
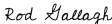
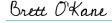


Muswellbrook Coal

MP 34

Noise Management Plan

Prepared by	Environmental Superintendent	Signature	 6C399D3BE6A84E0D48D0EA10F38F0830 readyesign	Date:	26/08/2024
Reviewed by	Rehabilitation Operations Manager	Signature	 3D497CC7CC0CBF3C7B30470E9B00083C readyesign	Date:	26/08/2024
Approved by	Head of Muswellbrook Site	Signature	 E4A746C0EDF8CD4C6A7180407A7BBC90 readyesign	Date:	26/08/2024

 <p>ESTABLISHED 1987 MUSWELLBROOK COAL COMPANY</p>	Noise Management Plan	MP 34
---	-----------------------	-------


TABLE OF CONTENTS

1.0 INTRODUCTION	1
1.1 SCOPE	1
1.2 OBJECTIVES.....	1
2.0 LEGISLATION AND STATUTORY REQUIREMENTS.....	2
2.1 NOISE CRITERIA	11
3.0 REFERENCES	12
4.0 DEFINITIONS/ACRONYMS	13
5.0 SUPPORTING DOCUMENTS	13
6.0 MANAGEMENT SAFEGUARDS AND AMELIORATIVE ACTIONS	13
6.1 IDENTIFICATION OF PROPERTIES AFFECTED BY NOISE	13
6.2 NOISE MITIGATION MEASURES	13
7.0 INFORMATION AND TRAINING.....	14
8.0 NOISE MONITORING PROGRAM.....	14
8.1 ATTENDED NOISE MONITORING.....	14
8.2 EQUIPMENT NOISE MONITORING	17
9.0 COMPLAINT MANAGEMENT.....	17
10.0 EXTERNAL RELATIONS	17
10.1 COMMUNITY CONSULTATION	17
10.2 OTHER MINING COMPANIES.....	17
11.0 INCIDENT REPORTING	18
12.0 INDEPENDENT NOISE INVESTIGATION.....	18
13.0 EXTERNAL REPORTING	18
13.1 ANNUAL ENVIRONMENTAL MANAGEMENT REPORT	19
14.0 REVIEW OF THE NMP	19
15.0 ACCOUNTABILITIES.....	19
16.0 LIST OF APPENDICIES.....	20
17.0 REVISION DETAILS	20

LIST OF TABLES

Table 1: Statutory Requirements	2
Table 2: Noise Limits.....	11
Table 3: Acquisition Noise Limits.....	11
Table 4: Noise Monitoring Locations.....	14
Table 5: Organisational Responsibilities.....	19

Document Owner	Version No.	Review Date	Next Review	Approved Date	Page
Environmental Superintendent	8	July 2024	July 2027	August 2024	i

 <p>ESTABLISHED 1907 MUSWELLBROOK COAL COMPANY</p>	Noise Management Plan	MP 34
---	-----------------------	-------

1.0 INTRODUCTION

Muswellbrook Coal Company (MCC) is a wholly owned subsidiary of the Idemitsu Kosan Company Ltd. Group. MCC has a long association with coal mining at Muswellbrook, with underground coal mining commencing in 1907 and open cut operations in 1944. The mine is located on Muscle Creek Road, approximately 3 kilometres to the north-east of Muswellbrook.

On September 1, 2003, Development Consent for DA 205/2002 was granted by Muswellbrook Shire Council (MSC) to extend the former MCC No.1 Open Cut. The No.1 Open Cut Extension commenced operations in March 2005 and has a capacity to produce up to 2,000,000 tonnes coal per annum. This approval has subsequently been modified on several occasions with the latest modification granted in 2016 to allow mining in an area known as the “Continuation Project” and to extend the life of the mining operations to 2022. Rehabilitation activities will continue past this date. A modification to the approval was granted on 20 December 2022 to allow the storage, handling and transport of coal to continue until the end of March 2023. An additional modification to the consent was granted on 27 February 2024 to align rehabilitation requirements with updated mining lease conditions and other administrative changes.

Mining activities ceased at MCC in December 2022 with the last coal hauled from site in March 2023. Rehabilitation of the site and completion of mine closure activities are ongoing.

1.1 SCOPE


The Development Consent requires the preparation, approval and implementation of an Environmental Management Strategy (EMS) and subordinate Environmental Management Plans (EMP). One of these EMPs is the Noise Management Plan (NMP). This NMP also address environmental protection licence conditions that relate to MCC’s noise management system. Whilst this plan specifically addresses issues related to the management of noise generating activities, it should be read in conjunction with other EMP’s. This NMP has been prepared in consultation with Environmental Protection Authority (EPA) to the satisfaction of MSC (see **Appendix 1** for copies of correspondence).

1.2 OBJECTIVES

The main objective of the NMP is to manage and minimise the impact of noise from rehabilitation activities on the environment and nearby residences. The following actions will be undertaken to achieve this objective:

- Outline the measures to be undertaken on site to mitigate noise emissions,
- Maintain a noise monitoring program;
- Identify the risk levels at which rehabilitation activities may need to be modified to manage compliance,
- Define the mechanisms for community consultation,
- Detail the management measures to be undertaken where the noise levels are demonstrated to exceed the criterion,
- Detail the specifications and procedures to be used for the purpose of Independent Noise Investigations, and
- Specify the regulatory reporting requirements.

Document Owner	Version No.	Review Date	Next Review	Approved Date	Page
Environmental Superintendent	8	July 2024	July 2027	August 2024	1

 ESTABLISHED 1967 MUSWELLBROOK COAL COMPANY	Noise Management Plan	MP 34
---	-----------------------	-------

2.0 LEGISLATION AND STATUTORY REQUIREMENTS

The relevant approval and licence conditions are shown in **Table 1** along with information on where they are addressed in this plan.

Table 1: Statutory Requirements


Approval/ Licence Condition No.	Condition	Section
Development Consent		
35	Where temperature inversion conditions of Class F or higher are in place, as measured by the sites Meteorological Station, the following changes to the mining operations are to occur during the night time period: <ul style="list-style-type: none"> i. Dozers are to be operated in first gear forward and reverse only (emergencies excepted) ii. The maximum of 3 haul trucks can be loaded and haul into the Open Cut No.2 at any one time. 	6.2

Document Owner	Version No.	Review Date	Next Review	Approved Date	Page
Environmental Superintendent	8	July 2024	July 2027	August 2024	2

Approval/ Licence Condition No.	Condition	Section																																																																																																													
36	Table 4 Noise Limits (dB(A))	Noted																																																																																																													
	Location		Day	Evening	Night		L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{A1} (1 minute)	R1, R2, R3, R4, R17, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R37, R38, R39.	35	35	35	45	R5	36	36	36	45	R7	38	38	38	45	R11	39	39	39	45	R12	39	39	39	45	R13	41	41	41	45	R14	38	38	38	45	R15	37	37	37	45	R16	36	36	36	45	R18	45	38	37	47	R20	45	38	37	47	R21	37	37	37	45	R22	39	39	39	45	R23	39	39	39	45	R24	40	40	40	45	R25	42	42	42	45	R36	38	38	38	45	R40	42	42	42	45	R41	42	42	42	45	R42	40	40	40	45	
			Location	Day	Evening	Night																																																																																																									
	L _{Aeq} (15 minute)			L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{A1} (1 minute)																																																																																																									
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R42	40	40	40	45																																																																																																											
	The limits in the noise table above do not apply if the Applicant has a written agreement with the relevant owner(s) of these residences to generate higher noise levels, and Council has been advised in writing of the terms of this agreement. The limits in the noise table above do not apply to residences owned by the Applicant.																																																																																																														
37	The acquisition criteria for noise is defined by repeated demonstrated exceedance of the noise levels shown in Table 5 below:	Noted																																																																																																													


Document Owner	Version No.	Review Date	Next Review	Approved Date	Page
Environmental Superintendent	8	July 2024	July 2027	August 2024	3

Approval/ Licence Condition No.	Condition	Section																																																																																								
38(a)	Table 5 Acquisition Noise Limits (dB(A))	2.1																																																																																								
	<table><tr><th>Location</th><th>Day</th><th>Evening</th><th>Night</th></tr><tr><td></td><td>L_{Aeq}(15 minute)</td><td>L_{Aeq}(15 minute)</td><td>L_{Aeq}(15 minute)</td></tr><tr><td>R1, R2, R3, R4, R17, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R37, R38, R39.</td><td>40</td><td>40</td><td>40</td></tr><tr><td>R5</td><td>41</td><td>41</td><td>41</td></tr><tr><td>R7</td><td>43</td><td>43</td><td>43</td></tr><tr><td>R11</td><td>44</td><td>44</td><td>44</td></tr><tr><td>R12</td><td>44</td><td>44</td><td>44</td></tr><tr><td>R13</td><td>46</td><td>46</td><td>46</td></tr><tr><td>R14</td><td>43</td><td>43</td><td>43</td></tr><tr><td>R15</td><td>42</td><td>42</td><td>42</td></tr><tr><td>R16</td><td>41</td><td>41</td><td>41</td></tr><tr><td>R18</td><td>50</td><td>43</td><td>42</td></tr><tr><td>R20</td><td>50</td><td>43</td><td>42</td></tr><tr><td>R21</td><td>42</td><td>42</td><td>42</td></tr><tr><td>R22</td><td>44</td><td>44</td><td>44</td></tr><tr><td>R23</td><td>44</td><td>44</td><td>44</td></tr><tr><td>R24</td><td>45</td><td>45</td><td>45</td></tr><tr><td>R25</td><td>47</td><td>47</td><td>47</td></tr><tr><td>R36</td><td>43</td><td>43</td><td>43</td></tr><tr><td>R40</td><td>47</td><td>47</td><td>47</td></tr><tr><td>R41</td><td>47</td><td>47</td><td>47</td></tr><tr><td>R42</td><td>45</td><td>45</td><td>45</td></tr></table>		Location	Day	Evening	Night		L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	R1, R2, R3, R4, R17, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R37, R38, R39.	40	40	40	R5	41	41	41	R7	43	43	43	R11	44	44	44	R12	44	44	44	R13	46	46	46	R14	43	43	43	R15	42	42	42	R16	41	41	41	R18	50	43	42	R20	50	43	42	R21	42	42	42	R22	44	44	44	R23	44	44	44	R24	45	45	45	R25	47	47	47	R36	43	43	43	R40	47	47	47	R41	47	47	47	R42	45	45	45
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	For the purposes of the interpretation of noise levels detailed in the consent, refer to the following:																																																																																									

 ESTABLISHED 1967 MUSWELLBROOK COAL COMPANY	Noise Management Plan	MP 34
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Approval/ Licence Condition No.	Condition	Section
	Day – the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sundays and Public Holidays Evening – the period from 6pm to 10pm Night – the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sundays and Public Holidays	
38(b)	Noise from the project must be measured as outlined in the Project's Noise Management Plan. Monitoring locations identified in the Noise Management Plan are to be representative of the nearby residences.	8.1
38(c)	Noise generated by the development must be measured in accordance with the relevant requirements of the NSW Industrial Noise Policy (as may be updated from time to time) or an equivalent NSW Government noise policy, and as amended by the details below:	8.1
38(d)	<p>Noise Compliance Assessment:</p> <p>a) Applicable Meteorological Conditions</p> <p>The noise criteria in Tables 4 & 5 are to apply under all meteorological conditions except for the following:</p> <ol style="list-style-type: none"> Wind speeds greater than 3m/s at 10m above ground level; or Stability category F temperature inversion conditions and wind speeds greater than 2 m/s at 10m above ground level; or Stability category G temperature inversion conditions. <p><u>Determination of Meteorological Conditions</u></p> <p>Except for wind speed at microphone height, the data to be used for determining meteorological conditions must be that recorded by the meteorological station located on site.</p> <p><u>Compliance monitoring</u></p> <ul style="list-style-type: none"> Attended monitoring must be used to evaluate compliance with the relevant conditions of this consent; During the period in which mining operations continue, this monitoring must be carried out at least 12 times a year, by an independent noise consultant, unless Council agrees otherwise; Unless otherwise agreed by Council, this monitoring must be carried out in accordance with the relevant requirements for reviewing performance set out in the NSW Industrial Noise Policy (as amended from time to time) or an equivalent NSW Government noise policy, in particularly the requirements relating to: <ul style="list-style-type: none"> Monitoring locations for the collection of representative noise data; Meteorological conditions during which collections of data is not appropriate; Equipment used to collect noise data, and conformance with Australian Standards relevant to such equipment; and Modifications to noise data collected, including for the exclusion of extraneous noise and/or penalties for modifying factors, apart from adjustments for: 	8.1

Document Owner	Version No.	Review Date	Next Review	Approved Date	Page
Environmental Superintendent	8	July 2024	July 2027	August 2024	5

 <p>ESTABLISHED 1967 MUSWELLBROOK COAL COMPANY</p>	Noise Management Plan	MP 34
---	-----------------------	-------


Approval/ Licence Condition No.	Condition	Section
	i. Duration; or ii. Low frequency noise, where it is demonstrated that the site contributed dBC – dBA noise difference of greater than 15dBA is caused by distance attenuation only.	
39	The Applicant must prepare and implement a Noise Management Plan for the development, in consultation with EPA and to the satisfaction of Council. The plan must:	This plan
39(i)	Demonstrate consistency in complying with noise criteria limits at the existing Applicants operation;	8.1
39(ii)	Provide a diagram indicating the location of all noise monitoring locations;	8.1
39(iii)	include details of the noise investigations conducted at monthly intervals (unless otherwise agreed by Council) by an independent noise consultant to evaluate, assess and report the La eq (15 minute) and La1(1 minute) noise emission levels due to the normal operations of the development;	8.1
39(iv)	provide details regarding operating configuration, determining survey intervals, weather conditions and seasonal variations, selecting variations, locations, periods and times of measurements;	8.1
39(v)	detail management measures where the target noise level criteria of this consent are predicted to be exceeded, or are exceeded during Mining Operations. These measures must include but not be limited to: <ul style="list-style-type: none"> * the selection of representative monitoring locations within the community must be carried out in consultation with Council; * prompt response to any community issues of concern; * refinement of onsite noise mitigation measures and mine operating procedures where practical; * discussions with relevant property holders to assess concerns; * consideration of acoustical mitigation at receivers; and * consideration of negotiated agreements with property owners. 	8.1 8.2 6.2 12.0 12.0 12.0
39(vi)	outline measures to reduce the impact of intermittent, low frequency and tonal noise (including truck reversing alarms);	6.2
39(vii)	survey and investigate noise reduction measures from plant and equipment annually, subject to noise monitoring results and/or complaints received, and report in the AEMR;	8.2
39(viii)	specify the procedures for a noise monitoring program for the purpose of undertaking independent noise investigations;	12.0
39(ix)	outline the procedure to notify property owners and occupiers likely to be affected by noise from the operations;	6.1

Document Owner	Version No.	Review Date	Next Review	Approved Date	Page
Environmental Superintendent	8	July 2024	July 2027	August 2024	6

 <small>ESTABLISHED 1967</small> MUSWELLBROOK COAL COMPANY	Noise Management Plan	MP 34
--	-----------------------	-------


Approval/ Licence Condition No.	Condition	Section
39(x)	maintain a protocol for handling noise complaints that include recording, reporting and acting on complaints, particularly where complaints are received and it is demonstrated noise levels are in excess of the criteria contained in this consent;	8.2
39(xi)	as far as practicable, details of the interrelationship of this plan with the noise management plan for other mines in the vicinity; and	10.2
39(xii)	accommodate for revised noise monitoring and management requirements once mining ceases and the closure and final rehabilitation process commences.	8.1
39 (xiii)	This condition applies until the completion of Rehabilitation – land preparation, as defined in NSW Resources Regulator Form and Way Annual Rehabilitation Report and Forward Program for Large Mines.	14.0
40(a)	<p><u>Monitoring and Management</u></p> <p>In the event that a landowner of a non-mine owned property considers that noise from the development, at their residence, is in excess of the noise level criteria listed in Table 4 (being an owner who has not earlier entered into an agreement with the applicant to exceed their noise levels) and Council is satisfied that an investigation is required, the Applicant must upon the receipt of a written request from Council:</p> <ul style="list-style-type: none"> (i) consult with the owner affected to determine their concerns; (ii) make arrangements for, and bear the costs of, following consultation as far as reasonably practicable with other mine operations in the vicinity where necessary, appropriate independent noise investigations in accordance with the Noise Management Plan to the satisfaction of Council, to quantify the impact and determine the source of the effect and the contribution of the Project to the effect. The location, duration and timing of these noise assessments is to be in accordance with the Industrial Noise Policy or its replacement; (iii) modify the mining activity in accordance with a noise reduction plan prepared as part of the Noise Management Plan, if repeated exceedances are demonstrated by the investigation to result in part from the mine related activity. This must include: <ul style="list-style-type: none"> * introduction of additional controls, either on noise emission from individual sources on the site or on site operations or modification to operations, to ensure that the noise criteria detailed in Table 4 is achieved by reasonable and feasible measures, or; * seek agreement of the landowner, and in the case of cumulative impacts with the other relevant mines/ industrial operations in the area and the landowner, to provide such other forms of benefit or amelioration of the impacts of noise as may be agreed between the parties as providing acceptable compensation for the noise levels experienced. 	12.0

Document Owner	Version No.	Review Date	Next Review	Approved Date	Page
Environmental Superintendent	8	July 2024	July 2027	August 2024	7

 ESTABLISHED 1967 MUSWELLBROOK COAL COMPANY	Noise Management Plan	MP 34
---	-----------------------	-------


Approval/ Licence Condition No.	Condition	Section																																																		
	conduct follow up investigations to the satisfaction of Council, where necessary. If necessary, the follow up investigation should be conducted 3 months after the initial investigation to give the Applicant time to implement the recommended noise control																																																			
Environmental Protection Licence																																																				
L2.1	<p>Noise from the premises must not exceed the noise limits presented in the table below.</p> <table><tr><th>Location</th><th>Day LAeq(15 minute)</th><th>Evening LAeq(15 minute)</th><th>Night LAeq(15 minute)</th><th>Night LA1(1 minute)</th></tr><tr><td>R1, R2, R3, R4, R17, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R37, R38, R39</td><td>35</td><td>35</td><td>35</td><td>45</td></tr><tr><td>R5, R16</td><td>36</td><td>36</td><td>36</td><td>45</td></tr><tr><td>R7, R14, R36</td><td>38</td><td>38</td><td>38</td><td>45</td></tr><tr><td>R12, R22, R23</td><td>39</td><td>39</td><td>39</td><td>45</td></tr><tr><td>R15, R21</td><td>37</td><td>37</td><td>37</td><td>45</td></tr><tr><td>R13</td><td>41</td><td>41</td><td>41</td><td>45</td></tr><tr><td>R18, R20</td><td>45</td><td>38</td><td>37</td><td>47</td></tr><tr><td>R24, R42</td><td>40</td><td>40</td><td>40</td><td>45</td></tr><tr><td>R25</td><td>42</td><td>42</td><td>42</td><td>45</td></tr></table>	Location	Day LAeq(15 minute)	Evening LAeq(15 minute)	Night LAeq(15 minute)	Night LA1(1 minute)	R1, R2, R3, R4, R17, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R37, R38, R39	35	35	35	45	R5, R16	36	36	36	45	R7, R14, R36	38	38	38	45	R12, R22, R23	39	39	39	45	R15, R21	37	37	37	45	R13	41	41	41	45	R18, R20	45	38	37	47	R24, R42	40	40	40	45	R25	42	42	42	45	2.1
Location	Day LAeq(15 minute)	Evening LAeq(15 minute)	Night LAeq(15 minute)	Night LA1(1 minute)																																																
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R15, R21	37	37	37	45																																																
R13	41	41	41	45																																																
R18, R20	45	38	37	47																																																
R24, R42	40	40	40	45																																																
R25	42	42	42	45																																																
L2.2	<p>For the purpose of Condition L2.1:</p> <p>a) Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sundays and Public Holidays;</p> <p>b) Evening is defined as the period from 6pm to 10pm; and</p>	2.1																																																		

Document Owner	Version No.	Review Date	Next Review	Approved Date	Page
Environmental Superintendent	8	July 2024	July 2027	August 2024	8

 <p>ESTABLISHED 1967 MUSWELLBROOK COAL COMPANY</p>	Noise Management Plan	MP 34
---	-----------------------	-------

Approval/ Licence Condition No.	Condition	Section
	c) Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sundays and Public Holidays.	
L2.3	To determine compliance with the LAeq(15 minutes) limits specified in condition L2.1, noise from the premises must be measured at, or computed for, the most affected point on or within the residential boundary, or at the most affected point within 30m of the dwelling (rural situations) where the dwelling is more than 30m from the boundary. Where it can be demonstrated that direct measurement of noise from the premises is impractical, the EPA may accept alternative means of determining compliance. See Chapter 11 of the NSW Industrial Noise Policy. The modification factors presented in Section 4 of the NSW Industrial Noise Policy must be applied to the measured noise levels where applicable.	8.1
L2.4	To determine compliance with the LA1(1 minute) noise limits in condition L2.1, noise from the premises is to be measured at 1m from the dwelling façade. Where it can be demonstrated that direct measurement of noise from the premises is impractical, the EPA may accept alternative means of determining compliance. See Chapter 11 of the NSW Industrial Noise Policy.	8.1
L2.5	The noise emission limits identified in condition L2.1 apply under all meteorological conditions except for the following: a) Wind speeds greater than 3m/s at 10 metres above ground level; or b) Stability category F temperature inversion conditions and wind speeds greater than 2m/s at 10 metres above the ground level; or c) Stability category G temperature inversion conditions.	Noted
L2.6	For the purpose of condition L2.5: a) Data recorded from the meteorological station identified as Point 11 in Condition P1.1 must be used to determine the meteorological conditions; and b) Temperature inversion conditions (stability category) are to be determined by the sigma-theta method referred to in Part E4 of Appendix E to the NSW Industrial Noise Policy.	Noted
M1.1	The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.	8.1
M1.2	All records required to be kept by this licence must be: (a) in a legible form, or in a form that can readily be reduced to a legible form; (b) kept for at least 4 years after the monitoring or event to which they relate took place; and (c) produced in a legible form to any authorised officer of the EPA who asks to see them.	8.1

Document Owner	Version No.	Review Date	Next Review	Approved Date	Page
Environmental Superintendent	8	July 2024	July 2027	August 2024	9

 <p>ESTABLISHED 1967 MUSWELLBROOK COAL COMPANY</p>	Noise Management Plan	MP 34
---	-----------------------	-------

Approval/ Licence Condition No.	Condition	Section
M1.3	The following records must be kept in respect of any samples required to be collected for the purposes of this licence: (a) the date(s) on which the sample was taken; (b) the time(s) at which the sample was collected; (c) the point at which the sample was taken; and (d) the name of the person who collected the sample	8.1
M8.1	A noise compliance assessment report must be submitted to EPA on an annual basis with the Annual Return as set out in Condition R1. The report must be prepared by an appropriately experienced acoustic consultant and determine compliance with the noise limits in Condition L2.1.	13.0
R1.1	The licensee must complete and supply to the EPA an Annual Return in the approved form comprising: (a) a Statement of Compliance; and (b) a Monitoring and Complaints Summary. A copy of the form in which the Annual Return must be supplied to the EPA accompanies this licence. Before the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.	13.0
R4.1	A noise compliance assessment report must be submitted to EPA on an annual basis with the Annual Return as set out in Condition R1. The report must be prepared by an appropriately experienced acoustic consultant and determine compliance with the noise limits in Condition L2.1.	13.0

Document Owner	Version No.	Review Date	Next Review	Approved Date	Page
Environmental Superintendent	8	July 2024	July 2027	August 2024	10

2.1 NOISE CRITERIA

Noise criteria are set in Development Consent DA205/2002 and EPL 656 and are reproduced in **Table 2** and **Table 3**. The locations are shown in **Figure 1**.

Table 2: Noise Limits


Location	Day	Evening	Night	
	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{A1} (1 minute)
R1, R2, R3, R4, R17, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R37, R38, R39	35	35	35	45
R5	36	36	36	45
R7	38	38	38	45
R12	39	39	39	45
R13	41	41	41	45
R14	38	38	38	45
R15	37	37	37	45
R16	36	36	36	45
R17	35	35	35	45
R18	45	38	37	47
R20	45	38	37	47
R21	37	37	37	45
R22	39	39	39	45
R23	39	39	39	45
R24	40	40	40	45
R25	42	42	42	45
R36	38	38	38	45
R40	42	42	42	45
R41	42	42	42	45
R42	40	40	40	45

Note: All levels are in dB(A)

Note: R41 is not privately owned, so the criteria listed in the table above do not apply.

Table 3: Acquisition Noise Limits

Location	Day	Evening	Night
	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)
R1, R2, R3, R4, R17, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R37, R38, R39	40	40	40
R5	41	41	41
R7	43	43	43
R12	44	44	44
R13	46	46	46
R14	43	43	43
R15	42	42	42

 ESTABLISHED 1987 MUSWELLBROOK COAL COMPANY	Noise Management Plan	MP 34
---	-----------------------	-------

Location	Day	Evening	Night
	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)
R16	41	41	41
R17	40	40	40
R18	50	43	42
R20	50	43	42
R21	42	42	42
R22	44	44	44
R23	44	44	44
R24	45	45	45
R25	47	47	47
R36	43	43	43
R40	47	47	47
R41	47	47	47
R42	45	45	45

Note: All levels are in dB(A)

Note: R41 is not privately owned, so the criteria listed in the table above do not apply.

Note: Acquisition criteria are not listed in the EPL.

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


The noise criteria apply under all meteorological conditions except for the following:

- Wind speed greater than 3m/s at 10m above ground level, or
- Stability category F temperature inversion conditions and wind speeds greater than 2m/s at 10m above ground level, or
- Stability category G temperature inversion conditions.

3.0 REFERENCES

- *Environmental Planning and Assessment Act 1979.*
- *Protection of the Environment Operations Act 1997.*
- Development Consent DA 205/2002.
- Environmental Protection Licence 656.
- Noise Policy for Industry (EPA) 2017.
- AS1055 – Acoustics, Description and Measurement of Environmental Noise
- Continuation Project Statement of Environmental Effects (EMM) 2016.

Document Owner	Version No.	Review Date	Next Review	Approved Date	Page
Environmental Superintendent	8	July 2024	July 2027	August 2024	12

 <p>ESTABLISHED 1987 MUSWELLBROOK COAL COMPANY</p>	Noise Management Plan	MP 34
---	-----------------------	-------

4.0 DEFINITIONS/ACRONYMS

AS	Australian Standard
DA	Development Application
dB(A)	A Weighted Decibels
EPA	Environmental Protection Authority
EPL	Environmental Protection Licence
LA_{eq}	The average noise A-weighted energy during a measurement period.
LA_{1min}	The noise level which is exceeded for 1 per cent of the specified time period of 1 minute.
MCC	Muswellbrook Coal Company Ltd
MSC	Muswellbrook Shire Council
NSW	New South Wales
OCE	Open Cut Examiner

5.0 SUPPORTING DOCUMENTS

- Development Consent DA 205/2002.
- Environmental Protection Licence 656.
- MP 30 Environmental Management Strategy.
- MOP 15-01 Complaint Handling Procedure.
- F1553 Community Complaint Record Form.

6.0 MANAGEMENT SAFEGUARDS AND AMELIORATIVE ACTIONS

6.1 IDENTIFICATION OF PROPERTIES AFFECTED BY NOISE

The actual noise level received at individual residences may vary as a result of:

- The location of equipment,
- The elevation of the equipment,
- Impacts from other noise sources,
- Prevailing wind conditions, and
- Prevailing meteorological conditions (i.e., temperature inversion).

MCC regularly reviews the results obtained from the Attended Noise Monitoring Program to identify any significant variations from the predictions in any environmental assessment and, if variations are identified, report this in the AEMR.

6.2 NOISE MITIGATION MEASURES

A number of mitigation measures have been developed to reduce the noise impacts on surrounding landholders. These include the following measures:

- Use of excavators to “place” rather than “dump” material into trucks,

Document Owner	Version No.	Review Date	Next Review	Approved Date	Page
Environmental Superintendent	8	July 2024	July 2027	August 2024	13

 <p>ESTABLISHED 1987 MUSWELLBROOK COAL COMPANY</p>	Noise Management Plan	MP 34
---	-----------------------	-------

- Use of topography to shield operations from residences, where possible,
- When temperature inversion conditions of Class F or higher are in place, as measured by the sites Meteorological Station, Dozers are to be operated in first gear forward and reverse only (emergencies excepted during the night time period).
- Mobile plant and machinery shall be maintained and operated in a proper and efficient manner,
- Mobile equipment is fitted with low frequency reverse alarms, and
- Regular road maintenance shall be carried out to minimise noise associated with corrugated or deteriorated road conditions.

7.0 INFORMATION AND TRAINING

All workers required to work at the site must undertake the relevant site Induction. This includes information on noise management at the site.

The requirements of MOP 15-01 Complaint Handling Procedure will be communicated to workers involved in responding to complaints.

Training records will be maintained for each worker at the site.

8.0 NOISE MONITORING PROGRAM

8.1 ATTENDED NOISE MONITORING

The attended noise monitoring locations can be seen in **Figure 1** with a description provided in **Table 4**. All attended monitoring and equipment maintenance and calibration is conducted in accordance with the EPA Noise Policy for Industry (NPfI) and AS1055 – Acoustics, Description and Measurement of Environmental Noise.

Table 4: Noise Monitoring Locations


Location	Description
R13	Sandy Creek Road
R15	Queen St
R17	Queen St
R25	Sandy Creek Road
R32	Muscle Creek Road

A review of the attended noise monitoring between January 2014 and April 2024 indicates that there have been no exceedances of noise criteria during that time.

Attended noise monitoring is undertaken monthly by an independent noise consultant.

Monthly attended monitoring allows for a variety of operating configurations, weather conditions and seasonal variations to be measured. The noise consultant will schedule the monitoring to occur at times unknown to MCC. They will determine the intervals between surveys and the time of measurement.

Document Owner	Version No.	Review Date	Next Review	Approved Date	Page
Environmental Superintendent	8	July 2024	July 2027	August 2024	14

 <p>ESTABLISHED 1907 MUSWELLBROOK COAL COMPANY</p>	Noise Management Plan	MP 34
---	-----------------------	-------

Each attended noise survey will be conducted during night periods only. If it is identified during the noise monitoring that the noise from the operation is exceeding the criteria, MCC will be notified and the operations will be modified as required. Monitoring at the location(s) where the noise levels are elevated will be undertaken again with a minimum break of 75 minutes between monitoring.

Due to the distance of the mine from each residence, the monitoring of LA1 (1minute) at the facade is not necessary and will be conducted at the property boundary.

Field notes are to be taken at the time of the measurement, recording the time and duration of noise events, noise levels (dB), frequency (Hz), and source. Weather details and operational information will be recorded in the report. The date, time, and location of sampling, along with who collected the sample will be recorded and included in the report.

Noise levels during attended measurements will be taken in third-octave bands with an instrument that has Type 1 characteristics as defined in AS1259-1990 "Acoustics - Sound Level Meters". This instrument will have current calibration as per manufacturer's instructions and calibration will also be confirmed prior to and at the completion of measurements with a Sound Level Calibrator. The LA_{eq (15 minute)} noise emission levels, at each monitoring site, due to the normal operations of MCC will be determined.

Document Owner	Version No.	Review Date	Next Review	Approved Date	Page
Environmental Superintendent	8	July 2024	July 2027	August 2024	15

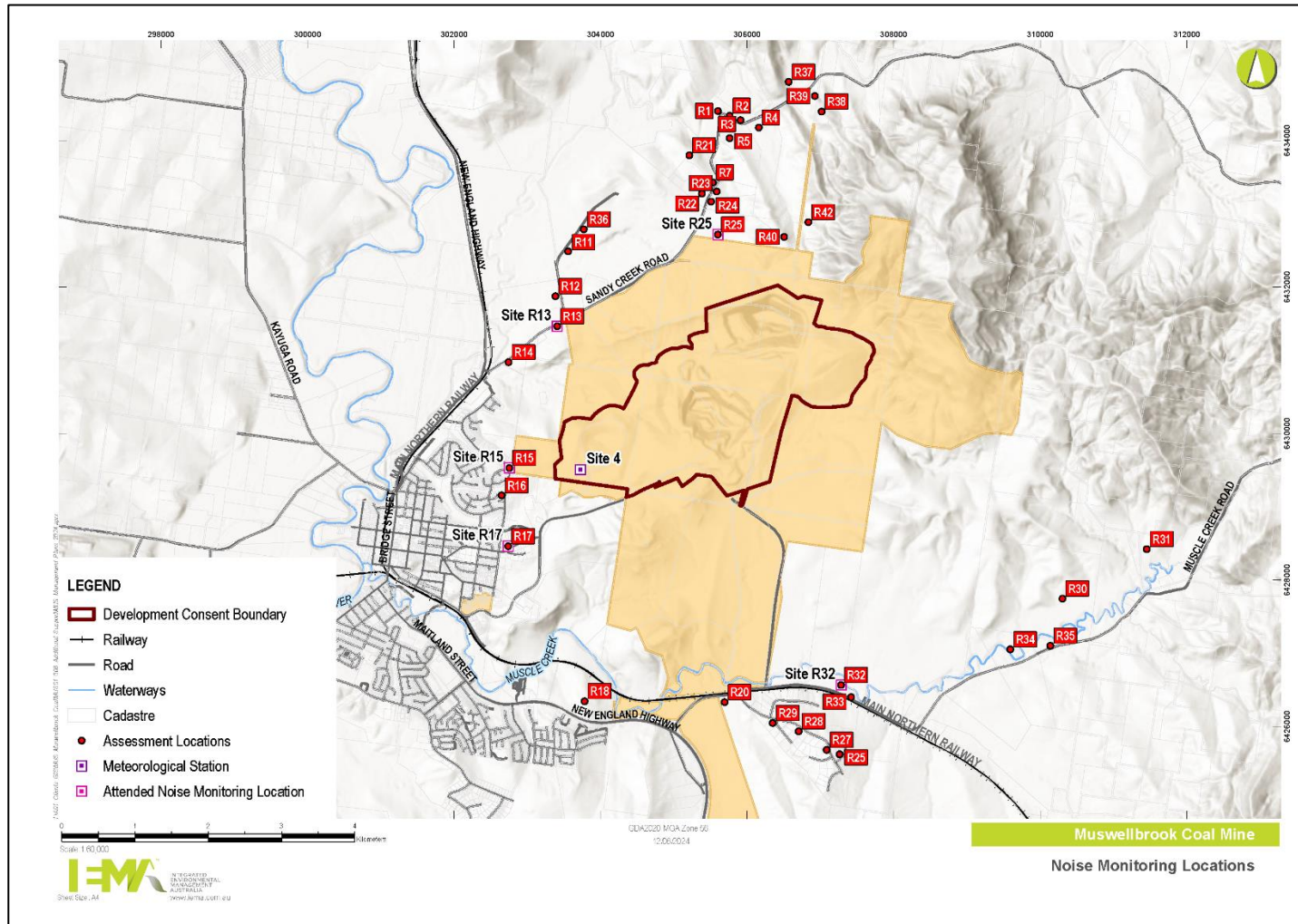


Figure 1: Noise Monitoring Locations

Document Owner	Version No.	Review Date	Next Review	Approved Date	Page
Environmental Superintendent	8	July 2024	July 2027	August 2024	16

8.2 EQUIPMENT NOISE MONITORING

MCC conducts a survey of significant noise sources to determine the noise levels from the equipment. This survey will be completed so that all significant noise generating equipment is surveyed over a 3-year period. The results of this monitoring will be compared to previous results and if there is an increase of more than 2dB an investigation into the changes will be conducted to identify if any further mitigation on the equipment is required. As part of this investigation the attended noise monitoring results and complaints history will be considered.

9.0 COMPLAINT MANAGEMENT

Noise related complaints by the community can be directed to the 24 hour toll free telephone Environmental Contact Line 1800 600 205. More details on the complaints management at MCC are found in the Environmental Management Strategy.

10.0 EXTERNAL RELATIONS

10.1 COMMUNITY CONSULTATION

Community consultation in respect to noise management occurs by the following means:


- Noise monitoring data is made available on MCC's website.
- Noise monitoring data is provided to the Community Consultative Committee (CCC) and the minutes of the meeting are made available to the public on MCC's website,
- The results of environmental monitoring are published in the AEMR,
- Timely responses are provided to residents in the event of a complaint or inquiry, and
- The CCC receives reports at each committee meeting on the number of noise related complaints and the action taken.

This CCC provides a direct line of communication between MCC and representatives of the local community.

10.2 OTHER MINING COMPANIES

Other operating mines or approved mines nearest to Muswellbrook include Mt Arthur Coal, Bengalla Mine, Mangoola Mine, Mount Pleasant Mine, Maxwell Underground Mine and Dartbrook Mine, which are all further southwest/northwest to MCC (these mines are at various stages of development). Therefore, under south easterly wind conditions, these mines will have their lowest impact on Muswellbrook residences when MCC is having its greatest impact. Conversely, nearby mines will have their maximum impact on Muswellbrook residences when winds are from the west to northwest, whilst MCC's operations are having their least impact. As a result of this there have been relatively few, if any, instances where cumulative effects have been experienced as a result of noise impacts from MCC in conjunction with neighbouring mines. If cumulative effects start to be identified, MCC will work with the other mining operations to manage these cumulative impacts.

Document Owner	Version No.	Review Date	Next Review	Approved Date	Page
Environmental Superintendent	8	July 2024	July 2027	August 2024	17

 <p>ESTABLISHED 1957 MUSWELLBROOK COAL COMPANY</p>	Noise Management Plan	MP 34
---	-----------------------	-------

11.0 INCIDENT REPORTING

In the event that an initial investigation concludes that a noise related incident has occurred the incident will be reported to MSC and the EPA within 24 hours of confirming the incident.

Within seven days of confirming the incident, MCC will submit a written report to MSC and the EPA that:

- Describes the date, time, and nature of the incident,
- Identifies the cause (or likely cause) of the incident,
- Describes what action has been taken to date, and
- Describes the proposed measures to address the incident.

In the event that the criteria shown in **Table 2** to **Table 3** are exceeded at a non-mine residence from MCC operations alone MCC shall notify the resident of the results and discuss the results.

12.0 INDEPENDENT NOISE INVESTIGATION

In the event that a landowner of a non-mine owned property considers that noise from MCC at their dwelling is in excess of the criteria detailed in **Table 2** and **Table 3** and MSC is satisfied that an investigation is required, MCC shall upon the receipt of a written request from MSC:

- consult with the owner affected to determine their concerns,
- commission an independent noise assessment at the residence,
- determine whether any modification to the mining activity needs to be acted on, or take other steps in accordance with the NMP, if exceedences are demonstrated by the independent investigations to result in part from MCC's activities, and
- conduct follow up investigation(s) to the satisfaction of the MSC, where necessary.

All noise investigations conducted by independent consultants will be carried out in accordance with the NSW Noise Policy for Industry (NPfI) (as may be updated from time to time).


13.0 EXTERNAL REPORTING

Within 2 weeks of approval of this NMP, a copy will be made available for public viewing via the MCC website.

The performance of MCC's NMP will be reported through a number of external reporting requirements, which include:

- Annual Environmental Management Report (AEMR),
- EPL Annual Licence Return (including a noise compliance assessment as per the requirements of the EPL),
- Regular updates of monitoring results on the MCC website, and
- CCC Meetings.

Document Owner	Version No.	Review Date	Next Review	Approved Date	Page
Environmental Superintendent	8	July 2024	July 2027	August 2024	18

 <p>ESTABLISHED 1957 MUSWELLBROOK COAL COMPANY</p>	Noise Management Plan	MP 34
---	-----------------------	-------

13.1 ANNUAL ENVIRONMENTAL MANAGEMENT REPORT

The AEMR will include a summary of:

- Noise monitoring results and comparison to the criteria, monitoring results from previous years and predictions in the Statement of Environmental Effects (if applicable),
- Summary of noise related complaints and management measures undertaken,
- Identification of any trends in the monitoring results,
- Measures undertaken during the period to monitor compliance,
- Identification of any non-compliance and management measures undertaken, and
- Review of the performance of management measures and the monitoring program.

14.0 REVIEW OF THE NMP

The NMP will be reviewed:

- Within 6 months of changes to Development Consent or licence conditions relating to noise management,
- Following reportable incidents at MCC relating to noise management,
- Following an independent environmental audit which recommends changes to the NMP, and
- If there is a relevant change in technology or legislation.

The requirement for a NMP will no longer apply after the completion of Rehabilitation – Land Preparation as defined in NSW Resources Regulator Form and Way, Annual Rehabilitation Report and Forward Program for Large Mines.


15.0 ACCOUNTABILITIES

Table 5 outlines the responsibilities relating to the NMP.

Table 5: Organisational Responsibilities

Role	Accountability
MCC Head of Muswellbrook Site	<ul style="list-style-type: none"> • Provide adequate resources to implement the requirements of the NMP
Thiess Maintenance Manager	<ul style="list-style-type: none"> • Maintain mining and noise attenuation equipment
Thiess OCE	<ul style="list-style-type: none"> • Implement noise control mitigation measures as outlined in NMP
Thiess Environment and Community Superintendent	<ul style="list-style-type: none"> • Coordinate response to all noise management related complaints
MCC Environmental Superintendent	<ul style="list-style-type: none"> • Notify regulatory authorities of any noise management related incidents • Coordinate reviews of the NMP • Coordinate reporting as required in NMP

Document Owner	Version No.	Review Date	Next Review	Approved Date	Page
Environmental Superintendent	8	July 2024	July 2027	August 2024	19

 <small>ESTABLISHED 1987</small> MUSWELLBROOK COAL COMPANY	Noise Management Plan	MP 34
--	-----------------------	-------

16.0 LIST OF APPENDICIES


Appendix 1: Correspondence Regarding Noise Management Plan

17.0 REVISION DETAILS

Revision No.	Date	Reviewed By	Details/Reason for Revision
1	February 2005	MCC Technical Services Department, Carbon Based Environmental	Original Management Plan
2	December 2010	MCC Technical Services Department, Carbon Based Environmental	5 Yearly Review
3	December 2015	MCC Environmental, Technical Services and Production Departments	5 Yearly Review
4	May 2017	MCC Environmental, Technical Services and Production Departments	Update following modification for Continuation Project
5	November 2017	MCC Environmental Department	Changes to noise limits in EPL
6	October 2020	MCC Environmental Department	3 Yearly Review
7	April 2023	Environmental, Production and Maintenance Departments	End of mining operations
8	July 2024	Environmental and Production Departments	Consent Modification 9

Document Owner	Version No.	Review Date	Next Review	Approved Date	Page
Environmental Superintendent	8	July 2024	July 2027	August 2024	20

Appendix 1: Correspondence Regarding Noise Management Plan



muswellbrook
shire council

Enquiries
Please ask for Theresa Folpp
Direct 02 6549 3700
Our reference CM 24/49321

06 August 2024

Julie Thomas
Environmental Superintendent
Muswellbrook Coal

Dear Ms Thomas,

Muswellbrook Coal Mine (DA 2002-205) – Noise Management Plan


Reference is made to 'Muswellbrook Coal Company Noise Management Plan v8' (July 2024), submitted in accordance with Condition 14f) of the development consent for the Muswellbrook Coal Mine (DA 2002-205).

Staff have carefully reviewed this document and are satisfied with all aspects proposed.

Accordingly, Staff approve the 'Muswellbrook Coal Company Noise Management Plan v8' (July 2024). Please ensure that the approved plan is placed on the project website at the earliest convenience.

Should you need to discuss the above, please contact the undersigned on 02 6549 3700 or email council@muswellbrook.nsw.gov.au.

Yours faithfully



Theresa Folpp
Environmental Planning Officer

Muswellbrook Shire Council	(02) 6549 3700	@ council@muswellbrook.nsw.gov.au
Campbell's Corner 60-82 Bridge Street Muswellbrook NSW 2333		PO Box 122 Muswellbrook 2333
muswellbrook.nsw.gov.au	f i in muswellbrook shire council	ABN 86 864 180 944

Page 1 of 1

Document Owner	Version No.	Review Date	Next Review	Approved Date	Page
Environmental Superintendent	8	July 2024	July 2027	August 2024	21

Julie Thomas

From: Julie Thomas
Sent: Tuesday, 2 July 2024 12:43 PM
To: info@epa.nsw.gov.au
Subject: Muswellbrook Coal - Environmental Management Plans for Review
Attachments: MP 31 Air Quality Management Plan draft post consent modification clean version.pdf; MP 32 Blast Management Plan draft post consent modification clean version.pdf; MP 34 Noise Management Plan draft post consent modification review clean version.pdf

Hello

Muswellbrook Coal Company (MCC) has a requirement in our development consent to develop an Air Quality Management Plan (AQMP), Blast Management Plan (BMP) and Noise Management Plan (NMP) in consultation with the Environmental Protection Authority (EPA). MCC has recently received a modification to our consent, which has triggered a review of these documents. Draft copies of the AQMP, BMP and NMP are attached for your review and comment.

If there are any comments the EPA would like to make on these plans, please provide them to me by 19th July 2024.

When the plans are approved by MSC, a final version of the plans will be sent to the EPA.

If you have any questions regarding these plans, please let me know.

Regards
Julie

Julie Thomas

Environmental Superintendent

Muswellbrook Coal Company Ltd


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Please note my working days are Monday-Thursday.

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Document Owner	Version No.	Review Date	Next Review	Approved Date	Page
Environmental Superintendent	8	July 2024	July 2027	August 2024	22



DOC24/518339-1, EF13/3318

Muswellbrook Coal Company Ltd

By email: muswellbrookcoal@idemitsu.com.au

Attention: Ms Julie Thomas

4 July 2024

Dear Ms Thomas

ENVIRONMENT PROTECTION LICENCE 656 – ENVIRONMENTAL MANAGEMENT PLANS

I refer to your email to the Environment Protection Authority (EPA), received 2 July 2024, inviting comments on the updated draft Air Quality Management Plan, Blast Management Plan and the Noise Management Plan prepared in respect of the Muswellbrook Coal Mine.

The EPA encourages the development of such plans to ensure that proponents and licensees have determined how they will meet their statutory obligations and designated environmental objectives.

The EPA's role, as a regulatory authority, is to administer statutes for environmental management and protection and to set environmental objectives rather than being involved in the development of strategies to achieve those objectives. As such the EPA does not review or comment on such plans.

Accordingly, the EPA has not reviewed and offers no comments on the above management plans.

If you have any further questions about this issue, please contact Freia Johnston on 02 4908 6872 or at freia.johnston@epa.nsw.gov.au.

Yours sincerely



HAMISH RUTHERFORD
A/Unit Head – Operations
Environment Protection Authority

Phone 131 555
Phone 02 9995 5555
(from outside NSW)

TTY 133 677, then
ask for 131 155

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Document Owner	Version No.	Review Date	Next Review	Approved Date	Page
Environmental Superintendent	8	July 2024	July 2027	August 2024	23