

3. RESPONSE TO PROPOSED CONDITIONS OF CONSENT

3.1 INTRODUCTION

The following subsections provide GRL's response to the recommended conditions of consent as provided in the submissions from the Environment Protection Authority (EPA), Office of Environment and Heritage, the former Division of Resources and Energy, Mid-Coast Council and the NSW Rural Fire Service.

It is noted that many of the conditions recommended by the Mid-Coast Council duplicate (wholly or in part) the conditions recommended by the EPA or are likely to be recommended by the Department of Planning and Environment (DPE), many of which are standard conditions imposed in development consents or environment protection licences (EPLs) for mining projects. As such, these conditions are acknowledged however their inclusion in the development consent for the amended Project or the site's EPL will ultimately be a matter for the EPA and/or DPE when forming or revising their respective conditions for the proposed mine.

The EPA has suggested consideration by DPE of a number of conditions that we consider are appropriate for inclusion in the EPL rather than the development consent – these specific conditions are identified as such below. It is recognised that a number of the recommended conditions will require minor modifications to accommodate some of the additional information provided in this document or to reflect information provided with the respective applications for other approvals or licences, e.g. an EPL. Where GRL has suggested changes to the conditions, those suggested changes are shown by way of amendments to the proposed conditions (as strike-through or marked-up additions).

It is noted that the EPA has used inconsistent references to when dust generating activities need to be implemented. Reference is made to dust generating activities:

1. associated with the project (*Conditions 9, 22 and 23*);
2. at the Site (*Conditions 14, 15, 16, 17, 18, 36 and 37*);
3. prior to commencement of construction activities at the Site (*Condition 21*); and
4. occurring on the Site (*Condition 19*).

For consistency, it would be preferable for the reference to “dust generating activities” to be adjusted throughout the document to “earthmoving activities”.

It is noted that inconsistencies are included when referring to ‘licensee’ and ‘proponent’.

3.2 ENVIRONMENT PROTECTION AUTHORITY

It is noted that reference to “the site” and “the premises” are used interchangeably throughout the recommended conditions. In any event, it is assumed that “the site” or “the premises” coincides with the Site boundary displayed in the EIS for the amended Project.

3.2.1 Administrative Conditions

Works to be undertaken in accordance with information supplied

1. *Except as provided by these recommended conditions of approval, the works and activities shall be undertaken in accordance with the proposal contained in:*

(a) *The document “Amended Rocky Hill Coal Project Environmental Impact Statement Development Application No SSD-5156 (August 2016),” prepared by RW Corkery and Co Pty Ltd and dated August 2016*

unless otherwise specified in these conditions of approval.

Response

This proposed condition is not consistent with the standard conditions used in development consents for mining projects. GRL would accept the inclusion of the standard condition 2 of Schedule 2 commonly included in development consents for mining projects as follows:

2. The Applicant must carry out the development:
 - a) generally in accordance with the EIS and the Development Layout Plans; and
 - b) in accordance with the conditions of this consent.

We note that the EIS would be defined to also include the Response to Submissions and any other additional documents submitted by GRL to DPE during the assessment process.

3.2.2 Operating Conditions

2. *Activities at the premises must only occur during the times detailed in the table below:*

Activity	Days *	Permitted Hours of Operation
Construction and site establishment	Monday to Saturday	In accordance with condition 22 and 23 of this consent
Mining (Year 1 to 3)	Monday to Saturday	7:00 am - 6:00 pm
Mining (year 4 to end of mine life)	Monday to Saturday	7:00 am - 10:00 pm
Breaker station operations	Monday to Saturday	7:00 am - 6:00 pm
Coal haulage via private haul road	Monday to Saturday	7:00 am - 6:00 pm
Maintenance	Monday to Saturday	7:00 am - 10:00 pm
	Sunday	8:00 am - 10:00 pm
	Monday to Sunday	All other hours - in accordance with condition 25 ?? of this consent

Response

GRL would accept this recommended condition with the correction of the typographical error (as shown above) and the modification to the cross reference to the condition relating to maintenance (see Consent upon Condition 25).

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3. *Activities must be carried out in a competent manner. This includes:*
- a) *The processing, handling, movement and storage of materials and substances used to carry out the activity; and*
 - b) *The treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.*

Response

This recommended condition is usually included in an EPL rather than a development consent. GRL would accept this recommended condition being included in its EPL.

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4. *Maintenance of plant and equipment*

All plant and equipment installed at the premises or used in connection with the activity:

- a) *Must be maintained in a proper and efficient condition; and*
- b) *Must be operated in a proper and efficient manner.*

Response

This recommended condition is usually included in an EPL rather than a development consent. GRL would accept this recommended condition being included in its EPL.

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5. *All above ground tanks containing material that is likely to cause environmental harm must be bunded or have an alternative spill containment system in place.*

Response

GRL would accept this recommended condition.

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6. *Bunds must:*

- a) *have walls and floors constructed of impervious materials;*
- b) *be of sufficient capacity to contain 110% of the volume of the tank (or 110% volume of the largest tank where a group of tanks are installed);*
- c) *have floors graded to a collection sump; and*
- d) *not have a drain valve incorporated in the bund structure,*

or be constructed and operated in a manner that achieves the same environmental outcome.

Response

This recommended condition is usually included in an EPL rather than a development consent. GRL would accept this recommended condition being included in its EPL.

3.2.3 Air

3.2.3.1 Air Quality Management Plan

7. *For all emission sources at the site the proponent must prepare an air quality management plan that includes, but is not limited to:*

- *Key performance indicator(s);*
- *Monitoring method(s);*
- *Location, frequency and duration of monitoring;*
- *Record keeping;*
- *Response mechanisms; and*
- *Compliance reporting.*

Response

GRL would accept this recommended condition being incorporated into a condition of development consent relating to the requirement to prepare an Air Quality Management Plan in consultation with the EPA.

8. *The air quality management plan must also include:*

- *Details of the predictive meteorological system;*
- *Details of the real-time dust monitoring system; and*
- *Specific actions that will be taken in response to meteorological or particulate matter triggers being reached, these actions must include ~~stopping~~ **curtailing** certain activities in identified weather conditions or when certain trigger levels are reached.*

Response

GRL would accept this recommended condition being incorporated into a condition of development consent relating to the requirement to prepare an Air Quality Management Plan in consultation with the EPA.

It will be appropriate for GRL to “appropriately manage” their equipment fleet as outlined in *Condition 17* which invariably involve “curtailing” rather than “stopping” certain activities.

9. *The air quality management plan must be implemented prior to the commencement of any dust generating activities associated with the project.*

Response

GRL would accept this recommended condition being incorporated into a condition of development consent relating to the requirement to prepare an Air Quality Management Plan in consultation with the EPA.

3.2.3.2 General Dust Conditions

10. All areas in or on the premises must be maintained in a condition that prevents or minimises the emission of dust to the air.

Response

GRL would accept this recommended condition being included in its EPL.

11. Any activity carried out in or on the premises must be carried out by such practical means as to prevent dust or minimise the emission of dust to the air.

Response

GRL would accept this recommended condition being included in its EPL.

12. Any plant operated in or on the premises must be operated by such practical means to prevent or minimise dust or other air pollutants.

Response

GRL would accept this recommended condition being included in its EPL.

13. All trafficable areas, coal storage areas and vehicle manoeuvring areas in or on the premises must be maintained, at all times, in a condition that will minimise the emission of dust to the air, or emission from the premises of wind-blown or traffic generated dust.

Response

GRL would accept this recommended condition being included in its EPL.

3.2.3.3 Air Quality Monitoring and Management

14. Real Time Dust Monitors

- a) The proponent must, prior to the commencement of dust generating ~~activities~~ **activities** at the site, install continuous real time air quality monitoring for PM_{10} and $PM_{2.5}$ at two locations representative of residences within the Forbesdale Estate and the Avon River Estate

Response

GRL would accept this recommended condition being included in its EPL.

15. Requirement to monitor ambient particulate matter

- a) The licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The licensee must use the sampling method, units of measure, averaging period and sample at the frequency, specified opposite in the other columns.

Point 1 to Point x

Parameter	Units of measure	Frequency	Averaging Period	Method
PM ₁₀	Micrograms per cubic metre	Continuous	1-hour	AS 3580.9.8 - 2008

Note: The ~~number and~~ location of **the two** PM₁₀ monitors must be approved by the EPA prior to the installation of the monitoring equipment.

Note: The method must be approved by the EPA prior to the installation of the monitoring equipment.

Note: The calibration, quality assurance, quality control and audit program must be approved by the EPA prior to the installation of the monitoring equipment.

- b) Monitoring of all parameters listed in Condition 15(a) Column 1 must commence prior to earth moving activities being undertaken at the site.

Response

GRL would accept this recommended condition as a condition of its EPL subject to the requested modification which achieves consistency with the text in Condition 14(a).

16. Contingency monitoring

- a) Prior to the commencement of dust generating ~~activities~~ **activities** at the site, the licensee must submit a report to Manager EPA Hunter Region that details:
- (i) contingency actions, including monitoring, that will be implemented when the weather station is not operating in a proper manner; and
 - (ii) contingency actions, including monitoring, that will be implemented when any of Points 1 - x (continuous PM₁₀ monitoring) are not operating in a proper manner.

Note: For the purpose of the above condition 'proper manner' means:

- (i) operation in accordance with manufacturers specifications and recommendations;
 - (ii) operation in accordance with relevant Australian Standards:
 - i. AS 3580.14-2011 for Condition 1(a);
 - ii. AS 3580.9.8 -2008 for Condition 2(a); and
 - (iii) operation in a manner that provides data required to satisfy condition(s) of the environment protection licence.
- b) Prior to the commencement of dust generating ~~activities~~ **activities** at the site, EPA must approve the proposed contingency methodology presented in the report required under condition 16(a).

- c) *To remove any doubt, the licensee must not undertake dust generating activities at the site at any time when there is no way assess to real time site specific or representative ambient PM₁₀ and meteorological monitoring data which satisfies the requirements of Conditions 15 or 69.*

Response

GRL would accept this recommended condition being included in its EPL.

17. Predictive Meteorological System

Prior to the commencement of dust or noise generating ~~activities~~ activities at the site, the licensee must install and operate a predictive meteorological system that will predict adverse weather conditions so that operations on the premises can be appropriately managed ~~shut down or altered~~ to adequately control air quality and noise impacts.

Response

GRL would accept this recommended condition, subject to the above changes.

18. Dynamic dust management

- a) *Prior to the commencement of dust generating ~~activities~~ activities at the site, the licensee must submit a report to Manager EPA Hunter Region that details:*
- (i) Action trigger levels based on measured real time PM₁₀ concentrations at representative receptor locations and other inputs such as predicted and prevailing meteorology;*
 - (ii) Specify actions to be taken in response to the identified trigger levels which may include, but not be limited to, stopping certain activities, additional control measures or limitations on particular site activities during adverse meteorological conditions*
- b) *A minimum of 1 review of the effectiveness of the ~~dust~~ air quality management plan must be conducted each twelve months.*
- c) *The plan and the management of all relevant activities on the site must be updated in accordance with the findings of any review of the plan.*
- d) *The plan must be posted on the proponent's website and be made available to the EPA upon request.*

Response

GRL would accept this recommended condition being included in its EPL subject to the adjustment of the name of the air quality management plan, i.e. consistent with *Condition 8*.

19. Coal Mine Particulate Matter Best Practice Implementation

Wheel generated dust

- a) *The Licensee must achieve and maintain a dust control efficiency of 84% or more on all haul roads*

Control efficiency is calculated as:

$$CE = \frac{E(\text{uncontrolled}) - E(\text{controlled})}{E(\text{uncontrolled})} \times 100$$

Where E = the emission rate of the activity

- b) *The Proponent must prepare a Monitoring Program to assess its compliance with Condition 19(a) under varying meteorological conditions. The Monitoring Program must detail the following:*

- the parameters to be monitored;*
- the methods to be used to monitor each parameter;*
- the locations where each parameter will be monitored;*
- the frequency at which each parameter will be monitored;*
- the Key Performance Indicators that will be used to determine compliance with Condition 5(a); and*
- a detailed justification for each Key Performance Indicator selected.*

As a guide, the EPA anticipates that the following parameters will be monitored:

- moisture and silt contents of haul roads;*
- frequency, duration, rate and quantity of water applied to haul roads;*
- frequency, duration, rate and quantity of suppressant applied to haul roads in comparison to manufacturer's specifications;*
- vehicle kilometres travelled;*
- haul truck weight;*
- haul truck speed; and*
- dust levels on haul roads.*

The Monitoring Program must be submitted by the Licensee to the Environment Protection Authority Regional Manager Hunter, at PO Box 488G, NEWCASTLE prior to any dust generating activity occurring on the site.

Note: The EPA intends to require the licensee to implement the Monitoring Program once it is approved by the EPA.

- c) *The proponent must submit a written report to the EPA providing the results of the Monitoring Program. The report must include an assessment of the dust control effectiveness, dust levels and the proponent's compliance with Condition 19(a). The report must be submitted by the Licensee to the Environment Protection Authority Regional Manager Hunter, at PO Box 488G, NEWCASTLE.*

Response

GRL would implement dust control measures generally in accordance with the EIS and the air quality management plan.

3.2.4 Odours

20. Potentially Offensive Odour

The proponent must not cause or permit the emission of offensive odour beyond the boundary of the premises.

Response

GRL would accept this recommended condition being included in its EPL.

3.2.5 Noise

21. The proponent must prepare and implement a detailed Construction Noise Management Plan (CNMP), prior to commencement of construction activities, that includes but is not necessarily limited to:

- a) *identification of each work area, site compound and access route (both private and public)*
- b) *identification of the specific activities that will be carried out and associated noise sources at each site and access route*
- c) *identification of all potentially affected sensitive receivers*
- d) *the construction noise objectives identified in accordance with the Interim Construction Noise Guideline (ICNG, DECC 2009)*
- e) *assessment of potential noise and vibration from the proposed construction methods, including noise from construction traffic, against the objectives identified in (d)*
- f) *detailed description of the feasible and reasonable noise mitigation measures that will be implemented to reduce noise from the project in an effort to meet the objectives identified in (d), including at least all feasible and reasonable measures from section 6 of the ICNG*
- g) *procedures for notifying residents of construction activities that are likely to affect their noise and vibration amenity*
- h) *measures to monitor noise performance and respond to complaints.*

Response

GRL would accept this recommended condition being incorporated into a condition of development consent relating to the requirement to prepare a Construction Noise Management Plan in consultation with the EPA. A requirement to prepare a Construction Noise Management Plan would be expected within the development consent.

22. Construction work associated with the project must be undertaken:

- a) between 7:00 am and 6:00 pm, Mondays to Fridays;
- b) between 8:00 am and 1:00 pm on Saturdays; and
- c) at no time on Sundays or public holidays.

Note 1: for the purpose of this approval, “construction work” includes only: ~~upgrading works for Jacks Road and Waukivory Road, construction of the mine access road and private haul road; construction of offices and amenities; construction of light vehicle carparks; construction of water management structures required prior to the commencement of construction; construction of workshop (including fuel bay, wash down, store); construction of the ROM pad and breaker station earthworks; and installation of power generation equipment, reticulated power and communications infrastructure~~ that identified within the EIS and its ancillary activities undertaken during the site establishment and construction stage. All other activities are deemed operational noise.

Note 2: The EIS for the Project predicted a 10 month site establishment and construction phase.

Response

GRL would accept this recommended condition subject to the removal of the nominated works. The inclusion of the nominated works will not necessarily cover all construction activities. Hence, it is preferable to refer to “construction work identified within the EIS and its ancillary activities undertaken during the site establishment and construction stage”.

23. Construction work associated with the project may be undertaken outside the hours specified in the standard hours if it is:

- a) construction that causes $L_{Aeq(15min)}$ noise levels that are:
 - i. no more than 5dB above Rating Background Level at any privately-owned residence in accordance with the Interim Construction Noise Guideline (DECC, 2009); and
 - ii. no more than the Noise Management Levels specified in Table 3 of the Interim Construction Noise Guideline (DECC, 2009) at other noise sensitive land uses; and has been approved in writing by the Secretary, or
- b) for the delivery of materials required by the police or other authorities for safety reasons; or
- c) required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm; or
- d) approved through the process outlined below.

Response

It is requested that part (a) is amended to incorporate the additional tracked text.

24. The hours of construction specified may be varied with the prior written approval of the Secretary. Any request to alter the hours of construction shall:
- be considered on a case-by-case or activity-specific basis;
 - be accompanied by details of the nature and justification for activities to be conducted during the varied construction hours;
 - be accompanied by written evidence to the Secretary that appropriate consultation with potentially affected noise sensitive receivers and notification of relevant Council(s) and other relevant agencies has been and will be undertaken;
 - demonstrate that all reasonable and feasible noise mitigation measures have been put in place; and,
 - be accompanied by a noise impact assessment consistent with the requirements of the Interim Construction Noise Guideline (DECCW, 2009).

Response

GRL would accept this recommended condition.

25. Noise generated at the premises must not exceed the noise limits in the table below. The locations referred to in the table below are indicated by Appendix C1 – Land ownership Plan of the Noise, Vibration and Blasting Assessment (SLR Consulting Australia Pty Ltd 2016).

Receiver	Location: MGA94 Zone 56 Easting and Northing	Noise Limits dB(A)			
		Day	Evening	Night	
		L_{Aeq} (15 minute)	L_{Aeq} (15 minute)	L_{Aeq} (15 minute)	L_{Amax} (15 minute)
6 Campbell	405555,6453564	40	40	35	45
7 Ansell & Murray	403954,6455192	36	36	35	45
19A Boorer	402107,6452036	36	35	35	45
Any other residence	Any residence not identified above, and not subject to a negotiated agreement	35	35	35	45

Note: In the EIS for the Project the proponent committed that any maintenance activities carried out during ‘all other hours’ (10pm-8am) will only occur on the condition that the activities are not audible at privately owned residences.

Response

GRL would prefer that this condition removes the reference to “night” noise levels as its inclusion could suggest to the community that GRL is permitted to undertake night-time mining activities. The Noise, Vibration and Blasting Assessment (Section 3.2.3 (and Table 16) and then Table 19) for the amended Project established that the default background noise level of 35dB(A) was not recorded at a number of residences adjacent to The Bucketts Way or within the Gloucester urban area (with their higher daytime PSNLs of 40dBA and 37dBA respectively). It is requested that these additional localities are specifically identified on this table. The preferred table would be presented as follows.

Receiver	Location: MGA94 Zone 56 Easting and Northing	Noise Limits dB(A)	
		Day L _{Aeq} (15 minute)	Evening L _{Aeq} (15 minute)
6 Campbell	405555,6453564	40	40
7 Ansell & Murray	403954,6455192	36	36
19A Boorer	402107,6452036	36	35
<u>Privately-owned residences adjacent The Bucketts Way and not subject to a negotiated agreement</u>		40	35
<u>Gloucester urban privately-owned residences (excluding residences located adjacent The Bucketts Way) and not subject to a negotiated agreement</u>		37	35
Any other <u>privately-owned</u> residence	Any residence not identified above <u>owned by the licensee or another resource company, or subject to a negotiated agreement</u>	35	35

It would be GRL's preference that a further condition is added to the effect that:

“Any maintenance undertaken beyond the hours specified in *Condition 2* not exceed L_{Aeq} (15 minute) of 35dB(A) and L_{Amax} (15 minute) 45dB(A)”.

Further discussion regarding this matter is provided in Section 2.23.11.1.

26. For the purpose of condition 25:

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

Response

GRL would accept this recommended condition.

27. The noise limits set out in condition 25 apply under all meteorological conditions except for the following:

- a) Wind speeds greater than 3 metres/second at 10 metres above ground level; or
- b) Temperature inversion conditions greater than $8^{\circ}-1.5^{\circ}/100\text{ m}$ (i.e. stability class E).

Response

For general consistency with the INP Section 9, which states “the consent or licence condition applies under typical meteorological conditions relevant to the site”. A temperature inversion of $8^{\circ}/100\text{m}$ could apply to a 24hour mining operation located in an arid area (i.e. annual rainfall less than 500mm). However, the amended Project which is located in a non-arid area with mining operations restricted to 7:00am to 10:00pm. So generally consistent with INP Sections 9 and 5.2, the temperature inversion is firstly reduced to $3^{\circ}/100\text{m}$ for a non-arid area, and then

further reduced to 1.5°/100m as mining operations are restricted to 7:00am to 10:00pm. The proposed temperature inversion of 1.5°/100m is also consistent with DING Section 5.2 (Fact Sheet D, Table D1) which defines noise-enhancing meteorological conditions as *Daytime/evening: stability categories A–E with light winds (0.5–3 m/s)*.

28. For the purposes of condition 27:

- a) Data recorded by the meteorological station identified as EPA Identification Point <?> TBA must be used to determine meteorological conditions; and
- b) Temperature inversion conditions (vertical temperature gradient in degrees C) are to be determined by direct measurement over a minimum 50m height interval as referred to in Part E2 of Appendix E to the NSW Industrial Noise Policy or through the use of an alternate method approved by the EPA.

Response

GRL would accept this recommended condition with the additional suggested text.

A good understanding of temperature inversions in the vicinity of the Rocky Hill Mine Area is already available through data collected within the Stratford Mining Complex and within the Rocky Hill Mine Area. Temperature sensors placed at various elevations within the Rocky Hill Mine Area provide a suite of relevant data that could be used to record the temperature gradient. Details of GRL's approach to this matter would be included in an application for an EPL.

29. To determine compliance:

- a) with the $L_{Aeq(15 \text{ minute})}$ noise limits ~~specified above~~ in Condition 25, the noise measurement equipment must be located:
 - approximately on the property boundary, where any dwelling is situated 30 metres or less from the property boundary closest to the premises; or
 - within 30 metres of a dwelling façade, but not closer than 3m, where any dwelling on the property is situated more than 30 metres from the property boundary closest to the premises; or, where applicable
 - ~~within approximately 50 metres of the boundary of a National Park or a Nature Reserve.~~
- b) ~~with the L_{Amax} noise limits in condition 25, the noise measurement equipment must be located within 1 metre of a dwelling façade.~~
- c) with the noise limits in condition 25, the noise measurement equipment must be located:
 - at the most affected point at a location where there is no dwelling at the location; or
 - at the most affected point within an area at a location prescribed by conditions (a) or (b).

Response

GRL would locate noise monitoring equipment in accordance with the NSW Industrial Noise Policy reference to a National Park or Nature Reserve is not relevant to the amended Project. Furthermore, there are no L_{Amax} noise limits included in *Condition 25*.

30. A non-compliance of this Noise Limits condition will still occur where noise generated from the premises in excess of the appropriate limit is measured:

- at a location other than an area prescribed by [Condition 25](#); and/or
- at a point other than the most affected point at a location.

Response

GRL would accept this recommended condition. An adjustment (tracked) is suggested for clarity.

31. For the purpose of determining the noise generated at the premises: the modifying factors, except for low-frequency noise, in Section 4 of the NSW Industrial Noise Policy must be applied, where appropriate, to the noise levels measured by the noise monitoring equipment.

Response

GRL would accept this recommended condition.

32. For the purpose of determining the noise generated at the premises, a correction must be applied to any measured noise level, before comparison to limits, where the $L_{Ceq} - L_{Aeq}$ exceeds 15dB and:

- where any of the 1/3 octave noise levels in the table below are exceeded by up to 5dB, a 2dBA positive adjustment to measured A weighted levels applies in the evening ~~and night~~ periods.
- where any of the 1/3 octave noise levels in Table A are exceeded by more than 5dB, a 5dBA positive adjustment to measured A weighted levels applies for the evening and night periods, and a 2dBA positive adjustment applies for the daytime period.

Centre frequency (Hz)	10	12.5	16	20	25	31.5	40	50	63	80	100	125	160
One-third octave $L_{Zeq(15min)}$ threshold level (dB)	92	89	86	77	69	61	54	50	50	48	48	46	44

Response

GRL would accept this recommended condition being included in its EPL.

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33. To assess compliance with Condition 25, attended noise monitoring must be undertaken in accordance with Condition 29 and:
- a) at each one of residential receivers 6, 7, 19A and at a location representative of residences in the Avon River Estate;
 - b) occur Quarterly, in a reporting period;
 - c) occur during each day, evening and night period as defined in the NSW Industrial Noise Policy for a minimum of:
 - 1.5 hours during the day;
 - 30 minutes during the evening; and
 - 1 hour during the night.
 - d) occur for three consecutive operating days.

The extent of monitoring required will be reviewed by the EPA, upon request, after the first two years of data.

Response

GRL would accept this recommended condition.

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34. A noise compliance assessment report must be submitted to the EPA within 30 days of the ~~completion of the quarterly monitoring~~ end of each quarter. The assessment must be prepared by a suitably qualified and experienced acoustical consultant and include:
- a) an assessment of compliance with noise limits presented in Condition 25; and
 - b) an outline of any management actions taken within the monitoring period to address any exceedances of the limits contained in Condition 25.

Response

GRL would accept this recommended condition being included in the EPL.

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35. Annually the noise compliance assessment report must also include an assessment of compliance with the plant and equipment sound power levels identified in Table 4.9 of the EIS. The compliance report must clearly identify the methodology used to determine the sound power levels of the plant and equipment. If plant or equipment individually exceeds the originally predicted sound power level, ~~or~~ and if the overall mobile and fixed plant sound power level exceeds the originally predicted sound power level identified in tables 4.9 or 4.10, the proponent must stipulate actions that will be taken to ensure overall sound power levels do not exceed originally predicted levels.

Response

It is GRL's position with respect to this condition that it is unnecessary given the over-riding requirement is to satisfy the noise limits contained in the development consent as identified in suggested Condition 25 and the fact that GRL will need to manage noise levels through the use

of two real-time noise monitors (see suggested Condition 36). GRL would need to satisfy these conditions irrespective of the sound power levels on each of the items of equipment. In any event, GRL's acceptance and implementation of Condition 4 would result in negligible changes to the sound power levels of the equipment.

36. Real Time Noise Monitor

The proponent must, prior to the commencement of noise generating ~~active~~ activities at the site, install a continuous real time noise level monitor at a location representative of residences within the Forbesdale Estate and Avon River Estate.

Response

GRL would accept this recommended condition. However, it is suggested that "Forbesdale Estate" is added to this condition – consistent with GRL's commitment in the EIS (Section 4.2.8).

37. Dynamic noise management

- a) *Prior to the commencement of noise generating ~~active~~ activities at the site, the licensee must submit a report to Manager EPA Hunter Region that details:
 - i. *Action trigger levels based on measured real time noise levels at a representative receptor location and other inputs such as predicted and prevailing meteorology;*
 - ii. *Specify actions to be taken in response to the identified trigger levels which may include, but not be limited to, stopping certain activities, additional control measures or limitations on particular site activities during adverse meteorological conditions.**
- b) *A minimum of 1 review of the effectiveness of the ~~dust~~ noise management plan must be conducted each twelve months.*
- c) *The plan and the management of all relevant activities on the site must be updated in accordance with the findings of any review of the plan.*
- d) *The plan must be posted on the proponent's website and be made available to the EPA upon request.*

Response

GRL would accept this recommended approach however suggest that details regarding noise management be included within a noise management plan to be submitted in accordance with the timing specific in the development consent and in consultation with the EPA prior to the commencement of development.

3.2.6 Blasting

38. *Blasting at the premises may only take place between 10:00am-4:00pm Monday to Saturday. Blasting is not permitted on public holidays.*

Note: these time restrictions have been applied as modelling has shown there is a risk of nitrogen dioxide from blast fume exceeding relevant ground level criteria in stable meteorological conditions outside the above time period.

Response

GRL would accept this recommended condition.

39. *Blasting outside of the hours specified in the condition above can only take place with the ~~written~~ approval of the ~~EPA~~ Secretary.*

Response

GRL would accept this recommended condition, subject to the above changes – given the EPA is not responsible for matters relating to safety and blasting.

40. *Offensive blast fume must not be emitted from the premises.*

Definition:

Offensive blast fume means post-blast gases from the detonation of explosives at the premises that by reason of their nature, duration, character or quality, or the time at which they are emitted, or any other circumstances:

- i. are harmful to (or is likely to be harmful to) a person that is outside the premises from which it is emitted, or*
- ii. interferes unreasonably with (or is likely to interfere unreasonably with) the comfort or repose of a person who is outside the premise from which it is emitted.*

Response

GRL would accept this recommended condition being included in its EPL.

41. *Blasts must be delayed during weather conditions that would transfer excessive dust and/or fume towards Forbesdale, Thunderbolt or Avon River estates.*

Response

GRL would accept this recommended condition.

42. *All blasts conducted on the premises must be videoed in such a manner that the scale, direction and extent of any fume and dust produced by the blast is readily apparent. Such video must be provided to the EPA immediately upon request.*

Response

GRL would accept this recommended condition being included in its EPL.

43. *The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.*

Response

GRL would accept this recommended condition being included in its EPL.

44. *The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each annual reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.*

Response

GRL would accept this recommended condition being included in its EPL with the addition of “annual” as shown above.

45. *Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.*

Response

GRL would accept this recommended condition being included in its EPL.

46. *Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any noise sensitive locations for more than five per cent of the total number of blasts over each annual reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.*

Response

GRL would accept this recommended condition being included in its EPL.

47. *A breach of the above mentioned limits will still occur where airblast overpressure or ground vibration levels from the blasting operations at the premises exceeds the limit specified at any “noise sensitive locations” other than any specific locations identified above.*

Response

This condition seems unnecessary given the above two proposed conditions apply generally to noise sensitive locations. Uncertainty exists regarding ‘specific locations’ identified above.

48. *The airblast overpressure and ground vibration levels in conditions 43 to 47 do not apply at noise sensitive locations that are owned by the licensee or another resource company or subject to a private agreement, relating to airblast overpressure and ground vibration levels, between the licensee and landowner.*

Response

GRL would accept this recommended condition with the addition of “or another resource company” being included in its EPL.

3.2.6.1 Blast Monitoring

49. *To determine compliance with condition(s) 43-47:*

- a) *Airblast overpressure and ground vibration levels must be measured and electronically recorded at the ~~nearest~~ privately-owned residences nominated in the Blast Management Plan or noise sensitive locations for all the parameters in the first column of the table below.*
- b) *The licensee must use the units of measure, sampling method, and sampling frequency specified in the other columns.*

Parameter	Units of Measure	Frequency	Sampling Method
Airblast overpressure	Decibels (linear peak)	Continuous during all blasts	Australian Standard AS2187.2-2006
Ground vibration peak particle velocity	Millimetres/second	Continuous during all blasts	Australian Standard AS2187.2-2006

Response

GRL would accept this recommended condition with the addition of “privately-owned” residences “to the blast” in Part (a) as a condition of its EPL.

50. *The proponent must monitor all blasts carried out in or on the premises at or near the nearest privately-owned residences or noise sensitive locations (such as a school or hospital) that is likely to be most affected by the blast and that is not owned by the licensee or subject of a private agreement between the owner of the residence or noise sensitive location and the licensee relating to alternative blasting limits. ~~At the minimum, monitoring must be conducted at residences generally north and west of the premises.~~*

Response

GRL consider it more appropriate to reference the blast monitoring program be included in a blast management plan and prepared in consultation with the EPA prior to the commencement of blasting. Should this condition be retained, it is requested the final sentence is removed as it is ambiguous and does not provide accurate guidance on monitoring locations.

51. *The proponent must report any exceedance of the blasting limits to the regional office of the EPA as soon as practicable after the exceedance becomes known to the proponent or to one of the proponent's employees or agents.*

Response

GRL would accept this recommended condition being included in its EPL.

52. *The proponent must report any impact on a person from offensive blast fume (as defined in the condition 40 above) to the regional office of the EPA as soon as practicable after the impact becomes known to the proponent or to one of the proponent's employees or agents.*

Response

GRL would accept this recommended condition.

3.2.7 Water and Groundwater

53. *Except as may be expressly provided by a licence issued under the Protection of the Environment Operations Act 1997 in relation of the development, section 120 of the Protection of the Environment Operations Act 1997 must be complied with in connection with the carrying out of the development.*

Response

GRL would accept this recommended condition being included in its EPL.

54. *There must be no discharge from the premises of waters contained within open cut pits, unless such waters have first been treated in the water treatment plant.*

Response

GRL would accept this recommended condition being included in its EPL.

55. *(EPA note: the EPA is likely to suggest condition restricting or prohibiting saline water reuse on the premises, following an adequate and thorough assessment during this EIS process as to whether saline water reuse is appropriate).*

Response

GRL would not support a condition framed in the manner suggested. The use of water accumulating in the saline water zone for dust suppression would be an appropriate use, particularly given runoff from the road network during the first 6 years of operations reports to the saline water zone. GRL intends to undertake sufficient monitoring during the first 6 years of operations to establish the need for an alternate approach to dust suppression during the construction of the interim overburden emplacement (where runoff does not report to the saline water zone). Use of saline water for dust suppression after the construction of the interim

overburden emplacement would be appropriate as all runoff from the internal road network would report to the saline water zone. This practice is a standard operating procedure in most coal mines.

56. *The proponent must sustainably reuse as much of the treated mine water as possible, with discharges of treated water to the ephemeral creek to the north of the premises considered a last resort option, unless in times of drought (and with EPA approval) discharges are needed to supplement Avon River baseflows.*

Note 1: The EIS for the Project notes the proponent intends to reuse as much of the treated water as possible and the annual volume of water produced by the water treatment plant would be sufficient to irrigate about 200ha of land, which represents about 15% of the land owned by the proponent in or adjacent to the mine area.

Note 2: The EPA must be provided with evidence from an appropriate authority that drought discharges are needed to supplement Avon River baseflows prior to any discharge in low riverflow conditions.

Response

GRL would accept this approach however suggest that the relevant measures regarding the management of treated mine water be included in the surface water management plan to be prepared in consultation with DPI Water and the EPA prior to the commencement of development.

57. *The proponent must supply a report to the EPA, yearly with the Environment Protection Licence Annual Return documentation, that provides details of:*

- a) The volume of mine water treated annually in the water treatment plant;*
- b) The volume of treated mine water sustainably reused on and off the premises throughout the annual return reporting period, including a breakdown on the locations where the treated mine water was reused;*
- c) The volume of treated mine water discharged off site throughout the annual return reporting period;*
- d) Rainfall recorded over the annual return period, including a comparison to historic 10 percentile, median and 90 percentile rainfall for the area; and*
- e) Where sustainable reuse of treated mine water represents less than ninety percent of the total mine water treated in the annual return period, commentary as to the reason for this level of reuse and actions proposed to be taken to sustainably reuse as much of the treated mine water as possible.*

Response

GRL would accept this recommended condition being included in its EPL with the addition of the inserted (tracked) modified text. It is GRL's preference that sustainable use of the treated water is considered both on site and off site i.e. for irrigation or supplementary flows in the Avon River, i.e. when recorded flows at the Avon River gauge are <5ML/day. The discharge of treated water to the Avon River during periods when irrigation is impractical or the farm dams are at capacity would similarly be considered a sustainable use.

58. *Following the cessation of mining and rehabilitation activities there must be no discharge of mine water from the premises.*

Response

GRL would accept this recommended condition.

59. Overburden must be assessed to determine if it is Potential Acid Forming (PAF). All breaker rejects, non-economic coal seams and PAF overburden must be managed so as to mitigate against acid formation and pollution of waters.

Response

GRL would accept this recommended condition with the suggested text amendments and the use of similar terminology to the EIS to avoid future confusion (i.e. “waste rock” should be consistently termed “overburden” as is normally the case in open cut coal mines).

Based upon the characterisation of the overburden within the Mine Area (O&RC Report), the occurrence of PAF overburden, if present, would be confined largely to materials immediately above and below the various coal seams. Overall, there would only be small quantities of PAF overburden. It is GRL’s preference that the PAF overburden, breaker rejects and non-economic coal seams are managed as discussed in the EIS (Sections 2.7.2.4 and 2.8.4) and discussed in Section 2.20 of this document.

60. *PAF material must not be disposed above groundwater level without EPA specifically approving in writing the location and design of the out-of-pit PAF waste cells.*

Response

GRL considers that this condition is unnecessary. GRL’s proposed management of PAF overburden, uneconomic coal seams and breaker reject, as discussed in Section 2.20 of this document would be appropriate to prevent any adverse impacts from these materials. Waste cells would not be used.

61. *Stormwater management measures must be prepared and implemented to mitigate the impacts of stormwater run-off from and within the premises in a manner that is consistent with the guidance contained in to Managing Urban Stormwater: Soils and Construction Volume 1 and Managing Urban Stormwater: Soils and Construction: Volume 2C Unsealed Roads and Volume 2E Mines and Quarries (DECCW 2008).*

Response

GRL would accept this recommended condition.

62. *The drainage from all areas at the premises which will liberate suspended solids when stormwater runs over these areas must be diverted into adequately sized sedimentation basins.*

Response

GRL would accept this recommended approach however suggest that details regarding water management are included in the surface water management plan to be prepared in consultation with the EPA and DPI Water prior to the commencement of development.

63. *The sedimentation basins must be maintained (to remove both accumulated sediments ~~and treated water~~) to ensure that their design capacity is available for the storage of runoff from cleared disturbed areas.*

Note: The EIS for the proposal has noted that sediment control basins will be operated such that the water that accumulates after rainfall will be treated as is necessary to achieve the necessary discharge limits and then discharged within five days of the rainfall event.

Response

GRL would accept this recommended approach with the minor change above as treated water would not be stored within sediment basins. Details regarding sedimentation basins will be included in the surface water management plan to be prepared in consultation with the EPA and DPI Water prior to the commencement of development.

64. *Water and irrigation management plan*

(EPA note: it is the intention of the EPA to add a condition similar to that shown below. This draft condition might be varied upon submission of all relevant information as requested in this letter)

Prior to commencement of the operation the proponent must develop and implement a management plan (or series of plans) that cover the surface water (including the water treatment plant), irrigation and groundwater issues. The plan(s) must include:

- *erosion and sediment control measures and bunding;*
- *maintenance and monitoring of the treatment plant, including reverse osmosis membrane performance, ~~and distribution system for irrigation water and brine,~~ including operational triggers to ensure that the treatment process is functioning in a proper and efficient manner for the entire operational period;*
- *further development of a detailed water balance that incorporates an annual review to update the balance based on actual rainfall and effluent irrigation data;*
- *~~specifications for the unamended and amended quality of irrigation water and the circumstances under which the amendment might be varied, linked to soil monitoring;~~*

- *a soil and water monitoring program for irrigation water, soils, groundwaters and crops based on risk factors that aim to detect when specific water quality, soil or crop sustainability trigger values are nearing, or have exceeded, trigger levels;*
- *clearly defined management actions that are implemented when approaching or exceeding sustainability trigger values. An example of trigger values used for soil sustainability management can be found in: McGahan, Eugene and Robyn Tucker (Principle Authors), 2003, Resource Manual of Development of Indicators of Sustainability for Effluent Reuse in the Intensive Livestock Industries: Piggeries and Cattle Feedlots. Project No. 1816. Australian Pork Limited, Canberra, Australia, May, 2003;*
- *use of ‘control’ or ‘reference’ sites which are unlikely to be impacted by irrigation water to allow comparison between impacted and non-impacted sites;*
- *contingency plans for incidents and emergencies including for water treatment, tank or bunding failure, chemicals spills **and** poor crop performance, ~~and~~ **breakage of brine pipelines;***
- *a program for reporting on the treatment processes and irrigation operations.*

Response

GRL would accept a condition similar to the above within its EPL with the removal of the identified text.

- The distribution for irrigation water would not be located within the Mine Area and should not be the subject of the EPL.
- The text removed refers to “brine” which will not be generated on site. GRL intends that the salt recovered from the water treatment plant is produced as a solid material.
- The reference to “unamended and amended water quality” is not relevant to the water treatment plant GRL intends to install and operate.

65. Water Treatment Plant Commissioning Stage Monitoring Plan

(EPA note: it is the intention of the EPA to add a condition similar to that shown below. This draft condition might be varied upon submission of all relevant information as requested in this letter)

The proponent must ensure that data is collected and collated as part of the water treatment plant commissioning stage monitoring program for amended and unamended effluent. The data must be submitted to the EPA for consideration. The data must include, at a minimum:

- *organics (total recoverable hydrocarbons, including BTEX);*
- *radionuclides, including: combined radium-226/-228, gross alpha and gross beta;*
- *a full suite of metals;*

- *non-metallic inorganics: ammonia, nitrate, nitrite;*
- *salinity, major ions, alkalinity and hardness: total dissolved solids, sodium, chloride, potassium, magnesium, fluoride, sulfate, calcium, bromide, bicarbonate, carbonate, hydroxide, hardness;*
- *dissolved oxygen, electrical conductivity, pH, redox potential, turbidity, total suspended solids.*

Response

GRL would accept a condition similar to the above within its EPL recognising that it will need to be modified to reflect the specific water treatment process to be adopted for the amended Project. GRL would provide all relevant information to assist the EPA when forming this condition as part of the documentation submitted with its application for an environment protection licence.

66. Concentration limits (consent condition)

The proponent must not discharge waters from the site, except in accordance with the conditions of any environment protection licence.

Response

GRL would accept this recommended condition.

67. Concentration limits (Environment Protection Licence condition)

- a. *For each monitoring/discharge point or utilisation area specified in the table\> below (by a point number), the concentration of a pollutant must not exceed the concentration limits specified for that pollutant in the table.*

POINT 1-x (each point where sediment laden water is discharged from the premises)

Pollutant	Units of measure	100 percentile limit
Total Suspended Solids	Mmg/L	50
pH	pH units	6.5-8.5
Oil and Grease	Mmg/L	5 mg/L and/or None visible

POINT Y (the discharge from the water treatment plant)

Pollutant	Units of measure	100 percentile limit
Total Suspended Solids	Mmg/L	50
pH	pH units	6.5-8.5
Oil and Grease	Mmg/L	5 mg/L and/or None visible
Other parameters and limits are yet to be determined and will be stipulated by the EPA after the submission of an appropriate EIS assessment, and prior to determination of the development application		

Note: the EPA will consider a turbidity limit in addition to (or as an alternative to) Total Suspended Solids (TSS) where it can be demonstrated there is a clear correlation between TSS and turbidity for the discharge(s) in question.

Response

GRL would accept this recommended condition in its EPL. Note that title case for units has been adjusted.

68. Water Monitoring (Environment Protection Licence condition)

For each monitoring/discharge point or utilisation area specified below (by a point number) the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns

POINT 1-x (each point where sediment laden water is discharged from the premises)

Pollutant	Units of measure	Frequency	Sampling Method
Total Suspended Solids	mg/L	Daily during any discharge	Grab Sample
Turbidity	ntu	Daily during any discharge	Probe
pH	pH units	Daily during any discharge	Probe
Oil and grease	visual	Daily during any discharge	Visual observation
Conductivity	µS/cm	Daily during any discharge	Grab Sample
Aluminium and other parameters – TBD after a more thorough assessment by the proponent			

POINT Y (the discharge from the water treatment plant)

Pollutant	Units of measure	Frequency	Sampling Method
Total Suspended Solids	mg/L	Daily during any discharge	Grab Sample
Turbidity	ntu	Daily during any discharge	Probe
pH	pH units	Daily during any discharge	Probe
Oil and grease	visual	Daily during any discharge	Visual observation
Conductivity	µS/cm	Daily during any discharge	Grab Sample
<i>Other parameters and monitoring requirements/frequency are yet to be determined and will be stipulated by the EPA after the submission of an appropriate EIS assessment, and prior to determination of the development application</i>			

POINT A (Waukivory Creek U/S 2), POINT B (Waukivory Creek D/S), POINT C (Avon River U/S) and POINT D (Avon River D/S) (sampling locations shown on Figure 4.50 of the EIS for the Amended Rocky Hill Coal Project dated 2016)

Pollutant	Units of measure	Frequency	Sampling Method
Total Suspended Solids	mg/L	Monthly	Grab Sample
Turbidity	ntu	Monthly	Probe
pH	pH units	Monthly	Probe
Oil and grease	visual	Monthly	Visual observation
Electrical Conductivity	µS/cm	Monthly	Grab Sample

Response

GRL would accept this recommended condition in its EPL. A note is required beneath each table to the effect that ‘Upon the establishment of a relationship between total suspended solids and turbidity, analyses for total suspended solids can be discontinued’.

69. Weather Monitoring

A meteorological weather station must be installed and maintained so as to be capable of continuously monitoring the parameters specified in the table below.

For each monitoring point specified in the table below the proponent must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The proponent must use the sampling method, units of measure, averaging period and sample at the frequency, specified opposite in the other columns.

Point <z>

Parameter	Units of Measure	Frequency	Averaging Period	Sampling Method
Siting				AM-1
Air temperature at 2 metres	°C	Continuous	1 hour	AM-4
Air temperature at 10 metres	°C	Continuous	1 hour	AM-4
Wind direction at 10 metres	°	Continuous	15 minute	AM-2 & AM-4
Wind speed at 10 metres	m/s	Continuous	15 minute	AM-2 & AM-4
Temperature lapse rate	°C	Continuous	15 minute	Direct measurement over a minimum 50m height interval as referred to in Part E2 of Appendix E to the NSW Industrial Noise Policy <u>or through the use of an alternate method approved by the EPA.</u>
Rainfall	mm	Continuous	15 minute	AM-4
Relative humidity	%	Continuous	1 hour	AM-4

Monitoring for all parameters listed in Column 1 must commence prior to earth moving activities being undertaken on the premises.

Note: The location of the weather station must be approved in writing by the EPA prior to the installation of the monitoring equipment.

Response

GRL would accept this recommended condition in its EPL with the addition to the sampling method for temperature lapse rate (i.e. consistent with Condition 28).

70. Receiving Environment Investigations

- (a) *Prior to the commencement of construction the proponent must engage a suitably qualified person to conduct a baseline survey along the entire length of the ephemeral watercourse that is proposed to receive discharges from the water treatment plant to assess for impacts of erosion. The results of the survey must be compiled into a report*

and include photographs of any erosion issues and recommendations for actions that will be taken (including timelines) to address any erosion (or potential erosion) issues identified. The report must be provided to the EPA within two months of the person conducting the survey.

- (b) *Annually the proponent must engage a suitably qualified person to conduct a survey along the entire length of the ephemeral watercourse that receives discharges from the water treatment plant to assess for impacts of erosion. The results of the survey must be compiled into a report which compares the results to the baseline survey and the previous survey. The report should include photographs, taken in approximately the same location each year, which compares any erosion issues from year to year. The report must include recommendations for actions that will be taken (including timelines) to address any erosion issues identified. The report must be provided to the EPA annually with the Environment Protection Licence Annual Return.*

Note: the EPA will review the frequency of this requirement for the watercourse survey, upon request, after the first two years of surveys have been completed (noting that discharges from the water treatment plant are not predicted to occur until about Year 4).

Response

In light of the information provided in Section 2.29.4.11 of this document, the requirements in the above condition are unnecessary.

71. Annual Report on Ambient Environmental Monitoring

Annually the proponent must engage a suitably qualified person review the results of ambient water quality monitoring conducted in the vicinity of the premises. The results of the review must be compiled into a report including graphs for key parameters at each site, showing results since monitoring began. The report must include expert commentary that discusses any trends observed, postulates the reasons for the trends and makes recommendations for any actions necessary to address any adverse trends or results (including timelines). The report must be provided to the EPA annually with the Environment Protection Licence Annual Return.

Response

In light of the information provided in Section 2.29.4.11 of this document, the requirements in the above condition are unnecessary.

3.2.8 Waste

-
- 72. The proponent must not cause, permit or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing, reprocessing or disposal or any waste generated at the premises to be disposed of at the premises, except as expressly permitted by an environment protection licence.*

Response

GRL would accept this recommended condition in its EPL.

73. *This condition only applies to the storage, treatment, processing, reprocessing or disposal of waste at the premises if those activities require an environment protection licence.*

Response

GRL would accept this recommended condition in its EPL.

3.2.9 Emergency Response

74. *The proponent must maintain, and implement as necessary, a current Pollution Incident Response Management Plan (PIRMP) for the premises in accordance with the requirements in Part 5.7A of the Protection of the Environment Operations (POEO) Act 1997 and PO EO regulations. The proponent must keep the incident response plan on the premises at all times. The incident response plan must document systems and procedures to deal with all types of incidents (e.g. spills, explosions or fire) that may occur at the premises or that may be associated with activities that occur at the premises and which are likely to cause harm to the environment.*

Response

GRL note that this proposed condition reflects legislative requirements contained in the *Protection of the Environment Operations Act 1997* and applicable to all licence holders and so is unnecessary to include as a condition of the EPL.

3.3 OFFICE OF ENVIRONMENT AND HERITAGE

3.3.1 Flooding

3.3.1.1 Representative Comment(s)

1) *Detailed design of the proposed haul road will require catchment analysis to ensure waterway crossings are sized to ensure flows are not obstructed by road embankments. Appropriate headwall and energy dissipation structures are to be incorporated in the design together with analysis of blockage. **Negotiation with affected land holders will be required if the road construction will affect flooding or erosion of private property.***

Response

GRL would accept this recommended condition. See text in 3. below.

2) *Monitoring programs will be required to include monitoring for erosion within Oaky Creek and to the northern and western amenity barriers. Monitoring programs for Oaky Creek will require access to private property and this will require negotiation with affected land holders. Programs should include trigger points for action and rectification of erosion and sediment management.*

Response

GRL would accept this recommended condition. The requested information would be provided in the Surface Water Management Plan.

3) Detailed design of the Waukivory Creek crossing should include update of the flood analysis to ensure final design configuration is modelled. Bank protection works will be required to be incorporated in the design to accommodate the increase in velocity in this area. Impact on private property is to be minimised and appropriate negotiation and compensation should be carried out as part of the detailed design phase.

Response

GRL would accept this recommended condition. However, the highlighted text appears to be inconsistent with similar text highlighted in 1. above, i.e. *Condition 3* refers to compensation whereas *Condition 1* does not.

3.4 DIVISION OF RESOURCES AND ENERGY (NOW THE DIVISION OF RESOURCES AND GEOSCIENCE)

3.4.1 Rehabilitation Issues

3.4.1.1 Representative Comment(s)

1. Rehabilitation must be substantially consistent with the Rehabilitation Objectives as described in the EIS and the Statement of Commitments ...

Rehabilitation Feature	Objective
Mine site (as a whole)	<p>Safe, stable and non-polluting, fit for the purpose of the intended post-mining land use(s).</p> <p>Post mining landforms are designed to be similar to the pre-mining landform, and incorporate micro-relief and reinstate the pre-mining hydrology.</p> <p>The post mining landform will be constructed generally in accordance with the EIS (Figure 2.19).</p> <p>The final landform will incorporate constructed drainage lines that mimic 'natural' drainage and, where reasonable and feasible, avoid straight run drainage drop structures and integrate with surrounding landforms.</p> <p>Water structures retained in the post-mining landscape are to be appropriately sized with regard to water licencing requirements of the post-mining land use.</p>
Surface Infrastructure	<p>All built infrastructure is to be decommissioned and removed, <u>unless DRG agree otherwise.</u></p>
Rehabilitation materials	<p>Materials (including topsoils, substrates and seeds of the disturbed areas) are recovered, appropriately managed and used effectively as resources in the rehabilitation.</p>

Water Quality	<p>Water retained on site is fit for the intended land users) for the post-mining domain(s).</p> <p>Water discharged from site is consistent with the baseline ecological, hydrological and geomorphic conditions of the watercourses prior to mining disturbance.</p> <p>Water management is consistent with the regional catchment management strategy.</p>
Post mining land use(s)	<p>The post mining landform has a land capability comparable to the pre-mining landform.</p> <p>The post mining landform is rehabilitated to provide a mixture of open woodland, and grazing land that incorporates tree lots and fauna habitat corridors.</p>
Open woodland and fauna habitat corridors	<p>At least 185 hectares of areas disturbed by mining will be rehabilitated with open woodland native vegetation.</p> <p>At least 25 hectares of areas disturbed by mining will be rehabilitated to provide habitat corridors and native tree lots within pasture rehabilitation areas, generally in accordance with EIS (Figure 2.19): Indicative Final Landform.</p> <p>Native vegetation species are selected that re-establishes and complements regional and local biodiversity.</p> <p>The size, locations and species for native tree lots and habitat corridors are appropriate to establish and sustain local biodiversity values.</p>
Agricultural Land	<p>At least 287 hectares of land disturbed by mining will be rehabilitated to land capable of agricultural production.</p> <p>Agricultural land will achieve the pre-mining land and soil capability classifications and be self-sustaining within 5 years of land use establishment (first planting of vegetation.)</p>

Response

GRL would accept the recommended condition with the minor adjustment to the text.

2. Progressive Rehabilitation

The proponent shall carry out all surface disturbing activities (e.g. pre-stripping in advance of mining operations) in a manner that, as far is reasonably practicable, minimises potential for dust emissions and shall carry out rehabilitation of disturbed areas progressively, as soon as reasonably practicable.

Rehabilitation Plan

The Proponent must prepare and implement a Rehabilitation Plan.

The Rehabilitation Plan must:

- a. *be submitted and approved by the Division or Environmental Sustainability prior to carrying out any ~~surface disturbing~~ mining activities of the development, unless otherwise agreed by the Secretary*
- b. *be prepared in accordance with Division guidelines and in consultation with the Division, Office of Environment & Heritage, Environmental Protection Authority, Department of Primary Industry - Water, Council and the Community Consultation Committee*

- c. *incorporate and be consistent with the rehabilitation objectives in the EIS, Summary of Environmental Management and Monitoring Measures (Section 8)*
- d. *integrate and build on, to the maximum extent practicable, the other management plans required under this approval*
- e. *address all aspects of mine closure and rehabilitation , including post mining land use domains, rehabilitation objectives, completion criteria and rehabilitation monitoring and management*
- f. *Incorporate a rehabilitation monitoring program that identifies analogue locations representative of the 'open woodland' rehabilitation and 'agricultural production' rehabilitation areas, and baseline monitoring of the analogues required to develop detailed completion criteria to demonstrate rehabilitation success.*

Response

GRL would accept the recommended condition with the minor adjustment to the text.

3.5 MID-COAST COUNCIL

3.5.1 Conditions

This section provides GRL's response to conditions recommended by Mid-Coast Council. It is noted that GRL does not accept a number of the conditions as they are inconsistent with the approach taken by GRL in its design and proposed operation of the amended Project. Further, a number of the conditions relate to matters that are administered by a range of Stage Government Agencies who, together with the DPE have developed standard conditions to be imposed on coal mine developments in NSW.

3.5.1.1 Management and Mitigation and Contingency Measures

1. *Compliance with the Management and Mitigation and Contingency Measures referred to in the EIS subject to the following amendments:*
 - *Recommendation 1 - Establish a Rocky Hill Coal Project Community Consultative Committee - be amended to require two (2) representatives of Council; and*
 - *Recommendation 4 – Establish a Trust (or contribute to an existing Trust) to administer the Funds Provided under the Community Grants Programme with clearly defined application and eligibility criteria – be amended and substituted with a Voluntary Planning Agreement (VPA) to be entered into between Mid-Coast Council and the applicant. Under the agreement, the applicant would agree to fund a range of community projects in accordance with the Community Grants Programme.*

Response

In relation to Recommendation 1, GRL would seek to establish the CCC in accordance with the 2016 Guideline – which nominates only one Council representative on the committee. GRL does not accept Recommendation 4 above for the reasons explained in Response 2.28.4.2 within this document.

3.5.2 Strategic Planning

- 2. The proponent of the Rocky Hill Project to contribute and/pay the costs towards an additional land use and/or residential/housing study/strategy that will be used to identify further residential release areas in the vicinity of Gloucester to cater for population growth and expansion of the urban footprint. Such a study/strategy should compensate Council for the compromising of already identified residential release areas that will occur as a result of the Project and its buffers and residential exclusion zones.*

Response

Discussion relevant to this issue is provided in Section 2.24.2 of this document.

3.5.3 Blasting and Vibration

- 3. A Blast Management Plan (BMP) must be prepared for each individual proposed blast. Each BMP must be independently reviewed to ensure that any modifications or changes are adequately accounted for. The BMP must be designed to ensure that all prescriptive criteria will be met and there are no adverse impacts at any privately owned residence.*

Response

Reliance should be placed upon the standard condition imposed by DPE and/or EPA. Reference to a plan being prepared for each individual proposed blast is not appropriate or practical.

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- 4. The BMP must take into consideration the health of occupants and structural impacts of any blast on privately owned and Resource Company owned residencies and modify the BMP accordingly.*

Response

Reliance should be placed upon the standard condition imposed by EPA and/or DPE.

-
- 5. In the event that a blast event does not comply with the BMP or any other condition/licensing agreement, a report must be prepared and submitted to the NSW EPA, outlining where the BMP failed and must list any proposed actions to be undertaken to ensure that future non-compliance does not re-occur. Any alterations or modifications must be supported by an independent suitably qualified consultant.*

Response

Reliance should be placed upon the standard condition imposed by EPA and/or DPE.

6. *The provision of material safety data sheets relative to the types of products being used should be made readily available to all persons involved in the blasting process.*

Response

This requirement would be covered through the administration of *Explosives Act 2003* and *Explosives Regulation 2005*.

7. *Any blast within 1,274m of 18 Collins & Barrett must restrict the MIC to a maximum of 575kg.*

Response

Reliance should be placed upon the standard condition imposed by EPA and/or DPE.

8. *Any blast within 1,399m of 19A Boorer must restrict the MIC to a maximum of 760kg.*

Response

Reliance should be placed upon the standard condition imposed by EPA and/or DPE.

9. *Air blast Overpressure - The maximum level for air blast overpressure is 115dB (Lin Peak). The level of 115dB may be exceeded on up to 5% of the total number of blasts over a 12 month period.*

Response

Reliance should be placed upon the standard condition imposed by EPA and/or DPE. This recommended condition duplicates EPA's recommended Condition 44.

10. *Ground Vibration - The maximum level for ground vibration is 5mm/s PVS (Peak Vector Sum). The PVS level of 5mm/s may be exceeded up to 5% of the total number of blasts over a 12 month period.*

Response

This recommended condition duplicates EPA's recommended Condition 46.

11. *Blast and vibration monitoring sites shall be established in appropriate locations to the satisfaction of Department of Planning and Environment to ensure that no privately owned residence is impacted upon. The location of the monitoring sites shall be determined by a suitably qualified independent consultant.*

Response

Reliance should be placed upon the standard condition imposed by EPA and/or DPE.

3.5.4 Traffic and Transport

12. *No heavy vehicles shall enter the site or leave the site outside of the hours of 7:00am - 8:00pm weekdays and Saturdays; and 8:00am - 7:00pm Sundays and Public Holidays.*

Response

The imposition of this condition is unwarranted given other heavy vehicles are able to travel on the local and regional road network at any time of the day or night.

3.5.4.1 Waukivory Road - North of Jacks Road

13. *Waukivory Road between Jacks Road and The Bucketts Way (including intersections) must have Dilapidation reports* undertaken before the construction phase commences and at the completion of the construction phase. The reports will be used to determine any damage and deterioration of the road during this construction phase and the applicant will make a contribution to Council to cover the costs of any damage and deterioration established in the reports.*

** All Dilapidation reports are to be provided by suitably qualified road inspectors.*

Response

Discussion relevant to this issue is provided in Sections 2.27.1.1 and 2.27.2.1 of this document.

3.5.4.2 Waukivory Road – East of Jacks Road

14. *Waukivory Road between Jacks Road and McKinleys Lane to be reconstructed to the same dimensions as Jacks Road and an asphalt concrete pavement designed to Council requirements. The pavement width will be two travel lanes of 3.5m width and sealed shoulders on each side of 1m width. The road to be designed to AustRoads' "Guide for Road Design" and approved by Council.*

A permanent traffic classifier, for the life of the mine, to be installed in this section of Waukivory Road using inductive loops within the pavement including a permanent secure housing for the classifier at no cost to Council. Council to have unrestricted access to the data from this classifier at any time.

Response

Discussion relevant to this issue is provided in Section 2.27.3 of this document.

3.5.4.3 Jacks Road

15. *Jacks Road between The Bucketts Way and Waukivory Road to be reconstructed to have two travel lanes of 3.5m width and sealed shoulders on each side of 1m width (9m full constructed width). The road to be an asphalt concrete pavement designed to Council requirements. The road to be designed to AustRoads' "Guide for Road Design" and approved by Council.*

The bridge to be replaced over the Avon River will have 3.5m traffic lanes as the rest of the road with safe edge spacing to the bridge sides/rails. The footpath on the bridge will be located on the north side of the vehicular section with a safety barrier between the vehicular lane and footpath. The footpath will be a shared pathway of 2.5m in width to cater for pedestrians and cyclists. The bridge will be constructed in concrete designed to Council requirements.

Australian Rail Track Corporation (ARTC) to be requested to review the safety and operation of the railway level crossing on Jacks Road and recommend any safety improvements to be undertaken by the applicant.

Response

Discussion relevant to this issue is provided in Section 2.27.4 of this document.

3.5.4.4 Fairbairns Road

16. *The proposed crossing of Fairbairns Road by the Haul Road will have a Short Term lease under the Roads Act (Part 10 Division 2 – Sections 153 to 157) between the Applicant and Council. The proposed design of the grade separated intersection of Fairbairns Road and the Haul Road to be designed to AustRoads' "Guide for Road Design" and approved by Council including the Short Term Lease.*

The existing bridges on Fairbairns Road that cross the Avon River are not suitable for the heavy vehicles to be used in the construction of the Haul Road underpass. The existing temporary bridge is to be assessed by an independent structural bridge consultant to determine if it can cater for the proposed heavy vehicles and, if not, a new bridge is to be built to cater for the heavy construction vehicles or another option agreed to by Council.

Fairbairns Road between The Bucketts Way and new Haul Road (including intersections) must have Dilapidation reports undertaken before the construction phase commences and at the completion of the construction phase. The reports will be used to determine any damage and deterioration of the road during this construction phase and the applicant will make a contribution to Council to cover the costs of any damage and deterioration established in the reports.

ARTC to be requested to review the safety and operation of the railway level crossing on Fairbairns Road and recommend any safety improvements to be undertaken by the applicant.

Response

Discussion relevant to this issue is provided in Section 2.27.5 of this document.

3.5.4.5 McKinleys Lane

17. *McKinleys Lane south of Waukivory Road will need to be closed as a public road and purchased from Council to become privately owned land by the Applicant. The new access road will be required to meet with Council standards for internal roads and driveways.*

Response

GRL would support the closure of the section of the road beyond the entrance to the Mine Area. It is noted that GRL has no need to own the subject land, however, its possible purchase would be discussed with Council following the closure of the road.

3.5.4.6 The Bucketts Way – Jacks Road to Pacific Highway

18. *During the construction phase of the mine, the applicant shall make a contribution to Mid-coast Council in the amount of \$83,485.50 for impacts of mine-generated heavy vehicle traffic over the 70km length of the Bucketts Way from the border of Port Stephens Council to the mine site.*

The contribution is based on the following details. Construction phase - 12 months as per GR LTD Part 9 Transport Assessment Section 5.9.1. - 13 heavy vehicle movements per day. Previous agreements with Stratford Coal Pty Ltd provided for a 19.25km section of The Bucketts Way previously agreed with the former Gloucester Shire Council with a contribution rate of \$1,175.03 per km. (2014 dollars). The dollar values are subject to annual indexation in accordance with the CPI. Therefore, 70km x \$1,192.65 (2015 dollars) = \$83,485.50

Response

Section 2.27.1 and 2.277 provides the background to GRL's proposed approach to funding road maintenance. The EIS (Section 4.9.3) records that "Payment of an annual contribution towards the maintenance of The Bucketts Way with the contribution calculation method consistent with that in Development Consent SSD4966 for the Stratford Extension Project."

19. *The applicant shall make an ongoing contribution during the operational phase to Midcoast Council for maintenance of The Bucketts Way each year to ensure the road's safe condition. This amount should be based on the number of heavy vehicles that are accessing the mine site. Determination of the number of heavy vehicles shall be obtained from the traffic counter placed in Jacks Road. Determination of the contribution will be based on the former Great Lakes Council Section 94 Contribution - Road Haulage rates assuming an average of 20 tonne per heavy vehicle over a distance of 75 kilometres.*

Response

Section 2.27.1 and 2.27.7 provides the background to GRL's proposed approach to funding road maintenance. The EIS (Section 4.9.3) records that "Payment of an annual contribution towards the maintenance of The Bucketts Way with the contribution calculation method consistent with that in Development Consent SSD4966 for the Stratford Extension Project."

3.5.4.7 Heavy Vehicle Bypass through Gloucester Township

20. *The route of the Heavy Vehicle Bypass through the Gloucester Township is to be approved by Council.*

The applicant shall cover the costs of pavement restoration due to any damage done during the construction phase by the heavy vehicles travelling through the Gloucester township approved bypass. The determination of any restoration work will be done before and after independent Dilapidation reports. The reports will be used to determine any damage and deterioration of the road during this construction phase and the applicant will make a contribution to Council to cover the costs of any damage and deterioration established in the reports.*

Council will not be approving any Over Size and Over Mass (OSOM) vehicles through the town of Gloucester including the approved Heavy Vehicle Bypass as the roads within the township are unsuitable for OSOM vehicles. All OSOM vehicles are to arrive on-site from the south via The Pacific Highway and The Bucketts Way.

A dilapidation report must be prepared by an independent and qualified road inspection consultant and submitted to Council. The required dilapidation report must document and provide photographs that clearly depict any existing damage to the road, kerb, gutter, footpath, piped culverts, driveways, water supply, sewer works, street trees, street signs and any other Council assets in the vicinity of the assessed area. These reports will be used by Council to determine the extent of damage arising from the works undertaken at the mine. Any damage not shown in the Dilapidation reports submitted to and approved by Council prior to the works commencing, will be assumed to have been caused as a result of the mine works undertaken with respect to the mine and must be rectified at the applicants expense.

Response

Discussion relevant to this issue is provided in Section 2.27.8 of this document.

3.5.5 Intersections

3.5.5.1 The Bucketts Way and Jacks Road

21. *The Bucketts Way at Jacks Road intersection be upgraded with a channelised right turn bay (CHR) and auxiliary left turn lane (AUL) as proposed in the applicant's traffic report. The right turn bay on The Bucketts Way be designed to hold two 30m B-Double trucks. The intersection to be designed using AustRoads "Guide to Road Design" and approved by RMS and Mid-Coast Council.*

The applicant to request the RMS to move the change to the 60km/h speed limit from 700m north of Jacks Road to south of the intersection before the construction phase starts.

Response

GRL would accept this recommended condition.

3.5.5.2 Jacks Road and Waukivory Road

22. *Jacks Road at Waukivory Road intersection be upgraded with an auxiliary right turn on Jacks Road as proposed in the applicant's traffic report. The intersection to be designed using AustRoads "Guide to Road Design" and approved by Council.*

Response

GRL would accept this recommended condition.

3.5.5.3 Waukivory Road and McKinleys Lane

23. *Waukivory Road at McKinleys Lane intersection be upgraded with an auxiliary right turn on Waukivory Road as proposed in the applicant's traffic report. The intersection to be designed using AustRoads "Guide to Road Design" and approved by Council.*

Response

GRL would accept this recommended condition.

3.5.5.4 Haul Road

24. *The private Haul Road between Rocky Hill Mine and Stratford Mine will be designed to generally in accordance with AustRoads' "Guide for Road Design" and be surfaced with ~~asphalt concrete~~ bituminous seal.*

There will not be permanent lighting along this Haul Road.

Extent of construction to be to the boundary of the Stratford Mining Complex.

Response

GRL would accept this recommended condition with the suggested tracked amendment. The surfacing of the private haul road with asphaltic concrete is unwarranted.

3.5.5.5 Traffic Management Plans (TMP) and Traffic Control Plans (TCP)

25. *Traffic Management Plans and Traffic Control Plans for all construction work on the road network are to be done by RMS accredited persons and approved by Council.*

Response

GRL would accept this recommended condition.

3.5.6 Air Quality

26. *The Applicant shall prepare and implement an Air Quality Management Plan prior to the commencement of works for the development to the satisfaction of the Secretary. This plan must:*
- (a) be prepared in consultation with the EPA, and submitted to the Secretary for approval prior to 31 December 2017, unless otherwise agreed by the Secretary;*
 - (b) describe the measures that would be implemented to ensure compliance with the relevant air quality criteria and operating conditions of this consent;*
 - (c) describe the proposed air quality management system; and*
 - (d) include an air quality monitoring program that:*
 - uses a combination of real-time monitors and supplementary monitors to evaluate the performance of the development against the air quality criteria in this consent;*
 - adequately supports the proactive and reactive air quality management system;*
 - evaluates and reports on:*
 - the effectiveness of the air quality management system; and*
 - compliance with the air quality operating conditions; and*
 - defines what constitutes an air quality incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any air quality incidents.*

Response

Reliance should be placed upon the standard condition imposed by EPA and/or DPE.

27. *The Applicant shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the development do not cause exceedances of the criteria in the table below at any residence on privately-owned land.*

Pollutant	Averaging Period	^c Criterion	
Particulate Matter <10µg/m ³ (PM ₁₀)	Annual	30µg/m ³	
Particulate Matter <10µg/m ³ (PM ₁₀)	24 Hour	50µg/m ³	
Particulate Matter <2.5µg/m ³ (PM _{2.5})	Annual	7µg/m ³	
Particulate Matter <2.5µg/m ³ (PM _{2.5})	24 Hour	20µg/m ³	
Total Suspended Particulates (TSP)	Annual	90µg/m ³	
Deposited Dust	Annual	^a 2g/m ² /month	^b 4g/m ² /month

Notes:

a Maximum increase in deposited dust level.

- b Maximum total deposited dust level.*
- c Any change to national air quality criteria during shall be taken to replace listed criterion as maximum standards.*

Response

Reliance should be placed upon the standard condition imposed by EPA and/or DPE.

28. *If the development causes an exceedance of the National Environment Protection (Ambient Air Quality) Measure or NSW Environment Protection Authority criteria, the Applicant shall, upon receiving a written request for air quality mitigation measures from the landowner of any affected property, undertake air quality mitigation measures directed towards reducing the potential human health and amenity impacts of the development at a privately-owned residence. These measures may include (for example):*

- (a) air conditioning, including heating;*
- (b) insulation;*
- (c) first flush water systems;*
- (d) installation and regular replacement of water filters;*
- (e) cleaning of rainwater tanks;*
- (f) clothes dryers; and*
- (g) regular cleaning of any privately-owned residence and its related amenities, such as barbeque areas and swimming pools.*

If within 3 months of receiving this request from the owner, the Applicant and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.

Response

Reliance should be placed upon the standard condition imposed by EPA and/or DPE.

29. *For the life of the development, the Applicant shall ensure that there is a meteorological station in the vicinity of the site that:*

- (a) complies with the requirements in the Approved Methods for Sampling of Air Pollutants in New South Wales guideline and the NSW Industrial Noise Policy; and*
- (b) is capable of continuous real-time measurement of temperature lapse rate data that are able to be transformed accurately and repeatedly, and no more favourably, to those that would be obtained by the use of a 60m tower, to the satisfaction of the EPA.*

Response

Reliance should be placed upon the standard condition imposed by EPA and/or DPE.

30. *All trafficable areas, coal storage areas and vehicle manoeuvring areas in or on the premises must be maintained at all times in a condition that will minimise the generation or emission of wind-blown or traffic generated dust.*

Response

Reliance should be placed upon the standard condition imposed by EPA and/or DPE.

31. *Minimisation of Dust*

Activities occurring in or on the premises must be carried out in a manner that will minimise the generation, or emission of traffic generated or wind-blown dust.

Response

Reliance should be placed upon the standard condition imposed by EPA and/or DPE.

32. *Covering of Haul Trucks*

The trailers of laden haul trucks travelling on the private haul road must be covered.

Response

Discussion relevant to this issue is provided in Section 2.4.16.1 of this document.

3.5.7 Noise

33. *A Construction Noise Management Plan that includes all feasible and reasonable mitigation measures to minimise noise impacts at residential premises must be developed and be submitted to the NSW Environment Protection Authority for comment prior to the commencement of any construction or site establishment works.*

Response

Reliance should be placed upon the standard condition imposed by EPA and/or DPE.

34. *The Applicant shall prepare and implement a Noise Management Plan for the development to the satisfaction of the Secretary. This plan must:*

- (a) be prepared in consultation with the EPA, and submitted to the Secretary for approval prior to 31 December 2017, unless otherwise agreed by the Secretary;*
- (b) describe the measures that would be implemented to ensure:*
 - compliance with the noise criteria and operating conditions of this consent; and*
 - the noise impacts of the project are minimised during meteorological conditions when the noise limits of this consent do not apply;*
- (c) describe the proposed noise management system in detail;*

(d) include a monitoring program that:

- includes monitoring of inversion strength at an appropriate sampling rate to determine compliance with noise limits;
- provides for the biennial validation of the noise model for the project.
- evaluates and reports on:
 - the effectiveness of the on-site noise management system;
 - compliance against the noise criteria in this consent; and
 - compliance with the noise operating conditions;
- includes a program to calibrate and validate real-time noise monitoring results with attended monitoring results over time (so the real-time noise monitoring program can be used as a better indicator of compliance with the noise criteria and as a trigger for further attended monitoring); and
- defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents.

Response

Reliance should be placed upon the standard condition imposed by EPA and/or DPE.

35. Received noise levels at any premise must not exceed those listed in Table 19 of the Noise Vibration and Blasting Assessment prepared by SLR Consulting Australia Pty Ltd, Report No. 806/14, dated July 2016.

Noise generated by the development is to be measured in accordance with the relevant requirements of the NSW Industrial Noise Policy. Appendix 6 sets out the meteorological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria.

However, these criteria do not apply if the Applicant has a negotiated agreement with the owner/s of the relevant privately-owned residence or land to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this agreement.

Response

Reliance should be placed upon the standard condition imposed by EPA and/or DPE.

36. *Hours of Operation*

Activity	Days*	Hours
Mining (Year 1 to 3)	Monday - Saturday	7:00am - 6:00pm
Mining (Year 4 onwards)	Monday – Saturday	7:00am - 10:00pm
Breaker Station Operations	Monday - Saturday**	7:00am - 6:00pm
Coal Haulage (via Private Haul Road)	Monday - Saturday**	7:00am - 6:00pm
Maintenance	Monday - Saturday	7:00am - 6:00pm
	Sunday	8:00am - 10:00pm
	Monday - Sunday	All other hours***
* Public Holidays excluded		
**Operations only permitted to occur on a Saturday in the event protracted operational time is lost during week days.		
***Activities only permitted if not audible at privately-owned residences / receivers.		

Response

Reliance should be placed upon the standard condition imposed by EPA and/or DPE.

37. *Upon receiving a written request from the owner of Property ID 6 - Campbell, the Applicant shall implement additional noise mitigation measures (such as double glazing, insulation, and/or air conditioning) at the residence in consultation with the owner. These measures must be reasonable and feasible and directed towards reducing the noise impacts of the development on the residence. If within 3 months of receiving this request from the owner, the Applicant and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.*

This noise mitigation request must also apply to any additional property where noise levels are consistently shown to exceed project specific noise levels during the life of the project.

Response

Reliance should be placed upon the standard condition imposed by EPA and/or DPE.

38. *Site establishment and construction activities shall only be permitted to be undertaken between the hours of 7:00am to 6:00pm Monday to Friday and 8:00am to 1:00pm on Saturdays. No work is permitted on Sundays or public holidays.*

Response

Reliance should be placed upon the standard condition imposed by EPA and/or DPE.

3.5.8 Building Works

39. *All building work must be carried out in accordance with the requirements of the Building Code of Australia as in force on the date the application for the relevant construction certificate or complying development certificate was made.*

Response

Reliance should be placed upon the standard condition imposed by DPE.

40. *Prior to the commencement of any building construction work (including excavation), a construction certificate must be issued by a certifying authority.*

Enquiries regarding the issue of a construction certificate can be made to Council's Customer Service Centre on 6591 7222.

Response

Reliance should be placed upon the standard condition imposed by DPE.

41. *Prior to the commencement of any building construction work (including excavation), the person having the benefit of the development consent must appoint a principal certifying authority and give at least two (2) days' notice to Council, in writing, of the persons intention to commence construction work.*

Response

Reliance should be placed upon the standard condition imposed by DPE.

42. *Prior to the commencement of work, toilet facilities must be provided at or in the vicinity of the work site at the rate of one toilet for every 20 persons or part of 20 persons employed at the site. Each toilet provided must be a toilet connected to an accredited sewage management system approved by the Council.*

Response

GRL would accept this recommended condition.

43. *Prior to the commencement of work, a sign or signs must be erected in a prominent position at the frontage to the site.*

- a) *showing the name, address and telephone number of the principal certifying authority for the work, and*
- b) *showing the name of the principal contractor (if any) for any building work and a telephone number on which that person may be contacted outside working hours, and*
- c) *stating that unauthorised entry to the work site is prohibited.*

The sign is to be maintained while the building work, subdivision work or demolition work is being carried out, but must be removed when the work has been completed.

Response

Reliance should be placed upon the standard condition imposed by DPE.

3.5.9 Biodiversity Management Plan

44. *The Applicant shall prepare and implement a Biodiversity Management Plan for the development to the satisfaction of the Secretary. This plan must:*

- (a) be prepared in consultation with OEH and MidCoast Council;*
- (b) be submitted to the Secretary for approval within 3-months of the date of this approval;*
- (c) describe how this strategy and its implementation will be integrated with other relevant biodiversity and rehabilitation strategies;*
- (d) include a description of the vegetation communities and values of the site and the biodiversity offset area, including as habitat for threatened fauna species that have been recorded in the approved disturbance area;*
- (e) include consideration of local and sub-regional connectivity values of the site and the biodiversity offset area;*
- (f) describe the short, medium and long-term measures (including staging/timing) that would be implemented to:*
 - manage the remnant vegetation and habitat on the site;*
 - maintain and enhance biodiversity values in the biodiversity offset area to offset the loss of biodiversity values in the approved disturbance area; and*
 - deliver the biodiversity offset strategy*
- (g) include detailed performance and completion criteria for evaluating the performance of the biodiversity offset strategy, and triggering remedial action (if necessary);*
- (h) include a detailed description of the measures (and their timing and inclusive of any details relating to the engagement of contractors) that would be implemented for:*
 - creating a single conservation lot for the biodiversity offset area*
 - encouraging the adoption of an E2 zone over the area of the biodiversity offset area through consultation with MidCoast Council;*
 - enhancing the quality of existing vegetation and fauna habitat on the site and in the biodiversity offset area;*
 - establishing native vegetation and fauna habitat in the biodiversity offset area and final landform through assisted natural regeneration, targeted vegetation establishment and the introduction of naturally scarce fauna habitat features (where necessary);*

- *prescribing the active revegetation of derived grasslands of the biodiversity offset area as functional indigenous native vegetation types, including the active expansion of areas of Dry Rainforest;*
- *enhancing the landscaping of the site and along public roads to minimise visual and lighting impacts;*
- *protecting vegetation and soil outside the approved disturbance area;*
- *maximising the salvage of resources within the approved disturbance area - including logs, mulched felled vegetation and top-soil – for beneficial reuse in the biodiversity offset area;*
- *introducing hollow-bearing habitat features to the biodiversity offset area;*
- *collecting and propagating seed;*
- *minimising the impacts to fauna on site;*
- *undertaking pre-clearance surveys and relocations of threatened biodiversity;*
- *managing any potential conflicts between the proposed restoration works in the biodiversity offset area and any Aboriginal heritage values (both cultural and archaeological);*
- *managing salinity;*
- *protecting the biodiversity offset area from light spill from approved mine and disturbance areas;*
- *erecting protective fencing;*
- *erecting signage;*
- *controlling access;*
- *controlling weeds;*
- *controlling feral pests;*
- *controlling erosion;*
- *controlling vehicular access to minimise the potential for vehicle strike of native fauna;*
- *managing grazing and agriculture (including the provision to exclude grazing from riparian areas of the site and from within the biodiversity offset area);*
- *controlling access;*
- *controlling bushfire and implementing ecologically-appropriate bushfire regimes to the biodiversity offset area; and*
- *managing bushfire risk;*

- (i) include a *Vegetation Clearance Plan* including:
- *clear delineation of disturbance areas and restriction of clearing to the minimum area necessary to undertake the approved activities;*
 - *a methodology for recording the approximate size and number of hollow-bearing trees to be removed, their relocation to the biodiversity offset area after felling (as ground habitat) and the replacement with the same number of nesting boxes of appropriate sizing within the biodiversity offset area;*
 - *a methodology for the management of hollow-bearing trees during vegetation clearing to minimise impacts on hollow-dependent fauna which may be present;*
 - *provision for a suitably trained or qualified person to the satisfaction of the Director-General to be present during the felling of identified hollow-bearing trees to provide assistance with the care of any injured fauna;*
 - *provision for the annual inspection of the nesting boxes for the life of the mine, including the preparation and publication of an inspection report annually to be submitted to OEHL and MidCoast Council; and*
 - *provisions for the checking of vegetation to be cleared for threatened fauna species.*
- (j) *include a program to monitor and report on the effectiveness of these measures and progress against the detailed performance and completion criteria every three-years for the life of the mine including independent auditing;*
- (k) *identify the potential risks to the successful implementation of the biodiversity offset strategy, and include a description of the contingency measures that would be implemented to mitigate against these risks; and*
- (l) *include details of who would be responsible for monitoring, reviewing, and implementing the plan.*

Note: The Biodiversity Management Plan and Rehabilitation Management Plan need to be substantially integrated for achieving biodiversity objectives for the rehabilitated mine-site.

Response

Reliance should be placed upon the standard condition imposed by DPE.

3.5.9.1 Operating Conditions

45. *The Applicant must:*

- (a) *not destroy, damage, remove or harm any native flora or fauna in the biodiversity offset area; or*
- (b) *not carry out in the biodiversity offset area or the vicinity of the biodiversity offset area any activity that may cause, or is likely to result in, or will or might threaten the viability of, native flora or fauna in the biodiversity offset area, or threaten the success of the biodiversity offset strategy; and*

- (c) ensure that its agents, contractors, licensees and invitees (and use best endeavours to ensure that any other persons) also comply with this Condition.

Response

Reliance should be placed upon the standard condition imposed by DPE.

3.5.9.2 McKinleys Lane significant roadside area

46. ~~The Applicant shall construct a new mine access road off Waukivory Road to the east of the existing McKinleys Lane and shall rip, remove gravel, revegetate and conserve the existing McKinleys Lane reserve as part of the biodiversity offset area. The new mine access road shall form the new McKinleys Lane following the closure of the mine.~~

Response

GRL does not accept this condition as provided, although it is recognised that it is appropriate to retain the text relating to the works within the existing McKinleys Lane road reserve north of the proposed administration area. GRL does not support the McKinleys Land road reserve being included in the Biodiversity Offset Area – see Section 2.6.2.9 of this document.

3.5.9.3 Protection of Woodlands, Tree Belts and Corridors on the final landform

47. *The Applicant must establish permanent conservation mechanism(s) to the satisfaction of the Secretary to ensure the in-perpetuity conservation and management of certain elements of the finished landform. The mechanisms shall be progressively adopted as the mine and its rehabilitation progresses, and shall include protection of the following areas of the finished landform:*

- (a) Woodlands
- (b) Tree belts
- (c) Corridors

Response

Reliance should be placed upon the standard condition imposed by DPE.

3.5.9.4 Riparian and Watercourse Management Plan

48. *The Applicant shall prepare and implement to the satisfaction of the Secretary a Riparian and Watercourse Management Plan for the site and GRL holdings. This plan shall be prepared within 6-months of the date of this approval and include:*

- (a) *details of all third order and higher watercourses on the site and the GRL holdings;*
- (b) *details of the measures that would be implemented for protection fencing, stock exclusion, revegetation (with natural vegetation communities including River Oak Riparian Forest), erosion control, weed control, feral pest animal control and aquatic habitat enhancement of all third order and higher streams;*

- (c) details of performance and completion criteria for evaluating the performance of the plan, and triggering remedial action (if necessary);*
- (d) include a program to monitor, independently audit and report on the effectiveness of the measures and progress against the detailed performance and completion criteria; and*
- (e) build to the maximum extent practicable on the other management plans required under this consent.*

Response

Reliance should be placed upon the standard condition imposed by DPE.

3.5.9.5 Rehabilitation

Progressive Rehabilitation

49. The Applicant shall progressively rehabilitate the site as soon as reasonably practicable following disturbance. All reasonable and feasible measures must be taken to minimise the total area exposed for dust generation at any time. Interim rehabilitation strategies must be employed where areas prone to dust generation are not subject to active mining operations but cannot yet be permanently established.

Response

Reliance should be placed upon the standard condition imposed by DRG and/or DPE.

Rehabilitation Management Plan

50. The Applicant shall prepare and implement a Rehabilitation Management Plan for the development to the satisfaction of the Secretary. This plan must:

- (a) be prepared in consultation with the Department, NSW Office of Water, NSW Office of Environment and Heritage and MidCoast Council;*
- (b) be submitted to the Secretary for approval at least 3-months prior to the commencement of mining operations;*
- (c) be prepared in accordance with any relevant Department guidelines;*
- (d) describe how the rehabilitation of the site would be integrated with the implementation of the biodiversity offset strategy;*
- (e) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, and triggering remedial action (if necessary);*
- (f) describe the measures that would be implemented to ensure compliance with the relevant conditions of this consent, and address all aspects of rehabilitation including mine closure, final landform and final land use;*
- (g) include interim rehabilitation where necessary to minimise the area exposed for dust generation;*

- (h) *include a program to monitor, independently audit and report on the effectiveness of the rehabilitation measures and progress against the detailed performance and completion criteria; and*
- (i) *build to the maximum extent practicable on the other management plans required under this consent.*

Note: The Biodiversity Management Plan and Rehabilitation Management Plan need to be substantially integrated for achieving biodiversity objectives for the rehabilitated mine-site.

Response

Reliance should be placed upon the standard condition imposed by DRG and/or DPE.

NOTE

Long-term Security of Offset

Details of any Condition(s) of Consent relating to Long-term Security of the Offset should be deferred until such time as further surveys, assessments and consultation have been undertaken.

Habitat for Threatened Fauna Species

Details of any Condition(s) of Consent relating to the protection, conservation and/or restoration of threatened fauna species habitat should be deferred until such time as further surveys, assessments and consultation have been undertaken.

Management Plans for Squirrel Gliders, Brush-tailed Phascogales and Grey-crowned Babblers

Details of any Condition(s) of Consent relating to threatened species management plans should be deferred until such time as further surveys, assessments and consultation have been undertaken.

Conservation Bond

Details of any Condition(s) of Consent relating to a conservation bond should be deferred until such time as further surveys, assessments and consultation have been undertaken.

Rehabilitation Objectives

Details of any Condition(s) of Consent relating to rehabilitation objectives should be deferred until such time as further surveys, assessments and consultation have been undertaken.

Response

Reliance should be placed upon the standard condition imposed by DPE. GRL believes it has completed all necessary surveys, assessment and consultation for conditions of consent to be imposed that relate to the above matters.

3.5.9.6 Riparian management

51. Undertake a pre-mining assessment of the riparian and geomorphologic condition of the Oaky Creek, Waukivory Creek and Avon River. In addition undertake aquatic macroinvertebrate assessment using the NSW AusRivAS methodology for all streams within and adjacent to the proposed mine area plus suitable reference sites. Surveys are to be repeated annually for the life of the mine.

Response

GRL is committed to a realistic aquatic ecological monitoring program as discussed in EIS Section 4.13.7. The approach to ongoing monitoring would be set out in the Aquatic Flora and Fauna Management Plan.

52. Restore riparian zones within the Rocky Hill project site and maintain to provide water quality improvements and effective riparian buffer.

Response

Reliance should be placed upon the standard condition imposed by DPE.

53. Agriculture use of the rehabilitated areas and Gloucester Resources property associated with use of treated excess saline water is to adopt best practice with continuous improvement measured by way of an environmental management system to ensure the intensive use of the land does not degrade receiving waters.

Response

Reliance should be placed upon the standard condition imposed by DPE.

3.5.10 Sediment and Erosion Management

54. A Soil and Water Management Plan (SWMP) is to be prepared based on:

- criteria in excess of Blue book requirements in recognition of the location of the Rocky Hill proposal within a sensitive catchment;
- projected storm frequency and intensity changes for the region associated with climate change.

Response

Reliance should be placed upon the standard condition imposed by EPA and/or DPE.

54. *The implementation of the SWMP and accompanying Erosion and Sediment Control Plan (ESC) are to be independently audited by a soil conservationist every 6 months for the life of the mine. Audit reports are to be made publically available and the SWMP and ESC revised immediately as required by audit reports.*

Response

Reliance should be placed upon the standard condition imposed by EPA and/or DPE. Furthermore, it is considered that 6 monthly audits are neither practical nor warranted.

55. *The Erosion and Sediment Control Plan (ESC) must ensure that sediment and erosion structures are inspected and repaired before and after predicted peak rainfall events so that any potential and actual failures are quickly detected.*

Response

Reliance should be placed upon the standard condition imposed by EPA and/or DPE.

3.6 NSW RURAL FIRE SERVICE

3.6.1 Fire Management

3.6.1.1 Representative Comment(s)

Evacuation and Emergency Management

1. *An Emergency Evacuation Plan is to be prepared consistent with the NSW Rural Fire Service document 'Guidelines for the Preparation of Emergency/Evacuation plan'.*
2. *A Bushfire Management Plan that details measures to prevent fire igniting and spreading during construction and operation of the development is to be prepared prior to the commencement of construction. The plan is to be implemented over the life of the development and shall include, but not be limited to, the following:*
 - *contact person / details for emergency management;*
 - *schedule and description of works for the establishment and maintenance of a 20 metre asset protection zone around infrastructure buildings;*
 - *strategy for hazard reduction for undeveloped or rehabilitated areas where vegetation may regenerate across the site;*
 - *location and access provisions of all fire fighting water supplies;*
 - *communication strategy for coordinated response to bushfires with the RFS;*
 - *work involving risk of ignition should not be carried out during total fire bans;*

- *availability of fire suppression equipment; and*
- *storage of fuels and other flammable materials.*

Response

GRL would accept this recommended condition.

3.6.1.2 Representative Comment(s)

Access

The intent of measures for property access is to provide safe access to/from the public road system for fire fighters providing property protection during a bush fire and for occupants faced with evacuation. To achieve this, the following conditions shall apply:

- 3. Vehicular access to the mine infrastructure buildings and facilities shall be provided for fire fighting appliances in accordance with the requirements of section 4.1.3(2) of 'Planning for Bushfire Protection 2006'.*

Response

GRL would accept this recommended condition.

3.6.1.3 Representative Comment(s)

Water and Utilities

The intent of measures is to provide adequate services of water for the protection of buildings during and after the passage of a bush fire, and to locate gas and electricity so as not to contribute to the risk of fire to a building. To achieve this, the following conditions shall apply:

- 4. Water, electricity and gas services are to comply with section 4.1.3 of 'Planning for Bushfire Protection 2006'.*

Response

GRL would accept this recommended condition.

3.6.1.4 Representative Comment(s)

Landscaping

5. A Rehabilitation and Landscape Management Plan (incorporating a Biodiversity Management Plan) is to be prepared in relation to revegetation of the site. The plan is to include:

- *an asset protection zone for any dwellings within the revegetation areas or within 100 metres of the boundary of the revegetation areas. Asset protection zone dimensions are to be determined having regard to the assessment methodology outlined in 'Planning for Bushfire Protection Addendum – Appendix 3 (2010)',*

with the required asset protection zone corresponding to the level of building construction for the respective dwelling as per Australian Standard AS3959-2009 – Construction of Buildings in Bushfire prone Areas (e.g. a dwelling constructed without any bushfire protection measures should have a separation distance (maintained as an asset protection zone) equivalent to BAL LOW);

- *provision for fire fighting access to the biodiversity offset area and any asset protection zones established within the area.*

Response

Reliance should be placed upon the standard condition imposed by DPE with respect to a Bush Fire Management Plan. Numerous references in the suggested condition are impractical and unnecessary, e.g. 100m of the boundary of the revegetation areas.

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