

Noise 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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13. APPENDIX A – EPA CORRESPONDENCE



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 noise 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 Noise Management Plan (NMP) details the measures required to mitigate the environmental effect of noise from the above activities on our neighbours. It also details the noise monitoring programs to assess and report the levels of impact, in compliance with Schedule 3 of the Approval and provides a mechanism whereby any noise 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 NOISE 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 noise and vibration on construction sites;
- Outline site-specific feasible and reasonable work practices to guide day to day planning of quarrying operations and minimise noise impacts;
- Identifying and alerting sensitive receivers to any adverse noise and vibration impacts that may occur;

This Noise Management Plan (NMP) 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 noise 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 noise impacts be planned, documented implemented and monitored for Ardglen Quarry.

3.1 **Project Approval**

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



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Table 1 – Regulatory Requirements

Time .00am to 5.00pr lone 0:00am to 3.00p lone .00am to 5:30pr lone .00am to 5:30pr
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		Descrip	otion			Section(s Addresse
Noise						
Noise Impac	t Assessment Criteria					
Schedule 3 Condition 2	The Applicant must ens operational noise gener noise impact assessme owned land, except whe Construction Noise Prot Secretary under conditio	ated by the dev nt criteria in Tak ere construction cocol which has	velopment does ble 2 at any resi works are auth been approved	not exceed th idence on priv iorised under	⁄ately- a	Section 7
	Table 2: Noise impact assessmen	t criteria dB(A)				
	Land	Day	Evening	Ni	ght	
	Land	LAeq(15 min)	LAeq(15 min)	LAeq(15 min)	LA1(1)	
	4	44	35	35	45	
	5, 6	45	35	35	45	
	9	37	35	35	45	
	Table 2: Noise impact a					
		Dav	Luoning	1 1	Viaht	
	Land	Day	Evening		Vight	
	10	Day LAeq(15 min) 38	LAeq(15 min)	LAeq(15 min)	Vight Laı	
	10	LAeq(15 min)	LAeq(15 min)	LAeq(15 min)	ř.	
		LAeq(15 min) 38	LAeq(15 min) 35	LAeq(15 min) 35	ř.	
	10 12, 14	LAeq(15 min) 38 36	LAeq(15 min) 35 35	LAeq(15 min) 35 35	ř.	
	10 12, 14 15	LAeq(15 min) 38 36 43	LAeq(15 min) 35 35 35	LAeq(15 min) 35 35 35	ř.	



Condition	Description	Section(s) Addressed			
	 Notes: For information on the numbering and identification of properties used in this approval see Appendix 5. Noise generated by the development must be measured in accordance with the relevant requirements and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy (EPA, 2000). Appendix 6 sets out the meteorological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria. 				
Schedule 3 Condition 3	The Applicant must undertake all construction work within standard construction hours (7.00am to 6.00 pm Monday to Friday and 8.00am to 1.00pm Saturday, excluding Sundays and Public Holidays).	Section 8			
Schedule 3 Condition 4	The Applicant must ensure that combined construction and operational noise generated by the development does not exceed the limits outlined in Table 2 of this Schedule, except where:	Section 8			
	(a) the Applicant has a written negotiated agreement with the owner(s) of the relevant residence/land as outlined in condition 2 of this Schedule; or				
	(b) an alternative temporary limit has been approved by the Planning Secretary for specific construction works or for a fixed period of time.	Section 8			
Schedule 3 Condition 4A	In order to seek an alternative temporary construction noise limit under condition 4(b) of this Schedule, the Applicant must submit a Construction Noise Protocol to the Planning Secretary for approval, prior to undertaking the nominated construction works. This protocol must:	Section 8			
	(a) be prepared in consultation with the EPA and any landowners who may be affected by noise generated by the nominated construction works; and				
	(b) address the relevant requirements of the Interim Construction Noise Guideline (DECC 2009).	Section 8			
Schedule 3 Condition 4B	The Applicant must implement any Construction Noise Protocol as approved by the Planning Secretary.	Section 8			
Operating Co	Operating Conditions				



Condition	Description	Section(s) Addressed
Schedule 3 Condition 4C	The Applicant must:	Section 9 and 10
40	(a) take all reasonable steps to minimise noise from construction and operational activities, including low frequency noise and other audible characteristics, as well as road noise associated with the development;	
	(b) operate a noise management system to guide day to day planning of quarrying operations and implementation of both proactive and reactive noise mitigation measures to ensure compliance with the relevant conditions of this consent;	Section 10
	(c) take all reasonable steps to minimise the noise impacts of the development during noise-enhancing meteorological conditions, particularly when the noise criteria in this consent do not apply (see Appendix 6);	Section 10
	(d) carry out regular noise monitoring (at least once a month while quarrying operations are being carried out, unless otherwise agreed by the Planning Secretary) to determine whether the development is complying with the relevant conditions of this consent; and	Section 9
	(e) regularly assess the noise monitoring data and modify or stop operations on the site to ensure compliance with the relevant conditions of this consent.	Section 9
Schedule 3 Condition 4D	Prior to carrying out any processing activities under this consent, the Applicant must implement the recommended noise mitigation measures as outlined in the MOD 2 EA to the satisfaction of the Planning Secretary.	Section 10
Schedule 3 Condition	The Applicant must not operate processing equipment while undertaking:	Section 10.1
4E	(a) rail loading; and/or	•
	(b) topsoil/overburden removal or emplacement.	Section 10.1
Continuous I	mprovement	
Schedule 3 Condition 5	The Applicant must:	Section 10.5
	(a) investigate ways to reduce the noise generated by the development, including off-site road and rail noise and maximum noise levels which may result in sleep disturbance; and	
	(b) report on these investigations and the implementation and effectiveness of these measures in the Annual Review, to the satisfaction of the Planning Secretary.	Section 10.5
	1	I



Condition	Description	Section(s) Addressed
Monitoring		1
Schedule 3 Condition 6	The Applicant must prepare a Noise Monitoring Program for the development in consultation with EPA and to the satisfaction of the Planning Secretary. The program must:	Section 9.1
	(a) include:	
	(i) a combination of attended and unattended noise monitoring measures;	
	(ii) detailed measures to comply with condition 4C of this Schedule; and	Section 9 and 10
	(iii) a noise monitoring protocol for evaluating compliance with the noise criteria in Table 2 of this Schedule; and	Section 9.2
	(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).	Section 9
Schedule 3 Condition 6A	The Applicant must implement the Noise Monitoring Program as approved by the Planning Secretary.	Section 9
Meteorologic	al Monitoring	
Schedule 3 Condition 18	The Applicant must ensure the development has a suitable meteorological station in the vicinity of the site that: (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	Section 9
	(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.	Section 9
Notification o	f Landowners	<u> </u>
Schedule 4 Condition1	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 9.3 and 9.4
Notification o	f Exceedances	
Schedule 4 Condtion 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	Section 9.4



Condition	Description	Section(s) Addressed
	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).	
Environmenta	al 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 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.	Section 11.2
	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.	
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		1
Schedule 5 Condtion 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 9.3
Schedule 5 Condtion 3A	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.	Section 9.3
	Note: A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.	
Community C	Consultative Committee	
Schedule 5 Condtion 7	The Applicant must operate a Community Consultative Committee (CCC) for the project to the satisfaction of the Planning Secretary, in accordance	Section 12



Condition	Description	Section(s) Addressed	
	with the Department's Community Consultative Committee Guidelines: State Significant Projects (2019).		
Access to Inf	ormation		
Schedule 5 Condtion 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 11.3	
	(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.	Section 11.3	
Schedule 5 Condtion 9	During the development, the Applicant must:	Section 11.3	
	(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	Section 11.3	
	(c) update these results on a regular basis (at least every 6 months).	Section 11.3	
Statement of	Commitments - Noise	<u> </u>	
9	 The proponent will continue to implement the following measures, which are currently in place at Ardglen Quarry, to mitigate noise impacts: Quarry hours are restricted to between 6am and 5:30pm; Noise created by haul trucks, both empty and loaded, is reduced by imposing a speed limit of 50km/h when travelling on local roads between the quarry and the highway. Trucks on site are limited to a speed of 25km/h; All on-site, fixed and mobile diesel-powered plant, excluding road vehicles, are correctly fitted and maintained to manufacturer specifications. Particular attention is given to engine exhaust systems and the care and maintenance of mufflers. 	Section 10	
	 Further noise control is nominated through the implementation of the following measures: Reduction of equipment through the separation of site activities to overburden stripping and exctraction, whereby they do not occur simultaneously; Rail loading will be limited to the day period (7am to 6pm) as much as practicable; The surge bin will be lined with latex or polymer liners to reduce impulsive noise; A sheet metal enclosure will be built around the rail loader discharge and extend to include the rail wagon being loaded. The enclosure will be constructed of sheet metal and will cover the length of a minimum of three wagons whereby the wagon being 		





Condition	Description	Section(s) Addressed
	 loaded will be in the centre of the enclosure. The enclosure will be open at the ends and will contain a roof which will be conntected to the rail loader discharge. Gaps between the loader discharge and the roof will be sealed; The two scrapers initially assigned for overburden stripping will be replaced by one excavator and two articulated dump trucks; The existing screens will be located behind earth bunds; and mobile acoustic barriers or earth arriers will surround the drill rig and any mobile plant situation on the surface during initial stripping; and Where land slopes away from stripping activities to receievers, barriers will be raised to a height of 4 metres, so there is no direct line of site to receivers. 	
10	Except during night-time rail loading activities, the proponent will ensure that the noise generated by the project does not exceed the levels set out in Table 2, at any privately-owned residence ,unless a specific agreement is reached with the landholder, in which case the proponent may exceed the noise limits set out in Table 2 in accordance wit the negotiated noise agreement.	Section 7 Section 9



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.

Role	Responsibility			
Daracon Divisional Manager – Construction Materials	Provide sufficient resources for the implementation of this plan.			
Daracon Quarries Manager	Oversee the implementation of this plan.			
	Have working knowledge of this plan.			
	Coordinate the implementation of noise 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	Coordinate the review of this plan in accordance with the requirements of the Approval.			
	• Coordinate the noise monitoring program described in this plan.			
	• Evaluate and report monitoring results as required by the Consent and Environment Protection Licence (EPL).			
	 Coordinate noise 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	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.			

Table 2 -	Role and	Respon	eihilitioe	of Quarry	Personnel
I able Z -	Role allu	Respons	Siniirias	UI Quality	reisonnei



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5. HOURS OF OPERATION

The hours of Ardglen 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	Monday-Saturday	7:00am – 5:00pm	
and emplacement	Sunday	None	
Blasting	Monday-Friday	10:00am– 3:00pm	
	Saturday, Sunday and public holidays	None	
In-pit activities (including drilling, extraction, and	Monday-Saturday	7:00am – 5:30pm	
transfer of material out of the pit)	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. NOISE IMPACT ASSESSMENT CRITERIA

The Department of Planning, Industry & Environment (DPIE) issued noise impact assessment criteria for the Ardglen Quarry's operational noise at each of the surrounding residences. The approved noise impact assessment criteria for the surrounding residences are reproduced in Table 4. These criteria are as specified in Table 2 of the of the Approval.

Daracon will implement the use of this NMP to ensure that the combined construction and operational noise generated by the Ardglen Quarry does not exceed the noise impact assessment criteria in Table 4 at any residence on privately-owned land.

Table 4 - Noise Impact Assessment Criteria dB(A) for the Ardglen Quarry

ID	Property	Day L _{Aeq, 15min}	Evening L _{Aeq, 15min}	Night	
				L _{Aeq,} 15min	L _{A1,1min}
4	C Thompson	44	35	35	45
5	M Taylor	45	35	35	45
6	E Russell	45	35	35	45
9	Bates	37	35	35	45
10	Avery	38	35	35	45
12	G Smith	36	35	35	45
13	McGhie	35	35	35	45
14	P Purtell & S Harnes	36	35	35	45
15	P Dalton	43	35	35	45
16	Bojba	40	35	35	45
All oth	ner privately owned land	35	35	35	45

Additionally, the Approval also states that if the Daracon has a written negotiated noise agreement with any landowner of the land listed in Table 4, and a copy of this agreement has been forwarded to the DPIE and EPA, then Daracon may exceed the noise criteria in Table 4 in accordance with the negotiated noise agreement. Daracon may also exceed the LA1(1 min) and LAeq(15 min) noise impact assessment criteria during out of hours rail loading activities provided they are conducted in accordance with Schedule 3, Condition 41 of the Approval.

Schedule 3, Condition 41 of the Approval states that Daracon may only load a maximum of 2 trains outside the rail loading and distribution hours provided in Table 3 in any 12 month period, unless agreed to in writing by the Planning Secretary.

Furthermore, as stated in Schedule 3, Condition 42 of the Approval, if Daracon intends to undertake out of hours rail loading, it must 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.

Section **Error! Reference source not found.** of this NMP details Daracon's out of hours work requirements and commitments for the Ardglen Quarry.



7.1 Likely Sources of Noise During Operations

During the operation of the Ardglen Quarry, Daracon proposes to use the following noise generating equipment:

- Excavators;
- Water carts
- Articulated dump trucks
- Dozers
- Front-end loaders
- Jaw crusher
- Cone crusher
- Screening equipment
- Canica crusher
- Pugmill
- Rock Drills
- Blasting equipment
- Road trucks for deliveries of gravels and other materials
- Train engines and wagons
- Others as required

Note that any subcontractor plant will be also assessed for suitability for the task on site.



8. CONSTRUCTION NOISE

Daracon commits to undertaking all construction work at the Ardglen Quarry within the following standard construction hours:

- 7.00am to 6.00 pm Monday to Friday
- 8.00am to 1.00pm Saturday
- No work to be undertaken on Sundays and Public Holidays.

Daracon will ensure that the combined construction and operational noise generated by the development does not exceed the noise impact assessment criteria limits outlined in Table 4, except where:

- Daracon has a written negotiated agreement with the owner(s) of the relevant residence/land.
- An alternative temporary construction noise limit has been approved by the PlanningSecretary for specific construction works or for a fixed period of time.

Daracon currently has a written negotiated contruction noise agreement with the following receiver:

Land ID – 10 in Table 4.

If Daracon seeks a temporary construction noise limit for nominated construction activies, Daracon will submit a separate Construction Noise Protocol document to the Planning Secretary for approval, prior to undertaking the nominated construction works. The protocol will:

- Be prepared in consultation with the EPA and any landowners who may be affected by the noise generated by the nominated construction works.
- Address the relevant requirements of the Interim Construction Noise Guideline (DECC 2009).

Daracon will implement any Construction Noise Protocol documents as approved by the Planning Secretary.



9. NOISE MONITORING PROGRAM

As required in Schedule 3, Condition 6 of the Approval, the noise monitoring program for this NMP will include the following:

- A combination of attended and unattended noise monitoring measures;
- Detailed measures to comply with Schedule 3, Condition 4C of the Approval; and
- A noise monitoring protocol for evaluating compliance with the noise criteria in Schedule 3, Condition 2 - Table 2 of the Approval.

This noise monitoring program was 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 NMP on 31 July 2021. At the time of submission of this plan Daracon is yet to receive a valid response from DPIE.

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

9.1 Attended and Unattended Noise Monitoring Monitoring

Attended and unattended noise monitoring shall be undertaken monthly whilst quarry operations are being carried out, with all monitoring to be carried out by an appropriately qualified environmental consultant. Attended monthly (whilst quarry operations are being carried out) noise compliance monitoring will be used to accurately determine the noise contribution from the Ardglen Quarry's activities.

The meteorological station, located East of the Arglen Quarry will be used to measure meteorological conditions in accordance with the NSW Industrial Noise Policy (EPA, 2000). Attended noise monitoring will be conducted as follows;

- All noise investigations will be carried out in accordance with the Industrial noise policy (EPA, 2000)and applicable Australian Standards.
- Noise levels will be measured in one-third octave bands using an instrument with IEC Type 1 characteristics as defined in AS 1259-1990 "Sound Level Meters". The instrument will have current calibration as per manufacturer's instructions and field calibration will be confirmed before and after measurements with a sound level calibrator.
- The instrument will be set to A-weighting, "fast" response and measurements of Leq (15 minute) will be taken. Each measurement will be stored at a sampling rate of no greater than 5 seconds for further analysis.
- During operations, attended surveys will be conducted during the approved hours of operation with measurements taken at identified sensitive receptor locations to ensure that noise levels during the full range of operating times are monitored. See 5 and
- Figure 1 for attended noise monitoring locations.
- Field notes will be taken during each measurement recording the time and duration of noise events, noise sources, instantaneous noise levels and the frequency range of identified site noise sources.
- Extraneous noise sources will be filtered from the measured signal using recognised and appropriate methodologies) and the Leq (15 minute) level attributable to the quarry activities will be identified and compared with the relevant criteria.
- Details regarding survey interval, weather conditions, extraneous noise sources, monitoring locations and times of measurement will be recorded for inclusion in the monthly (whilst quarry operations are being carried out) noise monitoring report.

Unattended noise surveys will be conducted as follows:

- Unattended noise logging will be conducted to coincide with the monthly (whilst quarry operations are being carried out) attended surveys; Unattended noise loggers will be deployed at two selected locations near the quarrying operations for a three day period where practical coinciding with the attended survey.
- IEC Type II noise loggers with current calibration as per manufacturer's instructions will be used.



- The logger(s) will be placed at locations to coincide with a measurement location for the attended surveys (where practical). The microphone will be fitted with a matching wind shield and will not be placed under trees or near an extraneous noise source (e.g., pool pumps or electrical transformers);
- Levels will be measured continuously over a seven day period at 15-minute statistical intervals. Noise percentiles recorded shall include Lmax, Leq, L1, L10, L90 and Lmin.
- Weather data for the unattended noise monitoring period will be interrogated to determine periods of rain or wind speeds over 5 m/s. Corresponding noise data will be highlighted as invalid.
- Logger data will be displayed graphically in the monthly (whilst quarry operations are being carried out) noise monitoring report.

Attended noise monitoring locations are shown in Table 5 and presented in Figure 1.

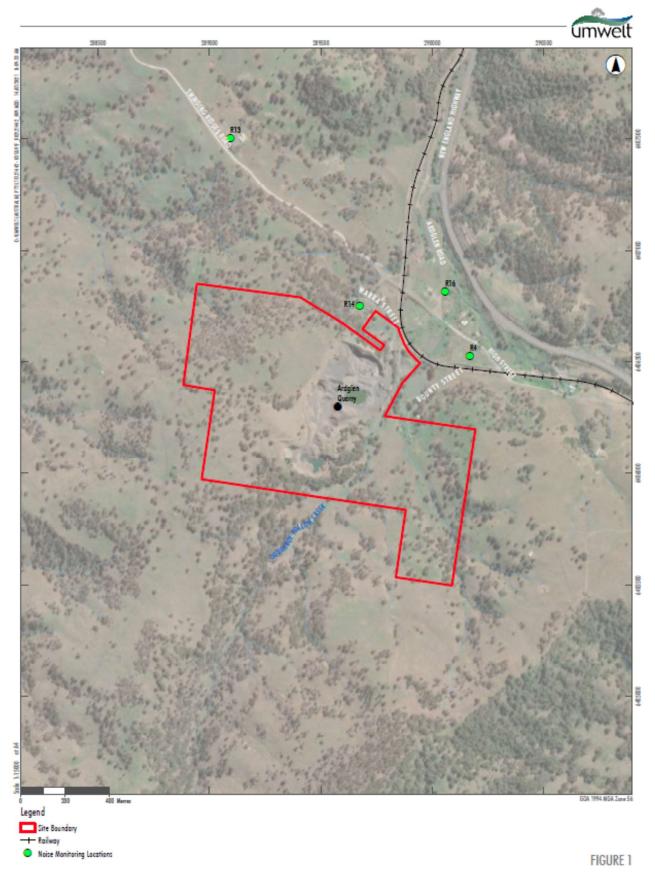
Table 5 - Attended Noise Monitoring Locations

ID	Property	Coordinates			
		Northing	Easting		
4	C Thompson	6486527	290168		
13	McGhie	6487505	289094		
14	P Purtell & S Harnes	6486750	289675		
16	Bojba	6486815	290058		



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Ardglen Quarry Attended Noise Monitoring Locations

Figure 1 - Attended Noise Monitoring Locations



9.2 Noise Monitoring Protocol

In accordance with Schedule 3, Condtion 6(a)(iii) of the Approval, this noise monitoring protocol has been developed for the Ardglen Quarry and will be used for evaluating compliance with the noise impact assessment criteria in Table 2 of the Approval.

In accordance with the Industrial noise policy (EPA, 2000), compliance with the noise impact assessment criteria will be determined by attended noise monitoring surveys. Daracon will be deemed to have recorded an exceedance of the noise impact assessment criteria (refer to Table 4) if attended noise monitoring identifies that the noise generated from the operational activities of the Ardglen Quarry exceeds the noise impact assessment criteria.

The process to be utilised by Daracon to evaluate compliance with the noise impact assessment criteria is detailed below:

- Daracon is to engage a suitably qualified noise consultant to conduct attended noise monitoring at the locations specified in**Table 5** on a monthly (whilst quarry operations are being carried out) basis.
- 2. Following the analysis of attended noise monitoring results, if the measured noise levels of the Ardglen Quarry are compliant with the noise impact assessment criteria for all of the attended noise monitoring locations, the noise consultant will notify Daracon that they are compliant with the noise impact assessment criteria for the quarter. Following the completion of attended noise monitoring, a report will be prepared by the noise consultant detailing the attended noise monitoring results and will be given to Daracon.
- 3. Proceed to step 4 if an exceedance of the noise impact assessment criteria is detected at any of the noise monitoring locations.
- 4. Following the analysis of the attended noise monitoring results, if the measured noise levels for the Ardglen Quarry exceed the noise impact assessment criteria at any of the noise monitoring locations, the noise consultant will immediately notify the relevant Ardglen Quarry staff of the exceedance and if possible provide detail as to the likely cause of the exceedance. The exceedance will be considered a non-compliance with the noise impact assessment criteria and will be reported by the relevant Ardglen Quarry staff to DPIE in accordance with the non-compliance notification procedure described in Section 9.3 of this NMP.
- 5. Following notification of the exceedance, where practicable, modifications to the daily operations of the Arglen Quarry will be implemented by the relevant Ardglen Quarry staff to reduce the quarry's noise emissions and prevent further exceedances of the noise impact assessment criteria. If necessary, we commit to modifying and/or stopping operations on the site to ensure compliance.



9.3 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 noise criteria, Daracon will notify the DPIE of the non-compliance. The notification will be in writing to compliance@planning.nsw.gov.au. The notificiation 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.

9.4 Notification of Exceedances to Landowners

If attended noise monitoring results identify that impacts generated by the development are greater than the noise impact assessment criteria in Table 5, Darcon 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 noise impact assessment criteria.
- Provide monthly (whilst quarry operations are being carried out) monitoring results to each of the affected landowners until the attended noise monitoring results show that the development is complying with the noise impact assessment criteria in **Table 5**.
- Notify the Planning Secretary in accordance with Schedule 4, condition 1 of the Approval.



10. OPERATIONAL CONTROLS

We commit to implementing the recommended noise 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 noise impacts at residential receivers whilst extraction and transportation of material is taking place:

10.1 Proactive Noise Mitigation Measures

In accordance with Schedule 3, Condition 4C(b) of the Approval, the following proactive noise mitigation measures will be in place for the quarry to proactively manage potential noise impacts.

- Quarrying operations will be carried out between the hours of 6:30 am to 5.30 pm;
- Rail loading will be limited to the day period between 7am and 6pm, as far as practicable;
- Placement of site compounds, site access roads, parking areas, stationary equipment and material stockpile areas away from noise sensitive areas;
- Mobile equipment speed limits will be implemented;
- Truck movements to and from the site will be restricted by number of movements and time of day;
- Diesel powered equipment will be regularly inspected and maintained with any noise related defects rectified to ensure equipment remains at or below target sound power levels as described in the Environmental Assessment for the project.(
- Daracon operates a modern fleet of plant and vehicles, with the latest in engine technology available. Measures will be implemented to select the appropriate piece of the plant for the activity based on superior noise performance.
- Where practicable, noise generating activities occurring simultaneously will be avoided;
- Where practicable, mobile acoustic barriers and/or earth bunds will be utilised to reduce noise transmission;
- Engines to be switched off when not in use;
- When possible, before daily quarry operations commence an assessment of forecasted weather conditions will be undertaken with respect to potential for noise enhancing conditions. If noise enhancing meteorological conditions are identified, then the environmental personnel for the site will inform the QM (or relevant operational supervisor). The QM will then, where practicable, temporarily modify the quarry's daily operations to reduce noise impacts to receptors. Temporary modifications to the quarry's daily operations may include but are not limited to the following:
 - Relocating, modifying, or ceasing operations as necessary to minimise noise emissions.
 - Instructing dozers to operate in first gear.
 - Reduce the drop height of materials during operations.
 - Restricting crusher operations.
 - The shutdown of auxiliary equipment.
- Daracon will where practicable, continue to modify the quarry's daily operations to reduce the noise emissions of the quarry under all weather conditions.
- Noise management training and completion of regular tool-box talks to enforce the importance of noise impact mitigation will be undertaken by relevant quarry personnel.
- Not operating processing equipment while undertaking rail loading;
- Not operating processing equipment while undertaking topsoil/overburden removal or emplacement;

10.2 Reactive Noise Mitigation Measures

In accordance with Schedule 3, Condition 4C(b) of the Approval, the following reactive noise mitigation measures will be in place for the quarry to manage potential noise impacts.

 When possible, during daily quarry operations an assessment of current weather conditions will be undertaken with respect to potential for noise enhancing conditions. If noise enhancing meteorological conditions are identified, then the environmental personnel for the site will inform the QM (or relevant operational supervisor). The QM will then, where practicable, temporarily



modify the quarry's daily operations to reduce noise impacts to receptors. Temporary modifications to the quarry's daily operations may include but are not limited to the following:

- Relocating, modifying, or ceasing operations as necessary to minimise noise emissions.
- Instructing dozers to operate in first gear.
- Reduce the drop height of materials during operations.
- Restricting crusher operations.
- The shutdown of auxiliary equipment.
- If the quarry receives a noise complaint from a nearby receiver, the QM (or relevant operational supervisor) will be notified of the complaint. The QM or relevant operational supervisor will respond to the complainant within 24 hours if the complainant is contactable to try and identify what caused the noise complaint. If the Ardglen Quarry is the cause of the noise complaint, the nature of the noise complaint will then be investigated and where practicable, the quarry's daily operations will be modified to try and reduce the noise impact that led to the noise complaint.

Any changes to the quarry's daily operations that are successful in resolving a noise complaint will be recorded for future use.

Modifications to the Ardglen Quarry's daily operations will also be utilised when an exceedance
of the noise impact assessment criteria for the quarry is detected during monthly (whilst quarry
operations are being carried out) attended noise monitoring.

10.3 Additional Noise Mitigation Measures

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

Should the noise monitoring results indicate it is warranted investigations will be carried out into the reasonableness and feasibility of the following options in reducing noise emissions from the Ardglen Quarry site:

- The effects of lining the rail loader surge bin to reduce impulsive noise from material impacting on the side of the bin.
- Partially enclosing the rail loader discharger to minimise noise emissions from loading activities.
- Treating the crushers with silencing equipment and/or cladding.
- Additional earthen bunds around the crushers and screens.
- Others noise mitigation methods as deemed reasonable and feasible.

10.4 Continuous Improvement

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

- Implement all reasonable and feasible noise mitigation measures;
- Investigate ways to reduce the noise generated by the project, including off-site road and rail noise and maximum noise levels which may result in sleep disturbance.
- Report on these investigations and the implementation and effectiveness of these measures in the Annual Review, to the satisfaction of the Planning Secretary.



11. REVIEW AND IMPROVEMENT

11.1 Inspection and Review

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

The NMP and associated documentation shall be formally reviewed by the QM at minimum twelve (12) monthly intervals. Any reviews and alterations to the NMP 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 NMP will require the approval of the Planning Secretary before being implemented.

11.2 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, noncompliance notification, compliance report and independent audits in accordance with the relevant conditions of the Approval (Schedule 5 conditions 3, 3A, 4 and 5).

11.3 Records and Reporting

A summary of the noise 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 noise 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 noise 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.

Noise 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 noise 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 9.3 of this NMP.



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

- Provide a copy of the NMP to the relevant agencies and Community Consultation Committee (CCC).
- Put a copy of the NMP 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.

12. 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 noise 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 noise that led to the complaint, including the time of the noise 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.



13. APPENDIX A – EPA CORRESPONDENCE



DOC21/657976-2 5 August 2021

> Industry Assessments Planning and Assessment Division Department of Planning, Industry and Environment Locked Bag 5022 PARRAMATTA NSW 2124 Email: <u>@planning.nsw.gov.au</u>

EPA Submission on Request for Advice on Noise Management Plan

Thank you for your request from Public Authority Consultation (PAE-24874042) for the Environment Protection Authority (EPA)'s advice on the Noise Management Plan for Ardglen Quarry (MP06_0264-PA-13).

The EPA does not provide advice on or endorsement of any management plans developed for planning assessments.

Accordingly, the EPA will not be providing comment further to this request.

Please contact myself on (02) 6773 7000 or by email to <u>armidale@epa.nsw.gov.au</u> if you wish to discuss this matter further.

Yours sincerely,

LINDSAY FULLOON Manager Regulatory Operations, Regional West