

Blast Management Plan

Project Name	Ardglen Quarry
Job No.	BAR
Client	Various
Contract No.	N/A

Document No. 1
Holder: DARACON / Client


Revision	Date	Prepared By	Reviewed By Quarry Manager	Authorised By Systems Manager	
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Table of Contents

1. INTRODUCTION	3
2. OBJECTIVES OF BLAST MANAGEMENT PLAN	3
3. LEGAL AND OTHER REQUIREMENTS	4
3.1 Project Approval	4
4. RESPONSIBILITIES	10
5. HOURS OF OPERATION	11
6. OUT OF HOURS WORK REQUIREMENTS AND COMMITMENTS	11
7. BLAST IMPACT ASSESSMENT CRITERIA	12
8. BLAST MONITORING PROGRAM	13
8.1 Blast Monitoring	13
8.2 Exceedance Protocol Non-Compliance Notification	15
8.3 Notification of Exceedances to Landowners	15
9. OPERATIONAL CONTROLS	16
9.1 Blast Impact Mitigation Measures	16
9.2 Additional Blast Mitigation Measures	16
9.3 Continuous Improvement	17
10. REVIEW AND IMPROVEMENT	17
10.1 Inspection and Review	17
10.2 Audits	17
10.3 Records and Reporting	17
11. COMMUNITY CONSULTATION AND COMPLAINTS	18
12. APPENDIX A – EPA CORRESPONDENCE	19

1. INTRODUCTION

Ardglen Quarry (the Quarry) is located on Lot 218 DP 751028, Lot 1 DP 1001734, Lot 187 DP 751028, Lot 39 DP 751028 and Lot 49 DP 751028, adjacent to the small rural community of Ardglen. Ardglen is approximately 5 kilometres (km) northwest of Murrurundi and 60 km southwest of Tamworth. The Quarry is owned and operated by Buttai Gravel Pty Ltd (trading as Daracon Quarries).

NSW Railways owned and operated the Quarry for over 100 years prior to the purchase by Daracon. In 2008 Daracon was granted approval under Part 3A of the Environmental Planning & Assessment Act 1979, to extend quarrying activities into the adjacent lot west of the existing operation, Lot 218 DP 751028. In December 2010 Daracon was granted approval for a modification to the Project Approval (Mod 1) and most recently in March 2021 approval was granted for a second modification to the Project Approval (Mod 2) (the Approval).

The Approval permits:

- the extraction and processing of up to 500,000 (tpa) of material
- transport of a combined total 500,000 tonnes/year of quarrying products from the site by road and/or rail by either:
 - transport of 250,000 (tpa) of quarrying products from the site by rail
 - transport of 500,000 (tpa) of quarrying products from the site by road
- Installation of blast management measures including barriers/bunds
- Modify the sediment basin, in pit sump and water treatment measures
- import of up to 80,000 tonnes/year for blending with quarried materials

The following Blast Management Plan (BMP) details the measures required to mitigate the environmental effect of blast from the above activities on our neighbours. It also details the blast monitoring programs to assess and report the levels of impact, in compliance with Schedule 3 of the Approval and provides a mechanism whereby any blast complaints can be dealt with quickly and effectively.

This document has been prepared to satisfy the requirements of Schedule 3, Condition 6 of the Approval.

2. OBJECTIVES OF BLAST MANAGEMENT PLAN

The purpose of this plan, in conjunction with the use of other environmental control documents associated with the operation of Ardglen Quarry is to ensure that Daracon Group fulfils its legal, contractual and social obligations by:

- Employing best practice environmental planning methodologies;
- Constructing and/or incorporating within the works appropriate environmental control measures;
- Providing relevant training to all personnel involved in environmental aspects (including site induction, specific environmental aspects, toolbox talks);
- Identifies sources of blast and vibration on construction sites;
- Outline site-specific feasible and reasonable work practices to guide day to day planning of quarrying operations and minimise blast impacts;
- Identifying and alerting sensitive receivers to any adverse blast and vibration impacts that may occur;

This Blast Management Plan (BMP) has been prepared to satisfy the requirements of the Approval and the Environmental Protection Licence (EPL #1115) associated with the Ardglen Quarry operations.

In addition to meeting the specific performance measures and criteria in this Approval, we also commit to implementing all reasonable and feasible measures to prevent, and if prevention is not reasonable and feasible, minimise any material harm to the environment that may result from the construction and operation of the development, and any rehabilitation required under this Approval.

Additionally, we commit to applying existing management strategies plans or programs until the approval of a similar plan following the determination of the Approval.

3. LEGAL AND OTHER REQUIREMENTS

Daracon Group has an obligation under the provisions of the POEO Act to protect the environment and minimise blast impacts. Accordingly, it is a requirement of consent, as per the Approval and EPL #1115 that a program of environmental controls pertaining to the management of blast impacts be planned, documented implemented and monitored for Ardglen Quarry.

3.1 Project Approval

Table 1 below outlines the relevant blast conditions from the Approval for this BMP and where they have been addressed within the BMP.

Table 1 – Regulatory Requirements

Condition	Description	Section(s) Addressed																																		
Hours of Operation																																				
Schedule 3 Condition 1	The Applicant must comply with the hours of operation in Table 1.	Section 5 & Section 6																																		
<p><i>Table 1: Hours of Operation</i></p> <table border="1"> <thead> <tr> <th>Activity</th> <th>Day</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Topsoil/overburden removal/emplacement</td> <td>Monday-Saturday</td> <td>7.00am to 5.00pm</td> </tr> <tr> <td>Sunday</td> <td>None</td> </tr> <tr> <td rowspan="2">Blasting</td> <td>Monday-Friday</td> <td>10:00am to 3.00pm</td> </tr> <tr> <td>Saturdays, Sundays and Public Holidays</td> <td>None</td> </tr> <tr> <td rowspan="2">In-pit activities (including drilling, extraction, and transfer of material out of the pit)</td> <td>Monday-Saturday</td> <td>7.00am to 5:30pm</td> </tr> <tr> <td>Sundays and Public Holidays</td> <td>None</td> </tr> <tr> <td rowspan="2">Out-of-pit activities (including processing, and stockpiling)</td> <td>Monday-Saturday</td> <td>7.00am to 5:30pm</td> </tr> <tr> <td>Sundays and Public Holidays</td> <td>None</td> </tr> <tr> <td>Maintenance (if inaudible at nearby residences)</td> <td>Monday-Sunday</td> <td>Any time</td> </tr> <tr> <td rowspan="2">Truck loading and distribution</td> <td>Monday-Saturday</td> <td>6.30am to 5.30pm</td> </tr> <tr> <td>Sundays and Public Holidays</td> <td>None</td> </tr> <tr> <td>Rail loading</td> <td>Monday-Sunday</td> <td>7:00am to 10:00pm</td> </tr> </tbody> </table>			Activity	Day	Time	Topsoil/overburden removal/emplacement	Monday-Saturday	7.00am to 5.00pm	Sunday	None	Blasting	Monday-Friday	10:00am to 3.00pm	Saturdays, Sundays and Public Holidays	None	In-pit activities (including drilling, extraction, and transfer of material out of the pit)	Monday-Saturday	7.00am to 5:30pm	Sundays and Public Holidays	None	Out-of-pit activities (including processing, and stockpiling)	Monday-Saturday	7.00am to 5:30pm	Sundays and Public Holidays	None	Maintenance (if inaudible at nearby residences)	Monday-Sunday	Any time	Truck loading and distribution	Monday-Saturday	6.30am to 5.30pm	Sundays and Public Holidays	None	Rail loading	Monday-Sunday	7:00am to 10:00pm
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Condition	Description	Section(s) Addressed						
	<p>Note:</p> <ul style="list-style-type: none"> The Applicant may load no more than 2 trains each year outside the hours listed in Table 1 (see condition 41). The Applicant may carry out blasting operations outside the hours listed in Table 1 for safety reasons provided the Applicant has notified EPA and the local community about the proposed blast. 							
Blasting and Vibration								
Airblast Overpressure Criteria								
Schedule 3 Condition 7	<p>The Applicant must ensure that the airblast overpressure level from blasting at the development does not exceed the criteria in Table 5 at any privately-owned residence.</p> <p><i>Table 5: Airblast overpressure impact assessment criteria</i></p> <table border="1"> <thead> <tr> <th>Airblast overpressure level (dB(Lin Peak))</th> <th>Allowable exceedance</th> </tr> </thead> <tbody> <tr> <td>115</td> <td>5% of the total number of blasts over a period of 12 months</td> </tr> <tr> <td>120</td> <td>0%</td> </tr> </tbody> </table>	Airblast overpressure level (dB(Lin Peak))	Allowable exceedance	115	5% of the total number of blasts over a period of 12 months	120	0%	Section 7
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Ground Vibration Impact Assessment Criteria								
Schedule 3 Condition 8	<p>The Applicant must ensure that the ground vibration level from blasting at the development does not exceed the criteria in Table 6 at any privately-owned residence.</p> <p><i>Table 6: Ground vibration impact assessment criteria</i></p> <table border="1"> <thead> <tr> <th>Peak particle velocity (mm/s)</th> <th>Allowable exceedance</th> </tr> </thead> <tbody> <tr> <td>5</td> <td>5% of the total number of blasts over a period of 12 months</td> </tr> <tr> <td>10</td> <td>0%</td> </tr> </tbody> </table>	Peak particle velocity (mm/s)	Allowable exceedance	5	5% of the total number of blasts over a period of 12 months	10	0%	Section 7
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10	0%							
Blasting Frequency								
Schedule 3 Condition 9	<p>The Applicant must not carry out more than 30 blasts a year, or more than 1 blast per day, without the written approval of the Planning Secretary.</p>	Section 9						
Operating Conditions								
Schedule 3 Condition 10	<p>The Applicant must implement best blasting practice to:</p> <p>(a) protect the safety of people, property, public infrastructure and livestock; and</p>	Section 8						

Condition	Description	Section(s) Addressed
	(b) minimise the dust and fume emissions from blasting at the development, to the satisfaction of the Planning Secretary.	
Schedule 3 Condition 11	The Applicant must not undertake blasting within 500 metres of any privately-owned land or any land not owned by the Applicant, unless suitable arrangements have been made with the landowner and any tenants to minimise the risk of flyrock-related impact to the property to the satisfaction of the Planning Secretary.	Section 9
Public Notice		
Schedule 3 Condition 12	The Applicant must: <ul style="list-style-type: none"> <li data-bbox="352 810 1252 922">(a) notify the landowner/occupier of any residence within 1 kilometre of the quarry pit who registers an interest in being notified about the blasting schedule at the quarry; <li data-bbox="352 922 1252 1048">(b) operate a Blasting Hotline, or alternate system agreed to by the Planning Secretary, to enable the public to get up-to-date information on the blasting schedule at the quarry; <li data-bbox="352 1048 1252 1137">(c) keep local residents informed about this hotline (or any alternative notification protocols), to the satisfaction of the Planning Secretary. 	Section 9.1
Property Investigations		
Schedule 3 Condition 13	If any landowner of privately-owned land within 1 kilometre of the site claims that buildings and/or structures on his/her land have been damaged as a result of blasting at the site, following commencement of operations within the extension area, then he/she may ask the Planning Secretary in writing to investigate the claim. If the Planning Secretary is satisfied that an independent property investigation is warranted, the Applicant must within 3 months of the Planning Secretary's determination: <ul style="list-style-type: none"> <li data-bbox="352 1550 1252 1662">(a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Planning Secretary, to investigate the claim; and <li data-bbox="352 1662 1252 1747">(b) give the landowner a copy of the property investigation report. 	Section 9.2
	If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Applicant must repair the damages to the satisfaction of the Planning Secretary. If the Applicant or landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Planning Secretary for resolution.	Section 9.2

Condition	Description	Section(s) Addressed
Blast Monitoring Program		
Schedule 3 Condition 14	The Applicant must prepare a Blast Monitoring Program for the development in consultation with the EPA and to the satisfaction of the Planning Secretary. This program must:	Section 8
	(a) include a protocol for demonstrating compliance with the blasting criteria in Table 6 of this Schedule; and	
	(b) be submitted to the Planning Secretary for approval within three months of the determination of MOD 2 (or other timeframe as agreed by the Planning Secretary).	
Meteorological Monitoring		
Schedule 3 Condition 18	The Applicant must ensure the development has a suitable meteorological station in the vicinity of the site that:	Section 9.2
	(a) complies with the requirements in the <i>Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales</i> (DEC, 2007); and (b) is capable of measuring meteorological conditions in accordance with the <i>NSW Industrial Noise Policy</i> (EPA, 2000), unless a suitable alternative is approved by the Planning Secretary following consultation with the EPA.	
Notification of Landowners		
Schedule 4 Condition 1	If the results of monitoring required in Schedule 3 identify that impacts generated by the development are greater than the relevant impact assessment criteria, then the Applicant must notify the Planning Secretary and the affected landowners and/or existing or future tenants (including tenants of quarry owned properties) accordingly, and provide monitoring results to each of these parties until the results show that the development is complying with the relevant criteria.	Section 8
Notification of Exceedances		
Schedule 4 Condition 1A	As soon as practicable and no longer than 7 days after obtaining monitoring results showing an exceedance of any noise, blasting or air quality criterion in Schedule 3 of this consent, the Applicant must provide the details of the exceedance to any affected landowners and/or tenants. For any exceedance of any air quality criterion in Schedule 3 of this consent, the Applicant must also provide to any affected land owners and tenants a copy of the fact sheet entitled "Mine Dust and You" (NSW Health, 2017).	Section 8
Environmental Monitoring		
Schedule 5 Condition 2	Any condition of this consent that requires the carrying out of monitoring or an environmental audit, whether directly or by way of a plan, strategy or program, is taken to be a condition requiring monitoring or an	Section 10.2

Condition	Description	Section(s) Addressed
	<p>environmental audit under Division 9.4 of Part 9 of the EP&A Act. This includes conditions in respect of incident notification, reporting and response, non-compliance notification, compliance report and independent audit.</p> <p>For the purposes of this condition, as set out in the EP&A Act, “monitoring” is monitoring of the development to provide data on compliance with the consent or on the environmental impact of the development, and an “environmental audit” is a periodic or particular documented evaluation of the development to provide information on compliance with the consent or the environmental management or impact of the development.</p>	
Schedule 5 Condition 2A	Noise, blast and/or air quality monitoring under this consent may be undertaken at suitable representative monitoring locations instead of at privately-owned residences or other locations listed in Schedule 3, providing that these representative monitoring locations are set out in the respective management plan(s) and/or monitoring program(s).	Section 9
Reporting		
Schedule 5 Condition 3	The Applicant must immediately notify the Department and any other relevant agencies immediately after it becomes aware of an incident. The notification must be in writing to compliance@planning.nsw.gov.au and identify the development (including the development application number and name) and set out the location and nature of the incident.	Section 8
Schedule 5 Condition 3A	<p>Within seven days of becoming aware of a non-compliance, the Applicant must notify the Department of the non-compliance. The notification must be in writing to compliance@planning.nsw.gov.au and identify the development (including the development application number and name), set out the condition of this consent that the development is non-compliant with, why it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.</p> <p>Note: A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.</p>	Section 8
Community Consultative Committee		
Schedule 5 Condition 7	The Applicant must operate a Community Consultative Committee (CCC) for the project to the satisfaction of the Planning Secretary, in accordance with the Department’s Community Consultative Committee Guidelines: State Significant Projects (2019).	Section 11
Access to Information		
Schedule 5 Condition 8	Within 3 months of the approval of any plan/strategy/program required under this consent (or any subsequent revision of these plans/strategies/programs), or the completion of the audits or Annual Reviews required under this consent, the Applicant must:	Section 10 and Section 11

Condition	Description	Section(s) Addressed
	(a) provide a copy of the relevant document/s to the relevant agencies and CCC; and (b) put a copy of the relevant document/s on its website.	
Schedule 5 Condition 9	During the development, the Applicant must: (a) include a copy of this consent, as may be modified from time to time, on its website; (b) provide a full summary of monitoring results required under this consent on its website; and (c) update these results on a regular basis (at least every 6 months).	Section 10
Statement of Commitments – Blast and Vibration		
11	The proponent will implement the following measures to mitigate the impacts of blasting and vibration: <ul style="list-style-type: none"> • Blasting will be limited to between the hours of 10am and 4pm, Monday to Friday and residents in the vicinity of the quarry will be given adequate notification of forthcoming blasts; • Air blast overpressure from any blast will not exceed 115 dB(Lpeak) at any privately owned residence for more than 5% of all blasts over a 12 month period. It will not exceed 120 dB(Lpeak) at any time, unless specific prior agreement is reached with the affected landholder; • Peak Particle Velocity (PPV) from ground vibration will not exceed 5 mm/s at any privately owned residence for more than 5% of all blasts over a 12 month period. The maximum level will not exceed 10 mm/s at any time; • The existing blast management strategy will continue to be implemented to ensure appropriate charge masses are used to avoid excessive air blast overpressure and ground vibrations; • A blast management program will be prepared and submitted to the Director-General for approval; 	Section 7 and Section 8

4. RESPONSIBILITIES

As detailed in **Table 2**, it shall be the responsibility of the Quarry Manager (QM) to ensure that the requirements of this plan are implemented.

Table 2 - Role and Responsibilities of Quarry Personnel

Role	Responsibility
Daracon Divisional Manager – Construction Materials	Provide sufficient resources for the implementation of this plan.
Daracon Quarries Manager	<ul style="list-style-type: none"> • Oversee the implementation of this plan. • Have working knowledge of this plan. • Coordinate the implementation of blast management measures and strategies in accordance with this plan. • Be aware of the environmental legislative requirements associated with the quarry and take measures to ensure compliance. • Ensure employees are competent through training and awareness programs.
Environmental Officer / Systems Manager	<ul style="list-style-type: none"> • Coordinate the review of this plan in accordance with the requirements of the Approval. • Coordinate the blast monitoring program described in this plan. • Evaluate and report monitoring results as required by the Consent and Environment Protection Licence (EPL). • Coordinate blast related incident investigations and reporting as required by legislation. • Initiate investigations of complaints as received from the public or government agency. • Provide primary contact for complaints and supply follow-up information to any complainant. • Prepare a report to government agencies or neighbours following incidents/ non-compliances.
All employees and contractors	<ul style="list-style-type: none"> • Comply with all requirements in this plan. • Report all potential environmental incidents to the Environmental Officer/Quarry Manager immediately. • Operate in a manner that minimises risks of incidents to themselves, fellow workers or the surrounding environment. • Follow any instructions provided by the Quarry Manager.

5. HOURS OF OPERATION

The hours of Ardglan Quarry operation taken from the Approval are shown in

We commit to implementing and complying with the work hours listed in Table 3.

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Table 3: Hours of Operation

Activity	Day	Time
Topsoil/overburden removal and emplacement	Monday-Saturday	7:00am – 5:00pm
	Sunday	None
Blasting	Monday-Friday	10:00am– 3:00pm
	Saturday, Sunday and public holidays	None
In-pit activities (including drilling, extraction, and transfer of material out of the pit)	Monday-Saturday	7:00am – 5:30pm
	Sunday and public holidays	None
Out-of-pit activities (including processing and stockpiling)	Monday-Saturday	7:00am – 5:30pm
	Sunday and public holidays	None
Maintenance (if inaudible at nearby residences)	Monday-Sunday	Any time
Truck loading and distribution	Monday-Saturday	6:30am – 5:30pm
	Sunday and public holidays	None
Rail loading	Monday-Sunday	7:00am – 10:00pm

6. OUT OF HOURS WORK REQUIREMENTS AND COMMITMENTS

If loading more than 2 trains outside the rail loading and distribution hours (see Table 3) in any 12 month period is required, Daracon will seek an agreement in writing with the Planning Secretary.

If the Daracon intends to undertake out of hours rail loading, Daracon will use its best endeavours to notify all local residents at least 12 hours prior to the proposed rail loading, to the satisfaction of the Planning Secretary.

If blasting operations outside the hours listed in Table 3 is required for safety reasons, Daracon will notify the EPA and the local community about the proposed blast as soon as possible.

7. BLAST IMPACT ASSESSMENT CRITERIA

The Department of Planning, Industry & Environment (DPIE) issued blast impact assessment criteria for the Ardglan Quarry’s operational noise at each of the surrounding residences. The approved blast impact assessment criteria for the surrounding residences are reproduced in Table 4. These criteria are as specified in Table 5 and 6 of the of the Approval

Daracon will implement the use of this BMP to ensure that the combined blasting impact generated by the Ardglan Quarry does not exceed the blast impact assessment criteria in Table 4 at any residence on privately-owned land.

Table 4: Blast Impact Assessment Criteria for the Ardglan Quarry

Airblast overpressure level (dB(Lin Peak))	Allowable exceedance
115	5% of the total number of blasts over a period of 12 months
120	0%

Peak particle velocity (mm/s)	Allowable exceedance
5	5% of the total number of blasts over a period of 12 months
10	0%

Additionally, Daracon will ensure that the blast overpressure does not exceed 120 dB(Lpeak) at any time, unless specific prior agreement is reached with the affected landholder;

Section **Error! Reference source not found.** of this BMP details Daracon’s out of hours work requirements and commitments for the Ardglan Quarry.

8. BLAST MONITORING PROGRAM

As required in Schedule 3, Condition 14 of the Approval, the blast monitoring program for this BMP will include the following:

- Airblast overpressure monitoring for each blast;
- Peak Particle Velocity (PPV) monitoring for each blast;
- Review and reporting all blast results;

This blast monitoring program was meant to be submitted to the Planning Secretary for approval within three months of the determination of MOD 2. However, Daracon notified DPIE on 11 June 2021 of its intention to submit this BMP before the 31 December 2021. At the time of submission of this plan Daracon is yet to receive a valid response from DPIE.

Daracon will plan, implement and monitor all blasts to ensure that best practice is achieved to:

- Protect the safety of people, property, public infrastructure and livestock; and
- Minimise the dust and fume emissions from blasting at the development, to the satisfaction of the Planning Secretary;

Daracon will implement this blast monitoring program for the Ardglen quarry as approved by the Planning Secretary.

8.1 Blast Monitoring

Blast monitoring will involve the measurement of overpressure and ground vibration. Blast monitoring will be undertaken at the two receiver locations shown in Table 5 and on Figure 1:

Table 5: Blast Impact Assessment Criteria for the Ardglen Quarry

<i>Location</i> *
Receptor 2
Receptor 7

* From Figure 6-1, EA Noise Assessment (ERM, 2006).

Portable blast monitors will be used to measure blast overpressure and ground vibration at selected blasting events to ensure the impact assessment criteria are met. Instrumentation used to monitor compliance will meet the requirements of Australian Standard 2187.2 of 2006. The results of blast monitoring will be submitted to DECCW and the DoP at the end of each reporting period and be summarised and interpreted in the Annual Environmental Management Report (AEMR).

Flyrock Monitoring

No flyrock is predicted to be emitted beyond the zone of exclusion. All blasts will be closely observed. Blasting procedures will be designed to keep flyrock to a minimum and contained within the quarry. In the event of any flyrock extending beyond the quarry a thorough assessment will be carried out to try to determine the cause.

Review Process

All blasts that exceed the ground vibration or air overpressure criteria at the blast monitoring locations will be reviewed by the Drill and Blast Superintendent to identify causal factors and any potential improvements that can be made to improve blasting performance.

The Proponent is to report to the DPIE and community as detailed in Section 8.2 any blast that exceeds the levels for ground vibration or air overpressure as nominated in the Approval.



Figure 1 – Blast monitoring locations (from Figure 6-1, EA Noise Assessment (ERM, 2006))

8.2 Exceedance Protocol Non-Compliance Notification

In accordance with, Schedule 5 Condition 3A of the Approval, within seven days of becoming aware of a non-compliance with the blast criteria, Daracon will notify the DPIE of the non-compliance. The notification will be in writing to compliance@planning.nsw.gov.au. The notification will identify the development (including the development application number and name), set out the condition of this consent that the development is non-compliant with, why it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.

Furthermore, Daracon will notify the DPIE in writing (compliance@planning.nsw.gov.au) and any other relevant Agency immediately after it becomes aware of an incident as defined by the Approval. An incident notification shall (at a minimum) identify the development and set out the location and nature of the incident.

Note: A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.

8.3 Notification of Exceedances to Landowners

If blast monitoring results identify that impacts generated by the development are greater than the blast impact assessment criteria in Table 4, Daracon will:

- Notify the affected landowners and/or existing or future tenants (including tenants of quarry owned properties) as soon as practicable and no longer than 7 days after obtaining monitoring results showing an exceedance of the blast impact assessment criteria.
- Provide monthly (whilst quarry operations are being carried out) monitoring results to each of the affected landowners until the blast monitoring results show that the development is complying with the blast impact assessment criteria in Error! Reference source not found..
- Notify the Planning Secretary in accordance with Schedule 4, condition 1 of the Approval.

9. OPERATIONAL CONTROLS

We commit to implementing the recommended blast mitigation measures as outline in the MOD 2EA to the satisfaction of the Planning Secretary. This includes the following proactive and reactive actions or strategies to minimise the potential for blast impacts at residential receivers.

9.1 Blast Impact Mitigation Measures

In accordance with the Approval, the following blast impact mitigation measures will be in place for the quarry to proactively manage potential blast impacts:

- Blasting will only occur Monday to Friday between the hours of 10am and 3pm;
- Daracon will notify the landowner/occupier of any residence within 1 kilometre of the quarry pit who registers an interest in being notified about the blasting schedule at the quarry;
- Daracon will operate a Blasting Hotline, or alternate system agreed to by the Planning Secretary, to enable the public to get up-to-date information on the blasting schedule at the quarry;
- Daracon will keep local residents informed about this hotline (or any alternative notification protocols), to the satisfaction of the Planning Secretary;
- Before a blast occurs, an assessment of the forecast weather conditions will be undertaken with respect to potential for blast impact enhancing conditions. If the forecast weather is likely to introduce additional blast impact, then the blast may be delayed if it is feasible and safe to do so;
- Blast management training and completion of regular tool-box talks to enforce the importance of blast impact mitigation will be undertaken by relevant quarry personnel.
- Daracon will not carry out more than 30 blasts a year, or more than 1 blast per day, without the written approval of the Planning Secretary;
- Daracon will not undertake blasting within 500 metres of any privately-owned land or any land not owned by the Applicant, unless suitable arrangements have been made with the landowner and any tenants to minimise the risk of flyrock-related impact to the property to the satisfaction of the Planning Secretary;

9.2 Additional Blast Mitigation Measures

As per procedures in this BMP, and in keeping with the Approval, the monitoring of emitted blast levels will be undertaken during quarrying operations to verify compliance with blast criteria and to assess the need, if any, for additional blast attenuation measures.

Daracon will ensure the development has a suitable meteorological station in the vicinity of the site that:

- (a) complies with the requirements in the Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales (DEC, 2007); and
- (b) is capable of measuring meteorological conditions in accordance with the NSW Industrial Noise Policy (EPA, 2000),

unless a suitable alternative is approved by the Planning Secretary following consultation with the EPA.

Additionally, if any landowner of privately-owned land within 1 kilometre of the site claims that buildings and/or structures on his/her land have been damaged as a result of blasting at the site, following commencement of operations within the extension area, then he/she may ask the Planning Secretary in writing to investigate the claim.

If the Planning Secretary is satisfied that an independent property investigation is warranted, Daracon will, within 3 months of the Planning Secretary's determination:

- Commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Planning Secretary, to investigate the claim; and
- Give the landowner a copy of the property investigation report;

If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Daracon will repair the damages to the satisfaction of the Planning Secretary.

If Daracon or landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Planning Secretary for resolution.

9.3 Continuous Improvement

As part of the operation of Ardglan Quarry and as required by Condition 5 of the Approval, Daracon will:

- Implement all reasonable and feasible blast mitigation measures;
- Investigate ways to reduce the blast impacts generated by the project,
- Report on these investigations and the implementation and effectiveness of these measures in the Annual Review, to the satisfaction of the Planning Secretary.

10. REVIEW AND IMPROVEMENT

10.1 Inspection and Review

The Quarry Supervisor shall monitor performance of the blast mitigation measures to confirm the effectiveness of methods, equipment and controls. Results shall be recorded and opportunities for improvement recommended to the QM.

The BMP and associated documentation shall be formally reviewed by the QM at minimum twelve (12) monthly intervals. Any reviews and alterations to the BMP shall be recorded according to the document control procedure.

We also commit to implementing the revision of strategies, plans and programs as set out in Condition 15, Schedule 2 of the Approval when required. Additionally, any revisions to the BMP will require the approval of the Planning Secretary before being implemented.

10.2 Audits

Conformance audits will be carried out on the relevant processes and subcontractors in accordance with the master audit schedule. Auditors shall be suitably qualified and independent of the processes being assessed.

The scope of audits undertaken will include incident notification, reporting and response, non-compliance notification, compliance report and independent audits in accordance with the relevant conditions of the Approval (Schedule 5 conditions 3, 3A, 4 and 5).

10.3 Records and Reporting

A summary of the blast monitoring results required by the Approval will be:

- Stored electronically in a central location for routine assessment;
- Provided on the Daracon Group website;
- Updated on a regular basis at least every 6 months;

Additionally, all blast management matters will be reviewed and included in the Annual Environmental Management Report (AEMR) due at the end of March the following year, such as:

- A description of the development including any additional mitigation measures employed;
- A comprehensive review of all monitoring results for the reporting period and an analysis of trends. These will be measured against the specific requirements set out in (i) – (iv) of Condition 4 Schedule 5 (b) of the Approval;
- Analysis and commentary on all incident notifications, non-compliance notifications, compliance reports and independent audits. This will include details of actions taken to rectify and avoid reoccurrence;
- Commentary on the effectiveness of controls implemented. This will evaluate and report on the effectiveness of the blast management systems and compliance with the performance measures, criteria and operating conditions of the Approval;
- Review and commentary on any discrepancies identified between predicted and actual impacts;

- Describe what measures will be implemented over the next calendar year to improve the environmental performance of the development if required.

Blast monitoring results will be compared to the assessment criteria and guidelines detailed in Section 7 on at least a monthly (whilst quarry operations are being carried out) basis. Monitoring reports will also identify and comment on any exceedances and/or trends in monitoring results. Monitoring results will be reported internally to the Senior Manager and used as a basis for external reporting.

Any exceedances of blast assessment criteria or non-compliance with any statutory requirement will be treated as an environmental incident and handled according to the non-compliance notification procedure as detailed in Section 8.2 of this BMP.

Within 3 months of the approval of this BMP or any subsequent revision of this BMP, Daracon will:

- Provide a copy of the BMP to the relevant agencies and Community Consultation Committee (CCC).
- Put a copy of the BMP on the Daracon website

A copy of the Approval, as may be modified from time to time, will also be provided on the Daracon website.

11. Community Consultation and Complaints

A CCC has been established to address any concerns raised by local members of the community. Regular meetings of the CCC will continue to occur in accordance with Schedule 5, Condition 7 of the Approval.

A complaint process has been developed as is summarised as follows:

- A publicly advertised telephone complaints line will be utilized to receive complaints during operating hours and record complaints at other times.
- Ensure that all complaints are recorded on the relevant form and circulated to the necessary quarry personnel for action.
- Ensure that an initial response is provided within 24 hours of receipt of a complaint except in the event of complaints recorded when the quarry is not operational.
- Provide a report of complaints received every 12 months as part of the Annual Review.

The complaints record will include the following details for blast complaints:

- The date and time of the complaint.
- Any personal details the complainant wishes to provide or if no such details are provided a note to that effect.
- The nature of the blast that led to the complaint, including the time of the blast and its duration.
- The action taken by the quarry in relation to the complaint, including any follow-up contact with the complainant.
- If no action was taken by the quarry, the reason why no action was taken.

12. APPENDIX A – EPA CORRESPONDENCE

DOC21/1144670-2
14 January 2022

Planning and Assessment Division
Department of Planning, Industry and Environment
Locked Bag 5022
PARRAMATTA NSW 2124

EPA Submission on Request for Advice on Blast Management Plan

Thank you for the request for advice from Public Authority Consultation (PAE-34273794), requesting input from the NSW Environment Protection Authority (EPA) on the Blast Management Plan for Ardglan Quarry (MP06-0264-PA-21) at Quarry road, ARDGLEN NSW 2338.

The EPA does not provide advice on, or endorsement of, any site management plans developed for planning assessments. Accordingly, the EPA will not be providing further comment to this request.

If you have any questions about this request, please contact Daniel Stokes on (02) 4908 6804 or via email at info@epa.nsw.gov.au.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Lindsay Fulloon'.

LINDSAY FULLOON
Manager Regional Operations
Regulatory Operations Regional West