



**Mining and Energy** Division

# Review of Environmental Assessment

Rocky Hill Coal Project

SSD-5156

Submission

Construction Forestry Mining and Energy

Union (Mining and Energy Division)

Northern Mining & NSW Energy Branch

October 2013

On 18 December 2012 Gloucester Resources Limited (GRL) applied to the Minister, Department of Planning seeking approval to develop and operate the Rocky Hill Coal, Project. Gloucester Resources is seeking State Significant Development Consent under Part 4, Division 4.1 of the Environmental Planning and Assessment Act 1979.

The Director General made the Environmental Assessment publicly available on the 28 August 2013 at the DP & I Information Centre Sydney, Gloucester Shire Councils and Nature Conservation Council.

The Union is pleased to take the opportunity to comment on the Rocky Hill Coal Project and related activities Environmental Assessment.

The Mining and Energy Division is a Division of the CFMEU under the Federal Workplace Relations Act 1996, with over 120,000 members, one of the largest in Australia. The Division covers several industries including the coal industry, coal ports, metalliferous mining industries, electrical power generation, oil and gas and the Nation's small coking industry.

The Northern Mining & NSW Energy District Branch of the CFMEU Mining and Energy Division, being the branch that on behalf of the organisation which is making the submission is the principal Union representing coal miners in the Northern District coalfields of New South Wales. The Rocky Hill Coal Mine operations would be located approximately 3.5 to 7 kilometres south-east of Gloucester and is wholly within the State's Northern District coalfields.

The Union is familiar with the proposed Rocky Hill Coal Project site and has engaged the services of an Environmental Consultant with extensive experience in local government and environmental assessments on coal mining related projects.

After reviewing all the material and taking advice, the Union supports the Rocky Hill Coal Project as proposed.

## **Project Overview**

The Applicant expects to extract up to 2.5 Mtpa ROM coal per year over approximately 14 years, at a rate of approximately 0.6 Mt in the 4<sup>th</sup> quarter of Year 1, subsequently ramping up to full production over subsequent years.

The Rocky Hill Coal Project involves the following:

- The extraction of coal from four open cut pits varying in depth from approximately 70m to 190m, including the development of two smaller, shallower sub-pits.
- Construction and use of three generally north-south trending, short term and long term visibility (and noise) barriers that would be either stand alone or incorporated into the permanent overburden emplacement.
- Construction and use of three overburden emplacements comprising:
  - A permanent out-of-pit overburden emplacement;
  - An interim overburden emplacement; and
  - An in-pit overburden emplacement.
- Construction and use of a coal handling and preparation plant with associated ROM and product coal stockpile areas, a switchyard, workshop and ancillary buildings.
- Construction and use of an overland conveyor (approximately 3km long) within the Overland Conveyor Corridor which connects the product coal stockpile at the CHPP to the Rail Load-out Facility.
- Construction and use of a Rail Load-out Facility comprising a 'balloon' rail loop, a surge bin accepting coal from the overland conveyor and a feed conveyor connecting the surge bin to a train load-out bin.
- Rail transportation of product coal from the Rail Load-out Facility to the Port of Newcastle for export.
- The relocation of an existing 132 kV powerline, power line providing power for the mine's operations.
- Construction and use of ancillary infrastructure, including soil stockpiles, internal roads, surface water management structures and offices and amenities.
- Development and progressive rehabilitation of a geotechnical stable, final landform that contains no voids or pits, emulates the existing system of ridges and valleys and is suitable for a final land use of agriculture and/or nature conservation.

- A 267ha Biodiversity Offset Area on company-owned land east of the proposed area of disturbance within the Mine Area.

## **Stakeholder Consultation**

A range of issues were identified through a program of community and government consultation undertaken by the Proponent and consultants.

Consultation with the local community by the Proponent involved the creation of a website, distribution of two newsletters, information dissemination through the Gloucester Exploration Project Community Consultative Committee, telephone calls and meetings between GRL management and any stakeholder who made contact and requested a face to face meeting with the Proponents representatives.

The following environmental issues were identified to be of most concern to the community members and representatives consulted, principally through the Community Consultative Committee; meetings involving the wider community, and discussions with individuals and community groups, and Gloucester Shire Councillors and staff:

1. Air quality impacts.
2. Groundwater and surface water impacts
3. Ecological impacts
4. Health issues
5. Noise impacts
6. Local traffic impacts
7. Potential employment
8. Visibility and visual amenity impacts
9. Incompatibility with E3 zoning and the Gloucester LEP 2010
10. Impacts on tourism

Consultation with government agencies has been ongoing with liaison involving correspondence and discussions. Some environmental agencies participated in hosted site visits and a Planning Focus Meeting for the Proposal.

According to the Proponent environmental and social issues raised throughout the consultation process with the local community and Government agencies have been

considered by the Proponent throughout the design of the Proposal. Emphasis has also been placed upon achieving a design which, when assessed, satisfies relevant criteria and guidelines as far as possible.

## **Noise**

Background noise measurements have established that the existing daytime noise levels are comparatively low in areas away from The Bucketts Way and Gloucester township. Noise levels in all areas, including Gloucester, are low of an evening and night. Management of operational noise impacts from the Proposal would include:

- The use of barriers which provide visual and acoustic benefits;
- Restrictions on equipment and operations under adverse meteorological conditions;
- Use of sound suppressed equipment;
- Use of predictive meteorological forecasts;
- A regime of real-time noise monitoring; and
- Active site management.

The conservative noise assessment has established that, with the adoption of these measures it is possible to achieve the stringent criteria that are required for this Proposal, on a 10% exceedance basis, at most privately-owned receptors surrounding the Site.

Noise exceedances are predicted to occur at 12 receptors at some stages throughout the life of the Proposal i.e.:

- Five receptors would experience operational noise levels between 1 dB(A) and 2dB(A) above the Project-specific noise criterion;
- Three receptors would experience operational noise levels between 3dB(A) and 5dB(A) above the Project-specific criterion; and
- Four receptors would experience operational noise levels in excess of 5 dB(A) above the Project-specific criterion.

Notwithstanding the predicted non compliances with noise criteria, it is assessed that the overall impact on the surrounding community would be minimal. The adoption of both pro-active and reactive measures would also provide a mechanism for the

assessment and introduction of additional measures in consultation with affected landowners.

Predicted road traffic noise levels at the closest residences adjacent to Jacks Road and Waukivory Road would satisfy the relevant noise criterion during both the site establishment and construction and operational phases.

The increase in rail traffic attributable to the Proposal would increase noise levels at the closest residences to the North Coast Railway by between 0.3dB(A) to 1.1dB(A) between the Rail Load-out Facility and Duralie. These levels are considered to be negligible, however, the overall noise levels attributable to existing and proposed movements exceed the  $L_{Aeq\ 24\ hour}$  criterion of 60dB(A) nominated for ARTC's environment protection licence. The additional noise arising as a consequence of the Proposal would cause exceedances of the 60dB(A) criterion at four additional residences between the Stratford and Duralie Coal Mines.

Other impacts, including those from construction and cumulative impacts with other mines are predicted to be within criteria and are therefore considered acceptable.

## **Blasting and Vibration**

In order to ensure the impacts from blasting associated with the Proposal are minimised, blast design would routinely include feasters to minimise potential impacts from air blast and ground vibration, fly rock and fume emissions.

Based upon the blasting and vibration assessment, the following was concluded:

- The ground vibration criterion would not be exceeded at any privately-owned receptor for the range of likely blast sizes.
- Blasts would be designed to ensure both ground vibration and air blast overpressure levels are satisfied at all privately-owned receptors.
- The proposed blast exclusion zone, together with the preferential southward orientation of the blast face, would minimise the potential for fly rock impacts. There would be no requirement for public road closures during blasts within the Mine Area.

- The adoption of the proposed blasting safeguards would ensure dust generated as a result of blasting is minimised.
- The movement of delivery trucks on public roads would not be expected to generate vibration levels with the potential to cause damage to buildings.

## **Air Quality**

The results from the Proponents air quality monitoring network which records deposited dust, PM<sub>10</sub> and PM<sub>2.5</sub>, confirms the Site is situated within an area with generally low levels of dust.

Dust generating activities associated with the Proposal have been identified and quantified through dispersion modelling.

The modelling results indicate that the potential dust impact on air quality at surrounding privately-owned receptors would be minor and would not exceed the recommended annual air quality goals for deposited dust, PM<sub>10</sub> and PM<sub>2.5</sub>.

The predicted Proposal-only ground level concentrations for PM<sub>10</sub> and PM<sub>2.5</sub> at sensitive locations within Gloucester township are also well below the relevant health-based impact assessment criteria.

Occasional exceedances of 24 hour air quality goals have been predicted for two receptors not owned or currently under option to purchase by the Proponent.

A comprehensive health risk assessment, based upon the predicted air quality levels, concluded that the air emissions from the Proposal present little likelihood of causing adverse health effects to the local community surrounding the Site and within Gloucester township.

Average annual Scope 1 greenhouse gas emissions, namely emissions attributable to on-site sources, would represent approximately 0.02% of Australia's commitment under the Kyoto Protocol and a very small portion of global greenhouse emissions, given that Australia contributed approximately 1.5% of the global GHG emissions in 2005.

## **Visibility**

Consideration of visual issues has been central to the design of the Proposal, with emphasis placed on both short-term and long-term outcomes. The key visual controls include three generally north-south visibility barriers designed to shield operational activities for the bulk of the life of the Proposal. A range of physical lighting controls, together with restricted operations during the night-time period, would also limit night-time visual impacts.

The visibility barriers will also double as effective acoustic shields to the surrounding sensitive receptors as well as an effective lighting shield for operations undertaken after dark.

Particularly when viewed from Forbesdale Estate during the construction of the western and northern visibility barrier, the Proposal would have significant short-term impacts on the existing character of the Site. However, as that barrier and the central and eastern visibility barriers are progressively constructed and vegetated, the mining operations would generally not be visible. Some sections of the overland conveyor and some components of the Rail Load-out Facility would be visible from some viewing locations; however their colour and profile, together with the nature of the background, would limit their visibility.

Given the permanent nature of the long term landform, the design of the Proposal from a visual perspective and the visibility assessment placed greater importance on that aspect than short-term changes, culminating in a final landform design which would be indistinguishable from the surrounding landscape.

In order to assist in reducing visibility and potential visual impacts, the Proponent has undertaken a significant strategic vegetation planting program over recent years, concentrating on areas of its properties adjacent to public roads which had been cleared by prior landowners. This program, which will also assist in the re-instatement of corridors for fauna movement, is continuing.



## **Surface Water and Flooding**

The Site is located within the Avon River catchment which incorporates the smaller Waukivory Creek and Oaky Creek catchments. The Avon River is itself, a tributary of the Gloucester River which feeds into the Manning River system. Water supplies for a number of towns within the region are supplied from the Manning River, approximately 50km downstream of Gloucester, via Mid Coast Water's Manning Scheme.

The results of surface water monitoring at 15 sites within and surrounding the Site under a range of flow conditions have shown the water in Waukivory and Oaky Creeks and the Avon River generally has a neutral pH, low total dissolved solids and exhibits low levels of total suspended solids and turbidity under low flow conditions.

The results of the site water balance indicate that the Proposal would have the capacity to store the projected groundwater seepage and surface water inflows and ensure that sufficient water would be available for ongoing operations such as on-site dust suppression and the CHPP throughout the life of the Proposal under a comprehensive range of rainfall scenarios.

Potential flooding impacts arising as a consequence of the Proposal were recognised in the design phase with the toe of the western and northern visibility barrier constructed to generally coincide with the 1 in 100 year Waukivory Creek/Avon River flood level. The barrier, together with the elevated internal haul road and end walls on the southern side of the Main and Weismantel Pits would act as flood levees and prevent any potential floodwater from entering the open cut pits.

Impacts of the western and northern visibility barrier and the conveyor on flood flows and behaviour would be negligible.

With the implementation of all surface water mitigation and management measures proposed for the Site, it is assessed that surface water would be appropriately managed with negligible impacts on the surrounding environment or downstream surface water users.

## **Groundwater**

A detailed groundwater assessment was undertaken for the Proposal, including groundwater modelling. The assessment determined that the limited volume of intercepted water from the alluvial system is adequately covered by the Proponent's existing entitlement for the Avon River Water Source, and complies with the relevant Lower North Coast Unregulated and Alluvial Water Sources Water Sharing Plan.

The assessment concluded that:

- No surrounding groundwater users would be impacted by the Proposal;
- There would not be any reduced availability to the shallow groundwater system;
- There would be no impacts to any groundwater dependent ecosystem;
- There would be no measurable impact on flows within Waukivory Creek or the Avon River; and
- Groundwater levels would recover within approximately 15 years after mine closure.

Groundwater monitoring will continue using a combination of the existing groundwater monitoring network and additional and/or replacement bores to further define baseline values and to provide an adequate dataset to determine trigger values for both groundwater quality and levels.

## **Terrestrial Ecology**

More than 90% of the area to be disturbed is open pasture with some isolated remnant native vegetation ranging from low to good condition.

One Vulnerable Ecological Community (a dry rainforest) was identified in the proposed disturbance area. No threatened flora species were detected during the comprehensive flora surveys.

A total of 59 threatened fauna species were identified from database and literature searches as likely to occur within a 10km radius of the Site, with this number refined to 36 species following the field habitat assessment and surveys.

The impact assessment identified that an effective 41.1ha of native vegetation within the 525ha proposed disturbance area would be impacted by the Proposal, comprising 35.7ha of Dry sclerophyll forest, 1.1ha of Riparian vegetation and 4.3ha of Rainforest.

It is concluded from the assessment of significance of impact that the Squirrel glider and Grey-crowned babbler are the only local populations of threatened species that may be impacted by the Proposal, i.e. along the northern section of McKinley's Lane. Potential impacts may occur from adjacent mining activities including noise, light, blasting and vehicles on the Mine Area access road, although ameliorative measures will largely mitigate these impacts.

A proposed 267ha Biodiversity Offset Area is to be established along the eastern and south-eastern sides of the Mine Area, along the upper slopes on the Mograni Range and incorporating areas adjacent to Waukivory Creek, and be retained in perpetuity through a Voluntary conservation Agreement. The offset area would consist of approximately 195ha of managed native vegetation including 45ha of low condition Dry sclerophyll forest which the Proponent will actively revegetate. Vegetated fauna corridors on the rehabilitated post-mining landform would provide linkages between the offset area and the remnant vegetation along the northern section of McKinley's Lane and Waukivory and Oaky Creeks.

## **Aquatic Ecology**

The proposal would not interfere with longitudinal connectivity within the Avon River system.

One threatened aquatic flora species was identified as potentially occurring within the Study Area. This species was not observed and it is considered unlikely that this species is present or that it would be impacted by the Proposal.

The Proponents commitments to protecting water quality within the Waukivory Creek the Avon River would ensure the existing aquatic ecology would not be adversely impacted as a result of the Proposal.

## **Transportation**

The existing road and rail network was reviewed and the potential impacts of the Rocky Hill Coal Project assessed for the site establishment, construction and operational phases.

### ***Road Network***

Analysis of the principal intersection, Jacks Road / The Bucketts Way was undertaken. The modelling indicates that, during the peak traffic periods associated with the Proposal, the intersection would continue to operate well below its capacity with no significant impacts, even in the event of no upgrading works. Considering that surrounding intersections generally have similar configurations and significantly less traffic, similar results would be anticipated.

Despite the outcomes of the modelled intersection analysis, the following road and intersection works are proposed:

- Upgrades of Jacks Road / The Bucketts Way, Jacks Road /Waukivory Road and Waukivory Road / McKinleys Lane intersections.
- Upgrades of road pavement on Jacks Road and Waukivory Road (east of Jacks Road).
- Replacement of the single lane Avon River Bridge on Jacks Road with a dual lane structure.
- A range of other minor upgrade works including line marking and signage.

It has been assessed that, with the implementation of the proposed upgrades, mitigation and management measures, no significant impacts are expected upon the existing road network for road users as a result of the Proposal. Rather, the benefits arising from the proposed road and bridge works would benefit the community directly and indirectly well beyond the life of the Proposal.

### ***Rail Network***

The North Coast Railway Line is the principal rail route for the north coast of NSW, providing passenger and freight access northwards from Sydney to Brisbane and southwards to the Port of Newcastle.

It was concluded that, with the design, construction and operation of the rail loop and its interface with the North Coast Railway Line to ARTC requirements, and the implementation of appropriate safety procedures, no significant impacts to rail safety or efficiency are anticipated as a result of the Proposal.

## **Indigenous Heritage**

Field surveys undertaken in conjunction with registered Aboriginal stakeholders identified an additional six sites, resulting in a total of nine sites occurring within the Site. An additional survey was completed by the Project archaeologist over the proposed route for the relocated Power Line Corridor external to the Mine Area, with no sites found.

Of the nine sites identified within the Site, eight will be salvaged and their contents relocated to a secure place, with three of these sites being subject to further subsurface investigations. The remaining identified sites would not be disturbed.

The implementation of the Aboriginal Cultural Heritage Management Plan and the subsequent salvage and storage of identified sites, as agreed upon by the registered Aboriginal stakeholders, would result in no significant impacts to Aboriginal heritage.

## **Non-indigenous Heritage**

A search of the relevant heritage databases revealed that there are no recorded non-indigenous heritage sites within or immediately surrounding the Site. The only possible site was a cottage on the “Aminya” property which was established to have no historical significance.

A Statement of Heritage Significance and a Statement of Heritage Impact were completed, resulting in the conclusion that whilst the Stroud-Gloucester Valley displayed certain qualities, the non-indigenous heritage landscape would not be significantly affected by the Proposal.

## **Socio-Economic**

The Proposal would result in significant economic benefits to the local, regional, State and national economies, including the following:

### **Local/Regional**

- Direct employment of approximately 100 full-time equivalent people during site establishment and construction phase, generating approximately \$10 million in wages and other entitlements, with this sum increasing to approximately \$20 million per year once full employment of approximately 150 equivalent full-time jobs and full production is reached.
- Contribution of between \$7 million and \$8 million throughout the life of the Proposal to the local community as part of the Community Grants Program.
- Payment of more than \$3 million in additional rate revenue to Gloucester Shire Council over the life of the Proposal as a consequence of Council's differential rating policy.
- Direct local spending by employees of between \$3.1 million and \$8 million annually once full production is achieved with a local flow-on benefit of between \$7.1 million and \$18.5 million annually.

### **State**

- Approximately \$204 million to the NSW State Government, comprising \$186 million in royalties and \$17.6 million in State payroll tax through direct and indirect employment.
- Approximately \$3 million to the COAL21 scheme implemented by the Australia Coal Association.

### **Commonwealth**

- Payment to the Commonwealth government in excess of \$563 million in taxation obligations throughout the life of the Proposal.

## **Project Justification**

The Rocky Hill Coal Project has been evaluated and justified in light of the Proposals potential impacts on the environment and potential costs and benefits to the local and wider communities.

The evaluation has found that with the implementation of the proposed comprehensive range of operational controls, and where necessary additional mitigation measures, the residual risk posed by the various potential environmental risk sources would be acceptable and therefore enable the Proposal to proceed. With few exceptions, the residual risks were classified as either medium or low.

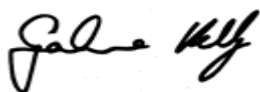
The Proponent recognises that any residual risks classified as high will require detailed and comprehensive management strategies to effectively manage, and where possible reduce, the impacts upon the surrounding environment.

The Proposal has addressed each of the principles of ecological sustainable development with a conclusion reached that the Proposal achieves a sustainable outcome for the local and wider environment.

### **In Summation**

The proposed Rocky Hill Coal Project has, to the extent feasible, been designed to address the identified concerns of the local community and the environmental criteria nominated by the State government. The Proposal would provide for the mining, processing and despatch of high quality coal products largely destined for export markets.

The Union considers that the Rocky Hill Coal Project is consistent with the objectives of the EP&A Act, and therefore supports the proponent's application and asks for the consent to be granted in the form sought.

A handwritten signature in black ink, appearing to read 'Grahame Kelly', is positioned above the printed name.

**Grahame Kelly**  
**DISTRICT SECRETARY**