project is suitably equipped to respond to any fires on site; and<br>b) assist the Rural Fire Service, emergency services and National Parks and Wildlife Service as much as possible if there is a fire in the surrounding area. | • Bushfire Management Plan, Feb 2014 | A Bushfire Management Plan for the Teralba Quarry was approved in 2014 by the Department of Planning.<br><br>In 2018, the Bush Fire Management Plan was discussed with and reviewed by the Deputy Captain of the local Teralba Fire Service and a 20m Asset Protection Zone (APZ) was established around the fuel and oil storage areas.<br><br>From January 2020 to December 2020 there was no change to the Bushfire Management Plan. | **Compliant** |
| **WASTE** | | | | |
| **46** | Prior to importing any Virgin Excavated Natural Material or excavated natural material to the site, the Proponent must obtain a 'resource recovery exemption' under the POEO Act and provide evidence of this approval to the Department. | • Waste Management Plan, Dec 2019 | A 'Resource recovery exemption' under the *Protection of the Environment Operations Act* 1997 will be obtained when VENM/ ENM is required for the site.<br><br>No VENM/ENM was imported to the Quarry Site for fill purposes from January 2020 to December 2020. | **Not Activated** |
| **47** | The Proponent must:<br>(a) minimise the waste generated by the project; and<br>(b) ensure that the waste generated by the project is appropriately stored, handled, and disposed of, to the satisfaction of the Secretary. | • Waste Management Plan, Dec 2019 | The waste generated by the project is appropriately stored and handled on site. All waste is segregated into separate bins, containers or tanks and the wastes are collected for recycling/disposal by Trans- Pacific Waste contractors, and One Steel Metal Recycling Services. | **Compliant** |

| Condition No. | Project Approval condition | Verification | Comments | Compliance |
|---|---|---|---|---|
| **48** | The Proponent must prepare and implement a Waste Management Plan for the project to the satisfaction of the Secretary. This plan must:<br>(a) be prepared in consultation with DRG and Council, and submitted to the Secretary for approval prior within 4 months of the date of this approval;<br>(b) identify the various waste streams of the project;<br>(c) estimate the volumes of waste material that would be generated by the project, including recycled concrete brought on-site;<br>(d) describe and justify the proposed strategy for disposing of this waste material, including recycled concrete brought on-site; (e) include a program to monitor the effectiveness of these measures.<br>The Proponent must implement the plan as approved by the Secretary. | • Waste Management Plan, Dec 2019 | The Waste Management Plan was approved by DP&I on 10 Oct 2013 (an updated plan was submitted to and by DPIE in December 2019):<br>(a) DRE and Council were consulted during preparation of the Waste Management Plan;<br>(b) Waste streams from the Teralba Quarry are identified in Table 7.1 of the Waste Management Plan;<br>(c) Section 8 of the Waste Management Plan discusses estimated waste volumes that would be generated by the project;<br>(d) Section 9 of the Waste Management Plan describes the waste control measures and management strategies;<br>(e) Section 10 describes monitoring and evaluation of compliance. | **Compliant** |
| **ABORIGINAL HERITAGE** | | | | |
| **Heritage Management Plan** | | | | |
| **49** | The Proponent must prepare and implement a Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:<br>(a) be prepared in consultation with Aboriginal stakeholders;<br>(b) be submitted to the Director-General for approval prior to carrying out any development within the Northern Extension area or within 6 months of the date of this approval;<br>(c) describe the measures that would be implemented for:<br>– monitoring all new surface disturbance on site for unidentified Aboriginal objects;<br>– managing the discovery of any human remains or previously unidentified Aboriginal objects on site; and<br>– ensuring ongoing consultation with Aboriginal stakeholders in the conservation and management of any Aboriginal cultural heritage values on site.<br>The Proponent must implement the plan as approved by the Secretary. | • Heritage Management Plan, Aug 2013<br>• Letter from DP&I re Comments on the Aboriginal Heritage Management Plan, 16 January 2014<br>• Updated Heritage Management Plan 2019 | Heritage Management Plan was prepared in June 2013 to satisfy the requirements of this condition. The plan was submitted to DP&I in August 2013.<br>(a) Letters were sent by registered mail to Aboriginal stakeholders on 15 May 2013 requesting review of the Plan. No responses were received;<br>(b) The draft Aboriginal Heritage Management Plan was prepared and submitted to DP&I within 6 months of the date of this approval. (It is noted that no development of the Northern Extension had occurred at the date of this review).<br>(c) Comments on the Aboriginal Heritage Management Plan were received from DP&I on 16 January 2014. Updated and approved by DPE on 19 September 2014. | **Compliant** |
| **49A.** | If any suspected Aboriginal object or place is identified on site, the Proponent must ensure that:<br>(a) all work in the immediate vicinity of the suspected Aboriginal object or place ceases immediately;<br>(b) a 10m buffer area around the suspected Aboriginal object or place is cordoned off; and<br>(c) OEH is contacted immediately.<br>Work in the immediate vicinity of the Aboriginal object or place may only recommence in accordance with the provisions of Part 6 of the *National Parks and Wildlife Act 1974.* | • Heritage Management Plan 2013 | Section 11 of the Heritage Management Plan the unexpected finds protocol. | **Compliant** |

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| **BIODIVERSITY AND REHABILITATION** | | | | |
| **Fauna Habitat** | | | | |
| **50** | The Proponent must install 20 nest boxes for microbats, 20 nest boxes for Little Lorikeets and 30 nest boxes for Sugar Gliders. These boxes must be monitored and maintained regularly over the life of the project, and re-located or replaced if not used by targeted fauna for a period of 12 months. | • Environmental Assessment Specialist Consultant Studies Compendium Volume 1 Part 5 | Nesting boxes were installed in late 2014 for three fauna species potentially displaced following clearing activities (namely 20 boxes for microbats, 20 boxes for Little Lorikeets and 30 boxes for Sugar Gliders). Metromix has commissioned a qualified ecologist to undertake an inspection and report upon the use of the boxes since 2014 (see Appendix 6).<br>From January 2020 to December 2020, an additional 11 nesting boxes were installed as required by the consent conditions of the powerline relocation. These boxes have now been included as part of the annual nesting box monitoring program. | **Compliant** |
| **51** | The Proponent must, wherever practicable, avoid clearing hollow-bearing trees. If clearing a hollow bearing tree cannot be avoided, then its removal must be offset with an additional and comparable habitat structure within the site. | • Biodiversity and Rehabilitation Management Plan, 2019 | Metromix installed an additional 11 nestboxes during 2020 to replace hollow-bearing trees moved for construction of an easement for the relocated powerline. | **Compliant Ongoing** |
| **Biodiversity Offset Strategy** | | | | |
| **52** | The Proponent must retire biodiversity credits specified in conditions 54 to 56 of this schedule in accordance with the Biodiversity Offset Scheme of the Biodiversity Conservation Act 2016, to the satisfaction of the Secretary and OEH. | • Correspondence with OEH dated 21 December 2018. | A modification to PA 10_0183 was approved on 16 April 2018 that removed the approved biodiversity offset area from the consent and replaced this with biodiversity credits. A revised biodiversity offset strategy was subsequently approved in July 2018 that describes Metromix's intention to retire credits following purchase on the open market.<br>The staged biodiversity offsetting obligations are described in Conditions 3(54) to 3(56) of PA 10_0183. The staged obligations are aligned with the staged development of the Quarry such that Metromix cannot proceed to the next stage of development of the Quarry until the biodiversity offset obligations for that stage have been satisfied. Table 19 of Annual Review 2020 summarises the biodiversity offset strategy for the Quarry.<br>The biodiversity credits for Stage 1 and Stage 2 in the Southern Extension were retired on 21 December 2018. | **Not Yet Activated** |
| **53** | The Proponent must prepare and submit a Biodiversity Offset Strategy to the satisfaction of the Secretary. This strategy must:<br>(a) be submitted for approval by the Secretary prior to 30 June 2018, or as otherwise agreed by the Secretary; and<br>(b) be prepared in accordance with the Biodiversity Conservation Act 2016; and<br>(c) provide for the retirement of biodiversity credits as specified in conditions 54 to 56 of this schedule.<br>The Proponent must implement the Biodiversity Offset Strategy to the satisfaction of the Secretary and OEH. | • Biodiversity Offset Strategy within the Biodiversity and Rehabilitation Management Plan,2019 | The Biodiversity Offset Strategy was approved by DPE in July 2018. | **Compliant** |

<table>
<tr><td>54</td><td>By 31 December 2018, unless otherwise approved by the Secretary, the Proponent must retire all biodiversity credits listed in Table 8 to the satisfaction of the Secretary and OEH.<br>Table 8: Biodiversity Credits to be retired by 31 December 2018
<table>
<tr><th>Credit Type</th><th>Offset Type</th><th>Number of Credits</th></tr>
<tr><td>Ecosystem Credits</td><td>PCT1589 ‘Spotted Gum – Broad-leaved Mahogany – Grey Gum grass – shrub open forest on Coastal Lowlands of the Central Coast’</td><td>670</td></tr>
<tr><td>Species Credits</td><td>Black-eyed Susan (Tetratheca juncea)</td><td>1103</td></tr>
</table></td><td></td><td></td><td>Compliant</td></tr>
<tr><td>55</td><td>Prior to any vegetation clearing in Southern Extension Stage 3 (see Figure 7 of Appendix 5) the Proponent must retire all biodiversity credits listed in Table 8a to the satisfaction of the Secretary and OEH.<br>Table 8a: Biodiversity credits to be retired prior to vegetation clearing in Southern Extension Stage 3.
<table>
<tr><th>Credit Type</th><th>Offset Type</th><th>Number of Credits</th></tr>
<tr><td>Ecosystem Credits</td><td>PCT1589 - ‘Spotted Gum – Broad-leaved Mahogany – Grey Gum grass – shrub open forest on Coastal Lowlands of the Central Coast’</td><td>171</td></tr>
</table></td><td></td><td>No vegetation clearing has commenced in Southern Extension Stage 3.</td><td>Not Activated</td></tr>
<tr><td>56</td><td>Prior to any vegetation clearing in Northern Extension Stages 1, 2 or 3 (see Figure 7 of Appendix 5) the Proponent must retire all biodiversity credits listed in Table 8b to the satisfaction of the Secretary and OEH.<br>Table 8b: Biodiversity credits to be retired prior to vegetation clearing in Northern Extension Stages 1, 2 or 3
<table>
<tr><th>Credit Type</th><th>Offset Type</th><th>Number of Credits</th></tr>
<tr><td>Ecosystem Credits</td><td>PCT1589 - ‘Spotted Gum – Broad-leaved Mahogany – Grey Gum grass – shrub open forest on Coastal Lowlands of the Central Coast’</td><td>502</td></tr>
</table></td><td></td><td>No vegetation clearing has commenced in Northern Extension Stages 1, 2 or 3.</td><td>Not Activated</td></tr>
<tr><td colspan="5">Long Term Security Offsets</td></tr>
<tr><td>57</td><td>Within 6 months of the approval of the Biodiversity Offset Strategy, or as otherwise agreed by the Secretary, the Proponent must make suitable arrangements for the long-term protection of any land identified in the Strategy, to the satisfaction of the Secretary</td><td>• Biodiversity Offset Strategy 2018</td><td>The approved Biodiversity Offset Strategy describes Metromix’s intention to purchase and retire biodiversity credits in order to satisfy Conditions 54, 55 and 56.</td><td>Noted</td></tr>
</table>

<table>
<tr><td colspan="5">Rehabilitation Objectives</td></tr>
<tr><td>58</td><td>The Proponent must rehabilitate the site to the satisfaction of the Secretary. This rehabilitation must be generally consistent with the proposed rehabilitation strategy in the EA and Appendix 6, and comply with the objectives in Table 9.<br>Table 9: Rehabilitation Objectives
<table>
<tr><th>Feature</th><th>Objective</th></tr>
<tr><td>Site (as a whole)</td><td>• Safe<br>• Hydraulically and geotechnically stable<br>• Non-polluting<br>• Fit for the intended post-mining land use(s)<br>• Final landform integrated with surrounding natural landforms as far as is reasonable and feasible<br>• Minimising visual impacts when viewed from surrounding land</td></tr>
<tr><td>Surface infrastructure</td><td>• Decommissioned and removed, unless otherwise agreed by the Secretary</td></tr>
<tr><td>Benched quarry walls</td><td>• Landscaped and revegetated utilising native tree and understorey species, ensuring that the tree canopy is restored and integrated with the surrounding canopy to minimise visual impacts</td></tr>
<tr><td>Quarry pit floors and silt ponds</td><td>• Landscaped and revegetated utilising native flora species and felled trees from clearing.<br>• Revegetation not required for existing and proposed industrial areas</td></tr>
<tr><td>Other land affected by the project</td><td>• Restore ecosystem function, including maintaining or establishing self-sustaining eco-systems comprised of:<br>– native endemic species<br>– a landform consistent with Figure 8 (Appendix 6) and the surrounding environment</td></tr>
</table></td><td></td><td>These objectives are addressed for progressive rehabilitation in Section 8.3 of the Annual Review 2018</td><td>Noted</td></tr>
<tr><td colspan="5">Progressive Rehabilitation</td></tr>
<tr><td>59</td><td>The Proponent must rehabilitate the site progressively, that is, as soon as reasonably practicable following disturbance. All reasonable and feasible measures must be taken to minimise the total area exposed for dust generation at any time. Interim stabilisation measures must be implemented where reasonable and feasible to control dust emissions in disturbed areas that are not active and which are not ready for final rehabilitation.<br>Note: It is accepted that parts of the site that are progressively rehabilitated may be subject to future re-disturbance.</td><td>Observation</td><td>Progressive rehabilitation is occurring at the Quarry (see Section 8 of the Annual Review).</td><td>Noted</td></tr>
<tr><td colspan="5">Biodiversity and Rehabilitation Management Plan</td></tr>
<tr><td>60</td><td>The Proponent must prepare a Biodiversity and Rehabilitation Management Plan for the project to the satisfaction of the Secretary. This plan must:<br>(a) be prepared by a suitably qualified expert and in consultation with DRG, DPI and Council;<br>(b) be submitted to the Secretary for approval within 12 months of the date of approval of Modification 1;</td><td>• Biodiversity and Rehabilitation Management Plan, June 2019</td><td>A Landscape Management Plan was submitted to the DP&I by 22 February 2014 and approved on 19 September 2014. A Biodiversity and Rehabilitation Management Plan was approved by the DPIE on 18 June 2019.</td><td>Compliant</td></tr>
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| | (c) provide details of the conceptual final landform and associated land uses for the site;<br>(d) describe how the implementation of the Biodiversity Offset Strategy would be integrated with the overall rehabilitation of the site;<br>(e) describe the short, medium and long-term measures that would be implemented to:<br>• manage remnant vegetation and habitat on site;<br>• implement the Biodiversity Offset Strategy; and<br>• ensure compliance with the rehabilitation objectives and progressive rehabilitation obligations in this approval;<br>(f) include detailed performance and completion criteria for evaluating the performance of the Biodiversity Offset Strategy and the rehabilitation of the site (including progressive rehabilitation), including triggering remedial action (if necessary);<br>(g) include a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for:<br>• ensuring compliance with the rehabilitation objectives and progressive rehabilitation obligations in this approval;<br>• enhancing the quality of remnant vegetation and fauna habitat;<br>• protecting and restoring native endemic vegetation and fauna habitat within any offset areas and rehabilitation areas; | | | |
| **60** | • maximising the salvage of environmental resources within the approved disturbance area – including tree hollows, vegetative and soil resources – for beneficial reuse in the enhancement of the biodiversity areas or rehabilitation area;<br>• collecting and propagating seed;<br>• ensuring minimal environmental consequences for the local Tetratheca juncea population;<br>• protecting vegetation and fauna habitat outside the approved disturbance area on-site;<br>• minimising the impacts on native fauna on site, including undertaking appropriate pre-clearance surveys;<br>• controlling weeds and feral pests;<br>• controlling erosion;<br>• controlling access; and<br>• bushfire management;<br>(h) include a program to monitor the effectiveness of these measures, and progress against the performance and completion criteria;<br>(i) identify the potential risks to successful implementation of the Biodiversity Offset Strategy and rehabilitation of the site, and include a description of the contingency measures that would be implemented to mitigate against these risks; and<br>(j) include details of who would be responsible for monitoring, reviewing, and implementing the plan.<br>The Proponent must implement the plan as approved by the Secretary. | | | **Compliant** |

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| **Rehabilitation Bond** | | | | |
| **61** | Within 6 months of the approval of the Biodiversity and Rehabilitation Management Plan, the Proponent must lodge a Rehabilitation Bond with the Department to ensure that the rehabilitation of the site is implemented in accordance with the performance and completion criteria set out in the Biodiversity and Rehabilitation Management Plan and the relevant conditions of approval. The sum of the bond must be determined by:<br>(a) calculating the cost of rehabilitating all disturbed areas of the site, taking into account the likely surface disturbance over the next 3 years of quarrying operations; and<br>(b) employing a suitably qualified quantity surveyor or other expert to verify the calculated costs to the satisfaction of the Secretary.<br>The calculation of the Rehabilitation Bond must be submitted to the Department for approval at least 2 months prior to the lodgement of the bond. | | The Rehabilitation Bond was lodged in October 2016. Metromix lodged an updated Rehabilitation Bond on 17 February 2020. | **Compliant** |
| **62** | The Rehabilitation Bond must be reviewed and, if required, an updated bond must be lodged with the Department within 3 months following:<br>(a) an update or revision to the Biodiversity and Rehabilitation Management Plan;<br>(b) the completion of an Independent Environmental Audit in which recommendations relating to the rehabilitation of the site have been made; or<br>(c) in response to a request by the Secretary.<br>Notes:<br>• If capital and other expenditure required by the Biodiversity and Rehabilitation Management Plan is largely complete, the Secretary may waive the requirement for lodgement of a bond in respect of the remaining expenditure.<br>• If the rehabilitation of the site area is completed to the satisfaction of the Secretary, then the Secretary will release the bond. If the rehabilitation of the site is not completed to the satisfaction of the Secretary, then the Secretary will call in all or part of the bond, and arrange for the completion of the relevant works. | | The Rehabilitation Bond was lodged in October 2016. An update to the rehabilitation bond was approved on 2 April 2020. No further review of this bond has been required. | **Noted** |
| **Relocated Powerlines** | | | | |
| **63** | The Proponent must ensure that any relocation of existing powerlines on-site does not cause greater than minor environmental consequences. | | Relocation of power lines to the Private Coal Haul Road occurred in 2020. Relocation did not cause greater than minor environmental consequences. | **Noted** |
| **SCHEDULE 4 ADDITIONAL PROCEDURES** | | | | |
| **NOTIFICATION OF LANDOWNERS** | | | | |
| **1.** | As soon as practicable and no longer than 7 days after obtaining monitoring results showing an:<br>(a) exceedance of any relevant criteria in Schedule 3, the Proponent must notify affected landowners in writing of the exceedance, and provide regular monitoring results to each affected landowner until the project is again complying with the relevant criteria; and | | | **Not Activated** |

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| **1. (Cont'd)** | (b) an exceedance of the relevant air quality criteria in Schedule 3, the proponent must send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and/or existing tenants of the land. | | | |
| **INDEPENDENT REVIEW** | | | | |
| **2** | If an owner of privately-owned land considers the project to be exceeding the relevant criteria in Schedule 3, then he/she may ask the Secretary in writing for an independent review of the impacts of the project on his/her land. If the Secretary is satisfied that an independent review is warranted, then within 2 months of the Secretary's decision the Proponent must:<br>(a) commission a suitably qualified, experienced and independent expert, whose appointment has been approved by the Secretary, to:<br>• consult with the landowner to determine his/her concerns;<br>• conduct monitoring to determine whether the project is complying with the relevant criteria in Schedule 3; and<br>• if the project is not complying with these criteria, then identify the measures that could be implemented to ensure compliance with the relevant criteria; and<br>(b) give the Secretary and landowner a copy of the independent review and;<br>(c) comply with any written requests made by the Secretary to implement any findings of the review. | | | **Not Activated** |
| **3** | If the independent review determines that the project is complying with the relevant criteria in Schedule 3, then the Proponent may discontinue the independent review with the approval of the Secretary.<br>If the independent review determines that the project is not complying with the relevant criteria in<br>Schedule 3, then the Proponent must:<br>(a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent expert, and conduct further monitoring until the project complies with the relevant criteria; or<br>(b) secure a written agreement with the landowner to allow exceedances of the relevant criteria,<br>to the satisfaction of the Secretary. | | | **Noted** |
| **SCHEDULE 5 ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING** | | | | |
| **ENVIRONMENTAL MANAGEMENT** | | | | |
| **Environmental Management Strategy** | | | | |
| **1** | The Proponent must prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Secretary. This strategy must:<br>(a) be submitted to the Secretary for approval with 6 months of the date of this approval;<br>(b) provide the strategic framework for environmental management of the project;<br>(c) identify the statutory approvals that apply to the project;<br>(d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project; | • Approved Environmental Management Strategy, 2019 | An Environmental Management Strategy was prepared to satisfy Project Approval Schedule 5 condition 1 and submitted to DP&I on 22 August 2013. DP&I approved the original Environmental Management Strategy on 16 January 2014. An updated Environmental Management Strategy was approved by DPIE on 25 January 2019:<br>(a) the Environmental Management Strategy was submitted to DP&I on 22 August 2013;<br>(b) EMS Section 2 addresses the Strategic Framework for environmental management; | **Compliant** |

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| | (e) describe the procedures that would be implemented to:<br>• keep the local community and relevant agencies informed about the operation and environmental performance of the project;<br>• receive, handle, respond to, and record complaints;<br>• resolve any disputes that may arise during the course of the project;<br>• respond to any non-compliance; and<br>• respond to emergencies; and<br>(f) include:<br>• references to any strategies, plans and programs approved under the conditions of this approval; and<br>• a clear plan depicting all the monitoring required to be carried out under the conditions of this approval.<br>The Proponent must implement the strategy as approved by the Secretary. | | (c) EMS Section 3 identifies Legal and Other Requirements for the Teralba Quarry;<br>(d) EMS Section 4 addresses Roles and Responsibilities of all key personnel involved in the environmental management of the Teralba Quarry;<br>(e) the EMS describes procedures for:<br>• Section 11 Stakeholder and Community Consultation and Section 13 Publication of Information;<br>• Section 9 Complaints Handling and Dispute Resolution;<br>• Section 7 Corrective and Preventative Actions;<br>• Section 10 Emergency Response and ;<br>(f) Section 3.3 Environmental Management Plans, and Section 5 Monitoring. | |
| **Adaptive Management** | | | | |
| **2** | The Proponent must assess and manage project-related risks to ensure that there are no exceedances of the criteria and/or performance measures in Schedule 3. Any exceedance of these criteria and/or performance measures constitutes a breach of this approval and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation. Where any exceedance of these criteria and/or performance measures has occurred, the Proponent must as soon as becoming aware of any exceedance:<br>(a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not reoccur;<br>(b) consider all reasonable and feasible options for remediation (where relevant);<br>(c) within 14 days of the exceedance occurring, submit a report to the Secretary describing these remediation options and any preferred remediation measures or other course of action; and<br>(d) implement remediation measures as directed by the Secretary,<br>to the satisfaction of the Secretary. | | | **Noted** |
| **Management Plan Requirements** | | | | |
| **3** | The Proponent must ensure that the Management Plans required under this approval are prepared in accordance with any relevant guidelines, and include:<br>(a) detailed baseline data;<br>(b) a description of:<br>• the relevant statutory requirements (including any relevant approval, licence or lease conditions);<br>• any relevant limits or performance measures/criteria; and<br>• the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures;<br>(c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria; | • Approved Management Plans (various dates) | The Management Plans required under this Project Approval have been prepared generally in accordance with the guidelines outlined in Project Approval Schedule 5 condition 3. | **Compliant** |

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| | (d) a program to monitor and report on the:<br>• impacts and environmental performance of the project; and<br>• effectiveness of any management measures (see (c) above); (e) a contingency plan to manage any unpredicted impacts and their consequences;<br>(f) a program to investigate and implement ways to improve the environmental performance of the project over time;<br>(g) a protocol for managing and reporting any:<br>• incidents;<br>• complaints;<br>• non-compliances with statutory requirements; and<br>• exceedances of the impact assessment criteria and/or performance criteria; and<br>(h) a protocol for periodic review of the plan.<br><br>*Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.* | | | |
| **Evidence of Consultation** | | | | |
| **3A** | Where conditions of this approval require consultation with an identified party, the Proponent must:<br>(a) consult with the relevant party prior to submitting the subject document to the Secretary for approval; and<br>(b) provide details of the consultation undertaken, including;<br>• the outcome of that consultation, matters resolved and unresolved; and<br>• details of any disagreement remaining between the party consulted and the Proponent and how the Proponent has addressed any unresolved matters.<br>However, if the Secretary agrees, a strategy, plan or program may be prepared without consultation being undertaken with an identified party required under a condition of this approval. | Approved Management Plans (various dates) | Each environmental management plan provides a record of consultation including feedback and Metromix's response to feedback received. | **Noted** |
| **Annual Review** | | | | |
| **4** | By the end of March each year, the Proponent must review the environmental performance of the project to the satisfaction of the Secretary. This review must:<br>(a) describe the development (including rehabilitation) that was carried out in the previous calendar year, and the development that is proposed to be carried out over the current calendar year; (b) include a comprehensive review of the monitoring results and complaints records of the project over the previous calendar year, which includes a comparison of these results against:<br>• the relevant statutory requirements, limits or performance measures/criteria;<br>• the monitoring results of previous years; and<br>• the relevant predictions in the documents listed in condition 2A of Schedule 2; | 2020 Annual Review | This is the eighth Annual Review for the Teralba Quarry Extensions.<br>All nominated contents are included in the document. | **Compliant** |

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| **4. (Cont'd)** | (c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;<br>(d) identify any trends in the monitoring data over the life of the project;<br>(e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and<br>(f) describe what measures will be implemented over the current calendar year to improve the environmental performance of the project. | | | |
| **Revision of Strategies, Plans & Programs** | | | | |
| **5** | Within 3 months of the submission of an:<br>(a) annual review under condition 4 above:<br>(b) incident report under condition 7 below;<br>(c) audit report under condition 9 below; and<br>(d) any modifications to this approval, the Proponent must review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Secretary.<br>The Proponent must notify the Department in writing of any such review being undertaken. Where this review leads to revisions in any such document, then within 6 weeks of the review the revised document must be submitted for the approval of the Secretary.<br>*Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the project.* | | Following the approval of Modification 1 to PA 10_0183 Metromix was required to update and submit all management plans for approval. Metromix has updated all management plans and obtained approval for all of them from DPIE. | **Compliant** |
| **Community Consultative Committee** | | | | |
| **6** | The Proponent must establish and operate a Community Consultative Committee (CCC) for the project to the satisfaction of the Secretary. This CCC must be operated in general accordance with the *Department's Community Consultative Committee Guidelines for State Significant Developments, November 2016, or its latest version), and be operating within four months of the date of this approval*<br>*Notes:*<br>• The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval.<br>• In accordance with the guideline, the Committee should comprise an independent chair and appropriate representation from the Proponent, Council, recognised environmental groups and the local community. | • CCC Meeting Minutes from 6 May 2020 (see **Appendix 4**) | The establishment of the Community Consultative Committee (CCC) occurred later than four months after the date of this approval.<br>The non-compliance arose principally as Metromix experienced difficulties in attracting community representation onto the committee as evidenced from the consultation records. The first meeting of the CCC was held on 2 September 2013. | **Historically Not Compliant (date for CCC establishment)**<br>**Compliant (for operation of CCC)** |
| **REPORTING** | | | | |
| **Incident Reporting** | | | | |
| **7** | The Proponent must immediately notify the Secretary (using the contact name, email address and phone number provided by the Department from time to time) and any other relevant agencies of any incident. | | All incidents were notified to DPIE and other relevant agencies in accordance with this condition during the reporting period. | **Compliant** |
| | Within 7 days of the date of the incident, the Proponent must provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested. This report must include the | | | **Not Triggered** |

| | | | | |
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| **7B (Cont'd)** | time and date of the incident, details of the incident, measures implemented to prevent re-occurrence and must identify any non-compliance with this approval. | | | |
| **Regular Reporting** | | | | |
| **8** | The Proponent must provide regular reporting on environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval. | www.metromix.com.au/ | Metromix updates the website for Teralba Quarry on a monthly basis. | **Compliant** |
| **INDEPENDENT ENVIRONMENTAL AUDIT** | | | | |
| **9** | Within a year of the commencement of development on site under this approval, and every 3 years thereafter, unless the Secretary directs otherwise, the Proponent must commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:<br>(a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;<br>(b) include consultation with the relevant agencies;<br>(c) assess the environmental performance of the project and whether it is complying with the relevant requirements in this approval and any relevant EPL and/or Water License (including any assessment, plan or program required under these approvals);<br>(d) review the adequacy of any approved strategy, plan or program required under these approvals; and<br>(e) recommend measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under these approvals.<br>*Note: This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the Secretary*. | | The first Independent Environmental Audit was conducted within 1 year of commencement of development.by Trevor Brown endorsed by the Director-General on 14 January 2014.<br><br>The second Independent Environmental Audit was conducted within 3 years of the first review by Trevor Brown endorsed by the Director-General on 15 December 2016<br><br>The third Independent Environmental Audit was conducted within 3 years of the second Independent Environmental Audit and was undertaken by Mr James Hart of AQUAS on 3 and 4 February 2020 for the period 1 January 2017 to 31 December 2019. | **Compliant** |
| **10** | Within 3 months of commissioning this audit, or as otherwise agreed by the Secretary, the Proponent must submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report. | | The first Independent Environmental Audit was submitted to the DPE in March 2014 together with the required response.<br>The second Independent Environmental Audit was submitted to the DPE in February 2017 together with the required response.<br>The third Independent Environmental Audit was submitted to the DPIE in March 2020 together with the required response. | **Compliant** |
| **ACCESS TO INFORMATION** | | | | |
| **11** | Within 4 months of the date of this approval, the Proponent :<br>(a) make the following information publicly available on its website:<br>• the EA;<br>• current statutory approvals for the project;<br>• approved strategies, plans or programs;<br>• a summary of the monitoring results of the project, which have been reported in accordance with the various plans and programs approved under the conditions of this approval;<br>• a complaints register, updated on a quarterly basis;<br>• minutes of CCC meetings;<br>• copies of any annual reviews (over the last 5 years); | www.metromix.com.au/ | The following information is publicly available on Metromix' website:<br>• Environmental Protection License 536<br>• Teralba Quarry Project Approval 10_0183<br>• Response To EA Submissions<br>• Environmental Assessment, Nov 2011<br>• Specialist Consultant Studies Compendium Volume 1 and Volume 2, Nov 2011<br>• Community Consultative Committee (CCC) Minutes<br>• Environmental Management Strategy | **Compliant Ongoing** |

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| | • any independent environmental audit, and the Proponent's<br>• response to the recommendations in any audit; and<br>• any other matter required by the Secretary; and<br>(b) keep this information up-to-date,<br>to the satisfaction of the Secretary. | | • Air Quality Management Plan<br>• Blast Management Plan<br>• Heritage Management Plan<br>• Landscape Management Plan<br>• Bushfire Management Plan<br>• Noise Management Plan<br>• Transport Management Plan<br>• Waste Management Plan<br>• Water Management Plan<br>• Community Complaints<br>• Non Compliances<br>• Monitoring results | |

# Part 2 Statement of Commitments

**Note: All commitments that are duplicates (or with similar/identical outcomes) of the Conditions within PA10_0183 have been removed as part of the 2016 Annual Review.**

**Colour Code for Compliance Assessment**

- Compliant
- Compliant Ongoing / In Progress
- Non-compliant
- Administrative Non-Compliance
- Noted / Not Applicable / Not Yet Applicable
- Not Activated / Not Yet Activated

# Part 2 - Statement of Commitments

## (Environmental Assessment Section 6 - Statements of Commitment, November 2011)

| SoC No. | Action | Timing | Verification | Comment | Compliance |
|---|---|---|---|---|---|
| **1** | **Activities and Operations** | | | | |
| **All approved activities are undertaken in the area(s) nominated on the approved plans and figures (unless moved slightly to avoid individual trees).** | | | | | |
| | | | | | |
| **2** | **Operating Hours** | | | | |
| **Management of operations in accordance with the approved operating hours.** ***(Note: No activities and operations are proposed on public holidays).*** | | | | | |
| **2.2** | Undertake extraction and processing activities north of Rhondda Road between 7:00am and 8:00pm on Monday to Friday and 7:00am and 2:00pm on Saturdays. | During operations | | Quarry operations north of Rhondda Road ceased in August 2013 and are not planned to re- commence until Year 9-10 (i.e. about 2022). | **Not Yet Active** |
| **2.4** | Undertake all blasts between 10:00am and 4:00pm Monday to Friday. | During operations | • Blast Monitoring Records 2020 – see Appendix 2 | Blasts are only conducted between 10:00am and 4:00pm Monday to Friday. | **Compliant** |
| **2.5** | Restrict activities undertaken outside the hours identified is Commitments 2.1 and 2.2 to routine, low noise activities such as oil changes, minor welding and servicing of equipment. | During operations | | Activities undertaken outside of the Hours of Work required under the Project Approval are not associated with resource extraction or transport of product. | **Compliant** |
| **2.6** | The nominated operating hours above in Action 2.3 do not apply to the delivery of material if that material is requested by police, any emergency service or Council. would be provided to the Secretary and EPA within a reasonable period of the request. | Details of the circumstances of these requests | | | **Noted** |
| **3** | **Waste Management** | | | | |
| **Minimisation of general waste creation and maximisation of recycling, wherever possible.** | | | | | |
| **3.1** | Place all paper and general wastes originating from the site office, together with routine maintenance consumables from the daily servicing of equipment in garbage bins located adjacent to the site office and workshop. | Ongoing | | All paper and general waste materials are placed in garbage bins. | **Compliant** |
| **3.2** | Segregate waste into recyclables and non-recyclable materials for removal by a licensed contractor. | Ongoing | | Recyclables are separated. | **Compliant** |
| **Minimisation of the potential risk of environmental impact due to waste creation, storage and/or disposal.** | | | | | |
| **3.3** | Organise the regular collection of industrial wastes. | Monthly or as needs basis | | Industrial wastes are collected by appropriately licenced operators as needed. | **Compliant** |
| **3.4** | Store waste oils and greases within the workshop area in either self-bunding containers or within suitably contained areas. | Ongoing | | All oils and greases are stored in suitably bunded containers | **Compliant** |

| SoC No. | Action | Timing | Verification | Comment | Compliance |
|---|---|---|---|---|---|
| **4** | **Security and Safety** | | | | |
| **All members of the public are safe when near Teralba Quarry.** | | | | | |
| **4.1** | Construct and maintain the perimeter fence around the Northern Extension. | Prior to commencement of clearing works | | Extraction not yet commenced in the Northern Extension | **Compliant** |
| **4.2** | Maintain lockable gates at all entry/exit points. Lock gates outside of operational hours | Ongoing | | Lockable gates have been installed and maintained at the entry and exit points from the Teralba Quarry sites. | **Compliant** |
| **4.3** | Erect security warning signs at strategic locations around and within the Project Site. The signs would identify the presence of earthmoving equipment, deep excavations and steep slopes. | Ongoing | | Security warning signs are present around the site to warn of earthmoving equipment/vehicle movements, deep excavations and steep slopes of quarry excavation areas. | **Compliant** |
| **4.4** | Continue to induct employees in safe working practices and hold regular follow-up safety meetings and reviews. | Ongoing | | Induction of employees in relation to safety and safe working practices occurs for all employees with follow-up Toolbox talks and meetings conducted to maintain employee awareness. | **Compliant** |
| **4.5** | Install bunds along the margins of all internal haul roads where those roads are positioned adjacent to steep slopes, adjacent to the boundary of the extraction area and adjacent to all other steep slopes | Ongoing | | Internal roads have the boundary of the access routes marked to provide guidance to drivers in relation to safe distances from slopes adjacent to extraction areas. | **Compliant** |
| **5** | **Rehabilitation and Biodiversity Offset Management** | | | | |
| **5.1** | Deleted. | | | | |
| **5.2** | Deleted. | | | | |
| **6** | **Groundwater** | | | | |
| **Prevention of groundwater contamination.** | | | | | |
| **6.1** | Securely store all hydrocarbon products within designated and bunded areas – see Action 16.11. | Ongoing | | All hydrocarbons are stored in suitably bunded containers | **Compliant** |
| **6.2** | Refuel and maintain all earthmoving equipment within designated areas – see Action 16.11. | Ongoing | | All earthmoving equipment is refuelled in the fuel bay and maintained in the workshop. | **Compliant** |
| **6.3** | Prepare a Groundwater Management Plan, including trigger levels for actions – see Action 16.3. | Ongoing | | Groundwater management is incorporated into the approved Water Management Plan. | **Compliant** |
| **6.4** | Prepare a Spill Management Plan to address potentially significant hydrocarbon spills – see Action 16.11. | Ongoing | | Spill management is incorporated into document internal procedures | **Compliant** |
| **Continuous monitoring of groundwater throughout the life of the Project.** | | | | | |
| **6.5** | Develop and implement a monitoring program as part of the Soil and Water Management Plan. | Within 6 months of the receipt of project approval. | Water Management Plan 2020 | A water monitoring program has been implemented in accordance with the Water Management Plan. This includes monitoring of the Adit Dam which is groundwater fed. | **Compliant** |
| **6.6** | Monitor water quality at the Mine Adit Dam for pH levels, electrical conductivity, suspended solids, and oil and grease. | Monthly (subject to review). | Water Management Plan 2020 | Water quality monitoring is undertaken monthly at the Mine Adit Dam and at other locations only during discharge. | **Compliant** |
| **6.7** | Record flows/discharges from the Mine Adit Dam as well as quarry water usage. | Continuous | Water Management Plan 2020 | Several flow meters have been installed at the Quarry to record this information. | **Compliant** |

| SoC No. | Action | Timing | Verification | Comment | Compliance |
|---|---|---|---|---|---|
| **6.8** | Review monitoring results to identify trends which may indicate impacts and allow mitigation measures to be implemented, if required. | Annually | | All monitoring data is reviewed annually during preparation of the Annual Review Report for the Teralba Quarry. | **Compliant Ongoing** |
| **6.9** | Ensure all monitoring data is incorporated into each Annual Environment Management Report for the Teralba Quarry. | Annually | | All monitoring data will be incorporated into the Annual Review Report for the Teralba Quarry | **Compliant Ongoing** |
| **7** | **Surface Water** | | | | |
| **Maintenance of surface water quality.** | | | | | |
| **7.1** | Conduct site clearing activities in accordance with the Blue Book (Landcom, 2004) guidelines for erosion and sediment control. | Ongoing. | Biodiversity and Rehabilitation Management Plan 2019 and Water Management Plan 2020 | No vegetation clearing occurring during the reporting period.<br>A vegetation clearing protocol has been incorporated within the Biodiversity and Rehabilitation Management Plan 2019 and erosion and sediment controls described in the Water Management Plan 2020. | **Compliant** |
| **7.2** | Establish a regular monitoring program to review the effectiveness of all erosion and sediment control mitigation measures. | Prior to commencement of clearing works. | Biodiversity and Rehabilitation Management Plan 2019 and Water Management Plan 2020 | No vegetation clearing occurring during the reporting period.<br>Erosion and sediment controls are considered in planning and execution of vegetation clearing | **Compliant** |
| **7.3** | Incorporate an update of the current Water Management Plan (GHD, 2007) into the Soil and Water Management Plan to take into account the proposed Southern and Northern Extensions. | Within 6 months of date of project approval. | Water Management Plan 2020 | The most recently approved Water Management Plan supersedes this commitment. | **Compliant** |
| **7.4** | Ensuring any off-site discharge is monitored and reported in accordance with Environment Protection Licence 536. | As Required. | Water Management Plan 2020 | The water monitoring program in the approved Water Management Plan 2020 stipulates this requirement. Monitoring during the reporting period satisfied this requirement. | **Compliant** |
| **Capture of sediment-laden water flows from project related disturbance** | | | | | |
| **7.9** | Provide sufficient storage during all stages of works to prevent discharge off-site of sediment-laden water in accordance with the Blue Book (Landcom, 2004) guidelines for sediment retention dams. | Ongoing. | Water Management Plan 2020 | The Water Management System at the Quarry has been designed to capture sediment laden runoff during design rainfall events. | **Compliant** |
| **7.10** | Inspect all sediment dams and maintain as necessary (keep records). | Monthly or following rainfall exceeding 100mm in 2 days. | Water Management Plan 2020 | Weekly visual inspections of the Water Management System are undertaken. | **Compliant** |
| **7.11** | Remove accumulated sediment from sediment dams when storage capacity reduced by 25% - document activity in maintenance records. | Following routine inspection. | Water Management Plan 2020 | There has been no requirement to remove accumulated sediment in dams. The most recent works involved rock and geofabric lining dams to prevent scouring. | **Compliant** |
| **Prevention of hydrocarbon contamination of water on the Project Site.** | | | | | |
| **7.12** | Securely store all hydrocarbon products within designated and bunded areas. | Ongoing | | Diesel storage for use on the Teralba Quarry site is adjacent to the workshop area in a bunded aboveground tank. | **Compliant** |
| **7.13** | Refuel all earthmoving equipment within designated areas (with spill control). | Ongoing. | | | |

| SoC No. | Action | Timing | Verification | Comment | Compliance |
|---|---|---|---|---|---|
| **Separation of groundwater and surface water flows.** | | | | | |
| **7.14** | Construct a drain from Dam B directly to the nearby watercourse to divert surface flows away from the Mine Adit Dam. | Within 3 months of Project Approval or following advice from NOW whichever occurs sooner. | Observed drainage | A discharge point has been established from Dam B to the nearby watercourse to divert surface water flows away from the Mine Adit Dam A. | **Compliant** |
| **8** | **Terrestrial Flora and Fauna** | | | | |
| **Minimisation of impacts on flora and fauna within the Project Site.** | | | | | |
| **8.1** | Prepare and implement a Site Vegetation Management Plan (as part of the overall Landscape Management Plan – see Commitment 16.7. | Within 12 months of the receipt of project approval. | Biodiversity and Rehabilitation Management Plan 2019 | Vegetation management has been included in the approved Biodiversity and Rehabilitation Management Plan 2019. | **Compliant** |
| **8.2** | Clearly define the Tetratheca juncea sub-populations to be retained. | For the life of the Project. | Biodiversity and Rehabilitation Management Plan 2019 | Locations of Tetratheca juncea sub-populations are identified as well as locations for translocated individuals. | **Compliant** |
| **8.3** | Continue the established rehabilitation practices in appropriate areas. | Ongoing. | Biodiversity and Rehabilitation Management Plan 2019 | Progressive rehabilitation is occurring successfully. | **Compliant** |
| **8.4** | Retain the extracted topsoil and vegetation within the immediate area of Tetratheca juncea populations and relocate to easement locations. | During clearing. | | Topsoil and vegetation in the vicinity of removed Tetratheca juncea populations has been applied in rehabilitation works. | **Compliant** |
| **8.5** | Transfer biomass directly from vegetation clearing operations to rehabilitation areas. If it is not possible to transfer directly, stockpile material. | Ongoing. | | Biomass has been applied to areas undergoing rehabilitation. | **Compliant** |
| **8.6** | Control noxious weeds at all times in accordance with a Weed Management Plan (to be incorporated into the site Vegetation Management Plan). | Following approval of Landscape Management Plan (see Action 16.7) and then ongoing. | Bush Regeneration Report (Appendix 5)<br>Biodiversity and Rehabilitation Management Plan 2019 | Weed management is incorporated into annual management plans implemented by TENTACLE. | **Compliant** |
| **8.7** | Install species specific nesting boxes for fauna species displaced following clearing activities, re 20 boxes for microbats, 20 boxes for Little Lorikeets and 30 boxes for Sugar Gliders. | Prior to commencement of activities in the Northern Extension. | Nesting Box Monitoring Report (Appendix 6) | Nesting boxes have been installed and are monitored annually. | **Compliant** |
| **9** | **Traffic and Transport** | | | | |
| **Transport operations are undertaken with minimal impact on other road users and residents.** | | | | | |
| **9.1** | Limit laden quarry-related truck movement numbers through Teralba:<br>• 9 per hour; and<br>• 85 per day. | Ongoing | Transport Management Plan 2018<br>Transport Monitoring records (Appendix 2) | Traffic levels are limited in accordance with the consent and this commitment. Transport numbers and directions are reported each year and were compliant during the reporting period. | **Compliant** |
| **9.2** | Ensure that no product trucks from Teralba Quarry travel eastward through Teralba between 6:00pm and 6:00am. | | Transport Monitoring records (Appendix 2) | No product trucks from Teralba Quarry travelled eastward through Teralba between 6:00pm and 6:00am during the reporting period. | **Compliant** |
| **9.3** | Ensure all vehicles exiting the Project Site pass through a wheel-wash facility to remove dust generating material. | Prior to removal of product from within the extensions. | Wheel wash observed. | All trucks are required to use the wheel wash prior to departing from the bottom gate at the Quarry. | **Compliant** |

| SoC No. | Action | Timing | Verification | Comment | Compliance |
|---|---|---|---|---|---|
| **9.4** | Provide a contribution to Lake Macquarie City Council during the ongoing life of the quarry if a suitable project approval is granted. | Quarterly. | | A Voluntary Planning Agreement with Lake Macquarie Council has been signed and enacted. | **Compliant** |
| **9.5** | Prepare, implement and enforce 'Drivers Code of Conduct' addressing:<br>• times that trucks can operate, especially through Teralba<br>• speed limits;<br>• duty of care to other drivers and pedestrians;<br>• complaints procedure;<br>• covering loads; and<br>• avoidance of exhaust brakes. | Prepare within 4 months of receipt of project approval. | Transport Management Plan 2018 | The Drivers Code of Conduct is included in the approved plan and all drivers are required to sign and abide by the code of conduct. There were no incidents involving non-compliance with the code of conduct during the reporting period. | **Compliant** |
| **9.6** | Undertake all transport activities in accordance with the project approval and Environment Protection Licence 536. | Ongoing. | Transport Monitoring records (Appendix 2) | During the reporting period all transport activities occurred in accordance with the project approval and Environment Protection Licence 536. | **Compliant** |
| **9.7** | Ensure that only trucks owned by Metromix, or its shareholders and those of accredited contractors using airbag suspension and other noise controls are used to transport products between 10:00pm and 6:00am. | Ongoing | Transport Management Plan 2018 | This requirement forms part of the Drivers Code of Conduct for the Quarry. | **Compliant** |
| **9.8** | Ensure that all project-related vehicles are regularly serviced to ensure engine efficiencies are maintained at a standard that limits truck noise. | Ongoing | | Metromix maintains all company-owned trucks to ensure that truck noise is reduced. | **Compliant** |
| **10** | **Noise and Vibration** | | | | |
| **10.1** | Ensure all mobile earthmoving equipment used on site is not fitted with high-frequency reversing alarms and is regularly serviced. | Ongoing. | | No high-frequency mobile equipment reversing alarms are used at the Quarry. Metromix maintains all company-owned equipment to ensure that noise is reduced. | **Compliant** |
| **10.2** | Ensure all earthmoving equipment used on site (including temporary equipment) have sound power levels and frequency spectra consistent with those nominated in Section 6 of Spectrum Acoustics (2011). | When new or temporary equipment is brought to site. | Not required | Three new equipment was used at the Quarry during the reporting period all of which are within the nominated sound power levels and frequency spectra. | **Compliant** |
| **All activities are undertaken in such a manner as to reduce the noise level generated and minimise impacts on surrounding landholders and/or residents.** | | | | | |
| **10.3** | Ensure that the eastern side of the Southern Extension is extracted in such a manner that the active extraction face is retained on the eastern face thereby providing a topographic barrier between operating earthmoving equipment and residences to the east. | Ongoing throughout the extraction operations in the Southern Extension area. | Extraction progress | Metromix continued this pattern of development during the reporting period. | **Compliant** |
| **10.4** | Construct a 5m high bund on the eastern edge of the Mid Pit Extraction Area. | During Mid Pit Extraction operations. | | No Mid-Pit extraction activities have been conducted since August 2013. | **Not Active** |
| **10.5** | Limit transportation noise by ensuring:<br>• all transport vehicles comply with the RTA's noise limits at all times; | Ongoing. | Transport Management Plan 2018<br>Complaints register (Appendix 4) | Metromix operated in a manner that limited transport noise during the reporting period. | **Compliant** |

| SoC No. | Action | Timing | Verification | Comment | Compliance |
|---|---|---|---|---|---|
| | • only trucks fitted with airbag suspension be used to transport products from the quarry between 10:00pm and 6:00am; and<br>• drivers comply with Code of Conduct. | | | | |
| **10.6** | Commission a noise monitoring program that comprises:<br>• attended noise monitoring for the Southern and Northern Extensions; and<br>• General noise monitoring. | Within the first 3 months of operations in the Southern and Northern Extensions Biannually for the first year of operation in the Southern and Northern Extensions, and further monitoring when substantiated complaints are filed. | • Noise Management Plan, Section 9, 2018 | Noise monitoring is outlined in the Noise Management Plan:<br>• Independent monitoring is required to be undertaken during the first 2 years of operations at 6 monthly intervals coinciding with wind blowing in a predominantly eastern and western direction. Monitoring was only undertaken on two occasions during 2016.<br>• The frequency of monitoring will then revert to annual monitoring during a period of wind blowing from the western quadrant towards residences in Teralba. | **Compliant**<br>**Noted** |
| **10.7** | Include a summary of all noise monitoring results in the AEMR. | Annually. | This document | See Section 6.2 | **Compliant** |
| **10.8** | Ensure all trucks departing the Project Site via the bottom gate travel at speeds <15km/hr. | Ongoing. | Transport Management Plan 2018 | Truck speed is limited through signage and instruction provided in the Drivers Code of Conduct. | **Compliant** |
| **10.9** | Review blast designs and modify, if required. | When blasting within 500m of any residence. | | No blasting has occurred throughout 2020 within 400m of any residence. | **Noted** |
| **11** | **Air Quality** | | | | |
| **Site activities are undertaken without exceeding DECCW air quality criteria or goals.** | | | | | |
| **11.1** | Minimise clearing ahead of extraction activities | Ongoing. | Biodiversity and Rehabilitation Management Plan 2019 | No vegetation clearing occurring during the reporting period.<br>Only those areas required for extraction are cleared ahead of time. | **Compliant** |
| **11.2** | Minimise the construction of minor roads and access tracks for soil stripping, extraction operations and rehabilitation. | Ongoing. | Biodiversity and Rehabilitation Management Plan 2019 | No new roads or tracks were constructed during the reporting period. | **Compliant** |
| **11.3** | Operate a water truck to manage dust suppression during periods of extended dry weather and/or high winds, or when dust nuisance has the potential to occur as a result of quarrying activities. | Ongoing. | Observed equipment | A water cart is used at site for dust suppression. | **Compliant** |
| **11.4** | Stockpile material in sheltered locations away from sensitive receptors | Ongoing. | | Stockpiles are located away from residences. | **Compliant** |
| **11.5** | Shield and/or suppress dust on conveyors and transfer points. | Ongoing. | | Dust suppression is built into processing equipment. | **Compliant** |
| **11.6** | Limit internal road dust lift off by:<br>• surfacing (and grading local) roads with appropriate materials;<br>• enforcing a 30km/hr speed limit on all internal roads; | Ongoing. | Air Quality Management Plan 2018 | Quarry personnel actively limit dust generation by applying these measures. | **Compliant** |

| SoC No. | Action | Timing | Verification | Comment | Compliance |
|---|---|---|---|---|---|
| | • limiting load sizes to ensure that product does not extend over truck sidewalls; and<br>• avoiding spillage during truck loading. | | | | |
| **11.7** | Minimise dump heights from trucks, front-end loaders and conveyors. | Ongoing. | Air Quality Management Plan 2018 | Quarry personnel actively limit dust generation by applying this measure. | **Compliant** |
| **11.8** | Schedule blasts so that they do not occur during high wind situations. | Ongoing. | Air Quality Management Plan 2018 | Blasts are scheduled in conjunction with the blasting contractor and decisions include consideration of forecast weather conditions. | **Compliant** |
| **11.9** | Cease or modify activities on dry windy days when dust plumes are visible. | Ongoing. | Air Quality Management Plan 2018 | There were no conditions during which operations needed to cease or be reduced due to dry windy weather. | **Compliant** |
| **11.10** | Water exposed areas not covered by gravel under dry and windy conditions when dust plumes are visible. | Ongoing. | Observed equipment | A water cart is used at site for dust suppression. | **Compliant** |
| **11.11** | Adopt a complaints management system where all complaints are dealt with through investigation and implementation of corrective treatments. | Ongoing. | Complaints register (Appendix 4) | A complaints register has been established for the Quarry. | **Compliant** |
| **11.12** | Minimise truck queuing, unnecessary idling of trucks and unnecessary trips through logistical planning, where possible. | Ongoing. | | Planning of truck loading and transport from the Teralba Quarry site reduces the queuing of trucks on site and unnecessary idling of trucks. | **Compliant** |
| **11.13** | Ensure the on-site wheel wash reduces mud tracking along Railway Street. | Ongoing. | | Wheel washes have been installed before the exit to Railway Street from the Teralba Quarry (bottom wheel wash) to reduce the potential for mud tracking onto the public road. | **Compliant Ongoing** |
| **11.14** | Remove any mud tracking on Rhondda Road as a result of quarry movements. | Ongoing. | | Wheel washes have been installed at the exit to Rhondda Road from the Teralba Quarry (top wheel wash) to reduce the potential for mud tracking onto the public road. Additional sprays and hard pavement surfaces were installed in 2016 to help reduce the potential for mud tracking onto the public road. | **Compliant Ongoing** |
| **11.15** | Prepare and implement a Dust Management Plan for the quarry. | Within 4 months of the receipt of project approval. | Air Quality Management Plan 2018 | Incorporated into approved Air Quality Management Plan | **Compliant** |
| **Reduce the impact of Greenhouse Gas emissions from project related activities.** | | | | | |
| **11.16** | Minimise the impacts of greenhouse gases relating from diesel consumption by:<br>• minimising the use of haul trucks through use of an overland conveyor;<br>• reduce vehicle idling time;<br>• maintaining optimum tyre pressures; and<br>• the optimisation of haul routes to reduce transportation distance from the extraction areas. | Ongoing. | | These measures are included in operations to minimise greenhouse gas generation. | **Compliant** |

| SoC No. | Action | Timing | Verification | Comment | Compliance |
|---|---|---|---|---|---|
| **11.17** | Minimise the impacts of greenhouse gases relating from electricity consumption by:<br>• ensuring the most efficient crusher and other processing plant technology is used;<br>• regularly inspecting the daily operations of lighting; and<br>• implementing solar-powered lighting, where possible. | Ongoing. | | Electricity savings are encouraged at the Quarry and these measures are included in operations to minimise greenhouse gas generation. | **Compliant** |
| | Continue to monitor dust impacts through;<br>• the existing five deposited dust gauges; and<br>• on-site meteorological monitoring to record relevant parameters. | Ongoing. | Air Quality Management Plan 2018 | Landowners have requested that the deposited dust monitor at Margaret Street be removed. An alternate location has been identified at York Street. | **Compliant** |
| **12** | **Visibility** | | | | |
| **Reduce the impact of the Project on the visual amenity of private and public vantage points** | | | | | |
| **12.1** | Ensure all vegetation is maintained outside the Southern and Northern Extensions to provide long term shielding. | Ongoing | | Extraction in the Southern Extension Area has commenced and the vegetation on the eastern side of the Area has been retained to provide a visual screen. | **Compliant Ongoing** |
| **12.2** | Sequence extraction activities in the Southern Extension to limit exposure of western faces until vegetation is well established. | Years 3 to 11 (approx). | Plate 1 | Extraction has been sequenced to obscure the western faces while vegetation is established on the uppermost (visible) benches. | **Compliant** |
| **12.3** | Progressively establish vegetation on extraction faces at 50mAHD and above in western section of the Southern Extension. | Years 3 to 11 (approx). | | | **Not Yet Activated** |
| **12.4** | Advance extraction in the eastern section of the Southern Extension in strips parallel to north-south faces. | Years 22 to 30 (approx). | | | **Not Yet Activated** |
| **12.5** | Include Annual photographs of the progressive rehabilitation of quarry benches in each AEMR. | Annually | Plate 5 and 6 | Photos of progressive rehabilitation are included in Section 4 of the Annual Review | **Compliant** |
| **13** | **Heritage** | | | | |
| **Provide appropriate protection to existing and future identified Aboriginal artefacts.** | | | | | |
| **13.1** | Halt all works in the immediate area if cultural objects are found and contact a suitably qualified archaeologist and Aboriginal community representative. | Ongoing | Heritage Management Plan 2019 | | **Noted** |
| **13.2** | Halt all works in the immediate area if human remains are found and contact NSW Police, Aboriginal community representative and OEH. | Ongoing | Heritage Management Plan 2019 | | **Noted** |
| **13.3** | Maintain reasonable efforts to avoid impacts to Aboriginal cultural heritage values at all stages of the development works | Ongoing | Heritage Management Plan 2019 | | **Noted** |
| **13.4** | Invite representatives of Local Aboriginal stakeholders to monitor initial ground disturbance activities. | Prior to soil stripping campaigns. | Heritage Management Plan 2019 | No monitoring was undertaken during the reporting period but was undertaken on 25 February 2019. | **Not Yet Activated** |

| SoC No. | Action | Timing | Verification | Comment | Compliance |
|---|---|---|---|---|---|
| **13.5** | Provide appropriate protection to any non-Aboriginal artefacts identified in operational areas.<br>Develop an Aboriginal Culture Educational Program for the induction of all personnel and contractors involved in the construction activities on site. Records are to be kept of which staff/contractors were inducted and when for the duration of the project. The program would be developed and implemented in collaboration with the local Aboriginal community. | Prior to first soil stripping campaign and then ongoing. | Heritage Management Plan 2019 | No non-Aboriginal items had been identified in operational areas. | **Noted** |
| **13.6** | Halt all works in the immediate area if any non-Aboriginal artefacts are found and notify the Heritage Council of NSW. | Ongoing | | | **Noted** |
| **14** | **Soils** | | | | |
| **Prevent excessive soil deterioration during stripping and transportation.** | | | | | |
| **14.1** | Undertake soil stripping within slightly moist condition and avoid excessively wet or dry conditions. | During soil stripping operations. | Biodiversity and Rehabilitation Management Plan 2019 | Soil management is implemented as required in accordance with the approved Biodiversity and Rehabilitation Management Plan | **Noted** |
| **14.2** | Place stripped soil directly onto reshaped overburden or dedicated stockpile area. | During soil stripping operations. | Biodiversity and Rehabilitation Management Plan 2019 | Soil management is implemented as required in accordance with the approved Biodiversity and Rehabilitation Management Plan | **Noted** |
| **14.3** | Remove soil through grading or pushing soil into windrows with graders or dozers for later collection for loading into rear dump trucks by front-end loaders. | During stripping and transport operations. | Biodiversity and Rehabilitation Management Plan 2019 | Soil management is implemented as required in accordance with the approved Biodiversity and Rehabilitation Management Plan | **Noted** |
| **Retention of soil viability until use in rehabilitation.** | | | | | |
| **14.4** | Leave the surface of soil stockpiles in as coarsely structured a condition as possible in order to promote infiltration and minimise erosion until vegetation is established. | Immediately following stockpile construction. | Biodiversity and Rehabilitation Management Plan 2019 | Soil management is implemented as required in accordance with the approved Biodiversity and Rehabilitation Management Plan | **Noted** |
| **14.5** | Maintain a maximum stockpile height of 3m. Clayey soils would be stored in lower stockpiles for shorter periods of time compared to coarser textured sandy soils. | During staged Rehabilitation stages. | Biodiversity and Rehabilitation Management Plan 2019 | Soil management is implemented as required in accordance with the approved Biodiversity and Rehabilitation Management Plan | **Noted** |
| **14.6** | Seed soil stockpiles with sterile cover crop (and limited fertiliser) as soon as possible where stockpiling is planned. | Immediately following stockpile construction. | Biodiversity and Rehabilitation Management Plan 2019 | Soil management is implemented as required in accordance with the approved Biodiversity and Rehabilitation Management Plan | **Noted** |
| **14.7** | Maintain an inventory of available soil to ensure adequate topsoil materials are available for planned rehabilitation activities. | Ongoing. | Biodiversity and Rehabilitation Management Plan 2019 | Soil management is implemented as required in accordance with the approved Biodiversity and Rehabilitation Management Plan | **Noted** |
| **14.8** | Assess soil stockpiles for weed infestation to determine if stockpiles require weed removal applications before being re-spread onto reshaped overburden. | During staged Rehabilitation stages. | Biodiversity and Rehabilitation Management Plan 2019 | Soil management is implemented as required in accordance with the approved Biodiversity and Rehabilitation Management Plan | **Noted** |

| SoC No. | Action | Timing | Verification | Comment | Compliance |
|---|---|---|---|---|---|
| **Achieve a good soil cover for long term rehabilitation.** | | | | | |
| **14.9** | Spread topsoil to a minimum depth range of 0.1 m (steep slopes) to 0.2m (flatter areas). Specific topsoil respreading depths for different post mining landform elements would be specified in the Landscape Management Plan. | During staged Rehabilitation stages. | • Biodiversity and Rehabilitation Management Plan, 2019, Table 10 | The rehabilitation performance and completion criteria described in the Biodiversity and Rehabilitation Management Plan, Section 9, requires topsoil to be spread to a minimum depth of 0.2 m. | **Compliant Ongoing** |
| **15** | **Bushfire Hazard** | | | | |
| **Avoidance of any fires on site, particularly in native vegetation** | | | | | |
| **15.1** | Adopt appropriate controls during re-fuelling. | Ongoing | | | **Compliant Ongoing** |
| **15.2** | Ensure fire extinguishers are fitted to all site vehicles. | Ongoing | | All site vehicles have fire extinguishers installed. | **Compliant** |
| **15.3** | Incorporate a Bushfire Management Plan in the overall Emergency Response Plan for the quarry. | Within 6 months of the receipt of project approval. | Bushfire Management Plan 2014 | Metromix operate in accordance with a Bushfire Management Pan | **Compliant** |
| **16** | **Documentation and Further Approvals** | | | | |
| **To provide site personnel with the necessary guidance on the expectations of Metromix management and the NSW Government and LMCC to achieve the required level of environmental performance.** | | | | | |
| **16.1** | Environmental Management Strategy. | Within 6 months of the receipt of project approval. | Environmental Management Strategy 2019 | Latest version approved in January 2019 | **Compliant** |
| **16.2** | Environmental Management Plan (EMP). Focus on the next 5 years. | Within 6 months of receipt of project approval. | Environmental Management Strategy 2019 | 5-year planning is incorporated into the Environmental Management Strategy | **Compliant** |
| **16.3** | Soil and Water Management Plan. (Incorporating management, monitoring and contingency plans for soils, surface water and groundwater). | Within 6 months of the receipt of project approval | Water Management Plan 2020 | Latest version approved in December 2020 | **Compliant** |
| **16.4** | Noise and Blast Management Plan. (Incorporating a blast and noise monitoring component.) | Within 4 months of the receipt of project approval. | Blast Management Plan 2020 Noise Management Plan 2018 | Blast Management Plan updated in 2020. Noise Management Plan updated in 2018. | **Compliant** |
| **16.5** | Air Quality Management Plan. (Incorporating an air quality monitoring component.) | Within 4 months of receipt of project approval. | Air Quality Management Plan 2018 | Latest version approved in 2018 | **Compliant** |
| **16.6** | Transport Management Plan. | Within 4 months of receipt of project approval. | Transport Management Plan 2018 | Latest version approved in 2018 | **Compliant** |
| **16.7** | Landscape Management Plan. (Incorporating a Vegetation Management Plan for site rehabilitation and the on-site Biodiversity offset.) | Within 12 months of the receipt of project approval. | Biodiversity and Rehabilitation Management Plan 2019 | Latest version of Biodiversity and Rehabilitation Management Plan approved in 2019. | **Compliant** |
| **16.8** | Extraction Management Plan (for operations within 5 vertical metres of the Great North Coal Seam). | Prior to commencing any extraction within 5 vertical metres of the Great Northern Coal Seam. | Lower Level Management Plan 2018 | Latest version approved in 2016 | **Compliant** |
| **16.9** | Heritage Management Plan. | Within 4 months of the receipt of project approval. | Heritage Management Plan 2019 | Latest version approved in 2019. | **Compliant** |

| SoC No. | Action | Timing | Verification | Comment | Compliance |
|---|---|---|---|---|---|
| **16.10** | Annual Environmental Management Report (AEMR). | Annually (by 31 March each year covering the previous calendar month) . | This document | | **Compliant** |
| **16.11** | Hydrocarbon Management Plan. (Incorporating the storage and use of fuel and spill management.) | Within 6 months of receipt of approval. | Waste Management Plan 2019 | Latest version approved in 2019. | **Compliant** |
| **16.12** | Annual Production Statistics to the DTIRIS (Division of Resources and Energy). | Annually (by 31 July). | See Appendix 2 | These statistics are provided to the Division of Mining, Exploration, and Geoscience each year. | **Compliant** |
| **16.13** | Geotechnical Assessments and relevant design drawings for site structures and buildings (for submission to the Mines Subsidence Board). | Prior to construction of site infrastructure and buildings. | | No buildings or structures had been constructed prior to this review so no design drawings for site structures and buildings (for submission to the Mines Subsidence Board) had been required. | **Noted** |
| **Ensure planning is undertaken sufficiently ahead of quarry closure to achieve a smooth transition to the subsequent land uses** | | | | | |
| **16.14** | Prepare a Quarry Closure and Final Land Use Plans for the land within the Project Site that is to be developed for purposes other than nature conservation. The Plans would be prepared in consultation with the Lower Macquarie City Council. | 3 years prior to cessation of extraction north of Rhondda Road (approximately 2031) and south of Rhondda Road (approximately 2039). | | | **Not Yet Activated** |

# Appendix 2

# Monitoring Data and Records

(Total No. of pages including blank pages = 82)

2019-2020 Annual Return for Extractive Materials

2020 Transportation Movements

2020 Air Quality Monitoring

2020 Surface Water Monitoring

2020 Daily Rainfall Monitoring

2020 Noise Monitoring Report

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# Extractive Materials Return 2019-2020

NSW GOVERNMENT | Regional NSW

Form S1 – Period Ending 30 June 2020

**Quote RIMS ID in all correspondence**

Quarry Id: 1118 Rims ID: 400066

Operators Name: METROMIX PTY LTD
Address: PO BOX 1295
PARRAMATTA NSW
2124

Email: moy@metromix.com.au
Quarry Name: TERALBA QUARRY
Quarry Address: RHONDDA RD

**Inquiries** please telephone:
(02) 4063 6713
**Completed or Nil Returns**
Email –
mineral.royalty@planning.nsw.gov.au
Postal Address (see below)

***Please amend name, postal address and location of mine or quarry if incorrect or incomplete.***

The return should be completed and forwarded to **Senior Advisory Officer, RESOURCE ECONOMICS, RESOURCE PLANNING & PROJECTS, DEPARTMENT OF REGIONAL NSW, PO BOX 344 HUNTER REGION MAIL CENTRE NSW 2310 on or before 31 October 2020**. If completion of the return is unavoidably delayed, an application for extension of time should be requested **before** the due date. If no work was done during the year, a **NIL** return must be forwarded.

The return should relate to the **above quarrying establishment** and should cover the operations of quarrying and treatment (such as crushing, screening, washing etc.) carried out at or near the quarry. A return is required even if the operations are solely of a developmental nature and whether the area being worked is held under a mining title or otherwise.

**Director, Resource Planning & Projects**

Please complete all the following information to assist in identifying the location of the Quarry

Typical Geology CONGLOMERATE

Nearest Town to Quarry TERALBA

Local Council Name LAKE MACQUARIE

Deposited Plan and Lot Number/s of Quarry LOTS 1 & 2 DP224037

Email Address of Operator moy@metromix.com.au

Name of Owner or Licensee METROMIX PTY LIMITED

Postal Address of Licensee PO BOX 1295 PARRAMATTA NSW 2124

Licence/Lease Number/s (if any)

From Mining, Exploration & Geoscience (NSW Mineral Resources) N/A

From Crown Lands or other NSW Department N/A

If any output was obtained from land NOT held under licence from the above Departments, state the Name/s and Address/es of the Owners of the land

To the best of my knowledge, information entered in this return is correct and no blank spaces left where figures should have been inserted.

- **SIGNATURE of PROPRIETOR or MANAGER** **DATE** 15/09/2020
- **CONTACT PERSON for this return** MUHAMMAD YUNUSA
- **NAME** (Block letters) MUHAMMAD YUNUSA **Telephone** 0423832077

# Extractive Materials Return 2019-2020

NSW GOVERNMENT | Regional NSW

Form S1 – Period Ending 30 June 2020

**Sales During 2019-2020**

**Production information may be published in aggregated form for statistical reporting. However, production data for individual operations is kept strictly confidential.**

| Product | Description | Quantity Tonnes |
|---|---|---|
| **Virgin Materials** | | |
| **Crushed Coarse Aggregates** | | |
| Over 75mm | | |
| Over 30mm to 75mm | | |
| 5mm to 30mm | | |
| Under 5mm | | |
| Natural Sand | | |
| Manufactured Sand | | |
| Prepared Road Base & Sub Base | | **101,160.7** |
| Other Unprocessed Materials | | **7,967.9** |
| **Recycled Materials** | | |
| **Crushed Coarse Aggregates** | | |
| Over 75mm | | |
| Over 30mm to 75mm | | |
| 5mm to 30mm | | |
| Under 5mm | | |
| Natural Sand | | |
| Manufactured Sand | | |
| Prepared Road Base & Sub Base | | **21,554.48** |
| Other Unprocessed Materials | | |
| **River Gravel** | | |
| Over 30mm | | |
| 5mm to 30mm | | **211,958.9** |
| Under 5mm | | |
| **Construction Sand** | Excluding Industrial | **134,324.18** |
| **Industrial Sand** | | |
| Foundry, Moulding | | |
| Glass | | |
| Other (Specify) | | |
| **Dimension Stone** | Building, Ornamental, Monumental | |
| Quarried in Blocks | | |
| Quarried in Slabs | | |
| **Decorative Aggregate** | Including Terrazzo | |
| **Loam** | Soil for Topdressing, Garden soil, Horticultural purposes) | |
| **TOTAL SITE PRODUCTION** | | **476,966.16** |
| **Gross Value ($) of all Sales** | | **11,133,407.93** |
| **Type of Material** | | **CONGLOMERATE** |
| **Number of Full-Time Equivalent (FTE) Employees** | **Employees: 17** | **Contractors: 7** |

***Please Note: A return for clay-based products can be obtained by contacting the inquiry number.***

Table 2E: Total Number of Laden Trucks

**TERALBA QUARRY** **Month: Jan-20**

| | Daily Total | Max Hourly Daily 6pm to 5am | Max Hourly Daily 5am to 6am | Max Hourly Daily 6am to 7am | Max Hourly Daily 7am to 6pm | Westwards Daily | Eastwards Daily |
|---|---|---|---|---|---|---|---|
| Limits | 326 | 6 | 12 | 28 | 20 | 241 | 85 |
| Actuals | | | | | | | |
| 1 | - | - | - | - | - | - | - |
| 2 | - | - | - | - | - | - | - |
| 3 | - | - | - | - | - | - | - |
| 4 | - | - | - | - | - | - | - |
| 5 | - | - | - | - | - | - | - |
| 6 | 45 | - | - | 6 | 8 | 13 | 32 |
| 7 | 46 | 2 | - | 4 | 7 | 23 | 23 |
| 8 | 48 | 1 | - | 3 | 9 | 27 | 21 |
| 9 | 38 | 1 | 1 | 7 | 6 | 29 | 9 |
| 10 | 41 | 2 | 1 | 4 | 6 | 24 | 17 |
| 11 | 7 | - | - | 2 | 3 | 6 | 1 |
| 12 | - | - | - | - | - | - | - |
| 13 | 55 | 1 | 3 | 7 | 7 | 41 | 14 |
| 14 | 61 | 3 | - | 4 | 9 | 44 | 17 |
| 15 | 95 | 5 | 1 | 5 | 11 | 71 | 24 |
| 16 | 88 | 4 | 1 | 7 | 16 | 67 | 21 |
| 17 | 39 | 5 | 1 | 2 | 8 | 19 | 20 |
| 18 | 2 | - | - | 1 | 1 | 2 | - |
| 19 | - | - | - | - | - | - | - |
| 20 | 66 | 3 | 1 | 5 | 11 | 53 | 13 |
| 21 | 80 | 2 | 4 | 4 | 11 | 58 | 22 |
| 22 | 105 | 5 | 2 | 6 | 14 | 76 | 29 |
| 23 | 96 | 5 | 1 | 9 | 13 | 68 | 28 |
| 24 | 64 | 6 | 1 | 9 | 10 | 46 | 18 |
| 25 | 17 | 5 | 1 | 3 | 3 | 15 | 2 |
| 26 | - | - | - | - | - | - | - |
| 27 | - | - | - | - | - | - | - |
| 28 | 60 | 2 | 1 | 4 | 8 | 30 | 30 |
| 29 | 70 | 1 | 1 | 4 | 10 | 44 | 26 |
| 30 | 84 | 4 | 1 | 4 | 12 | 42 | 42 |
| 31 | 87 | 3 | 4 | 3 | 13 | 48 | 39 |
| | 1294 | | | | | 846 | 448 |

**Table 2A: Number of Laden Trucks - 6:00pm to 5:00am**

| TERALBA QUARRY | | Month: | | Jan-20 | |
|---|---|---|---|---|---|
| | Daily Total | Westwards | | Eastwards | |
| | | Daily | Max Hourly | Daily | Max Hourly |
| Limits | 66 | 66 | 6 | 0 | 0 |
| Actuals | | | | | |
| 1 | - | - | - | - | - |
| 2 | - | - | - | - | - |
| 3 | - | - | - | - | - |
| 4 | - | - | - | - | - |
| 5 | - | - | - | - | - |
| 6 | - | - | - | - | - |
| 7 | 2 | 2 | 2 | - | - |
| 8 | 1 | 1 | 1 | - | - |
| 9 | 1 | 1 | 1 | - | - |
| 10 | 2 | 2 | 2 | - | - |
| 11 | - | - | - | - | - |
| 12 | - | - | - | - | - |
| 13 | 1 | 1 | 1 | - | - |
| 14 | 5 | 5 | 3 | - | - |
| 15 | 6 | 6 | 5 | - | - |
| 16 | 5 | 5 | 4 | - | - |
| 17 | 6 | 6 | 5 | - | - |
| 18 | - | - | - | - | - |
| 19 | - | - | - | - | - |
| 20 | 3 | 3 | 3 | - | - |
| 21 | 2 | 2 | 2 | - | - |
| 22 | 5 | 5 | 5 | - | - |
| 23 | 6 | 6 | 5 | - | - |
| 24 | 7 | 7 | 6 | - | - |
| 25 | 6 | 6 | 5 | - | - |
| 26 | - | - | - | - | - |
| 27 | - | - | - | - | - |
| 28 | 3 | 3 | 2 | - | - |
| 29 | 2 | 2 | 1 | - | - |
| 30 | 4 | 4 | 4 | - | - |
| 31 | 4 | 4 | 3 | - | - |

**Table 2B: Number of Laden Trucks - 5:00am to 6:00am**

| TERALBA QUARRY | | Month: | | Jan-20 |
|---|---|---|---|---|
| | | Westwards | | Eastwards |
| | | Max Hourly | | Max Hourly |
| Limits* | | 12 | | 0 |
| Actuals | | | | |
| 1 | | - | | - |
| 2 | | - | | - |
| 3 | | - | | - |
| 4 | | - | | - |
| 5 | | - | | - |
| 6 | | - | | - |
| 7 | | - | | - |
| 8 | | - | | - |
| 9 | | 1 | | - |
| 10 | | 1 | | - |
| 11 | | - | | - |
| 12 | | - | | - |
| 13 | | 3 | | - |
| 14 | | - | | - |
| 15 | | 1 | | - |
| 16 | | 1 | | - |
| 17 | | 1 | | - |
| 18 | | - | | - |
| 19 | | - | | - |
| 20 | | 1 | | - |
| 21 | | 4 | | - |
| 22 | | 2 | | - |
| 23 | | 1 | | - |
| 24 | | 1 | | - |
| 25 | | 1 | | - |
| 26 | | - | | - |
| 27 | | - | | - |
| 28 | | 1 | | - |
| 29 | | 1 | | - |
| 30 | | 1 | | - |
| 31 | | 4 | | - |

* Condition 2 (9)

**Table 2C: Number of Laden Trucks - 6:00am to 7:00am**

| TERALBA QUARRY | Month: | Jan-20 |
|---|---|---|

| | Westwards** | Eastwards** |
|---|---|---|
| | Max Hourly | Max Hourly |
| Limits* | 28 | 8 |
| **Actuals** | | |
| 1 | - | - |
| 2 | - | - |
| 3 | - | - |
| 4 | - | - |
| 5 | - | - |
| 6 | 5 | 1 |
| 7 | 2 | 2 |
| 8 | 3 | - |
| 9 | 6 | 1 |
| 10 | 4 | - |
| 11 | 2 | - |
| 12 | - | - |
| 13 | 6 | 1 |
| 14 | 3 | 1 |
| 15 | 4 | 1 |
| 16 | 6 | 1 |
| 17 | 1 | 1 |
| 18 | 1 | - |
| 19 | - | - |
| 20 | 5 | - |
| 21 | 4 | - |
| 22 | 4 | 2 |
| 23 | 8 | 1 |
| 24 | 8 | 1 |
| 25 | 2 | 1 |
| 26 | - | - |
| 27 | - | - |
| 28 | 4 | - |
| 29 | 4 | - |
| 30 | 2 | 2 |
| 31 | 5 | 1 |

* Condition 2 (9)

** Combined Maximum hourly No. of laden trucks = 28

**Table 2D: Number of Laden Trucks - 7:00am to 6pm**

| TERALBA QUARRY | | | Month: | | Jan-20 | |
|---|---|---|---|---|---|---|
| | | Daily Total | Westwards | | Eastwards | |
| | | | Daily | Max Hourly | Daily | Max Hourly |
| Limits | | 305 | 220 | 20 | 85 | 8 |
| Actuals | | | | | | |
| 1 | | - | - | - | - | - |
| 2 | | - | - | - | - | - |
| 3 | | - | - | - | - | - |
| 4 | | - | - | - | - | - |
| 5 | | - | - | - | - | - |
| 6 | | 39 | 8 | 3 | 31 | 5 |
| 7 | | 40 | 19 | 4 | 21 | 4 |
| 8 | | 44 | 23 | 6 | 21 | 5 |
| 9 | | 29 | 21 | 5 | 8 | 3 |
| 10 | | 34 | 17 | 5 | 17 | 4 |
| 11 | | 5 | 4 | 2 | 1 | 1 |
| 12 | | - | - | - | - | - |
| 13 | | 44 | 31 | 6 | 13 | 3 |
| 14 | | 52 | 36 | 8 | 16 | 3 |
| 15 | | 83 | 60 | 10 | 23 | 4 |
| 16 | | 75 | 55 | 12 | 20 | 4 |
| 17 | | 30 | 11 | 3 | 19 | 5 |
| 18 | | 1 | 1 | 1 | - | - |
| 19 | | - | - | - | - | - |
| 20 | | 57 | 44 | 8 | 13 | 4 |
| 21 | | 70 | 48 | 9 | 22 | 5 |
| 22 | | 92 | 65 | 13 | 27 | 5 |
| 23 | | 80 | 53 | 9 | 27 | 5 |
| 24 | | 47 | 30 | 10 | 17 | 4 |
| 25 | | 7 | 6 | 2 | 1 | 1 |
| 26 | | - | - | - | - | - |
| 27 | | - | - | - | - | - |
| 28 | | 52 | 22 | 3 | 30 | 5 |
| 29 | | 63 | 37 | 6 | 26 | 5 |
| 30 | | 75 | 35 | 7 | 40 | 6 |
| 31 | | 73 | 35 | 7 | 38 | 8 |

** PLEASE NOTE: The Hilighted Max Hourly Movements Do Not Relate To Same One Hour Period

Table 2E: Total Number of Laden Trucks

**TERALBA QUARRY** **Month: Feb-20**

| | Daily Total | Max Hourly Daily | Max Hourly Daily | Max Hourly Daily | Max Hourly Daily | Westwards Daily | Eastwards Daily |
|---|---|---|---|---|---|---|---|
| | | 6pm to 5am | 5am to 6am | 6am to 7am | 7am to 6pm | | |
| Limits | 326 | 6 | 12 | 28 | 20 | 241 | 85 |
| Actuals | | | | | | | |
| 1 | 27 | 5 | 1 | 4 | 6 | 25 | 2 |
| 2 | - | - | - | - | - | - | - |
| 3 | 76 | 1 | 6 | 7 | 12 | 43 | 33 |
| 4 | 97 | 3 | 2 | 6 | 12 | 56 | 41 |
| 5 | 96 | 5 | - | 10 | 15 | 52 | 44 |
| 6 | 54 | 4 | 1 | 6 | 7 | 27 | 27 |
| 7 | 14 | 4 | 1 | 1 | 2 | 11 | 3 |
| 8 | - | - | - | - | - | - | - |
| 9 | - | - | - | - | - | - | - |
| 10 | 19 | 3 | - | 3 | 3 | 11 | 8 |
| 11 | 42 | 5 | 1 | 1 | 7 | 27 | 15 |
| 12 | 58 | 5 | - | 7 | 9 | 39 | 19 |
| 13 | 42 | 5 | - | 3 | 6 | 24 | 18 |
| 14 | 33 | 3 | 2 | 2 | 6 | 20 | 13 |
| 15 | 14 | 2 | 1 | 4 | 2 | 8 | 6 |
| 16 | - | - | - | - | - | - | - |
| 17 | 62 | 1 | 3 | 7 | 14 | 47 | 15 |
| 18 | 79 | 3 | 1 | 7 | 12 | 41 | 38 |
| 19 | 72 | 6 | 1 | 7 | 8 | 53 | 19 |
| 20 | 122 | 5 | 1 | 9 | 15 | 54 | 68 |
| 21 | 93 | 4 | - | 4 | 13 | 38 | 55 |
| 22 | 22 | 4 | 2 | 4 | 3 | 18 | 4 |
| 23 | - | - | - | - | - | - | - |
| 24 | 86 | 4 | 3 | 6 | 12 | 38 | 48 |
| 25 | 97 | 3 | 2 | 8 | 11 | 43 | 54 |
| 26 | 89 | 5 | 2 | 8 | 13 | 41 | 48 |
| 27 | 97 | 5 | - | 6 | 15 | 70 | 27 |
| 28 | 87 | 4 | 1 | 9 | 15 | 63 | 24 |
| 29 | 31 | 4 | - | 6 | 8 | 28 | 3 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | 1509 | | | | | 877 | 632 |

**Table 2A: Number of Laden Trucks - 6:00pm to 5:00am**

| TERALBA QUARRY | | | Month: | | Feb-20 | |
|---|---|---|---|---|---|---|
| | | Daily Total | Westwards | | Eastwards | |
| | | | Daily | Max Hourly | Daily | Max Hourly |
| Limits | | 66 | 66 | 6 | 0 | 0 |
| Actuals | | | | | | |
| 1 | | 6 | 6 | 5 | - | - |
| 2 | | - | - | - | - | - |
| 3 | | 1 | 1 | 1 | - | - |
| 4 | | 3 | 3 | 3 | - | - |
| 5 | | 6 | 6 | 5 | - | - |
| 6 | | 5 | 5 | 4 | - | - |
| 7 | | 5 | 5 | 4 | - | - |
| 8 | | - | - | - | - | - |
| 9 | | - | - | - | - | - |
| 10 | | 3 | 3 | 3 | - | - |
| 11 | | 6 | 6 | 5 | - | - |
| 12 | | 6 | 6 | 5 | - | - |
| 13 | | 6 | 6 | 5 | - | - |
| 14 | | 4 | 4 | 3 | - | - |
| 15 | | 3 | 3 | 2 | - | - |
| 16 | | - | - | - | - | - |
| 17 | | 1 | 1 | 1 | - | - |
| 18 | | 4 | 4 | 3 | - | - |
| 19 | | 7 | 7 | 6 | - | - |
| 20 | | 6 | 6 | 5 | - | - |
| 21 | | 6 | 6 | 4 | - | - |
| 22 | | 5 | 5 | 4 | - | - |
| 23 | | - | - | - | - | - |
| 24 | | 4 | 4 | 4 | - | - |
| 25 | | 4 | 4 | 3 | - | - |
| 26 | | 6 | 6 | 5 | - | - |
| 27 | | 6 | 6 | 5 | - | - |
| 28 | | 5 | 5 | 4 | - | - |
| 29 | | 5 | 5 | 4 | - | - |
| | | | | | - | - |
| | | | | | - | - |
| | | | | | | |

**Table 2B: Number of Laden Trucks - 5:00am to 6:00am**

| TERALBA QUARRY | | Month: | | Feb-20 |
|---|---|---|---|---|
| | | Westwards | | Eastwards |
| | | Max Hourly | | Max Hourly |
| Limits* | | 12 | | 0 |
| Actuals | | | | |
| 1 | | 1 | | - |
| 2 | | - | | - |
| 3 | | 6 | | - |
| 4 | | 2 | | - |
| 5 | | - | | - |
| 6 | | 1 | | - |
| 7 | | 1 | | - |
| 8 | | - | | - |
| 9 | | - | | - |
| 10 | | - | | - |
| 11 | | 1 | | - |
| 12 | | - | | - |
| 13 | | - | | - |
| 14 | | 2 | | - |
| 15 | | 1 | | - |
| 16 | | - | | - |
| 17 | | 3 | | - |
| 18 | | 1 | | - |
| 19 | | 1 | | - |
| 20 | | 1 | | - |
| 21 | | - | | - |
| 22 | | 2 | | - |
| 23 | | - | | - |
| 24 | | 3 | | - |
| 25 | | 2 | | - |
| 26 | | 2 | | - |
| 27 | | - | | - |
| 28 | | 1 | | - |
| 29 | | - | | - |
| | | | | - |
| | | | | - |
| | | | | |

* Condition 2 (9)

**Table 2C: Number of Laden Trucks - 6:00am to 7:00am**

| TERALBA QUARRY | | Month: | | Feb-20 |
|---|---|---|---|---|
| | | Westwards** | | Eastwards** |
| | | Max Hourly | | Max Hourly |
| Limits* | | 28 | | 8 |
| Actuals | | | | |
| 1 | | 4 | | - |
| 2 | | - | | - |
| 3 | | 5 | | 2 |
| 4 | | 5 | | 1 |
| 5 | | 8 | | 2 |
| 6 | | 5 | | 1 |
| 7 | | 1 | | - |
| 8 | | - | | - |
| 9 | | - | | - |
| 10 | | 3 | | - |
| 11 | | 1 | | - |
| 12 | | 7 | | - |
| 13 | | 3 | | - |
| 14 | | 2 | | - |
| 15 | | 2 | | 2 |
| 16 | | - | | - |
| 17 | | 6 | | 1 |
| 18 | | 7 | | - |
| 19 | | 6 | | 1 |
| 20 | | 4 | | 5 |
| 21 | | 1 | | 3 |
| 22 | | 4 | | - |
| 23 | | - | | - |
| 24 | | 3 | | 3 |
| 25 | | 4 | | 4 |
| 26 | | 4 | | 4 |
| 27 | | 4 | | 4 |
| 28 | | 6 | | 3 |
| 29 | | 6 | | - |
| | | | | |
| | | | | |
| | | | | |

* Condition 2 (9)

** Combined Maximum hourly No. of laden trucks = 28

**Table 2D: Number of Laden Trucks - 7:00am to 6pm**

| TERALBA QUARRY | | Month: | | Feb-20 | |
|---|---|---|---|---|---|
| | Daily Total | Westwards | | Eastwards | |
| | | Daily | Max Hourly | Daily | Max Hourly |
| Limits | 305 | 220 | 20 | 85 | 8 |
| Actuals | | | | | |
| 1 | 16 | 14 | 5 | 2 | 1 |
| 2 | - | - | - | - | - |
| 3 | 62 | 31 | 6 | 31 | 6 |
| 4 | 86 | 46 | 7 | 40 | 7 |
| 5 | 80 | 38 | 9 | 42 | 6 |
| 6 | 42 | 16 | 3 | 26 | 7 |
| 7 | 7 | 4 | 2 | 3 | 1 |
| 8 | - | - | - | - | - |
| 9 | - | - | - | - | - |
| 10 | 13 | 5 | 2 | 8 | 2 |
| 11 | 34 | 19 | 4 | 15 | 4 |
| 12 | 45 | 26 | 5 | 19 | 4 |
| 13 | 33 | 15 | 3 | 18 | 4 |
| 14 | 25 | 12 | 3 | 13 | 3 |
| 15 | 6 | 2 | 2 | 4 | 2 |
| 16 | - | - | - | - | - |
| 17 | 51 | 37 | 9 | 14 | 5 |
| 18 | 67 | 29 | 6 | 38 | 8 |
| 19 | 57 | 39 | 6 | 18 | 4 |
| 20 | 106 | 43 | 7 | 63 | 8 |
| 21 | 83 | 31 | 6 | 52 | 8 |
| 22 | 11 | 7 | 3 | 4 | 2 |
| 23 | - | - | - | - | - |
| 24 | 73 | 28 | 6 | 45 | 7 |
| 25 | 83 | 33 | 6 | 50 | 8 |
| 26 | 73 | 29 | 5 | 44 | 8 |
| 27 | 83 | 60 | 11 | 23 | 4 |
| 28 | 72 | 51 | 11 | 21 | 6 |
| 29 | 20 | 17 | 5 | 3 | 3 |

** PLEASE NOTE: The Hilighted Max Hourly Movements Do Not Relate To Same One Hour Period

Table 2E: Total Number of Laden Trucks

**TERALBA QUARRY** **Month: Mar-20**

| | Daily Total | Max Hourly Daily 6pm to 5am | Max Hourly Daily 5am to 6am | Max Hourly Daily 6am to 7am | Max Hourly Daily 7am to 6pm | Westwards Daily | Eastwards Daily |
|---|---|---|---|---|---|---|---|
| Limits | 326 | 6 | 12 | 28 | 20 | 241 | 85 |
| Actuals | | | | | | | |
| 1 | - | - | - | - | - | - | - |
| 2 | 78 | - | 2 | 8 | 10 | 43 | 35 |
| 3 | 88 | 5 | 2 | 8 | 13 | 62 | 26 |
| 4 | 53 | 5 | 2 | 1 | 10 | 26 | 27 |
| 5 | 32 | 3 | 1 | 1 | 5 | 22 | 10 |
| 6 | 32 | 1 | 2 | 4 | 5 | 18 | 14 |
| 7 | 8 | - | - | 4 | 4 | 5 | 3 |
| 8 | - | - | - | - | - | - | - |
| 9 | 61 | 5 | - | 5 | 11 | 47 | 14 |
| 10 | 81 | 4 | 1 | 5 | 12 | 52 | 29 |
| 11 | 74 | 4 | 1 | 6 | 11 | 43 | 31 |
| 12 | 96 | 4 | - | 11 | 12 | 67 | 29 |
| 13 | 82 | 3 | 2 | 7 | 10 | 55 | 27 |
| 14 | 28 | 4 | - | 5 | 6 | 17 | 11 |
| 15 | - | - | - | - | - | - | - |
| 16 | 85 | 2 | 3 | 6 | 13 | 57 | 28 |
| 17 | 59 | 5 | 2 | 3 | 9 | 31 | 28 |
| 18 | 75 | 4 | 1 | 7 | 13 | 46 | 29 |
| 19 | 116 | 6 | 1 | 4 | 18 | 73 | 43 |
| 20 | 101 | 5 | 1 | 5 | 16 | 70 | 31 |
| 21 | 23 | 4 | 1 | 8 | 3 | 19 | 4 |
| 22 | - | - | - | - | - | - | - |
| 23 | 75 | 1 | 6 | 4 | 11 | 52 | 23 |
| 24 | 78 | 5 | 1 | 3 | 11 | 48 | 30 |
| 25 | 82 | 5 | - | 4 | 13 | 58 | 24 |
| 26 | 24 | 6 | - | - | 5 | 19 | 5 |
| 27 | 59 | 5 | 1 | 2 | 8 | 45 | 14 |
| 28 | 7 | 4 | 2 | - | - | 7 | - |
| 29 | - | - | - | - | - | - | - |
| 30 | 54 | 2 | 3 | 5 | 9 | 46 | 8 |
| 31 | 97 | 6 | 1 | 4 | 13 | 78 | 19 |
| | 1648 | | | | | 1106 | 542 |

**Table 2A: Number of Laden Trucks - 6:00pm to 5:00am**

| TERALBA QUARRY | | Month: | | Mar-20 | |
|---|---|---|---|---|---|
| | Daily Total | Westwards | | Eastwards | |
| | | Daily | Max Hourly | Daily | Max Hourly |
| Limits | 66 | 66 | 6 | 0 | 0 |
| Actuals | | | | | |
| 1 | - | - | - | - | - |
| 2 | - | - | - | - | - |
| 3 | 6 | 6 | 5 | - | - |
| 4 | 6 | 6 | 5 | - | - |
| 5 | 4 | 4 | 3 | - | - |
| 6 | 2 | 2 | 1 | - | - |
| 7 | - | - | - | - | - |
| 8 | - | - | - | - | - |
| 9 | 5 | 5 | 5 | - | - |
| 10 | 5 | 5 | 4 | - | - |
| 11 | 5 | 5 | 4 | - | - |
| 12 | 4 | 4 | 4 | - | - |
| 13 | 4 | 4 | 3 | - | - |
| 14 | 6 | 6 | 4 | - | - |
| 15 | - | - | - | - | - |
| 16 | 2 | 2 | 2 | - | - |
| 17 | 6 | 6 | 5 | - | - |
| 18 | 5 | 5 | 4 | - | - |
| 19 | 7 | 7 | 6 | - | - |
| 20 | 6 | 6 | 5 | - | - |
| 21 | 5 | 5 | 4 | - | - |
| 22 | - | - | - | - | - |
| 23 | 1 | 1 | 1 | - | - |
| 24 | 5 | 5 | 5 | - | - |
| 25 | 6 | 6 | 5 | - | - |
| 26 | 7 | 7 | 6 | - | - |
| 27 | 6 | 6 | 5 | - | - |
| 28 | 7 | 5 | 4 | - | - |
| 29 | - | - | - | - | - |
| 30 | 2 | 2 | 2 | - | - |
| 31 | 7 | 7 | 6 | - | - |

**Table 2B: Number of Laden Trucks - 5:00am to 6:00am**

| TERALBA QUARRY | | Month: | | Mar-20 |
|---|---|---|---|---|
| | | Westwards | | Eastwards |
| | | Max Hourly | | Max Hourly |
| Limits* | | 12 | | 0 |
| Actuals | | | | |
| 1 | | - | | - |
| 2 | | 2 | | - |
| 3 | | 2 | | - |
| 4 | | 2 | | - |
| 5 | | 1 | | - |
| 6 | | 2 | | - |
| 7 | | - | | - |
| 8 | | - | | - |
| 9 | | - | | - |
| 10 | | 1 | | - |
| 11 | | 1 | | - |
| 12 | | - | | - |
| 13 | | 2 | | - |
| 14 | | - | | - |
| 15 | | - | | - |
| 16 | | 3 | | - |
| 17 | | 2 | | - |
| 18 | | 1 | | - |
| 19 | | 1 | | - |
| 20 | | 1 | | - |
| 21 | | 1 | | - |
| 22 | | - | | - |
| 23 | | 6 | | - |
| 24 | | 1 | | - |
| 25 | | - | | - |
| 26 | | - | | - |
| 27 | | 1 | | - |
| 28 | | 2 | | - |
| 29 | | - | | - |
| 30 | | 3 | | - |
| 31 | | 1 | | - |

* Condition 2 (9)

**Table 2C: Number of Laden Trucks - 6:00am to 7:00am**

| TERALBA QUARRY | Month: | Mar-20 |
|---|---|---|

| | Westwards** Max Hourly | Eastwards** Max Hourly |
|---|---|---|
| Limits* | 28 | 8 |
| **Actuals** | | |
| 1 | - | - |
| 2 | 6 | 2 |
| 3 | 6 | 2 |
| 4 | 1 | - |
| 5 | 1 | - |
| 6 | 4 | - |
| 7 | 3 | 1 |
| 8 | - | - |
| 9 | 5 | - |
| 10 | 3 | 2 |
| 11 | 4 | 2 |
| 12 | 8 | 3 |
| 13 | 5 | 2 |
| 14 | 5 | - |
| 15 | - | - |
| 16 | 5 | 1 |
| 17 | 3 | - |
| 18 | 5 | 2 |
| 19 | 3 | 1 |
| 20 | 4 | 1 |
| 21 | 6 | 2 |
| 22 | - | - |
| 23 | 4 | - |
| 24 | 3 | - |
| 25 | 4 | - |
| 26 | - | - |
| 27 | 2 | - |
| 28 | - | - |
| 29 | - | - |
| 30 | 5 | - |
| 31 | 3 | 1 |

* Condition 2 (9)

** Combined Maximum hourly No. of laden trucks = 28

**Table 2D: Number of Laden Trucks - 7:00am to 6pm**

| TERALBA QUARRY | | | Month: | | Mar-20 | |
|---|---|---|---|---|---|---|
| | | Daily Total | Westwards | | Eastwards | |
| | | | Daily | Max Hourly | Daily | Max Hourly |
| Limits | | 305 | 220 | 20 | 85 | 8 |
| Actuals | | | | | | |
| 1 | | - | - | - | - | - |
| 2 | | 68 | 35 | 7 | 33 | 7 |
| 3 | | 72 | 48 | 9 | 24 | 4 |
| 4 | | 44 | 17 | 4 | 27 | 6 |
| 5 | | 26 | 16 | 4 | 10 | 2 |
| 6 | | 24 | 10 | 3 | 14 | 4 |
| 7 | | 4 | 2 | 2 | 2 | 2 |
| 8 | | - | - | - | - | - |
| 9 | | 51 | 37 | 7 | 14 | 4 |
| 10 | | 70 | 43 | 8 | 27 | 7 |
| 11 | | 62 | 33 | 8 | 29 | 4 |
| 12 | | 81 | 55 | 8 | 26 | 5 |
| 13 | | 69 | 44 | 9 | 25 | 5 |
| 14 | | 17 | 6 | 3 | 11 | 4 |
| 15 | | - | - | - | - | - |
| 16 | | 74 | 47 | 11 | 27 | 5 |
| 17 | | 48 | 20 | 4 | 28 | 5 |
| 18 | | 62 | 35 | 7 | 27 | 6 |
| 19 | | 104 | 62 | 10 | 42 | 8 |
| 20 | | 89 | 59 | 12 | 30 | 7 |
| 21 | | 9 | 7 | 3 | 2 | 2 |
| 22 | | - | - | - | - | - |
| 23 | | 64 | 41 | 8 | 23 | 4 |
| 24 | | 69 | 39 | 7 | 30 | 6 |
| 25 | | 72 | 48 | 8 | 24 | 6 |
| 26 | | 17 | 12 | 4 | 5 | 1 |
| 27 | | 50 | 36 | 7 | 14 | 5 |
| 28 | | - | - | - | - | - |
| 29 | | - | - | - | - | - |
| 30 | | 44 | 36 | 8 | 8 | 3 |
| 31 | | 85 | 67 | 12 | 18 | 3 |

** PLEASE NOTE: The Hilighted Max Hourly Movements Do Not Relate To Same One Hour Period

Table 2E: Total Number of Laden Trucks

**TERALBA QUARRY** **Month: Apr-20**

| | Daily Total | Max Hourly Daily 6pm to 5am | Max Hourly Daily 5am to 6am | Max Hourly Daily 6am to 7am | Max Hourly Daily 7am to 6pm | Westwards Daily | Eastwards Daily |
|---|---|---|---|---|---|---|---|
| **Limits** | **326** | **6** | **12** | **28** | **20** | **241** | **85** |
| **Actuals** | | | | | | | |
| 1 | 137 | 6 | - | 10 | 20 | 97 | 40 |
| 2 | 125 | 6 | 1 | 6 | 18 | 99 | 26 |
| 3 | 77 | 5 | 1 | 8 | 12 | 52 | 25 |
| 4 | 18 | 6 | 1 | 4 | 2 | 13 | 5 |
| 5 | - | - | - | - | - | - | - |
| 6 | 61 | - | 6 | 4 | 10 | 50 | 11 |
| 7 | 83 | 6 | 1 | 8 | 10 | 62 | 21 |
| 8 | 92 | 5 | 1 | 6 | 13 | 73 | 19 |
| 9 | 146 | 4 | - | 8 | 18 | 116 | 30 |
| 10 | - | - | - | - | - | - | - |
| 11 | - | - | - | - | - | - | - |
| 12 | - | - | - | - | - | - | - |
| 13 | - | - | - | - | - | - | - |
| 14 | 92 | 5 | - | 6 | 16 | 63 | 29 |
| 15 | 110 | 4 | - | 7 | 15 | 81 | 29 |
| 16 | 128 | 5 | - | 10 | 15 | 80 | 48 |
| 17 | 85 | 6 | - | 3 | 12 | 63 | 22 |
| 18 | 26 | 6 | - | 5 | 4 | 21 | 5 |
| 19 | - | - | - | - | - | - | - |
| 20 | 85 | 1 | 5 | 8 | 14 | 47 | 38 |
| 21 | 80 | 4 | 1 | 5 | 13 | 53 | 27 |
| 22 | 128 | 6 | 1 | 10 | 20 | 82 | 46 |
| 23 | 129 | 5 | 2 | 7 | 17 | 91 | 38 |
| 24 | 148 | 5 | 2 | 9 | 20 | 97 | 51 |
| 25 | - | - | - | - | - | - | - |
| 26 | - | - | - | - | - | - | - |
| 27 | 70 | 5 | 2 | 5 | 11 | 45 | 25 |
| 28 | 112 | 5 | 1 | 8 | 18 | 69 | 23 |
| 29 | 108 | 4 | 1 | 3 | 16 | 60 | 48 |
| 30 | 110 | 5 | 1 | 5 | 18 | 60 | 50 |
| | 2150 | | | | | 1474 | 656 |

**Table 2A: Number of Laden Trucks - 6:00pm to 5:00am**

| TERALBA QUARRY | | | Month: | Apr-20 |
|---|---|---|---|---|
| | Daily Total | Westwards | | Eastwards |
| | | Daily | Max Hourly | Daily | Max Hourly |
| Limits | 66 | 66 | 6 | 0 | 0 |
| Actuals | | | | | |
| 1 | 7 | 7 | 6 | - | - |
| 2 | 7 | 7 | 6 | - | - |
| 3 | 6 | 6 | 5 | - | - |
| 4 | 7 | 7 | 6 | - | - |
| 5 | - | - | - | - | - |
| 6 | - | - | - | - | - |
| 7 | 7 | 7 | 6 | - | - |
| 8 | 6 | 6 | 5 | - | - |
| 9 | 5 | 5 | 4 | - | - |
| 10 | - | - | - | - | - |
| 11 | - | - | - | - | - |
| 12 | - | - | - | - | - |
| 13 | - | - | - | - | - |
| 14 | 6 | 6 | 5 | - | - |
| 15 | 5 | 5 | 4 | - | - |
| 16 | 6 | 6 | 5 | - | - |
| 17 | 7 | 7 | 6 | - | - |
| 18 | 7 | 7 | 6 | - | - |
| 19 | - | - | - | - | - |
| 20 | 1 | 1 | 1 | - | - |
| 21 | 5 | 5 | 4 | - | - |
| 22 | 7 | 7 | 6 | - | - |
| 23 | 6 | 6 | 5 | - | - |
| 24 | 6 | 6 | 5 | - | - |
| 25 | - | - | - | - | - |
| 26 | - | - | - | - | - |
| 27 | 5 | 5 | 5 | - | - |
| 28 | 6 | 6 | 5 | - | - |
| 29 | 5 | 5 | 5 | - | - |
| 30 | 6 | 6 | 5 | - | - |
| | | | | - | - |

**Table 2B: Number of Laden Trucks - 5:00am to 6:00am**

| TERALBA QUARRY | | Month: | | Apr-20 |
|---|---|---|---|---|
| | | | | |
| | | Westwards | | Eastwards |
| | | Max Hourly | | Max Hourly |
| | | | | |
| Limits* | | 12 | | 0 |
| Actuals | | | | |
| 1 | | - | | - |
| 2 | | 1 | | - |
| 3 | | 1 | | - |
| 4 | | 1 | | - |
| 5 | | - | | - |
| 6 | | 6 | | - |
| 7 | | 1 | | - |
| 8 | | 1 | | - |
| 9 | | - | | - |
| 10 | | - | | - |
| 11 | | - | | - |
| 12 | | - | | - |
| 13 | | - | | - |
| 14 | | - | | - |
| 15 | | - | | - |
| 16 | | - | | - |
| 17 | | - | | - |
| 18 | | - | | - |
| 19 | | - | | - |
| 20 | | 5 | | - |
| 21 | | 1 | | - |
| 22 | | 1 | | - |
| 23 | | 2 | | - |
| 24 | | 2 | | - |
| 25 | | - | | - |
| 26 | | - | | - |
| 27 | | 2 | | - |
| 28 | | 1 | | - |
| 29 | | 1 | | - |
| 30 | | 1 | | - |
| | | | | - |
| | | | | |

* Condition 2 (9)

**Table 2C: Number of Laden Trucks - 6:00am to 7:00am**

| TERALBA QUARRY | | Month: | | Apr-20 |
|---|---|---|---|---|
| | | Westwards** | | Eastwards** |
| | | Max Hourly | | Max Hourly |
| Limits* | | 28 | | 8 |
| Actuals | | | | |
| 1 | | 7 | | 3 |
| 2 | | 6 | | - |
| 3 | | 8 | | - |
| 4 | | 3 | | 1 |
| 5 | | - | | - |
| 6 | | 4 | | - |
| 7 | | 6 | | 2 |
| 8 | | 5 | | 1 |
| 9 | | 7 | | 1 |
| 10 | | - | | - |
| 11 | | - | | - |
| 12 | | - | | - |
| 13 | | - | | - |
| 14 | | 2 | | 3 |
| 15 | | 6 | | 1 |
| 16 | | 8 | | 2 |
| 17 | | 2 | | 1 |
| 18 | | 4 | | 1 |
| 19 | | - | | - |
| 20 | | 7 | | 1 |
| 21 | | 3 | | 2 |
| 22 | | 8 | | 2 |
| 23 | | 5 | | 2 |
| 24 | | 8 | | 1 |
| 25 | | - | | - |
| 26 | | - | | - |
| 27 | | 3 | | 2 |
| 28 | | 7 | | 1 |
| 29 | | 2 | | 1 |
| 30 | | 5 | | - |

* Condition 2 (9)  ** Combined Maximum hourly No. of laden trucks = 28

**Table 2D: Number of Laden Trucks - 7:00am to 6pm**

| TERALBA QUARRY | | | Month: | | Apr-20 | |
|---|---|---|---|---|---|---|
| | | Daily Total | Westwards | | Eastwards | |
| | | | Daily | Max Hourly | Daily | Max Hourly |
| Limits | | 305 | 220 | 20 | 85 | 8 |
| Actuals | | | | | | |
| 1 | | 120 | 83 | 15 | 37 | 7 |
| 2 | | 111 | 85 | 15 | 26 | 5 |
| 3 | | 62 | 37 | 9 | 25 | 5 |
| 4 | | 6 | 2 | 1 | 4 | 2 |
| 5 | | - | - | - | - | - |
| 6 | | 51 | 40 | 7 | 11 | 3 |
| 7 | | 67 | 48 | 8 | 19 | 6 |
| 8 | | 79 | 61 | 11 | 18 | 6 |
| 9 | | 133 | 104 | 14 | 29 | 5 |
| 10 | | - | - | - | - | - |
| 11 | | - | - | - | - | - |
| 12 | | - | - | - | - | - |
| 13 | | - | - | - | - | - |
| 14 | | 81 | 55 | 12 | 26 | 5 |
| 15 | | 98 | 70 | 11 | 28 | 5 |
| 16 | | 112 | 66 | 11 | 46 | 7 |
| 17 | | 75 | 54 | 11 | 21 | 6 |
| 18 | | 14 | 10 | 3 | 4 | 3 |
| 19 | | - | - | - | - | - |
| 20 | | 71 | 34 | 8 | 37 | 6 |
| 21 | | 69 | 44 | 8 | 25 | 5 |
| 22 | | 110 | 66 | 13 | 44 | 8 |
| 23 | | 114 | 78 | 14 | 36 | 7 |
| 24 | | 131 | 81 | 12 | 50 | 8 |
| 25 | | - | - | - | - | - |
| 26 | | - | - | - | - | - |
| 27 | | 58 | 35 | 7 | 23 | 5 |
| 28 | | 97 | 55 | 10 | 42 | 8 |
| 29 | | 99 | 52 | 8 | 47 | 8 |
| 30 | | 98 | 48 | 12 | 50 | 8 |
| | | | | | | |
| | | | | | | |

** PLEASE NOTE: The Hilighted Max Hourly Movements Do Not Relate To Same One Hour Period

Table 2E: Total Number of Laden Trucks

**TERALBA QUARRY** **Month: May-20**

| | Daily Total | Max Hourly Daily 6pm to 5am | Max Hourly Daily 5am to 6am | Max Hourly Daily 6am to 7am | Max Hourly Daily 7am to 6pm | Westwards Daily | Eastwards Daily |
|---|---|---|---|---|---|---|---|
| Limits | 326 | 6 | 12 | 28 | 20 | 241 | 85 |
| Actuals | | | | | | | |
| 1 | 101 | 6 | 1 | 2 | 17 | 56 | 45 |
| 2 | 29 | - | 3 | 5 | 9 | 27 | 2 |
| 3 | - | - | - | - | - | - | - |
| 4 | 68 | 5 | 2 | 3 | 9 | 47 | 21 |
| 5 | 77 | 4 | 2 | 9 | 11 | 53 | 24 |
| 6 | 117 | 6 | 1 | 7 | 16 | 85 | 32 |
| 7 | 112 | 4 | 1 | 9 | 13 | 86 | 26 |
| 8 | 151 | 2 | 2 | 11 | 19 | 117 | 34 |
| 9 | 28 | 4 | 1 | 6 | 6 | 22 | 6 |
| 10 | - | - | - | - | - | - | - |
| 11 | 106 | - | 2 | 10 | 13 | 71 | 35 |
| 12 | 110 | 6 | 1 | 10 | 14 | 80 | 30 |
| 13 | 141 | 5 | 1 | 9 | 19 | 100 | 41 |
| 14 | 98 | 5 | 1 | 7 | 15 | 52 | 46 |
| 15 | 84 | 4 | 1 | 10 | 13 | 37 | 47 |
| 16 | 28 | 4 | - | 4 | 6 | 16 | 12 |
| 17 | - | - | - | - | - | - | - |
| 18 | 61 | 1 | 2 | 9 | 8 | 46 | 15 |
| 19 | 109 | 4 | 1 | 8 | 15 | 63 | 46 |
| 20 | 132 | 4 | - | 10 | 20 | 95 | 37 |
| 21 | 73 | 3 | 3 | 8 | 11 | 50 | 23 |
| 22 | 38 | 6 | 1 | 4 | 6 | 22 | 16 |
| 23 | 15 | 3 | 1 | 2 | 4 | 10 | 15 |
| 24 | - | - | - | - | - | - | - |
| 25 | 47 | - | 3 | 3 | 14 | 31 | 16 |
| 26 | 26 | 5 | 1 | 1 | 4 | 22 | 4 |
| 27 | 67 | 4 | 2 | 4 | 10 | 50 | 17 |
| 28 | 120 | 5 | - | 8 | 20 | 60 | 60 |
| 29 | 102 | 5 | 2 | 6 | 15 | 57 | 45 |
| 30 | 29 | 2 | 2 | 5 | 6 | 19 | 10 |
| 31 | - | - | - | - | - | - | - |
| | 2069 | | | | | 1374 | 705 |

**Table 2A: Number of Laden Trucks - 6:00pm to 5:00am**

| TERALBA QUARRY | | Month: | | | May-20 |
|---|---|---|---|---|---|
| | Daily Total | Westwards | | Eastwards | |
| | | Daily | Max Hourly | Daily | Max Hourly |
| Limits | 66 | 66 | 6 | 0 | 0 |
| Actuals | | | | | |
| 1 | 7 | 7 | 6 | - | - |
| 2 | - | - | - | - | - |
| 3 | - | - | - | - | - |
| 4 | 5 | 5 | 5 | - | - |
| 5 | 4 | 4 | 4 | - | - |
| 6 | 7 | 7 | 6 | - | - |
| 7 | 5 | 5 | 4 | - | - |
| 8 | 3 | 3 | 2 | - | - |
| 9 | 4 | 4 | 4 | - | - |
| 10 | - | - | - | - | - |
| 11 | - | - | - | - | - |
| 12 | 7 | 7 | 6 | - | - |
| 13 | 5 | 5 | 5 | - | - |
| 14 | 6 | 6 | 5 | - | - |
| 15 | 5 | 5 | 4 | - | - |
| 16 | 4 | 4 | 4 | - | - |
| 17 | - | - | - | - | - |
| 18 | 1 | 1 | 1 | - | - |
| 19 | 5 | 5 | 4 | - | - |
| 20 | 5 | 5 | 4 | - | - |
| 21 | 4 | 4 | 3 | - | - |
| 22 | 7 | 7 | 6 | - | - |
| 23 | 3 | 3 | 3 | - | - |
| 24 | - | - | - | - | - |
| 25 | - | - | - | - | - |
| 26 | 6 | 6 | 5 | - | - |
| 27 | 5 | 5 | 4 | - | - |
| 28 | 6 | 6 | 5 | - | - |
| 29 | 6 | 6 | 5 | - | - |
| 30 | 3 | 3 | 2 | - | - |
| 31 | - | - | - | - | - |

**Table 2B: Number of Laden Trucks - 5:00am to 6:00am**

| TERALBA QUARRY | | Month: | | May-20 |
|---|---|---|---|---|
| | | | | |
| | | Westwards | | Eastwards |
| | | Max Hourly | | Max Hourly |
| | | | | |
| Limits* | | 12 | | 0 |
| Actuals | | | | |
| 1 | | 1 | | - |
| 2 | | 3 | | - |
| 3 | | - | | - |
| 4 | | 2 | | - |
| 5 | | 2 | | - |
| 6 | | 1 | | - |
| 7 | | 1 | | - |
| 8 | | 2 | | - |
| 9 | | 1 | | - |
| 10 | | - | | - |
| 11 | | 2 | | - |
| 12 | | 1 | | - |
| 13 | | 1 | | - |
| 14 | | 1 | | - |
| 15 | | 1 | | - |
| 16 | | - | | - |
| 17 | | - | | - |
| 18 | | 2 | | - |
| 19 | | 1 | | - |
| 20 | | - | | - |
| 21 | | 3 | | - |
| 22 | | 1 | | - |
| 23 | | 1 | | - |
| 24 | | - | | - |
| 25 | | 3 | | - |
| 26 | | 1 | | - |
| 27 | | 2 | | - |
| 28 | | - | | - |
| 29 | | 2 | | - |
| 30 | | 2 | | - |
| 31 | | - | | - |
| | | | | |

* Condition 2 (9)

**Table 2C: Number of Laden Trucks - 6:00am to 7:00am**

| TERALBA QUARRY | Month: | May-20 |
|---|---|---|

| | Westwards** | Eastwards** |
|---|---|---|
| | Max Hourly | Max Hourly |
| Limits* | 28 | 8 |
| Actuals | | |
| 1 | 2 | - |
| 2 | 5 | - |
| 3 | - | - |
| 4 | 3 | - |
| 5 | 9 | - |
| 6 | 7 | - |
| 7 | 8 | 1 |
| 8 | 9 | 2 |
| 9 | 5 | 1 |
| 10 | - | - |
| 11 | 10 | - |
| 12 | 7 | 3 |
| 13 | 7 | 2 |
| 14 | 5 | 2 |
| 15 | 5 | 5 |
| 16 | 4 | - |
| 17 | - | - |
| 18 | 8 | 1 |
| 19 | 8 | - |
| 20 | 9 | 1 |
| 21 | 7 | 1 |
| 22 | 4 | - |
| 23 | 2 | - |
| 24 | - | - |
| 25 | 2 | 1 |
| 26 | 1 | - |
| 27 | 3 | 1 |
| 28 | 7 | 1 |
| 29 | 4 | 2 |
| 30 | 4 | 1 |
| 31 | - | - |

* Condition 2 (9)

** Combined Maximum hourly No. of laden trucks = 28

**Table 2D: Number of Laden Trucks - 7:00am to 6pm**

| TERALBA QUARRY | | | Month: | | May-20 | |
|---|---|---|---|---|---|---|
| | | Daily Total | Westwards | | Eastwards | |
| | | | Daily | Max Hourly | Daily | Max Hourly |
| Limits | | 305 | 220 | 20 | 85 | 8 |
| Actuals | | | | | | |
| 1 | | 91 | 46 | 9 | 45 | 8 |
| 2 | | 21 | 19 | 8 | 2 | 1 |
| 3 | | - | - | - | - | - |
| 4 | | 58 | 37 | 8 | 21 | 4 |
| 5 | | 62 | 38 | 8 | 24 | 6 |
| 6 | | 102 | 70 | 12 | 32 | 8 |
| 7 | | 97 | 72 | 10 | 25 | 6 |
| 8 | | 135 | 103 | 14 | 32 | 5 |
| 9 | | 17 | 12 | 4 | 5 | 2 |
| 10 | | - | - | - | - | - |
| 11 | | 94 | 59 | 12 | 35 | 6 |
| 12 | | 92 | 65 | 10 | 27 | 6 |
| 13 | | 126 | 87 | 16 | 39 | 8 |
| 14 | | 84 | 40 | 9 | 44 | 8 |
| 15 | | 68 | 26 | 5 | 42 | 8 |
| 16 | | 20 | 8 | 3 | 12 | 4 |
| 17 | | - | - | - | - | - |
| 18 | | 49 | 35 | 6 | 14 | 3 |
| 19 | | 95 | 49 | 7 | 46 | 8 |
| 20 | | 117 | 81 | 15 | 36 | 8 |
| 21 | | 58 | 36 | 8 | 22 | 7 |
| 22 | | 26 | 10 | 3 | 16 | 3 |
| 23 | | 9 | 4 | 3 | 5 | 2 |
| 24 | | - | - | - | - | - |
| 25 | | 41 | 26 | 12 | 15 | 3 |
| 26 | | 18 | 14 | 3 | 4 | 2 |
| 27 | | 56 | 40 | 9 | 16 | 4 |
| 28 | | 106 | 47 | 12 | 59 | 8 |
| 29 | | 88 | 45 | 9 | 43 | 8 |
| 30 | | 19 | 10 | 4 | 9 | 3 |
| 31 | | - | - | - | - | - |

** PLEASE NOTE: The Hilighted Max Hourly Movements Do Not Relate To Same One Hour Period

Table 2E: Total Number of Laden Trucks

**TERALBA QUARRY** **Month: Jun-20**

| | Daily Total | Max Hourly Daily 6pm to 5am | Max Hourly Daily 5am to 6am | Max Hourly Daily 6am to 7am | Max Hourly Daily 7am to 6pm | Westwards Daily | Eastwards Daily |
|---|---|---|---|---|---|---|---|
| **Limits** | **326** | **6** | **12** | **28** | **20** | **241** | **85** |
| **Actuals** | | | | | | | |
| 1 | 88 | 3 | 2 | 8 | 12 | 55 | 33 |
| 2 | 73 | 5 | 1 | 7 | 10 | 40 | 33 |
| 3 | 86 | 5 | 1 | 6 | 14 | 47 | 39 |
| 4 | 92 | 3 | 3 | 6 | 14 | 57 | 35 |
| 5 | 114 | 4 | 3 | 12 | 13 | 82 | 32 |
| 6 | 28 | 4 | - | 6 | 5 | 19 | 9 |
| 7 | - | - | - | - | - | - | - |
| 8 | - | - | - | - | - | - | - |
| 9 | 49 | 2 | 1 | 5 | 10 | 28 | 21 |
| 10 | 32 | 4 | 1 | 3 | 5 | 24 | 8 |
| 11 | 76 | 5 | 2 | 5 | 10 | 43 | 33 |
| 12 | 78 | 5 | - | 12 | 12 | 41 | 37 |
| 13 | 20 | 4 | 1 | 3 | 3 | 15 | 5 |
| 14 | - | - | - | - | - | - | - |
| 15 | 60 | 3 | 5 | 4 | 10 | 31 | 29 |
| 16 | 96 | 5 | 1 | 10 | 12 | 68 | 28 |
| 17 | 85 | 4 | - | 9 | 13 | 54 | 31 |
| 18 | 102 | 4 | 1 | 8 | 13 | 53 | 49 |
| 19 | 116 | 5 | 2 | 9 | 13 | 67 | 49 |
| 20 | 58 | 6 | 1 | 9 | 12 | 48 | 10 |
| 21 | - | - | - | - | - | - | - |
| 22 | 88 | 1 | 6 | 7 | 14 | 55 | 33 |
| 23 | 96 | 5 | 1 | 7 | 16 | 70 | 26 |
| 24 | 128 | 3 | - | 12 | 18 | 88 | 40 |
| 25 | 119 | 3 | 2 | 11 | 16 | 86 | 33 |
| 26 | 138 | 4 | - | 10 | 18 | 76 | 62 |
| 27 | 29 | 5 | - | 5 | 6 | 19 | 10 |
| 28 | - | - | - | - | - | - | - |
| 29 | 67 | 1 | 5 | 7 | 8 | 39 | 28 |
| 30 | 130 | 5 | 1 | 7 | 19 | 78 | 52 |
| | 2048 | | | | | 1283 | 765 |

**Table 2A: Number of Laden Trucks - 6:00pm to 5:00am**

| TERALBA QUARRY | | Month: | | | Jun-20 |
|---|---|---|---|---|---|
| | Daily Total | Westwards | | Eastwards | |
| | | Daily | Max Hourly | Daily | Max Hourly |
| Limits | 66 | 66 | 6 | 0 | 0 |
| Actuals | | | | | |
| 1 | 3 | 3 | 3 | - | - |
| 2 | 5 | 5 | 5 | - | - |
| 3 | 6 | 6 | 5 | - | - |
| 4 | 4 | 4 | 3 | - | - |
| 5 | 5 | 5 | 4 | - | - |
| 6 | 4 | 4 | 4 | - | - |
| 7 | - | - | - | - | - |
| 8 | - | - | - | - | - |
| 9 | 2 | 2 | 2 | - | - |
| 10 | 5 | 5 | 4 | - | - |
| 11 | 6 | 6 | 5 | - | - |
| 12 | 6 | 6 | 5 | - | - |
| 13 | 4 | 4 | 4 | - | - |
| 14 | - | - | - | - | - |
| 15 | 3 | 3 | 3 | - | - |
| 16 | 6 | 6 | 5 | - | - |
| 17 | 4 | 4 | 4 | - | - |
| 18 | 5 | 5 | 4 | - | - |
| 19 | 5 | 5 | 5 | - | - |
| 20 | 6 | 6 | 6 | - | - |
| 21 | - | - | - | - | - |
| 22 | 1 | 1 | 1 | - | - |
| 23 | 6 | 6 | 5 | - | - |
| 24 | 4 | 4 | 3 | - | - |
| 25 | 4 | 4 | 3 | - | - |
| 26 | 5 | 5 | 4 | - | - |
| 27 | 6 | 6 | 5 | - | - |
| 28 | - | - | - | - | - |
| 29 | 1 | 1 | 1 | - | - |
| 30 | 6 | 6 | 5 | - | - |
| | | | | - | - |
| | | | | | |

**Table 2B: Number of Laden Trucks - 5:00am to 6:00am**

| TERALBA QUARRY | | Month: | | Jun-20 |
|---|---|---|---|---|
| | | | | |
| | | Westwards | | Eastwards |
| | | Max Hourly | | Max Hourly |
| | | | | |
| Limits* | | 12 | | 0 |
| Actuals | | | | |
| 1 | | 2 | | - |
| 2 | | 1 | | - |
| 3 | | 1 | | - |
| 4 | | 3 | | - |
| 5 | | 3 | | - |
| 6 | | - | | - |
| 7 | | - | | - |
| 8 | | - | | - |
| 9 | | 1 | | - |
| 10 | | 1 | | - |
| 11 | | 2 | | - |
| 12 | | - | | - |
| 13 | | 1 | | - |
| 14 | | - | | - |
| 15 | | 5 | | - |
| 16 | | 1 | | - |
| 17 | | - | | - |
| 18 | | 1 | | - |
| 19 | | 2 | | - |
| 20 | | 1 | | - |
| 21 | | - | | - |
| 22 | | 6 | | - |
| 23 | | 1 | | - |
| 24 | | - | | - |
| 25 | | 2 | | - |
| 26 | | - | | - |
| 27 | | - | | - |
| 28 | | - | | - |
| 29 | | 5 | | - |
| 30 | | 1 | | - |
| | | | | - |
| | | | | |

* Condition 2 (9)

**Table 2C: Number of Laden Trucks - 6:00am to 7:00am**

| TERALBA QUARRY | | Month: | | Jun-20 |
|---|---|---|---|---|
| | | | | |
| | | Westwards** | | Eastwards** |
| | | Max Hourly | | Max Hourly |
| | | | | |
| Limits* | | 28 | | 8 |
| Actuals | | | | |
| 1 | | 7 | | 1 |
| 2 | | 4 | | 3 |
| 3 | | 3 | | 3 |
| 4 | | 6 | | - |
| 5 | | 10 | | 2 |
| 6 | | 4 | | 2 |
| 7 | | - | | - |
| 8 | | - | | - |
| 9 | | 5 | | - |
| 10 | | 3 | | - |
| 11 | | 4 | | 1 |
| 12 | | 7 | | 5 |
| 13 | | 2 | | 1 |
| 14 | | - | | - |
| 15 | | 3 | | 1 |
| 16 | | 8 | | 2 |
| 17 | | 4 | | 5 |
| 18 | | 6 | | 2 |
| 19 | | 7 | | 2 |
| 20 | | 9 | | |
| 21 | | - | | - |
| 22 | | 7 | | - |
| 23 | | 7 | | - |
| 24 | | 6 | | 6 |
| 25 | | 8 | | 3 |
| 26 | | 8 | | 2 |
| 27 | | 4 | | 1 |
| 28 | | - | | - |
| 29 | | 7 | | - |
| 30 | | 5 | | 2 |
| | | | | |
| | | | | |

* Condition 2 (9)

** Combined Maximum hourly No. of laden trucks = 28

**Table 2D: Number of Laden Trucks - 7:00am to 6pm**

| TERALBA QUARRY | | | Month: | | Jun-20 | |
|---|---|---|---|---|---|---|
| | | Daily Total | Westwards | | Eastwards | |
| | | | Daily | Max Hourly | Daily | Max Hourly |
| Limits | | 305 | 220 | 20 | 85 | 8 |
| Actuals | | | | | | |
| 1 | | 75 | 43 | 7 | 32 | 5 |
| 2 | | 60 | 30 | 6 | 30 | 7 |
| 3 | | 73 | 37 | 6 | 36 | 8 |
| 4 | | 79 | 44 | 7 | 35 | 8 |
| 5 | | 94 | 64 | 10 | 30 | 5 |
| 6 | | 18 | 11 | 4 | 7 | 3 |
| 7 | | - | - | - | - | - |
| 8 | | - | - | - | - | - |
| 9 | | 41 | 20 | 4 | 21 | 6 |
| 10 | | 23 | 15 | 5 | 8 | 3 |
| 11 | | 63 | 31 | 8 | 32 | 6 |
| 12 | | 60 | 28 | 5 | 32 | 8 |
| 13 | | 12 | 8 | 2 | 4 | 1 |
| 14 | | - | - | - | - | - |
| 15 | | 48 | 20 | 6 | 28 | 6 |
| 16 | | 79 | 53 | 8 | 26 | 5 |
| 17 | | 72 | 46 | 9 | 26 | 5 |
| 18 | | 88 | 41 | 9 | 47 | 8 |
| 19 | | 100 | 53 | 9 | 47 | 8 |
| 20 | | 42 | 32 | 9 | 10 | 4 |
| 21 | | - | - | - | - | - |
| 22 | | 74 | 41 | 8 | 33 | 6 |
| 23 | | 82 | 56 | 10 | 26 | 7 |
| 24 | | 112 | 78 | 14 | 34 | 8 |
| 25 | | 102 | 72 | 12 | 30 | 6 |
| 26 | | 123 | 63 | 11 | 60 | 8 |
| 27 | | 18 | 9 | 3 | 9 | 3 |
| 28 | | - | - | - | - | - |
| 29 | | 54 | 26 | 5 | 28 | 5 |
| 30 | | 116 | 66 | 11 | 50 | 8 |
| | | | | | | |
| | | | | | | |

** PLEASE NOTE: The Hilighted Max Hourly Movements Do Not Relate To Same One Hour Period

Table 2E: Total Number of Laden Trucks

**TERALBA QUARRY** **Month: Jul-20**

| | Daily Total | Max Hourly Daily | Max Hourly Daily | Max Hourly Daily | Max Hourly Daily | Westwards Daily | Eastwards Daily |
|---|---|---|---|---|---|---|---|
| | | 6pm to 5am | 5am to 6am | 6am to 7am | 7am to 6pm | | |
| **Limits** | **326** | **6** | **12** | **28** | **20** | **241** | **85** |
| **Actuals** | | | | | | | |
| 1 | 130 | 4 | 3 | 9 | 20 | 90 | 40 |
| 2 | 122 | 4 | 2 | 8 | 20 | 72 | 50 |
| 3 | 92 | 5 | - | 11 | 10 | 66 | 26 |
| 4 | 20 | 4 | 2 | 7 | 3 | 20 | - |
| 5 | - | - | - | - | - | - | - |
| 6 | 97 | 1 | 4 | 7 | 15 | 67 | 30 |
| 7 | 96 | 2 | 2 | 8 | 12 | 69 | 27 |
| 8 | 108 | 3 | 1 | 7 | 16 | 66 | 42 |
| 9 | 119 | 5 | 2 | 11 | 17 | 80 | 39 |
| 10 | 88 | 4 | 4 | 6 | 13 | 51 | 37 |
| 11 | 18 | 3 | 2 | 3 | 6 | 15 | 3 |
| 12 | - | - | - | - | - | - | - |
| 13 | 55 | - | 1 | 7 | 10 | 36 | 19 |
| 14 | 36 | 3 | 2 | 1 | 9 | 30 | 6 |
| 15 | 44 | 1 | - | 4 | 12 | 31 | 13 |
| 16 | 90 | 5 | - | 5 | 14 | 63 | 27 |
| 17 | 75 | 5 | 1 | 5 | 12 | 52 | 23 |
| 18 | 21 | 4 | 1 | 5 | 3 | 19 | 2 |
| 19 | - | - | - | - | - | - | - |
| 20 | 104 | - | 5 | 8 | 15 | 65 | 39 |
| 21 | 98 | 4 | 1 | 8 | 11 | 62 | 36 |
| 22 | 115 | 5 | - | 5 | 16 | 73 | 42 |
| 23 | 126 | 6 | - | 9 | 17 | 87 | 39 |
| 24 | 90 | 4 | - | 8 | 15 | 57 | 33 |
| 25 | 20 | 4 | 2 | 2 | 5 | 14 | 6 |
| 26 | - | - | - | - | - | - | - |
| 27 | 38 | 1 | 5 | 5 | 6 | 29 | 9 |
| 28 | 10 | 4 | - | 2 | 2 | 7 | 3 |
| 29 | 39 | 4 | - | 2 | 6 | 26 | 13 |
| 30 | 73 | 5 | 2 | 6 | 10 | 38 | 35 |
| 31 | 65 | 2 | 2 | 5 | 9 | 37 | 28 |
| | 1989 | | | | | 1322 | 667 |

**Table 2A: Number of Laden Trucks - 6:00pm to 5:00am**

| TERALBA QUARRY | | Month: | Jul-20 |
|---|---|---|---|

| | Daily Total | Westwards | | Eastwards | |
|---|---|---|---|---|---|
| | | Daily | Max Hourly | Daily | Max Hourly |
| Limits | 66 | 66 | 6 | 0 | 0 |
| Actuals | | | | | |
| 1 | 5 | 5 | 4 | - | - |
| 2 | 5 | 5 | 4 | - | - |
| 3 | 6 | 6 | 5 | - | - |
| 4 | 4 | 4 | 4 | - | - |
| 5 | - | - | - | - | - |
| 6 | 1 | 1 | 1 | - | - |
| 7 | 4 | 4 | 2 | - | - |
| 8 | 4 | 4 | 3 | - | - |
| 9 | 5 | 5 | 5 | - | - |
| 10 | 4 | 4 | 4 | - | - |
| 11 | 6 | 6 | 3 | - | - |
| 12 | - | - | - | - | - |
| 13 | - | - | - | - | - |
| 14 | 4 | 4 | 3 | - | - |
| 15 | 1 | 1 | 1 | - | - |
| 16 | 5 | 5 | 5 | - | - |
| 17 | 6 | 6 | 5 | - | - |
| 18 | 6 | 6 | 4 | - | - |
| 19 | - | - | - | - | - |
| 20 | - | - | - | - | - |
| 21 | 5 | 5 | 4 | - | - |
| 22 | 5 | 5 | 5 | - | - |
| 23 | 7 | 7 | 6 | - | - |
| 24 | 4 | 4 | 4 | - | - |
| 25 | 5 | 5 | 4 | - | - |
| 26 | - | - | - | - | - |
| 27 | 1 | 1 | 1 | - | - |
| 28 | 4 | 4 | 4 | - | - |
| 29 | 4 | 4 | 4 | - | - |
| 30 | 5 | 5 | 5 | - | - |
| 31 | 3 | 3 | 2 | - | - |

**Table 2B: Number of Laden Trucks - 5:00am to 6:00am**

| TERALBA QUARRY | | Month: | | Jul-20 |
|---|---|---|---|---|
| | | | | |
| | | Westwards | | Eastwards |
| | | Max Hourly | | Max Hourly |
| | | | | |
| Limits* | | 12 | | 0 |
| Actuals | | | | |
| 1 | | 3 | | - |
| 2 | | 2 | | - |
| 3 | | - | | - |
| 4 | | 2 | | - |
| 5 | | - | | - |
| 6 | | 4 | | - |
| 7 | | 2 | | - |
| 8 | | 1 | | - |
| 9 | | 2 | | - |
| 10 | | 4 | | - |
| 11 | | 2 | | - |
| 12 | | - | | - |
| 13 | | 1 | | - |
| 14 | | 2 | | - |
| 15 | | - | | - |
| 16 | | - | | - |
| 17 | | 1 | | - |
| 18 | | 1 | | - |
| 19 | | - | | - |
| 20 | | 5 | | - |
| 21 | | 1 | | - |
| 22 | | - | | - |
| 23 | | - | | - |
| 24 | | - | | - |
| 25 | | 2 | | - |
| 26 | | - | | - |
| 27 | | 5 | | - |
| 28 | | - | | - |
| 29 | | - | | - |
| 30 | | 2 | | - |
| 31 | | 2 | | - |
| | | | | |

* Condition 2 (9)

**Table 2C: Number of Laden Trucks - 6:00am to 7:00am**

| TERALBA QUARRY | | Month: | | Jul-20 |
|---|---|---|---|---|
| | | Westwards** | | Eastwards** |
| | | Max Hourly | | Max Hourly |
| Limits* | | 28 | | 8 |
| Actuals | | | | |
| 1 | | 6 | | 3 |
| 2 | | 7 | | 1 |
| 3 | | 9 | | 2 |
| 4 | | 7 | | - |
| 5 | | - | | - |
| 6 | | 5 | | 2 |
| 7 | | 7 | | 1 |
| 8 | | 6 | | 1 |
| 9 | | 7 | | 4 |
| 10 | | 6 | | - |
| 11 | | 3 | | - |
| 12 | | - | | - |
| 13 | | 7 | | - |
| 14 | | 1 | | - |
| 15 | | 4 | | - |
| 16 | | 2 | | 3 |
| 17 | | 4 | | 1 |
| 18 | | 5 | | - |
| 19 | | - | | - |
| 20 | | 6 | | 2 |
| 21 | | 6 | | 2 |
| 22 | | 5 | | - |
| 23 | | 8 | | 1 |
| 24 | | 8 | | - |
| 25 | | 2 | | - |
| 26 | | - | | - |
| 27 | | 4 | | 1 |
| 28 | | 2 | | - |
| 29 | | 2 | | - |
| 30 | | 3 | | 3 |
| 31 | | 5 | | - |

* Condition 2 (9)

** Combined Maximum hourly No. of laden trucks = 28

**Table 2D: Number of Laden Trucks - 7:00am to 6pm**

| TERALBA QUARRY | | Month: | | Jul-20 | |
|---|---|---|---|---|---|
| | Daily Total | Westwards | | Eastwards | |
| | | Daily | Max Hourly | Daily | Max Hourly |
| Limits | 305 | 220 | 20 | 85 | 8 |
| Actuals | | | | | |
| 1 | 113 | 76 | 14 | 37 | 7 |
| 2 | 107 | 58 | 13 | 49 | 8 |
| 3 | 75 | 51 | 9 | 24 | 5 |
| 4 | 7 | 7 | 3 | - | - |
| 5 | - | - | - | - | - |
| 6 | 85 | 57 | 14 | 28 | 7 |
| 7 | 82 | 56 | 8 | 26 | 5 |
| 8 | 96 | 55 | 9 | 41 | 8 |
| 9 | 101 | 66 | 9 | 35 | 8 |
| 10 | 74 | 37 | 6 | 37 | 7 |
| 11 | 7 | 4 | 3 | 3 | 3 |
| 12 | - | - | - | - | - |
| 13 | 47 | 28 | 6 | 19 | 5 |
| 14 | 29 | 23 | 6 | 6 | 3 |
| 15 | 39 | 26 | 8 | 13 | 4 |
| 16 | 80 | 56 | 10 | 24 | 4 |
| 17 | 63 | 41 | 8 | 22 | 5 |
| 18 | 9 | 7 | 3 | 2 | 2 |
| 19 | - | - | - | - | - |
| 20 | 91 | 54 | 9 | 37 | 7 |
| 21 | 84 | 50 | 8 | 34 | 6 |
| 22 | 105 | 63 | 12 | 42 | 7 |
| 23 | 110 | 72 | 11 | 38 | 8 |
| 24 | 78 | 45 | 9 | 33 | 6 |
| 25 | 11 | 5 | 2 | 6 | 3 |
| 26 | - | - | - | - | - |
| 27 | 27 | 19 | 5 | 8 | 3 |
| 28 | 4 | 1 | 1 | 3 | 1 |
| 29 | 33 | 20 | 5 | 13 | 3 |
| 30 | 60 | 28 | 5 | 32 | 7 |
| 31 | 55 | 27 | 7 | 28 | 5 |

** PLEASE NOTE: The Hilighted Max Hourly Movements Do Not Relate To Same One Hour Period

Table 2E: Total Number of Laden Trucks

**TERALBA QUARRY** **Month: Aug-20**

| | Daily Total | Max Hourly Daily | Max Hourly Daily | Max Hourly Daily | Max Hourly Daily | Westwards Daily | Eastwards Daily |
|---|---|---|---|---|---|---|---|
| | | 6pm to 5am | 5am to 6am | 6am to 7am | 7am to 6pm | | |
| **Limits** | **326** | **6** | **12** | **28** | **20** | **241** | **85** |
| **Actuals** | | | | | | | |
| 1 | 19 | 3 | 2 | 5 | 3 | 13 | 6 |
| 2 | - | - | - | - | - | - | - |
| 3 | 85 | - | 5 | 9 | 13 | 37 | 48 |
| 4 | 139 | 2 | 1 | 8 | 20 | 85 | 54 |
| 5 | 114 | 5 | 1 | 7 | 15 | 65 | 49 |
| 6 | 94 | 6 | - | 8 | 12 | 58 | 36 |
| 7 | 60 | 5 | - | 9 | 9 | 36 | 24 |
| 8 | 2 | - | | 1 | 1 | 2 | - |
| 9 | - | - | - | - | - | - | - |
| 10 | 28 | 5 | - | 2 | 6 | 10 | 18 |
| 11 | 61 | 5 | 1 | 3 | 8 | 32 | 29 |
| 12 | 74 | 6 | 1 | 8 | 10 | 45 | 29 |
| 13 | 94 | 6 | 1 | 4 | 16 | 53 | 41 |
| 14 | 97 | 5 | - | 6 | 13 | 73 | 24 |
| 15 | 16 | 4 | - | 1 | 4 | 8 | 8 |
| 16 | - | - | - | - | - | - | - |
| 17 | 84 | 2 | 3 | 5 | 13 | 58 | 26 |
| 18 | 105 | 3 | - | 13 | 20 | 69 | 36 |
| 19 | 96 | 6 | 1 | 10 | 13 | 49 | 47 |
| 20 | 116 | 5 | 2 | 8 | 17 | 75 | 41 |
| 21 | 120 | 6 | - | 10 | 18 | 91 | 29 |
| 22 | 15 | 4 | 1 | 3 | 2 | 13 | 2 |
| 23 | - | - | - | - | - | - | - |
| 24 | 85 | - | 3 | 8 | 12 | 55 | 30 |
| 25 | 102 | 4 | - | 11 | 14 | 72 | 30 |
| 26 | 120 | 5 | 1 | 14 | 15 | 85 | 35 |
| 27 | 109 | 5 | 1 | 8 | 15 | 84 | 25 |
| 28 | 96 | 5 | 1 | 7 | 15 | 69 | 27 |
| 29 | 20 | 5 | 1 | 4 | 4 | 19 | 1 |
| 30 | - | - | - | - | - | - | - |
| 31 | 90 | - | 5 | 15 | 13 | 59 | 31 |
| | 2041 | | | | | 1315 | 726 |

**Table 2A: Number of Laden Trucks - 6:00pm to 5:00am**

| TERALBA QUARRY | | | Month: | | | Aug-20 |
|---|---|---|---|---|---|---|
| | | Daily Total | Westwards | | Eastwards | |
| | | | Daily | Max Hourly | Daily | Max Hourly |
| Limits | | 66 | 66 | 6 | 0 | 0 |
| Actuals | | | | | | |
| 1 | | 4 | 4 | 3 | - | - |
| 2 | | - | - | - | - | - |
| 3 | | - | - | - | - | - |
| 4 | | 3 | 3 | 2 | - | - |
| 5 | | 5 | 5 | 5 | - | - |
| 6 | | 7 | 7 | 6 | - | - |
| 7 | | 6 | 6 | 5 | - | - |
| 8 | | - | - | - | - | - |
| 9 | | - | - | - | - | - |
| 10 | | 5 | 5 | 5 | - | - |
| 11 | | 6 | 6 | 5 | - | - |
| 12 | | 7 | 7 | 6 | - | - |
| 13 | | 7 | 7 | 6 | - | - |
| 14 | | 6 | 6 | 5 | - | - |
| 15 | | 5 | 5 | 4 | - | - |
| 16 | | - | - | - | - | - |
| 17 | | 2 | 2 | 2 | - | - |
| 18 | | 3 | 3 | 3 | - | - |
| 19 | | 7 | 7 | 6 | - | - |
| 20 | | 6 | 6 | 5 | - | - |
| 21 | | 7 | 7 | 6 | - | - |
| 22 | | 7 | 7 | 6 | - | - |
| 23 | | - | - | - | - | - |
| 24 | | - | - | - | - | - |
| 25 | | 4 | 4 | 4 | - | - |
| 26 | | 5 | 5 | 5 | - | - |
| 27 | | 6 | 6 | 5 | - | - |
| 28 | | 5 | 5 | 5 | - | - |
| 29 | | 5 | 5 | 5 | - | - |
| 30 | | - | - | - | - | - |
| 31 | | - | - | - | - | - |

**Table 2B: Number of Laden Trucks - 5:00am to 6:00am**

| TERALBA QUARRY | | Month: | | Aug-20 |
|---|---|---|---|---|
| | | Westwards | | Eastwards |
| | | Max Hourly | | Max Hourly |
| Limits* | | 12 | | 0 |
| Actuals | | | | |
| 1 | | 2 | | - |
| 2 | | - | | - |
| 3 | | 3 | | - |
| 4 | | 1 | | - |
| 5 | | 1 | | - |
| 6 | | - | | - |
| 7 | | - | | - |
| 8 | | - | | - |
| 9 | | - | | - |
| 10 | | - | | - |
| 11 | | 1 | | - |
| 12 | | 1 | | - |
| 13 | | 1 | | - |
| 14 | | - | | - |
| 15 | | - | | - |
| 16 | | - | | - |
| 17 | | 3 | | - |
| 18 | | - | | - |
| 19 | | 1 | | - |
| 20 | | 2 | | - |
| 21 | | - | | - |
| 22 | | 1 | | - |
| 23 | | - | | - |
| 24 | | 3 | | - |
| 25 | | - | | - |
| 26 | | 1 | | - |
| 27 | | 1 | | - |
| 28 | | 1 | | - |
| 29 | | 1 | | - |
| 30 | | - | | - |
| 31 | | 3 | | - |

* Condition 2 (9)

**Table 2C: Number of Laden Trucks - 6:00am to 7:00am**

| TERALBA QUARRY | | Month: | | Aug-20 |
|---|---|---|---|---|
| | | Westwards** | | Eastwards** |
| | | Max Hourly | | Max Hourly |
| Limits* | | 28 | | 8 |
| Actuals | | | | |
| 1 | | 3 | | 2 |
| 2 | | - | | - |
| 3 | | 8 | | 1 |
| 4 | | 7 | | 1 |
| 5 | | 4 | | 3 |
| 6 | | 6 | | 2 |
| 7 | | 7 | | 2 |
| 8 | | 1 | | - |
| 9 | | - | | - |
| 10 | | 2 | | - |
| 11 | | 2 | | 1 |
| 12 | | 6 | | 2 |
| 13 | | 3 | | 1 |
| 14 | | 5 | | 1 |
| 15 | | 1 | | - |
| 16 | | - | | - |
| 17 | | 5 | | - |
| 18 | | 12 | | 1 |
| 19 | | 7 | | 3 |
| 20 | | 7 | | 1 |
| 21 | | 9 | | 1 |
| 22 | | 3 | | - |
| 23 | | - | | - |
| 24 | | 8 | | - |
| 25 | | 8 | | 3 |
| 26 | | 11 | | 3 |
| 27 | | 5 | | 3 |
| 28 | | 6 | | 1 |
| 29 | | 4 | | - |
| 30 | | - | | - |
| 31 | | 12 | | 3 |

* Condition 2 (9)

** Combined Maximum hourly No. of laden trucks = 28

**Table 2D: Number of Laden Trucks - 7:00am to 6pm**

| TERALBA QUARRY | | | Month: | Aug-20 |
|---|---|---|---|---|
| | Daily Total | Westwards | | Eastwards |
| | | Daily | Max Hourly | Daily | Max Hourly |
| Limits | 305 | 220 | 20 | 85 | 8 |
| Actuals | | | | | |
| 1 | 8 | 4 | 2 | 4 | 1 |
| 2 | - | - | - | - | - |
| 3 | 73 | 26 | 5 | 47 | 8 |
| 4 | 127 | 74 | 12 | 53 | 8 |
| 5 | 101 | 55 | 8 | 46 | 8 |
| 6 | 79 | 45 | 7 | 34 | 7 |
| 7 | 45 | 23 | 6 | 22 | 4 |
| 8 | 2 | 1 | 1 | - | - |
| 9 | - | - | - | - | - |
| 10 | 21 | 3 | 1 | 18 | 5 |
| 11 | 51 | 23 | 5 | 28 | 5 |
| 12 | 58 | 31 | 7 | 27 | 8 |
| 13 | 82 | 42 | 10 | 40 | 8 |
| 14 | 85 | 62 | 9 | 23 | 6 |
| 15 | 10 | 2 | 1 | 8 | 3 |
| 16 | - | - | - | - | - |
| 17 | 74 | 48 | 10 | 26 | 6 |
| 18 | 89 | 54 | 13 | 35 | 8 |
| 19 | 78 | 34 | 7 | 44 | 8 |
| 20 | 100 | 60 | 12 | 40 | 8 |
| 21 | 103 | 75 | 13 | 28 | 6 |
| 22 | 4 | 2 | 1 | 2 | 2 |
| 23 | - | - | - | - | - |
| 24 | 74 | 44 | 7 | 30 | 6 |
| 25 | 87 | 60 | 10 | 27 | 5 |
| 26 | 100 | 68 | 12 | 32 | 6 |
| 27 | 94 | 72 | 12 | 22 | 4 |
| 28 | 83 | 57 | 10 | 26 | 5 |
| 29 | 10 | 9 | 3 | 1 | 1 |
| 30 | - | - | - | - | - |
| 31 | 72 | 44 | 7 | 28 | 6 |

** PLEASE NOTE: The Hilighted Max Hourly Movements Do Not Relate To Same One Hour Period

Table 2E: Total Number of Laden Trucks

**TERALBA QUARRY** **Month: Sep-20**

| | Daily Total | Max Hourly Daily 6pm to 5am | Max Hourly Daily 5am to 6am | Max Hourly Daily 6am to 7am | Max Hourly Daily 7am to 6pm | Westwards Daily | Eastwards Daily |
|---|---|---|---|---|---|---|---|
| Limits | 326 | 6 | 12 | 28 | 20 | 241 | 85 |
| Actuals | | | | | | | |
| 1 | 104 | 4 | 2 | 8 | 13 | 65 | 39 |
| 2 | 108 | 5 | 1 | 8 | 14 | 72 | 36 |
| 3 | 86 | 5 | 1 | 8 | 13 | 54 | 32 |
| 4 | 98 | 4 | 2 | 9 | 16 | 71 | 27 |
| 5 | 18 | 4 | - | 4 | 4 | 14 | 4 |
| 6 | - | - | - | - | - | - | - |
| 7 | 69 | 1 | 5 | 10 | 9 | 52 | 17 |
| 8 | 99 | 5 | 1 | 4 | 15 | 50 | 49 |
| 9 | 72 | 6 | - | 4 | 11 | 49 | 23 |
| 10 | 68 | 4 | 1 | 4 | 10 | 38 | 30 |
| 11 | 97 | 5 | 1 | 8 | 15 | 53 | 44 |
| 12 | 20 | 5 | 1 | 2 | 5 | 19 | 1 |
| 13 | - | - | - | - | - | - | - |
| 14 | 104 | - | 5 | 12 | 16 | 68 | 36 |
| 15 | 147 | 6 | - | 10 | 19 | 90 | 57 |
| 16 | 86 | 4 | 1 | 11 | 14 | 47 | 39 |
| 17 | 89 | 5 | - | 6 | 11 | 68 | 21 |
| 18 | 99 | 4 | - | 8 | 16 | 63 | 36 |
| 19 | 14 | 4 | - | 2 | 3 | 10 | 4 |
| 20 | - | - | - | - | - | - | - |
| 21 | 71 | - | 5 | 5 | 11 | 36 | 35 |
| 22 | 79 | 3 | 2 | 8 | 11 | 45 | 34 |
| 23 | 76 | 4 | - | 6 | 10 | 50 | 26 |
| 24 | 78 | 5 | - | 8 | 12 | 50 | 28 |
| 25 | 66 | 2 | 1 | 7 | 13 | 40 | 26 |
| 26 | 11 | 4 | 1 | 3 | 2 | 8 | 3 |
| 27 | - | - | - | - | - | - | - |
| 28 | 76 | - | 2 | 6 | 11 | 51 | 25 |
| 29 | 67 | 2 | - | 5 | 10 | 45 | 22 |
| 30 | 56 | 2 | 1 | 6 | 9 | 29 | 27 |
| | 1958 | | | | | 1237 | 721 |

**Table 2A: Number of Laden Trucks - 6:00pm to 5:00am**

| TERALBA QUARRY | | Month: | | Sep-20 | |
|---|---|---|---|---|---|
| | Daily Total | Westwards | | Eastwards | |
| | | Daily | Max Hourly | Daily | Max Hourly |
| Limits | 66 | 66 | 6 | 0 | 0 |
| Actuals | | | | | |
| 1 | 5 | 5 | 4 | - | - |
| 2 | 6 | 6 | 5 | - | - |
| 3 | 6 | 6 | 5 | - | - |
| 4 | 5 | 5 | 4 | - | - |
| 5 | 5 | 5 | 4 | - | - |
| 6 | - | - | - | - | - |
| 7 | 1 | 1 | 1 | - | - |
| 8 | 6 | 6 | 5 | - | - |
| 9 | 7 | 7 | 6 | - | - |
| 10 | 5 | 5 | 4 | - | - |
| 11 | 6 | 6 | 5 | - | - |
| 12 | 5 | 5 | 5 | - | - |
| 13 | - | - | - | - | - |
| 14 | - | - | - | - | - |
| 15 | 7 | 7 | 6 | - | - |
| 16 | 5 | 5 | 4 | - | - |
| 17 | 6 | 6 | 5 | - | - |
| 18 | 6 | 6 | 4 | - | - |
| 19 | 4 | 4 | 4 | - | - |
| 20 | - | - | - | - | - |
| 21 | - | - | - | - | - |
| 22 | 4 | 4 | 3 | - | - |
| 23 | 5 | 5 | 4 | - | - |
| 24 | 5 | 5 | 5 | - | - |
| 25 | 3 | 3 | 2 | - | - |
| 26 | 4 | 4 | 4 | - | - |
| 27 | - | - | - | - | - |
| 28 | - | - | - | - | - |
| 29 | 2 | 2 | 2 | - | - |
| 30 | 2 | 2 | 2 | - | - |
| | | | | - | - |

**Table 2B: Number of Laden Trucks - 5:00am to 6:00am**

| TERALBA QUARRY | | Month: | | Sep-20 |
|---|---|---|---|---|
| | | | | |
| | | Westwards | | Eastwards |
| | | Max Hourly | | Max Hourly |
| | | | | |
| Limits* | | 12 | | 0 |
| Actuals | | | | |
| 1 | | 2 | | - |
| 2 | | 1 | | - |
| 3 | | 1 | | - |
| 4 | | 2 | | - |
| 5 | | - | | - |
| 6 | | - | | - |
| 7 | | 5 | | - |
| 8 | | 1 | | - |
| 9 | | - | | - |
| 10 | | 1 | | - |
| 11 | | 1 | | - |
| 12 | | 1 | | - |
| 13 | | - | | - |
| 14 | | 5 | | - |
| 15 | | - | | - |
| 16 | | 1 | | - |
| 17 | | - | | - |
| 18 | | - | | - |
| 19 | | - | | - |
| 20 | | - | | - |
| 21 | | 5 | | - |
| 22 | | 2 | | - |
| 23 | | - | | - |
| 24 | | - | | - |
| 25 | | 1 | | - |
| 26 | | 1 | | - |
| 27 | | - | | - |
| 28 | | 2 | | - |
| 29 | | - | | - |
| 30 | | 1 | | - |
| | | | | - |
| | | | | |

* Condition 2 (9)

**Table 2C: Number of Laden Trucks - 6:00am to 7:00am**

| TERALBA QUARRY | Month: | Sep-20 |
|---|---|---|

| | Westwards** Max Hourly | Eastwards** Max Hourly |
|---|---|---|
| Limits* | 28 | 8 |
| **Actuals** | | |
| 1 | 5 | 3 |
| 2 | 5 | 3 |
| 3 | 7 | 1 |
| 4 | 8 | 1 |
| 5 | 4 | - |
| 6 | - | - |
| 7 | 8 | 2 |
| 8 | 3 | 1 |
| 9 | 3 | 1 |
| 10 | 3 | 1 |
| 11 | 5 | 3 |
| 12 | 2 | - |
| 13 | - | - |
| 14 | 11 | 1 |
| 15 | 9 | 1 |
| 16 | 7 | 4 |
| 17 | 6 | - |
| 18 | 6 | 2 |
| 19 | 2 | - |
| 20 | - | - |
| 21 | 5 | - |
| 22 | 6 | 2 |
| 23 | 4 | 2 |
| 24 | 6 | 2 |
| 25 | 5 | 2 |
| 26 | 3 | - |
| 27 | - | - |
| 28 | 5 | 1 |
| 29 | 2 | 3 |
| 30 | 3 | 3 |

* Condition 2 (9)

** Combined Maximum hourly No. of laden trucks = 28

**Table 2D: Number of Laden Trucks - 7:00am to 6pm**

| TERALBA QUARRY | | | Month: | | | Sep-20 |
|---|---|---|---|---|---|---|
| | | Daily Total | Westwards | | Eastwards | |
| | | | Daily | Max Hourly | Daily | Max Hourly |
| Limits | | 305 | 220 | 20 | 85 | 8 |
| Actuals | | | | | | |
| 1 | | 89 | 53 | 8 | 36 | 8 |
| 2 | | 93 | 60 | 11 | 33 | 7 |
| 3 | | 71 | 40 | 9 | 31 | 8 |
| 4 | | 82 | 56 | 11 | 26 | 6 |
| 5 | | 9 | 5 | 2 | 4 | 2 |
| 6 | | - | - | - | - | - |
| 7 | | 53 | 38 | 8 | 15 | 3 |
| 8 | | 88 | 40 | 9 | 48 | 8 |
| 9 | | 61 | 39 | 7 | 22 | 6 |
| 10 | | 58 | 29 | 6 | 29 | 5 |
| 11 | | 82 | 41 | 11 | 41 | 8 |
| 12 | | 12 | 11 | 4 | 1 | 1 |
| 13 | | - | - | - | - | - |
| 14 | | 87 | 52 | 11 | 35 | 5 |
| 15 | | 130 | 74 | 13 | 56 | 8 |
| 16 | | 69 | 34 | 7 | 35 | 8 |
| 17 | | 77 | 56 | 10 | 21 | 5 |
| 18 | | 85 | 51 | 11 | 34 | 6 |
| 19 | | 8 | 4 | 2 | 4 | 1 |
| 20 | | - | - | - | - | - |
| 21 | | 61 | 26 | 5 | 35 | 6 |
| 22 | | 65 | 33 | 5 | 32 | 6 |
| 23 | | 65 | 41 | 7 | 24 | 5 |
| 24 | | 65 | 39 | 9 | 26 | 4 |
| 25 | | 55 | 31 | 8 | 24 | 6 |
| 26 | | 3 | 0 | 0 | 3 | 2 |
| 27 | | - | - | - | - | - |
| 28 | | 68 | 44 | 9 | 24 | 5 |
| 29 | | 60 | 41 | 9 | 19 | 4 |
| 30 | | 47 | 23 | 7 | 24 | 5 |
| | | | | | | |
| | | | | | | |

** PLEASE NOTE: The Hilighted Max Hourly Movements Do Not Relate To Same One Hour Period

Table 2E: Total Number of Laden Trucks

**TERALBA QUARRY** **Month: Oct-20**

| | Daily Total | Max Hourly Daily 6pm to 5am | Max Hourly Daily 5am to 6am | Max Hourly Daily 6am to 7am | Max Hourly Daily 7am to 6pm | Westwards Daily | Eastwards Daily |
|---|---|---|---|---|---|---|---|
| Limits | 326 | 6 | 12 | 28 | 20 | 241 | 85 |
| Actuals | | | | | | | |
| 1 | 67 | 2 | - | 5 | 10 | 29 | 38 |
| 2 | 76 | 2 | - | 7 | 10 | 40 | 36 |
| 3 | 7 | - | - | 2 | 4 | 1 | 6 |
| 4 | - | - | - | - | - | - | - |
| 5 | - | - | - | - | - | - | - |
| 6 | 55 | 1 | - | 5 | 9 | 40 | 15 |
| 7 | 57 | 2 | 1 | 7 | 9 | 36 | 21 |
| 8 | 62 | 4 | 1 | 6 | 8 | 32 | 30 |
| 9 | 60 | 4 | 1 | 3 | 10 | 40 | 20 |
| 10 | 10 | 3 | - | 2 | 3 | 6 | 4 |
| 11 | - | - | - | - | - | - | - |
| 12 | 79 | - | 3 | 8 | 12 | 51 | 28 |
| 13 | 73 | 3 | 2 | 5 | 10 | 48 | 25 |
| 14 | 77 | 5 | - | 7 | 12 | 34 | 43 |
| 15 | 101 | 3 | 1 | 8 | 14 | 52 | 49 |
| 16 | 55 | 3 | - | 6 | 9 | 32 | 23 |
| 17 | 9 | 1 | - | 4 | 2 | 7 | 2 |
| 18 | - | - | - | - | - | - | - |
| 19 | 61 | - | 3 | 8 | 12 | 25 | 36 |
| 20 | 52 | 1 | - | 6 | 8 | 30 | 22 |
| 21 | 61 | 1 | - | 6 | 9 | 25 | 36 |
| 22 | 76 | 2 | 1 | 7 | 9 | 43 | 33 |
| 23 | 97 | 6 | - | 6 | 13 | 61 | 36 |
| 24 | 7 | 3 | - | 1 | 1 | 6 | 1 |
| 25 | - | - | - | - | - | - | - |
| 26 | 24 | - | 4 | - | 4 | 14 | 10 |
| 27 | 18 | - | - | 3 | 3 | 8 | 10 |
| 28 | 30 | 5 | 1 | 1 | 6 | 16 | 14 |
| 29 | 34 | 3 | - | - | 5 | 19 | 15 |
| 30 | 39 | 2 | 1 | 5 | 7 | 17 | 22 |
| 31 | 8 | 4 | - | - | 2 | 6 | 2 |
| | 1295 | | | | | 718 | 577 |

**Table 2A: Number of Laden Trucks - 6:00pm to 5:00am**

| TERALBA QUARRY | | Month: | | | Oct-20 |
|---|---|---|---|---|---|
| | Daily Total | Westwards | | Eastwards | |
| | | Daily | Max Hourly | Daily | Max Hourly |
| Limits | 66 | 66 | 6 | 0 | 0 |
| Actuals | | | | | |
| 1 | 2 | 2 | 2 | - | - |
| 2 | 2 | 2 | 2 | - | - |
| 3 | - | - | - | - | - |
| 4 | - | - | - | - | - |
| 5 | - | - | - | - | - |
| 6 | 1 | 1 | 1 | - | - |
| 7 | 2 | 2 | 2 | - | - |
| 8 | 4 | 4 | 4 | - | - |
| 9 | 4 | 4 | 4 | - | - |
| 10 | 3 | 3 | 3 | - | - |
| 11 | - | - | - | - | - |
| 12 | - | - | - | - | - |
| 13 | 4 | 4 | 3 | - | - |
| 14 | 5 | 5 | 5 | - | - |
| 15 | 3 | 3 | 3 | - | - |
| 16 | 3 | 3 | 3 | - | - |
| 17 | 1 | 1 | 1 | - | - |
| 18 | - | - | - | - | - |
| 19 | - | - | - | - | - |
| 20 | 1 | 1 | 1 | - | - |
| 21 | 1 | 1 | 1 | - | - |
| 22 | 2 | 2 | 2 | - | - |
| 23 | 7 | 7 | 6 | - | - |
| 24 | 4 | 4 | 3 | - | - |
| 25 | - | - | - | - | - |
| 26 | - | - | - | - | - |
| 27 | - | - | - | - | - |
| 28 | 5 | 5 | 5 | - | - |
| 29 | 4 | 4 | 3 | - | - |
| 30 | 2 | 2 | 2 | - | - |
| 31 | 4 | 4 | 4 | - | - |

**Table 2B: Number of Laden Trucks - 5:00am to 6:00am**

| TERALBA QUARRY | | Month: | | Oct-20 |
|---|---|---|---|---|
| | | | | |
| | | Westwards | | Eastwards |
| | | Max Hourly | | Max Hourly |
| | | | | |
| Limits* | | 12 | | 0 |
| Actuals | | | | |
| 1 | | - | | - |
| 2 | | - | | - |
| 3 | | - | | - |
| 4 | | - | | - |
| 5 | | - | | - |
| 6 | | - | | - |
| 7 | | 1 | | - |
| 8 | | 1 | | - |
| 9 | | 1 | | - |
| 10 | | - | | - |
| 11 | | - | | - |
| 12 | | 3 | | - |
| 13 | | 2 | | - |
| 14 | | - | | - |
| 15 | | 1 | | - |
| 16 | | - | | - |
| 17 | | - | | - |
| 18 | | - | | - |
| 19 | | 3 | | - |
| 20 | | - | | - |
| 21 | | - | | - |
| 22 | | 1 | | - |
| 23 | | - | | - |
| 24 | | - | | - |
| 25 | | - | | - |
| 26 | | 4 | | - |
| 27 | | - | | - |
| 28 | | 1 | | - |
| 29 | | - | | - |
| 30 | | 1 | | - |
| 31 | | - | | - |
| | | | | |

* Condition 2 (9)

**Table 2C: Number of Laden Trucks - 6:00am to 7:00am**

| TERALBA QUARRY | | Month: | | Oct-20 |
|---|---|---|---|---|
| | | Westwards** | | Eastwards** |
| | | Max Hourly | | Max Hourly |
| Limits* | | 28 | | 8 |
| Actuals | | | | |
| 1 | | 2 | | 3 |
| 2 | | 5 | | 2 |
| 3 | | 1 | | 1 |
| 4 | | - | | - |
| 5 | | - | | - |
| 6 | | 3 | | 2 |
| 7 | | 5 | | 2 |
| 8 | | 2 | | 4 |
| 9 | | 2 | | 1 |
| 10 | | 1 | | 1 |
| 11 | | - | | - |
| 12 | | 5 | | 3 |
| 13 | | 2 | | 3 |
| 14 | | 5 | | 2 |
| 15 | | 6 | | 2 |
| 16 | | 4 | | 2 |
| 17 | | 4 | | - |
| 18 | | - | | - |
| 19 | | 3 | | 5 |
| 20 | | 5 | | 1 |
| 21 | | 4 | | 2 |
| 22 | | 3 | | 4 |
| 23 | | 4 | | 2 |
| 24 | | 1 | | - |
| 25 | | - | | - |
| 26 | | - | | - |
| 27 | | 3 | | - |
| 28 | | - | | 1 |
| 29 | | - | | - |
| 30 | | 4 | | 1 |
| 31 | | - | | - |

* Condition 2 (9)

** Combined Maximum hourly No. of laden trucks = 28

**Table 2D: Number of Laden Trucks - 7:00am to 6pm**

| TERALBA QUARRY | | | Month: | | | Oct-20 |
|---|---|---|---|---|---|---|
| | | Daily Total | Westwards | | Eastwards | |
| | | | Daily | Max Hourly | Daily | Max Hourly |
| Limits | | 305 | 220 | 20 | 85 | 8 |
| Actuals | | | | | | |
| 1 | | 60 | 25 | 5 | 35 | 6 |
| 2 | | 67 | 33 | 6 | 34 | 7 |
| 3 | | 5 | - | - | 5 | 4 |
| 4 | | - | - | - | - | - |
| 5 | | - | - | - | - | - |
| 6 | | 49 | 36 | 8 | 13 | 4 |
| 7 | | 47 | 28 | 7 | 19 | 5 |
| 8 | | 51 | 25 | 5 | 26 | 4 |
| 9 | | 52 | 33 | 6 | 19 | 4 |
| 10 | | 5 | 2 | 1 | 3 | 2 |
| 11 | | - | - | - | - | - |
| 12 | | 68 | 43 | 7 | 25 | 6 |
| 13 | | 62 | 40 | 7 | 22 | 4 |
| 14 | | 65 | 24 | 6 | 41 | 8 |
| 15 | | 89 | 42 | 7 | 47 | 8 |
| 16 | | 46 | 25 | 6 | 21 | 5 |
| 17 | | 4 | 2 | 1 | 2 | 1 |
| 18 | | - | - | - | - | - |
| 19 | | 50 | 19 | 4 | 31 | 8 |
| 20 | | 45 | 24 | 7 | 21 | 4 |
| 21 | | 44 | 20 | 4 | 34 | 6 |
| 22 | | 66 | 37 | 7 | 29 | 5 |
| 23 | | 84 | 50 | 9 | 34 | 6 |
| 24 | | 2 | 1 | 1 | 1 | 1 |
| 25 | | - | - | - | - | - |
| 26 | | 20 | 10 | 3 | 10 | 2 |
| 27 | | 15 | 5 | 3 | 10 | 3 |
| 28 | | 23 | 10 | 3 | 13 | 3 |
| 29 | | 30 | 15 | 3 | 15 | 3 |
| 30 | | 31 | 10 | 3 | 21 | 5 |
| 31 | | 4 | 2 | 1 | 2 | 2 |

** PLEASE NOTE: The Hilighted Max Hourly Movements Do Not Relate To Same One Hour Period

Table 2E: Total Number of Laden Trucks

**TERALBA QUARRY** **Month: Nov-20**

| | Daily Total | Max Hourly Daily 6pm to 5am | Max Hourly Daily 5am to 6am | Max Hourly Daily 6am to 7am | Max Hourly Daily 7am to 6pm | Westwards Daily | Eastwards Daily |
|---|---|---|---|---|---|---|---|
| Limits | 326 | 6 | 12 | 28 | 20 | 241 | 85 |
| Actuals | | | | | | | |
| 1 | - | - | - | - | - | - | - |
| 2 | 61 | 1 | 2 | 3 | 10 | 27 | 34 |
| 3 | 76 | 4 | - | 4 | 12 | 53 | 23 |
| 4 | 116 | 5 | 1 | 9 | 19 | 88 | 28 |
| 5 | 57 | 6 | - | 2 | 11 | 37 | 20 |
| 6 | 70 | 1 | 1 | 8 | 11 | 46 | 24 |
| 7 | 7 | 3 | - | - | 2 | 4 | 3 |
| 8 | - | - | - | - | - | - | - |
| 9 | 99 | 3 | 3 | 9 | 17 | 53 | 46 |
| 10 | 106 | 5 | - | 8 | 15 | 53 | 53 |
| 11 | 131 | 6 | - | 15 | 18 | 66 | 65 |
| 12 | 107 | 3 | - | 7 | 14 | 51 | 56 |
| 13 | 76 | 4 | 1 | 6 | 10 | 57 | 19 |
| 14 | 22 | 2 | 1 | 4 | 5 | 15 | 7 |
| 15 | - | - | - | - | - | - | - |
| 16 | 90 | 5 | 2 | 5 | 15 | 54 | 36 |
| 17 | 85 | 6 | - | 8 | 12 | 59 | 26 |
| 18 | 88 | 5 | 1 | 6 | 14 | 53 | 35 |
| 19 | 100 | 5 | 2 | 7 | 14 | 61 | 39 |
| 20 | 85 | 5 | 1 | 10 | 15 | 59 | 26 |
| 21 | 19 | 8 | - | 2 | 3 | 11 | 8 |
| 22 | - | - | - | - | - | - | - |
| 23 | 62 | 2 | 3 | 5 | 9 | 35 | 27 |
| 24 | 93 | 5 | 1 | 7 | 15 | 45 | 48 |
| 25 | 150 | 2 | 2 | 9 | 20 | 109 | 41 |
| 26 | 139 | 5 | - | 18 | 19 | 93 | 46 |
| 27 | 133 | 3 | 3 | 13 | 15 | 91 | 42 |
| 28 | 11 | 3 | 1 | - | 3 | 9 | 2 |
| 29 | - | - | - | - | - | - | - |
| 30 | 96 | 3 | 4 | 8 | 12 | 46 | 50 |
| | 2079 | | | | | 1275 | 804 |

**Table 2A: Number of Laden Trucks - 6:00pm to 5:00am**

| TERALBA QUARRY | | Month: | | Nov-20 | |
|---|---|---|---|---|---|
| | Daily Total | Westwards | | Eastwards | |
| | | Daily | Max Hourly | Daily | Max Hourly |
| Limits | 66 | 66 | 6 | 0 | 0 |
| Actuals | | | | | |
| 1 | - | - | - | - | - |
| 2 | 1 | 1 | 1 | - | - |
| 3 | 5 | 5 | 4 | - | - |
| 4 | 6 | 6 | 5 | - | - |
| 5 | 7 | 7 | 6 | - | - |
| 6 | 2 | 2 | 2 | - | - |
| 7 | 3 | 3 | 3 | - | - |
| 8 | - | - | - | - | - |
| 9 | 3 | 3 | 3 | - | - |
| 10 | 6 | 6 | 5 | - | - |
| 11 | 7 | 7 | 6 | - | - |
| 12 | 4 | 4 | 3 | - | - |
| 13 | 5 | 5 | 4 | - | - |
| 14 | 3 | 3 | 2 | - | - |
| 15 | - | - | - | - | - |
| 16 | 5 | 5 | 5 | - | - |
| 17 | 7 | 7 | 6 | - | - |
| 18 | 6 | 6 | 5 | - | - |
| 19 | 6 | 6 | 5 | - | - |
| 20 | 6 | 6 | 5 | - | - |
| 21 | 6 | 6 | 5 | - | - |
| 22 | - | - | - | - | - |
| 23 | 2 | 2 | 2 | - | - |
| 24 | 5 | 5 | 5 | - | - |
| 25 | 2 | 2 | 2 | - | - |
| 26 | 6 | 6 | 5 | - | - |
| 27 | 4 | 4 | 3 | - | - |
| 28 | 4 | 4 | 3 | - | - |
| 29 | - | - | - | - | - |
| 30 | 3 | 3 | 3 | - | - |
| | | | | - | - |
| | | | | | |

**Table 2B: Number of Laden Trucks - 5:00am to 6:00am**

| TERALBA QUARRY | | Month: | | Nov-20 |
|---|---|---|---|---|
| | | | | |
| | | Westwards | | Eastwards |
| | | Max Hourly | | Max Hourly |
| | | | | |
| Limits* | | 12 | | 0 |
| Actuals | | | | |
| 1 | | - | | - |
| 2 | | 2 | | - |
| 3 | | - | | - |
| 4 | | 1 | | - |
| 5 | | - | | - |
| 6 | | 1 | | - |
| 7 | | - | | - |
| 8 | | - | | - |
| 9 | | 3 | | - |
| 10 | | - | | - |
| 11 | | - | | - |
| 12 | | - | | - |
| 13 | | 1 | | - |
| 14 | | 1 | | - |
| 15 | | - | | - |
| 16 | | 2 | | - |
| 17 | | - | | - |
| 18 | | 1 | | - |
| 19 | | 2 | | - |
| 20 | | 1 | | - |
| 21 | | - | | - |
| 22 | | - | | - |
| 23 | | 3 | | - |
| 24 | | 1 | | - |
| 25 | | 2 | | - |
| 26 | | - | | - |
| 27 | | 3 | | - |
| 28 | | 1 | | - |
| 29 | | - | | - |
| 30 | | 4 | | - |
| | | | | - |
| | | | | |

* Condition 2 (9)

**Table 2C: Number of Laden Trucks - 6:00am to 7:00am**

| TERALBA QUARRY | Month: | Nov-20 |
|---|---|---|

| | Westwards** Max Hourly | Eastwards** Max Hourly |
|---|---|---|
| Limits* | 28 | 8 |
| **Actuals** | | |
| 1 | - | - |
| 2 | 2 | 1 |
| 3 | 2 | 2 |
| 4 | 6 | 3 |
| 5 | - | 1 |
| 6 | 7 | 2 |
| 7 | - | - |
| 8 | - | - |
| 9 | 5 | 4 |
| 10 | 6 | 2 |
| 11 | 7 | 8 |
| 12 | 5 | 2 |
| 13 | 5 | 1 |
| 14 | 3 | 1 |
| 15 | - | - |
| 16 | 3 | 2 |
| 17 | 8 | - |
| 18 | 5 | 1 |
| 19 | 2 | 5 |
| 20 | 7 | 3 |
| 21 | 1 | 1 |
| 22 | - | - |
| 23 | 4 | 1 |
| 24 | 3 | 4 |
| 25 | 7 | 2 |
| 26 | 13 | 5 |
| 27 | 8 | 5 |
| 28 | - | - |
| 29 | - | - |
| 30 | 4 | 4 |

* Condition 2 (9)

** Combined Maximum hourly No. of laden trucks = 28

**Table 2D: Number of Laden Trucks - 7:00am to 6pm**

| TERALBA QUARRY | | Month: | | Nov-20 | |
|---|---|---|---|---|---|
| | Daily Total | Westwards | | Eastwards | |
| | | Daily | Max Hourly | Daily | Max Hourly |
| Limits | 305 | 220 | 20 | 85 | 8 |
| Actuals | | | | | |
| 1 | - | - | - | - | - |
| 2 | 55 | 22 | 4 | 33 | 8 |
| 3 | 67 | 46 | 7 | 21 | 5 |
| 4 | 100 | 75 | 16 | 25 | 6 |
| 5 | 48 | 30 | 7 | 18 | 4 |
| 6 | 59 | 36 | 8 | 23 | 6 |
| 7 | 4 | 1 | 1 | 3 | 2 |
| 8 | - | - | - | - | - |
| 9 | 84 | 42 | 9 | 42 | 8 |
| 10 | 92 | 41 | 10 | 51 | 8 |
| 11 | 109 | 52 | 12 | 57 | 8 |
| 12 | 96 | 42 | 8 | 54 | 8 |
| 13 | 64 | 46 | 7 | 18 | 4 |
| 14 | 14 | 8 | 2 | 6 | 3 |
| 15 | - | - | - | - | - |
| 16 | 78 | 44 | 9 | 34 | 6 |
| 17 | 70 | 44 | 8 | 26 | 6 |
| 18 | 75 | 41 | 10 | 34 | 5 |
| 19 | 85 | 51 | 13 | 34 | 6 |
| 20 | 68 | 45 | 11 | 23 | 7 |
| 21 | 11 | 4 | 2 | 7 | 2 |
| 22 | - | - | - | - | - |
| 23 | 52 | 26 | 7 | 26 | 5 |
| 24 | 80 | 36 | 8 | 44 | 7 |
| 25 | 137 | 98 | 15 | 39 | 6 |
| 26 | 115 | 74 | 16 | 41 | 6 |
| 27 | 113 | 76 | 12 | 37 | 6 |
| 28 | 6 | 4 | 2 | 2 | 1 |
| 29 | - | - | - | - | - |
| 30 | 81 | 35 | 7 | 46 | 7 |
| | | | | | |
| | | | | | |

** PLEASE NOTE: The Hilighted Max Hourly Movements Do Not Relate To Same One Hour Period

Table 2E: Total Number of Laden Trucks

**TERALBA QUARRY** **Month: Dec-20**

| | Daily Total | Max Hourly Daily 6pm to 5am | Max Hourly Daily 5am to 6am | Max Hourly Daily 6am to 7am | Max Hourly Daily 7am to 6pm | Westwards Daily | Eastwards Daily |
|---|---|---|---|---|---|---|---|
| Limits | 326 | 6 | 12 | 28 | 20 | 241 | 85 |
| Actuals | | | | | | | |
| 1 | 125 | 6 | - | 10 | 18 | 90 | 35 |
| 2 | 122 | 4 | 1 | 8 | 18 | 86 | 36 |
| 3 | 118 | 6 | - | 8 | 15 | 68 | 50 |
| 4 | 87 | 4 | - | 7 | 13 | 62 | 25 |
| 5 | 13 | 6 | - | 2 | 2 | 13 | - |
| 6 | - | - | - | - | | - | - |
| 7 | 135 | 1 | 4 | 7 | 19 | 100 | 35 |
| 8 | 130 | 5 | 1 | 8 | 20 | 94 | 36 |
| 9 | 93 | 4 | 1 | 10 | 12 | 66 | 27 |
| 10 | 109 | 6 | - | 11 | 13 | 77 | 32 |
| 11 | 95 | 4 | - | 6 | 18 | 55 | 40 |
| 12 | 15 | 4 | 2 | - | 4 | 13 | 2 |
| 13 | - | - | - | - | | - | - |
| 14 | 86 | 3 | 2 | 5 | 11 | 41 | 45 |
| 15 | 53 | 4 | 1 | - | 8 | 28 | 25 |
| 16 | 67 | 6 | - | 3 | 10 | 47 | 20 |
| 17 | 70 | 5 | 2 | 7 | 10 | 59 | 11 |
| 18 | 86 | 6 | 1 | 10 | 11 | 65 | 21 |
| 19 | 16 | 6 | 1 | 2 | 2 | 15 | 1 |
| 20 | - | - | - | - | - | - | - |
| 21 | 48 | 1 | 6 | 4 | 7 | 33 | 15 |
| 22 | 43 | 5 | 2 | 3 | 6 | 32 | 11 |
| 23 | 41 | 5 | 1 | 4 | 7 | 36 | 5 |
| 24 | 19 | 5 | - | 5 | 4 | 15 | 4 |
| 25 | - | - | - | - | | - | - |
| 26 | - | - | - | - | | - | - |
| 27 | - | - | - | - | | - | - |
| 28 | - | - | - | - | | - | - |
| 29 | - | - | - | - | | - | - |
| 30 | - | - | - | - | | - | - |
| 31 | - | - | - | - | | - | - |
| | 1571 | | | | | 1095 | 476 |

**Table 2A: Number of Laden Trucks - 6:00pm to 5:00am**

| TERALBA QUARRY | | Month: | | | Dec-20 |
|---|---|---|---|---|---|
| | Daily Total | Westwards | | Eastwards | |
| | | Daily | Max Hourly | Daily | Max Hourly |
| Limits | 66 | 66 | 6 | 0 | 0 |
| Actuals | | | | | |
| 1 | 5 | 6 | 6 | - | - |
| 2 | 6 | 5 | 4 | - | - |
| 3 | 5 | 6 | 6 | - | - |
| 4 | 6 | 5 | 4 | - | - |
| 5 | 7 | 7 | 6 | - | - |
| 6 | - | - | - | - | - |
| 7 | 1 | 1 | 1 | - | - |
| 8 | 6 | 6 | 5 | - | - |
| 9 | 5 | 5 | 4 | - | - |
| 10 | 7 | 7 | 6 | - | - |
| 11 | 6 | 6 | 4 | - | - |
| 12 | 4 | 4 | 4 | - | - |
| 13 | - | - | - | - | - |
| 14 | 3 | 3 | 3 | - | - |
| 15 | 5 | 5 | 4 | - | - |
| 16 | 6 | 6 | 6 | - | - |
| 17 | 5 | 5 | 5 | - | - |
| 18 | 7 | 7 | 6 | - | - |
| 19 | 6 | 6 | 6 | - | - |
| 20 | - | - | - | - | - |
| 21 | 1 | 1 | 1 | - | - |
| 22 | 6 | 6 | 5 | - | - |
| 23 | 6 | 6 | 5 | - | - |
| 24 | 5 | 5 | 5 | - | - |
| 25 | - | - | - | - | - |
| 26 | - | - | - | - | - |
| 27 | - | - | - | - | - |
| 28 | - | - | - | - | - |
| 29 | - | - | - | - | - |
| 30 | - | - | - | - | - |
| 31 | - | - | - | - | - |

**Table 2B: Number of Laden Trucks - 5:00am to 6:00am**

| TERALBA QUARRY | | Month: | | Dec-20 |
|---|---|---|---|---|
| | | Westwards | | Eastwards |
| | | Max Hourly | | Max Hourly |
| Limits* | | 12 | | 0 |
| Actuals | | | | |
| 1 | | - | | - |
| 2 | | 1 | | - |
| 3 | | - | | - |
| 4 | | - | | - |
| 5 | | - | | - |
| 6 | | - | | - |
| 7 | | 4 | | - |
| 8 | | 1 | | - |
| 9 | | 1 | | - |
| 10 | | - | | - |
| 11 | | - | | - |
| 12 | | 2 | | - |
| 13 | | - | | - |
| 14 | | 2 | | - |
| 15 | | 1 | | - |
| 16 | | - | | - |
| 17 | | 2 | | - |
| 18 | | 1 | | - |
| 19 | | 1 | | - |
| 20 | | - | | - |
| 21 | | | | - |
| 22 | | 6 | | - |
| 23 | | 2 | | - |
| 24 | | 1 | | - |
| 25 | | - | | - |
| 26 | | - | | - |
| 27 | | - | | - |
| 28 | | - | | - |
| 29 | | - | | - |
| 30 | | - | | - |
| 31 | | - | | - |

* Condition 2 (9)

**Table 2C: Number of Laden Trucks - 6:00am to 7:00am**

| TERALBA QUARRY | Month: | Dec-20 |
|---|---|---|
| | Westwards** | Eastwards** |
| | Max Hourly | Max Hourly |
| Limits* | 28 | 8 |
| Actuals | | |
| 1 | 6 | 4 |
| 2 | 6 | 2 |
| 3 | 4 | 4 |
| 4 | 4 | 3 |
| 5 | 2 | - |
| 6 | - | - |
| 7 | 5 | 2 |
| 8 | 7 | 1 |
| 9 | 6 | 4 |
| 10 | 7 | 4 |
| 11 | 3 | 3 |
| 12 | - | - |
| 13 | - | - |
| 14 | 4 | 1 |
| 15 | - | - |
| 16 | 3 | - |
| 17 | 6 | 1 |
| 18 | 9 | 1 |
| 19 | 2 | - |
| 20 | - | - |
| 21 | 4 | - |
| 22 | 2 | 1 |
| 23 | 4 | - |
| 24 | 5 | - |
| 25 | - | - |
| 26 | - | - |
| 27 | - | - |
| 28 | - | - |
| 29 | - | - |
| 30 | - | - |
| 31 | - | - |

* Condition 2 (9)

** Combined Maximum hourly No. of laden trucks = 28

**Table 2D: Number of Laden Trucks - 7:00am to 6pm**

| TERALBA QUARRY | | | Month: | | | Dec-20 |
|---|---|---|---|---|---|---|
| | | Daily Total | Westwards | | Eastwards | |
| | | | Daily | Max Hourly | Daily | Max Hourly |
| Limits | | 305 | 220 | 20 | 85 | 8 |
| Actuals | | | | | | |
| 1 | | 109 | 78 | 14 | 31 | 6 |
| 2 | | 108 | 74 | 14 | 34 | 7 |
| 3 | | 104 | 58 | 10 | 46 | 8 |
| 4 | | 75 | 53 | 9 | 22 | 4 |
| 5 | | 4 | 4 | 2 | - | - |
| 6 | | - | - | - | - | - |
| 7 | | 123 | 90 | 16 | 33 | 6 |
| 8 | | 115 | 80 | 13 | 35 | 8 |
| 9 | | 77 | 54 | 10 | 23 | 5 |
| 10 | | 91 | 63 | 9 | 28 | 5 |
| 11 | | 83 | 46 | 11 | 37 | 7 |
| 12 | | 9 | 7 | 2 | 2 | 2 |
| 13 | | - | - | - | - | - |
| 14 | | 76 | 32 | 6 | 44 | 8 |
| 15 | | 47 | 22 | 4 | 25 | 5 |
| 16 | | 58 | 38 | 8 | 20 | 4 |
| 17 | | 56 | 46 | 9 | 10 | 4 |
| 18 | | 68 | 48 | 9 | 20 | 7 |
| 19 | | 7 | 6 | 2 | 1 | 1 |
| 20 | | - | - | - | - | - |
| 21 | | 37 | 22 | 4 | 15 | 4 |
| 22 | | 32 | 22 | 5 | 10 | 3 |
| 23 | | 30 | 25 | 7 | 5 | 1 |
| 24 | | 9 | 5 | 3 | 4 | 2 |
| 25 | | - | - | - | - | - |
| 26 | | - | - | - | - | - |
| 27 | | - | - | - | - | - |
| 28 | | - | - | - | - | - |
| 29 | | - | - | - | - | - |
| 30 | | - | - | - | - | - |
| 31 | | - | - | - | - | - |

** PLEASE NOTE: The Hilighted Max Hourly Movements Do Not Relate To Same One Hour Period

# Deposited Dust - 2020

| | Rhondda Road | | | Myrtle Street | | | Hillside Crescent | | | Rodgers Street | | | York Street | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Total Insoluble Solids** | **Ash Fraction** | **% Ash** | **Total Insoluble Solids** | **Ash Fraction** | **% Ash** | **Total Insoluble Solids** | **Ash Fraction** | **% Ash** | **Total Insoluble Solids** | **Ash Fraction** | **% Ash** | **Total Insoluble Solids** | **Ash Fraction** | **% Ash** |
| **Units** | **$g/m^2$/month** | **$g/m^2$/month** | | **$g/m^2$/month** | **$g/m^2$/month** | | **$g/m^2$/month** | **$g/m^2$/month** | | **$g/m^2$/month** | **$g/m^2$/month** | | **$g/m^2$/month** | **$g/m^2$/month** | |
| **EPA Approved Level** | **4.0** | | | **4.0** | | | **4.0** | | | **4.0** | | | **4.0** | | |
| January | 2.6 | 2.0 | 77 | 2.5 | 2.1 | 84 | 4.2 | 2.9 | 69 | 3.3 | 2.6 | 79 | 2.9 | 2.3 | 79 |
| February | 1.0 | 0.4 | 40 | 0.8 | 0.4 | 50 | 2.7 | 1.7 | 63 | 0.9 | 0.6 | 67 | 1.4 | 0.9 | 64 |
| March | 0.7 | 0.3 | 43 | 0.6 | 0.4 | 67 | 4.1 | 2.4 | 59 | 1.1 | 0.7 | 64 | 1.2 | 0.8 | 67 |
| April | 0.5 | 0.2 | 40 | 0.7 | 0.4 | 57 | 5.2 | 3.9 | 75 | 0.8 | 0.4 | 50 | 0.9 | 0.5 | 56 |
| May | 0.7 | 0.2 | 29 | 1.4 | 0.5 | 36 | 8.7 | 7.5 | 86 | 0.4 | 0.2 | 50 | 0.7 | 0.4 | 57 |
| June | 0.5 | 0.2 | 40 | 0.3 | 0.2 | 67 | 0.4 | 0.2 | 50 | 0.3 | 0.2 | 67 | 0.7 | 0.5 | 71 |
| July | 1.1 | 0.4 | 36 | 0.4 | 0.2 | 50 | 2.0 | 1.6 | 80 | 0.3 | 0.2 | 67 | 0.9 | 0.5 | 56 |
| August | 0.7 | 0.6 | 86 | 0.3 | 0.3 | 100 | 0.4 | 0.3 | 75 | 0.4 | 0.2 | 50 | 0.5 | 0.5 | 100 |
| September | 0.9 | 0.6 | 67.0 | 1.5 | 0.7 | 47.0 | 0.9 | 0.6 | 67.0 | 0.7 | 0.5 | 71.0 | 1.0 | 0.7 | 70.0 |
| October | 1.0 | 4.0 | 38.0 | 1.5 | 0.7 | 47.0 | 0.8 | 0.3 | 38.0 | 0.5 | 0.2 | 40.0 | 1.5 | 0.9 | 60.0 |
| November | 0.9 | 0.5 | 56.0 | 0.9 | 0.5 | 56.0 | 0.8 | 0.4 | 50.0 | 0.9 | 0.5 | 56.0 | 1.3 | 0.8 | 62.0 |
| December | 1.2 | 0.7 | 58 | 1.0 | 0.6 | 60 | 0.9 | 0.5 | 56 | 0.9 | 0.5 | 56 | 0.9 | 0.5 | 56 |
| **Annual Average** | **1.0** | 0.8 | 50.8 | **1.0** | 0.6 | 60.0 | **2.6** | 1.9 | 63.9 | **0.9** | 0.6 | 59.6 | **1.2** | 0.8 | 66.5 |
| **Annual Maximum** | **2.6** | 4.0 | 86.0 | **2.5** | 2.1 | 100.0 | **8.7** | 7.5 | 86.2 | **3.3** | 2.6 | 78.8 | **2.9** | 2.3 | 100.0 |
| **Annual Minimum** | **0.5** | 0.2 | 28.6 | **0.3** | 0.2 | 35.7 | **0.4** | 0.2 | 38.0 | **0.3** | 0.2 | 40.0 | **0.5** | 0.4 | 55.6 |

## Particulate Matter ($PM_{10}$) - 2020

| Date | $PM_{10}$ ($\mu g/m^3$) | Monthly Average ($\mu g/m^3$) | Year to Date Average ($\mu g/m^3$) | 24-Hr Criteria ($\mu g/m^3$) |
|---|---|---|---|---|
| 3/01/2020 | NR | | NR | 50 |
| 9/01/2020 | NR | | NR | 50 |
| 15/01/2020 | 15 | | 15.0 | 50 |
| 21/01/2020 | 72 | | 43.5 | 50 |
| 22/01/2020 | 71 | | 52.7 | 50 |
| 27/01/2020 | 40 | 49.5 | 49.5 | 50 |
| 2/02/2020 | 37 | | 47.0 | 50 |
| 5/02/2020 | 9 | | 40.7 | 50 |
| 8/02/2020 | 14 | | 36.9 | 50 |
| 14/02/2020 | 12 | | 33.8 | 50 |
| 20/02/2020 | 14 | | 31.6 | 50 |
| 26/02/2020 | 15 | 16.8 | 29.9 | 50 |
| 3/03/2020 | 7 | | 27.8 | 50 |
| 9/03/2020 | 7 | | 26.1 | 50 |
| 15/03/2020 | 8 | | 24.7 | 50 |
| 21/03/2020 | 24 | | 24.6 | 50 |
| 27/03/2020 | 11 | 11.4 | 23.7 | 50 |
| 2/04/2020 | 13 | | 23.1 | 50 |
| 8/04/2020 | 5 | | 22.0 | 50 |
| 14/04/2020 | 17 | | 21.7 | 50 |
| 20/04/2020 | 16 | | 21.4 | 50 |
| 26/04/2020 | 28 | 15.8 | 21.8 | 50 |
| 2/05/2020 | 9 | | 21.1 | 50 |
| 8/05/2020 | 15 | | 20.9 | 50 |
| 14/05/2020 | 12 | | 20.5 | 50 |
| 20/05/2020 | 14 | | 20.2 | 50 |
| 26/05/2020 | 11 | 12.2 | 19.8 | 50 |
| 1/06/2020 | 13 | | 19.6 | 50 |
| 7/06/2020 | 13 | | 19.3 | 50 |
| 13/06/2020 | 14 | | 19.1 | 50 |
| 19/06/2020 | 8 | | 18.8 | 50 |
| 25/06/2020 | 6 | 10.8 | 18.3 | 50 |
| 1/07/2020 | 13 | | 18.2 | 50 |
| 7/07/2020 | 6 | | 17.8 | 50 |
| 13/07/2020 | 4 | | 17.4 | 50 |
| 19/07/2020 | 12 | | 17.2 | 50 |
| 25/07/2020 | 11 | | 17.0 | 50 |
| 31/07/2020 | 20 | 11.0 | 17.1 | 50 |
| 6/08/2020 | 11 | | 16.9 | 50 |
| 12/08/2020 | 8 | | 16.7 | 50 |
| 18/08/2020 | 4 | | 16.4 | 50 |
| 24/08/2020 | 8 | | 16.2 | 50 |
| 30/08/2020 | 26 | 11.4 | 16.4 | 50 |
| 5/09/2020 | 9 | | 16.2 | 50 |
| 11/09/2020 | 6 | | 16.0 | 50 |
| 17/09/2020 | 23 | | 16.2 | 50 |
| 23/09/2020 | 17 | | 16.2 | 50 |
| 29/09/2020 | 13 | 13.6 | 16.1 | 50 |
| 5/10/2020 | 23 | | 16.3 | 50 |
| 11/10/2020 | 14 | | 16.2 | 50 |
| 17/10/2020 | 25 | | 16.4 | 50 |
| 23/10/2020 | 15 | | 16.4 | 50 |
| 29/10/2020 | 7 | 16.8 | 16.2 | 50 |
| 4/11/2020 | 33 | | 16.5 | 50 |
| 10/11/2020 | 9 | | 16.4 | 50 |
| 16/11/2020 | 21 | | 16.4 | 50 |
| 22/11/2020 | 27 | | 16.6 | 50 |
| 28/11/2020 | 25 | 23.0 | 16.8 | 50 |
| 4/12/2020 | 20 | | 16.8 | 50 |
| 10/12/2020 | 26 | | 17.0 | 50 |
| 16/12/2020 | 15 | | 17.0 | 50 |
| 22/12/2020 | 7 | | 16.8 | 50 |
| 28/12/2020 | 26 | 18.8 | 17.0 | 50 |

| | |
|---|---|
| **Minimum** | 4 |
| **Maximum** | 72 |
| **Average** | 17.0 |
| **Standard Deviation** | 15.5 |
| **24-hr Criteria** | 50 |
| **Number of Exceedences** | 2 |
| **Annual Average Criteria** | 25/30* |
| **Annual Average Criteria Exceeded** | No |

## Water - 2020

### EPL Point 4 : Monthly Monitoring

| | pH | EC | TSS | Oil & Grease | Comments |
|---|---|---|---|---|---|
| Units | pH Units | µS/cm | mg/L | mg/L | - |
| EPL Criterion* | 6.5-8.5 | NA | <50 | 10 | - |
| ANZECC Water Quality Limits | 6.5-8.5 | 125-2200 | <50 | <5 | - |
| January | 7.23 | 2140 | 9 | <5 | - |
| February | 7.19 | 1990 | <5 | <5 | - |
| March | 7.36 | 2030 | 29 | <5 | - |
| April | 7.22 | 2060 | 17 | <5 | - |
| May | 7.16 | 2140 | <5 | <5 | - |
| June | 7.10 | 1990 | 6 | <5 | - |
| July | 7.35 | 2010 | <5 | <5 | - |
| August | 6.79 | 849 | <5 | <5 | - |
| September | 7.12 | 1900 | <5 | <5 | - |
| October | 7.13 | 1960 | <5 | <5 | - |
| November | NA | NA | NA | NA | No monitoring in this month |
| December | 7.25 | 1910 | 6 | <5 | |

**EPL Point 5 : Monitoring Daily During Discharge**

| | pH | EC | TSS | Oil & Grease | Comments |
|---|---|---|---|---|---|
| Units | pH Units | µS/cm | mg/L | mg/L | - |
| EPL Criterion* | 6.5-8.5 | NA | <50 | 10 | - |
| ANZECC Water Quality Limits | 6.5-8.5 | 125-2200 | <50 | | - |
| 10/03/2020 | 7.11 | 1050 | <5 | <5 | - |
| 11/03/2020 | 7.10 | 1010 | <5 | <5 | - |
| 16/03/2020 | 6.93 | 1180 | <5 | <5 | - |
| 17/03/2020 | 6.99 | 1140 | <5 | <5 | - |
| 19/03/2020 | 7.07 | 1140 | <5 | <5 | - |
| 20/03/2020 | 7.17 | 1140 | <5 | <5 | - |
| 23/03/2020 | 7.22 | 1150 | <5 | <5 | - |
| 25/03/2020 | 7.09 | 1130 | <5 | <5 | - |
| 26/03/2020 | 7.16 | 934 | <5 | <5 | - |
| 27/03/2020 | 7.01 | 1020 | <5 | <5 | - |
| 30/03/2020 | 6.85 | 1140 | <5 | <5 | - |
| 31/03/2020 | 6.75 | 1190 | <5 | <5 | - |
| 1/04/2020 | 6.78 | 1160 | <5 | <5 | - |
| 2/04/2020 | 6.80 | 1150 | <5 | <5 | - |
| 3/04/2020 | 6.94 | 1150 | <5 | <5 | - |
| 6/04/2020 | 7.37 | 1170 | <5 | <5 | - |
| 7/04/2020 | 7.19 | 1170 | <5 | <5 | - |
| 8/04/2020 | 6.91 | 1170 | <5 | <5 | - |
| 9/04/2020 | 6.95 | 1050 | <5 | <5 | - |
| 14/04/2020 | 6.93 | 1020 | 8 | <5 | - |
| 15/04/2020 | 6.93 | 1080 | 5 | <5 | - |
| 16/04/2020 | 6.96 | 1010 | <5 | <5 | - |
| 17/04/2020 | 6.74 | 1100 | <5 | <5 | - |
| 20/04/2020 | 6.76 | 1130 | <5 | <5 | - |
| 21/04/2020 | 6.86 | 1160 | <5 | <5 | - |
| 22/04/2020 | 6.88 | 1120 | <5 | <5 | - |
| 23/04/2020 | 6.99 | 1130 | <5 | <5 | - |
| 24/04/2020 | 7.02 | 1130 | <5 | <5 | - |
| 27/04/2020 | 6.95 | 1180 | <5 | <5 | - |
| 27/07/2020 | 6.91 | 792 | **71** | 10 | TSS exceedance due to significant rainfall. Oil |
| 28/07/2020 | 6.93 | 701 | **60** | 7 | TSS exceedance due to significant rainfall. |
| 29/07/2020 | 6.90 | 692 | **55** | <5 | TSS exceedance due to significant rainfall. |
| 30/07/2020 | 6.92 | 730 | 41 | <5 | - |
| 31/07/2020 | 6.89 | 809 | 40 | <5 | - |
| 14/08/2020 | 6.9 | 870 | <5 | <5 | - |
| 17/08/2020 | 6.84 | 874 | <5 | <5 | - |
| 18/08/2020 | 6.81 | 866 | <5 | <5 | - |
| 19/08/2020 | 7.21 | 1670 | 13 | <5 | - |
| 21/08/2020 | 6.8 | 833 | <5 | <5 | - |
| 24/08/2020 | 6.88 | 826 | <5 | <5 | - |
| 25/08/2020 | 6.88 | 843 | <5 | <5 | - |
| 26/08/2020 | 6.86 | 852 | <5 | <5 | - |
| 27/08/2020 | 6.86 | 926 | <5 | <5 | - |
| 28/08/2020 | 6.88 | 832 | <5 | <5 | - |
| 31/08/2020 | 6.82 | 928 | <5 | <5 | - |
| 1/09/2020 | 6.98 | 909 | <5 | <5 | - |
| 2/09/2020 | 6.93 | 877 | 5 | <5 | - |
| 3/09/2020 | 6.91 | 867 | <5 | <5 | - |
| 4/09/2020 | 6.97 | 809 | <5 | <5 | - |
| 7/09/2020 | 7.62 | 863 | <5 | <5 | - |
| 8/09/2020 | 7.03 | 852 | 5 | <5 | - |
| 9/09/2020 | 6.95 | 846 | <5 | <5 | - |
| 10/09/2020 | 7.1 | 856 | <5 | <5 | - |
| 11/09/2020 | 7.2 | 826 | <5 | <5 | - |
| 26/10/2020 | 7.54 | 1150 | <5 | <5 | - |

**Flow Meter Records**

| EPA Identifier Point | Location | Description | Date | Monthly Total (ML) |
|---|---|---|---|---|
| 4 | Adit Dam | Water pumped from Adit Dam to Dam G (processing use) | 4/01/2020 | 61.5 |
| | | | 4/02/2020 | 74.6 |
| | | | 2/03/2020 | 78.4 |
| | | | 1/04/2020 | 94.4 |
| | | | 2/05/2020 | 92.0 |
| | | | 1/06/2020 | 0.0 |
| | | | 6/07/2020 | 0.0 |
| | | | 28/07/2020 | 16.0 |
| | | | 5/08/2020 | 14.8 |
| | | | 1/09/2020 | 56.0 |
| | | | 1/10/2020 | 80.8 |
| | | | 2/11/2020 | 70.4 |
| | | | 1/12/2020 | 80.1 |
| | | | 4/01/2021 | 84.8 |

| EPA Identified Point | Location | Description | Date | Monthly Total (ML) |
|---|---|---|---|---|
| 5 | Dam B | Discharge from Dam B (from Quarry) | 6/01/2020 | 0.0 |
| | | | 4/02/2020 | 0.0 |
| | | | 2/03/2020 | 0.0 |
| | | | 1/04/2020 | 0.2 |
| | | | 2/05/2020 | 0.1 |
| | | | 1/06/2020 | 0.0 |
| | | | 6/07/2020 | 0.0 |
| | | | 5/08/2020 | 10.0 |
| | | | 1/09/2020 | 4.0 |
| | | | 1/10/2020 | 0.0 |
| | | | 2/11/2020 | 0.0 |
| | | | 1/12/2020 | 0.0 |
| | | | 4/01/2021 | 0.0 |

| EPA Identified Point | Location | Description | Date | Monthly Total (ML) |
|---|---|---|---|---|
| 4 | Adit Dam | Adit Dam to Creek (off site) | 6/01/2020 | 7.3 |
| | | | 4/02/2020 | 1.1 |
| | | | 2/03/2020 | 0.7 |
| | | | 1/04/2020 | 0.0 |
| | | | 2/05/2020 | 0.0 |
| | | | 1/06/2020 | 0.0 |
| | | | 6/07/2020 | 0.0 |
| | | | 5/08/2020 | 0.5 |
| | | | 1/09/2020 | 89.7 |
| | | | 1/10/2020 | 71.2 |
| | | | 2/11/2020 | 77.2 |
| | | | 1/12/2020 | 68.9 |
| | | | 4/01/2021 | 75.1 |

| | Daily Rainfall (mm) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Date** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** | **Oct** | **Nov** | **Dec** |
| **1** | 0 | 0.0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.2 | 18 |
| **2** | 0.6 | 4.6 | 0 | 7 | 0 | 0.2 | 0.0 | 0.0 | 0.0 | 0 | 0 | 0 |
| **3** | 0 | 1.2 | 1.8 | 06.2 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0 | 0 |
| **4** | 0 | 0.0 | 8.6 | 4 | 0 | 0 | 0.2 | 0.0 | 5.4 | 0 | 0 | 0 |
| **5** | 0 | 0.0 | 37.8 | 0 | 6.6 | 0 | 0.0 | 0.0 | 1.6 | 0 | 0 | 14.2 |
| **6** | 2.0 | 3.8 | 12 | 0.2 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0 | 3.8 |
| **7** | 0.2 | 50.0 | 11.4 | 2.6 | 0 | 27 | 1.4 | 4.4 | 0.0 | 0 | 0 | 0 |
| **8** | 3 | 14.8 | 3.2 | 15.2 | 0 | 5.6 | 0.2 | 3.6 | 0.0 | 0 | 0 | 0 |
| **9** | 0 | 108.8 | 0.4 | 0 | 0 | 12 | 0.0 | 2.8 | 10.2 | 0 | 0 | 0 |
| **10** | 0 | 3.4 | 0 | 2.6 | 0 | 25.4 | 0.2 | 20.4 | 2.2 | 0 | 0 | 0.2 |
| **11** | 0.8 | 0.2 | 0 | 0.2 | 0 | 0.4 | 2.0 | 0.8 | 0.8 | 0 | 0 | 1 |
| **12** | 0.4 | 0.0 | 0.6 | 0 | 0 | 0 | 17.2 | 3.6 | 0.2 | 0 | 0 | 0 |
| **13** | 0.4 | 5.8 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0 | 0.2 |
| **14** | 0 | 0.0 | 10 | 0 | 2.8 | 9.4 | 22.6 | 4.8 | 0.0 | 0 | 0 | 1 |
| **15** | 0 | 0.2 | 0.2 | 0 | 3.4 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0 | 26 |
| **16** | 5 | 0.0 | 6.2 | 0 | 0.6 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0 | 0.8 |
| **17** | 10.2 | 11.6 | 1 | 0 | 0 | 13.6 | 1.8 | 0.0 | 0.0 | 0 | 0 | 1.2 |
| **18** | 3.2 | 0.0 | 0 | 0 | 2.8 | 0.6 | 0.6 | 0.0 | 0.0 | 34.8 | 34.8 | 3.2 |
| **19** | 0 | 9.6 | 0 | 0 | 0.2 | 0 | 0.2 | 0.0 | 0.2 | 8.4 | 8.4 | 4.6 |
| **20** | 0.4 | 0.0 | 0 | 0 | 0 | 0.2 | 0.0 | 0.0 | 5.6 | 4.2 | 4.2 | 9.8 |
| **21** | 0 | 0.0 | 0 | 0 | 2.8 | 7.4 | 0.0 | 0.0 | 1.4 | 0 | 0 | 45.6 |
| **22** | 0 | 4.4 | 0 | 0 | 4 | 0 | 0.0 | 2.6 | 0.0 | 0 | 0 | 11.4 |
| **23** | 0.2 | 0.0 | 0.6 | 0 | 0.4 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0 | 0 |
| **24** | 0.2 | 0.0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 34 | 34 | 0 |
| **25** | 7.6 | 0.0 | 5.6 | 0 | 32 | 0 | 2.2 | 0.0 | 1.6 | 25 | 25 | 2.4 |
| **26** | 0.2 | 17.6 | 63.8 | 0 | 15.6 | 0 | 129.4 | 0.0 | 0.2 | 52.2 | 52.2 | 2.2 |
| **27** | 0 | 0.6 | 11.2 | 5 | 0 | 0 | 15.4 | 0.0 | 0.0 | 1.8 | 1.8 | 0.6 |
| **28** | 3 | 0.2 | 18 | 0.2 | 0 | 0 | 16.6 | 3.0 | 0.0 | 8 | 8 | 17 |
| **29** | 1.4 | 0 | 1 | 0 | 0.6 | 0 | 0.2 | 0.0 | 0.0 | 1.2 | 1.2 | 4.6 |
| **30** | 0 | | 0.6 | 7.6 | 0.8 | 0.2 | 0.0 | 0.0 | 0.0 | 1.4 | 1.4 | 16.2 |
| **31** | 0 | | 0 | | 0.2 | | 0.0 | 0.0 | | 1.4 | | 1.4 |
| **Total** | 38.8 | 236.8 | 194.0 | 50.8 | 72.8 | 102.0 | 210.2 | 46.0 | 29.4 | 172.6 | 171.2 | 185.4 |
| | | | | | | | | | | | **Annual Total** | **1510.0** |

**17 September 2020**

Ref: 8413/29067

**Metromix Pty Ltd**
150 Rhondda Road
Teralba NSW 2284

## AUGUST 2020 NOISE MONITORING RESULTS – TERALBA QUARRY

This letter report presents the results of attended noise monitoring conducted for the Metromix operated Teralba Quarry (TQ) commencing on Wednesday 12th and finishing on Tuesday 18th of August, 2020. Noise monitoring was carried out in accordance with the conditions of the TQ Noise Management Plan (NMP) (dated October 2018) as shown in extract on page 2 (referenced from EPL 536).

Although the project approval nominates noise criteria at nine locations, Metromix recognises that meaningful monitoring data will continue to be collected from the closest locations to the active operational areas. As a result of this, and as outlined within the approved NMP, for periods when operations are confined to areas south of Rhondda Road, noise monitoring will be undertaken at Locations EPL-A, B, D, E and H.

Further to this, location EPL-C and EPL-F have been omitted from the noise monitoring programme given they are not required as other monitoring locations are nearby and closer to quarry related noise sources. This has been recognised by the EPA by the removal of these locations from the monitoring locations detailed in EPL 536. **Table 1** lists the address and coordinates of each noise monitoring location, with the relevant monitoring locations that were monitored during the August 2020 period highlighted in **bold**. The locations are shown on the figure in **Appendix I**.

**Table 1**
**Noise Monitoring Locations (from PA 10-0183)**

| Location in EPL | Address | Easting | Northing |
|---|---|---|---|
| **EPL-A (Point 12)** | **Awaba Street, Teralba** | **369080** | **3651470** |
| **EPL-B[1] (Point 13)** | **Rhondda Road, Teralba** | **369250** | **6351915** |
| EPL-C (Point 14) | Rhondda Road, Teralba [2] | 369205 | 6352015 |
| **EPL-D (Point 15)** | **Rhondda Road, Teralba** | **369150** | **6352135** |
| **EPL-E (Point 16)** | **Victoria Avenue, Teralba** | **369060** | **6352620** |
| EPL-F (Point 17) | Victoria Avenue, Teralba [2] | 369130 | 6352945 |
| **EPL-H (Point 18)** | **School Road, Wakefield** | **366210** | **6352520** |

1. See text in relation to changes to monitoring location
2. Metromix has obtained permission for this monitoring location to be omitted.

It is noted that during the period when monitoring is undertaken at Location B, Metromix is required to provide a spotter to record the number of trucks departing from the Quarry and not the Teralba Business Park. Spectrum Acoustics personnel undertook identification of quarry trucks as part of the noise monitoring procedure.

As part of pre monitoring protocols Spectrum Acoustics notified, by letterbox drop, all landowners in the close vicinity of each site of the impending monitoring. The resident at Location B has previously told Metromix that he doesn't want monitoring to be done near his residence so monitoring was undertaken at a point approximately 30m south (as shown in Appendix I).

The following presents noise related conditions of EPL 536 relevant to the compliance noise monitoring programme.

<table>
<tr><th>Condition</th><th>Requirement</th></tr>
<tr><td>L5.2</td><td>The licensee must ensure that noise generated by the activities within the premises do not exceed the following criteria measured by dB(A) at any residence or privately owned land.
<table>
<tr><th>Location</th><th>Day Shoulder 6:00am - 7:00am</th><th>Day 7:00am - 6:00pm</th><th>Evening 6:00pm – 10:00pm</th><th>Night 10:00pm – 6:00am</th></tr>
<tr><td></td><td>$L_{Aeq\ (15\ minute)}$</td><td>$L_{Aeq\ (15\ minute)}$</td><td>$L_{Aeq\ (15\ minute)}$</td><td>$L_{Aeq\ (15\ minute)}$<br>$L_{A1(1min)}$</td></tr>
<tr><td>Point 12</td><td>38</td><td>38</td><td>37</td><td>35<br>45</td></tr>
<tr><td>Point 13</td><td>42</td><td>46</td><td>36</td><td>35<br>45</td></tr>
<tr><td>Point 14</td><td>42</td><td>42</td><td>35</td><td>35<br>45</td></tr>
<tr><td>Point 15, Point 16, Point 18</td><td>35</td><td>35</td><td>35</td><td>35<br>45</td></tr>
<tr><td>Point 17</td><td>37</td><td>38</td><td>38</td><td>35<br>45</td></tr>
</table>
Note: The licensee may provide to the EPA written evidence of any agreement with a landholder which is subject to the above noise limits. The written evidence may be submitted with a licence variation to remove the noise monitoring requirements at the point associated with the landholder. The EPA may reinstate noise monitoring requirements to assess compliance with noise limits if noise complaints are received or at the landholder's request.</td></tr>
<tr><td>L5.3</td><td>For the purposes of Condition L5.2:<br>a) Day-Shoulder is defined as the period between 6am to 7am Monday to Saturday.<br>b) Day is defined as:<br>a. the period from 7am to 6pm Monday to Saturday; and<br>b. the period from 8am to 6pm Sundays and Public Holidays.<br>c) Evening is defined as the period from 6pm to 10pm.<br>d) Night is defined as:<br>a. the period from 10pm to 7am Monday to Saturday; and<br>b. the period from 10pm to 8am Sundays and Public Holidays.</td></tr>
<tr><td>L5.4</td><td>The contributed noise level from the premises must not exceed the noise limits specified within EPL 536 at the most noise-affected point on or within the boundary of any residential premises to the north and/or south of the premises, except as expressly provided by this licence, or by the EPA in writing.</td></tr>
<tr><td>L5.5</td><td>The noise limits set out in conditions L5.2 apply under all meteorological conditions except for anyone of the following:<br>a) Wind speeds greater than 3 metres/second at 10 metres above ground level; or<br>b) Stability category F temperature inversion conditions and wind speeds greater the 2 metres/second at 10 metres above ground level; or<br>c) Stability category G temperature inversion conditions.</td></tr>
</table>

| | |
|---|---|
| L5.6 | For the purpose of condition L5.5:<br>a) the meteorological data to be used for determining meteorological conditions is the data recorded at the meteorological station identified in this licence as EPA Identification Point 19.<br>b) Stability category temperature inversion conditions are to be determined by the sigma-theta method referred to in Part E4 of Appendix E to the *NSW industrial Noise Policy (EPA 2000)*<br>Note: The weather station must be designed, commissioned and operated in a manner to obtain the necessary parameters required under the above condition. |
| L5.7 | To determine compliance:<br>1. With the $L_{Aeq(15\ min)}$ noise limits in condition L5.2, the licensee must locate noise monitoring equipment;<br>a) approximately on the boundary, where any dwelling is situated 30 metres or less from the property boundary that is closest to the premises; or,<br>b) within 30 metres of a dwelling facade (but not closer than 3 metres) where any dwelling on the property is situated more than 30 metres from the property boundary that is closest to the premises; or where applicable<br>c) within approximately 50 metres if the boundary of a national park or nature reserve.<br>2. With the LA1(1 minute) noise limits in condition L5.2, the noise monitoring equipment must be located within 1 metre of a dwelling facade.<br>3. With the noise limits in condition L5.2, the noise monitoring equipment must be located;<br>a) at the most affected point at a location where there is no dwelling at the location, or<br>b) at the most affected point within an area at a location prescribed by conditions L5.7 1(a) or L5.7 1(b). |
| L5.8 | A non-compliance will still occur where noise generated from the premises in excess of the appropriate noise limit is measured:<br>a) at a location other than an area prescribed by the conditions of this licence, and /or<br>b) at a point other than the most affected point at a location. |
| L5.9 | For the purpose of determining the noise generated at the premises the licensee must use a Class 1 or Class 2 noise monitoring device as defined by AS IEC61672.1 and AS IEC61672.2-2004, or other noise monitoring equipment accepted by the EPA in writing. |
| L5.10 | 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. |
| L7.1 | The licensee must comply with the operating hours specified in Column 2, Column 3, and Column 4 of the table below: |

| Day | Loading and Dispatch of Quarry Trucks | Extraction and Processing | Receipt of Concrete |
|---|---|---|---|
| Monday - Friday | 4:00am Monday to midnight Friday | 7:00am to 7:00pm | 7:00am to 5:00pm |
| Saturday | Midnight Friday to 6:00pm Saturday | 7:00am to 2:00pm | 7:00am to 2:00pm |
| Sundays and Public Holidays | None | none | none |

Note: Maintenance activities may occur at any time provided they are inaudible at privately-owned residence.
*VENM = Virgin Excavated Natural Material
**ENM = Excavated Natural Material

**M9 Noise monitoring**

M9.1 To assess compliance with the noise limits specified within this licence, the licensee must undertake operator attended noise monitoring at each specified noise monitoring point in accordance with the table below.

**POINT 12,13,15,16,18**

| Assessment period | Minimum frequency in a reporting period | Minimum duration within assessment period | Minimum number of assessment period |
|---|---|---|---|
| Day | 2 times a year | 1.5 hours | 3 consecutive operation days |
| Evening | 2 times a year | 30 minutes | 3 consecutive operation days |
| Night | 2 times a year | 1 hour | 3 consecutive operation days |

M9.2 The licensee must undertake the operator attended noise monitoring at each one of or at one or more noise monitoring points that is representative of the worse-case location(s) listed in this licence.

## NOISE MEASUREMENTS

Attended noise monitoring was conducted with Brüel & Kjær Type 2250 Precision Sound Analysers. These instruments have Type 1 characteristics as defined in AS1259-1982 “Sound Level Meters” and have current NATA calibration. Field calibration of each instrument was carried out at the start and end of each monitoring period.

The noise monitoring was conducted in general accordance with the requirements of Section 10 of the NMP (Noise Monitoring Protocol and Evaluation of Compliance) as follows;

“*Metromix proposes to adopt a noise monitoring protocol that provides feedback on the effectiveness of the noise control measures and demonstrate compliance with the conditions within the Project Approval 10_0183 and Environment Protection Licence 0536.*

*The approach to monitoring compliance is based substantially upon Metromix’s experience to date which has identified the on-site activities have not been the source of noise complaints or any recorded non-compliance. Hence, it is considered the monitoring program needs to reflect this fact*.”

A-weighted noise levels were measured over 15 minute monitoring periods with data acquired at 1 second statistical intervals and the meter set to “fast” response. Each 1 second measurement is accompanied by a third-octave band spectrum from 20 - 20k Hz which is required for analysing INP ‘modifying factors’. Time based field notes allow for determination of the relative contributions to the overall noise level of all significant noise sources.

The worst case 15 minute Leq noise level for each monitoring period is shown in the tables below. Where the noise from TQ was audible, Bruel & Kjaer “*Evaluator*” analysis software was used to quantify the contributions of the quarry and other significant noise sources to the overall level.

Quarry noise from TQ is shown in the tables in bold type. Where noise from TQ is listed as faintly audible, this means the noise levels from the quarry were at least 10 dB below the ambient level during the measurement and not measurable.

Noise levels were recorded for each of the L10, Leq, Lmax, L1, L90 and Lmin percentiles. All noise levels shown in the tables of results are in dB(A) Leq (15 min). Levels for the other percentiles are not shown as they have no compliance criteria for comparison but are available on request. Meteorological data used in this report was obtained from the quarry-operated weather station at the site. The wind speeds and directions shown in the tables of results are the arithmetic average of the five minute measurement periods throughout the entire noise monitoring period at each site.

Monitoring on the evening of the final day of the survey was unable to be conducted due to storm activity, which persisted for a few days. The final round of monitoring during the evening was conducted on the first day of good weather.

## Noise Compliance Assessment

The results of the noise measurements undertaken throughout the various time periods are provided in **Tables 2** to **16**. EPL 536 refers to the various time periods as follows:

a) Day-Shoulder is defined as the period between 6am to 7am Monday to Saturday.

b) Day is defined as:
   (i) the period from 7am to 6pm Monday to Saturday; and
   (ii) the period from 8am to 6pm Sundays and Public Holidays.

c) Evening is defined as the period from 6pm to 10pm.

d) Night is defined as:
   (i) the period from 10pm to 7am Monday to Saturday; and
   (ii) the period from 10pm to 8am Sundays and Public Holidays.

**Table 2**
**Teralba Quarry Noise Monitoring Results – 12 August 2020 (Night)**

| Location | Start Time | Total noise dB(A) Leq | Criterion dB(A) Leq | Wind speed (m/s) / direction | Identified Noise Sources (Leq (15 min) |
|---|---|---|---|---|---|
| A | 5:36 am | 54 | 35 | 1.2 / 338 | Traffic (53), industry (45), frogs (43), **TQ inaudible** |
| B | 4:30 am | 50 | 35 | 0.5 / 34 | Traffic (50), frogs (36), **TQ inaudible** |
| D | 4:30 am | 46 | 35 | 1.2 / 9 | Traffic (45), trains (36), frogs (32), **TQ inaudible** |
| E | 5:31 am | 41 | 35 | 1.5 / 351 | Birds & frogs (41), **TQ inaudible** |
| H | 5:02 am | 38 | 35 | 1.5 / 19 | Traffic (35), frogs (33), **TQ inaudible** |
| Notes: 1. Trucks on access road. | | | | | |

| Table 3<br>Teralba Quarry Noise Monitoring Results – 12 August 2020 (Day Shoulder) | | | | | |
|---|---|---|---|---|---|
| **Location** | **Start Time** | **Total noise dB(A) Leq** | **Criterion dB(A) Leq** | **Wind speed (m/s) / direction** | **Identified Noise Sources (Leq (15 min)** |
| A | 6:32 am | 54 | 38 | 2.7 / 12 | Traffic (53), birds (45), **TQ inaudible** |
| B | 6:24 am | 47 | 42 | 2.7 / 12 | Traffic (44), industrial noise (43), **TQ (30)**[1] |
| D | 6:48 am | 50 | 35 | 1.4 / 53 | Traffic (50), birds (37), **TQ inaudible** |
| E | 6:30 am | 55 | 35 | 1.4 / 40 | Birds (55), traffic (37), trains (30), **TQ inaudible** |
| H | 6:02 am | 42 | 35 | 1.8 / 8 | Traffic (40), birds (35), **TQ inaudible** |
| Notes: 1. Trucks on access road. | | | | | |

| Table 4<br>Teralba Quarry Noise Monitoring Results – 12 August 2020 (Day) | | | | | |
|---|---|---|---|---|---|
| **Location** | **Start Time** | **Total noise dB(A) Leq** | **Criterion dB(A) Leq** | **Wind speed (m/s) / direction** | **Identified Noise Sources (Leq (15 min)** |
| A | 7:00 am | 54 | 38 | 1.8 / 38 | Traffic (54), birds (45), industry (43), **TQ inaudible** |
| B | 8:24 am | 60 | 46 | 1.3 / 35 | Traffic (59), birds (51), industry (49), **TQ inaudible** |
| D | 7:05 am | 54 | 35 | 1.6 / 26 | Birds (52), traffic (50), industry (32), **TQ (28)**[1] |
| E | 8:40 am | 47 | 35 | 1.4 / 26 | Birds (47), traffic (35), **TQ inaudible** |
| H | 7:18 am | 41 | 35 | 2.0 / 42 | Birds (41), Traffic (30), **TQ inaudible** |
| Notes: 1. Dozer on topsoil. | | | | | |

| Table 5<br>Teralba Quarry Noise Monitoring Results – 12 August 2020 (Evening) | | | | | |
|---|---|---|---|---|---|
| **Location** | **Start Time** | **Total noise dB(A) Leq** | **Criterion dB(A) Leq** | **Wind speed (m/s) / direction** | **Identified Noise Sources (Leq (15 min)** |
| A | 6:09 pm | 55 | 37 | 0.8 / 29 | Birds (53), traffic (51), **TQ inaudible** |
| B | 6:47 pm | 55 | 36 | 1.0 / 18 | Traffic (54), frogs (49), **TQ inaudible** |
| D | 7:30 pm | 48 | 35 | 1.7 / 44 | Traffic (47), birds (40), **TQ inaudible** |
| E | 8:12 pm | 44 | 35 | 1.3 / 35 | Traffic (42), birds (36), **TQ inaudible** |
| H | 6:53 pm | 39 | 35 | 1.8 / 38 | Birds (38), Traffic (31), **TQ inaudible** |

| Table 6<br>Teralba Quarry Noise Monitoring Results – 13 August 2020 (Night) | | | | | |
|---|---|---|---|---|---|
| **Location** | **Start Time** | **Total noise dB(A) Leq** | **Criterion dB(A) Leq** | **Wind speed (m/s) / direction** | **Identified Noise Sources (Leq (15 min)** |
| A | 5:39 am | 52 | 35 | 1.9 / 34 | Traffic (51), birds (44), industry (42), **TQ inaudible** |
| B | 4:30 am | 61 | 35 | 0.7 / 349 | Traffic (61), insects (53), **TQ inaudible** |
| D | 4:30 am | 48 | 35 | 1.0 / 320 | Birds (45), traffic (44), industry (37), trains (30), **TQ inaudible** |
| E | 5:30 am | 39 | 35 | 1.5 / 350 | Frogs & birds (39), traffic (28), trains (20), **TQ inaudible** |
| H | 5:00 am | 42 | 35 | 0.8 / 329 | Traffic (39), frogs (38), **TQ inaudible** |

| Table 7<br>Teralba Quarry Noise Monitoring Results – 13 August 2020 (Day Shoulder) | | | | | |
|---|---|---|---|---|---|
| **Location** | **Start Time** | **Total noise dB(A) Leq** | **Criterion dB(A) Leq** | **Wind speed (m/s) / direction** | **Identified Noise Sources (Leq (15 min)** |
| A | 6:31 am | 53 | 38 | 2.2 / 306 | Traffic (52), birds (46), industry (42), **TQ inaudible** |
| B | 6:23 am | 49 | 42 | 2.2 / 306 | Industry (48), Traffic (40), **TQ (27)**[1] |
| D | 6:47 am | 49 | 35 | 1.1 / 237 | Traffic (47), birds (44), **TQ inaudible** |
| E | 6:30 am | 52 | 35 | 2.3 / 302 | Birds (52), traffic (34), trains (25), **TQ inaudible** |
| H | 6:01 am | 43 | 35 | 1.7 / 348 | Birds (42), traffic (32), **TQ inaudible** |
| Note: 1 Trucks on access road | | | | | |

| Table 8<br>Teralba Quarry Noise Monitoring Results – 13 August 2020 (Day) | | | | | |
|---|---|---|---|---|---|
| **Location** | **Start Time** | **Total noise dB(A) Leq** | **Criterion dB(A) Leq** | **Wind speed (m/s) / direction** | **Identified Noise Sources (Leq (15 min)** |
| A | 7:00 am | 53 | 38 | 1.7 / 316 | Traffic (52), birds (45), industry (42), **TQ inaudible** |
| B | 8:34 am | 56 | 46 | 2.2 / 316 | Traffic (56), birds (47), **TQ inaudible** |
| D | 7.05 am | 52 | 35 | 2.2 / 310 | Birds (50), traffic (46), industry (35), **TQ inaudible** |
| E | 8:40 am | 46 | 35 | 1.7 / 316 | Birds (46), traffic (34), **TQ inaudible** |
| H | 7:08 am | 43 | 35 | 1.3 / 350 | Birds (42), traffic (33), **TQ inaudible** |
| Note: 1 Trucks on access road | | | | | |

| Table 9<br>Teralba Quarry Noise Monitoring Results – 13 August 2020 (Evening) | | | | | |
|---|---|---|---|---|---|
| **Location** | **Start Time** | **Total noise dB(A) Leq** | **Criterion dB(A) Leq** | **Wind speed (m/s) / direction** | **Identified Noise Sources (Leq (15 min)** |
| A | 6:00 pm | 55 | 37 | 0.1 / 5 | Frogs (54), traffic (48), **TQ inaudible** |
| B | 6:37 pm | 54 | 36 | 0.2 / 302 | Traffic (53), insects (46), **TQ inaudible** |
| D | 6:43 pm | 51 | 35 | 1.3 / 313 | Traffic (51), **TQ inaudible** |
| E | 7:19 pm | 39 | 35 | 0.6 / 297 | Traffic (38), birds (32), **TQ inaudible** |
| H | 6:04 pm | 38 | 35 | 0.8 / 338 | Traffic (37), birds (30), **TQ inaudible** |

| Table 10<br>Teralba Quarry Noise Monitoring Results – 14 August 2020 (Night) | | | | | |
|---|---|---|---|---|---|
| **Location** | **Start Time** | **Total noise dB(A) Leq** | **Criterion dB(A) Leq** | **Wind speed (m/s) / direction** | **Identified Noise Sources (Leq (15 min)** |
| A | 5:39 am | 52 | 35 | 1.4 / 296 | Traffic (50), birds (46), industry (40), **TQ inaudible** |
| B | 4:30 am | 50 | 35 | 0.3 / 259 | Traffic (50), insects (40), **TQ inaudible** |
| D | 4:30 am | 42 | 35 | 0.7 / 194 | Traffic (41), trains (3), birds & frogs (30), **TQ inaudible** |
| E | 5:30 am | 39 | 35 | 0.6 / 244 | Birds (39), traffic (28), **TQ inaudible** |
| H | 5:01 am | 46 | 35 | 1.1 / 280 | Traffic (44), birds (39), **TQ inaudible** |

| Table 11<br>Teralba Quarry Noise Monitoring Results – 14 August 2020 (Day Shoulder) | | | | | |
|---|---|---|---|---|---|
| **Location** | **Start Time** | **Total noise dB(A) Leq** | **Criterion dB(A) Leq** | **Wind speed (m/s) / direction** | **Identified Noise Sources (Leq (15 min)** |
| A | 6:30 am | 53 | 38 | 0.7 / 306 | Traffic (52), birds (45), industry (38), **TQ inaudible** |
| B | 6:32 am | 49 | 42 | 0.7 / 306 | Industry (45), traffic (45), train (38), **TQ inaudible** |
| D | 6:47 am | 51 | 35 | 0.7 / 306 | Traffic (50), birds (40), **TQ inaudible** |
| E | 6:30 am | 52 | 35 | 0.8 / 150 | Birds (52), traffic (34), trains (32), **TQ inaudible** |
| H | 6:01 am | 49 | 35 | 0.2 / 194 | Birds (49), traffic (34), **TQ inaudible** |

| Table 12<br>Teralba Quarry Noise Monitoring Results – 14 August 2020 (Day) | | | | | |
|---|---|---|---|---|---|
| **Location** | **Start Time** | **Total noise dB(A) Leq** | **Criterion dB(A) Leq** | **Wind speed (m/s) / direction** | **Identified Noise Sources (Leq (15 min)** |
| A | 7:00 am | 51 | 38 | 0.6 / 155 | Traffic (50), birds (40), industry (39), **TQ inaudible** |
| B | 8:33 am | 58 | 46 | 0.9 / 285 | Traffic (57), birds (50), industry (49), **TQ inaudible** |
| D | 7:05 am | 52 | 35 | 2.1 / 199 | Birds (50), traffic (46), trains (40), **TQ inaudible** |
| E | 8:45 am | 48 | 35 | 0.5 / 203 | Birds (47), traffic (39), **TQ inaudible** |
| H | 7:11 am | 40 | 35 | 1.0 / 187 | Birds (39), traffic (30), **TQ inaudible** |
| Note: 1 Trucks on access road | | | | | |

| Table 13<br>Teralba Quarry Noise Monitoring Results – 18 August 2020 (Evening) | | | | | |
|---|---|---|---|---|---|
| **Location** | **Start Time** | **Total noise dB(A) Leq** | **Criterion dB(A) Leq** | **Wind speed (m/s) / direction** | **Identified Noise Sources (Leq (15 min)** |
| A | 6:08 pm | 55 | 37 | 2.1 / 359 | Traffic (54), insects (46), **TQ inaudible** |
| B | 6:40 pm | 55 | 36 | 3.4 / 342 | Traffic (55), frogs (36), **TQ inaudible** |
| D | 6:37 pm | 54 | 35 | 2.0 / 13 | Traffic (54), birds (30), **TQ inaudible** |
| E | 7:12 pm | 39 | 35 | 1.0 / 327 | Birds (37), traffic (32), **TQ inaudible** |
| H | 6:01 pm | 34 | 35 | 2.0 / 10 | Traffic (32), birds (29), **TQ (<20)** |

The results shown in Tables 2 to 13 show that, under the operational and atmospheric conditions at the time of monitoring, noise emissions from TQ did not exceed the relevant criterion at any monitoring location during any part of the survey.

Monitoring location EPL-B is situated close to the corner of Rhondda Road and Railway Street. This monitoring location is included predominantly to measure quarry noise from emissions from trucks exiting the site along the private section of the access road (through the Teralba Business Park). From the monitoring location it was possible to determine which trucks were associated with the quarry and a dedicated spotter was not required during this monitoring period.

When measuring noise at the EPL-B location, the noise emissions from the exiting quarry trucks (whilst on the private section of the access road) was measured and the worst case 15-minute Leq noise level calculated based on the time each truck was on the private road. The worst case calculated Leq level for the trucks is that shown for Location B in Tables 2 to 13.

At location EPL-D the acoustic environment is significantly influenced by noise from traffic on Rhondda Rd, trains and other industries within the vicinity. Noise emissions from the batching plant which is located adjacent to TQ contributed to the received noise during some monitoring periods.

Data from those times where TQ operations were audible were analysed using the *"Evaluator"* software. This analysis showed the noise did not contain any tonal, impulsive or low frequency components as per definitions of "modifying factor corrections" in the NSW Noise Policy for Industry

In addition to the operational noise, the noise from TQ must not exceed **45 dB(A) L1 (1 min)** within the night-time period i.e. between the hours of 10 pm and 7 am, in accordance with *Condition L4.1* of EPL 536. This is to minimise the potential for sleep disturbance as a result of individual loud noises from the quarry. The compliance measurement locations are different for each of the operational and sleep disturbance noise. That is, the sleep disturbance criterion is typically applicable at 1m from the façade of a bedroom window.

To avoid undue disturbance to residents, the L1 (1 min) noise level from the operational measurements are used to show general compliance with the sleep disturbance criterion. That is, as the distance between the noise source and the operational noise monitoring location is significantly greater than the distance between the operational noise monitoring location and the sleep disturbance monitoring location (i.e. 1m from the facade of the house) there will be little variation in L1 (1 min) levels between the two monitoring locations. It must be noted, however, that the sleep disturbance criterion is to be measured near a bedroom window. As the internal layout of each residence is not known, to consider a worst case, a bedroom window is assumed to be facing the operational noise monitoring location.

The results of the sleep disturbance measurements are shown in **Tables 14** to **16**.

**Table 14**
**Teralba Quarry (L1 (1min)) Noise Monitoring Results – 12 August 2020 (Night)**

| Location | Time | dB(A), $L_{1(1minute)}$ | Wind speed (m/s) / direction | $L_{A1}$ source | Identified Quarry Sources ($L_{1\,(1\,min)}$) |
|---|---|---|---|---|---|
| A | 5:36 am | 58 | 1.2 / 338 | Traffic | n/a |
| B | 4:30 am | 67 | 0.5 / 34 | Traffic | n/a |
| D | 4:30 am | 52 | 1.2 / 9 | Traffic | n/a |
| E | 5:31 am | 56 | 1.5 / 351 | Birds | n/a |
| H | 5:02 am | 57 | 1.5 / 19 | Birds | n/a |

**Table 15**
**Teralba Quarry (L1 (1min)) Noise Monitoring Results – 13 August 2020 (Night)**

| Location | Time | dB(A), $L_{1(1minute)}$ | Wind speed (m/s) / direction | $L_{A1}$ source | Identified Quarry Sources ($L_{1\,(1\,min)}$) |
|---|---|---|---|---|---|
| A | 5:39 am | 59 | 1.9 / 34 | Traffic | n/a |
| B | 4:30 am | 73 | 0.7 / 349 | Traffic | n/a |
| D | 4:30 am | 51 | 1.0 / 320 | Traffic | n/a |
| E | 5:30 am | 49 | 1.5 / 350 | Birds | n/a |
| H | 5:00 am | 56 | 0.8 / 329 | Birds | n/a |

| Table 16<br>Teralba Quarry (L1 (1min)) Noise Monitoring Results – 14 August 2020 (Night) | | | | | |
|---|---|---|---|---|---|
| **Location** | **Time** | **dB(A), $L_{1(1minute)}$** | **Wind speed (m/s) / direction** | **$L_{A1}$ source** | **Identified Quarry Sources ($L_{1\ (1\ min)}$)** |
| A | 5:39 am | 59 | 1.4 / 296 | Traffic | n/a |
| B | 4:30 am | 60 | 0.3 / 259 | Traffic | n/a |
| D | 4:30 am | 55 | 0.7 / 194 | Birds | n/a |
| E | 5:30 am | 50 | 0.6 / 244 | Birds | n/a |
| H | 5:01 am | 60 | 1.1 / 280 | Birds | n/a |

As shown in Tables 14 to 16, during the night time measurement circuits the L1 (1 min) noise from TQ did not exceed 45 dB(A) at any monitoring location.

In summary the results of the noise monitoring programme have shown that the Teralba Quarry continues to operate within approved noise limits. No actions are recommended with respect to noise management at Teralba Quarry.

We trust this report fulfils your requirements at this time, however, should you require additional information or assistance please contact the undersigned on 4954 2276.

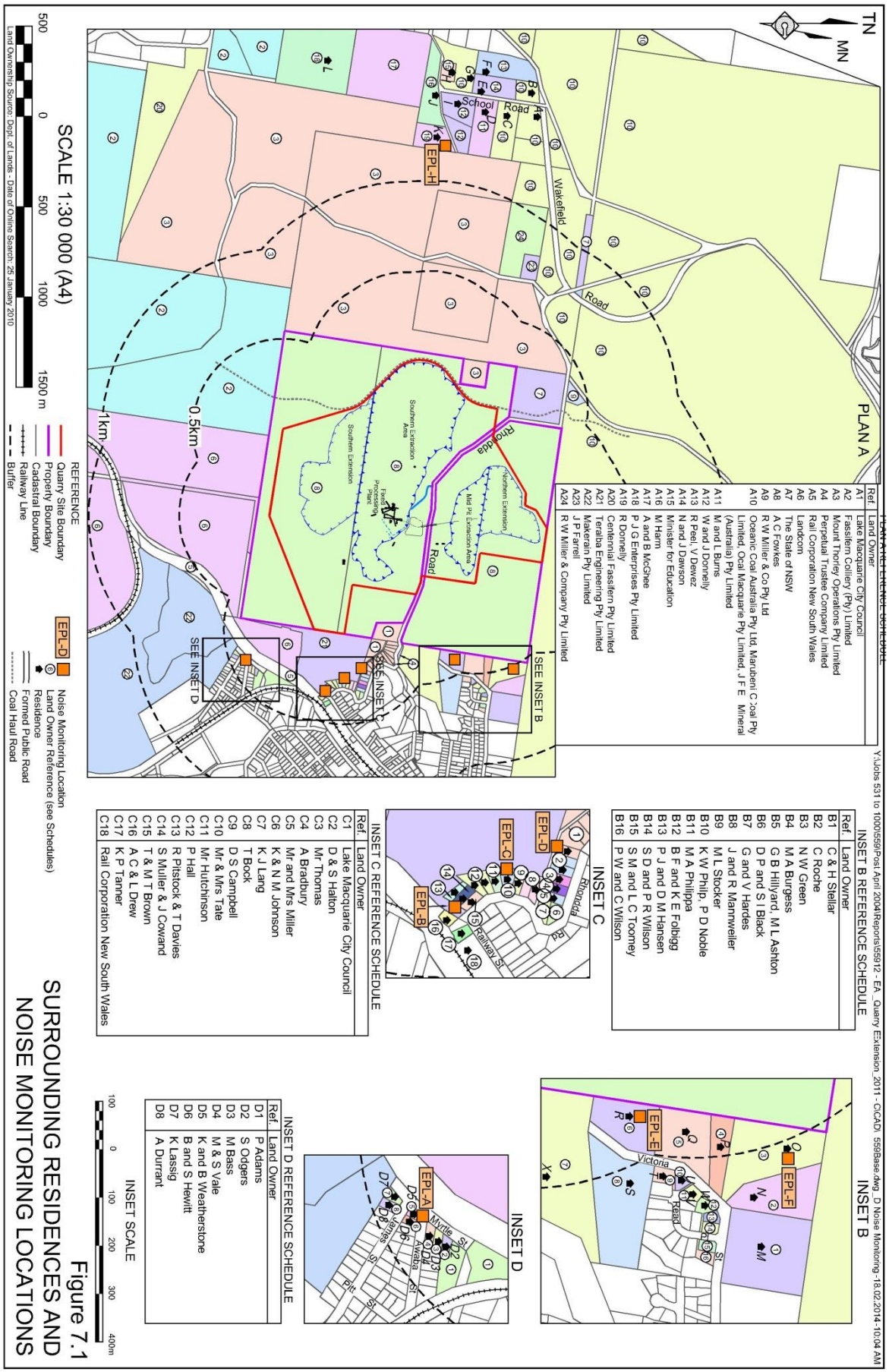
Yours faithfully,
**SPECTRUM ACOUSTICS PTY LIMITED**

Author:

**Neil Pennington MAIP, MAAS, MASA**
Acoustical Consultant

Review:

**Ross Hodge MAAS**
Acoustical Consultant


PLAN A
TN
MN
SCALE 1:30 000 (A4)
500 0 500 1000 1500 m
Land Ownership Source: Dept. of Lands - Data of Online Search: 25 January 2010
REFERENCE
Quarry Site Boundary
Property Boundary
Cadastral Boundary
Railway Line
Buffer
Noise Monitoring Location
Land Owner Reference (see Schedules)
Residence
Formed Public Road
Coal Haul Road
EPL-H
EPL-D
Wakefield Road
School Road
Throsby Creek
Southern Extraction Area
Southern Extension
Northern Extension
Mid Pit Extraction Area
Fines Processing Plant
Road
1km
0.5km
SEE INSET B
SEE INSET C
SEE INSET D
Ref. | Land Owner
A1 | Lake Macquarie City Council
A2 | Fassifern Colliery (Pty) Limited
A3 | Mount Thorley Operations Pty Limited
A4 | Perpetual Trustee Company Limited
A5 | Rail Corporation New South Wales
A6 | Landcom
A7 | The State of NSW
A8 | A C Fowkes
A9 | R W Miller & Co Pty Ltd
A10 | Oceanic Coal Australia Pty Ltd, Marubeni Coal Pty Limited, Ocal Macquarie Pty Limited, J F E Mineral (Australia) Pty Limited
A11 | M and L Burns
A12 | W and J Donnelly
A13 | R Peel, V Dewez
A14 | N and J Dawson
A15 | Minister for Education
A16 | M Harm
A17 | A and B McGhee
A18 | P J G Enterprises Pty Limited
A19 | R Donnelly
A20 | Centennial Fassifern Pty Limited
A21 | Teralba Engineering Pty Limited
A22 | Makerain Pty Limited
A23 | J P Farrell
A24 | R W Miller & Company Pty Limited
INSET B
INSET C
INSET D
Rhoades Rd
Railway St
Victoria Road
Myrtle St
Avalia St
Pitt St
INSET B REFERENCE SCHEDULE
Ref. | Land Owner
B1 | C & H Stellar
B2 | C Roche
B3 | N W Green
B4 | M A Burgess
B5 | G B Hillyard, M L Ashton
B6 | D P and S I Black
B7 | G and V Hardes
B8 | J and R Mannweiler
B9 | M L Stocker
B10 | K W Philp, P D Noble
B11 | M A Philippa
B12 | B F and K E Folbigg
B13 | P J and D M Hansen
B14 | S D and P R Wilson
B15 | S M and L C Toomey
B16 | P W and C Wilson
INSET C REFERENCE SCHEDULE
Ref. | Land Owner
C1 | Lake Macquarie City Council
C2 | D & S Halton
C3 | Mr Thomas
C4 | A Bradbury
C5 | Mr and Mrs Miller
C6 | K & N M Johnson
C7 | K J Lang
C8 | T Bock
C9 | D S Campbell
C10 | Mr & Mrs Tate
C11 | Mr Hutchinson
C12 | P Hall
C13 | R Pitstock & T Davies
C14 | S Muller & J Coward
C15 | T & M T Brown
C16 | A C & L Drew
C17 | K P Tanner
C18 | Rail Corporation New South Wales
INSET D REFERENCE SCHEDULE
Ref. | Land Owner
D1 | P Adams
D2 | S Odgers
D3 | M Bass
D4 | M & S Vale
D5 | K and B Weatherstone
D6 | B and S Hewitt
D7 | K Lassig
D8 | A Durrant
INSET SCALE
100 0 100 200 300 400m
Figure 7.1
SURROUNDING RESIDENCES AND NOISE MONITORING LOCATIONS

Location EPL – Point 13 Modified noise monitoring location

# Appendix 3

# 2020 Nest Box Monitoring Report

## Prepared by Echo Ecology and Surveying

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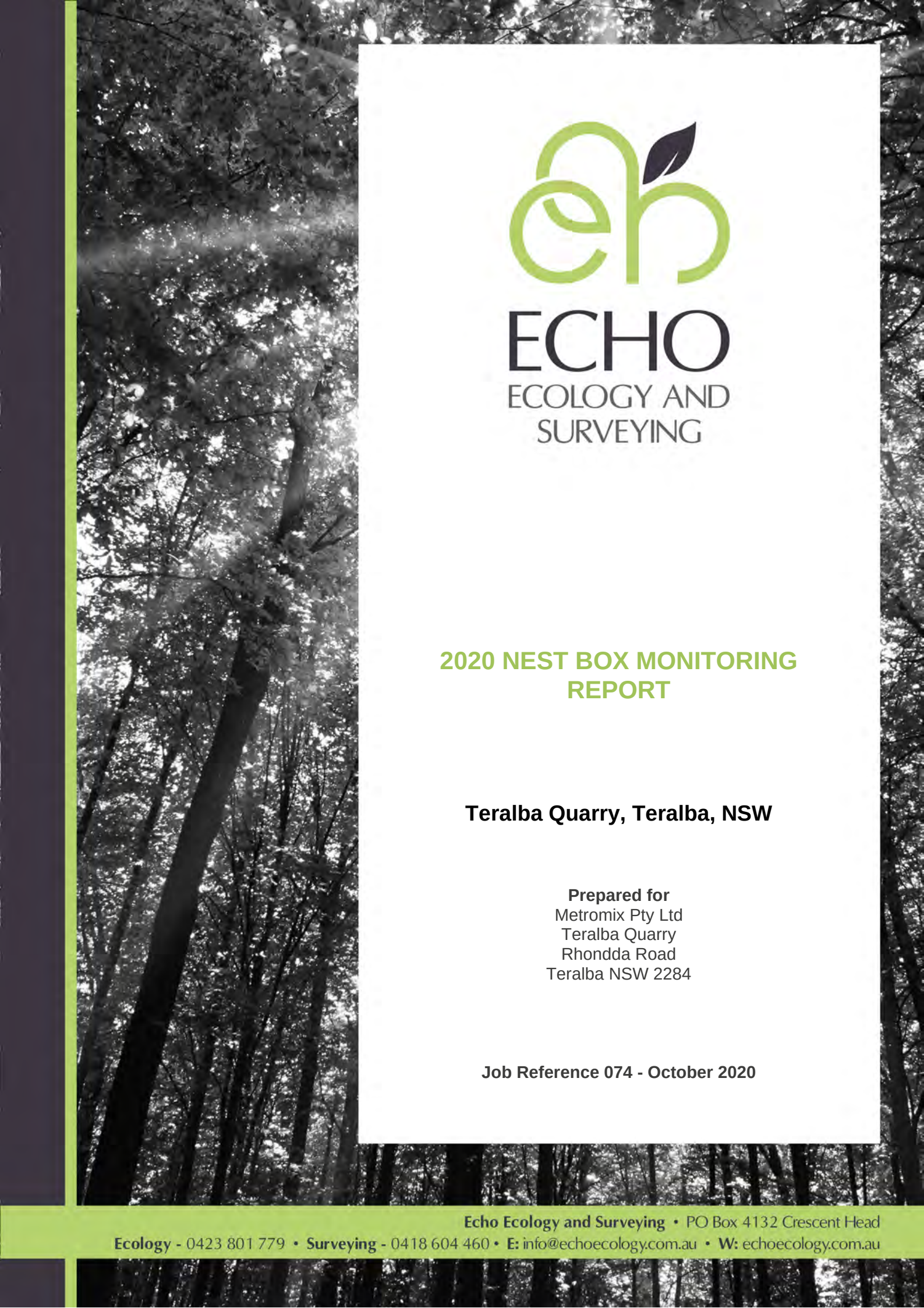

ECHO
ECOLOGY AND SURVEYING

# 2020 NEST BOX MONITORING REPORT

## Teralba Quarry, Teralba, NSW

**Prepared for**
Metromix Pty Ltd
Teralba Quarry
Rhondda Road
Teralba NSW 2284

**Job Reference 074 - October 2020**

**Echo Ecology and Surveying** • PO Box 4132 Crescent Head
**Ecology** - 0423 801 779 • **Surveying** - 0418 604 460 • **E:** info@echoecology.com.au • **W:** echoecology.com.au

# Document Control

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| Document Description | 2020 Nest Box Monitoring Report |
| Prepared by | Dr Anna McConville (PhD, B.Env.Sc.)<br>Ecologist / Director |
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| Date | 28 October 2020 |

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# 1.0 INTRODUCTION

Echo Ecology and Surveying has been engaged by Metromix to undertake annual nest box monitoring at their Teralba Quarry to meet consent conditions.

# 2.0 BACKGROUND

The fauna assessment for the Teralba Quarry Extension (Kendall & Kendall Ecological Services 2011), recommended that nest boxes be installed to mitigate the potential impacts of the quarry expansion on hollow-dependent fauna species. Subsequently the project approval requires the installation, maintenance and monitoring of nest boxes within the Teralba Quarry site.

Condition 50 of the project approval for Teralba Quarry states:

- The Proponent shall install 20 nest boxes for microbats, 20 nest boxes for Little Lorikeets and 30 nest boxes for Sugar Gliders. These boxes must be monitored and maintained regularly over the life of the project, and re-located or replaced if not used by targeted fauna for a period of 12 months.

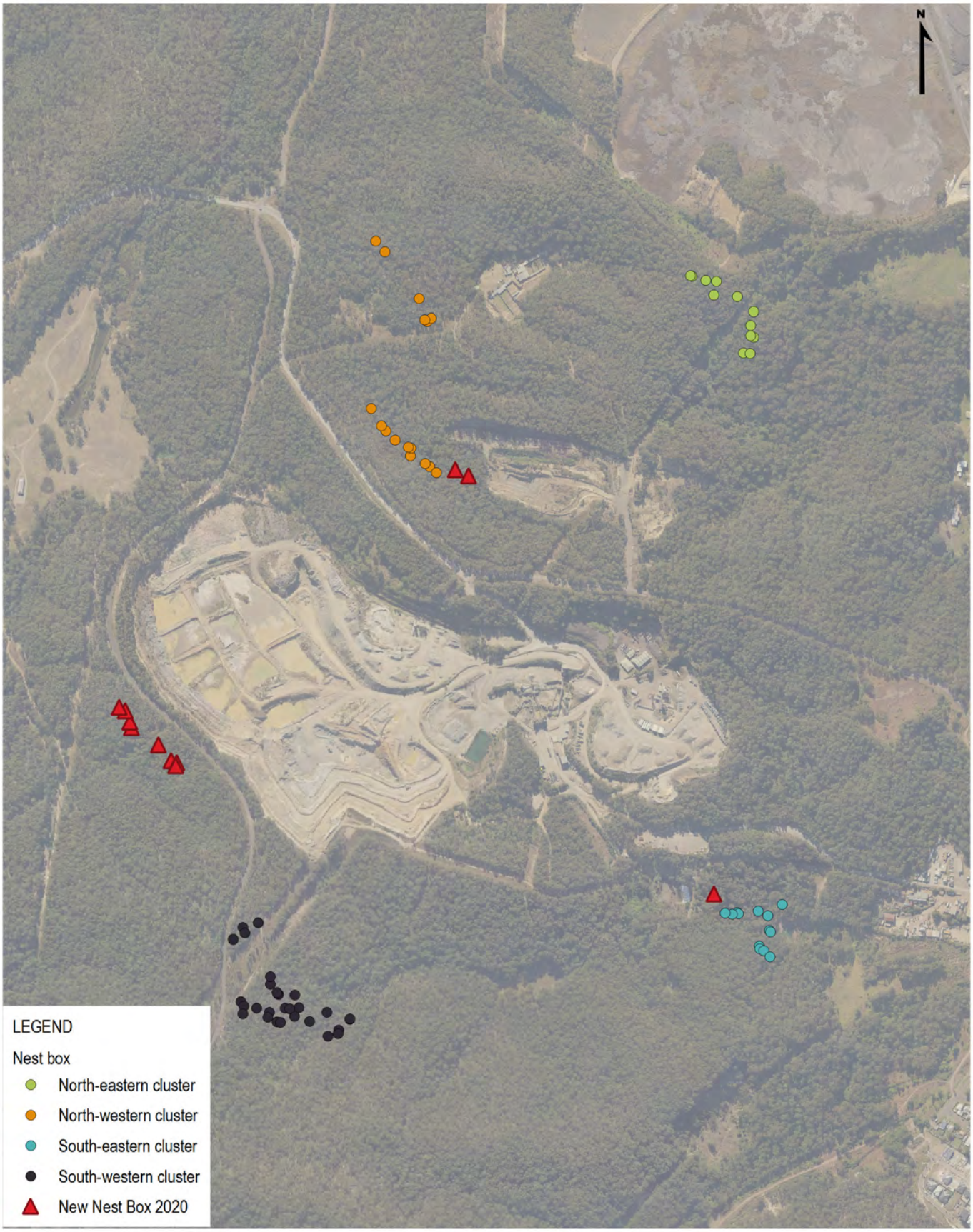
While the project approval condition specifies nest boxes be installed for Sugar Gliders, the fauna assessment report (Kendall & Kendall Ecological Services 2011), recommended that these nest boxes be installed to enhance habitat for Squirrel Gliders, a threatened species. Squirrel Gliders haven't been recorded onsite to date, but it is known from the local area.

In 2014, 70 nest boxes were installed at Teralba Quarry (Kendall & Kendall Ecological Services 2015) and these were monitored in 2015 (Kendall & Kendall Ecological Services 2015), 2016 (Kendall & Kendall Ecological Services 2016) and 2017 (Kendall & Kendall Ecological Services 2017). Due to theft and fire damage, 18 of these nest boxes were replaced in 2017. Five additional nest boxes for each of the target species are stored at Teralba Quarry so that replacements can be quickly installed if other boxes are damaged.

In 2020, an additional 11 nest boxes were installed as part of consent conditions for a powerline relocation project at Teralba Quarry. These new nest boxes have been incorporated into the annual nest box monitoring program.

# 3.0 METHODS

Nest boxes were checked by Anna McConville on 24 September 2020 using a wireless nest box inspection camera (Brite Star Electronics) mounted on an extension pole. We returned on 25 September 2020 to carry out some repairs and install the 11 new nest boxes using a ladder. We recorded nest box location, type, aspect, height, occupation evidence and fauna species present. The locations of nest boxes are shown in Figure 3-1 below.




ECHO ECOLOGY AND SURVEYING

0 100 200 300 400 m

**BACKGROUND SOURCE:** NSW imagery © DFSI
**DISCLAIMER:** Indicative only. All boundaries, scale and points are approximate only

| TERALBA QUARRY | | |
|---|---|---|
| **Job No:** 074 | **Rev:** A **Date:** 28 Oct 2020 | A4 |
| **NEST BOX MONITORING** | **Figure 3-1:** Nest Box Locations | |

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**Ecology:** 0423801779 **E:** anna@echoecology.com.au **W:** echoecology.com.au

# 4.0 RESULTS

None of the target species (Squirrel Gliders, Little Lorikeets or microbats) were observed using nest boxes during the inspection. Feral bees were also not recorded using nest boxes.

Sugar Gliders (*Petaurus breviceps*) were recorded occupying one of the nest boxes, with two other boxes containing Sugar / Squirrel Gliders that could not be confidently identified. Another box contained a single glider that could not be identified to species. A further 28 boxes were found to have leaves with depressions like those created by gliders, indicating that the Sugar Gliders are using many of the nest boxes for sheltering. Another seven boxes had leaves present (but no defined nest) indicating that animals had visited the boxes. Ants were found in two of the boxes and termites also in another two boxes.

Evidence of use is difficult to determine in microbat nest boxes unless the animals are present as the bottom opening hole means that guano falls through.

Nest box occupancy by Sugar Gliders was steadily increasing since installation until 2018, when two years of decline have been observed (Figure 4-1). With occupancy relatively steady in the north-east of the study area, and less reliable in other areas (Figure 4-2). Reduced occupancy may be due to drought conditions experienced in NSW during 2019.

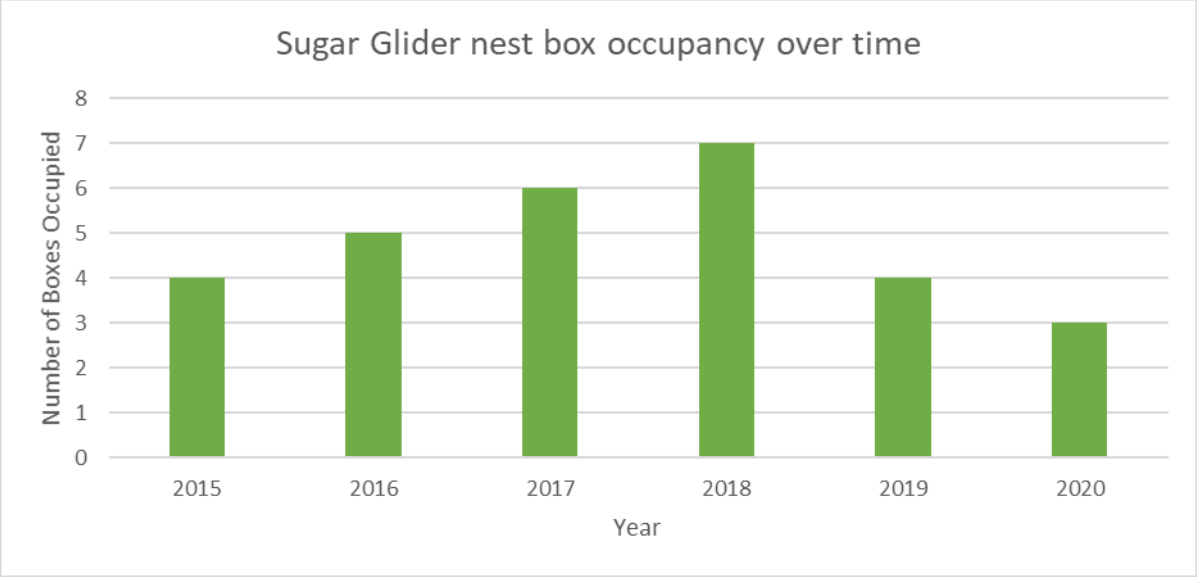


**Figure 4-1: Sugar Glider nest box occupancy (Sugar/Squirrel Glider observations included as Sugar Gliders for the purpose of this graph)**

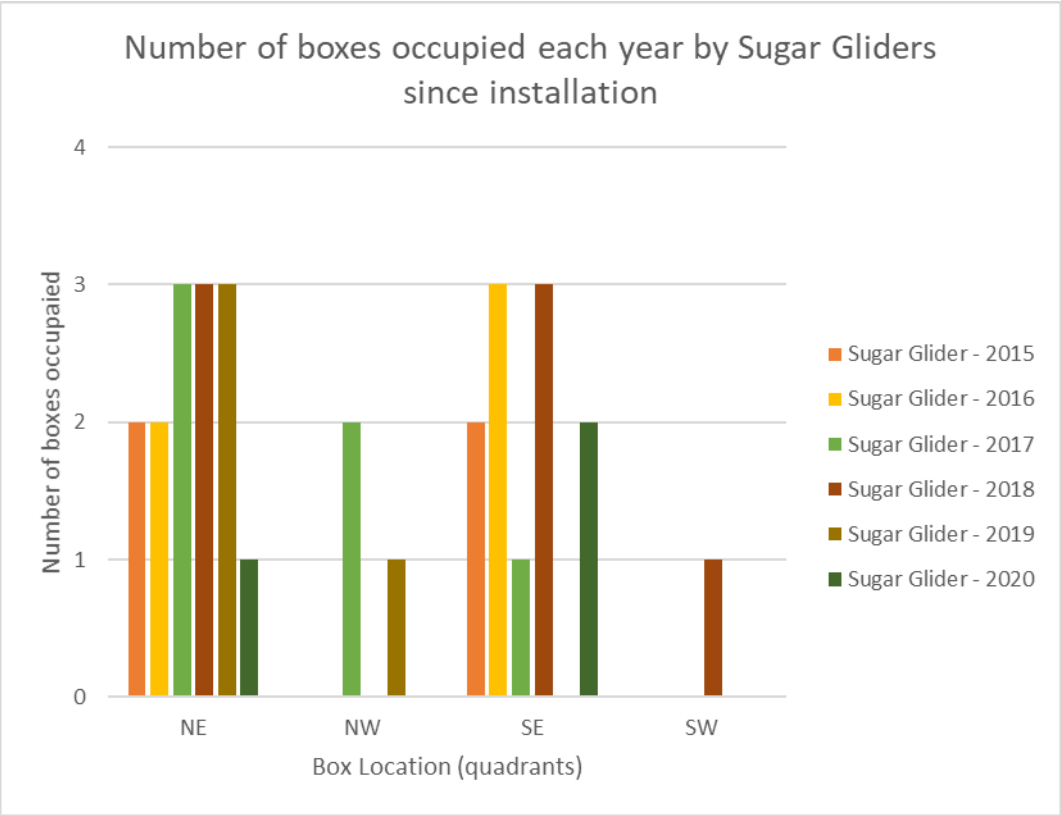


**Figure 4-2: Nest box occupancy by Sugar Gliders since installation by nest box location (Sugar/Squirrel Glider observations included as Sugar Gliders for the purpose of this graph)**

Appendix A contains the nest box inspection results for 2020 and previous years and Appendix B contains the digital forms completed during the field work.

## 5.0 RECOMMENDATIONS

The Project Approval conditions state that nest boxes are to be relocated or replaced if not used by the target species within 12 months. None of the nest boxes have been used by the target species. However, for Squirrel Glider and Little Lorikeet boxes, the requirement to relocate or replace nest boxes if not used within 12 months is not very appropriate. The boxes are being used by native fauna species (e.g. Sugar Gliders) and removal or replacement would impact these non-target species. Microbat nest boxes are not typically very successful for threatened microbats and have varying success rates. For example, bats have been found not to begin occupying nest boxes until they have been installed for some time (e.g. 10 years at Mt Owen).

Therefore, we recommend that the Project Approval conditions are reviewed and revised to:

- Conduct ongoing regular monitoring and maintenance
- At 10 years post installation, undertake a review of the effectiveness of the nest boxes for the target species and if necessary, consider installing boxes of a different design or boxes in a different location to improve success rates.

## 6.0 REFERENCES

Kendall & Kendall Ecological Services. 2011. Teralba Quarry Extensions Fauna Assessment. Prepared for R.W. Corkery & Co on behalf of Metromix Pty Ltd.

Kendall & Kendall Ecological Services. 2015. Teralba Quarry Extension Project Approval 50 - Nesing box Installation and First Annual Inspection. Prepared for Metromix Pty Ltd.

Kendall & Kendall Ecological Services. 2016. Teralba Quarry Extension Project Approval 50 - Annual Nesting Box Inspection. Prepared for Metromix Pty Ltd.

Kendall & Kendall Ecological Services. 2017. Teralba Quarry Extension Project Approval 50 - Annual Nesting Box Inspection. Prepared for Metromix Pty Ltd.

# APPENDIX A NEST BOX MONITORING RESULTS

**Table A: Nest box monitoring results**

| Tag No. | Cluster | Box Type | Tree Species | Aspect | Approx Height (m) | Easting (GDA Zone56) | Northing (GDA zone 56) | 2015 Results | 2016 Results | 2017 Results | 2018 Results | 2019 Results | 2020 Results |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | NW | Little Lorikeet | Spotted Gum | 102 | 3.7 | 367958 | 6353147 | - | Leaves with depression | Ants | Ants | Ants | Tight leaf nest. Couldn't see inside |
| 2 | NW | Little Lorikeet | Stringybark/ Mahogany | 34 | 3.6 | 367940 | 6353168 | - | Leaves with depression | Leaves | Leaves with depression | Leaf nest | Leaf nest. Could see in and it was empty |
| 3 | NW | Little Lorikeet | Spotted Gum | 160 | 4 | 368025 | 6353055 | Leaves | Leaves with depression | 2 Sugar Gliders | Leaves with depression | Leaf nest | Leaf nest |
| 4 | NW | Little Lorikeet | Spotted Gum | 100 | 4 | 368041 | 6353011 | - | Leaves | Leaf nest | old Leaves with depression | Leaf nest | Leaf nest. Couldn't see inside |
| 5 | NW | Little Lorikeet | Spotted Gum | 100 | 2.2 | 368049 | 6353017 | Leaves | Leaves | Leaves and ants | Old leaves with depression and ants | Leaf nest | Leaf nest with ants nest starting to form |
| 6 | NW | Little Lorikeet | Spotted Gum | 188 | 2.8 | 368036 | 6353014 | Leaves | Leaves | 1 Sugar Glider | Leaves with depression | Leaf nest | Leaf nest. Couldn't see inside |
| 7 | SW | Squirrel Glider | Stringybark/ Mahogany | 112 | 3.1 | 367675 | 6351673 | - | Old bits of bark | Bird egg shell | Leaves | Leaves (loose) | Leaf nest |
| 8 | SW | Microbat | Bloodwood | 88 | 3.1 | 367681 | 6351664 | - | - | - | - | - | - |
| 9 | SW | Squirrel Glider | Stringybark/ Mahogany | 48 | 2.9 | 367679 | 6351649 | - | Old bits of bark | - | Leaves and bark | Leaves (loose) | |
| 10 | SW | Squirrel Glider | Stringybark/ Mahogany | 62 | 2.9 | 367731 | 6351652 | - | - | Leaves | Leaves with depression | Leaf nest, Glider type nest | Leaf nest. Side of box plywood is starting to peel, but still ok |
| 11 | SW | Microbat | Bloodwood | 108 | 2.9 | 367728 | 6351642 | - | - | - | - | - | - |
| 12 | SW | Squirrel Glider | Bloodwood | 138 | 3.1 | 367746 | 6351633 | - | - | Leaf nest | Sugar Gliders 2+ | Leaf nest, Glider type nest | Leaf nest |
| 13 | SW | Microbat | Stringybark/ Mahogany | 76 | 2.8 | 367753 | 6351632 | - | - | - | Mud Wasps | | Termite damage. Recommend replacement next year |
| 14 | SW | Squirrel Glider | Stringybark/ Mahogany | 74 | 3.1 | 367762 | 6351660 | - | Old bits of bark | - | Leaves with depression | Leaf nest, Glider nest | Leaves (loose). Spider web on outside and interior, leaves were old |
| 15 | SW | Microbat | Bloodwood | 68 | 3.2 | 367749 | 6351687 | - | - | - | - | | Huntsman |

| Tag No. | Cluster | Box Type | Tree Species | Aspect | Approx Height (m) | Easting (GDA Zone56) | Northing (GDA zone 56) | 2015 Results | 2016 Results | 2017 Results | 2018 Results | 2019 Results | 2020 Results |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16 | SW | Squirrel Glider | Bloodwood | 118 | 3.4 | 367733 | 6351707 | - | - | - | - | | Some small debris from installation |
| 17 | SW | Little Lorikeet | Bloodwood | 262 | 4.2 | 367733 | 6351722 | Box Missing | Box Missing | New Box Installed | Leaves with depression | Leaf nest, Recent nest | Leaf nest |
| 18 | SW | Little Lorikeet | Bloodwood | 144 | 3.4 | 367747 | 6351689 | Box Missing | Box Missing | New Box Installed | Leaves | Leaf nest, Feather tail glider/antechinus type | Leaf nest |
| 19 | SW | Little Lorikeet | Bloodwood | 180 | 3.5 | 367781 | 6351686 | Box Missing | Box Missing | New Box Installed | Leaves | Leaf nest, Feather tail glider/antechinus type | Leaf nest |
| 20 | SW | Little Lorikeet | Stringybark/ Mahogany | 108 | 2.9 | 367789 | 6351661 | Box Missing | Box Missing | New Box Installed | Leaves | Leaves (loose) | Just wood shavings from installation |
| 21 | SW | Little Lorikeet | Stringybark/ Mahogany | 104 | 2.8 | 367810 | 6351634 | Box Missing | Box Missing | New Box Installed | Leaves | Leaves (loose) | Loose leaves and wood shavings from installation |
| 22 | SW | Little Lorikeet | Stringybark/ Mahogany | 116 | 3.1 | 367844 | 6351652 | Box Missing | Box Missing | New Box Installed | Leaves | Leaves (loose) | Leaves (loose). Wasp or something in the corner |
| 23 | SW | Little Lorikeet | Stringybark/ Mahogany | 32 | 4 | 367889 | 6351638 | Box Missing | Box Missing | New Box Installed | Leaves | Leaf nest, Feather tail glider/antechinus type | Leaf nest. Couldn't see inside |
| 24 | SW | Little Lorikeet | Stringybark/ Mahogany | - | - | 367889 | 6351639 | Box Missing | Box Missing | New Box Installed | Leaves | - | - |
| 25 | SW | Little Lorikeet | Stringybark/ Mahogany | 1 | 3.8 | 367867 | 6351617 | Box Missing | Box Missing | New Box Installed | Leaves | Leaf nest | Leaf nest |
| 26 | SW | Little Lorikeet | Stringybark/ Mahogany | 54 | 3 | 367866 | 6351610 | Box Missing | Box Missing | New Box Installed | Leaves | Leaves (loose) | Wood shavings from installation |
| 27 | SW | Little Lorikeet | Stringybark/ Mahogany | 222 | 3.6 | 367846 | 6351605 | Box Missing | Box Missing | New Box Installed | Leaves | Leaves (loose) | Just wood shavings from installation |
| 28 | SW | Little Lorikeet | Bloodwood | 68 | 3 | 367780 | 6351644 | Box Missing | Box Missing | New Box Installed | Leaves | Leaves (loose) | Just wood shavings from installation |
| 29 | SW | Little Lorikeet | Bloodwood | 342 | 3.9 | 367771 | 6351659 | Box Missing | Box Missing | New Box Installed | Leaves | Leaf nest | Leaves (loose). Dark blob in bottom left corner but didn't move when knocked |
| 30 | SW | Little Lorikeet | Bloodwood | 272 | 3.2 | 367746 | 6351691 | Box Missing | Box Missing | New Box Installed | Leaves | Leaves (loose) | Only wood shavings from installation |
| 31 | SW | Squirrel Glider | Spotted Gum | 162 | 4 | 367709 | 6351827 | Box Missing | Box Missing | New Box Installed | Leaves | Leaves (loose) | Leaf nest. Couldn't see inside |

| Tag No. | Cluster | Box Type | Tree Species | Aspect | Approx Height (m) | Easting (GDA Zone56) | Northing (GDA zone 56) | 2015 Results | 2016 Results | 2017 Results | 2018 Results | 2019 Results | 2020 Results |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 32 | SW | Squirrel Glider | Spotted Gum | 50 | 3.9 | 367679 | 6351818 | Box Missing | Box Missing | New Box Installed | Leaves | Leaf nest, Old nest | Leaves (loose) |
| 33 | SW | Squirrel Glider | Spotted Gum | 214 | 3.2 | 367683 | 6351807 | Box Missing | Box Missing | New Box Installed | Leaves | Leaves (loose) | Leaves (loose)Very old leaf nest or attempt |
| 34 | SW | Squirrel Glider | Spotted Gum | 158 | 3.8 | 367660 | 6351795 | Box Missing | Box Missing | New Box Installed | Leaves | Leaf nest, Glider type nest | Leaf nest. Chews on entrance.Prob not very recent |
| 35 | SE | Squirrel Glider | Grey Gum | 252 | 3.2 | 368738 | 6351863 | - | Old leaves | - | Sugar glider 3+ | Leaves (loose) | Sugar/Squirrel Glider. Couldn't get a good enough look to confidently ID sugar/squirrel glider |
| 36 | SE | Microbat | Stringybark/ Mahogany | 282 | 3 | 368710 | 6351841 | Leaves | No leaves | - | - | - | - |
| 37 | SE | Squirrel Glider | Grey Gum | 246 | 3.8 | 368691 | 6351850 | Leaves | Leaves | - | Old Leaves with depression. Chew marks on hole | Observed Sugar Glider 2+ Adult male id by scent gland. HLH box | Sugar Glider, 4+ includes 1 juvenile |
| 38 | SE | Microbat | Stringybark/ Mahogany | 314 | 3.6 | 368650 | 6351847 | Leaves | Brown Antechinus and Leaves | Leaves | Leaves taking up the entire bat box. Opened the top and there were scats on top. | Leaf nest, Couldn't see inside leaf nest with entry hole up one side. | Leaf nest. Leaves jammed in the bottom can't see in |
| 39 | SE | Squirrel Glider | Tallowwood | 325 | 4.2 | 368652 | 6351845 | 2 Sugar Gliders | Sugar Glider | - | Sugar gliders 2+ | Leaf nest, Glider type nest | Leaves (loose) |
| 40 | SE | Microbat | Tallowwood | 354 | 3.4 | 368640 | 6351844 | - | - | - | - | Wasps | Mud Wasps |
| 41 | SE | Squirrel Glider | Tallowwood | 204 | 4.1 | 368626 | 6351846 | Leaves | Leaves | - | Chew marks on hole. Leaves with depression | Leaf nest, Glider type nest | Something inside, but couldn't get a look at what was in there could've been a single sugar/squirrel glider or a feather tail glider |
| 42 | SE | Microbat | Stringybark/ Mahogany | 300 | 3.7 | 368713 | 6351812 | - | - | - | Mud wasp | Wasps | - |
| 43 | SE | Squirrel Glider | Stringybark/ Mahogany | 330 | 3.6 | 368715 | 6351809 | - | Sugar Glider | - | Sugar glider 2+ | Observed Sugar Glider 1 Adult male | Leaf nest |
| 44 | SE | Squirrel Glider | Spotted Gum | 344 | 3.5 | 368693 | 6351782 | 4 Sugar Gliders | Sugar Glider | - | Leaves with depression | Leaf nest; Glider type nest | Scats,Leaf nest. I think the dark things are scats but can't be sure |

| Tag No. | Cluster | Box Type | Tree Species | Aspect | Approx Height (m) | Easting (GDA Zone56) | Northing (GDA zone 56) | 2015 Results | 2016 Results | 2017 Results | 2018 Results | 2019 Results | 2020 Results |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 45 | SE | Squirrel Glider | Tallowwood | 308 | 3 | 368694 | 6351777 | Leaves | Old leaves | 3 Sugar Gliders | Leaves with depression | Observed, Sugar Glider 3+ | Leaf nest |
| 46 | SE | Microbat | Spotted Gum | 10 | 3 | 368702 | 6351773 | - | - | - | - | Spider webs everywhere. | Spider silk has tied the opening shut can't see inside |
| 47 | SE | Squirrel Glider | Ironbark | 324 | 3.6 | 368714 | 6351761 | Leaves | Leaves | - | Leaves with depression | Observed Sugar Glider 2+; Adult male ID by scent gland | Leaf nest |
| 48 | NW | Microbat | Tallowwood | 220 | 2.8 | 368062 | 6352707 | - | - | - | - | Wasps, stick inside | Vine tendril inside |
| 49 | NW | Microbat | Tallowwood | 140 | 3 | 368051 | 6352708 | - | - | - | - | - | - |
| 50 | NW | Microbat | Tallowwood | 108 | 3.1 | 368042 | 6352724 | - | - | - | - | - | - |
| 51 | NW | Microbat | Stringybark/ Mahogany | 106 | 3 | 368008 | 6352747 | - | - | - | - | Shadecloth replaced | - |
| 52 | NW | Microbat | Tallowwood | 106 | 3.6 | 368009 | 6352762 | - | - | - | - | - | Nestbox had fallen off. Installed new wire and rehung it. |
| 53 | NW | Microbat | Ironbark | 88 | 3.6 | 367987 | 6352761 | - | - | - | - | Shadecloth replaced | - |
| 54 | NW | Microbat | Stringybark/ Mahogany | 116 | 3 | 367978 | 6352778 | - | - | - | - | Shadecloth replaced | - |
| 55 | NW | Microbat | Stringybark/ Mahogany | 132 | 2.9 | 367960 | 6352796 | - | - | - | - | - | - |
| 56 | NW | Microbat | Stringybark/ Mahogany | 118 | 3 | 367951 | 6352806 | - | - | - | Leaves | Leaf nest | Leaf nest. Leaves jammed into entrance so I can't see all of inside. Feathertail glider or Antechinus nest likely |
| 57 | NW | Microbat | Ironbark | 102 | 3.6 | 367931 | 6352840 | - | - | - | Mudwasps | - | Mud Wasps |
| 58 | NE | Squirrel Glider | Ironbark | 13 | 3.5 | 368662 | 6352949 | Leaves | Old leaves | - | New leaves, chews on hole | Leaf nest, Glider type nest | Leaf nest. Chews on entrance |
| 59 | NE | Squirrel Glider | Ironbark | 12 | 2.6 | 368675 | 6352948 | - | - | 2 Sugar Gliders | Leaves with depression chews on hole | Leaf nest, Old nest | Leaf nest. Can't see inside nest |
| 60 | NE | Squirrel Glider | Tallowwood | 2 | 3.1 | 368682 | 6352980 | Bee hive | Abandoned Bee hive, now leaves | - | Leaves with depression and mud wasps | Wasps, Leaves (loose) | Leaf nest. Chews on entrance |

| Tag No. | Cluster | Box Type | Tree Species | Aspect | Approx Height (m) | Easting (GDA Zone56) | Northing (GDA zone 56) | 2015 Results | 2016 Results | 2017 Results | 2018 Results | 2019 Results | 2020 Results |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 61 | NE | Squirrel Glider | Tallowwood | 78 | 2.1 | 368676 | 6352983 | Leaves | Leaves | Leaves | Leaves with depression | Leaf nest, Glider type nest | Leaf nest |
| 62 | NE | Squirrel Glider | Ironbark | 116 | 3.1 | 368676 | 6353003 | Leaves | Leaves | - | Sugar glider 1 + | Leaf nest, Glider type nest | Shredded bark prob from installation |
| 63 | NE | Squirrel Glider | Ironbark | 118 | 4 | 368682 | 6353030 | Leaves | Leaves | Leaf nest | Leaves, chews on hole | Leaf nest, Old nest | Leaf nest |
| 64 | NE | Squirrel Glider | Stringybark/ Mahogany | 62 | 4 | 368650 | 6353059 | Leaves | Leaves | - | Leaves with depression | Leaf nest, Glider type nest | Leaf nest |
| 65 | NE | Squirrel Glider | Ironbark | 56 | 3.6 | 368604 | 6353062 | 1 Sugar Glider | Sugar Glider (1+) | 2 Sugar Gliders | Sugar gliders 2+ | Leaf nest, Glider type nest | Shredded bark probably from installation. |
| 66 | NE | Squirrel Glider | Stringybark/ Mahogany | 8 | 4 | 368609 | 6353089 | Bee hive | Abandoned Bee hive, now leaves | 2 Sugar Gliders | - | Leaf nest | Sugar/Squirrel Glider, 1+ ID not confident, |
| 67 | NE | Squirrel Glider | Spotted Gum | 0 | 3.2 | 368588 | 6353091 | Leaves | Leaves | - | - | - | New Tree tag required. A few leaves and shredded bark prob from installation |
| 68 | NE | Squirrel Glider | Spotted Gum | 256 | 3.7 | 368561 | 6353099 | Leaves | Sugar Glider | Leaf nest | Leaves | Leaf nest, Glider type nest | Shredded bark in bottom probably from installation |
| 69 | NE | Squirrel Glider | Stringybark/ Mahogany | 96 | 3.4 | 368558 | 6353100 | 1 Sugar Glider | Leaves | - | Sugar glider 5 | Leaves (loose) | Leaves (loose) |
| 70 | SW | Microbat | Stringybark/ Mahogany | 90 | - | 367706 | 6351660 | - | - | - | - | Termite trail going thru box | Termites |
| 71 | Haul Rd | Bat - single chamber panel box | Stringybark/ Mahogany | 332 | 4 | 367513 | 6352177 | - | - | - | - | - | Box installed |
| 72 | Haul Rd | Little Lorikeet | Stringybark/ Mahogany | 248 | 3 | 367538 | 6352146 | - | - | - | - | - | Box installed |
| 73 | Haul Rd | Bat - HLH 2 chamber | Stringybark/ Mahogany | 298 | 4.3 | 367549 | 6352142 | - | - | - | - | - | Box installed |
| 74 | Haul Rd | Squirrel Glider | Stringybark/ Mahogany | 40 | 3.4 | 367547 | 6352136 | - | - | - | - | - | Box installed |
| 75 | Haul Rd | Squirrel Glider | Tallowwood | 122 | 4.3 | 367460 | 6352211 | - | - | - | - | - | Box installed |

| Tag No. | Cluster | Box Type | Tree Species | Aspect | Approx Height (m) | Easting (GDA Zone56) | Northing (GDA zone 56) | 2015 Results | 2016 Results | 2017 Results | 2018 Results | 2019 Results | 2020 Results |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 76 | Haul Rd | Little Lorikeet | Stringybark/ Mahogany | 188 | 3.8 | 367457 | 6352222 | - | - | - | - | - | Box installed |
| 77 | Haul Rd | Bat - HLH 2 chamber | Stringybark/ Mahogany | 54 | 5 | 367448 | 6352244 | - | - | - | - | - | Box installed |
| 78 | Haul Rd | Squirrel Glider | Stringybark/ Mahogany | 220 | 4 | 367436 | 6352251 | - | - | - | - | - | Box installed |
| 79 | NW | Squirrel Glider | Tallowwood | 230 | 4.3 | 368096 | 6352720 | - | - | - | - | - | Box installed |
| 80 | NW | Little Lorikeet | Tallowwood | 138 | 3.4 | 368122 | 6352708 | - | - | - | - | - | Box installed |
| 81 | SE | Squirrel Glider | Tallowwood | 286 | 4 | 368604 | 6351884 | - | - | - | - | - | Box installed |

# APPENDIX B NEST BOX CHECK FIELD SHEETS

## 1, Smooth-barked Apple

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 08:24:12 AEST by Anna McConville |
| Updated | 2020-10-18 19:55:42 AEDT by Anna McConville |
| Location | -32.9519878328, 151.587641705 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 08:24 |

## Box Details

| | |
|---|---|
| Nestbox Number | 1 |
| Tree Species | Smooth-barked Apple |
| Box Type | Little Lorikeet |
| Height | 4 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaf nest |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Estimate |
| OccupationComments | Couldn’t see occupants. Tight leaf nest |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | Yes |

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Box Photo

## 2, Peppermint

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 08:28:49 AEST by Anna McConville |
| Updated | 2020-10-18 19:58:10 AEDT by Anna McConville |
| Location | -32.9520531278, 151.587004429 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 08:28 |

## Box Details

| | |
|---|---|
| Nestbox Number | 2 |
| Tree Species | Peppermint |
| Box Type | Little Lorikeet |
| Height | 3.8 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaf nest |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Accurate |
| OccupationComments | Could see in leaf nest and it was empty |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | Yes |

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Box Photo

## 3, Smooth-barked Apple

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 08:37:42 AEST by Anna McConville |
| Updated | 2020-10-18 19:58:43 AEDT by Anna McConville |
| Location | -32.9528901568, 151.58802174 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 08:37 |

## Box Details

| | |
|---|---|
| Nestbox Number | 3 |
| Tree Species | Smooth-barked Apple |
| Box Type | Little Lorikeet |
| Height | 4 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaf nest |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Accurate |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | Yes |

Box Photo

## 4, Smooth-barked Apple

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 08:47:33 AEST by Anna McConville |
| Updated | 2020-09-24 08:48:44 AEST by Anna McConville |
| Location | -32.9532421008059, 151.588215362422 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 08:47 |

## Box Details

| | |
|---|---|
| Nestbox Number | 4 |
| Tree Species | Smooth-barked Apple |
| Box Type | Little Lorikeet |
| Height | 4 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaf nest |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Estimate |
| OccupationComments | Couldn’t see in nest |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | Yes |

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Box Photo

## 5, Smooth-barked Apple

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 08:42:49 AEST by Anna McConville |
| Updated | 2020-10-01 19:57:42 AEST by Anna McConville |
| Location | -32.9531745873, 151.588161886 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 08:42 |

## Box Details

| | |
|---|---|
| Nestbox Number | 5 |
| Tree Species | Smooth-barked Apple |
| Box Type | Little Lorikeet |
| Height | 2.2 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | Yes |
| Pest Species | Ants |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaf nest |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Estimate |
| OccupationComments | Leaf nest with ants nest starting to form |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | Yes |

Box Photo

## 6, Smooth-barked Apple

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 08:52:01 AEST by Anna McConville |
| Updated | 2020-09-24 08:52:58 AEST by Anna McConville |
| Location | -32.953331572275, 151.588170267642 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 08:52 |

## Box Details

| | |
|---|---|
| Nestbox Number | 6 |
| Tree Species | Smooth-barked Apple |
| Box Type | Little Lorikeet |
| Height | 2.5 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaf nest |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Estimate |
| OccupationComments | Can’t see in nest |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | Yes |

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Box Photo

## 7, Stringybark/Mahogany

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 09:19:15 AEST by Anna McConville |
| Updated | 2020-09-24 09:20:22 AEST by Anna McConville |
| Location | -32.9653299708729, 151.584130525589 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 09:19 |

## Box Details

| | |
|---|---|
| Nestbox Number | 7 |
| Tree Species | Stringybark/Mahogany |
| Box Type | Squirrel Glider |
| Height | 3.8 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaf nest |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Accurate |
| OccupationComments | Glider nest |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | Yes |

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Box Photo

## 8, Bloodwood

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 09:22:11 AEST by Anna McConville |
| Updated | 2020-09-24 09:24:02 AEST by Anna McConville |
| Location | -32.9653122491814, 151.584170758724 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 09:22 |

## Box Details

| | |
|---|---|
| Nestbox Number | 8 |
| Tree Species | Bloodwood |
| Box Type | Bat - single chamber panel box |
| Height | 3.5 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | No |

## Media

Box Photo

## 9, Stringybark/Mahogany

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 09:25:44 AEST by Anna McConville |
| Updated | 2020-09-24 09:26:19 AEST by Anna McConville |
| Location | -32.9655328207025, 151.583990715585 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 09:25 |

## Box Details

| | |
|---|---|
| Nestbox Number | 9 |
| Tree Species | Stringybark/Mahogany |
| Box Type | Squirrel Glider |
| Height | 2.6 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | No |

## Media

Box Photo

## 10, Stringybark/Mahogany

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 09:34:42 AEST by Anna McConville |
| Updated | 2020-09-24 09:35:53 AEST by Anna McConville |
| Location | -32.9655536014372, 151.584674343467 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 09:34 |

## Box Details

| | |
|---|---|
| Nestbox Number | 10 |
| Tree Species | Stringybark/Mahogany |
| Box Type | Squirrel Glider |
| Height | 3.8 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaf nest |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Accurate |
| OccupationComments | Side of box plywood is starting to peel, but still ok |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | Yes |

Box Photo

## 11, Bloodwood

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 09:37:30 AEST by Anna McConville |
| Updated | 2020-09-24 09:38:41 AEST by Anna McConville |
| Location | -32.9656213937355, 151.584640480578 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 09:37 |

## Box Details

| | |
|---|---|
| Nestbox Number | 11 |
| Tree Species | Bloodwood |
| Box Type | Bat - single chamber panel box |
| Height | 3.5 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | No |

## Media

Box Photo

## 12, Bloodwood

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 09:47:24 AEST by Anna McConville |
| Updated | 2020-09-24 09:48:51 AEST by Anna McConville |
| Location | -32.9656779341602, 151.58485237509 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 09:47 |

## Box Details

| | |
|---|---|
| Nestbox Number | 12 |
| Tree Species | Bloodwood |
| Box Type | Squirrel Glider |
| Height | 3.8 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaf nest |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Accurate |
| OccupationComments | Could see well |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | Yes |

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Box Photo

## no, 13, Stringybark/Mahogany

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 09:43:18 AEST by Anna McConville |
| Updated | 2020-09-24 09:45:38 AEST by Anna McConville |
| Location | -32.9656031029606, 151.584618855409 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 09:43 |

## Box Details

| | |
|---|---|
| Nestbox Number | 13 |
| Tree Species | Stringybark/Mahogany |
| Box Type | Bat - single chamber panel box |
| Height | 4 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | Yes |
| Pest Species | Termites |
| Repairs required? | Yes |
| What sort of repairs? | Replacement next year |
| Repairs complete? | No |
| Occupation Evidence? | No |

## Media

Box Photo

## 14, Stringybark/Mahogany

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 09:57:14 AEST by Anna McConville |
| Updated | 2020-09-24 09:58:35 AEST by Anna McConville |
| Location | -32.9654157663136, 151.585073657334 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 09:57 |

## Box Details

| | |
|---|---|
| Nestbox Number | 14 |
| Tree Species | Stringybark/Mahogany |
| Box Type | Squirrel Glider |
| Height | 3.6 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaves (loose) |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Accurate |
| OccupationComments | Spider web on outside and interior, leaves were old |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | No |

Box Photo

## 15, Bloodwood

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 10:14:59 AEST by Anna McConville |
| Updated | 2020-09-24 10:16:00 AEST by Anna McConville |
| Location | -32.9651831696117, 151.584889926158 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 10:15 |

## Box Details

| | |
|---|---|
| Nestbox Number | 15 |
| Tree Species | Bloodwood |
| Box Type | Bat - single chamber panel box |
| Height | 4 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | No |
| OccupationComments | Huntsman pic |

## Media

Box Photo

## 16, Bloodwood

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 11:13:17 AEST by Anna McConville |
| Updated | 2020-09-26 15:06:06 AEST by Anna McConville |
| Location | -32.9649344669, 151.584893279 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 11:13 |

## Box Details

| | |
|---|---|
| Nestbox Number | 16 |
| Tree Species | Bloodwood |
| Box Type | Squirrel Glider |
| Height | 4 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | No |
| OccupationComments | Some small debris from installation |

## Media

Box Photo

## 17, Bloodwood

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 11:16:08 AEST by Anna McConville |
| Updated | 2020-09-24 11:17:39 AEST by Anna McConville |
| Location | -32.9648692057368, 151.584734357893 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 11:16 |

## Box Details

| | |
|---|---|
| Nestbox Number | 17 |
| Tree Species | Bloodwood |
| Box Type | Little Lorikeet |
| Height | 5 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaf nest |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Accurate |
| OccupationComments | Good view into nest |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | Yes |

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Box Photo

## 18, Bloodwood

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 10:11:28 AEST by Anna McConville |
| Updated | 2020-10-18 19:57:32 AEDT by Anna McConville |
| Location | -32.9651519099, 151.584872156 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 10:11 |

## Box Details

| | |
|---|---|
| Nestbox Number | 18 |
| Tree Species | Bloodwood |
| Box Type | Little Lorikeet |
| Height | 3.8 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaf nest |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Accurate |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | Yes |

Box Photo

## 19, Bloodwood

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 10:20:23 AEST by Anna McConville |
| Updated | 2020-10-18 19:57:47 AEDT by Anna McConville |
| Location | -32.965030952, 151.585383452 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 10:20 |

## Box Details

| | |
|---|---|
| Nestbox Number | 19 |
| Tree Species | Bloodwood |
| Box Type | Little Lorikeet |
| Height | 3.5 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaf nest |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Accurate |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | Yes |

Box Photo

## 20, Stringybark/Mahogany

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 10:24:06 AEST by Anna McConville |
| Updated | 2020-09-26 15:09:36 AEST by Anna McConville |
| Location | -32.9651441938, 151.58527893 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 10:24 |

## Box Details

| | |
|---|---|
| Nestbox Number | 20 |
| Tree Species | Stringybark/Mahogany |
| Box Type | Little Lorikeet |
| Height | 3.8 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | No |
| OccupationComments | Just wood shavings from installation |

## Media

Box Photo

## 21, Stringybark/Mahogany

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 10:30:05 AEST by Anna McConville |
| Updated | 2020-09-26 15:09:57 AEST by Anna McConville |
| Location | -32.9655853879, 151.585543044 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 10:30 |

## Box Details

| | |
|---|---|
| Nestbox Number | 21 |
| Tree Species | Stringybark/Mahogany |
| Box Type | Little Lorikeet |
| Height | 3.2 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaves (loose) |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Accurate |
| OccupationComments | Loose leaves and wood shavings from installation |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | Yes |

Box Photo

## 22, Stringybark/Mahogany

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 10:33:58 AEST by Anna McConville |
| Updated | 2020-09-26 15:10:13 AEST by Anna McConville |
| Location | -32.965509438, 151.585976221 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 10:34 |

## Box Details

| | |
|---|---|
| Nestbox Number | 22 |
| Tree Species | Stringybark/Mahogany |
| Box Type | Little Lorikeet |
| Height | 4 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaves (loose) |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Accurate |
| OccupationComments | Wasp or something in the corner |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | Yes |

Box Photo

## 23, Stringybark/Mahogany

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 10:41:00 AEST by Anna McConville |
| Updated | 2020-09-26 15:10:30 AEST by Anna McConville |
| Location | -32.9656635881, 151.586350724 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 10:41 |

## Box Details

| | |
|---|---|
| Nestbox Number | 23 |
| Tree Species | Stringybark/Mahogany |
| Box Type | Little Lorikeet |
| Height | 4 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaf nest |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Estimate |
| OccupationComments | Can’t see inside nest |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | Yes |

Box Photo

## 25, Stringybark/Mahogany

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 10:49:53 AEST by Anna McConville |
| Updated | 2020-09-26 15:10:49 AEST by Anna McConville |
| Location | -32.965755853, 151.586164981 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 10:49 |

## Box Details

| | |
|---|---|
| Nestbox Number | 25 |
| Tree Species | Stringybark/Mahogany |
| Box Type | Little Lorikeet |
| Height | 4.5 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaf nest |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Accurate |
| OccupationComments | Could see inside |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | Yes |

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Box Photo

## 26, Stringybark/Mahogany

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 10:52:15 AEST by Anna McConville |
| Updated | 2020-09-26 15:11:05 AEST by Anna McConville |
| Location | -32.9657558631, 151.586165065 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 10:52 |

## Box Details

| | |
|---|---|
| Nestbox Number | 26 |
| Tree Species | Stringybark/Mahogany |
| Box Type | Little Lorikeet |
| Height | 3.8 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | No |
| OccupationComments | Wood shavings from installation |

## Media

Box Photo

## 27, Stringybark/Mahogany

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 11:02:17 AEST by Anna McConville |
| Updated | 2020-09-26 15:11:27 AEST by Anna McConville |
| Location | -32.9657558631, 151.586165065 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 11:02 |

## Box Details

| | |
|---|---|
| Nestbox Number | 27 |
| Tree Species | Stringybark/Mahogany |
| Box Type | Little Lorikeet |
| Height | 4 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | No |
| OccupationComments | Just wood shavings from installation |

## Media

Box Photo

## 28, Bloodwood

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 10:26:32 AEST by Anna McConville |
| Updated | 2020-09-26 15:11:48 AEST by Anna McConville |
| Location | -32.9656008591, 151.585160829 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 10:26 |

## Box Details

| | |
|---|---|
| Nestbox Number | 28 |
| Tree Species | Bloodwood |
| Box Type | Little Lorikeet |
| Height | 3.8 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | No |
| OccupationComments | Just wood shavings from installation |

## Media

Box Photo

## 29, Bloodwood

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 10:01:17 AEST by Anna McConville |
| Updated | 2020-09-26 15:12:08 AEST by Anna McConville |
| Location | -32.9653932626, 151.585151106 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 10:01 |

## Box Details

| | |
|---|---|
| Nestbox Number | 29 |
| Tree Species | Bloodwood |
| Box Type | Little Lorikeet |
| Height | 4.2 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaves (loose) |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Accurate |
| OccupationComments | Dark blob in bottom left corner but didn't move when knocked |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | Yes |

Box Photo

## 30, Bloodwood

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 10:08:06 AEST by Anna McConville |
| Updated | 2020-09-26 15:12:32 AEST by Anna McConville |
| Location | -32.9652433315, 151.585022025 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 10:08 |

## Box Details

| | |
|---|---|
| Nestbox Number | 30 |
| Tree Species | Bloodwood |
| Box Type | Little Lorikeet |
| Height | 3.8 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | No |
| OccupationComments | Only wood shavings from installation |

## Media

Box Photo

## 31, Smooth-barked Apple

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 11:58:41 AEST by Anna McConville |
| Updated | 2020-09-26 15:12:56 AEST by Anna McConville |
| Location | -32.9639004097, 151.584444009 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 11:58 |

## Box Details

| | |
|---|---|
| Nestbox Number | 31 |
| Tree Species | Smooth-barked Apple |
| Box Type | Squirrel Glider |
| Height | 4.8 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaf nest |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Estimate |
| OccupationComments | Can’t see in very far |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | No |

Box Photo

## 32, Smooth-barked Apple

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 12:07:00 AEST by Anna McConville |
| Updated | 2020-09-26 15:13:14 AEST by Anna McConville |
| Location | -32.9640385285, 151.584211662 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 12:07 |

## Box Details

| | |
|---|---|
| Nestbox Number | 32 |
| Tree Species | Smooth-barked Apple |
| Box Type | Squirrel Glider |
| Height | 4.2 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaves (loose) |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Accurate |
| OccupationComments | G |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | No |

Box Photo

## 33, Smooth-barked Apple

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 12:03:12 AEST by Anna McConville |
| Updated | 2020-09-26 15:13:32 AEST by Anna McConville |
| Location | -32.9641060406, 151.58422105 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 12:03 |

## Box Details

| | |
|---|---|
| Nestbox Number | 33 |
| Tree Species | Smooth-barked Apple |
| Box Type | Squirrel Glider |
| Height | 3.4 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaves (loose) |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Accurate |
| OccupationComments | Very old leaf nest or attempt |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | No |

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Box Photo

## 34, Smooth-barked Apple

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 12:11:12 AEST by Anna McConville |
| Updated | 2020-09-26 15:13:56 AEST by Anna McConville |
| Location | -32.9641988697, 151.583955847 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 12:11 |

## Box Details

| | |
|---|---|
| Nestbox Number | 34 |
| Tree Species | Smooth-barked Apple |
| Box Type | Squirrel Glider |
| Height | 4 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaf nest, Chews on entrance |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Accurate |
| OccupationComments | Prob not very recwnt |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | Yes |

Box Photo

## 35, Grey Gum

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 15:22:09 AEST by Anna McConville |
| Updated | 2020-10-01 19:27:05 AEST by Anna McConville |
| Location | -32.9635665045, 151.595479287 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 15:22 |

## Box Details

| | |
|---|---|
| Nestbox Number | 35 |
| Tree Species | Grey Gum |
| Box Type | Squirrel Glider |
| Height | 3.4 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Observed, Leaf nest |
| Fauna Species Observed | Sugar/Squirrel Glider |
| Number of fauna Species | 2 |
| Count Accuracy | Estimate |
| OccupationComments | Couldn’t get a good enough look to confidently ID sugar/squirrel glider |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | Yes |

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Box Photo

## 36, Stringybark/Mahogany

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 15:25:17 AEST by Anna McConville |
| Updated | 2020-09-24 15:26:31 AEST by Anna McConville |
| Location | -32.9639456991478, 151.595219448209 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 15:25 |

## Box Details

| | |
|---|---|
| Nestbox Number | 36 |
| Tree Species | Stringybark/Mahogany |
| Box Type | Bat - single chamber panel box |
| Height | 3 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | No |

## Media

Box Photo

## 37, Grey Gum

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 15:30:14 AEST by Anna McConville |
| Updated | 2020-10-01 19:26:19 AEST by Anna McConville |
| Location | -32.9637423182, 151.595067233 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 15:30 |

## Box Details

| | |
|---|---|
| Nestbox Number | 37 |
| Tree Species | Grey Gum |
| Box Type | Squirrel Glider |
| Height | 4 |

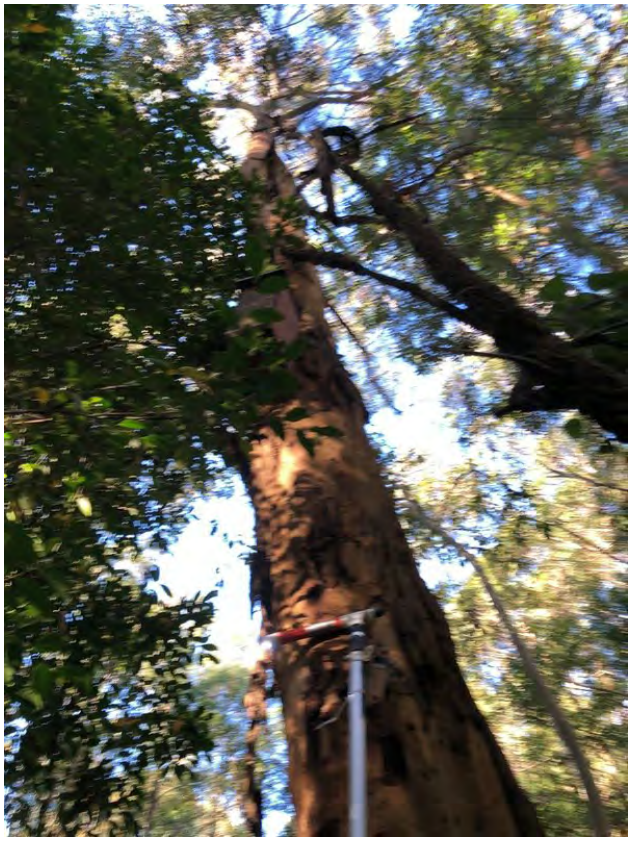
## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Observed, Leaf nest |
| Fauna Species Observed | Sugar Glider |
| Number of fauna Species | 4 |
| Count Accuracy | Minimum (at least ...) |
| OccupationComments | Includes 1 juvenile |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | Yes |

Box Photo



## 38, Tallowwood

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 15:35:00 AEST by Anna McConville |
| Updated | 2020-09-24 15:36:02 AEST by Anna McConville |
| Location | -32.9638092680231, 151.594727933407 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 15:35 |

## Box Details

| | |
|---|---|
| Nestbox Number | 38 |
| Tree Species | Tallowwood |
| Box Type | Bat - single chamber panel box |
| Height | 3.5 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaf nest |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Estimate |
| OccupationComments | Leaves jammed in the bottom can't see in |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | No |

Box Photo

## 39, Tallowwood

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 15:38:49 AEST by Anna McConville |
| Updated | 2020-09-26 15:15:13 AEST by Anna McConville |
| Location | -32.9639260081, 151.594476476 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 15:38 |

## Box Details

| | |
|---|---|
| Nestbox Number | 39 |
| Tree Species | Tallowwood |
| Box Type | Squirrel Glider |
| Height | 4.2 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaves (loose) |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Accurate |
| OccupationComments | S |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | No |

Box Photo

## 40, Tallowwood

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 15:41:41 AEST by Anna McConville |
| Updated | 2020-09-24 15:42:22 AEST by Anna McConville |
| Location | -32.9638323347435, 151.594359464943 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 15:41 |

## Box Details

| | |
|---|---|
| Nestbox Number | 40 |
| Tree Species | Tallowwood |
| Box Type | Bat - single chamber panel box |
| Height | 3.6 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | Yes |
| Pest Species | Mud Wasps |
| Repairs required? | No |
| Occupation Evidence? | No |

## Media

Box Photo

## 41, Tallowwood

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 15:46:19 AEST by Anna McConville |
| Updated | 2020-10-01 19:27:30 AEST by Anna McConville |
| Location | -32.9637876078, 151.594133824 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 15:46 |

## Box Details

| | |
|---|---|
| Nestbox Number | 41 |
| Tree Species | Tallowwood |
| Box Type | Squirrel Glider |
| Height | 4.1 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Observed, Leaf nest |
| Fauna Species Observed | Sugar/Squirrel Glider |
| Number of fauna Species | 1 |
| Count Accuracy | Minimum (at least ...) |
| OccupationComments | Couldn't get a look at what was in there could've been a single sugar/squirrel glider or a feather tail |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | Yes |

Box Photo

## 42, Stringybark/Mahogany

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 15:53:07 AEST by Anna McConville |
| Updated | 2020-09-24 15:53:46 AEST by Anna McConville |
| Location | -32.9642278436714, 151.59495189786 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 15:53 |

## Box Details

| | |
|---|---|
| Nestbox Number | 42 |
| Tree Species | Stringybark/Mahogany |
| Box Type | Bat - single chamber panel box |
| Height | 4 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | No |

## Media

Box Photo

## 43, Tallowwood

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 15:55:08 AEST by Anna McConville |
| Updated | 2020-09-26 15:16:05 AEST by Anna McConville |
| Location | -32.9641462666, 151.595231853 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 15:55 |

## Box Details

| | |
|---|---|
| Nestbox Number | 43 |
| Tree Species | Tallowwood |
| Box Type | Squirrel Glider |
| Height | 4 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaf nest |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Accurate |
| OccupationComments | G |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | No |

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Box Photo

## 44, Spotted Gum

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 15:58:17 AEST by Anna McConville |
| Updated | 2020-10-01 20:02:42 AEST by Anna McConville |
| Location | -32.9643133589, 151.595154405 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 15:58 |

## Box Details

| | |
|---|---|
| Nestbox Number | 44 |
| Tree Species | Spotted Gum |
| Box Type | Squirrel Glider |
| Height | 3.8 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Scats, Leaf nest |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Accurate |
| OccupationComments | I think the dark things are scats but can't be sure |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | Yes |

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Box Photo

## 45, Tallowwood

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 16:00:17 AEST by Anna McConville |
| Updated | 2020-09-26 15:16:49 AEST by Anna McConville |
| Location | -32.9643684936, 151.595095731 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 16:00 |

## Box Details

| | |
|---|---|
| Nestbox Number | 45 |
| Tree Species | Tallowwood |
| Box Type | Squirrel Glider |
| Height | 3.6 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaf nest |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Accurate |
| OccupationComments | H |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | No |

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Box Photo

## 46, Spotted Gum

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 16:02:19 AEST by Anna McConville |
| Updated | 2020-09-24 16:03:29 AEST by Anna McConville |
| Location | -32.9644447258382, 151.595283150673 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 16:02 |

## Box Details

| | |
|---|---|
| Nestbox Number | 46 |
| Tree Species | Spotted Gum |
| Box Type | Bat - single chamber panel box |
| Height | 3.1 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | Yes |
| Pest Species | Spider? |
| Repairs required? | No |
| Occupation Evidence? | No |
| OccupationComments | Spider silk has tied the opening shut can't see inside |

## Media

Box Photo

## 47, Ironbark

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 16:05:31 AEST by Anna McConville |
| Updated | 2020-09-26 15:17:11 AEST by Anna McConville |
| Location | -32.9646212887, 151.595205031 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 16:05 |

## Box Details

| | |
|---|---|
| Nestbox Number | 47 |
| Tree Species | Ironbark |
| Box Type | Squirrel Glider |
| Height | 4 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaf nest |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Accurate |
| OccupationComments | G |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | Yes |

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Box Photo

## 48, Tallowwood

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 13:54:33 AEST by Anna McConville |
| Updated | 2020-09-24 13:55:26 AEST by Anna McConville |
| Location | -32.9554064339334, 151.588677289106 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 13:54 |

## Box Details

| | |
|---|---|
| Nestbox Number | 48 |
| Tree Species | Tallowwood |
| Box Type | Bat - single chamber panel box |
| Height | 3.2 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | No |
| OccupationComments | Vine tendril inside photo |

## Media

Box Photo

## 49, Tallowwood

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 13:52:40 AEST by Anna McConville |
| Updated | 2020-09-24 13:53:20 AEST by Anna McConville |
| Location | -32.9563830094719, 151.58731095507 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 13:52 |

## Box Details

| | |
|---|---|
| Nestbox Number | 49 |
| Tree Species | Tallowwood |
| Box Type | Bat - single chamber panel box |
| Height | 3.6 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | No |

## Media

Box Photo

## 50, Tallowwood

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 13:49:27 AEST by Anna McConville |
| Updated | 2020-09-24 13:50:55 AEST by Anna McConville |
| Location | -32.955974392446, 151.587506085634 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 13:49 |

## Box Details

| | |
|---|---|
| Nestbox Number | 50 |
| Tree Species | Tallowwood |
| Box Type | Bat - single chamber panel box |
| Height | 3.8 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | No |

## Media

Box Photo

## yes, 52, Tallowwood

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 14:21:27 AEST by Anna McConville |
| Updated | 2020-09-25 10:51:12 AEST by Anna McConville |
| Location | -32.9550693137878, 151.587070645906 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 14:21 |

## Box Details

| | |
|---|---|
| Nestbox Number | 52 |
| Tree Species | Tallowwood |
| Box Type | Bat - single chamber panel box |
| Height | 4 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | N/A |
| Repairs required? | Yes |
| What sort of repairs? | New wire and rehang |
| Repairs complete? | Yes |
| Occupation Evidence? | N/A |

## Media

Box Photo

## 53, Ironbark

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 14:01:39 AEST by Anna McConville |
| Updated | 2020-09-24 14:02:22 AEST by Anna McConville |
| Location | -32.9555141411778, 151.587490998209 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 14:01 |

## Box Details

| | |
|---|---|
| Nestbox Number | 53 |
| Tree Species | Ironbark |
| Box Type | Bat - single chamber panel box |
| Height | 3.8 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | No |

## Media

Box Photo

## 54, Tallowwood

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 14:06:55 AEST by Anna McConville |
| Updated | 2020-09-24 14:07:25 AEST by Anna McConville |
| Location | -32.9555141413891, 151.587490914531 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 14:06 |

## Box Details

| | |
|---|---|
| Nestbox Number | 54 |
| Tree Species | Tallowwood |
| Box Type | Bat - single chamber panel box |
| Height | 4 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | No |

## Media

Box Photo

## 55, Tallowwood

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 14:09:29 AEST by Anna McConville |
| Updated | 2020-09-24 14:10:02 AEST by Anna McConville |
| Location | -32.9552013039842, 151.587544307113 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 14:09 |

## Box Details

| | |
|---|---|
| Nestbox Number | 55 |
| Tree Species | Tallowwood |
| Box Type | Bat - single chamber panel box |
| Height | 3.3 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | No |

## Media

Box Photo

## 56, Tallowwood

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 14:11:59 AEST by Anna McConville |
| Updated | 2020-10-01 20:03:14 AEST by Anna McConville |
| Location | -32.9550693606, 151.587070562 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 14:12 |

## Box Details

| | |
|---|---|
| Nestbox Number | 56 |
| Tree Species | Tallowwood |
| Box Type | Bat - single chamber panel box |
| Height | 3.4 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaf nest |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Estimate |
| OccupationComments | Leaves jammed into entrance so I can't see all of inside. Feathertail glider or Antechinus |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | No |

Box Photo

## 57, Ironbark

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 14:15:51 AEST by Anna McConville |
| Updated | 2020-09-24 14:16:29 AEST by Anna McConville |
| Location | -32.9550693137878, 151.587070645906 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 14:15 |

## Box Details

| | |
|---|---|
| Nestbox Number | 57 |
| Tree Species | Ironbark |
| Box Type | Bat - single chamber panel box |
| Height | 3.8 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | Yes |
| Pest Species | Mud Wasps |
| Repairs required? | No |
| Occupation Evidence? | No |

## Media

Box Photo

## 58, Ironbark

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 13:27:08 AEST by Anna McConville |
| Updated | 2020-09-26 15:17:39 AEST by Anna McConville |
| Location | -32.9535950208, 151.594817871 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 13:27 |

## Box Details

| | |
|---|---|
| Nestbox Number | 58 |
| Tree Species | Ironbark |
| Box Type | Squirrel Glider |
| Height | 3.2 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaf nest, Chews on entrance |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Accurate |
| OccupationComments | H |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | No |

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Box Photo

## 59, Ironbark

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 13:30:05 AEST by Anna McConville |
| Updated | 2020-09-26 15:17:55 AEST by Anna McConville |
| Location | -32.9539389722, 151.595006883 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 13:30 |

## Box Details

| | |
|---|---|
| Nestbox Number | 59 |
| Tree Species | Ironbark |
| Box Type | Squirrel Glider |
| Height | 2.8 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaf nest |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Estimate |
| OccupationComments | Can’t see in leaf nest |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | Yes |

Box Photo

## 60, Tallowwood

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 13:24:10 AEST by Anna McConville |
| Updated | 2020-09-26 15:18:11 AEST by Anna McConville |
| Location | -32.9535950208, 151.594817871 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 13:24 |

## Box Details

| | |
|---|---|
| Nestbox Number | 60 |
| Tree Species | Tallowwood |
| Box Type | Squirrel Glider |
| Height | 3.2 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaf nest, Chews on entrance |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Accurate |
| OccupationComments | G |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | Yes |

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Box Photo

## 61, Tallowwood

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 13:21:49 AEST by Anna McConville |
| Updated | 2020-09-26 15:18:28 AEST by Anna McConville |
| Location | -32.9535949013, 151.594817787 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 13:21 |

## Box Details

| | |
|---|---|
| Nestbox Number | 61 |
| Tree Species | Tallowwood |
| Box Type | Squirrel Glider |
| Height | 2.4 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaf nest |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Accurate |
| OccupationComments | H |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | Yes |

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Box Photo

## 62, Ironbark

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 13:13:07 AEST by Anna McConville |
| Updated | 2020-09-26 15:18:43 AEST by Anna McConville |
| Location | -32.9532075674, 151.595135462 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 13:13 |

## Box Details

| | |
|---|---|
| Nestbox Number | 62 |
| Tree Species | Ironbark |
| Box Type | Squirrel Glider |
| Height | 3 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | No |
| OccupationComments | Shredded bark prob from installation photo |

## Media

Box Photo

## 63, Ironbark

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 13:10:18 AEST by Anna McConville |
| Updated | 2020-09-26 15:19:00 AEST by Anna McConville |
| Location | -32.9532378877, 151.595008224 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 13:10 |

## Box Details

| | |
|---|---|
| Nestbox Number | 63 |
| Tree Species | Ironbark |
| Box Type | Squirrel Glider |
| Height | 4.2 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaf nest |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Accurate |
| OccupationComments | G |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | Yes |

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Box Photo

## 64, Tallowwood

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 13:01:20 AEST by Anna McConville |
| Updated | 2020-09-26 15:19:20 AEST by Anna McConville |
| Location | -32.9528884688, 151.594736315 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 13:01 |

## Box Details

| | |
|---|---|
| Nestbox Number | 64 |
| Tree Species | Tallowwood |
| Box Type | Squirrel Glider |
| Height | 4 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaf nest |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Accurate |
| OccupationComments | V |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | Yes |

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Box Photo

## 65, Ironbark

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 12:56:17 AEST by Anna McConville |
| Updated | 2020-09-26 15:19:36 AEST by Anna McConville |
| Location | -32.9528434549, 151.594234072 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 12:56 |

## Box Details

| | |
|---|---|
| Nestbox Number | 65 |
| Tree Species | Ironbark |
| Box Type | Squirrel Glider |
| Height | 4 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | No |
| OccupationComments | Shredded bark probably from installation. Photo |

## Media

Box Photo

## 66, Stringybark/Mahogany

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 12:51:03 AEST by Anna McConville |
| Updated | 2020-10-01 19:29:34 AEST by Anna McConville |
| Location | -32.9526425805, 151.594325602 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 12:51 |

## Box Details

| | |
|---|---|
| Nestbox Number | 66 |
| Tree Species | Stringybark/Mahogany |
| Box Type | Squirrel Glider |
| Height | 5 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Observed, Leaf nest |
| Fauna Species Observed | Sugar/Squirrel Glider |
| Number of fauna Species | 1 |
| Count Accuracy | Minimum (at least ...) |
| OccupationComments | Identification not confident, couldn't get a look at the face. Sugar / Squirrel |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | Yes |

Box Photo

## yes, 67, Spotted Gum

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 12:41:38 AEST by Anna McConville |
| Updated | 2020-09-26 15:21:33 AEST by Anna McConville |
| Location | -32.9526785917, 151.593959481 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 12:41 |

## Box Details

| | |
|---|---|
| Nestbox Number | 67 |
| Tree Species | Spotted Gum |
| Box Type | Squirrel Glider |
| Height | 3.2 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | Yes |
| What sort of repairs? | New Tree tag required |
| Repairs complete? | Yes |
| Occupation Evidence? | No |
| OccupationComments | A few leaves and shredded bark prob from installation |

## Media

Box Photo

## 68, Spotted Gum

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 12:37:55 AEST by Anna McConville |
| Updated | 2020-09-26 15:22:20 AEST by Anna McConville |
| Location | -32.9524346722, 151.593866274 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 12:37 |

## Box Details

| | |
|---|---|
| Nestbox Number | 68 |
| Tree Species | Spotted Gum |
| Box Type | Squirrel Glider |
| Height | 4 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | No |
| OccupationComments | Shredded bark in bottom probably from installation |

## Media

Box Photo

## 69, Stringybark/Mahogany

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 12:35:38 AEST by Anna McConville |
| Updated | 2020-09-26 15:22:38 AEST by Anna McConville |
| Location | -32.9525294829, 151.593682207 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 12:35 |

## Box Details

| | |
|---|---|
| Nestbox Number | 69 |
| Tree Species | Stringybark/Mahogany |
| Box Type | Squirrel Glider |
| Height | 4 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | No |
| Repairs required? | No |
| Occupation Evidence? | Yes |
| OccupationEvidenceType | Leaves (loose) |
| Fauna Species Observed | None |
| Number of fauna Species | 0 |
| Count Accuracy | Accurate |
| OccupationComments | None |

## Media

| | |
|---|---|
| Fauna Video or Photo Recorded | No |

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Box Photo

## 70, Stringybark/Mahogany

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-24 09:30:48 AEST by Anna McConville |
| Updated | 2020-09-24 09:31:43 AEST by Anna McConville |
| Location | -32.9654841213099, 151.584453396499 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-24 |
| Time | 09:30 |

## Box Details

| | |
|---|---|
| Nestbox Number | 70 |
| Tree Species | Stringybark/Mahogany |
| Box Type | Bat - single chamber panel box |
| Height | 3.8 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | Yes |
| Pest Species | Termites |
| Repairs required? | No |
| Occupation Evidence? | No |

## Media

Box Photo

## 71, Stringybark/Mahogany

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-25 08:49:00 AEST by Anna McConville |
| Updated | 2020-10-01 17:39:49 AEST by Anna McConville |
| Location | -32.960739934, 151.582493708 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-25 |
| Time | 08:49 |

## Box Details

| | |
|---|---|
| Nestbox Number | 71 |
| Tree Species | Stringybark/Mahogany |
| Box Type | Little Lorikeet |
| Box Manufacturer | Hollow Log Homes |
| Material | CYPLAS & Hardwood |
| Aspect | 332 |
| Height | 4 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | N/A |
| Repairs required? | N/A |
| Occupation Evidence? | N/A |

## Media

Box Photo

## 72, Stringybark/Mahogany

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-25 08:54:13 AEST by Anna McConville |
| Updated | 2020-10-01 17:40:08 AEST by Anna McConville |
| Location | -32.9608985934, 151.582695208 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-25 |
| Time | 08:54 |

## Box Details

| | |
|---|---|
| Nestbox Number | 72 |
| Tree Species | Stringybark/Mahogany |
| Box Type | Bat - HLH 2 chamber |
| Box Manufacturer | Hollow Log Homes |
| Material | CYPLAS |
| Aspect | 248 |
| Height | 3 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | N/A |
| Repairs required? | N/A |
| Occupation Evidence? | N/A |

## Media

Box Photo

## 73, Stringybark/Mahogany

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-25 08:59:14 AEST by Anna McConville |
| Updated | 2020-10-01 17:40:22 AEST by Anna McConville |
| Location | -32.9608744007, 151.58272136 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-25 |
| Time | 08:59 |

## Box Details

| | |
|---|---|
| Nestbox Number | 73 |
| Tree Species | Stringybark/Mahogany |
| Box Type | Squirrel Glider |
| Box Manufacturer | Hollow Log Homes |
| Material | CYPLAS & Hardwood |
| Aspect | 298 |
| Height | 4.3 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | N/A |
| Repairs required? | N/A |
| Occupation Evidence? | N/A |

## Media

Box Photo

## 74, Tallowwood

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-25 09:06:34 AEST by Anna McConville |
| Updated | 2020-10-01 17:40:38 AEST by Anna McConville |
| Location | -32.9610386861, 151.582805514 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-25 |
| Time | 09:06 |

## Box Details

| | |
|---|---|
| Nestbox Number | 74 |
| Tree Species | Tallowwood |
| Box Type | Squirrel Glider |
| Box Manufacturer | Hollow Log Homes |
| Material | CYPLAS & Hardwood |
| Aspect | 40 |
| Height | 3.4 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | N/A |
| Repairs required? | N/A |
| Occupation Evidence? | N/A |

## Media

Box Photo

## 75, Stringybark/Mahogany

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-25 09:13:57 AEST by Anna McConville |
| Updated | 2020-10-01 17:40:51 AEST by Anna McConville |
| Location | -32.9603550993, 151.581835225 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-25 |
| Time | 09:15 |

## Box Details

| | |
|---|---|
| Nestbox Number | 75 |
| Tree Species | Stringybark/Mahogany |
| Box Type | Little Lorikeet |
| Box Manufacturer | Hollow Log Homes |
| Material | CYPLAS & Hardwood |
| Aspect | 122 |
| Height | 4.3 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | N/A |
| Repairs required? | N/A |
| Occupation Evidence? | N/A |

## Media

Box Photo

## 76, Stringybark/Mahogany

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-25 09:26:22 AEST by Anna McConville |
| Updated | 2020-10-01 17:41:02 AEST by Anna McConville |
| Location | -32.9602897307, 151.581824999 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-25 |
| Time | 09:26 |

## Box Details

| | |
|---|---|
| Nestbox Number | 76 |
| Tree Species | Stringybark/Mahogany |
| Box Type | Bat - HLH 2 chamber |
| Box Manufacturer | Hollow Log Homes |
| Material | CYPLAS |
| Aspect | 188 |
| Height | 3.8 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | N/A |
| Repairs required? | N/A |
| Occupation Evidence? | N/A |

## Media

Box Photo

## 77, Stringybark/Mahogany

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-25 09:31:24 AEST by Anna McConville |
| Updated | 2020-10-01 17:41:16 AEST by Anna McConville |
| Location | -32.9601275172, 151.581759788 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-25 |
| Time | 09:31 |

## Box Details

| | |
|---|---|
| Nestbox Number | 77 |
| Tree Species | Stringybark/Mahogany |
| Box Type | Squirrel Glider |
| Box Manufacturer | Hollow Log Homes |
| Material | CYPLAS & Hardwood |
| Aspect | 54 |
| Height | 5 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | N/A |
| Repairs required? | N/A |
| Occupation Evidence? | N/A |

## Media

Box Photo

## 78, Tallowwood

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-25 09:37:57 AEST by Anna McConville |
| Updated | 2020-10-01 17:41:27 AEST by Anna McConville |
| Location | -32.9601618648, 151.581811421 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-25 |
| Time | 09:37 |

## Box Details

| | |
|---|---|
| Nestbox Number | 78 |
| Tree Species | Tallowwood |
| Box Type | Squirrel Glider |
| Box Manufacturer | Hollow Log Homes |
| Material | CYPLAS & Hardwood |
| Aspect | 220 |
| Height | 4 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | N/A |
| Repairs required? | N/A |
| Occupation Evidence? | N/A |

## Media

Box Photo

## 79, Tallowwood

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-25 10:25:15 AEST by Anna McConville |
| Updated | 2020-10-01 17:41:39 AEST by Anna McConville |
| Location | -32.9562287112, 151.588298343 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-25 |
| Time | 10:25 |

## Box Details

| | |
|---|---|
| Nestbox Number | 79 |
| Tree Species | Tallowwood |
| Box Type | Little Lorikeet |
| Box Manufacturer | Hollow Log Homes |
| Material | CYPLAS & Hardwood |
| Aspect | 230 |
| Height | 4.3 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | N/A |
| Repairs required? | N/A |
| Occupation Evidence? | N/A |

## Media

Box Photo

## 80, Tallowwood

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-25 10:33:14 AEST by Anna McConville |
| Updated | 2020-10-01 17:41:53 AEST by Anna McConville |
| Location | -32.9562723167, 151.588538401 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-25 |
| Time | 10:33 |

## Box Details

| | |
|---|---|
| Nestbox Number | 80 |
| Tree Species | Tallowwood |
| Box Type | Squirrel Glider |
| Box Manufacturer | Hollow Log Homes |
| Material | CYPLAS & Hardwood |
| Aspect | 138 |
| Height | 3.4 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | N/A |
| Repairs required? | N/A |
| Occupation Evidence? | N/A |

## Media

Box Photo

## 81, Flooded Gum

| | |
|---|---|
| Project | Teralba Quarry |
| Created | 2020-09-25 12:08:59 AEST by Anna McConville |
| Updated | 2020-10-01 17:42:05 AEST by Anna McConville |
| Location | -32.963483239, 151.594041623 |
| Survey Year | 2020 |

## Job Details

| | |
|---|---|
| Nestbox monitoring | |
| Job Number | 72 |
| Job Name | Teralba quarry nest boxes |
| Observer Name | Anna |
| Date | 2020-09-25 |
| Time | 12:09 |

## Box Details

| | |
|---|---|
| Nestbox Number | 81 |
| Tree Species | Flooded Gum |
| Box Type | Owl |
| Box Manufacturer | Hollow Log Homes |
| Material | CYPLAS & Hardwood |
| Aspect | 286 |
| Height | 4 |

## Checking Results

| | |
|---|---|
| Check Method | Nestbox camera |
| Pests? | N/A |
| Repairs required? | N/A |
| Occupation Evidence? | N/A |

## Media

Box Photo

# Appendix 4

# 2020 Community Consultative Committee Meeting Minutes

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# MINUTES OF MEETING
# TERALBA QUARRY
# COMMUNITY CONSULTATIVE COMMITTEE (CCC)
# VIA TELECONFERENCE*

**DATE:** Wednesday 6 May 2020

**MEETING COMMENCED**: 4.09pm

**Due to the COVID-19 pandemic, this meeting was conducted via teleconference (GoToMeeting). The presentation was emailed to all cc members on Friday 1 May 2020, prior to the scheduled meeting date, together with the teleconference log-in details.*

*The subject presentation forms as an attachment to these minutes.*

---

**PRESENT:**

| Member Name | Organisation |
|---|---|
| Margaret MacDonald-Hill (MMH) | Independent Chairperson |
| Colin Wright (CW) | Community Representative via telephone link |
| Richard Metcalf (RM) | Teralba Public School via video link |
| Cr Wendy Harrison (WH) | Lake Macquarie City Council via video link |
| Mo Yunusa (MY) | Metromix via video link |
| Tony Zoitsas (TZ) - *Guest* | Saros International Pty Ltd via video link |

**IN ATTENDANCE:**

| Name | Organisation |
|---|---|
| Lisa Andrews | Independent Minute Taker via video link |

**APOLOGIES:**

| | |
|---|---|
| Janelle Kerr | Metromix |

| ITEM | ACTION |
|---|---|
| **1.0 Welcome and Introductions**<br>MMH, opened the meeting at 4.09pm, welcomed those present and thanked them for participating in the CCC via this forum. MY introduced TZ from Saros International, who is a blasting expert engaged by Metromix to assist with its onsite blasting activities. | MY introduced TZ and provided some background. |
| **2.0 Declaration of Interest**<br>MMH advised that she was appointed by the Secretary of the Department of Planning, Industry and Environment as the Independent Chairperson for Teralba Quarry. | **No changes to members' previously made declarations** |

<table>
<tr><th>ITEM</th><th>ACTION</th></tr>
<tr><td>3.0 Confirmation of Previous Minutes<br>MMH asked that the previous minutes of Wednesday 8 May 2019 be confirmed.</td><td>Moved: WH<br>Seconded: RM</td></tr>
<tr><td>4.0 Business Arising from Previous Minutes<br>Nil.</td><td></td></tr>
<tr><td>5.0 Correspondence<br>As per meeting notice sent 22/4/20 with one additional item:<br>28/4/20 – CCC Annual Report 2020 to DPIE.</td><td>MMH offered to send copy of AR to members if requested.</td></tr>
<tr><td>6.0 Reports/Updates<br>6.1 Sales - 2019 – 479,439 tonnes<br>6.2 17 Blasts<br>6.3 Continued financial support of Teralba Primary School, the Teralba Bowling Club and the Variety Bash. Metromix sponsored one annual event at the Teralba Bowling Club and donated over $12,000 to the Teralba Public School. Metromix also supported the Variety Club Bash.<br>6.4 Community Complaints: Nil for 2019. One community complaint for 2020. On the 23/01/2020 the EPA received a complaint from a member of the public advising of excessive dust generation observed whilst driving along Rhondda Road. The EPA notified Metromix of this complaint via email on 04/02/2020.<br><br>Metromix responded to the EPA on 11/02/2020 and advised the following:<br>An internal investigation into the matter had concluded and had determined that on the day of the complaint Metromix executed the available dust suppression controls available at that time. There were no unusual circumstances that occurred on the day of the complaint that would have caused excessive dust generation. Supporting documents were also forwarded to the EPA which showed the use of the watercart and the weather conditions on the 23/1/20. Metromix quarry management had communicated this complaint and investigation to its work group and would continue to monitor dust generation and execute dust suppression control measures during production activities. To date Metromix has not received a response from the EPA.<br><br>6.5 Non Compliances 2019:<br><br>
<table>
<tr><td>November</td><td>$PM_{10}$ 24Hr exceedance. On the 22nd and 28th of November. The high volume air sampler recorded a reading of 92µg/$m^3$ and 70µg/$m^3$ respectively, which is greater than the 24hr max criteria of 50µg/$m^3$</td><td>During the month of November the Teralba area was exposed to a considerable amount of bush fire smoke over a period of several weeks. It was concluded that the bush fire smoke in the atmosphere caused the $PM_{10}$ 24hr exceedance and not a result of activities from Metromix Teralba Quarry.</td></tr>
<tr><td>December</td><td>Deposited dust monitoring showed an exceedance of the EPA Approved Level for Total Insoluble Solids at the Rodgers St sampling point on the 2nd December.</td><td>When the dust bottles were collected the sample taker observed that the home owner had completed some</td></tr>
</table></td><td></td></tr>
</table>

| ITEM | | | ACTION |
|---|---|---|---|
| | The limit is 4g/m$^2$/month and a level of 7.8g/m$^2$/month was recorded. | earthworks around the sample point using a mini excavator. The home owner had removed the ground cover surrounding the sample point, also there was significant smoky conditions present due to surrounding bush fires on the 2nd of December. | |

An independent audit was conducted in February 2020 by an auditor approved by the department. The audit identified some non-compliances that were all administrative in nature. These non-compliances are described below:

- Noise reports had not been submitted to the EPA within 30 days of completion of noise monitoring. *Noise monitoring reports that were not provided to the EPA have now been provided and have been reported in the Annual Review.*

- The rehabilitation bond had not been submitted to DPI&E within 6 months of the approval of the Biodiversity and Rehabilitation Management Plan. *An estimate of the quantum of the Rehabilitation Bond for the Quarry was submitted to DPIE for approval on 17 February 2020. It was acknowledged that there was a period where the Rehabilitation Bond was not current. Metromix currently has a bank guarantee held by DPIE for rehabilitation of the Teralba Quarry. That bond is for a value of approximately $1.6 million. Therefore, during the period when the bond was not current there was a bond that may have been called upon by DPIE.*
- All management plans had not been submitted to the Secretary within 3 months of modification of the conditions of approval. The Air Quality Management Plan, Blast Management Plan, Traffic Management Plan, Water Management Plan and Environmental Management Strategy had not been submitted within the required timeframe. *All management plans for the Teralba Quarry have been submitted and approved by DPIE. It is noted that lengthy delays were experienced in receiving feedback from Lake Macquarie City Council due to staff change over during the update of management plans for the Quarry.*

WH enquired with MY what the delay had been with receiving documentation back from LMCC with MY confirming that it was the rehabilitation bond and management plans that had been submitted for review with the roads section.

- Records of complaints did not always include the information as required by EPL 0536 M5.2. Records of noise complaint in April 2018 did not include date and time or details of the complainant (EPL Condition M5.2). *A more detailed summary of the complaint received, and actions taken will be placed on the Metromix website to ensure compliance with Condition M5.2 of EPL 536.*
- The EPA had not been informed in writing of the appointment of the new Quarry Manager as the site contact person (EPL Condition G2.2). *Metromix liaise with officers from the EPA on a regular basis. The Quarry Manager has*

| ITEM | ACTION |
|---|---|
| *also recently been providing information to the EPA regarding a proposed variation to EPL 536. It is therefore considered that the EPA is aware of the change to the responsible person for the Quarry that occurred during the reporting period. It is acknowledged that this change was not notified in writing. Correspondence formally notifying the EPA of the responsible person for EPL 536 was provided to the EPA on 5 February 2020.*<br>• Dust deposition monitoring result was not available for site EPL04 in January 2019. Access to the property where dust gauge EPL04 was sited was denied by the resident. As a result, no monitoring data was available for EPL04 for January 2019. *The dust gauge has been relocated to an alternative location. No further action required. (York St Primary School - now able to access.)*<br>• The DPIE advised Metromix on the 24/04/2020 that it's satisfied with the response to the independent audit. A copy of the audit report is available for viewing on the Metromix website.<br>• Exceedance of the 120dBl overpressure criteria occurred on 13/02/20 during blasting activities in the southern extraction area. An overpressure reading of 122.3dBl was recorded at the back gate monitoring point. *Metromix conducted an investigation into the exceedance and determined that the cause was due to blast design parameters and environmental conditions. Key factors that contributed to the exceedance were:*<br>*• Steep sloping ground with insufficient burden.*<br>*• Conglomerate rock types have a higher degree of surface expression and no drillers logs were available for review*<br>*• Overcast low cloud conditions.*<br>*• Holes lost along the control row due to a prior rain event allowed timing of the shot to be reinforced at the monitor.*<br>*• A monitor was in the incorrect location (approx. 160m closer to the blast).*<br>*• If monitor was in the correct location then mathematical modelling suggested that the over pressure would have been under the maximum criteria of 120dBl.*<br><br>*Additional considerations have been implemented into the blast contractors blast design procedures to mitigate against an exceedance re-occurring*.<br><br>• Exceedance of the 115dBl overpressure criteria occurred on 16/03/20 during blasting activities in the southern extraction area. An overpressure reading of 116.3dBl was recorded at the back gate monitoring point. *Metromix conducted an investigation into the exceedance and determined that the cause was due to blast design parameters. Key factors that contributed to the exceedance were:*<br>*• Excessive surface expression due to insufficient containment of explosive energy and incorrect or bridged stem decks.*<br><br>• *A high level meeting was held with the blasting contractor on 18/03/2020. The blasting contractor conducted a separate review into the systems and procedures. The outcome from this review was the implementation of the following changes:*<br>** All blasts to be classed as **Class 5** which requires involvement from a tech services representative.*<br>** Re-auditing of all Shotfirers and Surveyors by an independent auditor.*<br>** Creating a standardised Site Information Sheet (SIS) for the site.*<br>**Implementation of a formalised blast design review and departure process.* | |

| ITEM | ACTION |
|---|---|
| • Exceedance of the 115dBl overpressure criteria occurred on 25/03/20 during blasting activities in the southern extraction area. An overpressure reading of 115.7dBl was recorded at the back gate monitoring point. *Metromix conducted an investigation into the exceedance and determined that the cause was due to blast design parameters. Key factors that contributed to the exceedance were:*<br>*• Acceleration of the face at the point of initiation and insufficient burden for hole A55.*<br>• *The blasting contractor has implemented the following recommendations:*<br>*• Reducing the product density from 1.2g/cc to 1.15g/cc thereby reducing the powder factor.*<br>*• Increasing the minimum and target face burden by 0.3m.*<br>*• Reviewing environmental conditions and blast parameters on the day and consulting with quarry management if adverse conditions are forecast.*<br><br>WH commented that Metromix had conducted a thorough investigation and resolved the problem, so hopefully this would not happen again. MY advised that he had contacted the nearest neighbour following the incident. The neighbour informed him that they had hear the blast, but no damage had occurred. MY confirmed that damage would usually only occur at 140-150dBl.<br><br>TZ put these details in context, explaining different frequency levels in terms of what could be heard by the human ear. He also explained on the ground vibrations as well as overpressure.<br><br>TZ confirmed that the blasts must be designed to comply with regulatory requirements, accordingly his company (independent contractors) will be undertaking extra reviews and support around the process.<br><br>**6.6** On Going Monitoring:<br>(i) Water<br>(ii) Air<br>(iii) Noise<br>(iv) Blasting; and<br>(v) Transport.<br>*Results are available on the website.*<br><br>**6.7** Lower Level Management Plans in place.<br><br>**6.8** Ongoing Rehabilitation and Weeding Program – ongoing.<br><br>**6.9** Extraction – In 2019 approx 511,204t was extracted of which approx. 35,000t was overburden material.<br><br>**6.10** Rehabilitation – During 2019 a total of 0.84Ha of seed mix and 1,090 plants were planted to the southern portion of the quarry on top of capped silt cells. (List of plants contained in presentation.)<br><br>**2019 Activities** | |

| | YTD March 2020 | LYTD March 2019 |
|---|---|---|
| **Sales (kt)** | 100.9 | 149.1 |
| **Production (kt)** | 973 | 162 |
| **Truck Movements** | | |

| ITEM | | | ACTION |
|---|---|---|---|
| East through Teralba | 1622 | 1745 | |
| West – Rhondda Rd | 2829 | 2863 | |
| **TOTAL** | **4451** | **4608** | |

*# The figures are down due to the COVID-19 situation. Whilst the quarry is still operating normally, sales have declined. RM asked whether Metromix were stocking piling with MY advising that stockpiles are on hand, so product may be supplied if required.*

**2019 Annual Environmental Review** – was submitted to DPIE on 30/3/20. Awaiting a response from DPIE prior to uploading to the Metromix website.

**EPA 536 Variation** – Metromix requested a variation on 15/1/19 to have the noise monitoring frequency reduced from twice to once per year. This variation was granted on 20/4/20.

Photographs were shown of the 2015, 2017, 2018, 2019 and 2020 rehabilitation works on site and its progress/comparison between 2018 and 2020.

- Surface Area: 11,300m$^2$
- What was planted: 1.3Ha of seed mix and 1,634 plants. (See presentation for species.)

**Electrical Upgrade**

MY advised that Metromix will be:

- Upgrading the existing Plant Motor Control Centre architecture and installing a new PLC system in the control tower.
- Installing remote switching and field full current lockout devices.
- Installing a second hydraulic pump and connections for the Pug Mill.

A detailed timeline was provided, projecting that the works should be completed by 22 August 2020, which includes a 9 day shutdown in order to get the motor control centre in. This item is coming from China, so there may be delays due to having to clear customs.

The reason for the work is to carry out powerline relocation. Two sets of power lines are owned by Ausgrid and traverse the Teralba Quarry Southern Extension area.

- The scope of the project requires clearance of vegetation to create 20m easements for the proposed power lines. The construction works require the removal of 26 poles, replacement of 17 existing power poles and the installation of 49 new power poles.
- This is a big project to access the Southern Extension Areas, which will provide approximately 14.8 years of useful life (based on an annual extraction of 678.4kt).
- The cost of the project will be approximately $2.3M and is planned to be completed by the end of July 2020.

| ITEM | ACTION |
|---|---|
| **7.0 General Business**<br><br>○ WH commented that it has been a very busy time on site. MY announced that he had also welcomed a baby daughter into the family, so things had indeed been very busy.<br>○ CW (through MY via telephone) requested that the presentation be sent through to him. | **MMH to email to CW.** |
| **8.0 Next Meeting**<br><br>MMH sought advice from CCC members on the date for the next meeting. As agreed, the CCC is held annually, accordingly, it was decided to keep the date in May – **Wednesday 5 May 2021.** Discussions ensued about undertaking a site inspection, with MMH confirming that DPIE encouraged this. Therefore, the meeting will commence at 3pm with the site inspection of the Teralba Quarry, followed by the CCC meeting. | **Agreed.** |

***Meeting closed at 4.56pm***

MMH thanked all members for their participation in the teleconference and to keep safe and well during these extraordinary times.

**Action Items – Nil.**

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# Appendix 5

# 2020 Community Complaints Register

(Total No. of pages including blank pages = 6)

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**2020 Community Complaints**

| Date | Issue/s | Outcome |
|---|---|---|
| **<u>January</u>**<br>**Date:** 23/01/2020<br>**Time:** 10:40am<br>**By:** Member of the public<br>**How:** Member of the public contacted the Environmental Protection Authority (EPA). | On the 4th February Metromix received the following email from the EPA: 'The EPA has received a complaint from a member of the public on 23 January 2020 10:40am reporting the following: *excessive dust at the Metromix quarry, observed when driving on Rhondda Road. The dust appeared to be generated by machinery movements such as large dump trucks. There is no obvious use of water etc to suppress the dust. It is quite windy today and dust is blowing off the site'.*<br>On the 6th February Metromix requested photo evidence from the EPA, however none was available. | Metromix responded to the EPA on 11/02/2020 and advised the following: An internal investigation into the matter has concluded and has determined that on the day of the complaint Metromix executed the available dust suppression controls available at that time. There were no unusual circumstances that occurred on the day of the complaint that would have caused excessive dust generation. Supporting documents were also forwarded to the EPA which showed the use of the watercart and the weather conditions on the 23rd of January. Metromix quarry management have communicated this complaint and investigation to its work group and will continue to monitor dust generation and execute dust suppression control measures during production activities. To date Metromix has not received a response from the EPA. |
| **<u>February</u>**<br>**Date:**<br>**Time:**<br>**By:**<br>**How:** | Nil | Nil |
| **<u>March</u>**<br>**Date:**<br>**Time:**<br>**By:**<br>**How:** | Nil | Nil |
| **<u>April</u>**<br>**Date:**<br>**Time:**<br>**By:** | Nil | Nil |

**2020 Community Complaints**

| | | |
|---|---|---|
| **How:** | | |
| **<u>May</u>**<br>**Date:**<br>**Time:**<br>**By:**<br>**How:** | Nil | Nil |
| **<u>June</u>**<br>**Date:**<br>**Time:**<br>**By:**<br>**How:** | Nil | Nil |
| **<u>July</u>**<br>**Date:**<br>**Time:**<br>**By:**<br>**How:** | Nil | Nil |
| **<u>August</u>**<br>**Date:**<br>**Time:**<br>**By:**<br>**How:** | Nil | Nil |
| **<u>September</u>**<br>**Date:**<br>**Time:**<br>**By:**<br>**How:** | Nil | Nil |
| **<u>October</u>**<br>**Date:**<br>**Time:**<br>**By:**<br>**How:** | Nil | Nil |
| **<u>November</u>**<br>**Date:** 12/11/2020 | Local resident called to complain about the amount of truck movements going through the intersection of Rhondda Road and | Metromix entered details of this complaint into their online reporting system. The Quarry Manager |

**2020 Community Complaints**

| | | |
|---|---|---|
| **Time:** 10:30am<br>**By:** Scott Muller<br>**How:** Phone call to Metromix Complaints Line | Railway Street. The complainant advised that in recent months he has observed an increase in truck traffic and the associated noise levels have made it so he can no longer sit on his porch and speak with his partner. The complainant also advised that he can hear truck movements from as early as 5:30am and requested if the traffic can be diverted around Rhondda Road. The complainant then advised that the intersection has become a safety hazard due to the trucks driving wide of their lane. | conducted an investigation into the complaint and responded to the complainant in writing the following day. The findings from the investigation showed that truck movements for the preceding two months were within the approved limits and the complainant was given copies of the quarry's project approval, 2020 noise monitoring report, October truck movement report and September truck movement report. The complainant responded on 16/11/2020 with: 'Thank you and I will review, regards Scott Muller'. |
| **<u>December</u>**<br>**Date:**<br>**Time:**<br>**By:**<br>**How:** | Nil | Nil |

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# Appendix 6

# Non-Compliances

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**2020 Non Compliances and Departures From Environment Plans, Procedures and Codes of Conduct.**

| Date | Non Compliance | Reason |
|---|---|---|
| January | Exceedance of the PM10 24Hr Max Criteria on the 3rd and 21st of January. The high volume air sampler recorded a reading of 71µg/m3 and 72µg/m3 respectively, which is greater than the 24hr max criteria of 50µg/m3. | Significant smokey conditions was prevalent during these dates due to surrounding bushfires and the quarry was not operating on the 3rd of January. During the hours of production the quarry executed its dust suppression controls (watercart and spray bars). |
| February | Exceedance of the 120dBl overpressure criteria occurred on 13/02/20 during blasting activities in the southern extraction area. An overpressure reading of 122.3dBl was recorded at the back gate monitoring point. | We conducted an investigation into the exceedance and determined that the cause was due blast design parameters and environmental conditions. Key factors that contributed to the exceedance were:<br>• *Steep sloping ground not being identified and sufficient burden not being allowed.*<br>• *Conglomerate rock types have a higher degree of surface expression and no drillers logs were available for review*<br>• *Overcast cloud conditions.*<br>• *Holes lost along the control row due to a prior rain event allowed timing of the shot to be reinforced at the monitor.*<br>• *If monitor was in the correct location the expected overpressure would have been 119.95dBl which is under the maximum criteria.*<br>Additional considerations have been implemented into the blast contractors blast design procedures to mitigate against an exceedance re-occurring. |
| | An independent audit was conducted in February by an auditor approved by the department. The audit identified some non-compliances that were administrative in nature. These | Metromix has responded to these non-compliances which are described in the final audit report. The final audit report has been approved by the DPIE on 24/04/2020 and is now available for viewing on the Metromix website. |

| | | |
|---|---|---|
| | non-compliances are described below:<br>• Noise reports had not been submitted to the EPA within 30 days of completion of noise monitoring.<br>• The rehabilitation bond had not been submitted to DPI&E within 6 months of the approval of the Biodiversity and Rehabilitation Management Plan.<br>• All management plans had not been submitted to the Secretary within 3 months of modification of the conditions of approval. The Air Quality Management Plan, Blast Management Plan, Traffic Management Plan, Water Management Plan and Environmental Management Strategy had not been submitted within the required timeframe.<br>• Records of complaints did not always include the information as required by EPL 0536 M5.2. Records of noise complaint in April 2018 did not include date and time or details of the complainant (EPL Condition M5.2).<br>• The EPA had not been informed in writing of the appointment of the new Quarry Manager as the site contact person (EPL Condition G2.2). | |
| March | Exceedance of the 115dBl overpressure criteria occurred on | We conducted an investigation into the exceedance and determined that the cause |

| | | |
|---|---|---|
| | 16/03/20 during blasting activities in the southern extraction area. An overpressure reading of 116.3dBl was recorded at the back gate monitoring point. | was due to blast design parameters. Key factors that contributed to the exceedance were:<br>• *Excessive surface expression due to insufficient containment of explosive energy.*<br>• *Incorrect or bridged stem decks.*<br><br>High level meeting was held with the blasting contractor. Blasting contractor has categorised any future blasts at the quarry as Class 5 which requires sign off by the technical service department. The blasting contractor has commenced a separate review into their systems and procedures. The outcome from this review will introduce the following changes:<br>• *All blasts to be classed as **Class 5** which requires involvement from a tech services representative (already implemented).*<br>• *Re-auditing of all Shotfirers and Surveyors by an independent auditor.*<br>• *Creating a standardised Site Information Sheet (SIS) format for the whole East Coast Quarry Business.*<br>• *Implementation of a formalised blast design review and departure process.* |
| | Exceedance of the 115dBl overpressure criteria occurred on 25/03/20 during blasting activities in the southern extraction area. An overpressure reading of 115.7dBl was recorded at the back gate monitoring point. | We conducted an investigation into the exceedance and determined that the cause was due to blast design parameters. Key factors that contributed to the exceedance were:<br>• *Acceleration of the face at the point of initiation.*<br>• *Light face burden for hole A55.*<br>Blasting contractor has implemented the following recommendations:<br>• *Reducing the product density from 1.2g/cc to 1.15g/cc thereby reducing the powder factor.*<br>• *Increasing the minimum and target face burden by 0.3m.*<br>• *Reviewing environmental conditions and blast parameters* |

<table>
<tr><td></td><td></td><td>on the day and consulting with quarry management if adverse conditions are forecast.</td></tr>
<tr><td>April</td><td>Nil</td><td>Nil</td></tr>
<tr><td>May</td><td>Nil</td><td>Nil</td></tr>
<tr><td>June</td><td>Nil</td><td>Nil</td></tr>
<tr><td>July</td><td>Water discharge from monitoring point EPA 5 (Dam B) on the 26th to the 29th of July exceeded the Total Suspended Solid criteria of 50mg/L. This limit is imposed under Condition L2.4 of EPL 536 and Condition 26 of Project Approval 10_0183.</td><td>An extremely heavy rain event occurred at the Quarry between the 25th of July to the 28th of July 2020. The rainfall was such that overflow of Dam B was recorded over five consecutive days and the level of rainfall had caused a high volume of runoff to enter the Quarry water management system. The below table presents a summary of the rainfall recorded and water monitoring outcomes during the period with monitoring undertaken during all days when discharge from Dam B was observed.</td></tr>
<tr><td></td><td colspan="2">
<table>
<tr><td></td><td>Units</td><td>Criteria</td><td>26/7</td><td>27/7</td><td>28/7</td><td>29/7</td><td>30/7</td><td>31/7</td></tr>
<tr><td>Rainfall</td><td>mm</td><td>N/A</td><td>129.4</td><td>16</td><td>18</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td>pH</td><td></td><td>6.5-8.5</td><td rowspan="4">Not Sampled</td><td>6.91</td><td>6.93</td><td>6.9</td><td>6.92</td><td>6.89</td></tr>
<tr><td>Electrical Conductivity</td><td>µS/cm</td><td>125-2200*</td><td>792</td><td>701</td><td>692</td><td>730</td><td>809</td></tr>
<tr><td>Total Suspended Solids</td><td>mg/L</td><td>50</td><td>71</td><td>60</td><td>55</td><td>41</td><td>40</td></tr>
<tr><td>Oil & Grease</td><td>mg/L</td><td>10</td><td>10</td><td>7</td><td><5</td><td><5</td><td><5</td></tr>
<tr><td colspan="9">* Criteria based on ANZG 2018 Guidelines all other criteria from EPL 536</td></tr>
</table>
<br>Metromix has reported this exceedance to the EPA and Department of Planning Industry & Environment and at this stage there is no indication that alternative or additional management measures are necessary as a result of these records.
</td></tr>
<tr><td>August</td><td>Nil</td><td>Nil</td></tr>
<tr><td>September</td><td>Nil</td><td>Nil</td></tr>
<tr><td>October</td><td>Nil</td><td>Nil</td></tr>
<tr><td>November</td><td>November monthly water grab sample at EPA Point 4 was missed (M2.3)</td><td>There was a change of personnel in the Leading Hand role and during the handover period the required monthly grab sample was missed. The December water grab sample was successfully tested and the results came back within the specified criteria.</td></tr>
<tr><td>December</td><td>Nil</td><td>Nil</td></tr>
</table>

# Appendix 7

# Bush Regeneration Annual Report 2020

## Prepared by T.E.N.T.A.C.L.E Incorporated

(Total No. of pages including blank pages = 22)

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**T.E.N.T.A.C.L.E INC.**

The Education Network Training Applying Conserving Landbased Ecosystems

**Bushland Regeneration Service**

ABN: 39 738 451 129

Coordinator & Director – Christy Woolcock

Treasurer – Sue McDonnell

# METROMIX TERALBA BUSH REGENERATION

*Annual Report*
*2020*

Prepared by Alexander Oates-Power

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# INTRODUCTION

The following report details the aims, objectives, hours worked, herbicide used, observations, bush regeneration activates, recommendations and the areas worked by Tentacle incorporated at Teralba Metromix quarry during 2020.

# BACKGROUND

Works by Tentacle Incorporated were carried out in accordance with all current applicable legislation including:

- Environmental Protection and Biodiversity Conservation Act 1999
- Pesticides Act 1995
- Protection of Environment Operations Act 1997
- National Parks and Wildlife Act 1974
- Threatened Species Conservation Act 1995
- Lake Macquarie City Councils Local Environmental Plan 2012

All works were compliant with the conditions of the National Parks and Wildlife Services checklist, for bush regeneration activities in the habitat of threatened species, endangered populations and endangered ecological communities.

Bush regeneration techniques applied were conformed to the best practice guidelines outlined within the Bush Regenerators handbook (National Trust of Australia, NSW 1991).

The rehabilitation works aim to improve the overall natural condition of the site by controlling invasive weed species. The rehabilitation of native vegetation will increase biodiversity within the designated area. Improved native vegetation communities will also protect waterways from increased sedimentation by enhancing erosion control and protecting and conserving the habitat for native and threatened flora and fauna. The works will improve the overall site condition of the site, encouraging an increase in native biodiversity.

# AIMS

The aims of the project are to restore and maintain ecosystem health by aiding the natural regeneration of indigenous plants and their communities. To manage the habitat for increased native biodiversity across the site by reducing the population and abundance of weed species.

These works are performed in the best interest of Metromix's BioBanking initiative by maintaining areas of healthy vegetative status and improving those that are degraded.

The aims of the project are to reduce noxious weeds, Environmental weeds, Weeds of National Significance and target weeds that were identified by the Tentacle team, reducing the overall weed density across the site.

# OBJECTIVES

The objectives of the project are to undertake maintenance weeding across the site to ensure areas previously weeded do not become overrun with weeds. To complete primary weeding across the site, removing target weed species determined priority by the Tentacle team.

To plant approximately 1634 native trees, shrubs, and grasses in two separate locations, and to construct guards that will be placed around the natives to stop fauna from damaging the plants. To spread mulch around the revegetation areas to help retain moisture in the soil along with suppressing weed competition around the natives.

# HOURS WORKED

Approximately **902.5** hours have been worked this year performing environmental restoration and bush regeneration activities at Metromix Quarries Teralba by Tentacle Inc.

# HERBICIDE USED

Approximately **2.610** liters of Roundup Biactive® Herbicide has been used for the treatment of woody and other environmental weeds this year. Roundup Biactive® Herbicide was selected as the preferred form of chemical control as it designed to be used in environmentally sensitive areas.

# OBSERVATIONS

Several observations have been made this year by the Tentacle team to show the diverse fauna living in the area, these species include:

| **Common Name** | **Scientific name** |
|---|---|
| Bell Miner | *Manorina melanophrys* |
| Brown Cuckoo-Dove | *Macropygia amboinensis* |
| Eastern Grey Kangaroo | *Macropus giganteus* |
| Eastern Spinebill | *Acanthorhynchus tenuirostris* |
| European Hare | *Lepus europaeus* |
| Golden Whistler | *Pachycephala pectoralis* |
| Grey Fantail | *Rhipidura albiscapa* |
| Jacky Dragon | *Amphibolurus muricatus* |
| King Parrot | *Alisterus scapularis* |
| Kookaburra | *Dacelo novaeguineae* |
| Lace Monitor | *Varanus varius* |
| Magpie | *Cracticus tibicen* |
| Masked Lapwing | *Vanellus miles* |
| New Holland Honeyeater | *Phylidonyris novaehollandiae* |
| Pacific Koel | *Eudynamys orientalis* |
| Rainbow Lorikeet | *Trichoglossus haematodus* |
| Raven | *Corvus coronoides* |
| Red Fox | *Vulpes vulpes* |
| Red-browed Finch | *Neochmia temporalis* |
| Ringtail Possum | *Pseudocheirus peregrinus* |
| Satin Bowerbird | *Ptilonorhynchus violaceus* |
| Superb Fairywren | *Malurus cyaneus* |
| Wedge-tailed Eagle | *Aquila audax* |
| White-bellied Sea-Eagle | *Haliaeetus leucogaster* |
| Yellow-tailed Black Cockatoo | *Calyptorhynchus funereus* |

# BUSH REGENERATION

During this year a number of environmental restoration activities were performed, reducing the weed density throughout the site. Maintenance weeding was done across the site where weeding had taken place in previous years including the revegetation areas, to ensure the areas do not become reinfested with weeds.

Lantana (*Lantana camara*) was removed along each side of the northern entrance and exit connected to Rhondda road as the lantana had started to encroach onto the road. Maintenance weeding of primarily lantana (*Lantana camara*) and wild tobacco (*Solanum mauritianum*) was completed on the northern side of Rhondda road behind the residential houses as weeds had started to intrude into those properties.

Secondary splatter gunning was completed on the large thicket of lantana in the southern end of Dam-D, where primary weeding was undertaken in 2019. In addition, primary weeding of large wild tobacco plants (*Solanum mauritianum*) and crofton weed (*Ageratina Adenophora*) was completed in this section of the site.

The edges of the waterway that is connected to Dam-A where the water from the site runs off was treated, removing crofton weed (*Ageratina Adenophora*), lantana (*Lantana camara*) and coastal morning glory (*Ipomoea cairica*), reducing weed seeds being spread out of site. A great deal of the lantana is partly submerged by water and will need to be removed at a time when water levels are lower. A large thicket of lantana (*Lantana camara*) has been treated northeast of Dam-A to stop the lantana from infesting the waterway. Two large coral trees (*Erythrina x sykesii*) were treated in the open field southeast of Dam-A.

The two Tetratheca (*Tetratheca juncea*) areas that were taped off adjacent to Dam-A were weeded, removing Lantana (*Lantana camara*) and wild tobacco (Solanum mauritianum) seedlings.

A sweep was done through the revegetation areas targeting primarily Inkweed (*Phytolacca octandra*) castor oil plant (*Ricinus communis*). Lantana (*Lantana camara*) and pampas grass (*Cortaderia sp*) were treated on the top shelf above the western revegetation area with the pampas seed heads bagged and removed from site.

Maintenance weeding was completed in multiple sections between Dam-A and Dam-D (See **Figure 3**). These areas have been weeded in previous years and require continued maintenance weeding to reduce weed seeds being distributed into the adjacent dams. Lantana (*Lantana camara*) was cleared north of Dam-D as it had started to invade onto the road.

Several weed species were treated this year, they include:

| **Common Name** | **Scientific name** |
|---|---|
| African Daisy | *Senecio pterophorus* |
| Arum Lily | *Zantedeschia aethiopica* |
| Asparagus Fern | *Asparagus aethiopicus* |
| Blackberry | *Rubus fruticosus* |
| Cassia | *Senna pendula* |
| Castor Oil Plant | *Ricinus communis* |
| Climbing Asparagus Fern | *Asparagus aethiopicus* |
| Coral Tree | *Erythrina x sykesii* |
| Costal Morning Glory | *Ipomoea cairica* |
| Crofton | *Ageratina adenophora* |
| Farmer's Friends | *Bidens pilosa* |
| Fireweed | *Senecio madagascariensis* |
| Green Cestrum | *Cestrum parqui* |
| Inkweed | *Phytolacca octandra* |
| Lantana | *Lantana camara* |
| Large Leaf Privet | *Ligustrum lucidum* |
| Madeira Vine | *Anredera cordifolia* |
| Pampas Grass | *Cortaderia sp* |
| Small Leaf Privet | *Ligustrum sinense* |
| Spear Thistle | *Cirsium vulgare* |
| Stinking Roger | *Tagetes minuta* |
| Wild Tobacco | *Solanum mauritianum* |

# TETRATHECA

Due to bike tracks being made through the Tetratheca (*Tetratheca juncea*) translocation area the zone was fenced off at the start of the year with star pickets and warning tape to deter people from entering the area and disturbing the Tetratheca. The warning tape has been removed multiple times by the bike riders using the track throughout the year, signage will need to be put in place to stop them from entering the area.

Due to exceptional weather this year the *Tetratheca juncea* has shown growth within the translocation area and surrounding Tetratheca areas, with large amounts of the Tetratheca in flower and new clusters forming around the existing plants. Continued monitoring of the Tetratheca (*Tetratheca juncea*) areas will be carried out in the follow year to ensure no weeds have emerged and to monitor the health of the Teratheca.

**Figure 1:** Photo Point 1 – Flowering *Tetratheca juncea* inside the translocation area.
Date taken: 22/12/2020

# REVEGETATION

Approximately 1634 native trees, shrubs, and grasses were planted during the second quarter of this year at two separate locations of the site. Plant guards were built around the plants to prevent fauna from feeding on them, guards were reused from the previous year to minimalize waste. Mulch was placed around the plants in the northwestern revegetation area along with the two adjacent revegetation areas to help retain water around the natives and suppress weed growth, several piles of mulch were left for future use when further planting is carried out.

Since the planting took place the plants have shown significant growth with minimal losses with a 90% survival rate since the planting commenced. A section of the northwestern revegetation area was prepared with primarily clay, as a result this section has not been as successful as the rest of the plantings as it does not retain moisture as well during summer as a more organic rich soil would (see **Figure 9**). There are sections of the bottom revegetation areas that holds bodies of water for long periods of time, these areas would benefit from having plant species that grow well in partial water, in particular Melaleuca's and Casuarina's as these plants grow in surrounding areas where it is damp.

Before planting was commenced Global Soil Systems spread a seed mixture across the western revegetation area, consisting of native plant seeds, fertilizer and non-germinating oats. The Seed mixture was also spread on the shelf below the planted section in the southern section of the site. The seeds have started to germinate, and an abundance of seedling can be seen throughout the revegetation areas.

Thirteen different native species were planted this year, they include:

| Common Name | Scientific Name | Number Planted |
|---|---|---|
| Spotted Gum | *Corymbia maculata* | 124 |
| White Mahogany | *Eucalyptus acmenoides* | 124 |
| Grey Ironbark | *Eucalyptus paniculata* | 124 |
| Broad-leaved White Mahogany | *Eucalyptus umbra* | 124 |
| Sydney Red Gum | *Angophora costata* | 124 |
| Hickory Wattle | *Acacia implexa* | 115 |
| Myrtle Wattle | *Acacia myrtifolia* | 115 |
| Hop Bush | *Dodonaea triquetra* | 115 |
| Tea Tree | *Leptospermum trinervium* | 115 |
| Basket Grass | *Lomandra longifolia* | 140 |
| Wiry Panic | *Entolasia stricta* | 138 |
| Cogan Grass | *Imperata cylindrica* | 138 |
| Kangaroo Grass | *Themeda australis* | 138 |

**Figure 2:** A healthy Hop Bush (*Dodonaea triquetra*) planted this year in the northwestern revegetation area. Date Taken: 8/12/2020

# AREAS WORKED

**Figure 3:** Map depicting the areas worked during 2020.

| | |
|---|---|
| | Areas Worked |
| | 2020 Planting Areas |
| PP | Photo Point Locations |

N

# RECOMMENDATIONS

It is recommended that maintenance weeding through the areas treated during this year as well as areas treated in previous years will continue into 2021, to ensure the weeds do not reinfest the areas worked. Continued primary weeding in the areas where heavy infestations of weeds remain will be required in the following year, reducing weed density across the whole site.

Splatter gunning will be completed next year around Dam-D, along with the gully below northern entrance and exit, as these areas have large amounts of lantana (*Lantana Camara*) in them.

The waterway below Dam-A is partly submerged by water and will need to be treated at a time when conditions are drier. The waterway is infested with Crofton weed (Ageratina Adenophora), lantana (Lantana camara) and coastal morning glory (Ipomoea cairica), removing these weeds from the waterway will reduce seed dispersal out of the site. The area should be assessed for sediment pollution control prior to working to avoid disturbance, this will be a priority for the start of next year.

Maintenance weeding is recommended throughout the revegetation areas that were planted out this year to give the natives the best chance of survival. The plant guards will need to be removed from the natives as they start to outgrow them, this will be a priority for the start of next year. Further planting will be completed next year as required. It is recommended when preparing an area for planting a layer of soil is placed over any areas of clay to allow easier planting and increasing the survivability of the plants.

Continued monitoring of the Tetratheca (*Tetratheca juncea*) areas will be carried out in the follow year to ensure no weeds have emerged and to monitor the health of the Teratheca.

# CONCLUSION

In conclusion the aims and objectives have been met, the removal of target weed species throughout the site have allowed for a decrease in weed density in the areas worked, furthermore allowing the increase of biodiversity of endemic species is those areas. Several new fauna species have been observed this year showing the great diversity within the site and surrounding areas, including a new species observed this year the eastern grey kangaroo (*Macropus giganteus*).

The weeds removed around the dams will decrease the weed seed dispersal throughout and out of site, further primary weeding in these areas will be completed next year. The splatter gunning that was completed this year was successful, further splatter gunning will be completed next year in heavily infested areas throughout the site.

The planting that was done this year was successful with 90% of the plants surviving. The plant guards and mulch that was placed around the plants have significantly helped in the survival and growth to the plants, furthermore the seeds spread by Global Soil Systems have been successful with large amounts of seedlings starting to appear.

The areas treated last year have started to regenerate with native plant species. Native vines have overtaken the dead lantana (*Lantana camara*) that was splatter gunned last year.

The *Tetratheca juncea* that were transplanted have continued to thrive with no new reported deaths along with new clusters of Tetratheca starting to grow. Further monitoring in the *Tetratheca juncea* areas will be completed next year to monitor the health of the Tetratheca and to remove any weeds that appear within those area.

# PHOTO DOCUMENTATION

**Figure 4:** Photo Point 2 - Photo of the revegetation before being planted out.
Date Taken: 29/04/2020

**Figure 5:** Photo Point 1 - End of year photo of the revegetation area.
Date Taken: 8/12/2020

**Figure 6:** Photo Point 3 - Photo of the revegetation before being planted out.
Date Taken: 4/05/2020

**Figure 7:** Photo Point 3 - End of year photo of the revegetation area.
Date Taken: 8/12/2020

**Figure 8:** Photo Point 3 - Photo of the revegetation area while planting was taking place.
Date Taken: 5/05/2020

**Figure 9:** Photo Point 3 - End of year photo of the revegetation area (bottom of the photo showing the clay soil).
Date Taken: 8/12/2020

**Figure 10:** Photo Point 4 - Photo before Lantana was cleared near the northern entrance and exit.
Date Taken: 21/07/2020

**Figure 11:** Photo Point 4 - Photo after Lantana had been cleared from the side of the road.
Date Taken: 8/12/2020

**Figure 12:** Photo Point 5 - Photo before Crofton and Lantana was treated below Dam-A.
Date Taken: 3/11/2020

**Figure 13:** Photo Point 5 - Photo after weeds had been treated below Dam-A.
Date Taken: 8/12/2020

**Figure 14:** Photo Point 6 - Photo after Lantana had been hand treated east of Dam-A.
Date Taken: 8/12/2020

**Figure 15:** Photo Point 7 - Photo after weeds had been treated behind residential properties.
Date Taken: 29/9/2020

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