

Executive Summary

1. INTRODUCTION

This document presents the response from Gloucester Resources Limited (GRL) to submissions received (and ongoing consultation) regarding the amended Rocky Hill Coal Project (“the amended Project”) following the public exhibition of the 2016 Environmental Impact Statement (2016 EIS)¹ and Specialist Consultant Studies Compendium (SCSC) between 17 August 2016 and 14 October 2016. Following the exhibition period of the 2016 EIS for the amended Project, the Department of Planning and Environment (DPE) provided GRL with 2 591 submissions comprising the following.

- 13 from Government Agencies including Mid-Coast Council.
- 24 from Special Interest Groups opposing the amended Project.
- 3 from Special Interest Groups supporting the amended Project.
- 2 286 public submissions objecting to the amended Project and 260 public submissions supporting the amended Project. Public submissions were received from individuals in Gloucester and the surrounding localities as well as from people across New South Wales, Australia and, in some cases, internationally.
- 5 Industry Enterprises providing comments.

¹ GRL had previously submitted a development application and EIS in 2013 (the 2013 EIS) for the Rocky Hill Coal Project which at that time incorporated a range of infrastructure that would enable on-site coal processing and product despatch by rail.

Of the public submissions that opposed the amended Project, 1 589 were submitted as one of 17 form letters. Of these, approximately 26% were received from residents of Gloucester or surrounding localities. Of the 260 public submissions received in support of the amended Project, approximately 65% were received from residents of Gloucester or surrounding localities.

In December 2015, DPE was advised that an agreement had been reached between GRL and Yancoal whereby sized ROM coal would be transported from the Rocky Hill Mine Area to the Stratford Mining Complex via a private haul road and processed and despatched using Stratford Mining Complex facilities. This agreement reduced the extent of infrastructure and disturbance associated with the Rocky Hill Coal Project identified in the 2013 EIS and enabled GRL to implement a number of design modifications which would result in a range of improved environmental outcomes.

This Response to Submissions (RTS) has been assembled to present GRL’s position regarding each of the themes raised in the submissions received during the exhibition of the 2016 EIS.

An overview of GRL’s ongoing engagement and consultation activities with the residents of the Forbesdale Estate and surrounding areas is presented in Section 2 of this summary and updates to the amended Project and assessments since the exhibition of the 2016 EIS are provided in Section 3. Sections 4 and 5 present an overview of GRL’s responses to the key issues and remaining issues respectively.

2. GRL'S ONGOING ENGAGEMENT AND CONSULTATION

Engaging and consulting with the Gloucester and surrounding communities has been a thorough and determined process for GRL and the Company considers that consultation processes during the various assessments for the amended Project have been comprehensive and inclusive.

In August 2016, when the amended EIS went on public exhibition, GRL undertook a wide range of engagement activities to inform the community about the amended Project, and engage with them on the issues the amended Project presented.

The key philosophy of engagement activities at this time concerned the availability of GRL representatives to those seeking more information or to ask questions.

Acknowledging the importance of this process, the Chief Operating Officer Mr Brian Clifford made sure he was regularly available to the people of Gloucester to discuss and explain details of the amended Project. Mr Clifford lived in Gloucester up to three days a week during the exhibition period, to ensure anyone who had questions about the EIS could ask him personally. Mr Clifford routinely started his day by calling in to see local business people in the main street to discuss the amended Project and keep them updated.

One key community engagement activity was the opening of an Information Centre in Gloucester. The centre was open twice a week for 8 weeks during the exhibition period to showcase the amended Project and provide answers to people's queries. Mr Clifford and his staff personally attended every Information Centre open day to engage with interested people.

Since the end of the public exhibition period, consultation and engagement has included continuing activities already familiar to the community such as hosting the bi-monthly Community Consultative Committee meetings (with all minutes published on GRL's website) while Mr Clifford and other GRL representatives continued to engage with the community through the following.

- Hosting information sessions for small community groups, as requested.
- Addressing meetings of Gloucester community groups, as requested.
- Meeting individuals of Forbesdale Estate to discuss issues about the amended Project.
- Meetings with landholders in the area to discuss potential impacts of the amended Project.
- Meetings with representatives of various industry groups.
- Responding to all people who contacted the organisation requesting employment.

Throughout this period, GRL has also continued to be involved in the community by sponsoring local events such as the Gloucester Show and Chill Out Festival and creating a community movie festival by purchasing equipment and movies for a dedicated monthly community movie night.

GRL remains encouraged by the feedback it has been receiving from the community and hopes that the information provided to landholders, community groups and individuals has directly answered some of the questions raised and addressed in this document. Following the submission of the RTS document, GRL plans to continue engagement activities on a weekly basis, and is committed to regular, ongoing community engagement throughout the life of the proposed mine.

3. UPDATES TO THE AMENDED PROJECT AND ASSESSMENTS

GRL undertook a comprehensive review of the amended Project as presented and assessed in the 2016 EIS in light of the ongoing community consultation and the issues raised in the submissions provided by Government agencies, special interest groups and the public. In some cases, it was recognised that further assessment was required, commitments needed to be reiterated or extended, or that more detail could be provided to assist DPE in assessing the proposal and addressing some of the concerns expressed in the submissions. The following matters were addressed during the preparation of the RTS and a summary of the relevant conclusions is provided.

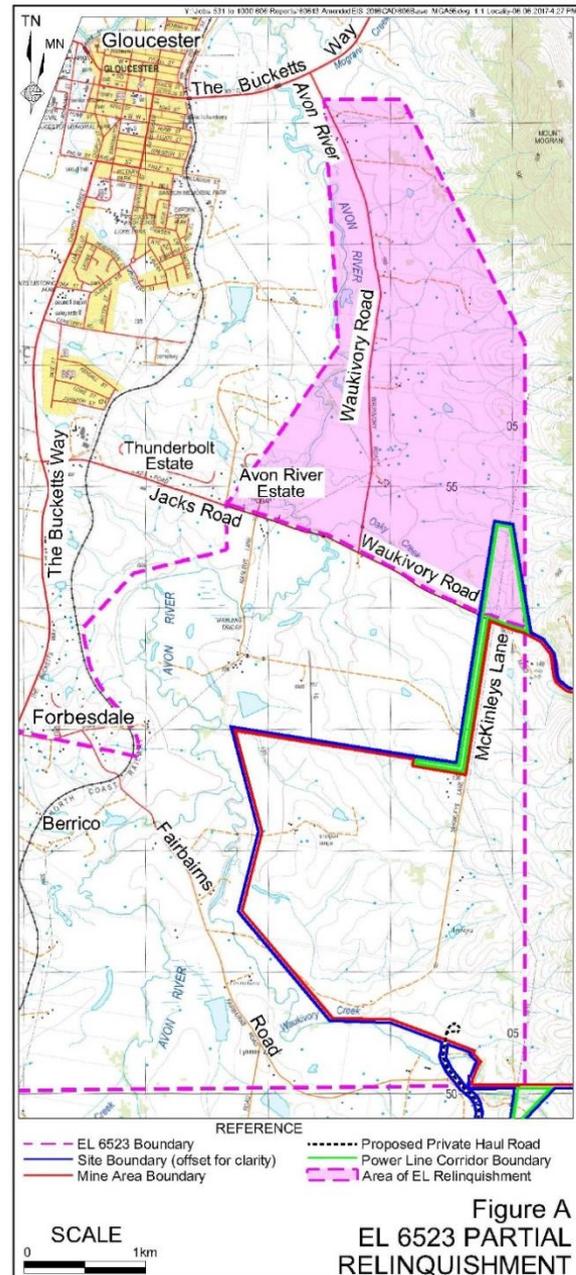
Partial Relinquishment of Exploration Licence 6523

Numerous opposing submissions expressed a belief that the amended Project is in fact only Stage 1 of a larger mine, with a second stage planned to the east of Gloucester. This belief was based largely upon the presence of a section of Exploration Licence (EL) 6523 to the east of Gloucester.

Notwithstanding GRL's repeated denial of any such plans and in view of the concerns expressed regarding an extension of the amended Project to the east of Gloucester, GRL will relinquish the approximately 6km² area of EL 6523 to the north of Jacks Road / Waukivory Road in the next renewal application for EL 6523, i.e. in early 2018 (see **Figure A**).

Property Values

A number of submissions raised concerns regarding the adverse impacts on property values in the vicinity of the Mine Area as a result of the proposal to develop and an approval of the amended Project. GRL has acknowledged the potential for this impact to occur (either real or perceived), and has consciously designed the amended Project



and made commitments through a range of management and mitigation measures to limit the potential for the presence of the mining operation to negatively impact property values.

In response to the concerns raised in the submissions, GRL commissioned Tew Property Consultants to assess a range of inputs from Gloucester and other regional areas throughout NSW to assess possible impacts to property values arising from the proposal to develop, approval and operation of the amended Project. The resulting report is presented as **Appendix 1** of this document.

Tew Property Consultants conclude, after reviewing ten years of sales data, that there is no evidence to suggest that the proposal to develop the amended Project has had a negative impact on property values to date, nor is there evidence to suggest that there would be negative impacts following approval of the amended Project. However, it is acknowledged that where real or perceived changes to amenity exist, or a stigma associated with the location is evident, there may be a potential for a negative impact to property values. Where the potential for residual impacts remains, it is concluded that the comprehensive mitigation and management measures proposed by GRL (and agreements with landowners with clear views of the proposed Mine Area) would mitigate these impacts as much as practically possible.

Supplementary Fauna Surveys

GRL had made a commitment to undertake targeted surveys of the Grey Crowned-babbler and the Squirrel Glider following approval of the amended Project and prior to the commencement of the site establishment and construction stage, a commitment endorsed by OEHL in their review of the 2013 EIS. However, several submissions raised concerns that there was not enough known about the existing populations of these species within and surrounding the Mine Area for the consent authority to thoroughly assess the impacts of the amended Project. In addition, anecdotal evidence of populations of Brush-tailed Phascogale within the Mine Area and in the vicinity of the private haul road were reported to GRL, and this species, if present, was also considered to be at risk of impact, albeit it had not been identified in any fauna surveys for the amended Project.

GRL commissioned Biosis Pty Ltd to undertake targeted surveys for these species. The results of surveys undertaken between 30 November 2016 and 4 December 2016 are summarised in this document and a report prepared by Biosis Pty Ltd is provided as **Appendix 2**. In summary, the surveys

confirmed that the removal of vegetation in the southern section of McKinleys Lane would impact one Grey Crowned-babbler group which may disperse and join adjacent family groups and that the identified Squirrel Glider population appears to be centred on the northern section of McKinleys Lane and Waukivory Road which would not be directly impacted by the amended Project. The proposed mitigation and management measures presented in the 2016 EIS and the additional measures recommended by Biosis Pty Ltd and accepted by GRL, would increase the area of available habitat along McKinleys Lane and improve connectivity and dispersal capabilities for the identified populations of the Grey-crowned Babbler and the Squirrel Glider. The proposed Biodiversity Offset Area would also provide an area of suitable habitat that would be managed to retain and improve habitat quality in accordance with an approved Biodiversity Management Plan.

The Brush-tailed Phascogale has not been recorded within the study area during past or current assessments and Biosis Pty Ltd has concluded that a viable population of this species is unlikely to be present in the study area.

Aboriginal Heritage Management

A submission received from the Cook Family, an Aboriginal group representing the interests of this family, expressed concerns regarding the limitations of the archaeological field survey of the private haul road in March 2016 given the existing groundcover may have obscured the presence of Aboriginal heritage sites. In order to address the limitations in visibility encountered during the field survey of the private haul road corridor and in recognition of the Cook Family's views, GRL has agreed to expand the management actions proposed and previously agreed in the area of the Waukivory Creek crossing and would commission an archaeologist to accompany an appropriate Aboriginal representative to

be present during the stripping of the turf along the entire private haul road corridor, prior to construction of the road.

Other areas of the private haul road corridor would be managed in accordance with the measures proposed for management of all ground disturbance, i.e. that personnel involved in disturbance activities would be provided with training with regard to identifying possible Aboriginal heritage sites (including isolated artefacts) and the procedures to follow in the event that sites are located.

Blasting Hours

The EPA submission noted that commitments made in the 2013 EIS regarding limits to blasting hours had not been conveyed in the 2016 EIS for the amended Project. This inadvertent omission has been corrected in this document. GRL has reiterated its previous commitment to limit blasting to between the hours of 10:00am and 4:00pm Monday to Saturday (public holidays excluded) to ensure compliance with the NO₂ criterion, and included this commitment in an update to the environmental management and monitoring measures (Section 4 of the RTS). It should be noted, however, that this commitment was reflected in the Air Quality Assessment for the 2016 EIS.

Discharge of Treated Water during Dry Periods

In response to concerns expressed about the reductions in stream flows attributable to the amended Project and the predicted increase in the number of cease-to-flow days within the Avon River System, GRL now proposes to release at least 1ML of treated water per day when flows recorded at the Avon River Gauging Station are <5ML/day, provided sufficient treated water is available for discharge. This approach is supported by the EPA.

4. KEY THEMES OF THE SUBMISSIONS

The key themes in the submissions, being those that were raised most frequently in the submissions opposing the amended Project, are as follows.

- Proximity to surrounding residences
- Noise and Blasting
- Air Quality
- Health Issues
- Visual Impacts
- Water-related Impacts

The key themes in submissions supporting the amended Project related to employment and the need to increase and diversify business activity in Gloucester in order to maximise the likelihood of the township's sustainability.

A summary of GRL's responses to the key themes are as follows.

Proximity

The RTS accurately records the distance between each residence and the closest point of disturbance (i.e. principally the western and northern amenity barrier) using AutoCAD and geo-referenced aerial photography. The following summary is provided of the residences proximate to western and northern amenity barriers within the Mine Area.

- Four residences are located at distances of 1 301m-1 400m;
- One residence is located at a distance of 1 401m-1 500m;
- Four residences are located at distances of 1 501m-1 600m;
- Three residences are located at distances of 1 601m-1 700m;

- Three residences are located at distances of 1 701m-1 800m; and
- Eight residences (>30%) are located at distances of 1 801m-1 990m.

Figure B displays the locations of the surrounding residences and setback distances of 900m, 2km and 3km from the proposed limit of disturbance.

The boundary of the nearest open cut pit (i.e. the location of active mining activity) to each of these residences is located a further 450m to 550m away.

Each privately-owned residence has been considered against the trigger values for compulsory property acquisition or mitigation in the NSW Voluntary Land Acquisition and Mitigation Policy (VLAMP). In all instances, the assessment criteria that would trigger compulsory property acquisition, as provided in the VLAMP, would not be exceeded. This outcome was a key objective of GRL when designing the entire amended Project. In addition, only one privately-owned residence would trigger the criteria (for noise only) that requires GRL to negotiate with the landowner regarding suitable and acceptable mitigation measures at that residence.

The proximity of the Mine Area and specifically, areas of active mining to key locations such as the Barrington Tops National Park, schools, hospitals and the commercial areas of Gloucester and the proximity of the village of Stratford to the private haul road also have been reviewed by GRL and its consultants and it is concluded that there would be no significant residual impacts to these locations as a result of their proximity to the Site.

The proximity of privately-owned residences to the Rocky Hill Mine Area would be managed through conditions of development consent that specify the noise, blasting and air quality criteria to be satisfied at specific residences and elsewhere, and to provide for

ongoing management and monitoring programs. With respect to noise and air quality, GRL has committed to predictive meteorological forecasting and continuous real-time monitoring of dust emissions and noise levels in order to assist it to manage its operations and thereby to manage potential impacts, particularly under adverse meteorological conditions.

Noise and Blasting

A number of submissions raised concerns regarding potential noise impacts as a result of construction and operation of the amended Project.

The amended Project includes a comprehensive range of design and operational mitigation measures to ensure that during both the daytime and evening, the noise levels experienced at the surrounding privately-owned residences comply with the nominated criteria. GRL accepts the need to curtail the use of certain equipment and restrict activities at various locations, at various times and under various meteorological conditions throughout the life of the mine in order to achieve noise compliance and has planned coal production in consideration of these factors. Specifically, a range of practical measures have been included in the design of the amended Project to ensure that the relevant noise criteria are met at all times including: reduction of fleet sizes, locational changes and options for differing shift rosters to adapt production to prevailing meteorological conditions within the approved hours of operation. GRL's equipment fleet could theoretically extract the required quantity of overburden and coal in 5 days each week. However, approval is being sought to operate 6 days per week which would provide 20% additional time to accommodate the reduced operational hours due to prevailing meteorological conditions.

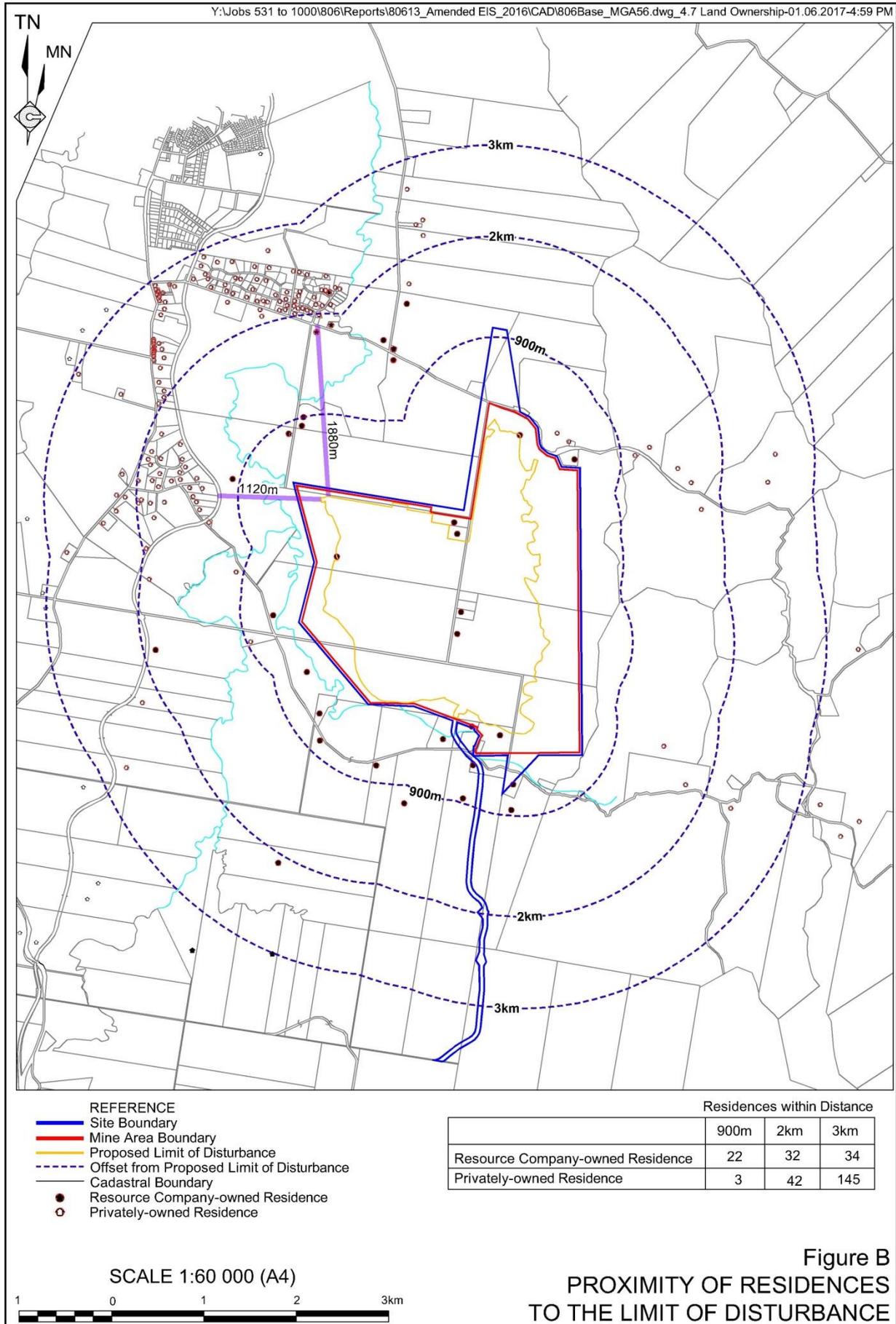


Figure B
PROXIMITY OF RESIDENCES
TO THE LIMIT OF DISTURBANCE

The issue of audibility of operations was a key factor when designing the amended Project and establishing the hours of operation. In particular, GRL has restricted the mine operating hours as follows.

- Mining (Year 1 to 3) – Monday to Saturday daytime only (7:00am to 6:00pm);
- Mining (Year 4 onwards) – Monday to Saturday daytime and evening (7:00am to 10:00pm); and
- Breaker Station and Coal Despatch – Monday to Saturday daytime only (7:00am to 6:00pm).

These restrictions have eliminated all night-time (10:00pm to 7:00am) mining operations for the amended Project by comparison with the 2013 Project.

The Noise, Vibration and Blasting Assessment (NVBA) predicts an exceedance of up to 5dB(A) of operational noise criteria at one residence (Residence No. 6). GRL has re-iterated its commitment to manage the predicted exceedances at this residence in accordance with the VLAMP and any conditions of consent. An exceedance of 1dB(A) is predicted at two other residences (No. 19A during the daytime in Year 0.5 and No. 7 of an evening in Years 4 and 7). However, the impact of an exceedance of up to 2dB(A) is considered to be negligible, i.e. a level that does not require any action under the VLAMP.

Noise generated during activities ancillary to mining, such as trucks travelling along the private haul road, would comply with the relevant assessment criteria. The proposed operational noise mitigation measures, particularly the use of predictive meteorological forecasting and real-time monitoring at a location representative of each of the Forbesdale and Avon River Estates, would assist GRL to manage its operations to avoid exceedances of the relevant noise criteria under adverse meteorological conditions.

GRL has predicted, mitigated and assessed operational noise levels in accordance with the Director-General's Requirements and the Industrial Noise Policy and is committed to satisfying the noise criteria which would be nominated in the development consent, should the amended Project be approved.

GRL would place emphasis upon optimising blast designs to achieve compliance with the criteria and is committed to managing airblast overpressure and ground vibration impacts associated with blasting activities throughout the entire life of the amended Project. Notwithstanding the low risk of blast criteria being exceeded, key considerations in managing blasting impacts would be the need to discuss with the community GRL's procedures for notifying residents and to explain that although a blast can be heard or felt, it does not mean the blast is not compliant with noise or ground vibration criteria. The criteria are in fact set well below levels known to cause noise impacts or structural damage.

The EPA has proposed a number of noise conditions for inclusion in the development consent for the construction and operational stages of the amended Project, most of which GRL have accepted (see Section 3). It is noted that standard conditions of consent for modern mining operations require regular independent auditing that assesses monitoring results against the predictions made in assessments. Summaries of noise monitoring results relating to criteria nominated in the environment protection licence for the amended Project would be regularly made available on GRL's website.

Air Quality

A number of submissions raised concerns regarding potential impacts to air quality as a result of construction and operation of the amended Project. Many of the issues raised related to misunderstandings of the matters addressed in the 2016 EIS or were due to misinformation presented from other sources.

In particular, concerns regarding dust emissions included related matters of coal dust and its metal content, dust from transport activities, the dispersion of particulate matter of all fractions and potential impacts to human health, agricultural productivity or water quality.

The Air Quality Assessment (AQA) was undertaken in accordance with the Approved Methods specified by the EPA, using approved modelling software, and accepted modelling approaches. Representative meteorological data were combined with Project-specific terrain to develop a 3D meteorological field across the entire modelling domain to ensure the effect of local terrain features and changes in on-site topography over the life of the amended Project were captured. The EPA has acknowledged that the predicted impacts from the amended Project comply with EPA impact assessment criteria.

Air quality dispersion modelling took into consideration all dust sources, including internal haul roads and the private haul road, with the principal predictions from the modelling being as follows.

- There are no exceedances of the annual average PM_{2.5}, PM₁₀, total suspended particulate or dust deposition assessment criteria at privately-owned residences, either from the amended Project alone or cumulatively.
- There are no exceedances of the maximum 24-hour average PM₁₀ criterion of 50µg/m³ at privately-owned residences/receivers due to the amended Project alone, across all mining years assessed.

When combined with the fact that the emission calculations were in themselves based on worst-case operations, the results of the dispersion modelling are considered to be conservative. Based on the modelling

outcomes, no properties are required to be acquired under the VLAMP for reasons associated with air quality impacts.

Since the completion of the 2016 EIS and AQA, the EPA has released an update to the Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (published on 20 January 2017). Although the updated guideline and criteria do not apply to the amended Project (as the 2016 EIS was submitted prior to the release of these guidelines), the modelling predictions for privately-owned residences/receivers reported in the AQA were reviewed and it was confirmed that the amended Project would satisfy the updated criteria. It is worth noting that the only relevant change made was to the criterion for annual average PM₁₀, as the criterion for 24-hour average PM₁₀ did not change and the new criterion for PM_{2.5} is equivalent to the Ambient-Air NEPM as applied in the AQA for the amended Project.

The issue of contamination of rainwater tanks from coal dust deposited on roofs was considered in greater detail in the RTS . The results of research on trace elements released into rainwater tanks found that the Australian Drinking Water Guidelines were not exceeded for any trace elements including lead and that no impact was noticeable with regards pH of the water. In any event, predicted deposited dust levels attributable to the amended Project at surrounding residences would be within the EPA's criterion.

A review of the existing operating procedures at the Stratford Mining Complex (with similar coal seams) and coal quality parameter analysis has reaffirmed the conclusions of the 2016 EIS and AQA that the propensity for coal and breaker reject materials to spontaneously combust is low. Furthermore, a number of control and mitigating measures would be implemented to further minimise the risk of spontaneous combustion occurring and therefore there

would be minimal potential for adverse impacts on air quality which can occur as a result of such incidents.

GRL reiterates commitments made in the 2016 EIS for mitigation and management of air quality impacts. These would include meteorological forecasting and real-time monitoring enabling mine personnel to proactively alter operations / implement management measures to avoid exceedances. Additionally, standard conditions of consent for modern mining operations require regular independent auditing that assesses monitoring results against the predictions made in assessments. Summaries of air quality monitoring results relating to criteria nominated in the environment protection licence for the amended Project would be regularly made available on GRL's website.

Health Issues

A comprehensive Health Risk Assessment (HRA) was undertaken for the 2016 EIS that concluded that the potential health impacts arising from emissions associated with the amended Project would not be of concern when compared against relevant health criteria. This is principally because of GRL's commitment to implement best practice management measures, the separation distances between privately-owned residences and community facilities and dust sources, and the resultant limited increases in particulate levels experienced.

The key issues raised in submissions in relation to health and GRL's position in response are summarised as follows.

- A number of submissions raised concerns that asthma, respiratory, lung function, cardiovascular disease and other health issues were not adequately addressed in the HRA. The HRA evaluated each of these health issues across the age spectrum of the local population through a review of up-to-date literature and technical reports. It

was concluded that the resulting increase in base incidence in the population due to the worst case annual average increased long-term exposure to PM_{2.5} and PM₁₀ as a result of the cumulative exposure (i.e. the amended Project in the existing environment), was less than 1 in 100 000 in both Gloucester State Suburb and Faulkland State Suburb (incorporating Forbesdale Estate). In accordance with the National Environment Protection (Ambient Air Quality) Measure 2016, this level of incidence is considered "*sufficiently small and to be of no cause for concern*".

- A number of submissions also raised concerns about residences, the school and hospital being located within a "5km health impact zone". The medical basis for the origin of the term is unknown, however, it has been confirmed that the HRA applied the predicted air quality concentrations at the potentially worst affected residences representative of the Gloucester and Faulkland State Suburbs in its assessment of the residences and facilities in those areas and is therefore conservative. The outcomes of the HRA were that the risks would not be of concern when comparing predicted air quality levels with the National Environment Protection Measures Ambient Air Quality standards. Notably, the predicted concentrations of particulate matter at the Gloucester High School and hospital are an order of magnitude less than those at the closest residences (which would be compliant with all health-based air quality criteria) and consequently, potential health risks at the school and hospital could reasonably be expected to be correspondingly lower and readily satisfy the health-based criteria.

- Concerns were raised about the potential for coal dust exposure to result in Coal Worker Pneumoconiosis or ‘black lung’. The 24hr PM_{2.5} and PM₁₀ air quality criteria (25µg/m³ and 50µg/m³ respectively) for the surrounding community is more stringent than the New South Wales PM₅ occupational exposure limit of 2.5mg/m³ (2.5mg/m³ = 2,500µg/m³). Given the predicted compliance with the 24hr criteria at surrounding residences (for all dust sources) and that the concentration of coal dust in the community arising from the amended Project would only be a minor component of the overall dust emissions, it is concluded that coal dust exposure would remain well below health-based criteria. In addition, it is noted that the majority of recent cases of Coal Worker Pneumoconiosis were from operations in QLD where the occupational exposure limit is higher than the NSW limit. Therefore, it is considered highly unlikely that mining personnel or the community would develop ‘black lung’ as a result of coal dust exposure from the amended Project.
- A review of risks relating to mental health impacts in regions or towns proximate to coal mines was submitted as part of one submission. Key Insights make a number of recommendations in the SIA (all of which have been accepted by GRL) in respect to mitigating the mental health risks resulting from the real or perceived impacts arising from the amended Project. It is considered that the recommendations of the SIA remain appropriate to mitigate any real or perceived mental health issues that may result from approval of the amended Project. GRL is also confident that residual mental health impacts would

be likely to reduce after the amended Project commences operation, given the surrounding residents would recognise the impacts are consistent with those predicted in the 2016 EIS.

Visual Impacts

GRL acknowledges that the amended Project would have short-term impacts on the existing character of the Mine Area during the construction and progressive rehabilitation of the western and northern amenity barrier. This impact was raised in a range of submissions regarding the impacts of changes to the landscape, the effectiveness of the proposed mitigation measures and methods used for assessment. However, GRL reiterates the conclusion that once this barrier is constructed and vegetated, there would be no significant visibility of the mining operations. From the end of Year 8, no operations would be visible from areas north, west and southwest of the Mine Area and views of active areas would be limited from other directions.

GRL recognises that achieving a high standard of rehabilitation and limiting the visual impacts of the amended Project would contribute to substantially reducing the overall impact of the entire project upon surrounding residents and tourists. Emphasis has been placed upon achieving the required high standard of visual impact mitigation.

GRL’s commitment to a very high standard of progressive rehabilitation during the construction of the western and northern amenity barrier would overcome many of the concerns expressed in the submissions regarding the effectiveness of the proposed measures to mitigate visual impacts. Similarly, GRL’s proposal to progressively create a final landform that clearly emulates the existing topography would ensure issues relating to its visual impact are recognised as minimal.

Water-Related Impacts

The occurrence and management of groundwater and surface water is an important component of the amended Project, both in terms of potential changes in quality and quantity of water and its licensing. The key issues raised in submissions related to groundwater, surface water and flooding. GRL's response to these issues are as follows.

Groundwater

- Accuracy of groundwater modelling – Concerns were expressed regarding the data and assumptions used in groundwater modelling process. The groundwater modelling presented in the 2016 EIS was peer-reviewed with the conclusion that “No fatal floors have been detected in the description or modelling work conducted. All predictions, in particular drawdown and depressurisation are considered plausible”.
- Data on groundwater quality, particularly BTEX – Comprehensive groundwater quality monitoring over the past six years has established the groundwater quality throughout the Mine Area. Data collected by AGL throughout the Gloucester Basin established BTEX concentrations were low ($<5\mu\text{g/L}$) at the depths proposed for mining within the Mine Area (220m below ground level) compared to higher concentrations (up to $696\mu\text{g/L}$) at deeper depths (600m below ground level). In the unlikely event that BTEX is present in groundwater inflows at concentrations in excess of acceptable levels, they would be removed within the proposed water treatment plant and therefore would not present any risk of environmental impacts.

- Licencing of groundwater inflows – GRL has recently entered into an agreement with Yancoal enabling it to progressively acquire sufficient entitlements on an annual basis to account for the predicted inflow of groundwater into the Mining Area from the Permian water source throughout and beyond the life of the amended Project. The entitlements to be purchased from Yancoal are surplus to their requirements for the Stratford and Duralie Mining Operations.

The precise number of entitlements required annually would be based on updated groundwater modelling and monitoring undertaken throughout the life of the amended Project. The seepage of groundwater from the alluvial groundwater source would be minor and accounted for through licences already held by GRL.

- Containment of saline water on site – Saline groundwater inflowing from the Permian source would be contained on site within the saline water zone, the main component of which (three environmental dams) would be suitably engineered and constructed to minimise seepage.
- Intersection of Main Pit and the alluvium – GRL has committed to a monitoring program to record drawdown levels in the alluvium to establish the levels are comparable with those predicted.
- Groundwater dependent riparian vegetation – The predicted negligible groundwater drawdowns within the Quaternary alluvium would not impact any groundwater dependent riparian vegetation.

Overall, further investigations undertaken by GRL in response to the issues raised regarding groundwater have demonstrated that the groundwater modelling and

assessment undertaken for the 2016 EIS have satisfactorily defined the likely impacts within and beyond the Mine Area in accordance with the Aquifer Interference Policy and relevant water sharing plans.

Surface Water

- Accuracy of Low River Flow Data – Some members of the public raised the concern that there is insufficient information available to verify the accuracy of river flow data, particularly during the low flow periods. Whilst, this inaccuracy is unlikely, it would not significantly affect the estimate of the change in duration of cease-to-flow periods caused by the amended Project.
- Quantity and quality of downstream flows – Numerous submissions raised concerns about the loss of stream flows and potential for pollution, particularly in the downstream Manning River which also provides town water supplies. Reductions in downstream flows would be attributable to a loss of base flow (from groundwater) and runoff retained on site. The combined reduction in down-stream flows would be a maximum of 0.8ML/day. GRL proposes to release at least 1ML/day of treated water to account for this loss during the periods when flows recorded at the Avon River Gauging Station are <5ML/day and when sufficient treated water is available.

In order to ensure that downstream water quality is maintained, a number of controls would be implemented on site. Furthermore, GRL would also need to satisfy quality requirements imposed by the Environment Protection Authority before discharging water off site.

- Saline water treatment process, use of treated water and waste disposal – Details are provided of the likely water

treatment processes, i.e. pre-treatment, ultrafiltration, desalination (by reverse osmosis), post treatment and salt crystallisation, noting that detailed design would only be possible once the actual quality of the water to be treated, as opposed to the expected quality, is known. Details are also provided of the extent of removal of a wide range of elements before the water is used for irrigation (on GRL land) or released to the Avon River. All pre-treatment waste products and the crystallised salt would be removed from site and delivered to a licenced waste management facility such as the facility at Kurri Kurri.

GRL has clarified that it would use all of the treated water (2.5ML/day) for irrigation of crops and pasture on its land and release water to the Avon River only when:

- a) ground moisture levels are too high for successful irrigation (i.e. when soil moisture is at field capacity and beyond the available farm dam storage capacity); and
 - b) flow levels in the Avon River fall below 5ML/day.
- Increased Flows in Oaky Creek – Concerns were expressed regarding the diversion of upslope runoff from above the open cut pits which would increase average flows in Oaky Creek by approximately 13% and increase the risk of bank erosion. A review of the geomorphology of Oaky Creek established there would be no significant impact on the geomorphic stability of Oaky Creek, although monitoring would be undertaken throughout the life of the amended Project to verify this. In the event of any impacts attributable to the increased flows, the subject areas would be restored.

- Surface Water Licencing – A review of the capabilities of the clean water dams within the Mine Area with respect to GRL’s right to construct dams under the provisions of the Maximum Harvestable Right Dam Capacities (194ML) established that sufficient licences are already held to cover the clean water dams on site until about Year 8. Beyond this time, the capacities of the dams may need to be reduced or additional licences obtained.

Overall, further investigations undertaken by GRL in response to the submissions raised have confirmed that the manner in which surface water would be managed (as provided in the 2016 EIS) is satisfactory in consideration of all relevant criteria.

Flooding

- 2015 Gloucester Council Flood Study – As requested in the submissions, the results of the flood study for the amended Project have been compared against the results of the 2015 Gloucester Council Flood Study. The comparison established that the study for the amended Project estimated higher design flood flows than the 2015 Council’s flood study. The design flood conditions (flood flow and velocity) adopted for the Rocky Hill amended Project are therefore more conservative than indicated by the Council study.

Waukivory Creek Flooding – Additional information has been assembled regarding the potential impacts of the private haul road crossing of Waukivory Creek on flood conditions on nearby privately-owned land. The crossing would be designed to limit the impacts during flood conditions, with the results showing that apart from approximately 0.5ha of land owned by Yancoal Australia, all impacts would be restricted to land areas owned by GRL.

5. REMAINING THEMES IN THE SUBMISSIONS

The remaining themes in the submissions opposing the amended Project are as follows.

- Agriculture / Agricultural Productivity
- Aboriginal Heritage
- Coking Coal Production, Steel Manufacture and Climate Change
- Historic Heritage
- Ecology and Biodiversity Offsetting
- Employment and Economic
- Geology, Resources and Materials Characterisation
- Planning Issues and Rocky Hill Stage 2
- Rehabilitation
- Roads and Traffic
- Social
- Tourism

A summary of GRL’s responses to these themes are as follows.

Agriculture / Agricultural Productivity

The Mine Area is situated predominantly on Class 4 and 5 land which is not prime/ highly productive agricultural land.

Since the commencement of land acquisition for the proposed mining operation, GRL has been conscious of the potential for its proposed activities to adversely impact agricultural operations and productivity within the Gloucester area, if not managed properly. As a result of this, GRL has aggregated the majority of its landholding and entered into an agreement with the Speldon Partnership to allow them to utilise the aggregated land for grazing and fodder production and so ensure that agricultural production and production value over the area continues to exceed pre-2012,

i.e. pre-agreement levels, throughout the construction, operational and rehabilitation stages of the mine.

This agreement is ongoing and is explained in some detail in the 2016 EIS. GRL has committed to remaining proactive in managing land and agricultural issues so as to minimise potential negative impacts and maximise positive outcomes.

The key issues raised in submissions in relation to impacts on the agricultural industry and GRL's response to these issues are as follows.

- Loss of highly productive agricultural land – the results of soils mapping and previous Department of Primary Industries investigations/assessments indicate the land within the Mine Area is not highly productive, is not particularly fertile and exhibits physical and chemical limitations. Therefore, the proposed development would not result in the loss of any highly productive agricultural land.
- Agricultural labour losses – The concern that jobs would be lost in the agriculture industry as a result of the removal of productive agricultural land is an impact that GRL takes seriously. As a consequence of the agreement with the Speldon Partnership, there would be no net agricultural labour losses as a result of the amended Project. In fact there has already been the creation of an additional 2 full-time and 5 part-time employee positions as a result of the Speldon Partnership's use of the aggregated land.
- Concerns regarding the use of saline water for irrigation of pastures – Saline groundwater would not be used for irrigation. Rather, the water to be used for irrigation would be sourced from a water treatment plant designed to produce water with a quality which satisfies the Australian and New

Zealand Environment and Conservation Council limits for slightly to moderately disturbed systems, a quality which would be equal to or better than that sourced from Waukivory Creek and the Avon River and currently used by local landowners.

- Impacts of coal dust and irrigation water resulting in heavy metal residues in meat, milk and other dairy products – Deposited dust levels surrounding the Mine Area would remain well within guideline levels, with 'mine' dust representing only a small proportion of the total dust burden, and coal dust, an even smaller proportion. Furthermore, the dust, which is representative of those materials from which the existing soil is derived, does not contain elevated levels of contaminants, and those metals present are sparingly soluble. Therefore it is not expected that the amended Project would result in any damage to the area's reputation as a 'clean, green food source' as referred to in a number of submissions.

It is GRL's objective and commitment to achieve a standard of rehabilitation during and after mining that demonstrates a higher level of agricultural productivity than existed when the Company purchased the various properties within and surrounding the Mine Area, with evidence available from other areas that through the adoption of best practice, mined land can be equally or more productive in terms of cattle production than un-mined (control) sites. The progressive manner in which GRL would rehabilitate the disturbed areas of the Mine Area would provide for the progressive re-instatement of land suitable for grazing together with native vegetation belts/fauna corridors, as well as an opportunity for progressive refinement/improvement of operational practices based on monitoring outcomes on site and elsewhere.

Aboriginal Heritage

A single submission was received from the Cook Family following the public exhibition of the EIS and subsequent consultation with this group involved formal correspondence prepared by the NSW EDO and provided to DPE. An addendum submission (the Cook Family Addendum submission) was received on 5 June 2017 following a site visit involving Ms Sue Syron and Mr Vincent Cook, Elders of the Cook Family, Mr Ken Eveleigh, Elder of the Gloucester Worimi First Peoples and Mr Jeff Kite, friend of the Cook Family as well as representatives of GRL.

The Cook Family Addendum submission reiterates this group's objection to the amended Project on the grounds that the assessment of Aboriginal cultural heritage has not adequately considered their family's perspective with regards to the perceived environmental and social impacts of the proposed development. This was reflected in comments relating to the adequacy of consultation, acknowledgement of the Cook Family and Aboriginal history associated with the area and the assessment of the broader cultural values associated with the land for Aboriginal people. The submission also presents their objection to what the Cook Family perceives would be the destruction of the Aboriginal culture and heritage values held by the Aboriginal community in relation to the location of the amended Project.

GRL notes that it has complied with its legal obligations in respect to Aboriginal cultural heritage consultation in preparing both the 2013 EIS and the 2016 EIS. The consultation procedures for the ACHA were in fact comprehensive, involving over 100 Aboriginal groups. It is important to note that if the Cook Family or any group fails to register their interest in participating in the consultation process then this does not constitute non-compliance with the Consultation Guidelines or the DGRs if the notification and information gathering

processes have been applied appropriately, as in the consultation for both the 2013 EIS and the 2016 EIS. As a result of the consultation that has now occurred, elders Sue Syron and Vincent Cook of the Cook Family and elder Ken Eveleigh of the Gloucester Worimi First Peoples have stated their concerns and expressed their objection to development of any kind on land that was once Aboriginal land.

GRL considers that the Aboriginal cultural heritage assessment has taken into consideration all feedback received during the comprehensive consultation process, as well as the results of the numerous field surveys and thorough archaeological assessment, in concluding that impacts associated with the salvage of artefacts identified at six sites and the perceived impacts to broader Aboriginal cultural values would be suitably mitigated by the ongoing consultation and preparation of the an Aboriginal Cultural Heritage Management Plan as well as GRL's extensive commitments to rehabilitation. This is confirmed in the OEH submission that expresses OEH's perspective that the Department has no additional concerns with respect to Aboriginal heritage and the amended Project proceeding.

Coking Coal Production, Steel Manufacture and Climate Change

Approximately 95% of the product coal from the Rocky Hill Mine Area would be a high fluidity, metallurgical coal used to manufacture coke, an essential component in the manufacture of steel, with only approximately 5% used for power generation. Only coking coal, and not thermal coal, can be used in steel manufacture. The bulk of coking coals produced elsewhere in New South Wales and Queensland are semi-soft and hard coking coals which need to be blended in steel mills with semi-hard coking coal to produce the optimum coke for steel manufacture. Due to its high fluidity and ability to be used to

enhance other coals, the semi-hard coking coal from the Rocky Hill Mine Area would be of considerable importance to the manufacture of steel globally, particularly given the projected worldwide annual growth in steel production in the order of 1%². It is noted that globally, only 14% of coal products are used in steel manufacture with the remaining 86% used to generate power.

Contrary to some of the submissions made in respect of the amended Project, the demand for coking coal, particularly semi-hard coking coal, is unlikely to reduce or be limited in the future, as this type of coal will continue to be required for the conventional blast furnace process required for the manufacturing of steel. The alternatives to conventional blast furnaces, such as electric arc furnaces and direct reduced iron have limited capability and are not currently feasible alternatives for the production of the large volumes of hot iron required for steel manufacture, particularly in Asian steel markets.

The focus in many submissions was upon the release of greenhouse gases during the mining and combustion of thermal coal (i.e. coal used in power stations to generate electricity). This concern is recognised, but GRL continues to re-iterate that the coal targeted within the Rocky Hill Mine Area is predominantly a high quality coking coal. Greenhouse gas emissions in Australia are currently collectively managed at a National level through initiatives implemented by the current Australian Government (e.g. the Emissions Reduction Fund). The quantity of greenhouse gases emitted on an annual basis from the mining and use of the coal from the Rocky Hill Mine Area would be approximately 2Mt CO_{2-e} which is 0.006% of global emissions. The greenhouse gas calculations were completed in accordance with the National Greenhouse and Energy

Reporting Scheme (NGERS) under which companies are only required to report Scope 1 and Scope 2 emissions in order to avoid double-counting of emissions. Scope 3 emissions (from the use of the coal) are allocated to the country in which the coal is used. It is noted that the Scope 3 emissions amount to approximately 95% of the total emissions.

Historic Heritage

The Historic Heritage Assessment has concluded that no individual items, sites, buildings or curtilages are statutorily protected, and no recognised items or buildings would be materially affected by the amended Project. In addition, the Site and its setting are not considered to be heritage items and the views that would inevitably be affected by the amended Project, albeit minimally, are not heritage views.

Ecology and Biodiversity Offsetting

The key issues raised in submissions regarding ecological matters and the biodiversity offset strategy focused on the following.

- Potential impacts to the Squirrel Glider, Grey-crowned Babbler and Brush-tailed Phascogale that were previously identified or are considered to have occurred within the study area for the Terrestrial Biodiversity Assessment.
- Potential impacts to the Purvis Turtle, a species of native turtle endemic to the Manning River catchment.
- Concerns regarding the use of the BioBanking Assessment Methodology (BBAM) and comments relating to threatened flora and the Vulnerable Ecological Communities (VECs) assessed in the Terrestrial Biodiversity Assessment.

² World Steel Association – Press Release
21 April 2017

The supplementary fauna survey discussed in Section 3 of this Summary confirmed the presence of the populations of Squirrel Glider and Grey-crowned Babbler and absence of a viable population of Brush-tailed Phascogale.

The Purvis Turtle is endemic to the Manning River catchment and has recently (28 April 2017) been listed as an endangered species under the New South Wales *Threatened Species Conservation Act 1995*. The species is not listed as a threatened species under the *Environment Protection and Biodiversity Conservation Act 1999*. Most reported sightings of the species have been in tributaries of the Manning River such as the Barnard and Nowendoc Rivers.

This species was not observed in the Avon River or Waukivory and Oaky Creeks during the aquatic ecology field investigations for the amended Project. The habitats within these watercourses have been assessed as being degraded, although it is possible that freshwater turtles could occur within the broader aquatic ecology study area based on known habitat requirements.

Cardno Ecology Lab assessed potential impacts to the habitat for freshwater turtles including Purvis Turtles (if they are present) resulting from changes to streamflow, water quality or watercourse stability as a result of the amended Project and concluded that the amended Project would not result in significant changes to the potential habitat of this species. However, GRL has adopted a precautionary approach to identification, assessment and management of freshwater turtles, and specifically the Purvis Turtle, and committed to further targeted surveys for freshwater turtles in the vicinity of the Mine Area prior to the commencement of the site establishment and construction stage as part of the baseline aquatic ecology monitoring program identified in the EIS. Ongoing management measures would then be considered following review of baseline aquatic ecology monitoring.

GRL is confident that potential impacts to threatened flora, populations and endangered ecological communities have been sufficiently addressed in the 2016 EIS and Terrestrial Biodiversity Assessment and assessed in accordance with the BioBanking Assessment Methodology (BBAM). A comprehensive Biodiversity Offset Strategy is proposed to offset residual impacts to native vegetation and incorporates the proposed Biodiversity Offset Area (BOA) and ongoing, in-perpetuity management of the area. It is also noted that the proposed BOA is supported by OEH and the Nature Conservation Council.

GRL considers that the proposed on-site mitigation and management measures and the proposed BOA, would reduce the potential for impacts to any Squirrel Glider, Grey-crowned Babbler, Brush-tailed Phascogale or Purvis Turtle present in the vicinity of the Mine Area. In addition, it is considered that the proposed Biodiversity Offset Strategy including the proposed BOA would satisfactorily offset residual impacts to native vegetation as a result of the amended Project. Threatened species management and the Biodiversity Offset Strategy would be included in a Biodiversity Management Plan and complementary Aquatic Flora and Fauna Management Plan and specific management plans for the Squirrel Glider and Grey-crowned Babbler.

Employment and Economic

The submissions that raised issues regarding the economic aspects of the amended Project and potential impacts that may result from an approval were both positive and negative in nature. Some opposing submissions raised concerns regarding the viability of the mine, the impact of employment and the inputs to the Economic Assessment, while supportive submissions expressed the opportunities and economic benefits that are predicted should the amended Project be approved. The overwhelming majority of submissions regarding employment were supportive of

the amended Project, with a number of these submissions provided by local residents who would seek jobs with GRL and people from outside the region or former residents that would seek to relocate to Gloucester to take up the employment opportunities arising from the amended Project. Submissions questioning the viability of the proposed mining operation were considered by Deloitte Access Economics and confirmed to be unfounded based on the consideration of costs and benefits and the sensitivity analysis included in the Economic Assessment, as well as GRL's consideration of its operating and capital cost structures and the coal product mix that would be produced.

GRL has reiterated its commitment to local employment and remains confident that the target of 75% of the workforce residing locally by the end of Year 3 of operations is achievable. This is an important component of the amended Project that would provide boosts to local spending, community development and economic growth. There is no evidence of businesses that have closed or that would close as a result of the proposal for the amended Project or the presence of other mining operations locally. However, it is apparent that economic opportunities are declining in many industries except for those industries providing services to the retirement age population.

Deloitte Access Economics has reviewed submissions concerning the Economic Assessment and determined that there were no matters raised that indicate any inconsistency or omissions in the scope or approach to analysis or that would significantly modify the conclusions of the Economic Assessment. It should also be noted that the Department of Planning and Environment submission did not question or comment on the methods applied or conclusions of either the Cost Benefit Analysis or the Local Effects Analysis. Therefore, GRL reiterates the conclusion that the amended Project is estimated to deliver a net economic benefit to the New South

Wales community of approximately \$89.5 million in present value terms. With respect to those costs assessed qualitatively, it was concluded that these costs were not likely to outweigh benefits given that these non-quantified externalities would need to generate costs of approximately \$12 million per year (in real terms) between 2019 and 2034 to offset the expected benefit.

Finally, it should be noted that for many in the Gloucester area, the amended Project offers additional and significant opportunities, namely:

- employment for the generations which are typically leaving the area to find work;
- a reason to return to the locality;
- an opportunity to work locally and not commute long distances;
- increased trade to support their business;
- revenue for much needed infrastructure and services; and
- export revenue and capital investment to grow the State's and national economies.

While the concerns of those residents near the Mine Area should be considered, so too the significant benefits for the regional, State and national economy must be given weight. These wider benefits are significant, compelling and difficult to ignore.

Geology, Resources and Materials Characterisation

Contrary to the assertions in numerous submissions, GRL's extensive geological exploration results and their use in mine models has been comprehensive and has provided the basis for a high level of mine planning for the amended Project. This geological data has been reviewed by the former Division of Resources and Energy and it was determined that the predicted

proportion of coking coal product is achievable. It is also worth noting that geotechnical studies would be undertaken on a regular basis throughout the life of the amended Project to ensure that information from on-site observations is utilised in the ongoing design of all open cut pits, thereby avoiding any potential instability issues within the Mine Area.

Most of the submissions relating to material characterisation referred to the geochemical characteristics of the breaker rejects and uneconomic coal seams/strata likely to be generated throughout the life of the amended Project. However, only a very small proportion of the breaker rejects and uneconomic coal seams/strata is classified as potentially acid forming (PAF) and, in total, these materials make up only approximately 1% of the total materials that would be placed within overburden emplacement areas, either out-of-pit or in-pit. The small quantity of breaker rejects and uneconomic coal seams placed within the western and northern amenity barrier would be positioned on the eastern side of the barrier to enable the materials to be recovered early in the void backfilling program to ensure they are positioned well below the final land surface. The bulk overburden materials themselves are classified as non-acid forming (NAF) and have excess alkalinity. GRL has also proposed a comprehensive management strategy for the handling and storage of breaker rejects and uneconomic coal seams/strata that is considered highly conservative.

GRL has also considered transferring breaker reject/uneconomic coal seams/strata to the Stratford Mining Complex in the early years of mining and concluded that the overall management and responsibility of this process would be more difficult, expensive and complex as well as generating unnecessary additional greenhouse gas emissions.

GRL's proposed method of management of the relatively small proportion of breaker reject and uneconomic coal seams/strata that could generate acid compared to the total amount of NAF overburden with excess alkalinity generated would avoid the concerns of acid generation during and beyond the life of the amended Project.

Planning Issues and Rocky Hill "Stage 2"

Several submissions raised concerns regarding impacts upon the future expansion of housing within the Gloucester township, and particularly for land to the east of the railway line, given the potential impacts of the amended Project and the possible future introduction of exclusion or buffer zones around coal mines. However, following a review of the Housing Development Strategy prepared by Gloucester Shire Council and the Commercial and Land Use Strategy prepared by Ratio Consultants, it is apparent that given the current level of population growth and the existing bank of more accessible residential land stocks (currently approximately 300 lots within the township boundaries, west of the railway line and on the southern entrance to Gloucester), it is considered unlikely that this land would be developed for housing during the life of the amended Project.

There are no requisite exclusion or buffer zones applicable to coal mine developments in NSW. Furthermore, as the Avon River and Thunderbolt Estates are located between the identified future land release area to the east of the railway line and the Mine Area and all relevant criteria have been satisfied within these estates, it is concluded that potential environmental impacts would be satisfactorily managed and there is no reason, related to the amended Project, which would exclude the eventual development of that land.

GRL also considers that the amended Project is consistent with the strategic intent of the E3 Zone within the *Gloucester Local Environment Plan 2010* which applies to the majority of the Site and surrounding area, a zoning which permits extensive agriculture and aims to preserve the aesthetic value of the views. The amended Project would maintain and improve agricultural productivity within the immediate locality both during and following mining. Following the cessation of mining and rehabilitation of the Mine Area, the character of the Site would be comparable with its existing character but with greater areas of native vegetation than it has now. Therefore, the long-term outcome of the amended Project would be to enhance the existing ecological and aesthetic qualities of the area in line with the Zone E3 objectives whilst maintaining agricultural productivity.

However, given the concerns expressed by members of the Gloucester community regarding the potential expansion of mining into areas east of Gloucester, i.e. a “Rocky Hill Stage 2”, GRL will relinquish an approximately 6km² area of EL 6523 to the east of Gloucester and north of Jacks Road/Waukivory Road, when it lodges a further application to renew EL 6523 in early 2018. The partial relinquishment of EL 6523 should provide the community with confidence that there would be no mining east of Gloucester township in the future.

Rehabilitation

GRL’s proposed approach to the rehabilitation of the Mine Area is considered best practice, principally due to the following.

- The final void would be backfilled to create a self-draining landform suited for the resumption of grazing activities. GRL considers this approach is appropriate given the importance placed upon scenic quality and agricultural production by a number of

community members and the fact the water accumulating in a final void would be saline and of little agricultural benefit.

- The final landform closely emulates the existing landform, albeit topographically higher or lower in places, with ephemeral watercourses and their catchment divides similar to those on the pre-mining landform.
- The re-establishment of a soil profile (approximately 0.75m subsoil and 0.15m of topsoil) on compacted weathered overburden provides a suitable zone for root growth, moisture retention, vegetation establishment and persistence and the re-establishment of agricultural activities similar to those undertaken currently.
- The establishment of an array of vegetation types and land uses which are consistent with those currently or formerly present within the proposed area of disturbance and which provide or re-establish linkages for the movement of native fauna.

GRL’s approach to rehabilitation has been based on detailed investigations regarding the soils, slopes, drainage characteristics and vegetation. The progressive manner in which GRL would rehabilitate the areas of disturbance would provide for the progressive re-instatement of land suitable for grazing, together with native vegetation belts/fauna corridors and, overall, represent a beneficial outcome for the local agricultural industry, community and environment..

In accordance with the conditions of its mining lease(s), GRL would provide a security deposit to cover the costs of rehabilitation of the mine (should GRL not be able to meet these costs itself) to be calculated in accordance with the relevant Departmental guidelines.

Roads and Traffic

GRL remains committed to managing and minimising potential traffic impacts. Whilst the amended Project would result in a range of increases in traffic levels on The Bucketts Way and local roads throughout the site establishment and construction stage and during operations, the numerical increase in vehicle numbers would generally be minimal and, on The Bucketts Way in particular, the proportional increase would also be minimal.

Notwithstanding, GRL has proposed to undertake a range of road and associated infrastructure upgrades and provide a fair and reasonable contribution to ongoing maintenance of those sections of roads used by heavy vehicles travelling to and from the Mine Area. These upgrades would both minimise the impacts of the amended Project and provide a better standard and safer roads for all motorists throughout the operational life of the mine. Following the completion of mining, these proposed upgrades would continue to provide ongoing benefits to motorists and reduce Council's costs.

It is also worth noting that the additional mine-related traffic would not result in exceedance of road noise criteria.

Social

A number of the issues raised in the submissions reviewed by GRL have social components. The nature of these comments varied from broader concerns about the 'look and feel' of Gloucester or fear that Gloucester would become a 'mining town' to specific concerns regarding infrastructure capacity, property values and the equal distribution of the benefits of amended Project.

The prediction of benefits and risks detailed in the SIA has been based on extensive consultation and statistical evidence. The assessment concludes that on balance there would be net social (and economic) benefits associated with the amended Project.

With regards to the broader changes expected within Gloucester township in the event of an approval of the amended Project, these changes would occur in the context of current trends that indicate declines in some social indicators including broad aspects such as unemployment and business entry/exit and specific indicators such as the increase in population in older age groups and decline in younger age groups. It is predicted that the amended Project would result in significant economic benefits to the local, regional, State and national economies and would also bring with it a range of social benefits.

The recommendations of the SIA, accepted by GRL, have been designed so that the benefits of the amended Project, including the proposed Community Grants Program, would be distributed throughout the community and, with regard to allocation of GRL's donations to the Charitable Trust, would be focused on those community areas most in need (as determined by the Trustees). GRL recognises that whilst there would be some negative social impacts associated with the amended Project for some people, the range of management and mitigation measures to minimise or negate these impacts should achieve an overall net beneficial social impact.

Tourism

Submissions regarding potential impacts to the tourism industry relate principally to the perceived conflict of tourism and mining in the Gloucester area, specifically that perceived environmental impacts would discourage tourists from visiting the area and would cause the subsequent closure of tourism-related businesses and loss of jobs in the industry.

GRL acknowledges the role that tourism plays within the Gloucester area given its association with the Barrington Tops National Park. These issues have been carefully considered in concluding that the

amended Project would be unlikely to significantly impact tourist visitation. This conclusion is based on the following.

- The amended Project has been specifically designed to account for potential impacts to amenity.
- Perceived environmental impacts, including noise, air quality and visual impacts are either not likely to occur or, through the adoption of best practice measures, would be managed to ensure satisfaction with the guidelines/criteria/limits established by NSW regulators.
- Tourist interest in Gloucester and the surrounding areas as well as associated agri-tourism in Gloucester has continued to grow over the past two decades alongside the Stratford and Duralie mining operations. Evidence from other areas where mining and tourism operate alongside each other, such as the Hunter Valley, Mudgee, Gunnedah and Arcadia Valley / Carnarvon Gorge regions, clearly shows that the maintenance or enhancement of a viable and sustainable local economy does not necessitate a choice between the two industries and that they can (as they do in other regions and have in Gloucester in the recent past) work together to maximise opportunities to grow the local economy and business.
- The key destinations for tourism-related activities such as the Barrington Tops National Park are located to the west of The Bucketts Way and more than 24km from the Mine Area. It is not likely that the amended Project would influence the experience of these areas of natural beauty.

- Businesses that benefit from tourism rely on more than just visitors for pleasure or interest to remain viable. A strong and diverse local economy attracts visitation for reasons other than tourism and consultation with local accommodation providers in Gloucester reflects concerns that this regular trade is diminishing.

GRL is confident that, through a co-operative approach, not only would tourism continue to be an important contributor to the local economy, but opportunities would arise for more diversified visitation experiences.

6. CONCLUSION

GRL's comprehensive review of the submissions has enabled a range of issues to be clarified and some operational refinements made to the amended Project. Overall, there have been no issues raised that required any significant modifications to the amended Project and GRL remains confident that the amended Project has been designed to limit potential impacts as much as possible, while retaining the overall viability of the project.

GRL firmly believes that the design of the amended Project, research and studies definitively demonstrate that the amended Project can effectively co-exist with Gloucester and its community with minimum environmental and social impacts.

The Company looks forward to the opportunity to become further engaged with local business, community events and members of the local community and observing the predicted social and economic benefits throughout the community.

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