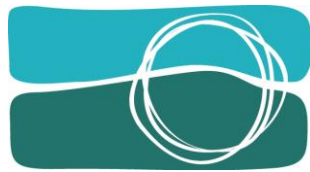




GLOUCESTER RESOURCES LTD

ABN: 46 114 162 597



**ROCKY HILL
COAL PROJECT**

Socio-economic Assessment

Prepared by

Key Insights Pty Ltd

February 2013

**Specialist Consultant Studies Compendium
Volume 4, Part 14**

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February 2013



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COMMONLY USED ACRONYMS

ABS	Australian Bureau of Statistics
B&B	Bed and Breakfast
CSG	Coal Seam Gas
CCC	Community Consultative Committee
DoP	Department of Planning (NSW)
DP&I	Department of Planning & Infrastructure (NSW)
EIS	Environmental Impact Statement
GRIP	Gloucester Residents in Partnership
GRL	Gloucester Resources Limited
HNEAHS	Hunter New England Area Health Service
LGA	Local Government Area
MHCA	Mental Health Council of Australia
RHCP	Rocky Hill Coal Project
SEIA	Social and Economic Impact Assessment
SEIFA	Socio Economic Indexes for Areas
SIA	Social Impact Assessment



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EXECUTIVE SUMMARY

Key Insights Pty Limited, a Hunter based Research Company, was contracted to prepare an independent social and economic impact assessment (SEIA) of the proposed Rocky Hill Coal Project (the Proposal). The approach to the socio-economic assessment involved an analysis of the available socio-economic data together with the results of qualitative research undertaken with local people and organisations to capture the full range of potential issues and opportunities arising from the Proposal within the community. Analysis was also conducted of broader impacts at the State and National level.

Community Profile

The Gloucester Local Government Area (LGA)¹ is an area of scenic beauty and rural ambience, surrounded by National Parks that attract campers, walkers and adventure tourists. Modern coal mining has been in the area for over 15 years and contributes to the diversified economy.

At the 2011 Census, the population of the Gloucester LGA was 4,877, of which 2,878 (59%) lived in the township of Gloucester. This represented an increase in the population of 1.6% across the LGA since the 2006 census and a decrease in the township of 7.2%. Population growth over the next 10 years is forecast at a rate of 1.8% per annum and will add approximately 1200 new residents to the LGA.

Like many places in Australia, Gloucester has an ageing population. If the current trajectory is unchanged through significant autonomous investment, and the do-nothing scenario prevades, the likely future scenario for Gloucester based upon demographic projections includes:

- small and decreasing population growth;
- low levels of population growth generated employment;
- continued exodus of people in primary working years (25 to 55);
- an increase in the percentage of the population over 55 year of age;
- increasing dependency ratio (people not working relying on those working);
- shrinking household size;
- inadequate jobs growth to meet population demand;
- out-migration to neighbouring employment centres;
- increased percentage of population on the pension; and
- increase in level of Council Rate Rebates for pensioners.

The top three industries by employment in the LGA in 2011 were Agriculture, forestry and fishing (306 – 15.6%), Health care and social assistance (219 – 11.2%), and Retail trade (199 – 10.1%). At the time of the 2006 census 136 were employed directly in tourism. This represented 7.3% of the resident workforce. There was a 1.5% (34) increase in food services and accommodation jobs in the LGA between 2006 and 2011.

¹ The Gloucester LGA is the area covered by Gloucester Shire Council. The terms “LGA” and “Shire” represent the same geographic area and can be used interchangeably.



What the Proposal would Provide

The Rocky Hill Coal Project would employ up to 150 people once operational. Gloucester Resources Ltd (GRL) has made commitments to fund health equipment and provide education scholarships and traineeships in the mining and agricultural sectors. GRL has announced its Community Grants Program which would provide production based funding to a range of community designed projects and is likely to average at least \$500,000 per annum in grants.

Social Impacts

Community input was both structured (meetings and interviews) and informal with casual meetings and responses to newsletters, surveys and newspaper advertisements. The assessment of social impacts is made within the context of the qualitative research and with reference to Council Planning documents and the literature.

This impact assessment has identified potential impacts in the following key areas.

- Health Impacts – including psychological impacts
- Social Infrastructure Capacity
- Community Sense of Place and Amenity
- Social Cohesion
- Employment
- Housing
- Cumulative Impacts
- Economic Impacts

Key Concerns and Aspirations

The main concerns in the Gloucester community in relation to the approval of the Proposal are potential negative impacts on the rural amenity and character of Gloucester and subsequent impacts on tourism and agriculture, and environmental impacts on air quality and water and subsequent potential health risks. The main hopes for benefits arising from approval of the Proposal are for employment opportunities, economic growth and sustainability for Gloucester and the ability to retain and attract a younger demographic.

Health Impacts

There is a high level of concern in the community about health impacts, including mental health impacts. There is evidence presented in the literature that people exposed to environmental change experienced negative affect that is exacerbated by a sense of powerlessness or lack of control over the unfolding change process. This is evident in talking with some community groups and individuals in Gloucester. To some extent, having certainty about the future, either via an approval or refusal for the Proposal, will address some of the current stress levels. However, there are likely to be individuals for whom the situation would remain highly stressful if the mine were to be approved, particularly those who are near neighbours and feel that the impact on the amenity of their property is such that they would have to relocate. Saleability of such properties compounds the stress and concern.



More general health impacts are currently being researched in the Hunter Valley by the Hunter New England Area Health Service (HNEAHS) which concludes that more investigation is required to determine the role of pollutant exposures.² Determining local health indicators will evolve over time and attention needs to be paid to the outcomes of further HNEAHS studies and appropriate actions taken locally. Transparent reporting processes are critical to community confidence in the Proposal.

It is important for the Community Trust and GRL to develop a strategic approach, in partnership with the local health care system, to increasing the local system's capacity to deal with infrastructure and service needs associated with population growth. Strategies will involve NSW Health and other local stakeholders such as existing operational mining companies. GRL's 2012 donation to the local hospital of \$10,000 was a good will gesture that is commendable but GRL understands that a consistent, adequately funded and strategic approach will need to be in place once operational.

Social Infrastructure Capacity

Most services, according to the qualitative research, report being able to cope with the population increases predicted in association with the Proposal proceeding. However, the Ambulance Service has current capacity issues which would need to be considered in the Applicants Emergency Plan for the mine. Childcare services would also need to expand to meet demand. Positively, Gloucester has an extensive range of community recreation facilities as well as cultural, sporting and community groups that would both cater to and benefit from new families settling in the area. It is important for GRL to brief services about plans and projected population increases as well as making services aware of funding criteria under the proposed Community Grants Program.

Community Sense of Place and Amenity

There is a high level of concern in the community about the increase of mining operations, including Coal Seam Gas (CSG) exploration, in the area and the proximity of this proposed mine to the Gloucester township and to some housing estates. Implementing visual impact mitigation strategies is essential to protecting the amenity of the town. Extensive works are planned and tree planting is already underway.

There is also concern about shifting the balance from "a town with a mine" to "a mining town". If the Proposal were to be approved it would be important to maintain the diversity of the local economy through projects like The Gloucester Project (a regional development initiative based on food production) and other rural, retail and events-based enterprises.

Concern about the negative impact of the increase in mining activity on agribusiness and tourism is unlikely to be realised given the successful co-existence of these industry sectors in several other regions of NSW.

² NSW Health (2010) Respiratory and cardiovascular diseases and cancer among residents in the Hunter New England Area Health Service



Social Cohesion

A social risk associated with the higher incomes of mining workers when compared to the low income town of Gloucester is the impact that social inequity may have on social cohesion. This risk needs to be monitored. It is important that the broader community benefit from the Rocky Hill Coal Project through the Community Grants Program and that community and family friendly Human Resource practices are implemented to encourage mine workers to participate in the community. This includes family-friendly shifts and rostering practices, and company recognition and encouragement of worker involvement in community organisations and events.

Employment Issues

The more workers for the Rocky Hill Coal Project that can be sourced from the local area and/or attracted to relocate to the local area, the stronger the benefits would be for the local community. By the end of the third year of operation, the target for workers living locally should be 75% of employees and/or contractors. An internal Expression of Interest process facilitated by GRL, and reviewed for this SEIA³, gives GRL a high degree of confidence that it will be able to attract new workers and their families, as well as returning locals, to reside in Gloucester in order to take up positions with the mine if approved. This combined with GRL's stated commitment to family-friendly shifts (no 12 hour shifts) and recognised OH&S practices of minimising driving times to and from work, enhances the attractiveness of making the move with family to the Gloucester Shire. (The subsequent challenge of housing supply also needs to be addressed).

There is an existing trend, present in many communities throughout Australia, of workers migrating from lower paid industry sectors to mining jobs. Affected sectors include manufacturing and agriculture in particular. This is likely to continue whether or not this mine proceeds. It would be important for the Rocky Hill Coal Project to predominantly use local suppliers, to train local people, to attract vocational education courses (both for manufacturing and farming) to the area and to contribute to general economic development initiatives and events in the local community.

It is evident from the qualitative research that local farmers use the mining sector to enhance their viability by taking up various forms of employment, access agreements and even land sales. GRL is already involved in the agricultural sector and should extend dialogue with farmers in order to monitor impacts on agricultural sector labour.

Gloucester has lower levels of post school qualifications than the remainder of the State with the exception of Certificates (2006 Census).⁴ The presence of a growing resources sector in the LGA will add to the area's ability to attract training providers and courses.

Increases in population will benefit the local economy and enhance viability for some services and institutions. It may also present capacity challenges in the future for some facilities and this should be monitored and planned for early in the life of mine. Attracting families will enhance the diversity of the local population.

³ Data from the Expression of Interest process is not published in this report in compliance with Privacy Legislation.

⁴ 2011 industry by employment data had not been released at the time this Socio-economic Impact Statement was finalised.



Housing

A highly localised workforce, which includes people relocating to the area, is not without its challenges for the community. There will be the upward pressure on housing prices both for sales and rentals and the subsequent impacts on people currently in housing stress and on low income earners. Housing needs to be a key component of the Community Grants Program (with special consideration for low income tenants) and Council needs to support innovative approaches to providing affordable options for local people and new workers. Approval processes need to be streamlined and incentives considered for development of investment properties. Detailed strategies need to be designed with Council and other local housing experts.

Cumulative Impacts

Cumulative impacts have been identified as an issue. Adding to the overall mining footprint within the LGA could add to the change in perception of the “Gloucester brand” and sense of place. Increased population will bring benefits in terms of economic health, attraction of new businesses and critical mass for services. It will also put pressure in housing prices and rental availability and may stress the capacity of some community services, such as childcare, in the short to medium term. Joint reporting on environmental monitoring and coordination of community engagement would be of benefit to the local community and to Council.

Community Engagement

GRL currently has a Gloucester Exploration Project Community Consultative Committee (CCC), a website, newsletters and factsheets, and a management team active in listening to and talking with local people. It is recommended that this community engagement is expanded through a CCC for operations, a “shopfront” interface and formalisation and expansion of the Stakeholder Engagement Plan. Open and transparent communications with local organisations and local people would engender a partnership approach to this Proposal that would deliver sustainable outcomes for the community over the life of mine. It would also underpin the mine closure planning so that post-mine use is aligned with community aspirations.

Economic Impacts

The Rocky Hill Coal Project would deliver significant economic benefits to the local, regional, state and national economies. In particular:

Construction Phase Impacts

- Using the moderate impact scenario modelled the combined direct impact of spending on labour, materials and equipment on construction is estimated for the local community to be in the order of \$13.9 million. The local flow-on effects of the combined labour, materials and equipment construction spend is estimated to be \$25.59 million.
- Whilst there is international leakage in the order of \$50.6 million the national economy is estimated to benefit from \$149.86 million direct spending and a flow-on effect in the order of \$340.79 million.



Operating Phase Impacts

- The combined direct impact of wages spending and GRL's operational spending on equipment and materials on the local economy is estimated to be in excess of \$17 million annually while the multiplied impact of this direct spending locally is estimated in excess of \$32 million annually.
- The annual combined impact of wages, material and equipment direct spending at the national level is estimated at in excess of \$89 million with a multiplied impact in excess of \$231 million.

Combined construction and operating impacts economic value:

The accumulated impacts of the Proposal, over its full economic life, including construction and operating phases include: direct expenditures in the local economy totalling \$253.66 million and for the NSW economy totalling \$1,270.4 million. The multiplier effects of these direct expenditures are estimated to generate a total impact on the local economy of \$483.8 million and on the NSW economy of \$2,705.85 million (\$2.7 billion). The value to the Australian economy is estimated at \$3,580.8 million (\$3.58 billion) when account is taken of direct and multiplier effects.

Employment Impacts

- During the construction phase the direct employment impact is estimated to be between 20 and 40 jobs (EFT for 12 months). The flow-on employment impact locally would range from 37 to 74 jobs for the 12 month construction period.
- Over the 14 year planned operational life of the mine, average annual employment on site is expected to be 123 persons; this would range from a high of 148 to a low of 96 persons over the life of operations.
- The direct employment of 123 mine and CHPP staff will generate 469 multiplier jobs in the national economy.
- Locally, direct employment benefit could range between 13 and 61 jobs. The multiplied benefit locally would correspondingly range between 33 and 156 jobs on an average year.

Management and Mitigation and Contingency Measures

This report records 23 recommendations to enhance the potential positive impacts and mitigate potential negative impacts if the Proposal were to be approved. It is acknowledged that some of these recommendations have been announced through a set of press releases by the Applicant during the preparation of the EIS. This report concludes that, with the implementation of the recommendations, there would be a net socio-economic benefit associated with the Proposal.

Communication and Engagement Strategies

1. Community Consultative Committee (CCC)

The existing Community Consultation Committee was established for GRL's exploration activities within its three ELs including EL 6523 which incorporates the RHCP site. In the absence of a specific CCC as would be required under development consent, the Exploration CCC has become a de-facto Project CCC and mechanism for information dissemination. While members are dedicated, mostly they have no clear links and reporting pathways to the community, despite this being part of their Charter. CCC minutes are posted on the Rocky Hill Coal Project website as are CCC membership and contact details. The Rocky Hill Coal Project would benefit from a project specific CCC with a clear Charter and representative structure that reflects the broader community.

The CCC is the corner stone of community engagement and should be the starting point for open communication between GRL, the community, Gloucester Shire Council and other stakeholders.

Recommendation 1 Establish a Rocky Hill Coal Project Community Consultative Committee.

The CCC should be established in line with Planning NSW guidelines.
(http://www.planning.nsw.gov.au/assessingdev/pdf/ccc_guidelines_2007.pdf)

Project CCC Membership should comprise:

- An independent chairperson
- Representatives (3-5) of the local community and other stakeholders: Health Sector (Local Hospital Management), Community Sector (with links to Housing and Employment Training, e.g. the Gloucester Neighbourhood Group), Business Sector (e.g. Chamber of Commerce), Near Neighbour, Environmental Group and Indigenous representatives.
- One representative of the local council
- Two or three representatives of the company, including the person with direct managerial responsibility for environmental management at the mine.

The new CCC should commence with a Training and Corporate Governance workshop that details the objectives of the CCC, how the CCC will be a conduit between the community and the company, member responsibilities (both community and company representatives), reporting mechanisms and annual evaluation of CCC performance against agreed objectives.

2. An Accessible Rocky Hill Coal Project Shop Front / Office

The broader community would require easy access to information about the Rocky Hill Coal Project. While a number of methods should be utilised such as newspaper features and newsletters, the community would benefit from being able to casually select information at a time that suits them. This is a community that is generally feeling over consulted and yet there are some groups of people who feel they do not have enough information. A shop front is a passive yet ever-present communication mechanism that allows community members to decide when and how they engage with the company. It also makes a tangible contribution to the Gloucester business centre by leasing one of the existing vacant shops.



Recommendation 2 Establish a Rocky Hill Coal Project Shop Front in the centre of Gloucester.

Functions to be delivered through the Shop Front could include all or some of:

- Presentation of EIS studies in multi-media formats
- Reporting on environmental monitoring
- Availability of newsletters and fact sheets
- CCC information / contact mechanism
- Community feed-back / question forms / complaints
- Recruitment information
- Training information
- Community Grants Information and Applications
- School Project packages

3. Stakeholder Engagement Plan

There are a range of stakeholders who require varying levels of contact on the Proposal. The company has initiated a visiting program and meets with key stakeholders such as Council. Recommendations 1 and 2 above are the key components of the Stakeholder Engagement Plan which also includes a range of other strategies. A structured commitment to including everyone in communications according to their need reduces stress in the community and improves relationships and community building.

Recommendation 3 Formalise existing strategies in a detailed Stakeholder Engagement Plan.

This Stakeholder Engagement Plan has been developed in draft form as part of this SEIA and GRL management has been actively communicating with stakeholders to date. The formalised Plan should include:

- Full list of stakeholders and contact details
- Appropriate forms of communication including methods and frequency
- Risk Analysis
- Evaluation strategies of the effectiveness of engagement

Tools that support the Stakeholder Engagement Plan (and are already in use) include:

- Newsletters
- Fact Sheets
- Media Releases
- Website (<http://www.rockyhillproject.com.au/>)



4. Community Grants Program

As identified above, GRL has committed to a Community Grants Program that is generous by industry standards. The program will allow the community to reap benefits from the mine's presence beyond employment, training and economic growth. There is an opportunity to sponsor a range of community projects that will enhance the amenity of the town, support local cultural and sporting events, attract tourism and business and provide important social infrastructure.

Recommendation 4 Establish a Trust to administer the Funds Provided under Community Grants Program with clearly defined Community Grants criteria.

The criteria for the Community Grants Fund should prioritise key potential impact areas and key community concerns related to mining; namely:

- Health (health infrastructure and programs and healthy lifestyle activities such as sport)
- Housing (particularly alleviating housing stress for low income earners)
- Young people, including Indigenous youth (programs aimed at development)
- Local Amenity (maintaining character of the township)
- Community building and community events (particularly focused on business and tourism development)

The Board of Trustees could comprise the following.

- Highly respected local leader as chairperson
- Business person with recognised commercial acumen
- Community sector person with recognised expertise in community infrastructure
- Health sector person
- Mayor or appointed Councillor
- GRL representative; and
- GRL secretariat support

The role of the Community Trust would be to:

- set clear guidelines and priorities for submissions for funding;
- receive community proposals and assess them for viability and sustainability;
- allocate grants according to documented priorities and available budget; and
- receive project evaluations and acquit funds annually.

5. Employment Strategies

The employment associated with the operation of the Rocky Hill Coal Project will be of maximum benefit to the Gloucester community if a large proportion of mine employees settle in Gloucester and if employment opportunities are taken up by local people, particularly local



school leavers. It is important to minimise the number of employees who travel to and from the coast, Newcastle or even further to work at the mine. Travelling to and from shifts has serious OH&S implications and reduces the contribution employees make in terms of community participation and in dollars spent locally.

A social risk associated with targeting local employees is that existing businesses and farms will potentially lose workers to the mining industry as they cannot compete on wages. This is a pre-existing issue for Gloucester with local businesses already reporting the movement of staff to existing local mines and mines outside the Gloucester area.

Given that employing locals has risks and benefits the following recommendations need to occur concurrently.

Recommendation 5 Set a target of 50% of employees living locally (within the LGA and surrounding area) in the first two years with a longer term target of 75%.

Recommendation 6 Conduct joint recruitment operations with existing organisations to attract families to live in Gloucester.

Local organisations have identified that they have difficulty attracting qualified staff. Joint recruitment programs could attract mine workers with partners who are, for example, health workers. Offering packages where two people could be employed in Gloucester increases the chances of attracting more families to the area. The local hospital is one organisation that has indicated that they would be interested in joint recruiting.

Recommendation 7 Investigate an incentive package for employees to relocate to Gloucester.

Incentive packages for relocation should include:

- Financial assistance to meet the costs of relocation
- Administrative assistance in finding accommodation
- Provision of information about schools, sporting clubs and other community infrastructure

Recommendation 8 Actively promote job opportunities to local school leavers through school visits and information packages.

It will be of benefit to the Rocky Hill Coal Project and to the local schools for a relationship to be built with the education community. The exodus of young people from Gloucester to other areas can be partially addressed through sustainable employment on the Proposal or on GRL's agricultural properties.

Recommendation 9 Develop an Indigenous Employment Strategy to target local Indigenous people.

Local Indigenous people are an already identified "at risk" group in the local community. In partnership with the Gloucester Neighbourhood Group, GRL could develop a project that takes existing unemployed people from pre-employment through to project work and full employment on the Proposal.



Recommendation 10 Implement a preferred supplier policy that utilises local suppliers as far as possible.

In the tendering process for all contracts, assign a weighting to businesses that have a presence within the Gloucester Shire.

Recommendation 11 Preferentially contract with suppliers who employ local people.

In the tendering process assign a weighting (slightly less than for local businesses) to businesses from outside the Gloucester Shire who employ Gloucester residents.

Recommendation 12 Investigate partnering with other stakeholders to provide relocation incentives to suppliers prepared to establish their businesses in Gloucester and employ local people.

Work with Council and the business sector (including other resources companies) to identify opportunities to attract new businesses to the Shire and incentivise them to relocate. This would be part of a broader economic development strategy for the area and there would be a number of contributors to this recommendation.

Recommendation 13 Investigate the use of a local voucher system for rewards and incentives for employees.

It is of benefit to the local businesses to have new mine employees spend locally. Any rewards and incentives for mine employees should be offered in the form of local vouchers as far as possible (e.g. shopping vouchers, dinner vouchers, accommodation etc.).

Recommendation 14 Participate in the Chamber of Commerce and other business and agricultural networks to monitor flow of employees from local commerce into mining.

It is difficult to stop employees from targeting jobs that provide higher wages or more career opportunities. It would be a serious infringement of the rights of individuals to attempt to restrict them in this way. Losing qualified staff to other businesses, particularly mining, is an existing issue in most places in Australia, including Gloucester. However, by connecting regularly with the business and agricultural communities, GRL can monitor the local situation and look for opportunities to support local businesses.

Recommendation 15 Plan joint training and employment strategies to assist suppliers retain local staff.

Joint recruitment strategies, shared training and joint participation in business promotion events can assist in staff retention for employers. These strategies should be explored on a case by case basis over time with suppliers to the Proposal and other Gloucester businesses.



6. Education and Training

Enhancement of education and training opportunities in Gloucester could be one of the largest social benefits associated with the Proposal. GRL has already publicly made significant education and training commitments that will occur in addition to any community grants program⁵. These are to:

- Sponsor up to 3 tertiary education scholarships annually in fields such as mining, engineering, agriculture and environmental science;
- Provide trade apprenticeships for local youth at the Rocky Hill Coal Project;
- Provide competency training and certification on mining-related equipment to assist local men and women gain employment in mining or other related fields; and
- Provide local training and employment for local people through the Applicant's farming enterprises.

Recommendation 16 Implement tertiary education scholarships, trade apprenticeships and training programs as per commitments.

7. Housing

Participation in local housing initiatives may mitigate the likely stress on the housing market associated with any influx of mine employees. Particular issues with near neighbours will be dealt with through voluntary acquisition and private consultations with landowners.

In order to attract employees to live in Gloucester Shire, there will have to be an availability of housing/land for both sale and rent. While growth in the housing market will be demand driven, there is also likely to be increased pressure on those already experiencing housing stress.

GRL has committed to a Community Grants Program (50cents per tonne of coal sold)⁶ and it would be appropriate to direct some of that funding towards community housing projects.

Recommendation 17 Nominate projects that address housing stress for local people as one of the priority areas for the Community Grants Program.

Take expert advice from local organisations such as the Neighbourhood Group and integrate with Council initiatives to partly fund or sponsor housing projects that will alleviate housing stress for low income earners.

Recommendation 18 Initiate the development of a data base of local rentals including rooms and board to promote to employees.

This recommendation may be contracted out to a local real estate agent or GRL may choose to appoint a Housing Officer to implement these recommendations.

⁵ <http://www.rockyhillproject.com.au/2012/03/media-release-grl-announces-generous-community-grants-program/>

⁶ <http://www.rockyhillproject.com.au/2012/03/media-release-grl-announces-generous-community-grants-program/>



Recommendation 19 Explore options for temporary and short term accommodation for employees not relocating full time to Gloucester.

If employees do not live in Gloucester Shire, the next best option is that they are temporarily accommodated in the area over the days that they work. This means they will be spending some money locally and they will not be travelling long distances on The Bucketts Way every day. Some possibilities are:

- Consider the purchase of some houses in near-by estates to establish boarding-style shared accommodation;
- Long term leases of near-by B&Bs;
- Long term leases at local caravan parks;
- Boarding arrangements with local people;
- Innovative approaches to short term accommodation and approvals for leasing from local people.

8. Health

The Rocky Hill Coal Project will meet Australian Standards in terms of emissions and environmental impacts. It will also have to meet rigorous workplace standards in regards to worker safety and health. However, as health, including mental health, has been raised as a community concern and as the research has identified existing gaps in health infrastructure and equipment, it is important for GRL to apply some funding to the local health sector. GRL should also to pay attention the work of the HNEAHS study and its monitoring of health impacts and respond accordingly. It is noted that GRL has already made the following public commitment (outside the Community Grants program) to:

- Assist the provision of enhanced medical services and facilities to the local area. The details of this assistance package will be determined in consultation with local health professionals⁷;

Recommendation 20 Nominate projects that address healthy lifestyles for local people as one of the priority areas for the Community Grants Program.

Take expert advice from local health organisations and integrate with NSW Health initiatives to partly fund or sponsor health programs that will address community health issues. These projects may be undertaken jointly with other mines and businesses in the area.

Recommendation 21 Monitor the HNEAHS Study in the Upper Hunter Region and respond accordingly.

9. Cumulative Impacts

The range of impacts, both positive and negative, identified in this report is amplified with the general growth of mining in the area. Many of the mitigation strategies identified above could be taken up by all resource companies operating in the area (Stratford Coal Pty Limited and AGL). There would be a benefit if the resource companies share the results of their monitoring

⁷ <http://www.rockyhillproject.com.au/2012/03/media-release-grl-announces-generous-community-grants-program/>



and communicated cumulative data to the community. Council has indicated that a single point of contact would be desirable. Some sections of the community feel over consulted and bombarded with resource company information and members of the existing CCC see value in occasional joint meetings. The coming together of resource companies in a similar way to businesses coming together in the Chamber of Commerce would provide multiple benefits to a range of stakeholders.

Recommendation 22 Investigate the establishment of a “Chamber of Mines” to be the main point of entry to resource companies operating in the area.

The Chamber of Mines would operate like a soft network and meet regularly to share information, plan community inputs and support, and receive input from stakeholders. Functions could include the following.

- Taking an overview on the amount and type of material distributed to the community and looking for opportunities to streamline communications.
- Monitoring data related to impacts and the outcomes of mitigation strategies.
- Monitoring local social infrastructure capacity such as available school enrolments, childcare places and housing for employees.
- Facilitating an annual joint CCC meeting.
- Receiving and responding to requests for information from key stakeholders in relation to joint projects and cumulative impacts.
- Coordinate community contributions.

Recommendation 23 Consider an annual joint meeting between resource company CCCs to review cumulative impacts and monitoring, coordinate community funding priorities and improve knowledge of operations and future directions for resources companies, suppliers and Council.



1. INTRODUCTION

1.1 KEY INSIGHTS PTY LTD

Key Insights has been commissioned to undertake an independent socio-economic assessment of the proposed Rocky Hill Coal Project. The importance of the independence of this report is understood and strongly supported by Gloucester Resources Limited and expected by the community and the NSW Department of Planning and Infrastructure.

This assessment forms part of the Environmental Impact Statement prepared by R.W. Corkery & Co. Pty Ltd.

Key Insights is a Hunter based Research Company, established in 1994, that specialises in social and economic impact assessments and has delivered projects in the resources sector both locally and internationally⁸.

In preparing this socio-economic impact assessment, careful attention has been paid to the NSW Department of Planning and Infrastructure Director-General's Requirements for the Environmental Impact Assessment for the Rocky Hill Coal Project. These requirements collated key inputs from Government agencies and community groups. The following references were also used.

- *Draft Economic Evaluation in Environmental Impact Assessment (DoP)*
- *Techniques for Effective Social Impact Assessment: A Practical Guide (Office of Social Policy, NSW Government Social Policy Directorate)*
- *Gloucester Shire Council's "Consideration of Exploration and Mining Applications – A New Approach"*

1.2 THE PROPOSAL

Gloucester Resources Limited (GRL) proposes to develop and operate an open cut coal mine 3.5 km to 7 km southeast of Gloucester urban area in the northern part of the Hunter Region in NSW to be known as the Rocky Hill Coal Project (The Proposal).

The proposed Rocky Hill Coal Project comprises four principal components namely:

1. four separate and/or contiguous open cut pits and a coal handling and preparation plant (CHPP) within the Mine Area;
2. an overland conveyor for transporting product coal to the Rail Load-out Facility. The overland conveyor is located within a 50m wide Overland Conveyor Corridor;
3. a Rail Load-out Facility (incorporating a rail loop and two coal storage bins); and
4. two Power Line Corridors incorporating a re-located 132kV power line and a new 11kV power line external to the Mine Area.

The site of the Rocky Hill Coal Project ("the Site") is located within the Gloucester Local Government Area (LGA) in the north-eastern section of the Hunter Region in New South Wales (**Figure 1**). The town of Gloucester is the major commercial and urban centre of the area and is located 260km north of Sydney, 120km north of Newcastle and 75km west of Taree. Gloucester LGA also includes a number of small villages including Barrington, Bundook, Copeland, Craven and Stratford⁹ (**Figure 2**).

⁸ www.keyinsights.com.au

⁹ Gloucester Shire Community Plan 2009 – 2014, p1





Figure 1
 Local Government Area within the Hunter Region



Figure 2
 Gloucester LGA in relation to other LGAs and National Parks

Figure 3 shows the locality of the Site and **Figure 4** shows the Mine Area layout including proposed visual barriers.

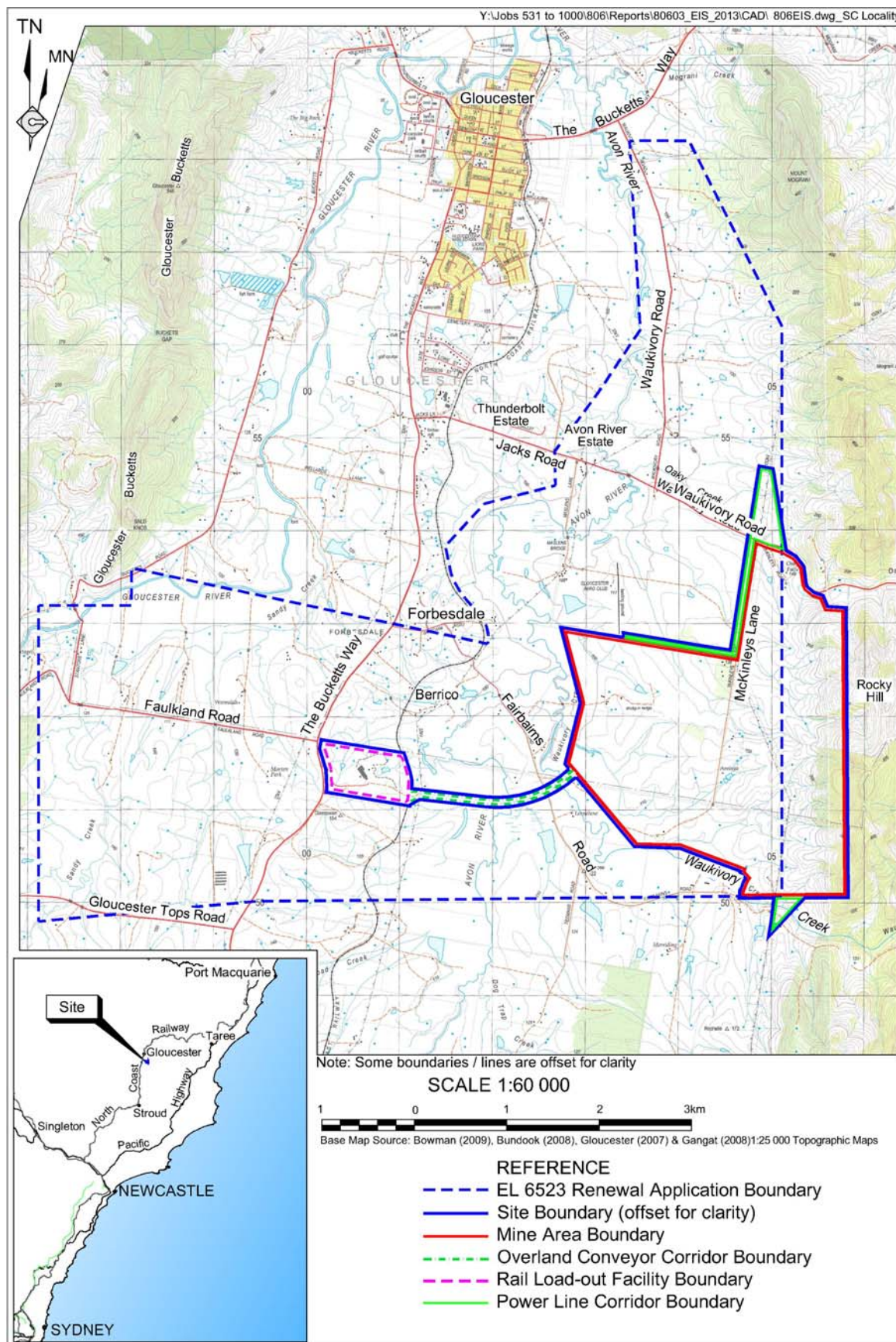


Figure 3
Locality Plan



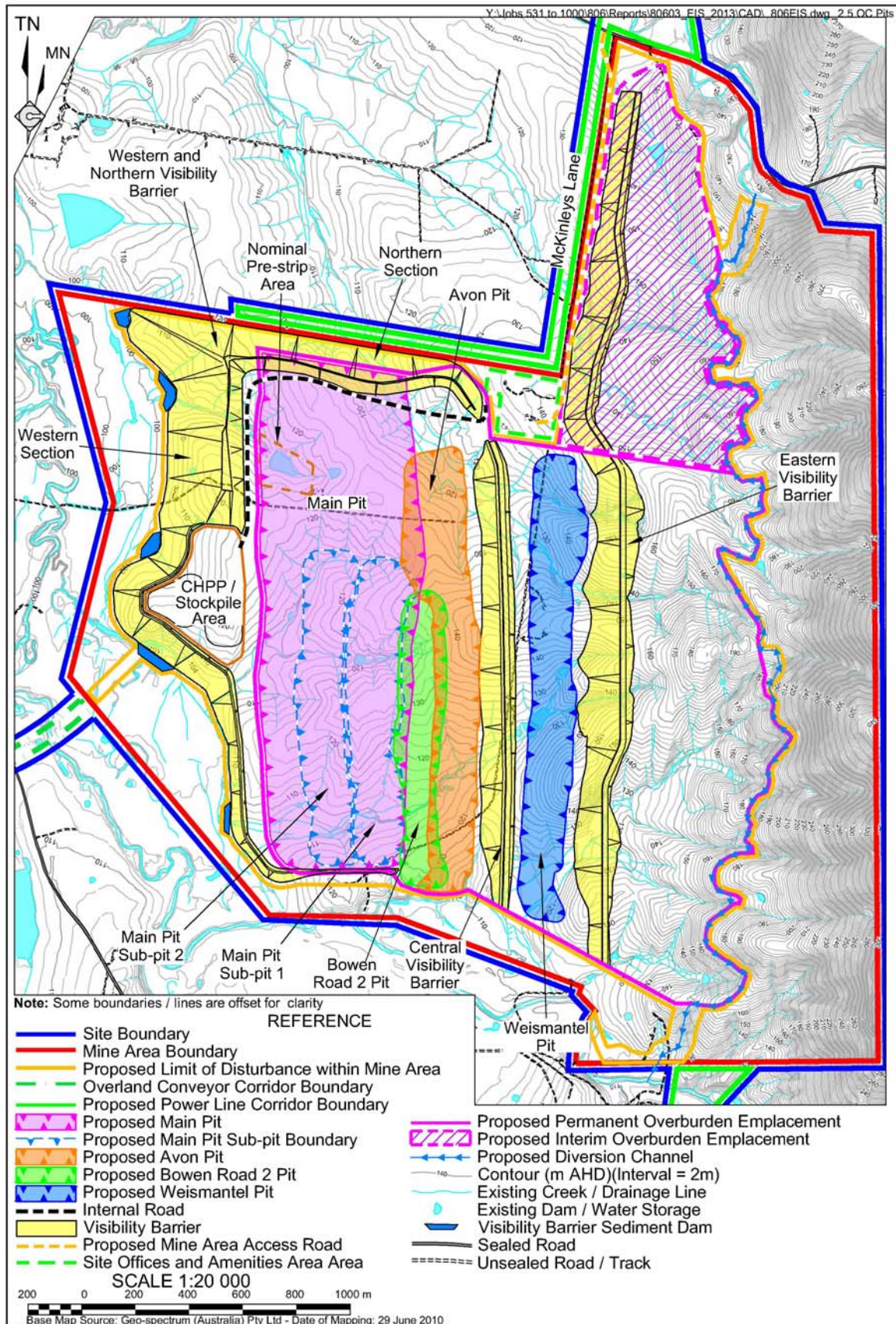


Figure 4
Mine Area Layout Incorporating Proposed Visual Barriers



1.3 APPROACH TO SOCIO-ECONOMIC IMPACT ASSESSMENT

Social impacts include all social and cultural consequences to human populations of any public or private actions that alter the way in which people live, work, play, relate to one another, organise to meet their needs, and generally cope as members of society. Cultural impacts involve changes to the norms, values, and beliefs of individuals that guide and rationalise their cognition of themselves and their society (Burdge & Vanclay 1995).

The International Principles for Social Impact Assessment (Vanclay 2003) define a social impact as a change to one or more of the following.

- People's way of life (i.e. how they live, work, play and interact with one another on a day- to-day basis).
- Their culture (i.e. shared beliefs, customs, values and language).
- Their community (e.g. cohesion, stability, character, services and facilities).
- Their political systems.
- Their environment (e.g. the quality of the air and water; the level of hazard or risk to public health and safety; and their access to and control over resources).
- Their health and wellbeing (i.e. physical, mental, social and spiritual wellbeing).
- Their personal and property rights.
- Their fears and aspirations for their future and the future of their children.

Economic impacts are intertwined with social impacts. Economic activity drives community development and can both enhance community capacity and wellbeing and also present risks for community cohesion. Therefore socio-economic impact assessment sits within the environmental impact assessment and is concerned with all impacts that affect the lives of local people and those living within the broader region. Economic impacts can also be felt at a national level with projects of significant scale.

To properly assess social impacts on those people potentially impacted by a project, there should be meaningful opportunities for community engagement in all stages of the social impact assessment (SIA) process. This includes providing people with access to all relevant information in a form that is easily understood.

The approach to the socio-economic assessment involves an analysis of the available socio-economic data together with the results of qualitative research undertaken with local people to capture the full range of potential issues and opportunities within the community. Therefore this assessment included the following.

1. A review of all available socio-economic related studies/data for the local and regional communities surrounding the Site.
2. Use of Australian Bureau of Statistics and Council data to profile the local and regional communities including information relating to education, housing, industry and employment, community services and facilities.
3. Identification of all land uses and community infrastructure/services surrounding the Site and identification of the potential social and economic contribution/impact on those land uses and community infrastructure/services.



4. Research with various stakeholders to scope socio-economic issues and refine the research methodology. Methods included:
 - structured interviews with near neighbours;
 - structured interviews with key community organisations including local peak groups for business, training organisations, real estate agencies/housing bodies, health organisations, near neighbours, environment groups and local tourism groups;
 - informal interviews with business owners and community members;
 - meeting with Community Consultative Committee (CCC) members;
 - focus group with young adults; and
 - input from key people/organisations recommended by the CCC such as Council and other groups or individuals.

1.4 SOCIO-ECONOMIC IMPACTS UNDER INVESTIGATION

Preliminary scoping for this Social and Economic Impact Assessment (SEIA) identified the following potential impacts likely to be experienced at various stages of the Rocky Hill Coal Project.

A. Planning (Pre-approval) Phase

- Impacts associated with uncertainty, lack of information or mis-information, perceptions about mining and concerns about changes to the local environment, amenity and socio-cultural character of the area.

B. Construction Phase

- Displacement of existing land uses and social values due to the Mine Area or CHPP.
- Disruption to use and enjoyment of private properties due to changes in amenity.
- Disruption to use and enjoyment of public lands (e.g. State Forest) due to changes in amenity.
- Impact on European heritage values due to construction related effects.
- Disruption to property access and road users.
- Disruption to use and enjoyment of land uses along the transportation routes due to changes in amenity (e.g. dust, noise, vibration).
- Visual impacts along the main entry road to Gloucester from the south.
- Impact of construction workers and families on community facilities, services and housing.
- Impact of construction employment opportunities on local community.
- Impacts on government revenue.
- Economic impacts.



C. Operations Phase

- Impact on the image of Gloucester as a rural tourist destination.
- Impact on community identity and character.
- Proposal compatibility with existing agriculture and tourism sectors.
- Disruption to use and enjoyment of private/public properties and land uses (e.g. residential, agriculture, tourism, recreation).
- Impact of mining workers and families on community facilities, services and housing.
- Impact of employment opportunities on local community (e.g. ability to take advantage of opportunities and competition for workers from agriculture and other town services).
- Disruption to property access and road users.
- The impact of wage disparity on the community (i.e. mine workers earning higher wages than most other members of the community).
- Health impacts.
- Impact on local skills and training activities.
- Impacts on local business.
- Impacts on government revenue.
- Economic impacts.
- Impact of a Community Grants Program and Corporate Social Responsibility.

D. Decommissioning and Post-Closure Phase

- Intergenerational equity issues.
- Social and economic value of end use.
- Impact on community facilities/services.
- Impacts of post-mine closure and future use.

1.5 METHODOLOGY

A range of methods were used to gather the necessary qualitative and quantitative data to analyse the potential social and economic impacts of the proposed mine including:

1.5.1 Project Team Briefings

Briefing meetings were held with GRL and the EIS team to understand the Proposal and to source the necessary information for community research and engagement. Key Insights also briefed the project team on input from the community survey and research in order to inform the development of community newsletters and fact sheets so that requests for more information from GRL were met.



1.5.2 Community Research

The following methods were used to gather information and opinions from the local community to inform the social and economic impact assessment:

- A community perception survey, which aimed to capture issues and concerns of the local community, was delivered to households in the Shire of Gloucester commencing 5th March, 2012 with the directions that only one survey was to be completed per household by someone over the age of 18 years. The survey was delivered to 2300 households (88% of households in the Shire); including 150 Post Office boxes at Gloucester Post Office.

A self-addressed envelope accompanied the survey for ease of submission. The survey was also advertised in the local media and in the first Rocky Hill Coal Project Newsletter. Some households did not receive their survey and a follow-up was instigated with a further 43 surveys hand-delivered to areas inadvertently missed under the initial distribution arrangement with Australia Post.

In response to the receipt of the survey and the first newsletter, Key Insights received 46 calls from local residents and business houses interested in participating in the research. These people's views were recorded and they were added to GRL's database to receive further information or visits by GRL management if requested.

- Meetings and/or telephone interviews were undertaken with the following key stakeholders and groups or potentially impacted people.
 - Director of Planning, Gloucester Shire Council.
 - Executive Officer, Gloucester District Health Service and members of the Senior Management Team.
 - Gloucester Chamber of Commerce.
 - Gloucester Exploration Project Community Consultative Committee.
 - Representatives of Gloucester Residents in Partnership (GRIP).
 - A group of residents from the Forbesdale area.
 - Blanch Real Estate.
 - Webb Real Estate.
 - Manager, Gloucester Tourism.
 - Coordinator, Bucketts Way Neighbourhood Group.
 - Forbesdale couple.
 - Jacks Road resident.
 - President of Gloucester Golf Club.
 - Gloucester Aero Club member.
 - AGL.
 - Regional Asset Planner, North Coast Region, NSW Department of Education and Communities.



- Practice Manager, Gloucester-Stroud Medical Practice.
- Taree Community Health.
- Taree TAFE.
- Local Ambulance Service.
- Accommodation operators – B&B and hotel management.
- Barrington Outdoor Adventure Centre.
- Online Accommodation Distribution Organisation.
- The Bucketts Way Motel.
- Main Street retailers.
- Casual intercept conversations with local people in cafes and on the main street.
- Attendance at two Council sponsored events:
 - a public meeting held on the 25th October, 2011 to present the findings of a recent community survey conducted by Council on the community's attitude towards exploration and mining in the Shire; and
 - Council Information Session (Public Meeting) on 26th March, 2012 in relation to the Rocky Hill Coal Project.
- Attendance at the Stratford Coal Mine Information Open Day and meeting with the AGL Community Relations Manager.
- Two focus groups with young adults (under 30 years) sourced through contacts made in the interview process. The first was attended by three young adults active in the community sector and indigenous affairs and the second by nine young adults from a variety of backgrounds.

1.5.3 Demographic Research

Desktop demographic research with particular focus on the Australian Bureau of Statistics website – 2006 and – 2011 Census data and the Gloucester Shire Council website and, in particular, the Gloucester Shire Community Plan 2009 – 2014 and Community Strategic Plan 2012 – 2022.

1.5.4 Document and Submission Review and Social Media Monitoring

Review Council documentation, literature, community submissions to GRL and on other projects and monitor social media sites and related newspaper articles. Analysis of skills and location of potential new workers who responded to GRL's call for Expressions of Interest for employment (advertised in the Gloucester Advocate).



1.5.5 Services and Facilities Research

Desktop research and interviews with key stakeholders, to identify the range of services and facilities available and the social infrastructure capacity to meet the needs of an increase in the population due to the proposed mining operations of the Rocky Hill Coal Project.

1.5.6 Economic Research

Analysis of economic inputs and outputs and implications for the local and broader economy.

1.5.7 Action Research

Information from the community consultation process was continuously fed into the EIS process so that the technical reports could address the concerns of the community. Community consultation and research outcomes were also used to contribute to the EIS risk assessment. Where the community requested particular follow-up from GRL, that request was passed on and outcomes then fed back into the SEIA process.

1.5.8 Analysis and Development of Mitigation Strategies

All the data gathered has been analysed and potential negative and positive social and economic impacts identified. Detailed mitigation strategies have been developed and a report prepared on all findings.



2. REGIONAL AND LOCAL SETTING

Gloucester LGA is within the Hunter Region, although it is in a separate valley to the Hunter River and has a strong identity separate from the Hunter. Biripi and Worimi people were the original occupants of the land between Barrington Tops and Forster through to Maitland and the Hunter River in the south. European settlement occurred from 1826 and was devastating for the Indigenous population.

Since European settlement, the Gloucester Shire has traditionally been a beef and dairy area and has a long farming history. Agriculture still accounts for 20% of jobs, just below the 32% of jobs in services and the government sectors¹⁰.

Gloucester Shire is an area of scenic beauty and rural ambience, surrounded by National Parks that attract campers, walkers and adventure tourists. Modern coal mining has been in the area for over 15 years and contributes to the diversified economy.

The regional setting of the Hunter also exhibits features that attract tourists, a farming tradition, a modern Port city with major education (including a University) and health facilities and a diversified economy. Coal mining continues to form the bedrock of the Hunter's economy, generating more than 11,000 direct jobs and around 40,000 indirect jobs, with profound flow-on benefits for the region. Approximately 72% of the coal mined in NSW comes from the Newcastle, Hunter and Northwest areas. In addition, the mining services industry plays an important role in the region, ranging from professional services, education, training and research to general engineering and manufacturing, transport, construction, OHS and employment services.

¹⁰ Gloucester Shire Council Community and Strategic Plan 2012-2022 Page 9.



3. SURROUNDING COMMUNITY

3.1 INTRODUCTION

The Gloucester Local Government Area (LGA) covers an area of 2,918 sq km. The township of Gloucester is the major commercial and urban centre of the area and is located 280 km north of Sydney, 120km north of Newcastle and 78km west of Taree. Gloucester LGA also includes a number of small villages such as Barrington, Bundook, Copeland, Craven and Stratford.

Gloucester LGA is the gateway to the Barrington Tops; an area of World Heritage listed national parks.

Gloucester township is also “the centre of an active sub-region that extends from Booral in the south to Nowendoc in the north and from Krambach in the east to Dungog in the west. Residents within this catchment generally travel to Gloucester township for essential services and activities.”¹¹

3.2 COMMUNITY PROFILE

The following demographic data is provided for both the “Gloucester State Suburb” which covers the township of Gloucester¹² (but does not include Forbesdale Estate)¹³, the “Local Government Area” (LGA) and NSW. The State Suburb is included as the Rocky Hill Coal Project is most likely to impact the township due to the proximity of the mine to the township. All data has been gathered from the community profile tables and quick data sets from the Australian Bureau of Statistics (ABS) 2006 and 2011 Census data. Note that not all the 2011 Census data has been included on the ABS website at the date of this report.

3.2.1 Population

According to the 2011 ABS Census Data, the population of the Gloucester LGA was 4,877, of which 2,878 (59%) lived in the township of Gloucester. This represented an increase in the population of 1.6% across the LGA since the 2006 census and a decrease in the township of 7.2%. This compared with an overall increase in the population of NSW of 5.6%.

Population growth over the next 10 years is forecast at a rate of 1.8% per annum and will add approximately 1200 new residents to the Shire.¹⁴

So the population of the LGA and the township is relatively stable and growing at a rate slower than the rest of the NSW. The trend appears to be moving away from living in the town and towards living in the broader LGA.

There were approximately the same number of males as females living in both the LGA and the town.

¹¹ Gloucester Shire Council Community and Strategic Plan 2012-2022 Page 10.

¹² Gloucester refers to the Gloucester State Suburb and Gloucester LGA is used to describe the broader area.

¹³ Gloucester State Suburb Map:

http://www.censusdata.abs.gov.au/census_services/getproduct/census/2011/communityprofile/SSC10981?opendocument&navpos=230

¹⁴ Ibid Page 9



Table 1
2006 and 2011 Population Statistics

	Gloucester LGA		Gloucester State Suburb		NSW	
	2006	2011	2006	2011	2006	2011
Population	4,801	4,877	3,100	2,878	6,549,178	6,917,658
Males	2,353 (49%)	2,430 (49.8%)	1,486 (47.9%)	1,394 (48.4%)	3,228,451 (49.3%)	3,408,878 (49.3%)
Females	2,448 (51%)	2,447 (50.2%)	1,614 (52.1%)	1,484 (51.6%)	3,320,727 (50.7%)	3,508,780 (50.7%)

3.2.2 Age Distribution

The LGA and State Suburb both had lower percentages than NSW in the all the age groups from 0 - 44 years. However, the LGA and State Suburb had much higher percentages than NSW in all the age groups from 55 – 84+ years.

The proportion of residents in the 55+ age group in both the LGA (42.8%) and the State Suburb (42.1%) was significantly higher than NSW (26.4%).

Like many areas in Australia, Gloucester has an aging population and this data supports observations that there are a lot of retirees living in the area. Over the period 2001 to 2011, the median age in Gloucester increased from 42 to 49 years as compared with the NSW median age of 38 in 2011. Household size decreased in Gloucester from 2.5 persons per dwelling in 2001 to 2.3 persons per dwelling in 2011. The percentage of the Gloucester LGA population aged 55 to 74 years increased from 28.1% to 31.1% from 2006-2011 (25.2% to 27.3% for the State Suburb). In comparison, across NSW the percentage of the population aged 55 to 74 years increased from 18.1% to 19.5%. Similarly the percentage of residents aged over 75 years in Gloucester LGA increased from 10.5% to 11.7% (12.8% to 14.8% for the State Suburb) as compared to 6.7% to 6.9% across NSW. During the 2006 - 2011 period, Gloucester LGA saw a net addition of 9 persons aged 0 to 4 years (12 for the State Suburb) and a real loss of people aged 25 to 54 years (91 people and 126 people for the State Suburb).

Table 2
Age Distribution

Ages	Gloucester LGA				Gloucester State Suburb				NSW			
	2006		2011		2006		2011		2006		2011	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
0-4	226	4.7%	235	4.8%	148	4.8%	160	5.6%	420,431	6.4%	458,736	6.6%
5-14	644	13.4%	546	11.2%	429	13.8%	312	10.8%	878,483	13.4%	873,776	12.6%
15-19	278	5.8%	285	5.8%	186	6%	167	5.8%	439,863	6.7%	443,416	6.4%
20-24	142	3%	158	3.2%	112	3.6%	107	3.7%	431,854	6.6%	449,685	6.5%
25-34	345	7.2%	335	6.9%	225	7.3%	229	8%	891,040	13.6%	941,496	13.6%
35-44	619	12.9%	544	11.2%	381	12.3%	317	11%	957,842	14.6%	971,626	14.1%
45-54	695	14.5%	689	14.1%	442	14.3%	376	13.1%	904,337	13.8%	950,452	13.8%
55-64	785	16.4%	819	16.8%	424	13.7%	411	14.3%	719,551	11%	810,290	11.7%
65-74	560	11.7%	699	14.3%	355	11.5%	375	13%	465,327	7.1%	541,689	7.8%
75-84	372	7.7%	427	8.8%	283	9.1%	310	10.8%	328,795	5%	336,756	4.9%
84+	134	2.8%	141	2.9%	115	3.7%	114	4%	111,656	1.7%	139,735	2%
Total	4,800		4,878		3,100		2,878		6,549,179		6,917,657	



3.2.3 Indigenous Population

The 2011 ABS Census data shows that the indigenous population of the LGA was 228 and 172 within the State Suburb, with almost equal numbers and male and females in both areas.

The proportion of the indigenous population in Gloucester LGA (4.7%) and the State Suburb (6%) was significantly higher than in NSW (2.5%). There was also a significantly higher increase in the indigenous population since the 2006 Census in the LGA (33.3%) and the State Suburb (52%) than in NSW (24.6%). This increase follows an increase in the indigenous population of 39% between the 2001 and 2006 Census. It is accepted that significant increases in Indigenous population is attributed to increased rates of identification by Indigenous people.

The vast majority of indigenous people (75%) in the LGA lived in the Gloucester township.

Table 3
Indigenous Population

	Gloucester LGA		Gloucester State Suburb		NSW	
	2006	2011	2006	2011	2006	2011
Population	171 (3.6% of total pop)	228 (4.7% of total pop)	113 (3.6% of total pop)	172 (6% of total pop)	138,506 (2.1% of total pop)	172,621 (2.5% of total pop)
Males	73 (42.7%)	114 (50%)	44 (38.9%)	84 (48.8%)	68,478 (49.4%)	85,081 (49.3%)
Females	98 (57.3%)	114 (50%)	69 (61.1%)	88 (51.2%)	70,028 (50.6%)	87,539 (50.7%)

3.2.4 Overseas Born Population

The proportion of the population that was born overseas in the LGA (7.6%) and the State Suburb (7.1%) was significantly lower than in NSW (25.7%). However, the increase between the 2006 and 2011 was higher in both the LGA (18.4%) and the State Suburb (24.5%) than in NSW (14%).

Table 4
Overseas Born Population

	Gloucester LGA		Gloucester State Suburb		NSW	
	2006	2011	2006	2011	2006	2011
Persons Born Overseas	315 6.6% (of total pop)	373 (7.6% of total pop)	163 (5.3% of total pop)	203 (7.1% of total pop)	1,555,847 (23.8% of total pop)	1,778,550 (25.7% of total pop)
Males	147 (46.6%)	171 (45.8%)	81 (49.7%)	93 (45.8%)	762,117 (49%)	866,978 (48.7%)
Females	163 (51.7%)	202 (54.2%)	82 (50.3%)	110 (54.2%)	793,730 (51%)	911,572 (51.3%)



3.2.5 Family Composition

The proportion of couple families with children was significantly less in the LGA (32.8%) and the State Suburb (31.7%) than in NSW (45.5%). However, the proportion of couple families without children was significantly higher in the LGA (53.9%) and the State Suburb (52.4%) than in NSW (36.6%).

Couple families with children are trending down in the town and LGA and to a lesser extent across NSW. Again this is a reflection of the high number of retirees in the Gloucester area.

Table 5
Family Composition

	Gloucester LGA		Gloucester State Suburb		NSW	
	2006	2011	2006	2011	2006	2011
Couple families with children	496 (35.6%)	453 (32.8%)	307 (35.2%)	247 (31.7%)	792,686 (46.2%)	831,850 (45.5%)
Couple families without children	725 (52%)	745 (53.9%)	440 (50.5%)	408 (52.4%)	618,583 (36%)	669,019 (36.6%)
One parent families	157 (11.3%)	165 (12%)	118 (13.5%)	109 (14%)	275,798 (16.1%)	297,904 (16.3%)
Other families	15 (1.1%)	20 (1.4%)	7 (0.8%)	15 (1.9%)	29,152 (1.7%)	30,780 (1.7%)
Total families	1,393	1,383	872	779	1,716,219	1,829,553

3.2.6 Post School Level of Education

The 2011 Census data (see **Table 6**) shows both the LGA (32.2%) and State Suburb (29.7%) had a lower proportion of people with a tertiary level of education than in NSW (37%). The most notable differences are in the areas of Bachelor Degrees (6.3% in the LGA compared to 11.4% in NSW) and Post Graduate Degrees (1% in the LGA compared to 3.5% in NSW). The proportion of people with Certificates was higher in the LGA (18.5%) and State Suburb (18.2%) than in NSW (14.3%).

Table 6
Post School Level of Education

	Gloucester LGA		Gloucester State Suburb		NSW Census	
	2006	2011	2006	2011	2006	2011
Post Graduate Degree	31 (0.6%)	47 (1%)	15 (0.5%)	20 (0.7%)	162,916 (2.5%)	238,851 (3.5%)
Bachelor Degree	256 (5.3%)	309 (6.3%)	143 (4.6%)	164 (5.7%)	635,030 (9.7%)	787,336 (11.4%)
Advanced Dip/Dip	216 (4.5%)	271(5.6%)	120 (3.9%)	134 (4.7%)	387,652 (5.9%)	462,059 (6.7%)
Grad Dip/Cert	42 (0.9%)	44 (0.9%)	21 (0.7%)	14 (0.5%)	65,832 (1%)	82,617 (1.2%)
Certificate	739 (15.4%)	901 (18.5%)	456 (14.7%)	523 (18.2%)	883,236 (13.5%)	986,704 (14.3%)
Total	1284 (26.7%)	1,572 (32.2%)	755 (24.4%)	855 (29.7%)	2,134,666 (32.6%)	2,557,567 (37.1%)



3.2.7 Socio Economic Indexes for Areas (SEIFA)

SEIFA is a suite of four summary measures that have been created from 2006 Census information (2011 not yet available). For each index, every geographic area in Australia is given a SEIFA number which shows how disadvantaged that area is compared with other areas in Australia.

Each index summarises a different aspect of the socio-economic conditions of people living in an area. They each summarise a different set of social and economic information. The indexes provide more general measures of socio-economic status than is given by measuring income or unemployment alone, for example.

The SEIFA is a relative measure. It compares areas across the State. Areas are placed in deciles with the 10th decile containing the most advantaged areas and the 1st decile containing the most disadvantaged. The Gloucester Shire is identified as Gloucester (A).

There are four indexes in SEIFA 2006, however for this study, one is considered:

- **Index of Relative Socio-economic Disadvantage:** is derived from Census variables related to disadvantage, such as low income, low educational attainment, unemployment, and dwellings without motor vehicles.

Gloucester (A) is in the 5th decile in this category. That means relative to the rest of NSW Gloucester sits in the middle of a scale from 1 to 10 where the 1st decile represents the 10% of most disadvantaged areas in the State and the 10th decile represents the top 10% of least disadvantaged areas.¹⁵

SEIFA uses a broad definition of relative socio-economic disadvantage in terms people's access to material and social resources, and their ability to participate in society. While SEIFA represents an average of all people living in an area, SEIFA does not represent the individual situation of each person. Larger areas are more likely to have greater diversity of people and households.

3.2.8 Employment, Occupations and Industries

The 2011 Census data shows that the proportion of the population that were employed on Census night was lower than across NSW (45.4%) in both the LGA (40.2%) and the State Suburb (37.8%) but that the unemployment rate was similar.

Table 7
Number of People Employed

	Gloucester LGA		Gloucester State Suburb		NSW	
	2006	2011	2006	2011	2006	2011
Employed	1,879 (39.1%)	1,960 (40.2%)	1,143 (36.9%)	1,089 (37.8%)	2,909,444 (44.4%)	3,138,331 (45.4%)
Unemployed	123 (2.6%)	109 (2.2%)	82 (2.6%)	64 (2.2%)	183,159 (2.8%)	196,526 (2.8%)

¹⁵ http://skillsinfo.gov.au/sites/default/files/documents/socio-economic_indexes_for_areas_nov_08.pdf



The top ten industries by employment in the LGA in 2006 and 2011 were:

Rank	2006	2011
1	Agriculture, forestry and fishing (366 – 19.5%)	Agriculture, Forestry and Fishing (306 – 15.6%)
2	Health care and social assistance (197 – 10.5%)	Health Care and Social Assistance (219 – 11.2%)
3	Retail trade (185 – 9.8%)	Retail Trade (199 – 10.1%)
4	Manufacturing (156 – 8.3%)	Construction (173 – 8.8%)
5	Construction (128 – 6.8%)	Accommodation and Food Services (155 – 7.9%)
6	Accommodation and food services (121 – 6.4%)	Education and Training (144 – 7.3%)
7	Education and training (120 – 6.4%)	Mining (130 – 6.6%)
8	Public administration and safety (95 – 5.1%)	Manufacturing (119 – 6.1%)
9	Transport, postal and warehousing (88 – 4.7%)	Public Administration and Safety (107 – 5.5%)
10	Mining (80 – 4.3%)	Transport, Postal and Warehousing (73 – 3.7%)

The most notable differences in the LGA between 2006 and 2011 are:

- a decrease of 60 in the number employed in agriculture, forestry and fishing;
- an increase of 34 in the number employed in accommodation and food services;
- a decrease of 37 in the number employed in manufacturing; and
- an increase of 50 in the number employed in mining.

The top ten industries by employment in the State Suburb in 2006 and 2011 were:

Rank	2006	2011
1	Agriculture, forestry and fishing (141 – 12.3%)	Retail Trade (136 12.5%)
2	Retail trade (127 – 11.1%)	Health Care and Social Assistance (130 - 12%)
3	Health care and social assistance (122 – 10.7%)	Accommodation and Food Services (110 – 10.1%)
4	Manufacturing (95 – 8.3%)	Construction (103 – 9.5%)



Rank	2006	2011
5	Construction (91 – 8%)	Education and Training (88 – 8.1%)
6	Education and training (84 – 7.4%)	Manufacturing (75 – 6.9%)
7	Accommodation and food services (81 – 7.1%)	Public Administration and Safety (74 – 6.8%)
8	Transport, postal and warehousing (67 – 5.9%)	Mining (69 – 6.3%)
9	Public administration and safety (61 – 5.3%)	Agriculture, Forestry and Fishing (65 – 6%)
10	Mining (48 – 4.2%)	Transport, Postal and Warehousing (51- 4.7%)

The most notable differences in the State Suburb between 2006 and 2011 are:

- a decrease of 76 in the number employed in agriculture, forestry and fishing;
- an increase of 29 in the number employed in accommodation and food services;
- an increase of 21 in the number employed in mining; and
- a decrease of 20 in the number employed in manufacturing.

Note: Industry of Employment is coded to the 2006 Australian and New Zealand Standard Industrial Classification Edition. It does not include a Tourism category. Tourism jobs would be included in Accommodation and Food Services and other minor categories such as Arts and Recreation Services.

3.2.9 Tourism

Tourism data is analysed in detail in the Economic Impacts Section of this Report. Key features of the tourism industry in the Gloucester area from sources other than ABS are presented in **Table 8**.

Destination NSW, the State Government's tourism website, estimates the Gloucester tourism market to be worth \$30M per annum.



Table 8
Comparative Estimated Tourism Jobs by Sector

Sector	Singleton	Muswellbrook	Upper Hunter	Dungog	Gloucester	Great lakes	Total UH	Tourism Intensity- Share of Sector (%)
Agriculture	14.9	14.4	34.6	12.3	9.4	13.6	99.2	2.8
Manufacturing	24.2	15.1	12.1	2.7	4.5	14.3	72.9	2.8
Retail	81.8	56.7	39	14.8	14.2	109.7	316.2	7.7
Accommodation	105.3	60.5	52.7	44	24.4	272.7	559.6	78.6
Food & Beverage	132.5	119.3	65.4	32.1	26.2	239.4	614.9	28.2
Transport	35	21.3	17.2	10.7	6.6	25.8	116.6	9.8
Education& Training	5.4	3.9	4	2.2	1.3	6.9	23.7	1.0
Arts & Recreations	6	6.4	11.9	2.1	1.2	21.6	49.2	11.3
Personal Services	74.9	33.9	13.7	7.9	6.4	40.6	177.4	11.3
Total Tourism Jobs	480	331	251	139	94	745	2030	
Total Jobs in Area	12,368	7,887	4,697	2,038	1,737	9,093	37,820	
Tourism jobs share (%)	3.9	4.2	5.3	6.3	5.4	8.2	5.4	
LGA share of tourism jobs (%)	23.6	16.3	12.3	6.3	4.6	36.7	100.00	
Source: Upper Hunter Economic Diversification Project, Strategies, Report 3 of 3. (June 2011)								

Table 9
Overview of Domestic Overnight Travellers

Key Measure	Gloucester	NSW
Visitors (000)	69	23,482
Nights (000)	190	79,847
Average Stay (nights)	2.7	3.4
Spend (\$ million)	\$30	\$12,487
Spend Per Visitor (\$)	\$426	\$532
Spend per Night (\$)	\$156	\$156
Sources: National Visitor Survey & International Visitor Survey, YE Sep 08 to YE Sep 11, Tourism Research Australia		

Table 10
Visitor Purpose of Stay Gloucester and NSW

Purpose of Visit	Numbers (000)	%	NSW
Holiday	44	64	43.9
Visiting Friends and Relatives	19	27.1	35.0
Business	3	4.9	17.5
Other	3	3.6	5.3
Sources: National Visitor Survey & International Visitor Survey, YE Sep 08 to YE Sep 11, Tourism Research Australia			



This data indicates that there are some 500 visitors staying overnight in Gloucester every night of the year. Even with people camping out in the surrounding National Parks, this data seems overstated. It does not match the qualitative input from the larger accommodation facilities that report less than 40% of their business as being tourism related and the largest motel reporting that 75% of patrons are business visitors. The percentages are more credible for farm stays and B&Bs, of which there are many. "A 2006 study indicated that there had been an increase in accommodation from 26 properties in 1997 to 65 properties in 2005 (mainly the establishment of B&Bs)."¹⁶ Data from the Gloucester Tourism web site indicates that there are now 54 establishments in this market.

On the basis of the data presented by *Destination NSW* for Gloucester, September 2011, the local tourism industry looks relatively strong. In summary the data indicates that as at September 2011, and on the basis of averages over 2008 to 2011, Gloucester enjoyed:

- 69,000 domestic overnight visitors,
- 190,000 domestic visitor nights, and
- \$30 million in domestic overnight visitor spend.

These figures however show a decline in domestic visitors, but an increase in dollar spend, based on a similar report from Tourism Research Australia, 2007. This report indicated that for the three year average, 2004 to 2007, Gloucester enjoyed:

- 103,000 domestic overnight visitors,
- 321,000 domestic visitor nights, and
- \$28 million in domestic overnight visitor spend.

Moreover, a comparison of the data over that timeframe shows a shift from staying with friends and family from 23,000 nights in 2007, to 60,000 nights in 2011. This corresponded with an apparent decline in visitor nights in camping grounds from 35,000 nights to 24,000 nights.

The Destination NSW national visitor survey 2008 - 2011 indicates that 49% of visitors to Gloucester based their visit around experience based activities like bushwalking and general sightseeing which is well above the State figure of 35.5%. The National Parks and Wildlife Service's traffic counts estimate approximately 100,000 visitors per annum to the Barrington Tops with approximately 70,000 of those using the northern entrances around Gloucester and the Scone Road. However Destination NSW figures indicate that bushwalking alone (not including sightseeing) is only 15,000 nights or 22% of the market.

This anomaly may be explained by a high proportion of National Park visitors being "day trippers" or local people who already live in Gloucester and are not counted as overnight visits, or that the Destination NSW survey has captured a broader range of visitors to the area than those who are captured through the local tourism office and included in the Destination NSW figures. It could mean that there are a lot of experience based visits focused on sightseeing. It appears that substantial visitor traffic enters through the northern entrances to the National Parks without being detected in the Gloucester town.

¹⁶ Economic Development Strategy for Gloucester Local Government area, Report 3: Economic Development Strategy, December 2010 p 42



3.2.10 Income

The median individual income of the population (aged 15 years and over) was significantly less in the LGA (\$422) and the State Suburb (\$409) than in NSW (\$561). Likewise, the median household income was significantly less in the LGA (\$810) and the State Suburb (\$750) than in NSW (\$1,237). The median family income was also significantly less in the LGA (\$971) and the State Suburb (\$966) than in NSW (\$1,477).

Table 11
Weekly Income

Income (\$ weekly)	Gloucester LGA		Gloucester State Suburb		NSW	
	2006	2011	2006	2011	2006	2011
Median individual income	\$343	\$422	\$341	\$409	\$461	\$561
Median household Income	\$665	\$810	\$644	\$750	\$1,036	\$1,237
Median family income	\$846	\$971	\$832	\$966	\$1,181	\$1,477

3.2.11 Crime and Safety

Gloucester is a low crime area as evidenced by its ranking against other LGAs across NSW in the number of:

- domestic violence related assaults – ranked 112 out of 141 LGAs (12 assaults in 2011);
- non domestic related assaults – ranked 121 out of 141 LGAs (11 assaults in 2011);
- sexual offences – ranked 139 out of 141 LGAs (2 offences in 2011);
- robbery – ranked equal last (0 offences in 2011); and
- break and enter dwelling – 132 out of 141 LGAs (11 offences in 2011)

The 2012 data from the NSW Bureau of Crime Statistics and Research (BOCSAR) show there were no sexual assaults reported in the Gloucester district in the 12 months to June, down from five in the period leading up to June 2011.

Break and enters into homes had risen from 14 in June 2011 to 22 in the 12 months to June. However, break and enters into other properties had fallen - from 21 in 2011 to 14 in 2012.

No instances of murder, sexual assault, robbery with or without a weapon or stealing from a retail store were recorded in the 12 months to June 2012.

Malicious damage to property was again the highest ranked of the 17 major crime areas looked at by BOCSAR, with 36 offences recorded. That represents a drop from the 42 malicious damage offences recorded in the 12 months to June 2011. The other major crime areas - assault, assault (domestic violence related), indecent assault, motor vehicle theft, stealing from a motor vehicle, stealing from a dwelling, stealing from a person and fraud - remained comparable with 2011 figures and Gloucester maintains its status as a low crime area relative to the remainder of the State.



3.2.12 Housing

According to the 2011 ABS Census Data, the total number of private dwellings in the LGA was 2,453 and in the State Suburb 1,397. It is noted that there were a significant number of private dwellings in the Shire (453) and the State Suburb (195) that were identified as unoccupied.

The proportion of full home ownership tenure in both LGA (48.8%) and the State Suburb (45.5%) was significantly higher than in NSW (33.2%). However, the proportion of those purchasing a home was lower in the LGA (23.2%) and the State Suburb (22.6%) than in NSW (33.4%). The proportion of those renting was lower in the LGA (24.7%) and the State Suburb (28.7%) than in NSW (30.1%).

Table 12
Housing Tenure

Tenure Type	Gloucester LGA		Gloucester State Suburb		NSW	
	2006	2011	2006	2011	2006	2011
Fully owned	958 (49.8%)	976 (48.8%)	578 (46.2%)	547 (45.5%)	810,706 (34.8%)	820,006 (33.2%)
Being purchased	459 (23.9%)	464 (23.2%)	297 (23.7%)	272 (22.6%)	742,157 (31.9%)	824,292 (33.4%)
Rented	430 (22.3%)	493 (24.7%)	323 (25.8%)	345 (28.7%)	687,430 (29.5%)	743,050 (30.1%)
Other tenure type	21 (1.1%)	13 (0.1%)	6 (0.5%)	3 (0.2%)	19,259 (0.8%)	20,418 (0.8%)
Not stated	56 (2.9%)	54 (2.7%)	48 (3.8%)	34 (2.8%)	68,666 (2.9%)	63,530 (2.6%)
Total	1,924	2,000	1,252	1,201	2,328,218	2471296

The NSW Government maintains a single state-wide waiting list for public and community housing called the NSW Housing Register. The Register also provides an overview of expected waiting times for studio, 1 bedroom, 2 bedroom, 3 bedroom and 4 bedroom accommodation in local areas across NSW. Gloucester is identified as having the following waiting times:

- Studio No properties
- 1 bedroom No properties
- 2 bedroom 2 – 5 years
- 3 bedroom up to 2 years
- 4 bedroom up to 2 years

The NSW Government also maintains data on the relative need for affordable housing in each NSW Local Government Area (LGA). LGAs are listed by housing need as high, moderate high, moderate low, moderate and low. Gloucester is listed as moderate.

The NSW Local Government Housing Kit (based on the 2006 Census data) includes the following data for Gloucester.



Number of Public Housing Stock (March 2012)

Area	Public Housing stock March 2012
Gloucester	38

Number of Households in Housing Stress

Housing stress is experienced by lower-income households (households in the bottom 40% of income distribution) who pay more than 30% of their gross income on housing.

A very high proportion (86%) of very low income renting households (of which there are 102) are considered to be in rental stress in Gloucester. A high proportion (59%) of very low income purchasing households (of which there are 68) are considered to be in home purchase stress.

Area	No of Very Low Income Households in Rental Stress	% of Very Low Income Households in Rental Stress	Total Renters (Very Low Income Households)	No of Very Low Income Households in Home Purchase Stress	% of Very Low Income Households in Home Purchase Stress	Total Purchasers (Very Low Income Households)	No of Low Income Households in Rental Stress	% of Low Income Households in Rental Stress	Total Renters (Low Income Households)	No of Low Income Households in Home Purchase Stress	% of Low Income Households in Home Purchase Stress	Total Purchasers (Low Income Households)
Gloucester	87	86	102	40	59	68	35	47	75	29	31	91

No of Moderate Income Households in Rental Stress	% of Moderate Income Households in Rental Stress	Total Renters (Moderate Income Households)	No of Moderate Income Households in Home Purchase Stress	% of Moderate Income Households in Home Purchase Stress	Total Purchasers (Moderate Income Households)
2	3	61	28	24	117

One of the key plan objectives of the Gloucester Shire Community Plan 2009-2014 is to support the development of a Housing and Accommodation Working Group that would facilitate awareness of needs for low cost housing, investigate and institute crisis accommodation services and establish opportunities for respite accommodation for older residents and people with a disability.

Council expects that an additional 500 homes will be constructed by 2022, mainly located in housing estates near Gloucester township and Barrington village¹⁷ to accommodate a forecast population increase of 1.8% per annum over the next 10 years.

Health

The rate of hospitalisations (separations) per 100,000 population for Gloucester has increased incrementally from 1989 to 2011.

¹⁷ Gloucester Shire Council Community Strategic Plan 2012 – 2022 Page 14



Table 13
Hospitalisations, Gloucester LGA, 1989-1991 to 2009-2011¹⁸

Year	Smoothed Number of Separations per Year	Smoothed Rate per 100,000 population
1989-91	1297	26,209.4
1990-92	1381	27,254.8
1992-94	1397	26,514.5
1994-96	1410	26,336.1
1996-98	1535	28,177.0
1998-00	1534	27,910.5
2000-02	1546	27,949.7
2002-04	1742	30,746.4
2004-06	1883	32,427.7
2006-08	1828	30,447.7
2008-10	1946	31,369.1
2009-11	2062	32,980.3

Key features of the health data for Gloucester are:

- High body mass attributable deaths have slightly decreased between 1997-98 (59.7 per 100,000) and 2006-07 (47.5 per 100,000).
- High body mass hospitalisations steadily increased between 1998-00 (545.5 per 100,000) and 2005-7 (719.8 per 100,000) before trending down again to 2008-10 (617.5 per 100,000).
- Potentially preventable hospitalisations have remained fairly constant with up and down movements from year to year (approximately 2200 – 2800 per 100,000 population) between 1989-91 to 2009-11.
- Alcohol attributable hospitalisations from 1998-00 to 2008-10 peaked in 2006-08 at 553.1 per 100,000 before trending down to 425.9 per 100,000 in 2008-10.
- Smoking attributable hospitalisations 1998-00 to 2008-10 have remained fairly constant at approximately 600 per 100,000 population.
- Coronary heart disease hospitalisations between 1998 and 2010 peaked at 1,016 per 100,000 population in 2004-06 before trending down to 737.6 per 100,000 population in 2008-10.

Asthma and Respiratory Illness

In NSW, hospitalisation rates for asthma decreased substantially in the past 20 years. This was despite that fact that during this period there were several spikes in hospitalisation rates in those aged 5-34 years, where rates increased by over 10% from the previous year (in 1998-99, 2000-01, 2006-07 and 2009-10). These spikes were reflected in the hospitalisation rates in persons of all ages.

¹⁸ Centre for Epidemiology and Research. Health Statistics New South Wales. Sydney: NSW Ministry of Health. Available at: www.healthstats.nsw.gov.au. Accessed July 2012.



The diagnosis of asthma is most reliable in persons aged 5-34 years. Consequently, the declining trend in hospitalisation in this age group is generally seen as evidence that the decrease in hospitalisation is real (as opposed to an artefact of the data collection method). Since the self-reported prevalence of asthma in Australia has increased in this period, the decrease in hospitalisation may reflect the impact of improvement in asthma management outside of hospitals¹⁹.

The NSW Health website does not provide data on asthma-related hospitalisations per LGA. The researchers requested this data from the Gloucester Hospital and from the Taree Community Health Worker. In discussions with the local hospital the issue of whether respiratory admissions are increasing was raised; but there has been no data supplied. (It is a recommendation of this report that the outcomes of HNEAHS research in the Hunter be monitored and responded to accordingly).

A recent NSW Health study on respiratory and cardiovascular diseases and cancer among residents in the Hunter New England Area Health Service found that rates of children diagnosed with asthma in Hunter New England Area Health Services are higher at 39.8% than Rural NSW at 33.2% (NSW Health, 2010:136). The study also found that prescription rates for the whole of the Hunter Region for asthma preventatives are also higher than the rest of non-metropolitan NSW (NSW Health, 2010b:10).

Mental Health

NSW Health Statistics does not publish LGA specific data. Anecdotally, some Gloucester people report high levels of stress and mental health issues in the community. This was a recurring theme in discussions with near neighbours and environmental groups in particular. There is no data available locally to understand the nature and magnitude of reported stress in the community.

Australian Bureau of Statistics (ABS) figures show that every year, one in five Australians will experience some form of mental illness, with three out of 100 likely to be seriously affected. The Mental Health Council of Australia (MHCA) reported in 2005 that mental disorders and suicide account for about 16% of Australia's total health burden, which equates to over 350,000 years of healthy life lost.

Recent work by the Australian Institute of Health and Welfare (AIHW) indicates that depression is associated with the loss of at least 135,000 person years of economic production annually, or about 2% of production. For every dollar spent on medical and social support for mental illness, four additional dollars are lost through poor achievement in education and training, reduced workplace productivity, lost tax earnings and reduced participation by carers in the wider economy.

In general, the prevalence of mental health conditions in rural and remote Australia has been estimated as equivalent to levels in major cities. However, rural Australians face greater challenges as a result of such conditions due both to the difficulty of accessing the support needed for mental illness and to the greater visibility attached to mental health in a smaller community.

¹⁹ Health Statistics NSW, NSW Government http://www.healthstats.nsw.gov.au/Indicator/res_asthosl



The AIHW reports that rates of completed suicide in regional and remote areas are 1.2 to 2.4 times higher than those in major cities. Natural disasters such as drought, cyclones, floods, bushfire and pest infestations also contribute to mental illnesses and have a direct impact on income and wellbeing for rural Australians²⁰.

3.3 COMMUNITY FACILITIES AND SOCIAL INFRASTRUCTURE

From spending time in the Gloucester community and undertaking numerous interviews (see Section 1.4) it is evident that Gloucester is an area with a high degree of social capital. While needs have been identified in health, aged care, education and training, there is also a range of services and infrastructure in Gloucester and a strong network of community organisations.

3.3.1 Childcare

There are two pre-schools in Gloucester, namely Gloucester Pre-School (3 to 5 year olds) and Barrington St Pre-School and Long Day Care Centre (0 to 6 year olds). The Gloucester Pre-School currently has 45 children, and the Barrington Centre has 29 places for children.

There are also three Family Day Care Centres catering for children from 6 weeks old to 12 years. They can each take 4 to 5 children at a time.

3.3.2 Healthcare

Gloucester has a public hospital operated by NSW Health Hunter New England called Gloucester Soldiers Memorial Hospital. It is a District Hospital and has 80 beds including a 20 bed acute ward, 15 bed aged care transitional ward, 25 bed nursing home and a 20 bed hostel. The hospital is a Day Hospital, Hostel, Public Hospital, Public Nursing Home and Community Health Service, and offers the following services: community health, community nursing, accident/emergency, day surgery, disabled care, geriatric, geriatric assessment, aged care, home care, alcohol/drug, maternity, medical, anaesthetics, occupational therapy, outpatients, paediatric, palliative care, physiotherapy, podiatry, psychology, radiology, social work, speech therapy, surgical, teaching and women's health.

The Gloucester-Stroud Medical Practice has surgeries in Gloucester and Stroud. The Gloucester surgery has seven doctors – five permanent doctors and two registrars – three full time and the rest, part time. They also provide the emergency doctors for the hospital. The Gloucester surgery holds records for 8,500 patients and captures people from rural areas beyond the Gloucester LGA. The Stroud surgery has two doctors.

The Gloucester-Stroud Medical Centre also hosts many visiting health providers including a general surgeon, a general physician, ophthalmologists, a psychiatrist, psychologists, a dietician, podiatrists, and ultrasound, echocardiography and audiology capabilities.

Gloucester also has a wide range of allied health providers or services including dentists, optometrists, chiropractors, physiotherapy, massage therapy, bower therapy, naturopathy, home nursing, occupational health and safety, and health food supplier(s), and a local chemist.

²⁰ Fact Sheet 18 Mental Health in Rural Australia. National Rural Health Alliance Inc. 2009



3.3.3 Education

There are four Primary Schools in the LGA. There are two in Gloucester – St Joseph's Primary with 41 students (2012) and Gloucester Primary with 309 students (2012). The other two are in Stratford with 16 students (2012) and Barrington with 70 students (2012).

Gloucester also has one High School – Gloucester High School with 352 enrolments (2012).

NSW TAFE does not provide any courses in Gloucester; however, the school bus service, operated by Fishers Bus Service (Taree) travels every weekday between Gloucester and Taree which enables students to participate in the Taree TAFE Campus programs.

There are only a very small number of training organisations providing accredited and non-accredited post school training programs in Gloucester including Bucketts Way Training and Lexon Training Consultants (Port Stephens based Registered Training Organisation). There is an Enhancing Skills Training Committee of the Enhancing Skills in Gloucester Project which is working towards the development and implementation of a model of training provision in Gloucester.

The University of the Third Age offers courses in Gloucester.

3.3.4 Gloucester Shire Library

The Gloucester Shire Library offers a wide range of services to the community including:

- access to informative, educational and recreational resources in a wide range of formats;
- free access to the internet and email facilities;
- community space for meetings, exhibitions and events;
- children's programmes, including story time, Library and school visits;
- resources for the hearing and sight impaired; and
- research and homework assistance.

3.3.5 Legal Services

Gloucester has a local court that is opened on Wednesdays and three private solicitor firms located in the town.

3.3.6 Fire

Gloucester LGA is serviced by the Fire and Rescue NSW, NSW Rural Fire Service, Avon Bushfire Brigade, Barrington Bushfire Brigade and Gangat Rural Fire Brigade. There are 24 Rural Fire Service buildings throughout the LGA.



3.3.7 SES

Gloucester Shire SES is the agency responsible for responding to emergencies during floods and storms and is also the primary rescue group for the Shire and surrounding area.

3.3.8 Ambulance

There are ambulance stations at both Gloucester and Stroud, although neither is staffed on a 24 hour basis. The Gloucester ambulance station is staffed by four people during the day shift only. Staff are rostered "on call" for hours outside the day shift. The Gloucester station services an area much wider than the LGA, extending towards Wards River in the south, Bulahdelah and Krambach in the east and Nowendoc to the north. The service includes a significant amount of transfers to Taree, and to hospitals in Maitland and Newcastle (John Hunter). They work closely with the Westpac Helicopter Service, when required.

3.3.9 Police

Gloucester is serviced by the Gloucester Police Station. The station is not operated on a 24 hour basis. The Area Command in Taree report that they run on rotating shifts with no regular opening hours.

3.3.10 Sport and Recreation

Gloucester has a wide range of sport and recreation clubs including:

- Gloucester Bowling Club.
- Gloucester Golf Club.
- Gloucester Soldiers Club.
- Sports Clubs: archery, bowling, croquet, cricket, tennis, golf, gymnastics, basketball, hockey, fishing, athletics, netball, soccer, squash, swimming, rugby union and rugby league.

3.3.11 The Arts

GACCI, the Gloucester Arts and Cultural Council Inc., was created in 1999 in response to community interest and support for a local arts and culture group.

Affiliated with the NSW Arts Council, GACCI has adopted the Arts Council of NSW Constitution and, through its committee, meets monthly to develop activities suited to the needs of the community. GACCI works closely with Arts Upper Hunter and is supported by the Gloucester School of Arts.

GAACI organises events and activities such as plays, concerts, bus trips, youth talent quests, photography competitions, workshops and generally works towards enriching Gloucester's cultural life. GAACI also manages the Gloucester Gallery - a community exhibition space in the Gloucester township.



3.3.12 Service Clubs

Gloucester has a wide range of service organisations including a Masonic Lodge, CWA, and Quota, Apex, Rotary, Lions and View Clubs.

3.3.13 Churches

The following Churches are located in Gloucester: Anglican, Catholic, Presbyterian, Baptist, Uniting, Christian Outreach Centre, Jehovah Witness and Seventh Day Adventist.

3.3.14 Community Groups

Gloucester Shire Council's Community Directory lists 85 Community Organisations including the Senior Citizens Centre, Youth Centre, Art Society, Australia Day Committee, Bucketts Ball Committee, Friends of the Library, Gloucester Bookworms, Gloucester Community Markets, Gloucester Historical Society, Tidy Towns Committee, Gloucester Pipes and Drums, Ladies Craft Connection, The Cottage and The Gloucester Project (a sustainable community-developed economic growth project focused on food production²¹).

3.3.15 Parks, Sporting Fields and Halls

Gloucester has 45 parks and reserves, 12 sports fields/facilities, two public swimming pools and four community halls.

From Gloucester Shire Council Community Strategic Plan:

"Our rural setting and challenging landscape has required the development of an extensive road and bridge network to access individual farms, houses, businesses and tourism facilities. Council manages a wide network of community infrastructure, with the equivalent of \$100,000 worth of assets for every man, woman and child in the Shire."²²

²¹ See [chrome://newtabhttp://ourgloucester.com.au/](http://newtabhttp://ourgloucester.com.au/) and [chrome://newtabhttp://ourgloucester.com.au/](http://newtabhttp://ourgloucester.com.au/)

²² Gloucester Shire Council Community Strategic Plan Page 11.



4. COMMUNITY RESEARCH

Key Insights undertook a comprehensive program of community research and engagement including a community perception survey, meetings with local organisations and local residents, meetings with key stakeholders and interviews with local tourism operators, focus groups comprising young adults, and attendance at Council public meetings.

4.1 COMMUNITY PERCEPTION SURVEY

A Community Perception Survey was conducted as the first stage of the consultation strategy in the development of the SEIA. The aim of the survey was to draw out issues and concerns from the general community regarding the proposed Rocky Hill Coal Project to ensure that they were addressed in the SEIA. It was not the aim of the survey to try and draw any conclusions about the level of support or opposition to the Proposal, only to identify the range of issues and concerns of the local community. A full report on the survey including survey limitations, the survey instrument and responses to all questions is provided in **Appendix 1, 1A, 1B, 1C, 1D, 1E, 1F and 1G**.

The survey was delivered to 2300 households in the Gloucester Shire (88% of households in the Shire); including 150 Post Office boxes at Gloucester Post Office. A further 43 surveys were sent out in response to requests from residents that had not received a copy. Key Insights received 493 completed surveys representing a 20% response rate.

Demographics of the survey population included:

- 55% male and 45% female;
- 53.1% were over the age of 60 years;
- 87.6% lived in Gloucester; and
- 46.6% of respondents were long term residents having lived in the area for more than 21 years.

The survey was not a random sample and it was not the intention of the research to make generalisations about the entire population. People with strong views either in opposition or in support of the proposal were more likely to respond while those who are indifferent were less likely to respond. However the input from the survey was valuable in scoping the key areas of concern and key aspirations in relation to the Proposal. Input was also useful in determining whether current company communications (particularly the GRL Community Newsletter) were valued and what types of engagement methods people preferred. The findings of the survey included the following.

- Approximately 75% of respondents stated that they had received a copy of the Community Newsletter for the Rocky Hill Coal Project. A further 5% were not sure and 20% stated that they did not receive a copy.
- Almost 65% of respondents found the Community Newsletter informative. A further 10% did not find it informative and a little over 3% did not read it. (The remainder either didn't receive the newsletter or skipped the question).



- Respondents identified their main sources of information about Rocky Hill Coal Project as local newspaper (79.9%), word of mouth from friends or family (54.8%), local resident's group (34.3%) and Gloucester Shire Council (28.5%).
- Respondents were given a range of statements concerning their attitudes to coal mining and asked which statement best described their general attitude to coal mining. Those with the highest responses were:
 - I think that there is a place for coal mining, but I am opposed to it in Gloucester Shire (42.9%);
 - I am open to coal mining in Gloucester Shire if the environmental impacts are minimised (21.3%); and
 - I think that there should be no new coal mines approved anywhere. I am totally opposed to coal mines (16.3%).
- Respondents were asked to rate a range of environmental impacts that are often raised in association with coal mines in terms of their level of concern. Approximately 75% of respondents were very or extremely concerned about the following impacts.
 - Visual impacts of the proposed open cut mine (77%).
 - Impacts on the water supply in the local area (82%).
 - Dust impacts (79%).
 - Noise impacts (76%).
 - Flora and fauna impacts (72%).
 - Impacts on agriculture (77%).
 - Impact on the local character of the area (77%).
- Approximately half of the respondents were very or extremely concerned about the following impacts.
 - More trains moving on local railways lines (46%).
 - Increased traffic associated with workers and deliveries to mine site (52%).
 - Coal mining's impact on climate change (51%).
- Respondents were asked to indicate their level of agreement/disagreement with a range of statements. The results were as follows.
 - 72% of respondents agreed or strongly agreed that mostly Gloucester people should be employed by a new mine.
 - 48% disagreed or strongly disagreed that Gloucester has enough housing stock to accommodate an influx of workers. 12% neither agreed nor disagreed and 21% didn't know or weren't sure.
 - 81% agreed or strongly agreed that property values near the new mine would be negatively affected.
 - 50% agreed or strongly agreed that a new mine would help to generate income for businesses in the Gloucester area. 17% neither agreed nor disagreed.



- 42% disagreed or strongly disagreed that new businesses would be attracted to Gloucester by a new mine. 30% agreed or strongly agreed. 19% neither agreed nor disagreed.
- 39% agreed or strongly agreed that attracting new workers to the areas will be good for services in Gloucester. 33% disagreed or strongly disagreed. 22% neither agreed nor disagreed.
- 75% agreed or strongly agreed that a new mine would have a significant impact on Gloucester's agricultural environment.
- Respondents were asked to indicate their preferred method of finding out information about the Proposal and having input (Note that respondents could choose more than one response). The top 6 responses were:

– Local radio and newspaper	69.2%
– Rocky Hill Coal Project newsletters	50.8%
– Rocky Hill Coal Project information sheets	33.3%
– Information open days facilitated by the company	32.2%
– My local community/resident group	30.3%
– My local Member/Councillor	25.5%
- Respondents were advised that GRL intended implementing a production-related community grants program. They were asked what priority areas or programs would enhance the community of Gloucester.

The question was answered by 322 respondents, representing 65% of the total survey respondents. The remaining 171 respondents skipped the question without answering it. Many of the answers identified multiple priority areas resulting in a total of 488 responses. (A full list of responses is attached as **Appendix 1F**). These answers were then grouped by themes.

The following themes are listed in order from the most to the least number of responses, with the number of responses in brackets:

- | | |
|--------------------------|------|
| – Infrastructure | (67) |
| – Education | (54) |
| – Health | (48) |
| – Sporting | (38) |
| – Young People | (22) |
| – Environment | (18) |
| – Community Grants | (17) |
| – Employment | (16) |
| – Mining Related Impacts | (16) |
| – Older People | (14) |
| – Tourism | (11) |
| – Council | (8) |
| – Transport | (6) |



- Children (4)
- Police/Security (2)
- Miscellaneous (28)

There were also 119 comments indicating general opposition to a GRL mine and community grants program.

- In order to capture any areas that the survey may have overlooked respondents were asked an open ended question to allow for any other comments that they would like to make in relation to the proposed Rocky Hill Coal Project.

The question was answered by 331 respondents, representing 67% of the total survey respondents. The remaining 162 respondents did not provide a response. Many of the responses identified multiple issues. Responses were grouped into themes, resulting in a total of 483 responses. Where answers were of a general nature and as such unable to be grouped by theme, they were grouped together.

Responses were further grouped as to whether they were generally pro- or anti-mine responses. Of the total 483 responses, 49 (10.1%) were supportive of the mine and 398 (80.7%) opposed to the mine. Further, 21 responses (4.3%) were neutral, conditional or provided suggestions and 15 responses (3.1%) related to the survey itself. (A full list of responses is attached as **Appendix 1G**).

Of the 49 supportive responses, 17 (34.7%) related to the anticipated employment opportunities for local people. The remainder of pro-mine responses related to the importance of growth and economic benefits. Some identified the need for strict guidelines to be imposed on the mine and others the importance of good management.

The opposing responses were grouped under the following headings in order from the most frequently listed to the least (the frequency of responses is recorded as a number in brackets):

- Too close to town/residential areas (81)
- Environmental impacts (47)
- Damage to scenic beauty of the area (35)
- Health impacts (30)
- Agriculture impacts (27)
- Tourism impacts (26)
- Property Values and Saleability (19)
- Post Mine situation (12)
- Overseas Involvement/ownership (8)
- Economic impacts (8)
- Traffic/Roads impacts (4)
- Other (101)



4.2 MEETINGS AND INTERVIEWS WITH KEY STAKEHOLDERS

In order to more fully understand issues, meetings and interviews were conducted with key organisations, services, government agencies and community groups. This qualitative research built a picture of the current capacity and character of the Gloucester area and perceived potential impacts associated with the proposal. The research also captured suggestions for mitigation and enhancement of benefits strategies should the Proposal proceed.

Respondents were selected on the basis of their central role in Gloucester (e.g. Council) or because of particular insights or expert knowledge they may have (e.g. Real Estate Agents and Neighbourhood Groups). The key areas of Health, Education and Tourism were researched and Key Insights responded to interest from near neighbours as they are potentially the most impacted people in the community. Community Groups such as GRIP and the Chamber of Commerce were included because of their interest in the Proposal and their somewhat representative nature; GRIP representing the opposition to the Proposal (including near neighbours) and the Chamber representing local business.

The Gloucester Exploration Project Community Consultative Committee was important to the research as they have been actively engaged with the Exploration phase of the Proposal for some time.

The process was the same for each meeting or interview. Key Insights would explain that it had been contracted by GRL to undertake the socio-economic assessment and that it was not the role of the researchers to promote the Proposal in any way, but rather to capture the views and input from the agency, organisation, community group or individual. Key questions about health, housing, education and emergency services were directed to the appropriate body and all groups were able to raise and discuss as many issues as they deemed relevant in an open-ended manner.

Records of interviews were forwarded to respondents who were able to make amendments or adjustments, and write-ups are included in **Appendix 2**. Summaries of key points are discussed as follows.

4.2.1 Director of Planning, Gloucester Shire Council

Key Insights conducted an interview with Graham Gardner, the Director Planning at Gloucester Shire Council. A record of the interview is attached as **Appendix 2 (1)**. The main issues raised were:

- Council's total opposition to building an open cut coal mine in an area zoned for environmental conservation;
- Council has voted unanimously to oppose this proposal;
- concerned about negative impact on the culture and nature of the town;
- support of mining but not in this location; and
- concern about proximity to town, displacement of agriculture, uncertainty for local residents, cumulative impacts, light, dust and traffic.



4.2.2 Executive Officer, Gloucester District Health Service and members of the Senior Management Team

Key Insights conducted an interview with Peter Barber (Executive Officer) and three members of the Hospital Senior Management Team. See **Appendix 2 (2)**. The main issues raised were:

- concern about dust and the Hospital's current level of respiratory monitoring equipment;
- if the mine proceeds, the Health Service would be interested to explore how they might work together;
- interest in joint advertising/recruitment; and
- interest in the development of a one stop shop in the grounds of the hospital incorporating the Gloucester Medical Practice.

4.2.3 Gloucester Chamber of Commerce

Key Insights attended a meeting of the Gloucester Chamber of Commerce and were given an opportunity to make a presentation on the SEIA and record input/feedback from those present is at **Appendix 2 (3)**. The main issues raised were:

- concern about the exodus of apprentices/trained staff from local business to the mines;
- concern about the inability of local business to compete with the mines for employees;
- the importance of attracting businesses to town;
- the importance of mine workers shopping locally, where possible;
- the importance of mine employees living in Gloucester;
- need to minimise negative impacts and maximise benefits from the mine; and
- concern about the social imbalance of low income earners and high income miners.

4.2.4 Gloucester Exploration Project Community Consultative Committee

Key Insights attended a meeting of the Gloucester Exploration Project Community Consultative Committee on April 13th 2012 and were given an opportunity to make a presentation and seek input/feedback from those present. In the interests of maintaining the independence of the research, GRL representatives excluded themselves from the discussions with Key Insights. See **Appendix 2 (4)**. The main issues raised were:

- very satisfied with the professionalism and openness of the current GRL Management;
- aware of legacy issues from the previous GRL management;
- pleased with the scope of the SEIA;



- raised issues such as cumulative impacts, tourism, housing affordability, workers travelling from the coast, environmental and health impacts;
- concerned about educational aspirations of local young people being limited to mining;
- the needs of near neighbours are very important; and
- there needs to be a lot of healing in the community over the mine issue.

4.2.5 Representatives of Gloucester Residents in Partnership (GRIP)

Key Insights met with five representatives of Gloucester Residents in Partnership (GRIP) a local community group established with the specific objective : “that the three exploration licences 6523, 6524 and 6563 are permanently removed and no coal mining occurs in these areas ever”, an opposition which has extended to the Rocky Hill Coal Project. A record of the meeting is attached **Appendix 2 (5)**. The main issues raised were:

- concern that all residents of Gloucester had not received a newsletter and survey;
- concern about the objectivity of the research, including the survey;
- there is a general lack of trust in anything GRL says;
- belief that GRL has caused a great deal of trauma in the local community and has destroyed some people’s lives;
- properties near the mine were not sold willingly;
- GRIP has no faith in the CCC;
- Gloucester is viable and sustainable without GRL;
- concern about dust, particularly the size fraction less than 2.5 microns in diameter (referred to as PM_{2.5});
- concerns about water, property values, drive in drive out employees, visual amenity and tourism;
- concern about stress levels and mental health;
- concern about social division: “We are a divided town regarding support for the mine”;
- there is a lack of support by the local community;
- the pro argument is all about employment – concern that this is a dubious argument;
- there are many people who are economically trapped;
- don’t want Gloucester to be a mining town.



4.2.6 A group of residents from the Forbesdale area

Key Insights met with a group of seven residents mostly from the Forbesdale Estate. A record of the meeting is attached **Appendix 2 (6)**. The main issues raised were:

- concern that everyone had not received a copy of the newsletter and survey;
- concerned about near neighbour property values, tourism, noise, dust, saleability of properties, stress, drive in drive out employees, water, traffic, breathing, marriage breakdown and domestic violence, housing and rental affordability;
- concerned about mine closure;
- we can't believe what they say and we don't trust them;
- all the State government is interested in is money, the same as GRL;
- lack of trust in government and the approvals process;
- people were harassed into selling;
- the community fund is just a bribe that divides the local community;
- don't believe that there will be a net gain in jobs, they will just take people away from existing jobs;
- the whole consultation process is another stress that we don't need; and
- lots of people are giving up. They wear us down. We are depressed and tired. We are concerned about our financial future.

4.2.7 Real Estate Agents

Key Insights met with two Gloucester Real Estate Agents. Summary points are in **Appendix 2 (7)**. The main issues raised were:

- there is a lot of growth in Gloucester;
- dairy and timber industries are all but gone;
- the objectors to the mine do not represent the entire community;
- coal miners are buying property;
- there was a drop in house prices last year;
- rental investors are looking for at least a 5% return on investment;
- there is limited affordable housing here;
- there are a lot of rental vacancies;
- we have noticed a strong reluctance by home buyers to look at properties to the south of the town and we think this is because of the proposed mine;
- there is a lot of uncertainty in the town;
- there are some people that want to leave because of the mines;
- the main issue is saleability, not property prices; and
- GRL has huge legacy issues to deal with due to the previous management.



4.2.8 Gloucester Visitor Information Centre

The Manager of the Visitor Information Centre provided details about the extensive range of tourism facilities in the area and provided links and information sheets on Destination NSW Tourism data. The Manager sent an e-mail to all members of their organisation inviting them to have input to the SEIA and several contacted Key Insights and were interviewed. See **Appendix 2 (8)** General points made about the Proposal were that:

- many of the local tourism operators are concerned about the impact the mine will have on tourism numbers;
- some accommodation operators are benefitting from mining business;
- there is concern about the visual impact on the town; and
- tourism is a valuable component of the local economy.

4.2.9 Coordinator, Bucketts Way Neighbourhood Group

Key Insights met with Georgine Wise, the Co-ordinator of the Bucketts Way Neighbourhood Group, the main community welfare organisation in Gloucester. A record of the meeting is attached as **Appendix 2 (9)**. The main issues raised were:

- affordable housing is the biggest issue in Gloucester;
- many landlords are targeting miners and seeking higher rents than the average population can afford;
- there is strong division in the community over the mine;
- it is hard to find good staff;
- we are looking at doing more sustainability training with Camden Haven Community College;
- local businesses are losing staff to the mines;
- main issues in Gloucester are social housing, aged care and Aboriginal young people;
- concern about cumulative impacts;
- the Neighbourhood Group is a significant business and employer in town;
- we would be pleased to access any Community Grants funds as long as there are no strings attached; and
- you can't have your cake and eat it too – we need money in our economy – the quiet rural lifestyle doesn't always pay the bills.



4.2.10 Forbesdale residents

Key Insights met with Chris and Patrice Reynolds on the suggestion of other local residents. They live next to the railway line opposite the Site. A record of the meeting is attached as **Appendix 2 (10)**. The main issues raised were as follows.

- Residents in the Forbesdale Estate are very stressed as they do not want to live near an open cut coal mine - it is not what they had planned when they built their family home.
- They have put all plans for their property on hold and say that they have put their lives on hold.
- Concerns about property devaluation, flooding, dust, light and tourism.

4.2.11 Gloucester Community Relations Manager, AGL

Key Insights met with Therese Ryan, the newly appointed Community Relations Manager from AGL in Gloucester. Information about the respective projects was shared and potential impacts discussed. AGL will not employ a large number of people for its coal seam gas operations throughout the Gloucester Basin.

4.2.12 Regional Asset Planner, North Coast Region, NSW Department of Education and Communities

Key Insights had both email correspondence and a telephone interview with Gregory Eyears, the Regional Asset Planner for the North Coast Region of the NSW Department of Education and Training. See **Appendix 2 (12)**. In particular, Mr Eyears was asked about the ability of the Gloucester Primary School to cater for an additional 5 to 28 new students and the Gloucester High School to cater for 3 to 20 new students. His response: "the number of students you are predicting would have a minimal impact on both the primary and high schools in the Gloucester area. Gloucester Public School currently has four spare permanent classrooms and both schools can accommodate demountables for short term increases in enrolments."²³

4.2.13 Practice Manager, Gloucester-Stroud Medical Practice

Key Insights conducted a telephone interview with Rachel Blanch, Practice Manager at the Gloucester-Stroud Medical Practice. Rachel outlined details of the Practice and in response to a question about the ability of the Practice to service an additional 30 families or 112 people, stated that the Practice would still be able to cope, provided that the overall population didn't increase much further. See **Appendix 2 (13)**.

²³ Predicted numbers of new students were based on scenarios developed for a high, medium and low percentage of GRL employees living in Gloucester. These are detailed in **Table 14** in 5.3 Social Infrastructure Capacity.



4.2.14 Taree Community Health

Key Insights conducted a telephone interview with Franz Shubert of Taree Community Health who works in the area of respiratory health. Unfortunately, there is little data available specifically in relation to existing prevalence of respiratory illness and especially in comparison with other coal mining areas.

4.2.15 Emergency Services

Key Insights conducted a telephone interview with Ambulance Inspector Annette Vickery from the Ambulance Service of NSW in Gloucester. Annette outlined the current operations of the service in the local area. There are ambulance stations at both Gloucester and Stroud, although neither is staffed on a 24 hour basis. Gloucester Ambulance Station is staffed by four people during the day shift only. Staff are rostered “on call” for hours outside the day shift. The Gloucester station services an area much wider than the LGA which extends towards Wards River in the south, Bulahdelah and Krumbach in the east and Nowendoc to the north. The service includes a significant amount of transfers to hospitals at Taree, Maitland and Newcastle (John Hunter). They work closely with the Westpac Helicopter Service when required.

The ambulance service in the Gloucester area is very stretched in terms of its capacity to respond to emergencies. Regular transfers to hospitals such as Taree, Maitland and John Hunter in Newcastle take the ambulances and ambulance staff out of the area for significant periods of time. When out of the area, emergencies are responded to by the closest ambulance, which at times can be quite some distance away. The added local population and operations at Rocky Hill will exacerbate the already stretched service.

4.2.16 Taree TAFE

Key Insights conducted a telephone interview with the receptionist at Taree TAFE. She was able to advise that Taree TAFE does not offer any programs in Gloucester, but that they would be very interested in having a discussion with the relevant stakeholders about providing services to the area.

4.3 INTERVIEWS WITH TOURISM OPERATORS AND CLUBS

4.3.1 Gloucester Country Lodge Motel Management

Key Insights met with local managers of the Gloucester Country Lodge Motel, adjacent to the Golf Club. See **Appendix 2 (17)**. Key points:

- Gloucester is not a tourist centre – we could not rely on tourists for our business – they make up about 40% of our trade if overnight visits are included;
- we are a stopping point for people on the Armidale to Sydney route;
- mining is good for our business and we welcome this new proposal;



- we don't anticipate that our customers will be turned off by the presence of another mine in town – they won't be able to see it, it won't matter to them; and
- personally we want to see proper environmental controls for the sake of our children and the protection of our rivers.

4.3.2 Barrington Outdoor Adventure Centre

Key Insights conducted a telephone interview with Brian Kilby from Barrington Outdoor Adventure Club. See **Appendix 2 (14)**. The main points raised were:

- mining and tourism are not compatible;
- concern about dust, pollution and visual impact of mine;
- negative media coverage has already had an impact on business;
- there is already segregation in the town between those who support and those who oppose the mine;
- there are increased crime impacts of having more miners in town e.g. antisocial behaviours in town at night and safety impacts related to more single men out in town;
- our business is based on a clean natural image and mining doesn't fit with our image; and
- we have invested significantly in our business and we would be looking for compensation if this mine proceeds.

4.3.3 Online Accommodation Distribution Organisation

Key Insights conducted a telephone interview with Lesley Lalor of Online Accommodation Distribution Organisation. A record of the interview is attached as **Appendix 2 (15)**. The main points raised were:

- the market for online accommodation booking is growing;
- the proximity of the mine to the town will be a turn off to people wanting to stay in the town; and
- concerned about health impacts, dust, zoning, mine is too close to town, where will the mine stop, water, explosions, housing, traffic and loss of staff to mines.

4.3.4 Bucketts Way Motel

Key Insights conducted an interview with the Manager of Bucketts Way Motel, the largest accommodation facility in Gloucester. **Appendix 2 (16)**. Key points included the following.

- Destination NSW (State tourism body) figures don't make sense – the numbers there don't match the reality in Gloucester. My understanding is that everyone who rings the local Tourism Office enquiring about accommodation is recorded as an overnight stay – whether they make a booking or not. This would explain the overestimated data.



- 25% of our business at the Bucketts Way Motel is what I would call true “tourism”. 75% of our business is business travel and people visiting family.
- We have 28 rooms with a maximum capacity of 78 beds. We also have a 100 seat restaurant – we are the biggest Motel in town.
- A lot of our visitors aren’t here to see the location – it is where Gloucester is on the road that attracts them – it is an easy stopping place for people travelling from say Newcastle to Inverell.
- We directly benefit from GRL, AGL and Gloucester Coal Limited (now Yancoal Australia Limited). 50% of our business comes from those mining companies and a further 10-12% is from ancillary business related to mining. 5% would be locals visiting locals.
- 60-80% of the tourism to this region is camping – they come into town to get ice and they head out to camp.
- Two areas that we could grow are the Sports market and the Group Conference market.
- We need to get smart as a community about how we use mining money. I would like to see us partner on the provision of a nursing home.
- In summary, the GRL proposed mine will be VERY good for our business. We welcome it. My only concern with it being so close to town is the impact on our air quality. I want to see this closely monitored and reported to the community.

4.3.5 Gloucester Golf Club

Key points raised by the President of Gloucester Golf Club included:

- Gloucester Coal Limited (now Yancoal Australia Limited) has expanded over the last 8 years and this has had an impact on Golf Club activity. We have always had a good membership; however, since the Stratford mine has gone to 12 hour shifts activity at the Golf Club has decreased (It is noted that Gloucester Resources Limited proposes to operate either 8 hours or 10.5 hour shifts and not the 12 hour shifts adopted for the Stratford operation);
- estimate that Saturday golf has reduced by 25% since Gloucester Coal Limited has moved to 12 hour shifts. We do have new members as a result of Gloucester Coal Limited;
- the majority of our new members are “tree changers”;
- the Golf Club has done it tough for the last couple of years due to external factors (pokie tax, non-smoking regulations and primarily the GFC). Bus trips and social golfers from Newcastle have almost entirely dried up; and
- tourism is valuable to the Golf Club. We have a close relationship with the Country Lodge. The proposed mine is so close to town, it may threaten tourism. See **Appendix 2 (11)**

4.3.6 Gloucester Aero Club

- The Aero Club only needs an airstrip and people to fly. We just need 900 metres anywhere. We will be able to sort that out with GRL.



- We would have to be notified of blasting - organised through CASA. See **Appendix 2 (11)**.

4.4 FOCUS GROUPS

Key Insights facilitated two focus groups with young adults less than 30 years of age from Gloucester. The first group consisted of 3 young adults working in community services and indigenous affairs. The second group consisted of nine young adults sourced through local networks and the interview process. A record of the focus groups is attached as **Appendix 2 (20)**. The main issues raised were:

- the majority of people that are against the mine are people that don't need income – they are retired and have nice gardens;
- no one looks towards the mine – the Bucketts are the other way – that's where the scenic value is;
- mining will give us more things like Maccas, Woolworths, a cinema etc. – we want Gloucester to grow and become a modern town with good facilities. We don't want a dying old relic. Mining brings the things we want to see in our town;
- we already have dust from agriculture – super and lime – dust all through the town;
- dust is one of the things I would be concerned about – it has to be monitored;
- the tourism data is nonsense. I know hardly anyone employed in tourism;
- the wages are an issue – the inequity will be a problem and leads to resentment;
- they need to offer jobs to locals – people coming out of school. And don't put them on \$90,000 in their first year out of school;
- Gloucester needs more kids living here;
- there is a real gap in town for training for young people;
- I would like to see a set quota of jobs for local people;
- provide incentives for people to relocate to the area;
- would love to see GRL get out there more often – get more information out into the community. We would go to meetings but not ones with the protesters there;
- employment for young people is the biggest issue in Gloucester;
- the big issues are housing, training for young people, and transport;
- concerned about environmental impacts;
- there needs to be restrictions on protecting the scenic environment; and
- we don't want to be a mining town – we want balance.



4.5 COUNCIL PUBLIC MEETINGS

Key Insights attended the following two meetings organised by Council.

- A public meeting held on the 25th October, 2011 to present the findings of a prior community survey conducted by Council on the community's attitude towards exploration and mining in the LGA. The meeting was attended by 80 or so people, including Councillors, Council staff and representatives of the NSW Dept. of Planning. Participants included representatives of The Gloucester Project, Barrington - Gloucester - Stroud Preservation Alliance (BGSPA), the local community radio station, Chamber of Commerce and local farmers, small business people and residents. The age demographic of those present was overwhelmingly over 60 years of age with an even mix of male and female. The vast majority was opposed the expansion of coal mining in the Gloucester LGA.
- Council Information Session on 26th March, 2012 in relation to the Rocky Hill Coal Project. There were a few hundred residents present and no information was supplied by GRL which meant that some diagrams and data were inaccurate. GRL management was present at the meeting but was not invited to make any presentation. The vast majority of those in attendance were opposed to the mine, as evidenced by a show of hands at the end of the meeting. Signatures were also collected for a petition against the Proposal and most attendees appeared to be signing. Presentations were made by Graham Gardner (Council), Di Montague (GRIP), Dr Steve Robinson (BGSPA), Rick Collis (Legislative Council of NSW) and the Federal Member, Rob Oakeshott. The presentations were followed by questions from the floor. The main issues raised were as follows.
 - Council is not the consent authority and can only act as an advocate.
 - Concerns were raised about proximity to town and closest residents, cumulative impacts, hydrology, air quality, noise, vibration, social disruption, adverse impact on brand (clean rural), tourism, traffic, reduced agriculture, increased rents, displaced residents, emotional stress, and health impacts.
 - Mr Oakeshott emphasised that mining proposals will have to comply with the new Gateway Legislation.
 - One resident tried to speak in favour of the mine but was howled down from the floor and afforded no protection from the meeting facilitator so his points were not heard. The meeting was a protest environment and not welcoming of alternative views.

See **Appendix 2 (19)** for a record of the meetings.

4.6 CASUAL INTERCEPTS

Key Insights spent time in Gloucester township talking to local people. Most of the information gathered has augmented the specific research interviews and meetings and has been used as background across all areas of the SEIA. Particular points worth noting are:

- it is very difficult for people with young children to attend evening meetings, which is why the age cohort of those leading the protests may be skewed toward retirees;



- some people could not imagine that there would be any support at all for this mine proposal in Gloucester;
- the consistent concerns are proximity to the town and potential health and environmental impacts;
- some people will not give their views publically, particularly if they support the Proposal;
- Stratford people are particularly peeved that the Council has strongly opposed this mine proposal while Council has been supportive of the Stratford Coal Mine. They feel that Council is not interested in their needs;
- some people believe Council should remain objective throughout this process rather than taking an oppositional role;
- people with existing links to mining are more relaxed about the Proposal and they see potential personal benefits;
- many people think that the Proposal will be approved whatever the community appears to want or regardless of any submissions. There is little trust of government mechanisms;
- there is general recognition that the area benefits from existing mining;
- there is a strong memory that Stratford started as a “small boutique mine” but that it continues to expand; and
- Gloucester is a friendly rural community with a strong sense of local pride.



5. SOCIAL IMPACT ASSESSMENT

5.1 INTRODUCTION

This section of the report describes the social and economic features, including community infrastructure, of the Gloucester LGA and compares them, where appropriate, to the rest of NSW. It also details the extensive community research undertaken as part of the SEIA. Community input was both structured (meetings and interviews) and informal with casual meetings and responses to newsletters, surveys and newspaper advertisements. Analysis was also made of the Expressions of Interest that were submitted to GRL for employment in response to an advertisement in the Gloucester Advocate. (Note that individual identifying features were removed to protect the privacy of those seeking employment). This assessment of social impacts is made against this background and with reference to Council Planning documents and the literature.

This impact assessment is divided into a number of key areas:

- Health Impacts – including psychological impacts
- Social Infrastructure Capacity
- Community Sense of Place and Amenity
- Social Cohesion
- Employment
- Housing
- Cumulative Impacts
- Economic Impacts (following section – Section 6)

5.2 HEALTH IMPACTS

The potential health impacts of the Proposal relate to potential exposures arising from the construction and operation of the Rocky Hill Coal Project as well as the social impacts of a development of this nature on the community.

The range of social impacts discussed in this section contributes to health and wellbeing. However, there are specific health impacts that relate to the construction and operation of the mine and potential contaminants released into the environment. While dust and other exposures are addressed by the technical reports accompanying the EIS, and are subject to strict government regulations, it is highlighted here because it is of primary concern to the local community.

Potential exposures for workers and the community include:

- Dust, particulates, and gases
- Noise and vibration
- Wastewater and other waste
- Light
- Odour



If not managed appropriately, these outputs may impact on human health through altered air quality and water quality.

5.2.1 Health impacts associated with air pollution

There is growing community concern generally about the impacts of coal mining and power stations on the population's health, particularly in relation to respiratory disease and cancer. Community demands for greater transparency in environmental management and monitoring in the Upper Hunter Region, for example, have led to the NSW Government, together with the mining industry, establishing the Upper Hunter Air Quality Monitoring Network to monitor and report on air quality in the Upper Hunter Region.²⁴

The six key air pollutants to which most Australians are exposed are particulates, ozone, carbon monoxide, nitrogen dioxide, sulphur dioxide and lead. Dust from open-cut coal mining could contain a wide range of pollutants, but the one pollutant that is of most concern from a burden of disease perspective is particulates. The potential morbidity and mortality due to exposure to particulates far outweighs that attributable to other ambient air pollutants²⁵.

Particulates from open-cut coal mining activities consist almost wholly of dust and particles from the earth above the coal, and do not contain much actual coal dust. Particulates can arise from various sources such as motor cars, mining activities, industrial processes, agricultural practices (amplified in drought conditions), wood burning (domestic heating), un-flued gas heating and cooking, bushfires, wind-blown dust and tobacco smoke. Particulates can affect a person's health by aggravating respiratory diseases; irritating upper airways and eyes; increasing the risk of death from chronic respiratory and cardiovascular diseases.²⁶

Epidemiological research shows that air pollution can impact on health causing both acute and chronic effects. In relation to particulates, particle size is the main determinant of pollutant behaviour. Large inert particulates generally impact on aesthetic and environmental values without associated health implications. Inhalable particulates increase the occurrence of respiratory illnesses such as asthma, bronchitis and emphysema. The smaller PM_{2.5} fraction is considered higher risk due to their ability to penetrate the lungs and be absorbed into the bloodstream. The very small particle fraction of air pollution is attributed largely to diesel engine emissions²⁷. Diesel particulates are known to cause irritation and are considered a probable human carcinogen by the International Agency for Research on Cancer (AIOH 2007). Known health effects of particulates include upper respiratory tract irritation and infection, decreases in lung function and the exacerbation of symptoms and increased mortality from cardiovascular disease (EPHC 2010).

²⁴ www.newtabhttp://www.environment.nsw.gov.au/aqms/uhaqmnfaq.htm

²⁵ NSW Health (2010) Respiratory and cardiovascular diseases and cancer among residents in the Hunter New England Area Health Service Page 3.

²⁶ Pope et al, 2002.

²⁷ Kjellstrom et al 2002 Disease Control in Developing Countries Page 818



Populations that are most vulnerable include elderly people with existing respiratory and cardiovascular disease and young children with asthma²⁸. Levels of major pollutants in urban Australia only occasionally exceed air quality guidelines and levels of airborne particulates are relatively stable. Health effects depend on a number of factors, including:

- particle size;
- intensity and duration of exposure;
- the chemical nature of the particles;
- a person's health; and
- weather conditions, including wind, humidity and rainfall.

Keith J. Zullig, MSPH, PhD (*et al*) from the School of Medicine West Virginia University, conducted a comparative analysis of health-related quality of life for residents of US counties with and without coal mining. The study found that residents of coal-mining counties inside and outside of Appalachia reported significantly fewer healthy days for both physical and mental health, and poorer self-rated health when compared with referent U.S. non-coal-mining counties, but disparities were greatest for people residing in Appalachian coal-mining areas. Furthermore, results remained consistent in separate analyses by gender and age. The study concluded that coal-mining areas in the US are characterized by greater socio economic disadvantage, riskier health behaviours, and environmental degradation that are associated with reduced Health Related Quality Of Life²⁹.

The same research has not been repeated in Australia and results may not be entirely applicable here. The most relevant Australian report, based on reliable data, is NSW Health's *Respiratory and cardiovascular diseases and cancer among residents in the Hunter New England Area Health Service*. (2010). NSW Health's report makes the following conclusions.

"Compared to the rest of NSW, one or both of Upper Hunter and Lower Hunter, the geographical regions of HNEAHS that are most affected by open-cut coal mining and power generation activities, have higher rates of:

- *emergency department attendance for asthma and respiratory disease (but also for all other conditions, which may indicate a general tendency to greater use of emergency departments in these regions),*
- *hospital admission for all respiratory conditions together and for asthma (Upper Hunter only)*
- *hospital admission for cardiovascular disease and*
- *death from all causes and cardiovascular disease (lower Hunter only).*

These data may indicate an adverse health effect due to exposure to coal mining or coal-fired power generation activities in HNEAHS, or may be due to other factors (such as smoking, for example, which is higher in adults in Upper Hunter, although not statistically significantly higher). Thus they do not establish that these adverse health effects are attributable to air pollution or to any other specific exposure.

²⁸ Kjellstrom et al 2002.

²⁹ Keith J. Zullig and Michael Hendryx. *A Comparative Analysis of Health-Related Quality of Life for Residents of U.S. Counties with and without Coal Mining*. In Public Health Reports / July-August 2010 / Volume 125. Page 548.



Further investigation is required to determine the role of pollutant exposures. Once the level and distribution of exposure to pollutants from coal mining and power generation is established, any health effects resulting from these pollutant exposures can be assessed. Other recognised disease risk factors, such as smoking, poor diet, lack of exercise, occupational hazards and lack of effective use of self-management strategies should also be considered as possible contributors to the poorer health of residents of some areas of HNEAHS.”³⁰

Notwithstanding HNEAHS’s conclusion that further work is required and given the health risks, it is important that there is transparency in environmental management and monitoring modelled on the example of the Upper Hunter Air Quality Monitoring Network. Monitoring this research is a recommendation of this SEIA.

The Pacific Environment Limited Air Quality Report for the EIS states:

“The proposed dust management measures for the Proposal are based on recommendations outlined in the EPA’s Best Practice Report. The existing monitoring network will be reviewed and augmented for the operation of the Proposal and would be outlined in an Air Quality & Greenhouse Gas Management Plan for the Proposal.” (Pacific Environment Limited & Toxikos, 2013)

5.2.2 Health Impacts Associated with Noise and Light

Community noise is known to cause annoyance, sleep disturbance and impact on performance in children and adults. There is some evidence to suggest that noise may exacerbate cardiovascular disease and mental disorders, however this is inconclusive. Groups most vulnerable to noise-related impacts include children and people with existing physical and mental illness. Sleep is vital to restore biological processes and noise interferes with sleep through awakening, causing light sleep, and increased body movements all of which can affect mood and performance the next day. Individuals and communities may become accustomed to the noise level in their area, however, the introduction of a new noise can have a greater effect than might be predicted, causing annoyance and sleep disturbance.³¹

Similar sleep disturbances can be caused by vibrations associated with blasting (during the daytime) and disturbance from bright lights shining towards people’s sleeping quarters at night. The Applicant would adopt a suite of management and mitigation measures to control/minimise light-related impacts for residents surrounding the Site.

It is noted that a Noise, Vibration and Blasting Assessment has been undertaken as part of this EIS (Wilkinson Murray, 2013). Operator-attended and unattended noise monitoring was undertaken over four periods between July 2010 and July 2012. A total of 185 noise sensitive receptors were considered, many of which were located in areas surrounding the Site and in particular Forbesdale, Thunderbolt and Avon River Estates.

³⁰ NSW Health (2010) Respiratory and cardiovascular diseases and cancer among residents in the Hunter New England Area Health Service Page 57.

³¹ The health effects of environmental noise - other than hearing loss: May 2004 enHealth (Australian Government Department of Health and Ageing).



The results of the monitoring “established that the Site is located in a typical rural area with few noise sources and generally low noise levels, particularly background noise levels.”

The assessment includes noise modelling based on a number of noise assessment scenarios during the day and evening, the construction phase, and day, evening and night during the and operational phase of the Proposal and under a wide variety of meteorological conditions. The key outcomes of the assessment include the following:

- A total of eleven privately-owned receptors are predicted to receive noise levels exceeding criteria under any circumstances, during any phase of operations.
- Results of the cumulative noise modelling show the recommended amenity criteria are products to be satisfied that all receptors.
- In relation to sleep disturbance, the analysis indicates that predicted noise levels would not exceed the relevant screening criteria.
- Assessment of the potential for noise impacts from construction associated with the Rail Load-out Facility and overland conveyor indicates that seven privately-owned receptors would be ‘noise affected’ as defined in the Interim Construction Noise Guideline (DECC, 2009). No privately-owned receptors are predicted to be ‘highly noise affected’.
- Standard prediction methods indicate a potential theoretical exceedance of airblast overpressure criteria at four privately-owned receptors, however, this can be managed to achieve compliance.
- No exceedances of vibration criteria are predicted to occur at any privately-owned receptors.
- Noise generated by vehicles travelling to and from the Mine Area on Jacks Road and Waukivory Road would marginally exceed ECRTN traffic noise criteria during the 6.00am – 7.00am shift change.
- Increases in rail noise due to the proposal would be minor and always less than 2 dBA.

The assessment identifies a range of measures to achieve the predicted noise levels contained within it. It also notes that “operational noise impacts would be managed on an ongoing basis according to the DP&I’s Noise Management Zone and Noise Affection Zone protocols which provide strategies involving community engagement, real-time noise monitoring, investigations into acoustical mitigation measures and if required, acquisition of properties.”



5.2.3 Mental Health

Solastalgia is a new concept developed to give greater meaning and clarity to environmentally induced distress. Solastalgia is now being defined in the literature as the distress that is produced by environmental change impacting on people while they are directly connected to their home environment. Two collaborative research teams have worked across two contexts and have found solastalgia to be evident firstly in the experiences of persistent drought in rural NSW and secondly in the impact of large-scale open-cut coal mining on individuals in the Upper Hunter Valley of NSW. In both cases, people exposed to environmental change experienced negative effects that are exacerbated by a sense of powerlessness or lack of control over the unfolding change process.³²

The qualitative research for this report reveals that local people have identified heightened levels of stress associated with the Rocky Hill Coal Project and therefore there are concerns about mental health. Environmentally induced distress could lead to mental health issues; however, there is no data available to make this conclusion. Despite the lack of conclusive data, the observed evidence of distress amongst some members of the local community is indisputable. The uncertainty may be heightened because of misinformation and a variety of agendas and campaigns operating in opposition to one another concurrently.

In general, the prevalence of mental health conditions in rural and remote Australia has been estimated as equivalent to levels in major cities. However, rural Australians face greater challenges as a result of such conditions, due both to the difficulty of accessing the support needed for mental illness and to the greater visibility attached to mental health in a smaller community. Qualitative research with local health professionals indicated that there is a gap in the provision of generalist mental health care (for families and children) in the Gloucester area.

The Australian Institute of Health and Welfare (AIHW) reports that rates of completed suicide in regional and remote areas are 1.2 to 2.4 times higher than those in major cities. Natural disasters such as drought, cyclones, floods, bushfire and pest infestations also contribute to mental illnesses and have a very direct impact on income and wellbeing for rural Australians.

Balancing the potential negative impacts are the positive mental health outcomes associated with increased employment and training opportunities and enhanced economic development associated with a project of this scale. The qualitative research reveals that many young people leave town for work and study and that those who remain are often trapped in unemployment. The negative mental health impacts of long term unemployment are well documented. While many retirees have taken advantage of a tree change to the rural area of Gloucester, so too many mine workers who are currently in fly in fly out positions in more remote parts of the country will take advantage of the more balanced lifestyle that Gloucester has to offer to their families. This will be an obvious benefit to those moving to the area.

It is a recommendation of this report that HNAEHS research on health impacts be monitored by GRL and responded to appropriately.

³² Glenn Albrecht et al Solastalgia: The distress caused by environmental change. 2007, Vol. 15, No. s1, Pages S95-S98.



5.2.4 Worker Health and Safety

Safety for mine workers is very important to the Australian community and is one of the highest priorities for the industry and GRL. Australia boasts the best mine safety record in the world. The industry's goal is to achieve zero harm in every work site through continuous improvement, intensive training of our workers and managers, introducing advanced work practices and new technology.

Some recent areas of reform in New South Wales include hours of work, fatigue management, hazard exposure, monitoring, and hazard reporting and workforce participation in the development of safety management systems.³³

A particular potential risk for the Rocky Hill Coal Project is the OH&S issues associated with workers travelling long distances to work each day. It is in the best interests of the workers, GRL and the Gloucester community for commuting to be minimal with the majority of workers living in the Gloucester Shire. Rosters should also be structured in a way to allow time with family and community and sporting activities. A target of 50% of employees and contractors living within the Shire has been recommended by this SEIA for the first two years of operation increasing to a target of 75% living locally by end of the third year of operation.

5.3 SOCIAL INFRASTRUCTURE CAPACITY

It is important to understand the capacity of community services and facilities to be able to meet the projected increase in population associated with the Proposal should it proceed. It is the contention of this report that the more employees who live in the Gloucester Shire the better the social outcomes derived from the Proposal. However, to be realistic, it is not likely that all the employees associated with the Rocky Hill Coal Project will live in Gloucester. Given the relatively small local population base, the distance from major urban areas, the poor nature of local roads and the competing demands and opportunities for employment in the sector in the region, it is likely that there will be a mix of local, regional and out of area employment. Therefore, we have developed three possible scenarios in order to assess impacts in both the social and economic section of this report i.e. low, medium and high levels of employees living in the Gloucester Shire.

The Australian Bureau of Statistics 2011 Census data for NSW in relation to family composition and age have been used to determine the number and age breakdown of potential new families associated with mine employees. This report recommends targets for employees living in Gloucester, and in the scenarios below a conservative approach has been taken, with the highest resident rate scenario predicting that only 50% of employees will live in Gloucester during operations. There are a number of variables to be considered, including:

- It is not certain whether single workers or families are more likely to live in Gloucester. This variable will be influenced by recruitment strategies and incentives offered by GRL.
- Percentages may vary over time, with GRL being able to increase the representation of local employees as training and recruitment strategies are implemented.

³³ www.nswmin.com.au/Policy-and-Advocacy/Health-and-Safety/default.aspx



For the purpose of analysing capacity and local impacts, **Table 14** illustrates population predictions over three scenarios (high, medium and low resident rates). Given the response to GRL's call for Expressions of Interest for employment, GRL hope to far exceed the resident rate of 40% targeted for the first two years. If they deliver on their commitment to training and local employment this is achievable, and in the recommendations a target of 75% local resident rate is set. It is unlikely that this rate would be achieved from the outset of the Proposal. Achieving 75% over time also minimises the potential impacts in the longer term as the community slowly adapts to the population increase. While 40% of workers living locally may be considered 'high' at the end of the first year, it would be prudent to review the actual number of employees living locally after 12 months of operation and to review scenarios and social infrastructure capacity issues accordingly. GRL is confident of achieving a 75% target after 3 years; the scenario analysis takes a more conservative approach for the first three years of operations.

For more detail on population growth scenarios refer to **Appendix 3**.

5.3.1 Childcare

There are two Pre-Schools and three Family Day Care Centres in Gloucester. Based on the low, medium and high scenarios relating to the increase of families in the area, there will potentially be between 3 and 15 new children aged between 0 – 4 years that may require some form of childcare.

Interviews with the Directors of both Pre-Schools revealed the following:

- The Gloucester Pre-School could take 2 to 3 more children
- The Barrington Street Pre-School are currently close to capacity
- The three Family Day Care Centres are full.

Both Directors were of the view that the existing facilities, despite currently being close to capacity, would be able to cater for an increase of between 3 and 15 new children requiring childcare services.

Assessment: The capacity of existing childcare services may be stretched to meet demands of population growth associated with 50% or more of employees living in Gloucester with their families. The need for an additional 3 to 15 new places wouldn't be enough to require a new preschool, however, increased demand would require current services to expand their capacity which both Pre-schools would be prepared to do subject to financial viability.

Table 14
Scenarios for Population Growth associated with new employees living in Gloucester

Page 1 of 2

Locational Status of Employee	Low 20% live in Gloucester	Medium 30% live in Gloucester	High 40% live in Gloucester
Construction Phase			
A. Employees recruited from local area	10	15	20
A. Associated family impacts	Nil – families already are living in Gloucester.		



Table 14 (Cont'd)
Scenarios for Population Growth associated with new employees living in Gloucester

Page 2 of 2

Locational Status of Employee	Low 20% live in Gloucester	Medium 30% live in Gloucester	High 40% live in Gloucester
B. New employees relocating to Gloucester	10	15	20
B. Associated family impacts	22 new adults 5 children 0-4 yrs. 9 children 5-14 yrs. 5 teenagers 15-19 yrs.	28 new adults 8 children 0-4 yrs. 14 children 5-14 yrs. 7 teenagers 15-19 yrs.	35 new adults 10 children 0-4 yrs. 18 children 5-14 yrs. 10 teenagers 15-19 yrs
Construction Phase (Cont'd)			
C. Employees commute weekly and stay in Gloucester during the work week	40	35	30
C. Associated family impacts	<i>Nil – families do not accompany employees</i>		
D. Employees drive in drive out daily	40	35	30
D. Associated family impacts	<i>Nil – families do not accompany employees</i>		
Locational Status of Employee	Low 10% live in Gloucester	Medium 25% live in Gloucester	High 50% live in Gloucester
Operational Phase			
A. Employees recruited from local area	6	15	30
A. Associated family impacts	<i>Nil – families already are living in Gloucester.</i>		
B. New employees relocating to Gloucester	6	15	30
B. Associated family impacts	11 new adults 3 children 0-4 yrs 5 children 5-14 yrs 3 teenagers 15-19 yrs	26 new adults 7 children 0-4 yrs 14 children 5-14 yrs 7 teenagers 15-19 yrs	55 new adults 15 children 0-4 yrs 28 children 5-14 yrs 14 teenagers 15-19 yrs
C. Employees commute weekly and stay in Gloucester during the work week	55	46	30
C. Associated family impacts	<i>Nil – families do not accompany employees</i>		
D. Employees drive in drive out daily	55	46	30
D. Associated family impacts	<i>Nil – families do not accompany employees</i>		



5.3.2 Healthcare

Hospital

Generally, the Gloucester Hospital will have the capacity to cope with predicted increase in population growth. Hospital management made the following comments in relation to the hospital's capacity.

- They would need to enhance their respiratory monitoring equipment.
- They could do pre-employment health checks for GRL.
- They would be interested in joint advertising/recruitment – mining/health – maybe jointly fund a recruitment drive. It is hard to attract new nurses.
- They need to be positive if the mine proceeds and work with the mining companies to see where Health can add value. Could we be involved in their emergency plans for example?
- Extra residents will have an impact on available GP services.
- The idea of a Community Grants scheme is good. The biggest community need would be co-location of services in a “one stop shop” – Hospital, Ambulance and GP services.
- They do see some mental health issues (e.g. related to the drought), but there is a gap between mental health issues and child family services. They have become too specialized and there is no generalist support.
- Maternity (young families) may be an issue if there is a significant increase in population. We have the model of care program but it only has low usage. 20 births per year – low risk. We do have more capacity to deliver more babies. It would be good for us in attracting midwives.
- Helicopter pad would be good – they currently use the school grounds.
- They refer patients to John Hunter Trauma unit (124km), Taree (80km) and Maitland (124km).

Medical Centre

The Gloucester-Stroud Medical Practice has surgeries in Gloucester and Stroud. The Gloucester surgery has seven doctors; five permanent doctors and two registrars. Three of the doctors are full time and the rest are part time. They also provide the emergency doctors for the hospital. The Gloucester Stroud practice holds records for 8,500 patients (this suggests their catchment is much larger than the LGA). Early in 2012, when the surgery only had three doctors, it was struggling to cope but now it has increased the number of doctors it has good capacity to meet current and future needs. The current Practice Manager was of the opinion that the surgery could cope with an additional 30 families (approximately 112 people). The Stroud surgery has two doctors.

Assessment: The healthcare system in Gloucester has the capacity to cope with the increased population associated with the operation of the mine at the operational high scenario (50% of employees living in Gloucester). The service system has many of the challenges of rural healthcare including distances and patient transport, meeting the needs of the ageing



population, mental health services, and availability of GPs, attracting qualified staff and purchasing major equipment.

Mental health is also a concern of the local community and the hospital management reports a lack of generalist services in this area, particularly for families with children. It is a recommendation of this report that this area of need is systematically monitored.

5.3.3 Education

Primary and High Schools

The NSW Department of Education and Training, Regional Asset Planner for the North Coast Region, Mr Greg Eyears, is responsible for asset planning and, in particular, the maintenance of data in relation to the current capacity of State school properties in the North Coast Region, which includes Gloucester. The “Assessment of School Enrolments” table for the Taree School Education Area including Great Lakes and Gloucester LGAs is at **Appendix 2 (12)**.

Based on the three scenarios developed for social impact analysis on this proposal (**Table 14**), it was identified that there might be a requirement for an extra 5 to 28 new primary school places as a result of new families moving to the area if the mine were to be approved. Likewise, there might be a requirement for an extra 3 to 20 new high school places as a result of new families moving to the area. Mr Eyears’s email response included the following: *“The number of students you are predicting would have a minimal impact on both the primary and high schools in the Gloucester area. Gloucester Primary School currently has 4 spare permanent classrooms and both schools can accommodate demountables for short term increases.”*

Vocational Education

There is minimal provision of vocational education programs in Gloucester. As a result “a significant proportion of youth leave the area for further education/employment.”³⁴ NSW TAFE does not provide any courses in Gloucester. There is, however, a daily bus between Gloucester and Taree which enables students to participate in the Taree TAFE Campus programs.

There is only a very small number of training organisations providing accredited and non-accredited post school training programs in Gloucester including Bucketts Way Training and Lexon Training Consultants (Port Stephens based Registered Training Organisation). There is an Enhancing Skills Training Committee of the Enhancing Skills in Gloucester Project which is working towards the development and implementation of a model of training provision in Gloucester.

A key plan objective of the Gloucester Shire Community Plan 2009 – 2014 is to support the development of a strong employment and further training framework.

The Gloucester Shire library is a local facility able to support people in their education and training pathways.

Assessment: School education infrastructure in Gloucester has the capacity to meet the potential increases in population associated with mine employees and their families.

³⁴ Gloucester Shire Community Plan 2009 – 2014, p 1



Vocational education has existing limited capacity and Gloucester is underserved in this area. Significant expansion of vocational education would have to occur to meet the needs of GRL and incoming employees and their families. GRL has made a commitment to apprenticeships, tertiary education and training/upskilling and this commitment is reinforced in the recommendations of this report.

5.3.4 Emergency Services

There is not a 24 hour Police presence in Gloucester and the Ambulance Service currently reports being regularly stretched to deliver service to the existing population. There are ambulance stations at both Gloucester and Stroud, although neither is staffed on a 24 hour basis. Gloucester is staffed by four people during the day shift only. Staff are rostered “on call” for hours outside the day shift. The Gloucester station services an area much wider than the LGA, extending towards Wards River in the south, Bulahdelah and Krumbach in the east and Nowendoc to the north. The service includes a significant amount of transfers to Taree, in hospitals Maitland and Newcastle (John Hunter). They work closely with the Westpac Helicopter Service when required.

Assessment: Emergency Services currently have capacity issues. It is unlikely that the level of population increase would significantly impact on police services in a low crime area; however, the Ambulance Service is of a view that any additional population growth will be a burden. GRL will also need to address capacity issues in its own Emergency Plans.

Workers and their families moving to and living in the Gloucester area will provide an increase of potential volunteers for community services such as the SES and the Rural Fire Service. Long shifts can be prohibitive to volunteering and it is recommended that GRL have Human Resource policies that encourage employee volunteering in local organisations.

5.4 COMMUNITY SENSE OF PLACE AND AMENITY

The Gloucester Community has a strong “sense of place” and people highly value the amenity of the area. This was a theme in much of the research undertaken for the SEIA including the Community Survey. The Community perceptions about place are well captured in the Gloucester Community Strategic Plan which states:

“As a community we have a strong sense of place, and greatly value the special personal places and spaces within our region. We are part of this place – steeped in the history of our ancestors and guided by the vision we hold for its future.”³⁵

“We love this place and we want to nurture and protect it for our families and our future. Our beautiful scenery and pristine environment are the reason that many of us came to the Gloucester Shire - and the reason why many of us choose to stay.”³⁶

“Respondents [to a 2011 Council survey] also said how much they loved the Gloucester community and the “country town” atmosphere that Gloucester enjoys. They want to see community values upheld in the future and a range of opportunities for people to contribute to

³⁵ Community Strategic Plan – Adopted by Council 27 June 2012 Page 17

³⁶ Community Strategic Plan op cit Page 16



the wellbeing of others through volunteering and involvement in community activities. Support for the arts and cultural activities were regarded highly, to help maintain an active and vibrant place to live.”³⁷

When talking with local organisations and people, an often-mentioned desire was: “We don’t want to change from being a town with a mine to a mining town.” To a degree, the existing mining at Stratford and Duralie has been accepted. However, the AGL Gloucester Gas Project and the Rocky Hill Coal Project are seen by a broad component of the community as being significant threats to the character and amenity of Gloucester. In part, this view is driven by environmental concerns but the most significant driver is the proximity of the proposed mine to the Gloucester township and its perceived potential impacts on amenity and the rural character of the township.

Even people interviewed for this research who are supportive of the mine and related benefits for Gloucester still desire balance. They welcome change, but not change at the expense of the amenity of the town. While wanting to see change in terms of economic activity and opportunities they also want to see the town maintain its diverse economic base and rural ambience. They are able to support the mine because they believe that balance is possible and in general they trust in the environmental standards and monitoring that will be applied to the Proposal.

Gloucester Shire Council is motivated to oppose the Proposal primarily because of its proximity to the township and the fact that some of the proposed mine will be on land that has been zoned E3, Environmental Management. Council recognises the value of mining to the local economy but does not want a mine in this zoning and in this proximity to the township of Gloucester.

It is difficult to assess where the balance lies. The Visual Impact Statement for the EIS is critical to obtaining a sense of how much of the mine will be visible from the township and from the nearby housing estates. Most people in Forbesdale Estate do not want to overlook a mine and it is these neighbouring estates where the potential risks to amenity are the highest.

The recommendations of the Visual Impact Statement are critical to determine impacts on amenity.

The scale of the Rocky Hill Coal Project is not such that it will overtake the local economy. Agriculture, government services and projects like The Gloucester Project (a regional development project focused on food production³⁸) will still be able to contribute to the sense of place with which people identify and will provide continuity of identity during a time of change.

5.5 SOCIAL COHESION

The Gloucester community is already a community divided over mining. The AGL Coal Seam Gas Project, the extension to Stratford Coal Mine, and the proposed Rocky Hill Coal Project have all generated varying degrees of passionate reactions in Gloucester. There are a number of variables that determine people’s position such as whether they already benefit from mining either through employment or land sales, whether they stand to benefit from mining in the

³⁷ Ibid Page 13

³⁸ <http://www.thegloucesterproject.org.au/documents/aboutTGP/about.html>



future through business activity and whether they are at risk of being impacted by living very close to the mine. Observations that impact on existing social cohesion made throughout this research are as follows:

- GRL has some significant legacy issues from previous management that from all accounts did not behave professionally or with respect for local people. This has led to a number of local people being very wary of any information provided by GRL.
- There are some well held myths that separate people in the debate regarding resource projects such as “the opposition to the Proposal is all from blow-ins; they are not locals.” The Community Perception survey conducted for this research showed that opposition to this proposal comes from many sections of the community and that overall respondents were predominantly long term residents of the Shire. Suspicion of newcomers and tree changers exists even without the mining agenda being under consideration.
- With the exception of people involved in the environmental groups leading the opposition to the Proposal, people are generally reluctant to express their views in public, particularly if they are supportive. Fundamentally, there is a desire for everyone in town to get on well together.
- There is frustration amongst younger people who see the mine as an opportunity for training, career advancement and for attracting more young adults to the town.
- For those who are publically active, particularly members of GRIP, there is a feeling of exhaustion from mounting this battle against the Proposal when they would prefer to be getting on with the rural life that they enjoy.
- There are anecdotal reports that families have broken up over the stress of negotiating with resource companies.
- There is some resentment amongst some business owners about the negative publicity generated by the activism. There is also some resentment that Council has taken an advocacy role against the Proposal rather than remaining objective. There are others who think this is one of the best things Council has done.
- There is discontent from people living in Stratford and dealing with a mine in very close proximity and they are unimpressed with Council’s stand on the Rocky Hill Coal Project as they feel that they were never supported when Stratford was under consideration.

All of the above present some level of threat to existing social cohesion. However, it is the observation of Key Insights that existing tensions have not ruptured the town socially and that overall people act as a community in harmony. It is the position of this report that most of the existing tensions will subside when the proposed mine is either approved or rejected. People will have certainty and will continue to act as a cohesive community with either outcome. If the Proposal is approved, it will result in further social disruption for those already feeling stressed about the approval process. This would be particularly true for those that feel they would have to relocate if the mine were to be approved. Conversely, if the Proposal were to be refused there will be those who would be disappointed about lost opportunities.

Gloucester is a relatively low crime area and significant increases in crime would impact on social cohesion. Recent research indicates that some of the social costs of the mining boom



relate to new patterns of crime and violence, particularly in the large fly-in fly-out camps. The housing of large numbers of men in work camps with little else to do off roster than consume alcohol, can impact on levels of male-on-male alcohol fuelled violence and have implications for demands on local policing (Carrington and Pereira, 2011)³⁹. It is not the intention of GRL to build work camps and this risk emphasises the importance of committing to a policy of recruiting and maintaining employees who live locally. It is also important for GRL to have policies that address gender balance in the workforce to avoid the subtle masculinisation of the workforce over time; that is increased number of jobs for males without similar growth in female employment.

The other consideration in relation to social cohesion is the potential impact of an influx of miners and/or an increased number of existing residents on higher wages. While there is a range of incomes in Gloucester at present, the mining sector has traditionally paid higher wages on average than other sectors. If a group of people have much stronger buying power than other sectors in town, this can lead to resentment and impact negatively on social cohesion. It is extremely important that economic benefits are distributed to the entire community and that GRL participate in community-building activities and address potential inequities through the Community Grants Program (see Section 7).

5.6 EMPLOYMENT

Employment benefits for the LGA and the Hunter Region delivered by the Rocky Hill Coal Project will be significant. The economic impacts of employment for Gloucester and other parts of the NSW are detailed in Section 6, Economic Impact Assessment.

The social benefits associated with employment will be maximised for the local area if a high percentage of workers live in the Gloucester Shire; comprised of existing residents and new workers relocating to the LGA. These social impacts include:

- Increased population to increase viability of local institutions, services and businesses;
- Increased value in the property market;
- More potential members for community organisations and clubs with increased volunteer capacity;
- Increased ability to attract training providers and courses for Gloucester;
- Improvements to the local skill base;
- Increased economic activity in all sectors;
- Enhanced diversity within the community including more families with young children;
- Enhanced training and career path opportunities for existing local people.

The social risks associated with increased population as a result of increased employment opportunities are:

- Wage inequity leading to lack of social cohesion;

³⁹ Carrington and Pereira; "Assessing the social impacts of the resources boom on rural communities." In Rural Society - Vol. 21 Nbr. 1, October 2011



- Stress on capacity of some social infrastructure to meet demands of new population;
- Upward pressure on the rental market and housing prices to the detriment of low income earners (see 5.7 Housing);
- Ongoing loss of workers from other industries to mining; and
- Worker fatigue and traffic impacts if new employees drive in and drive out.

One of the determinants for employment of local people is the availability of skilled workers in the local population, however, GRL's commitment to training and upskilling can address this gap. Key Insights analysed data from Expressions of Interest obtained by GRL from an advertisement for employment placed in the local Gloucester newspaper. This analysis revealed a high level of relevant local skills and experience and a strong interest shown by those living outside the LGA in relocation to Gloucester. A number of Expressions of Interest were from Gloucester people working elsewhere who were looking to return to their home town.

In a survey conducted in 2011, predominantly in the Bowen Basin in Queensland, Kerry Carrington and Margaret Pereira investigated the social impacts of the resources boom on rural communities. Their paper, based on the results, argues that the social licence to develop new mining projects is strong for projects requiring a 25% or less non-resident workforce, diminishing significantly thereafter and is very weak for projects planning to recruit a non-resident workforce in excess of 75%.⁴⁰

This SEIA recommends a target of 75% of workers to reside in the Shire or nearby areas. It is anticipated that this target is achievable.

Employment policies are important in enhancing the benefits of local employment. Research into industries that rely extensively on extended block rosters indicates these forms of work organisation also have manifold implications for the social organisation of everyday life in resource towns (Beach, Brereton, Cliff, 2003; Carrington *et al.*, 2010; Gibson, 1994; Sharma; Rees, 2007; Storey, 2001). Implications identified by this research include fatigue-related injuries and accidents; greater abuses of alcohol and drugs; family violence and break-ups; parenting problems; mental health problems; the long-term sustainability to retain staff and ensure continuity of skill and expertise; short and long-term occupational health and safety implications; and reduced workplace commitment, community involvement and other implications for host communities and their regions⁴¹. (Note that GRL is not intending to use block rosters and this position is encouraged.)

Qualitative research for this Proposal suggests negative impacts have been experienced at Gloucester Golf Club when Stratford Coal Mine changed to 12 hour shifts. It is a recommendation of the report that family friendly and community friendly work rosters are considered. It is noted that most shifts at RHCP will be either 8 hours or 10.5 hours depending on the year of operation and the likely opportunity(ies) to operate equipment during the evening and night-time periods. This will enable greater community involvement and participation in community/supporting activities by those employees living in the local area, than if they were required to work 12 hour shifts.

⁴⁰ Carrington and Pereira; "Assessing the social impacts of the resources boom on rural communities." In Rural Society - Vol. 21 Nbr. 1, October 2011

⁴¹ Ibid



5.7 HOUSING

Increased population as a result of employment of large numbers of workers relocating to the area is likely to have impacts on the housing market.

Potential positive impacts include:

- Higher rents and therefore higher rates of return for investors;
- Higher property values (for existing residents);
- Increased activity in the construction industry and associated positive impacts.

Potential negative impacts include:

- Higher rents and increased housing stress for lower income earners already living in Gloucester;
- Reduced saleability of houses in close proximity to the mine;
- Reduced home affordability for low income earners and first home buyers.

As detailed in the Economic Impact Section (see Section 6), the research across Australia and within the wider Hunter Region indicates that the increase in local residents and drive-in /drive out workforce in mining growth areas does impact on the local residential property market; driving up property values and driving down rental vacancies. The extent to which the Gloucester locality will be impacted in these ways will depend upon:

- The supply of labour within the existing community;
- The available supply of housing and residential land for sale and lease;
- The wider provision of services and amenity which attract workers to relocate;
- The responsiveness of the market to increased demand;
- The responsiveness of the community and Council to provide more innovative housing/accommodation options (boarding houses and sub-letting);
- The relative percentage of long term lease to drive-in / drive-out demand for accommodation;
- The extent to which the mine, mine traffic and externalities impact on residential areas; and
- Improvement in road access and subsequent impacts on drive/commute time.

The issue of accommodation and housing availability and affordability is much more apparent in existing and new mining communities than it was five years ago when the pressures began to emerge. While some impact is likely and beneficial for existing home and property owners, the extent to which inflationary impacts occur can to a large extent be managed through appropriate mitigation strategies. This SEIA recommends targets for locally based employment and these targets will impact the local housing market. Note that local employment includes people already living in Gloucester and people relocating to the area. Consideration of strategies to mitigate housing stress could be a project considered by the administrators of the Trust. The detail of the mitigation strategies would be developed by community groups who would then apply to the Trust. According to Real Estate Agents there is ample land available for new housing projects and development of this land would be market driven.



5.8 CUMULATIVE IMPACTS

Cumulative impacts are the successive, incremental and combined impacts (both positive and negative) of an activity on people and communities. They can apply to any type of development and in this case they can arise from the compounding activities of a single operation or multiple mining and processing operations, as well as the interaction of mining impacts with other past, current and future activities that may not be related to mining. Cumulative impacts are most often raised in the context of multiple mining operations in established mining areas such as the Singleton LGA. It should be noted that Gloucester is geographically, geologically and socially different from the Hunter and does not have the potential for mining to grow to the magnitude it has in the Hunter Valley.

The heightened prominence of climate change and the growing community concern in regard to health problems associated with mining and transport of coal has focused much of the discussion in regard to cumulative impacts on social and environmental issues. Cumulative economic impacts are addressed on the Economic Impact Assessment Section of this report. The focus of the discussion (in media and at Council meetings) and qualitative research for this report have largely been on the potential negative cumulative impacts. Cumulative impacts can also be positive; for example increasing critical mass for key services, attracting tertiary education providers and creation of supply change business opportunities.

There is concern in the community about cumulative impacts associated with the Rocky Hill Coal Project proposal, the AGL Gloucester Gas Project and exploration activities and the expansion of the existing Stratford Coal Mine.

It has been observed and documented elsewhere in this SEIA (see Section 4) that the community already has consultation fatigue and is receiving a lot of information from these and other new projects proposed for Gloucester.

The primary concern is the cumulative environmental impacts, particularly in terms of air quality and impacts on the water table. This is the subject of other technical reports accompanying the EIS; this report recommends implementation of the monitoring and mitigation strategies contained therein.

Cumulative social impacts are primarily related to population increase and the increased presence of mining and mine employees in Gloucester and the nearby villages. If Stratford Coal Mine were to increase its number of employees by 125 (as indicated in the Stratford Extension Project Environmental Impact Statement) and if these employees relocate to Gloucester, then that would increase pressure on social infrastructure and housing affordability. It would also contribute positively through diversity of the local population, critical mass to support important services and contribution to a positive economic climate.



Table 15
Overview of Cumulative Social Impacts

Page 1 of 2

Identified Social Impact	Cumulative Effect	Outcome / Mitigation
Health impacts – respiratory	A total increase in the quantum of open cut mining could increase air pollution. Refer to Air Quality Study (Pacific Environment Limited & Toxikos, 2013) (implement recommendations to meet Health Standards) and HNEAH Research. The available health data is currently insufficient to properly monitor long term cumulative effects.	Diligence and transparency required in monitoring both air quality and key health indicators over time. Actions resulting from monitoring should apply to individual operations and strategies developed across the local resources sector. Joint responsibility for air quality between resource sector, agriculture and other particulate creating activities, should be encouraged. HNEAH research outcomes should be monitored and applied where applicable.
Mental Health Impacts	Sources of environmental induced stress in the community include the Rocky Hill Coal Project, expansion of existing mines and coal seam gas exploration and production. The presence of several large projects increases the stress for some people, particularly those who desire minimal change for the area. There is not hard data available yet to test if this stress converts to mental health hospital admissions or other indicators such as suicide rates. The qualitative input from the community on this issue should be sufficient for mental health impacts to be taken seriously.	Health indicators should be agreed to with local health practitioners and monitored. The resources sector should work together to streamline general resource company information being distributed in the community. People should be able to easily opt in and out of information media and consultation. The adequacy of the local service system to properly support people suffering from high levels of stress should be further explored by local health practitioners.
Social Infrastructure Capacity, Employment, Housing, Social Cohesion.	AGL has indicated that it will be a low level employer therefore unlikely to add to demands for social infrastructure and housing. Stratford Coal Mine expansion has argued that it needs to expand to “secure jobs for current employees” & the DOP approval lists “13 jobs”. The EIS for Stratford Coal Mine indicates 125 new jobs. If these consist of people predominantly relocating to the area then there will be issues for social infrastructure capacity in the short term and pressure on rental availability and housing prices.	Contribute to flexible approaches to housing provision including boarding houses and supporting quick approval processes. Keep the Department of Education and Communities informed of employment growth and likely numbers of new families with children.



Table 15 (Cont'd)
Overview of Cumulative Social Impacts

Page 2 of 2

Identified Social Impact	Cumulative Effect	Outcome / Mitigation
Sense of Place, amenity.	An overall increase in mining activity leads to increased contribution of mining to the economic base and social character of the Gloucester township. There is some community and Council concern about both the proximity of the Rocky Hill Coal Project to the township and the cumulative effect of an increase in overall mining shifting the character of Gloucester from rural to mining centred. Mining is likely to be more prominent but will not eliminate other industry sectors such as tourism and agriculture.	GRL to be involved in community organisations and to support community building activities and events through the Community Grants Program. Promote human resources policies for the mine that support involvement of employees in the community and utilise family and community friendly rosters. Recommendations of the Visual Impact Study (Richard Lamb & Associates, 2013) should be applied.
Economic impacts	Dealt with in the Economic impact assessment but include both positive and negative cumulative impacts.	Refer to Section 6. Implement Community Grants Program to spread benefits across the community. Prioritise employing and contracting existing locals/businesses and incentivise new employees to relocate to Gloucester. Apply innovative approaches to the provision of housing. Coordinate monitoring of employment impacts and subsequent population growth across the Resources sector.



6. ECONOMIC IMPACT ASSESSMENT

6.1 INTRODUCTION

The Proposal involves two major elements namely, the mine itself with its coal handling and preparation plant (CHPP) and the despatch of coal via an overland conveyor and Rail Load-out Facility. These two major elements are connected and supported by a range of other facilities including:

- a new access road;
- intersection and road upgrades;
- a workshop;
- administration and site offices and amenities area;
- amenities buildings; and
- on-site car parking areas.

The layout of the proposed mine has previously been discussed in Section 1 and displayed on **Figure 4**.

Coal from the proposed mine would:

- be extracted over a period of approximately 14 years⁴² (subject to achievement of the programmed production schedule);
- ramp up to an annual ROM coal production of 2 million tonnes;
- be transported by overland conveyor to the Rail Load-out Facility for despatch;
- be transported by rail to the Port of Newcastle; and
- shipped from the Port of Newcastle.

During the 12 month site establishment and construction phase for the mine and associated facilities, it is estimated the Proposal would directly employ an estimated 100 persons.

During the operational phase, the mine and associated facilities would employ on average 123 persons, with a maximum of 150 persons employed at any one time.

The Rocky Hill Coal Project is owned and operated by Gloucester Resources Limited, an Australian Registered Company with its head office in Brisbane.

The capital investment value of the Proposal is estimated to be \$148 million in the first year i.e. to enable the first tonne of coal to be despatched. The subsequent capital investment throughout the remaining life of the mine would be approximately \$42 million. The total capital expenditure is \$190 million.

⁴² The 14 years relates to the period from the commencement of the site establishment and construction phase of the mine to the completion of coal extraction. A 2 year period would follow to enable the final landform construction and rehabilitation.



The key economic benefits of coal mining can include direct and indirect employment, flow-on spending or multiplier effects, contribution to Gross State Product, tax revenues to government for re-investment, foreign exchange earnings and investment in infrastructure.

The proposed Rocky Hill Coal Project would deliver all these benefits. The economic component of this SEIA report identifies the nature, extent and distribution of those benefits and identifies strategies to enhance these benefits.

The key economic costs of mining can include the displacement of existing and potential economic activities, reduction in the viability of neighbouring uses, and deflationary and inflationary pressures on property and housing costs. The potential for these negative impacts and any amelioration strategies is also discussed.

This report relies on quantitative assessments using multiplier analysis for matters such as employment, direct and indirect economic flow, and more qualitative discussion on wider issues and impacts.

6.2 MULTIPLIER METHODOLOGY

Multiplier analysis is a standard tool of economic assessment used to calculate the flow-on effects on income, investment and employment of a proposed net autonomous investment. The multiplier effect operates because the initial investment requires the purchase of labour, goods and other services and these purchases generate further flow-on expenditure. At each round of investment and expenditure the effect diminishes until a final total increase in the economy can be calculated. It is the ratio of the value of the final impact across the economy to the initial investment that is termed the multiplier.

Expenditure by employees engaged in ongoing operations of the mine, as well as in the construction of all the associated facilities, also has multiplier effects at many levels of the economy. Expenditure on weekly items such as food, fuel, household items, motor vehicles, housing, entertainment, health and education are mostly made in the local area and have flow-on or ripple effects through the local economy. The actual mechanics of deriving multipliers is based on the use of transactions tables. These transaction tables show the linkages between industries in terms of the purchases of goods and services by each, and from each industry of the economy. Decipher

The size of the multiplier ratio depends on several factors including the particular economy's ability to supply the goods needed. If a large proportion of goods are imported from outside of the region, the multiplier will be reduced. This would also hold if goods are provided from outside NSW or Australia. Multipliers can be estimated for the local economy, NSW or Australian economy. The size of the multipliers will always increase as the analysis moves from local to State to national levels as at each level the economy provides a more diverse range of goods and services. The more equipped a local area, region or State is to provide the required goods and services, the greater the local benefit.

The transaction tables used in this analysis are based on those developed at the national level by the Australian Bureau of Statistics. This means that some value judgements and relativities have been made to determine relevant estimates for the State and local levels. This report relies on similar analyses for mines and quarries across Australia. It makes judgements and calculations based on the best knowledge and information at the time as supplied by the company.



The multipliers estimated in this report are for economic output and employment. An employment multiplier is similar to an output multiplier and indicates the way in which the Proposal generates further jobs throughout the local and wider economies. Multipliers have been estimated in this analysis for the ongoing mining and for the construction activities, and for the expenditures by employees.

A job in this report is defined as a full time position that lasts for one year, (equivalent full time position EFT). All currency values are in terms of 2012 Australian dollars.

Stimulating output and employment throughout the economy will also increase government revenues through increased taxation receipts. These taxation impacts include company tax, taxes on goods and services (GST), payroll tax, local rates, royalties and coal industry specific duties and levies. This report considers the taxation revenue impacts of the proposed mine operations over its life.

For construction activities, the multipliers used in this analysis would be as follows:

	Output	Employment
Local	1.67	1.86
State	1.85	2.69
Australia	2.25	3.40

For ongoing operations associated with the Rocky Hill Coal Project the multipliers would be as follows:

	Output	Employment
Local	1.75	2.55
State	2.09	3.62
Australia	2.59	3.81

The multipliers used for employee expenditures during construction are similar to those for operational expenditure and are as follows:

	Employee Expenditure
Local	2.31
State	2.37
Australia	2.61

The ABS has also developed input - output tables (1996-1997 Publication 5209.0) to help estimate the construction industry jobs directly created for every \$1 of construction output/investment. This equated to 1 employee for every \$111,111 of construction. The current or most up to date available rate (December 2008) is \$178,000 per employee. This data can be used to estimate the direct jobs generated during the 12 months construction phase of the proposed mine.



6.3 ECONOMIC IMPACT DURING CONSTRUCTION PHASE

During the 12 month site establishment and construction phase, benefits would flow to the local economy from both the net injection of new wages and spending of those wages and from the spending on non-wages resources for construction such as plant and equipment, material, supplies and management/investigation. Each of these would have both direct and flow-on or multiplier effects at a local, State and national level. There may also be some leakage to international markets particularly during construction when plant and equipment is purchased from overseas.

6.3.1 Economic Impact of Employee Expenditure during Construction

Employees of construction companies along with the operational workforce engaged in construction will have an economic impact from their expenditure of weekly earnings. This will have a beneficial effect on the local, State and national economy.

Based on its experience, GRL estimates that there will be 100 people directly employed during the 12 month site establishment and construction phase. The total wages bill during the 12 months of construction is estimated at \$10 million.

The mine itself will employ project management and coordination staff in addition to the construction team. Contract construction workforce will be sourced locally and from the wider region and State. It is difficult to estimate the number of positions that will be able to be filled locally. However, given the relatively small local population base, the distance from major urban areas, the poor nature of local roads and the competing demands and opportunities for employment in the sector in the region, it is likely that there will be a mix of local, regional and out of area employment.

Three scenarios have been tested which provide an indicative range of the source of employees and the spread of benefit. (See **Table 14** in Social Infrastructure Capacity) The local catchment is estimated to be 50km radius.

- | | |
|-------------------------|--|
| • Low local impact | 20% local 80% regional and state based |
| • Moderate local impact | 30% local 70% regional and state based |
| • High local impact | 40% local 60% regional and state based |

Wages and contracts to be paid to construction workers are estimated at \$10 million, based on 100 employees on an average \$100,000 pa wage.⁴³

Expenditure by local/regional construction workers from their wages will largely occur in the town where they reside and in nearby towns. Therefore, depending on their residential location a varying percentage of construction wages will be earned and spent within the Gloucester and the surrounding locality. Construction workers who reside locally on a temporary basis for the duration of the construction period will spend only a part of their income locally, as they have permanent residences and families elsewhere. In this analysis, it is assumed that their local expenditure is at rate equal to 20% of that of a permanent local employee. Therefore each worker from outside the locality that works on the construction on average spends 20% or \$20,000 pa in the locality.

⁴³ Rocky Hill Mine project management team: based on average wages across trade sectors.



Table 16
Initial Annual Construction Employee Spend (\$millions)

	Low option		Moderate option		High option	
	Direct \$M	Multiplied \$M	Direct \$M	Multiplied \$M	Direct \$M	Multiplied \$M
Local towns residents	2.0	4.62	3.0	6.93	4.0	9.24
Commuters in local town	1.6	3.70	1.4	3.23	1.2	2.77
Total local	3.6	8.32	4.4	10.16	5.2	12.01
NSW	10	23.7	10	23.7	10	23.7
Australia	10	26.1	10	26.1	10	26.1

On the basis of this modelling, the local employees during the 12 months of construction spend between \$2 and \$4 million directly in local towns. This local expenditure has a multiplier effect for the local towns, generating between a further \$2.62 and \$5.24 million of local and regional expenditure. This local flow-on effect is between \$4.62 and \$9.24 million.

Workers who come to the locality for the construction period and spend wages locally will contribute between \$1.2 and \$1.6 million directly having a flow-on effect of between \$2.77 and \$3.7 million. The local economy will experience a combined direct effect of between \$3.6 and \$5.2 million and a combined flow on effect \$8.32 and \$12.01 million.

The workers coming from other parts of NSW will generate benefits outside the region to other parts of NSW. Between a further \$4.8 and \$6.4 million will be expended in other parts of NSW, and the total expenditure across NSW including local towns generates a multiplier effect across the State of between an additional \$11.69 and \$15.37 million. This gives a total impact of \$23.7 million across NSW and \$26.10 million across Australia (based on a 2.31 multiplier).

6.3.2 Economic Impact of Expenditure Material and Equipment during Construction

A second significant impact on the local economy from the construction phase comes from expenditure on materials and equipment by GRL and its contractors - everything other than expenditure on labour. The generic term "materials" is used to cover items including equipment and materials for site preparation, earthmoving equipment, contractors, transport, marketing, repairs and replacement parts during construction, and consumables such as fuel and explosives. In the case of the Rocky Hill Coal Project construction, material and equipment will be applied both on site and off site to include required road works and associated activities etc. which are all essential to the Proposal.

The total expenditure on equipment and materials is estimated at \$148 million during the 12 months of construction. The expenditure on materials during construction phase is often spread more widely than expenditure by employees. This is because specialised skills, materials and equipment will need to be sourced from outside the locality, region and perhaps outside of NSW and Australia. However, given the strong mining and resource sector in the Hunter Region there is less leakage to other economies than in some other less established mining areas.



Because of the large mining equipment acquisition, road and rail construction components of the Proposal, and the need to source skills and equipment from outside the surrounding towns, it is reasonable to expect that a significant share of the multiplier effect of construction expenditure will occur outside of the local area.

NSW should gain 100% total economic activity generated by spending on materials during construction. It is envisaged that the only expenditure outside the region would be the purchase of equipment from Sydney and overseas. Pre-construction research and investigations are currently estimated to be in the order of \$34 million.

The majority of the capital investment value will be spent in the first year and will amount to approximately \$148 million. Subsequent capital investment throughout the life of the mine would be approximately \$42 million. This will bring the total capital expenditure to \$190 million.

Of this total, an estimated \$93 million will be invested in infrastructure and \$97 million on plant and equipment. Based on past experience in locations such as Gloucester the following purchase source breakdowns have been assumed for the Proposal and appear in **Table 17**.

Table 17
Estimated Locational Apportionment of Capital/Construction Spend – excluding Labour

	Local	NSW	NSW including local	Other Australia	Total Australia	Imported
Site infrastructure works % apportionment	10%	70%	80%	18%	98%	2%
Site Infrastructure works \$M	\$9.3	\$65.1	\$74.4	\$16.7	\$91.1	\$1.9
Mining Equipment % apportionment	0%	15%		35%	50%	50%
Mining Equipment \$M	\$0	\$14.63	\$14.63	\$34.13	\$48.75	\$48.75
Material and equipment total \$M	\$9.3	\$79.73	\$89.03	\$50.83	\$139.86	\$50.65

Larger local towns such as Singleton and Muswellbrook, with a greater critical mass and an established mining support network, can capture a greater share of the local benefit and spend from both site infrastructure and equipment purchases during construction phases. Smaller less mining based communities such as Gloucester will see leakages of spending to neighbouring “mining towns” and established mining support centres in the Hunter Region such as Rutherford, Maitland Singleton and Newcastle. Typically almost 50% of mining equipment is sourced from overseas.⁴⁴ The predominant supply market is the USA with some product from Europe and increasingly from China. The share of domestically supplied product has increased over the last decade but this level of escape on equipment spend is considered a reasonable estimate.

The Project Construction spend for the Proposal is detailed in **Table 18**.

⁴⁴. Copeland. A, and Stanwix. G, *Mining Industry Major Projects*, 2011, BREE, 00. 6-10.



Table 18
Initial Rocky Hill Coal Project Construction Spend Material and Equipment - excluding Labour
(\$millions)

	Direct \$M (moderate option)	Multiplied \$M (moderate option)
Local Towns	9.3	15.53
NSW	89.03	164.7
Australia	139.86	314.69
Imported (opportunity cost)	(50.6)	(113.85)
TOTAL	190.45	

Local towns are expected to see a direct injection of non-labour construction-related expenditure in the order of \$9.3 million. Almost 100% of this will be experienced in the first year of the construction/ capital investment program, with almost all capital spending scheduled over the following 4 years being earmarked for equipment purchases rather than site works.

This direct investment on materials and equipment (excluding labour) in the local community will have a flow on effect in the order of \$15.53 million, with almost 80% occurring in the first year of the construction program. The Hunter Region, because of its strong industrial, construction and mining support platform, is predicted to secure a high percentage of the both direct and multiplied or flow-on effect for plant and materials spending estimated for the NSW and Australia economies. NSW is estimated to secure \$89.03m in direct spending on equipment and materials and an estimated \$174.7 million in flow-on effects from this spending. The national economy is estimated to see some \$139.86 million in direct spending on equipment and materials and \$314.69 million in associated multiplier effects.

There is direct escape expenditure in the order of \$50.6 million on equipment/plant purchased overseas. This represents an opportunity cost in direct terms and an opportunity cost in flow on benefit terms in the order of \$113.85 million.

Table 19 shows the combined estimates for employee spend and material and equipment during the construction phase. The moderate employment scenario is used in these estimates.

Table 19
Initial Rocky Hill Coal Project Construction Spend Material and Equipment - excluding Labour
(\$millions)

	Employee Spend (moderate)		Material & Equipment		Overall Construction	
	Direct \$M	Multiplied \$M	Direct \$M	Multiplied \$M	Direct \$M	Multiplied \$M
Local	4.6	10.16	9.3	15.53	13.9	25.59
NSW	10	23.7	89.03	164.7	99.03	188.4
Australia	10	26.1	139.86	314.69	149.86	340.79
Leakage	0	0	50.6	0	50.6	0



The combined direct impact of spending on labour, materials and equipment on construction is estimated for the local community to be in the order of \$13.9 million. Most of this will occur in the initial 12 month construction period. The local flow-on effects of the combined labour, materials and equipment construction spend is estimated to be \$25.59 million.

The Hunter Region and NSW will secure a larger share of the economic benefit from the proposed construction of the Rocky Hill Coal Project. NSW, significantly the Hunter Region, is estimated to receive \$99.03 million in direct construction investment with an estimated flow-on multiplier effect of \$188.4 million. Whilst there is international leakage in the order of \$50.6 million the national economy is estimated to benefit from \$149.86 million direct spending and a flow-on effect in the order of \$340.79 million.

6.3.3 Alternate Methodology and Comparison

The methodology used above to determine the economic impact at various levels of the economy during the construction phase has been used as it enables a greater exploration of the spatial impact of expenditure and allows for leakage from the economy at both local and national levels. The results derived from this methodology are generally more conservative. In this particular case, they are relatively more conservative as the “moderate local employment scenario” has been modelled as well as a relatively low scenario in terms of the local, State and national supply of material and equipment (50% equipment sourced off shore).

Using the more often employed method of applying the National Accounts Input Output tables for the construction industry to the total capital investment spend (wages, plant and equipment) the resultant estimated flow on effects are equated to be more significant. The direct effect at a national level would be estimated to be \$200 million and the flow-on effects \$573.26 million.

Table 20
Construction Industry Multipliers

	Production effects				Consumption effects	
	(a)	(b)	(c)	(a +c =d)	(e)	(a+d+e =f)
	<i>Initial Effects</i>	<i>First round effects</i>	<i>Industrial Support effects</i>	<i>Production induced effects</i>	<i>Consumption induced effects</i>	<i>Total Multiplier</i>
Output \$millions Multipliers	1.00	0.466	0.438	0.904	0.962	2.866
Output \$millions Total value of Proposal	200	93.2	87.6	180.8	192.4	573.26

Source: Australian National Accounts: Input/output tables 1996-97 (5209.0)

6.4 ECONOMIC IMPACT DURING OPERATIONAL PHASE

6.4.1 Economic Impact during Operational Phase - Wages Spending

Operational employees working at the mine will have an economic impact through expenditures from their weekly earnings. This will have a beneficial direct and flow-on effect on the local, regional, State and national economies.



The mine is programmed to operate over a 14 year period and a 2 year final rehabilitation period with employment levels changing moderately over that time depending on the area of extraction, nature of activity, technical issues, demand and contracts. The wages and number of staff employed throughout this period have been averaged and the likely minimum and maximum spread indicated in **Table 21**.

Table 21
Mine Annual Wages

	Employment category	Average number	Min-Max range	Average annual wage \$'000	Annual wages for category \$'000
Mining	Mine staff	14	14	180	2,520
	Operators	76	53-97	140	10,640
	Trades	18	14-22	155	2,790
Total Mining		108			15,950
CHPP & other	Supervisor	1	1	160	160
	Trades engineers	2	2	145	290
	Technicians	8	8	105	840
	Train load-out	1	1	160	160
	Maintenance	3	3	90	270
Total CHPP & other		15			1,720
TOTAL		123	96-148	144	17,670

Source: Data provided by Rocky Hill Coal Project Team.

The existing Gloucester township and surrounding LGA has a population of 4,877 and a workforce (population aged between 15 and 64) of 2,823. The Hunter Valley Research Foundation estimates unemployment in the Upper Hunter Region as at March 2012 at 1.4% compared with the State figure of 5.1%⁴⁵. The predominant employment sectors in 2006 in the State suburb were agriculture, forestry and fishing (12.3%), Retail trade (11.1%) and Health care and social assistance (10.7%)⁴⁶. The skills/education profile for the Gloucester LGA reflects a lower level of post school qualifications than the rest of NSW except at Certificate level (15.4%). There is a large number of local people who have expressed interest in working on the Rocky Hill Coal Project, however, it is considered that, without positive company support and commitment, it is unlikely a significant number of future mine employees could be drawn from the existing population base. This assumption reflects the absolute lack of labour capacity due to low unemployment rates and the existing commitments of many of those engaged in agriculture and retail as owner/operators with limited flexibility to quickly change their employment situation.

However, the Proposal will attract workers from neighbouring localities and further afield. The demographic profile would indicate that there is some capacity for employment at the mine to provide the stimulus to attract back a number of those who have moved away seeking employment elsewhere. Certainly anecdotal evidence secured through interviews and advertising indicates that there is real potential in this regard. Further, the high quality of the natural environment and its relative affordability and proximity to services in comparison with many Western Australia and Queensland mines make it a real alternative for immigration.

⁴⁵ HVRF, June 2012, Upper Hunter Region Economic Indicators, page 1.

⁴⁶ ABS 2006 Census 2011 employment data will not be released until October 2012.



The relative isolation of the location⁴⁷, the poor state of some roads and the journey time to neighbouring communities will also restrict the level of employment on a daily commute basis as occurs in more well connected locations such as Singleton. Many mines set one way journey thresholds to ensure worker safety which range from 40 to 70 minutes. It is most likely that a number of mine and CHPP workers will commute on a shift/weekly basis from the wider Hunter Region and other NSW centres. The social impact assessment indicates that this proportion of employees should be kept to a minimum in order to enhance the social benefits associated with employment and population growth to the Gloucester Shire and that the target percentage of “commuters” by Year 3 of operation should be 25%.

Mine workers will spend varying amounts in local towns depending on their normal place of residence. Locally based people (existing or relocated), spending the highest proportion, daily commuters the least and those that find short term accommodation locally a moderate proportion. While all communities seek to maximise the number of local people that benefit from employment opportunities, either by up skilling/retraining locals or attracting new families, the employment impact, albeit not always local, does benefit the NSW and national economy. Further, it supports the process of balancing economic benefit across the nation and can deliver benefits not otherwise available to residents of areas which do not have the local availability of resource-based jobs. This is an increasingly important component of ensuring the spread of economic and employment wealth across the nation.

Whether spend in a local town, a neighbouring community or somewhere else in NSW, every dollar that is spent by households has a multiplier effect through the local and more distant economies. As discussed above, the multipliers for any local area are smaller than for a more widely defined area. This means that the expenditure will have flow-on impacts beyond the local towns, into the rest of NSW and across Australia.

It is not possible at this early stage to determine the number of employees likely to be in each category, so impacts will be determined based on high (50%), medium (25%) and low (10%) estimates of the number of people who either currently live in Gloucester or move/return to Gloucester to live, with the balance spread evenly between those that commute weekly and those commute daily. Based on the average annual number of employees, the following three scenarios have been assumed for analysis (See also **Table 14** in Social Infrastructure Capacity):

- *High*
 - 50% (61) of employees either currently live in Gloucester or move/return to Gloucester to live
 - 25% (31) of employees commute weekly
 - 25% (31) of employee commute daily
- *Medium*
 - 25% (31) of employees either currently live in Gloucester or move/return to Gloucester to live
 - 37.5% (46) of employees commute weekly
 - 37.5% (46) of employees commute daily

⁴⁷ Gloucester to Newcastle is 1 hour 45 minutes, 1 hour 41 min to Maitland, 1 hour 53 to Singleton, 1 hour 21 to Raymond Terrace, and 1 hour 26 to Tea Gardens.



- Low
 - 10% (13) of employees either currently live in Gloucester or move/return to Gloucester to live
 - 45% (55) of employees commute weekly
 - 45% (55) of employees commute daily

To calculate income spending impact and flow-on annual average total wages have been used from **Table 21**. Given the nature of the retail offer in Gloucester, it is assumed that 80% of income received by local residents employed in the mine, new and existing, would be spent locally. It is assumed those employees living in the wider area that commute daily would spend in the order of 1% of their wages locally (\$27.40pw) and those who commute on a weekly basis (and find accommodation and meals locally) will spend 20% of their wages locally (\$548pw). The calculated direct local spend is shown in **Table 22**.

Table 22
Annual Economic Impacts of Operational Employee Expenditures

	High Scenario \$M		Moderate Scenario \$M		Low Scenario \$M	
	Direct	Multiplied	Direct	Multiplied	Direct	Multiplied
Local Towns	7.996	18.471	4.926	11.379	3.083	7.122
Hunter/NSW (exc. local)	9.674	22.927	12.744	30.203	14.587	34.571
Total NSW	17.670	41.878	17.670	41.878	17.670	41.878
Australia	17.670	46.119	17.670	46.119	17.670	46.119

Expenditure from wages paid during operations has a more significant impact locally than does expenditure from construction wages. During operations on average there will be a greater number of people employed, i.e. 123, as compared with 100 people employed during construction. Moreover, average annual wages per person are higher than during construction (\$144,000pa as compared with \$100,000pa).

Irrespective of how many jobs are based locally, the aggregate direct and flow-on benefit to the national and State economy remains constant. The direct State and national direct employee spend is in the order for \$17.67 million per annum with flow-on benefits for the State in the order of \$41.878 million and \$16.119 million for the nation. Assuming the low scenario, the local economy would experience employee direct spending in the order of \$3.083 million per annum and a local flow-on benefit in the order of \$7.122 million annually. If the high outcome scenario is achieved, there would be some \$7.996 million in direct local spending with a local flow benefit of \$18.471 million per annum.

These annual contributions can be added to give a total figure for the full course of the Proposal which is estimated to be 14 years, assuming constant wages (this is therefore an underestimate of long term impact should production life increase). This analysis shows that the expenditure by employees will directly inject between \$43.162 million (low) and \$111.944 million (high) into the economy of Gloucester and local towns over the life of the Proposal (**Table 23**).



Table 23
Life of Rocky Hill Coal Project Economic Impacts of Operational Employee Expenditures

	High Scenario \$M		Moderate Scenario \$M		Low Scenario \$M	
	Direct	Multiplied	Direct	Multiplied	Direct	Multiplied
Local Towns	111.944	258.594	68.964	159.306	43.162	99.708
Hunter/NSW (exc. local)	135.436	320.978	178.416	282.842	204.218	483.994
Total NSW	247.38	586.292	247.38	586.292	247.38	586.292
Australia	247.38	645.666	247.38	645.666	247.38	645.666

When account is taken of the multiplier impacts, expenditure by operational wage earners at the mine will generate significant economic benefits to the local and more distant economies. The total benefit in terms of increased expenditures for the local towns is estimated at between \$99.708 million (low) and \$258.594 million (high) over the course of the mine's life. The full impact on the economy of NSW is \$586.292 million and for the whole Australian economy it totals an estimated \$645.666 million.

The scenarios used in this modelling have been conservative. In a recent submission from Singleton Council to the Federal Government Inquiry into fly-in fly-out, drive-in drive-out workforce impacts on regional communities, Council estimates that based on 2006 data "of the 3794 people employed in the mining industry, 1924 (ABS 2006) have their place of usual residence in Singleton, in turn seeing 1870 mine staff travelling from other areas to work within the mines in the region."⁴⁸ This indicates that 50% of the workforce employed in Singleton mines live permanently in Singleton. Additionally, the calculations of impact have been made over the minimum likely life of the mine, 14 years. There is potential that extraction and subsequent rehabilitation activities could continue for up to 21 years thus increasing the duration of the total beneficial impact.

6.4.2 Economic Impact of Spending on Materials and Equipment during Operational Phase

As with construction, a second significant impact would be generated from ongoing operational expenditure on materials and equipment by the mine. This involves plant and equipment, supplies, and external services that are not employee wages. The total average annual mine expenditure on materials and equipment hire is estimated at \$71.5 million. This would be ongoing for the 14 years of the mining operation and 2 year final rehabilitation stage. Compared with construction phase, a higher percentage of non-wage material and equipment spending will be from businesses within the local area and region, with some leakage to the State and the national level but no international leakages envisaged at this stage.

The mine's ability to purchase different goods and services locally, regionally and within the State will vary depending on the nature of the particular items and the local supply chain. **Table 24** shows the likely spread of annual average non-wage operating cost across the local area, Hunter Region, NSW and at the national level.

⁴⁸ Draft Singleton Council Submission to the Federal Government's Inquiry into Fly in Fly out/Drive in Drive out employment impacts on regional communities, July 2012, p.4.



During operations, on average an estimated 17% of purchases of materials are expected to be sourced from within the local area. An estimated 82% of all operating purchases will be made within the local area or Hunter Region and 18% at the combined State and National level. It is not envisaged that there would be direct expenditure in the operating budget on goods and services purchased directly from overseas. Some products may have originally been sourced from other counties, however, the direct purchases will be from Australian based and operated businesses.

This significant local and regional spend can be attributed to the strength of the regional mining and extractive industries sector in the Hunter Region. This is stronger than in other locations in Australia and demonstrates the local advantages of vertical integration and clusters of like businesses. For example, repairs and maintenance of mining equipment can be sourced entirely from within the region. Similarly, drilling and blasting materials and drilling activity which accounts for \$10 million per year and fuel valued at \$14.3 million per year are sourced locally or within the region.

Table 24
Estimated Source of Material and Services Purchased during Operations (\$millions)

Category	% total operating cost	Est. Average annual value \$M	Local \$M	Hunter other \$M	State Other \$M	National other \$M
Consumables	27	19.3	5.8	11.6	1.9	0
Fuel	20	14.3	1.4	12.9	0	0
Explosives	14	10.0	0	10.0	0	0
Rail and port charges	15	10.7	0	5.7	2.5	2.5
Administration/other	18	12.9	4	2.9	3	3
Equipment Hire	6	4.3	1	3.3	0	0
TOTAL	100	71.5	12.2	46.4	7.4	5.5

While a significant proportion of expenditure on materials and equipment during construction will occur outside the region, during operations, the situation would be different with more of the economic benefit being gained locally and regionally. Of the total average annual operating direct spend of \$71.5 million, \$12.2 million would be sourced in the local community, and an additional \$46.4 million from the region totalling \$58.6 million spent in the Hunter economy. The local economic flow-on effect per year is estimated at \$21.35 million and \$102.55 million for the Hunter Region. At a State level, the Proposal's annual operating budget would contribute \$66 million to the economy directly and \$137.94 million in flow-on effects. The flow-on effects at the national level of the average annual non-wage operating budget of \$71.5 million would be \$185.31 million.

The annual impacts, from expenditure on materials and equipment, can be added to give a total figure for the economic impacts from the operation of the mine over 14 years which is the anticipated operating life of the mine (**Table 25**). This analysis shows that the expenditure on materials, services and equipment will directly inject \$170.8 million into the economy of Gloucester and surrounding towns, \$820.4 million in the Hunter Region economy and \$1,001 million into the Australian economy over the course of the Proposal.



When account is taken of the multiplier effects, the full impact on the local economy is estimated to be \$298.9 million and \$1,435.7 million for the Hunter Region economy. There is an estimated overall impact of \$1,931.16 million for the economy of NSW, and \$2,592.59 million for the whole Australian economy.

Table 25
Rocky Hill Coal Project Operational Spending Material and Equipment - excluding labour - Annual and Life of Project (\$millions)

	Annual Average \$M		Life of Mine \$M	
	Direct	Multiplied	Direct	Multiplied
Local	12.2	21.35	170.8	298.9
Hunter	58.6	102.55	820.4	1,435.7
NSW	66.0	137.94	924.0	1,931.16
Australia	71.5	185.31	1,001.0	2,592.59

6.4.3 Combined Impact of Wages Spending & Spending on Material and Equipment During Operating Phase

Table 26 shows the expected annual combined impacts of both employee spending and spending on plant and equipment. This analysis of the total economic impact of the operational phase of the mine assumes the moderate scenario in term of local employment. The combined direct impact of wages spending and GRL's operational spending on equipment and materials is estimated to be in excess of \$17 million annually while the multiplied impact of this direct spending locally is estimated in excess of \$32 million annually. The annual combined impact of wages, material and equipment direct spending at the national level is estimated at in excess of \$89 million with a multiplied impact in excess of \$231 million. The NSW economy is estimated to receive 94% of the direct national spend and 78% of the flow-on multiplier effects.

Table 27 shows these same combined direct and indirect multiplier impacts over the predicted 14 year operational life of the Proposal.

Table 26
Annual Economic Impacts of Operational Employee Expenditures and Spending Materials and Equipment

	Moderate scenario Annual Employee expenditure \$M		Annual Average material and equipment expenditure \$M		Combined wages, material & equipment impact \$M	
	Direct	Multiplied	Direct	Multiplied	Direct	Multiplied
Local Towns	4.926	11.379	12.2	21.35	17.126	32.729
Hunter/NSW (exc. local)	12.744	30.203	58.6	102.55	71.344	132.753
Total NSW	17.670	41.878	66.0	137.94	83.67	179.818
Australia	17.670	46.119	71.5	185.31	89.17	231.429



Table 27
Life of Rocky Hill Coal Project Economic Impacts of Operational Employee Expenditures and Spending Materials and Equipment

	Moderate scenario Employee expenditure \$M		Annual Average Material and equipment \$M		Combined wages material and equipment impact \$M	
	Direct	Multiplied	Direct	Multiplied	Direct	Multiplied
Local Towns	68.964	159.306	170.8	298.9	239.764	458.206
Hunter/NSW (exc. local)	178.416	282.842	820.4	1,435.7	998.816	1,718.542
Total NSW	247.38	586.292	924.0	1,931.16	1,171.38	2,517.452
Australia	247.38	645.666	1,001.0	2,594.34	1,248.38	3,240.006

6.5 ECONOMIC IMPACT OF ALL EXPENDITURE ACTIVITIES FOR BOTH CONSTRUCTION AND OPERATIONS FOR THE LIFE OF THE PROPOSAL

The analyses presented in **Tables 26** and **27** can be added to provide a picture of the overall economic impact of expenditures from activities associated with the operation of the mine over its full economic life of 15 years including employee spending and material and equipment.

Table 28 provides the accumulated impacts of the Proposal, over its full economic life, including construction and operating phases on the local, State and Australian economies. It shows that the mine and its support operations will bring direct expenditures in the local economy totalling \$253.66 million and for the NSW economy totalling \$1,270.4 million (\$1.27 billion). The multiplier effects of these direct expenditures are estimated to generate a total impact on the local economy of \$483.8 million and on the NSW economy of \$2,705.85 million (\$2.7 billion). The value to the Australian economy is estimated at \$3,580.8 million (\$3.58 billion) when account is taken of direct and multiplier effects.

Table 28
Total Spend for Proposal Life - Construction and Operations (\$millions)

	Overall Construction Phase \$M		Combined wages material and equipment impact operational phase \$M		Total value construction and Proposal life \$M	
	Direct	Multiplied	Direct	Multiplied	Direct	Multiplied
Local Towns	13.9	25.59	239.76	458.21	253.66	483.80
NSW	99.03	188.4	1,171.38	2,517.45	1,270.4	2,705.85
Australia	149.86	340.79	1,248.38	3,240.01	1,398.2	3,580.80

6.6 EMPLOYMENT IMPACTS DURING CONSTRUCTION PHASE

The direct construction workforce has been estimated by the Rocky Hill Coal Project at 100 EFT. The annual average salary to be paid to these construction employees is estimated at \$100,000. These estimates have been provided by GRL and are based on the experience of other equivalent projects across Australia.



Using the three scenarios (as in Section 6.4.1 and in **Table 14** in social infrastructure capacity), an indicative range of the source of employees and the spread of employment generation during construction can be estimated.

As indicated, the ability of GRL to source employees locally will depend on several variables including the available supply of skills, the ability of the location to attract or draw back workers, the competition for skilled staff in the construction industry and mining industry generally in the region, the availability of partner employment, and prevailing underemployment and unemployment levels. GRL's commitment to train/upskill employees would also influence the availability of local employees.

Depending on GRL's ability to attract or train/upskill workers locally, the direct employment impact is estimated to be between 20 and 40 jobs (EFT for 12 months); see **Table 29**. The flow-on employment impact locally would range from 37 to 74 jobs for the 12 month period. If construction workers commuted on a weekly basis taking some accommodation in the locality over the period and using local stores and services during their time locally, there would be an additional employment flow on impact.

The direct employment of an estimated 100 employees during construction will generate a total multiplier employment effect in the national economy of 340 jobs (annual equivalent) for the 12 month construction period.

Table 29
Estimated Number of Jobs Generated by the Proposal during Construction

	Low Impact 20% local		Moderate Impact 30% local		High Impact 40% local	
	Direct	Multiplied	Direct	Multiplied	Direct	Multiplied
Local towns	20	37	30	56	40	74
NSW	100	269	100	269	100	269
Australia	100	340	100	340	100	340

6.7 EMPLOYMENT IMPACTS DURING OPERATIONAL PHASE

Over the 14 year planned operational life of the mine, average annual employment on site is expected to be 123 persons; this would range from a high of 148 to a low of 96 persons over the life of operations (see **Table 21** in section 6.4.1).

The employment multiplier for the operations phase is expected to be significant and is provided in **Table 30**. The direct employment of 123 mine and CHPP staff will generate 469 jobs in the national economy

It is expected that not all construction and operational jobs will be filled by people living, returning or moving to the area and that there will be a number of people that commute daily and/or weekly on roster⁴⁹. Given the longer term nature of operational employment there is likely to be a proportionately higher number of locally based employees during operations than during construction.

⁴⁹ For social impact reasons it is recommended that the number of commuters is minimised and a target of 25% of employees is set.



Table 30 provides, low moderate and high scenarios of local employment during operations. Locally, direct employment benefit could range between 13 and 61 jobs. The multiplied benefit locally would correspondingly range between 33 and 156 jobs on an average year. At a peak direct employment would be 148 jobs with a flow on benefit of 564 jobs nationally. Using the same low to high local impact scenarios, the flow benefit at a peak ranges between 38 and 189 jobs locally.

Table 30
Estimated Number of Jobs Generated by the Proposal During Operations

	Low Impact 10% local		Moderate Impact 25% local		High Impact 50% local	
	Direct	Multiplied	Direct	Multiplied	Direct	Multiplied
Local towns	13	33	31	79	61	156
NSW	123	445	123	445	123	445
Australia	123	469	123	469	123	469

The ability of GRL to employ locally-based workers will largely determine the level of local benefits. However, there is still significant flow on impacts if workers reside in the local community for a period of time each week/roster rather than commute on a daily basis. The flow on to the State and national economy are not impacted by the location of employees. While policy at a local level may be to maximise the output and employment impacts within the local community there are strategic national employment strategies which require the movement of labour to ensure the overall optimisation of employment and economic benefit. This is discussed in following sections.

6.8 IMPACTS ON GOVERNMENT FINANCES

The impacts of the construction and the life of the mine's operation on government finances will take a number of forms, and will accrue to the Commonwealth and State Governments as well as to local government.

Over the 12 month construction period, it has been estimated that the taxation revenue to the Federal government will total approximately \$19.105 million (see **Table 31**). The Federal Government will gain from the following tax streams:

- Personal income tax on construction salaries of \$100 million;
- Personal income tax on salaries of the additional flow on or multiplier job salaries of \$16.1million;
- GST payment on direct equipment, goods and services purchased during construction \$139.86 million;
- Company tax on the business profits.



Table 31
Value of Federal and State Government Taxation Revenues Generated during Construction
(\$ millions)

	Value	Federal Taxation			State Taxation
		Income Tax	GST on equipment and materials	Company Tax	Payroll tax
Direct salaries paid	10	2.5	CIC	CIC	.507
Additional multiplied or flow on salaries	16.1	4.025	CIC	CIC	.839
Expenditure on equipment and materials purchased domestically	139.86	CIC	12.58	CIC	CIC
Company profit	CIC	CIC	CIC	CIC	CIC
Totals		6.525	12.58	CIC	1.346
NOTE: Commercial in Confidence data has been excluded from this table. CIC = Commercial in Confidence.					

From a NSW Government point of view, the most significant impact on government finances during the construction phase will come in the form of payroll tax which is estimated to be \$1.346 million.

It is during the operational phase that government revenues benefit most significantly. Estimated Federal government revenues over the 14 years of the Proposal are estimated in **Table 32**. Total federal government revenues over the life of the mine are estimated at in excess of \$563 million.

State revenue from operations comes from two principal sources: payroll tax and royalties. The NSW government's open cut coal mining levy is currently charged at 8.2% on net disposable value. It is estimated that GRL will pay in the order of \$186 million in state royalties over its operational life. The mine's contribution to State payroll tax throughout the operational mine life both through direct employment and flow on or multiplied employee salaries is estimated at \$17.59 million. This provides a combined state government income in the order of \$204 million over 14 years.

Table 32
Value of Federal Government Taxation Revenues Generated during Operations

	Value \$ millions	Income Tax	GST on equipment and materials	Company Tax	Carbon Tax	Federal Taxation
Direct salaries paid	247.38	68.59	CIC	CIC	CIC	68.59
Additional multiplied or flow on salaries	398.29	99.57	CIC	CIC	CIC	99.57
Operating expenditure on equipment and materials purchased domestically	1,001.0	CIC	90.9	CIC		90.9
Company profit/operations	CIC	CIC	CIC	275	28.95	303.95
Totals		168.16	90.9	275	28.95	563.01
NOTE: Commercial in Confidence data has been excluded from this table. CIC = Commercial in Confidence.						



The coal mining industry and the Rocky Hill Coal Project will also make voluntary contributions to community projects. GRL estimates it will contribute almost \$3 million via the COAL21 scheme implemented by the Australian Coal Association in 2006. It has also made a commitment to a community royalty program which will culminate in an additional \$7 to \$8 million contribution to the local community over 14 years and average at approximately \$500,000 per year.

The revenue impact for Gloucester Shire Council will be in the form of rate income, levied for the period that the mine operates, over the mine site land holding. Councils across NSW charge rates on the basis of a prescribed rate as cents in the dollar based on ad valorem land value. The land value is set by the Valuer General through the NSW Land and Property Information service. The rate changes for different and for particular uses. Gloucester Shire Council has advised that the rate in the dollar for land used in accordance with the Act as Farmland is rated at 0.4288c/\$ and for Mining (Coal) land – 3.17c/\$.⁵⁰

The *2011-12 Management Plan* which identifies Council income and proposed expenditure for the most recent financial year, provides details of the income derived from rates. An extract is provided in **Table 33**. This data indicates that Council receives a total of \$3.558 million per year in rate income. Rate income represents 28% of total Council revenue in 2011-12. In 2011-12, only \$112,535 of that rate income was derived from land classified as Mining (coal) and represented only 3.2% of rate income. In comparison Singleton Council received \$4.569 million in rate revenue from land classified as mining which represented 35.4% of rate income 2011-2012.⁵¹

There are currently approximately 35 properties owned by or under option to GRL in the Rocky Hill Coal Project area generating farmland rates of approximately \$66,000 per year. The properties which will be mined are paying approximately \$34,000 in annual rates.⁵² Revaluations are planned for 2014⁵³. The valuation process reflects property market conditions, constraints and controls, recent sales, shape and land features and the “highest practical use” of the land. If approval for coal mining is provided this is expected to increase the valuation of some of these properties. There are 12 properties which will be disturbed by mining activities. The remaining 23 will continue to be farmed. Of the 12 affected lots, some of the land will continue in agricultural use for all or some of the mining period. The extent and degree of this increase is difficult to predict.

However, if land values were to remain constant, and this is a conservative position, the revenue derived from the 12 properties on which mining will occur and held by GRL would increase from \$66,000 annual to \$251,600 annually. This is a net increase of \$217,600 per annum and represents a 7.4 fold increase in revenue. Over the 14 years of the mine this will provide Council with an additional \$3.79 million in rate revenue based on constant land values.

This is not an unencumbered increase in revenue for Council. The higher rate in the dollar levied on mining land as opposed to farmland to some extent reflects the increase in the demand and use of Council provided services, facilities and assets. Impact on roads, bridges and waste facilities need to be provided for through this increase or via specific and targeted contributions at approval. (It should also be noted that GRL are proposing to upgrade roads,

⁵⁰ Gloucester Shire Council, *Management Plan 2011-2012*, Adopted June 15, 2012, p. 5.

⁵¹ Singleton Council, *2011-2015 Management Plan*, p. 52.

⁵² Based on rate notices issued on properties purchased by the company.

⁵³ Land and Property Information, Valuer General, *Revaluation Schedule for Council Rating Purposes*, 2012, p.1.



intersections and build a bridge over Avon River to replace the existing bridge which has been closed by Council and is scheduled for repair in at least 2 years' time. These upgrades will form part of the mine's consent).

In 2012-13, the Independent Pricing and Regulatory Tribunal (IPART) approved a request from Muswellbrook Council to increase land rates on mining land by 7.6%; 4% more than increases allowed for residential rates.⁵⁴

Table 33
Gloucester Rates Adopted in the 2011-2012 Management Plan

Rate Category	Sub Category	Ad Valorem Rate cents/\$	Base/Min Rate	Total Revenue
Residential	Urban-Gloucester	0.5524c	\$160.00	\$657,065
Residential	Village	0.3740c	\$184.00	\$108,669
Residential	Rural	0.3652c	\$193.00	\$690,593
Farmland	Farmland	0.4288c	na	\$1,726,702
Business	Urban	0.8620c	na	\$239,378
Business	Non-Urban	0.3770c	\$286.00	\$21,722
Mining	Coal	3.170c	na	\$112,535
Mining	Other	2.870c	Min\$100.00	\$100
Mining	Gold	2.48c	na	\$409
Mining	Limestone	0.638c		\$1,014
TOTAL	Rate Revenue			\$3,558,187

Source: Gloucester Shire Council, *Management Plan 2011-2012*, Adopted June 15, 2012, p. 5

6.9 IMPACTS ON THE RESIDENTIAL PROPERTY SECTOR

The likely impacts of the Proposal on the residential property sector would be mixed and uneven. It is, however, reasonable to conclude that overall the impact of the mining sector both specifically in mining communities and in the wider region has been to increase land and house prices and rent rates.

While little work has focused on specific areas, the impact of mining on residential property in the Upper Hunter Region provides the general context and experience. The recently released NSW Department of Planning and Infrastructure (DP&I) DRAFT Strategic Regional Land Use Plan (SRLUP) for the Hunter area recognises the direct and cumulative impact of increased mining activity and related employment levels on the residential property sector. It specifically calls on Landcom to work with the housing and development industry to develop models and demonstration projects for the delivery of more housing, and a more diverse range of housing types, focussing on the major towns of Singleton and Muswellbrook. Submissions already received by the DP&I call for a widening of these actions to include emerging mining districts including Dungog and Gloucester.⁵⁵

Landcom has estimated that the amount of new housing developed in the Upper Hunter Region each year would need to nearly double to cope with the demand that could be generated if mining activity increases as expected. It not just traditional housing; more rooms are needed to accommodate the mining industry's transient workforce. Increasingly mines,

⁵⁴ Independent Pricing and Regulatory Tribunal, *Muswellbrook Shires Application for Special Variation 2012-3, Determination*, p.1.

⁵⁵ Local Government and Shires Association, Submission to the SLURP, April 2012.



government, Councils and the property sector are considering more adaptable housing to accommodate temporary construction workers, "drive in-drive out" mine workers, as well as permanent residents and seniors.⁵⁶

Research reported by Landcom to date has found Singleton has enough land zoned in the Singleton Heights area for 2000 homes. In Muswellbrook, there is potential for an extra 1300 homes. However, some estimates by Landcom suggest that demand for housing could increase from 360 dwellings a year to up to 700 as more permanent workers moved into the area over the next three to five years. This prediction is based on modelling of demand if mining output in the region increased by 60% in that period as a result of capacity improvements for the Port of Newcastle and rail lines.⁵⁷

Reports from mining communities in Queensland and Western Australia tend generally to indicate that the influx of workers can cause shortages of both permanent and temporary accommodation and lead to dramatic inflation in the cost of buying and renting residential real estate. They indicate that prices can escalate and exceed those in the State capitals. Consequently, low income earners are forced out of town and non-mine employers find it impossible to attract people to the town.

While rising accommodation costs could be seen to benefit existing home owners (whether owner occupiers or landlords), these costs can generate financial hardship for low income earners and one-income families and lead to difficulties for local businesses and services unable to compete with wages paid by mines in attracting or retaining employees.

Other factors that exist in this environment are high building costs and the reluctance of banks to mortgage properties in relatively isolated locations dependent on mines with finite operational life-spans, constraints on the ability of private entrepreneurs to meet demand for low-cost housing and promoted inflation in the cost of existing housing stock <http://www.lueactiongroup.org/the-campaign/minings-impact-on-the-community-and-its-social-amenity/> - *ftn5*. It has been suggested that mining has encouraged the purchase of houses at inflated prices, whereas at the end of the mine's operational life, the house prices will be significantly deflated.

Some of these national and regional concerns are relevant for the Gloucester area. However, interpretation of the existing data is inconclusive and subjective. **Table 34** is an extract from the most recent Hunter Valley Research Foundation (HVRF) *Residential Market Outlook* publication and indicated growth in residential house prices across the region was moderate and even low given the underlying inflation rate, with Newcastle and Maitland LGAs being the best performers at 6.8% and 6.3% respectively. Singleton, renowned for the growing demand for housing, only experienced a price growth of 1.6% over the period. This shows significant slowing.

⁵⁶ Landcom presentation to Property Council of Australia, July 19, 2012.

⁵⁷ Ibid.



Table 34
Residential Sale Price Trends, December Quarter 2010

Local Government Area (LGA)	Specification ¹	Median price	Price change (%) pa
Cessnock	Non-strata	\$245,000	+ 0.0%
Lake Macquarie	Non-strata	\$374,000	+ 1.9%
Maitland	Non-strata	\$370,000	+ 6.3%
Newcastle	Non-strata	\$390,000	+ 6.8%
Port Stephens	Non-strata	\$375,000	+ 2.7%
Dungog	All dwellings	\$300,000	- 24.7% ²
Gloucester	All dwellings	\$263,000	NA
Great Lakes	All dwellings	\$335,000	+ 0.6%
Muswellbrook	All dwellings	\$290,000	+ 0.0%
Singleton	All dwellings	\$364,000	- 1.6 %
Upper Hunter Shire	All dwellings	\$303,000	+ 16.3% ²

Source: NSW Department of Housing, ¹ Measurement varies due to data limitations. Given that there are very few strata titles for residential properties in the Hunter Balance LGAs, it can be reasonably assumed that the median price for *All dwellings* does not substantially vary from the median price for *Non-strata (detached) dwellings*. ² Substantial decline/increase probably due to a change in the composition of stock sold in a small market, rather than an actual change in value of this magnitude.

Source: HVRF, *Hunter Region Residential Market Outlook*, December Quarter 2011. p.2.

*"It is perhaps surprising that price growth has been modest in the Upper Hunter local government areas, where the wider economy has been so strong. This curiosity may be explained by two factors. While the Upper Hunter labour markets are virtually running at full employment, much of the employment and economic activity generated by the substantial resources investment is undertaken by workers in commuting distance to these areas. As a consequence, the impact upon the housing market is dissipated around a wider catchment."*⁵⁸

Figure 5 from the HVRF's *June 2012 Economic Indicators* series shows that average residential sale prices have remained relatively flat over the last 2 years. However, the lack of investment in housing has underpinned a very tight rental market and associated rapid increases in rental prices across the region.⁵⁹

⁵⁸ Hunter Valley Research Foundation, *Hunter Region Residential Market Outlook*, December Quarter 2011, p. 2.

⁵⁹ Ibid p.7.



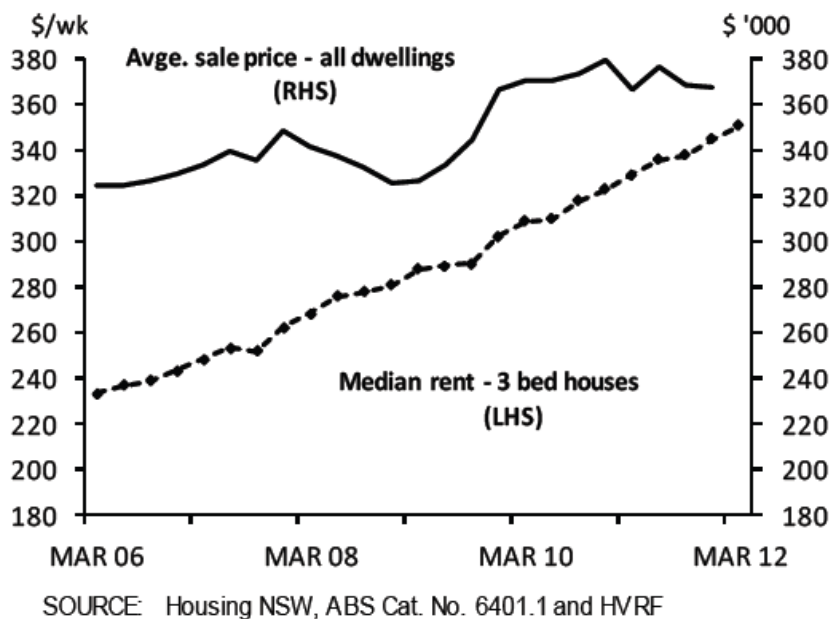
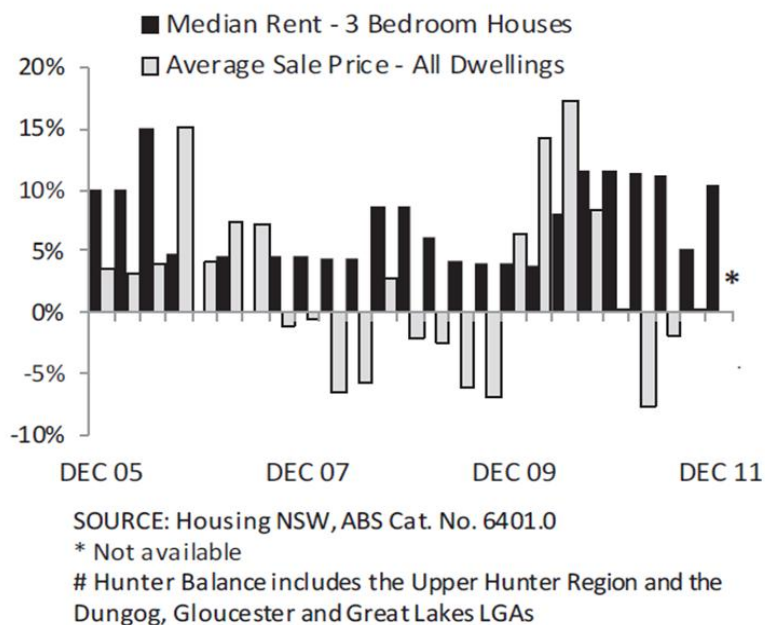


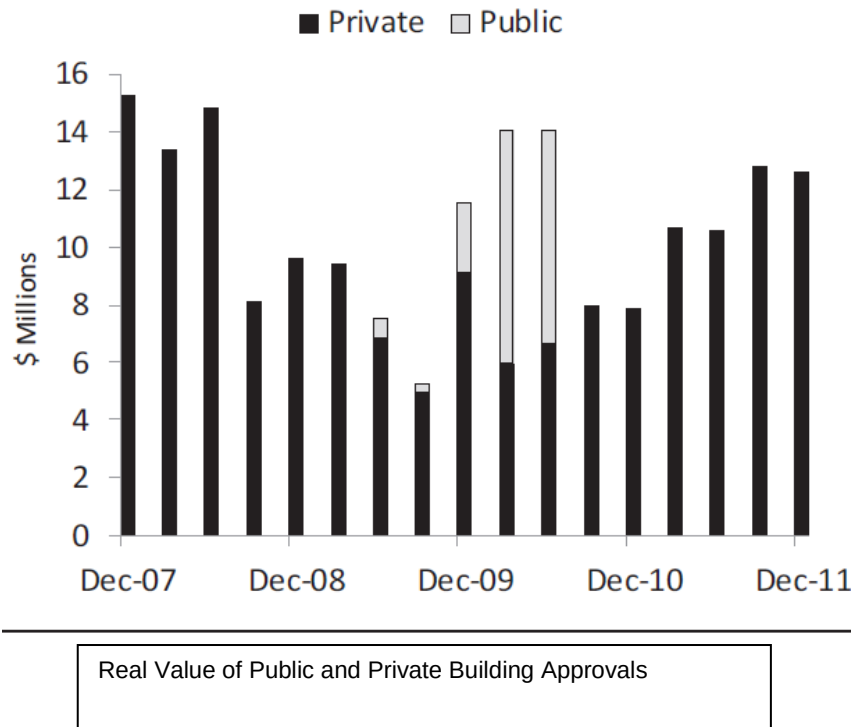
Figure 5
Average Sale Prices and Median Rents, Hunter Region, Nominal Values

In the Upper Hunter Region the story is similar with average sale prices stabilising after growth during the first half of 2010. Median rents for an average 3 bedroom house continue to show sustained growth in the tight market; see **Figure 6**. The number of rental properties in the Upper Hunter LGA has continued to grow strongly at a rate of about twice the regional average. This is underpinned by sustained private sector investment in the Upper Hunter LGA housing market; this growth is in contrast to the State and to some extent the region.



Source: HVRF, Upper Hunter Region Economic Indicators, Dec. 2011, p. 5.

Figure 6
Annual Change in Residential Rental and Sale Prices, Hunter Balance - nominal value



Source: HVRF Dec Quarter, Upper Hunter Economic Indicators, p.6.

Figure 7
Real Value of Public and Private Residential Building Approvals, Upper Hunter Region

Steady and consistent average housing price increases in some areas of the Upper Hunter Region such as Singleton, have been sustained while price increases in the wider Hunter region have been modest and inconsistent. This has effectively closed the price gap between traditionally higher priced urban coastal locations and the Upper Hunter Region locations. Median house prices in Singleton now measure 97% of Lake Macquarie median house price as compared to 73% in September 2002⁶⁰.

Areas such as Singleton Shire now rate housing availability and affordability as a growing social issue and constraint on continued economic growth. The current situation in Singleton, however, did not emerge immediately or without warning. The situation in Gloucester is significantly different in a number of ways:

- "Supply of zoned land is seen to be adequate for the next 10 years with potential for longer term future growth"⁶¹
- Based on Department of Planning population projections 2010, new housing demand till 2036 is estimated to be below 50 houses.⁶²
- Existing (2010) median house price is \$263,000 and average house price \$266,000 well below those in Singleton, Newcastle and Lake Macquarie LGAs.⁶³

⁶⁰ Buchan Consulting, *Upper Hunter Economic Diversification Project*,

⁶¹ Ibid

⁶² Ibid

⁶³ Interviews with Real Estate agents in Gloucester and Singleton, review of leasing and sales advertisements on local real estate web sites, HVRF, *Upper Hunter Economic Indicators* Dec 11, p.5.



- Average weekly rent for a 3 bedroom house in Singleton is \$550 and in Gloucester \$270.⁶⁴
- There is currently in excess of 50 available rental properties in Gloucester.⁶⁵

In conclusion, the research across Australia and within the wider Hunter Region indicates that the increase in local residents and drive-in / drive-out workforce in mining growth areas does impact on the local residential property market. These impacts include:

- the progressive increase in residential sale prices;
- an increase in average residential rent; and
- a reduction in value of some properties negatively impacted through loss of amenity.

The extent to which the Gloucester locality will be impacted in these ways will depend upon:

- the supply of labour within the existing community;
- the available supply of housing and residential land for sale and lease;
- the wider provision of services and amenity which attract workers to relocate;
- the responsiveness of the market to increased demand;
- the responsiveness of the community and council to provide more innovative housing/accommodation options (boarding houses and sub-letting);
- the relative percentage of long term leases to drive-in / drive-out demand for accommodation;
- the extent to which the mine, mine traffic and externalities impact of residential areas; and
- Improvement in road access and subsequent impacts on drive/commute time.

The issue of accommodation and housing availability and affordability is much more apparent in existing and new mining communities than it was five years ago when the pressures began to emerge. While some impact is likely and beneficial for existing home and property owners the extent to which inflationary impacts occur can to a large extent be managed through appropriate mitigation strategies. Such strategies could include:

- Council working with property owners and agents to develop a register of accommodation;
- Council taking a lead role and having approval flexibility in enabling houses to be used for shared accommodation;
- the Project Management holding meetings and working with property owners who wish to sub-let rooms to ensure screening and safety;
- developing a data base and keeping a record of rent and sale prices with which to take to prospective developers for future housing;
- streamlining the approval environment/process for housing;

⁶⁴ Ibid

⁶⁵ Ibid



- exploring the approval and construction of flexible accommodation and rostering options to maximise the ability of workers to live within the area;
- ensuring connections to surrounding towns that might provide accommodation is improved;
- promoting short term rental to “Pitt Street farmers” who own but only irregularly use their houses; and
- establishment of innovative housing solutions and demonstration projects including manufactured estates appropriately designed.

6.10 CUMULATIVE ECONOMIC IMPACTS

The Australian mining industry and the coal mining sector in particular, operate in an increasingly challenging environment of changing community expectations, increased governance and public scrutiny. It is in this context that the cumulative impacts of mining have assumed growing importance.

Cumulative economic impacts are the successive, incremental and combined impacts (both positive and negative) of an activity on the economy. They can arise from the compounding activities of a single operation or multiple mining and processing operations, as well as the interaction of mining impacts with other past, current and future activities that may not be related to mining. Cumulative impacts are most often raised in the context of multiple mining operations in established mining areas such as Singleton and Muswellbrook.

The heightened prominence of climate change and the growing community concern in regard to health problems associated with mining and transport of coal has focused much of the discussion in regard to cumulative impacts on social and environmental issues. The discussion and research has largely been on the negative cumulative impacts.

In terms of cumulative economic impacts both negative and positive outcomes should be considered.

6.10.1 Negative cumulative impacts

Potential negative cumulative impacts may include:

Price inflation in the residential property markets in terms of both sale prices and rents.

This issue has been explored in more depth in Section 6.9 above. It is expected that the demand for labour will require an expansion of the existing workforce in Gloucester and local communities and this in turn will cause and increased demand for housing for purchase and lease. Given the supply of land and housing and the proximity of labour within commute distance, this impact will emerge over time rather than in the immediate term and should be planned for and managed.



The demand pressure on labour and the difficulty of some sectors to be able to attract workers at rates less than the coal industry offers.

The 2011 ABS income data indicates that median individual, household and family weekly incomes are appreciably less in both Gloucester LGA and State Suburb than for NSW as a whole.⁶⁶ This tends to suggest that if the opportunity to be employed in a higher paying job were possible that there would be a degree of shift in employment towards mining positions. 2011 median individual income for Gloucester LGA was \$422 per week⁶⁷ and average mine wages are estimated at in excess of \$2,350. Anecdotal evidence suggests that a high percentage of workers in the LGA are self-employed which often increases the inertia of employment change. However, there is likely to be a cumulative impact of higher wage positions drawing employees to those jobs and away from less well paying employment. The more this happens the smaller the pool of prospective employees for those lower paying jobs. This scenario will need to be monitored and managed on an ongoing basis.

The reduction in tourist amenity and availability of tourist accommodation due to mining

Coal mining and tourism are not mutually exclusive activities. In fact, areas such as Mudgee, Muswellbrook, Singleton, and Gunnedah have recorded strong and sustained growth in visitor numbers in parallel with growth in mining and mining employment.⁶⁸ The influx of workers associated with the construction and operation of a mine will have a direct effect on the demand for tourist accommodation. This is more likely to be associated with construction as workers who are less likely to make a commitment to longer term accommodation choices for a maximum 12 month period. Longer term accommodation demands tend to be for rented accommodation or shared spaces rather than B&B/Hotel Style accommodation. The cumulative impact on the availability of tourism accommodation will depend on:

- existing supply;
- vacancy and occupancy rates;
- flexibility in the market to respond;
- availability of rental accommodation; and
- nature and style of accommodation.

The ability of the area to accommodate tourists will depend on shift structures, the availability of alternate accommodation and the flexibility of operators. This is not able to be quantified but the need to monitor and manage this cumulative impact should be acknowledged.

Increased use of local infrastructure and the impact on maintenance costs for local councils.

Coal mines, both during construction and operation, generate significant increased use of local roads, bridges and waste facilities. From an economic perspective, there is likely to be an impact on the economic efficiency of roads and facilities, but the major impact is on ongoing maintenance costs and asset life. There are three principal ways Councils that own, operate and maintain these assets/facilities can recoup these additional costs.

- The higher rate in the land value dollar charged on mining land in comparison with farmland is designed to help recoup some of this increased cost burden. Further, several Councils in NSW, including Muswellbrook, have been successful in having this rate in the dollar increased on the basis of calculated cost impact.

⁶⁶ Australian Bureau of Statistic, 2006 Census, catalogue 2006, Gloucester. See Section 3.2.10 of this report.

⁶⁷ Ibid

⁶⁸ Destination NSW, local area tourism statistics 2007 and 2011.



- The Council can make a submission to the NSW Government as consent authority for the Proposal, asking for the provision of new or upgraded facilities as an up-front requirement of the approval process.
- The Council can make a submission asking that as particular mine use thresholds are achieved (e.g. Traffic volume, tonnes of waste) that upgrades and or maintenance is provided by the mine project.

As the Rocky Hill Coal Project will transport coal from the Site via rail, the transport impact on roads will be limited to supply and employee movements rather than coal movements.

Increased pressure on the coal chain and port facilitates.

As coal mining across the Hunter Valley and into the Gunnedah Basin, increases so does the load on the Hunter Valley Coal Chain: rail infrastructure, port infrastructure and major support road networks. The Hunter Valley Coal Chain Coordinator (HVCCC) has responsibility for monitoring, planning and working with the Port Corporation, major transport and handling facility operators and the Australian Rail Track Corporation (ARTC)⁶⁹. The HVCCC coordinates the operation and expansion of the coal industry to optimise the overall productivity of the network and sustainability of the industry. Cumulative impacts on the coal chain should be predicated, managed and accommodated through the HVCCC.

6.10.2 Positive cumulative impacts

Potential positive cumulative impacts may include:

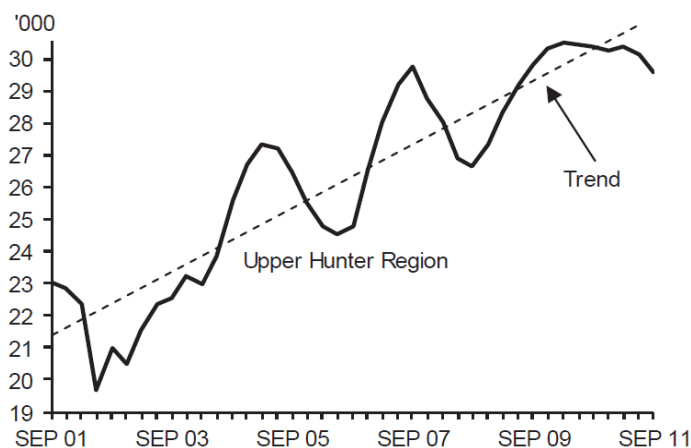
Increased employment.

Increased employment is a predictable, immediate and a cumulative impact of the development of the Rocky Hill Coal Project. Sections 6.6 and 6.7 provide modelling of the direct and multiplier employment impacts of construction and operations. The extent to which this impact can be captured locally and within the region will depend on: the ability of the mine to attract new workers and their families to move to the area; how many locals are employed; how long transient employees can be held and encouraged to spend locally and; the level of local procurement from the mine. The operation of the mine over a sustained period has the potential to support the establishment or growth of existing businesses to serve the operation. This would reduce jobs leakage and build stronger cumulative impacts.

Figure 8 shows the cumulative impact of the growing mining sector on employment in the Upper Hunter Region over the last decade. It is the upward trend line that shows the almost 50% jobs growth 2001 to 2011.

⁶⁹ <http://www.hvccc.com.au/AboutUs/Pages/MapOfOperations.aspx>



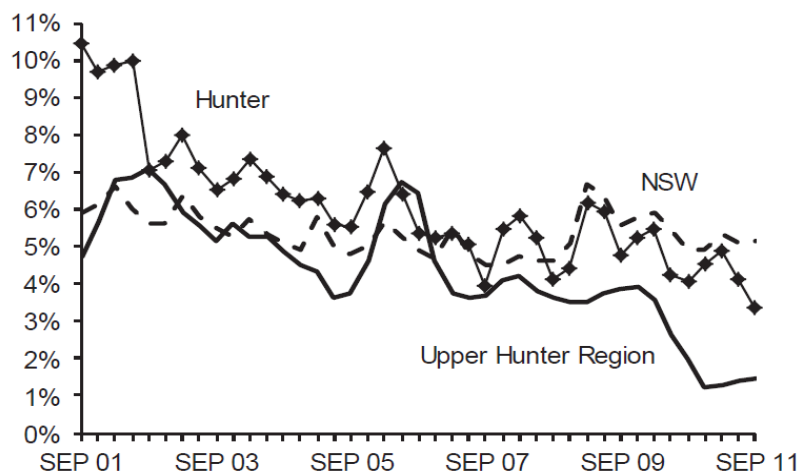


SOURCE: Department of Employment and Workplace Relations,
Small Area Labour Markets

Figure 8

Number of Employed Persons in Quarter Ended Sept. 2011, Upper Hunter Region

Figure 9 shows the corresponding drop in Upper Hunter Region unemployment over the same period from a 2001 high of over 10% to a 2011 low of just over 1%.



SOURCE: Department of Employment and Workplace Relations,
Small Area Labour Markets

Figure 9

Unemployment Rates in Quarter Ended Sept. 2011, Hunter, Upper Hunter Region & NSW

The HVRF undertakes a survey of businesses to provide an indication of employers' future intentions in regard to employment. **Figure 10** illustrates that while fluctuating there is still a strong intention of Upper Hunter LGA businesses to employ people over the next 3 months. Further, this intention continues to track higher than the intentions of businesses in the Hunter Region as a whole. In June 2011, 13% of Upper Hunter LGA businesses indicated that they were expecting an increase in employment over the next 12 months and this percentage rose to 16% in June 2012. Over the same 12 month period the expectations of businesses across the Hunter Region as a whole that employment would increase over the following 12 months fell from 12% to 11% of businesses surveyed.⁷⁰

⁷⁰ HVRF, *Upper Hunter Region Economic Indicators*, June 2012, p.2.



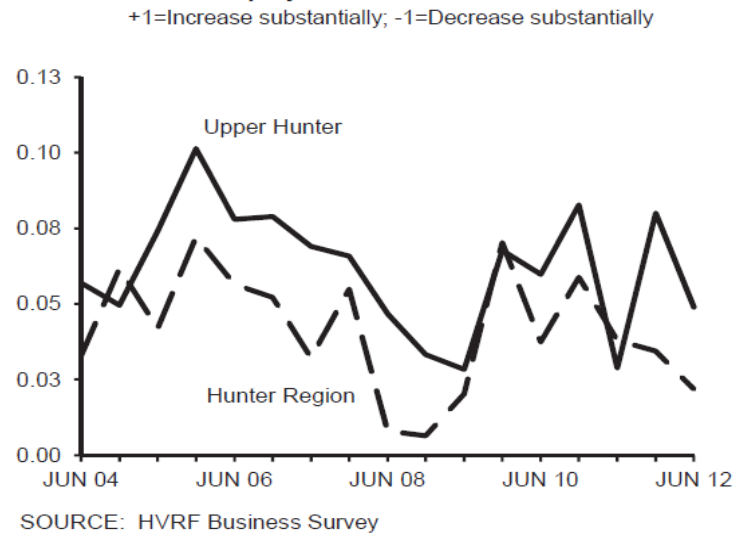


Figure 10
Businesses' Employment Intentions, Next 12 Months

The Rocky Hill Coal Project will generate direct new investment locally of in the order of \$190 million. It also has the potential to have a cumulative effect by generating ongoing investment in other areas of the economy and in other businesses. The HVRF uses new commercial vehicle registrations as an indicator of business investment. **Figure 11** indicates that, despite moderation in activity, business investment in the Upper Hunter Region remains at levels in line with a strong long term growth trend. It states that this “illustrates the extent to which economic benefits of the mining boom are flowing through to most other business sectors within the Upper Hunter Region.”⁷¹

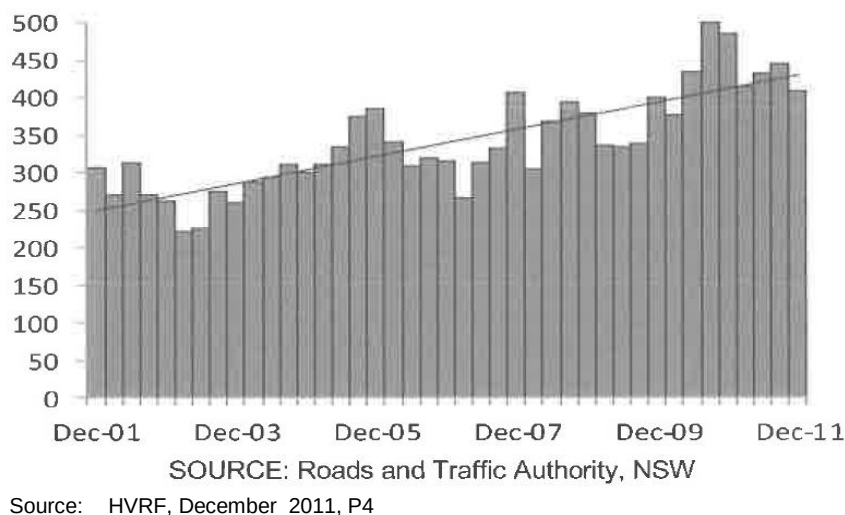


Figure 11
Number of New Commercial Vehicle Registrations, Upper Hunter Region

⁷¹ HVRF, *Upper Hunter Region Economic Indicators*, Dec 2011, p. 4



Table 35 shows the impact of the mining sector generally on investment in infrastructure across the wider region. There are five coal infrastructure projects under construction in the Hunter Valley; i.e. three port and two rail projects. At the Port of Newcastle, the Kooragang Island terminal is undergoing an expansion to bring annual capacity to 145 million tonnes, from 133 million tonnes, at a cost of \$227 million. There are two expansion projects taking place at the Newcastle Coal Infrastructure Group (NCIG) terminal. The second stage expansion will increase capacity from 30 million tonnes a year to 53 million tonnes a year at a cost of \$900 million. The third stage of the NCIG terminal will cost around \$1 billion and add 13 million tonnes of coal export capacity. When complete, the NCIG terminal will have a total capacity of 66 million tonnes, which is the maximum capacity under its New South Wales government planning approval. The two rail projects under construction are the Minimbah Bank and Nundah Bank projects which will contribute to lifting the Hunter Valley's coal haulage capacity to 145 million tonnes.⁷²

Table 35
Hunter Valley Infrastructure under Construction

Project	Scheduled Startup	Cap exp (A\$)	Capacity (Mt)
Minimbah Bank 3rd Road	2012	\$363m	na
Nundah Bank 3rd Road	2013	\$80m	na
Total rail		\$443m	
Kooragang Island	2012	\$227m	12
NCIG Stage 2	2013	\$900m	23
NCIG Stage 3	2014	\$1000m	13
Total port		\$2 127m	45
Total Hunter Valley		\$2 570m	

Source: Bureau of Energy and Resource Economics, Mining Industry Major Projects, April, 2012.

The cumulative impact on investment generated by mining also flows to the residential construction market. **Figure 12** illustrates the upward growth trend in residential building approvals since 2009. Annual change in real value year on year to the June quarter 2012 in the Upper Hunter Region has been 22% while NSW as a whole as lagged at -10% for the same period⁷³.

⁷² Bureau of Energy and Resource Economics, Mining Industry Major Projects, April, 2012, p. 16.

⁷³ HVRF June 2012 p.4.



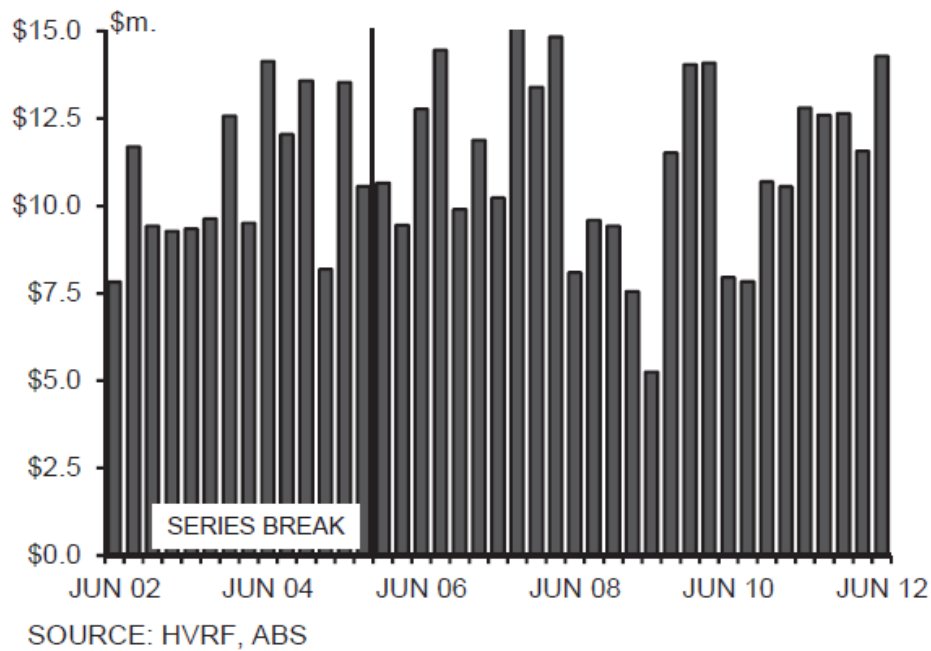


Figure 12

Residential Building Approvals, Upper Hunter, Real Value of Public and Private Approvals

Growth in the coal sector through projects such as the Rocky Hill Coal Project has and is expected to continue to lead to increased investment in general business, infrastructure and residential construction in the Hunter Region and Gloucester LGA.

Increase in demand for retail and tertiary services.

Investment and employment generation in mining projects and associated infrastructure generates cumulative growth in the demand for retail and tertiary services both in the Upper Hunter LGA and Hunter Region. This increased demand is generated by both the increase in the household expenditure pool and the higher population and employment base. **Figure 13** demonstrates how household income levels in mining communities, such as Singleton and Muswellbrook, have surged ahead of NSW as a whole. Median household incomes for the Singleton LGA as recorded in the 2006 and 2011 census, increased by 6.1% per annum compound.⁷⁴

⁷⁴ Ibid p. 4



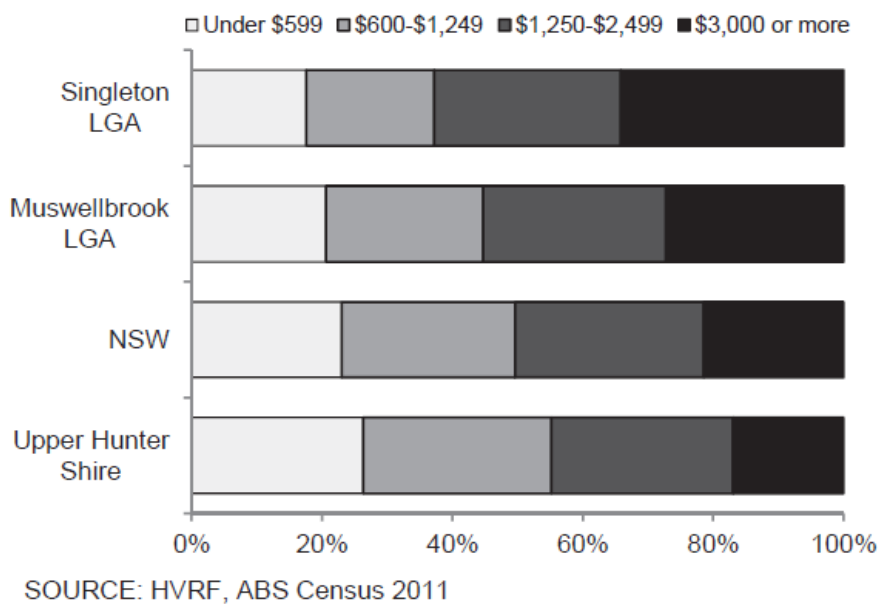


Figure 13
Household Income Profile Hunter LGAs and NSW. Proportion of households across income bracket, per week, August 2011

New passenger vehicle registrations are an indication of the increasing demand associated with this growth in income base. **Figure 14** shows new passenger vehicle registrations steadily trending up showing an annual increase to the December 2011 of +21.3% as compared with NSW aggregate growth of 11.3% for the same period.⁷⁵ This figure increased to +31% by the June quarter 2012.⁷⁶

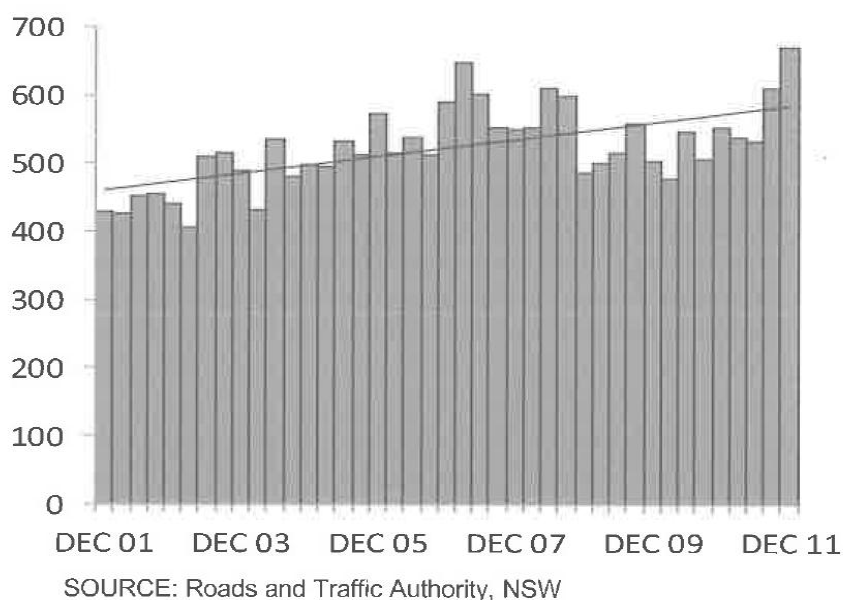


Figure 14
Number of New Passenger Vehicle Registrations, Upper Hunter Region

⁷⁵ HVRF December 2011 p.6.

⁷⁶ HVRF June 2012, p.1.



Services and facilities provided through mine community investments.

The Rocky Hill Coal Project expects to contribute approximately \$7 to \$8 million through a community trust to community projects in the Gloucester area throughout the life of the mine.

Possible projects types for funding identified in the consultation process for this report indicated include:

- Healthy Lifestyles / Sport / Community wellbeing projects and facilities;
- Housing projects;
- Tertiary Education projects and facilities;
- Special events and business and tourism attractor projects;
- Social infrastructure projects.
- Expansion of local business opportunities from mine procurement.

Section 6.4.2 provides information of the level of proposed expenditure on material and services during operations. On average, for each of the projected years of the mine operations, GRL will be spending in the order of \$71.5 million. While a proportion of this total will be procured from outside the local area, there is potential for the proportion of spending to increase over time. There are four main road blocks to maximising local content of mine procurement, these generally include:

- the information gap that exists between small and very large companies;
- the perceived lack of capacity in small enterprises;
- disincentives created by global supply chain management trends; and
- barriers arising from corporate policies and systems.

Increasing local purchase of consumables from 30% to 40% of total spend would increase the direct benefit to local businesses by almost \$2 million per year.

Singleton provides a model of the potential growth in number of businesses. **Table 36** shows the growth in the number of businesses in Singleton over the period 2004 to 2011. The total has increased from 648 to 1864 an increase of 197%.

Table 36
Number of Businesses in Singleton as at June 30, 2004 to 2007

	2004	2005	2006	2007	2011
Employing businesses: 1 to 4 employees	354	408	417	483	na
Employing businesses: 5 or more employees	294	303	303	303	na
Total businesses	648	711	720	786	1864
Source: Singleton Chamber of Commerce and Industry					



Greater royalties and taxes.

Table 37 shows trends in royalty revenue generated by the NSW minerals sector. In 2008-2009, royalty revenue reached an all-time high of \$1.28 billion, with coal accounting for approximately 95% of the total. This represented 2.6% of all revenue collection by the NSW government that year. Royalty revenue increased by 123% between 2007-08 and 2008-09 from \$573 million to \$1.28 billion. In 2009-10 this revenue dropped back to approximately \$985 million. Estimates of 2010-11 royalties are \$1.24 billion. NSW Mineral Council data indicates that royalty revenue will continue to grow reaching \$2.35 billion by 2014-2015.⁷⁷

Table 37
Royalties from NSW Minerals

Royalties collected from NSW minerals

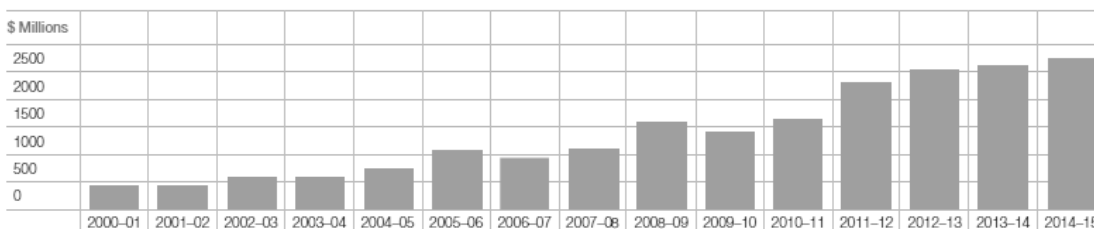
Year	\$million
2000-01	220
2001-02	216
2002-03	233
2003-04	233
2004-05	396
2005-06	504
2006-07	489
2007-08	573
2008-09	1,280
2009-10	985
2010-11 ^(f)	1,240
2011-12 ^(f)	1,768
2012-13 ^(f)	2,128
2013-14 ^(f)	2,215
2014-15 ^(f)	2,351

(f) Forecast figures sourced from NSW Treasury, NSW 2011-12 Budget Papers.

(f) Forecast.

(p) Preliminary figures.

Sources: NSW Trade and Investment – Mineral Resources; NSW Treasury.



Source: NSW Minerals Council, Key Industry Statistics 2011

Road and infrastructure upgrades.

GRL has committed to undertaking a range of road and related infrastructure upgrades to improve the safety and efficiency of the road network, to be used for the Proposal. These works include upgrades to three intersections, including Jacks Road and the construction of a new bridge over the Avon River at Jacks Road.

Development of human capital (skills, employment and training).

Gloucester has lower levels of post school qualifications than the remainder of the State with the exception of Certificates (2006 Census). The presence of a growing resources sector in the

⁷⁷ NSW Minerals Council, Pre Budget Submission 2012-13.



LGA will add to the area's ability to attract training providers and courses. GRL has also made the following commitments which would further develop Gloucester's human capital.

- Sponsorship of up to three tertiary education scholarships annually in fields such as mining, engineering, agriculture and environmental science.
- Provision of trade apprenticeships for local youth at the Rocky Hill Coal Project.
- Provision of competency training and certification on mining related equipment to assist local men and women gain employment in mining or other related fields; and
- Provision of local training and employment for local people through the Applicant's farming enterprises.

6.11 SCENARIO ANALYSIS

Anecdotal evidence, secured through the interview process relating to the social and economic impact of the Proposal, has indicated that there is a strongly held view by some in the community, that approval of the Rocky Hill Coal Project, the operation of the mine and the ongoing success and growth of other industries and sectors are mutually exclusive. In particular, the view has been expressed that approval of the mine would significantly impact upon the viability for the tourism and agricultural sectors. This section of the report seeks to investigate the validity of this view and consider the relevant data to determine the likely scenarios in terms of these sectors should the Rocky Hill Coal Project proceed, or otherwise.

This section considers the scenarios of growing:

- Agri-business;
- Tourism; and
- Service Industry.

To set the context for exploring various scenarios, a "do nothing" scenario should be explored. Section 3.2 of this report shows the population of Gloucester LGA in 2006 at 4,801 and in 2011 at 4,877 persons. This is a 1.6% total growth rate over 5 years. This compares with a NSW growth rate of 5.6% for the same period. Over the period 2001 to 2011, the median age in Gloucester increased from 42 to 49 years as compared with the NSW median age of 38 in 2011; household size has decreased in Gloucester from 2.5 person per dwelling in 2001 to 2.3 person per dwelling in 2011 and the percentage of the Gloucester LGA population aged 55 to 74 years increased from 28% to 31.1%. In comparison, across NSW the percentage of the population aged 55 to 74 years increased from 18.1% to 19.5%. Similarly, the percentage of residents aged over 75 years in Gloucester increased from 10.5% to 11.7% as compared to 6.7% to 6.9% across NSW. During the 2006 - 2011 period, Gloucester LGA saw a net addition of 9 persons aged 0 to 4 years and a real loss of people ages 25 to 54 years (91 people).⁷⁸

This progressive ageing of the population, low level of growth and loss of employment of aged residents underpins the NSW Department of Planning population projections for the LGA 2011 to 2036. **Table 38** shows the Department of Planning, on the basis of continued growth patterns, only expects an additional 100 people in Gloucester from 2011 to 2036. Over the

⁷⁸ <http://www.abs.gov.au/websitedbs/censushome.nsf/home/data?opendocument&navpos=200>



same time frame the wider region is predicted to experience growth of almost 24,000 people. Note that Gloucester Shire Council's population growth projections (1200 in the next 10 years) exceed Department of Planning projections.

Table 38
Population Projection to 2036

Population Projections LGA	2006	2011	2016	2021	2026	2031	2036	Change 2011-36
Cluster 1								
Singleton	22900	24200	25700	27200	28800	30300	31800	7600
Muswellbrook	15900	16300	16700	17100	17500	17900	18300	2000
Upper Hunter	13600	13500	13400	13300	13200	13000	12900	-600
	52400	54000	55800	57600	59500	61200	63000	
Cluster 2								
Dungog	8400	8600	8900	9200	9400	9700	9900	1300
Gloucester	5000	5000	5000	5100	5100	5100	5100	100
	13400	13600	13900	14300	14500	14800	15000	
Cluster 3								
Great Lakes	34200	37100	40000	42900	45600	48100	50400	13300
Total UH Region	100,000	104,700	109,700	114,800	119,600	124,100	128,400	23700

Source: Upper Hunter Diversification Strategy, report 3 or 3 Strategy, p.32

In 2011, the NSW Government, through the Departments of Trade & Investment, the Office of Environment & Heritage and the Department of Premier & Cabinet joined with Hunter Councils to prepare an *Upper Hunter Diversification Strategy*. A series of three reports were prepared to consider the opportunities and strategies for this area. Gloucester was included in this work. **Table 39** is an extract from the report which indicates that, without other options, the top three economic drivers for the Gloucester LGA would likely be Agri-business, population services and health and aged care. Tourism rated fourth. There is nothing in the data to suggest that the current trajectory would deliver population growth, jobs growth, a diversified economy or increased economic capacity.



Table 39
Major Current Economic Drivers (Key Sectors) in each Local Government Area

Major Drivers Rank	Cluster 1 Singleton	Muswellbrook	Upper Hunter	Cluster 2 Dungog	Gloucester	Cluster 3 Great Lakes
1	Coal Mining	Coal Mining	Equine	Agribusiness-beef, dairy	Agribusiness-beef, dairy	Population Services – retail/services
2	Mining Support	Power generation	Agribusiness-beef, dairy, crops, food processing	Population Services – retail/services	Population Services – retail/services	Tourism
3	Power generation	Mining Support	Population Services – retail/service	Tourism	Health & Aged Care	Health & Aged Care
4	Population Services – retail/services	Equine	Tourism	Education	Tourism	Building and construction
5	Agribusiness – beef, dairy	Wine	Education		Education	Education
6	Defence	Agribusiness – beef, dairy			Coal Mining	Agribusiness – aquaculture, fishing, beef, timber
7	Wine	Population Services – retail/services				
8	Tourism	Tourism				
9	Education	Education				

Source: Buchan Consulting, Upper Hunter Diversification Project, Report 2 of 3, Directions & Opportunities June 2011, p.20.

For example, the report indicates that in Gloucester there will be demand for an additional 43 dwellings over the period 2011 to 2036 (25 years)⁷⁹. This is less than 2 dwellings a year representing an annual capital investment in housing stock of \$600,000 per year and a cumulative impact of \$12.9 million over 25 years. The annual multiplied impact of this \$600,000 construction could be \$1.72 million⁸⁰. **Table 40** from the report indicates that jobs growth will be of the order of 5 jobs per year on current trajectory. It therefore appears that a do-nothing scenario will generate neither population nor jobs growth.

Table 40
Estimated Jobs Generated by Population 2011 to 2036

Job Numbers Generated	Total Period					Average Jobs per year
Upper Hunter Region	2011-2036	2011-2021	2021-2026	2026-2031	2031-2036	25 years
Cluster 1						
Singleton	1646	705	297	313	331	66
Muswellbrook	497	220	101	69	106	20
Upper Hunter LGA	409	181	83	57	87	16
Cluster 2						
Dungog	244	117	53	36	37	10
Gloucester	120	58	20	21	21	5
Cluster 3						
Great Lakes	3059	1294	552	588	625	122
Total UH Region	5975	2575	1107	1085	1208	239\

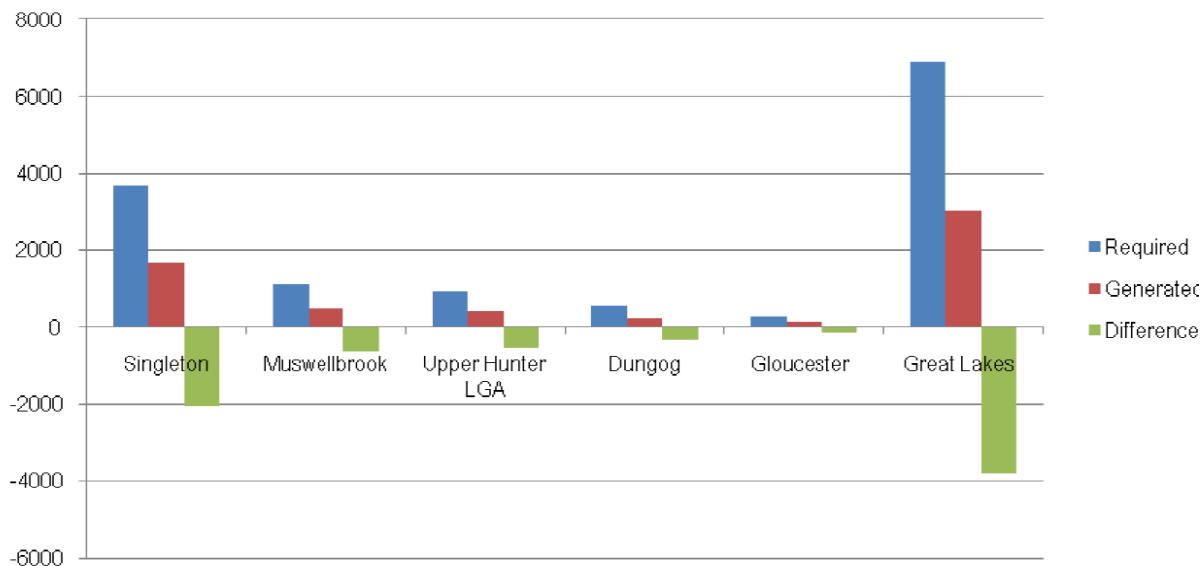
Source: Buchan Consulting, Upper Hunter Diversification Project, Report 2 of 3 Directions & Opportunities Report, June 2011, p.37.

⁷⁹ Upper Hunter Diversification Report, 3 or 3, Strategy 2011, p 35.

⁸⁰ Australian National Accounts: Input/output tables 1996-97 (5209.0) methodology.



Figure 15 shows the jobs required by natural population growth on current trajectory compared with jobs naturally generated by population growth and the difference. This data indicated a job shortage between 2011 and 2036.



Source: Buchan Consulting, Upper Hunter Diversification Project, Report 3 of 3 Directions and Opportunities Report, June 2011, p.38.

Figure 15
Comparison of Jobs Required and Jobs Generated by Population (2011 - 2016)

In summary, if the current trajectory is unchanged through significant autonomous investment, and the do-nothing scenario prevails, the likely future scenario for Gloucester based upon the above projections includes:

- small and decreasing population growth;
- low levels of population growth generated employment;
- continued exodus of people in primary working years (25 to 55);
- an increase in the percentage of the population over 55 year of age;
- increasing dependency ratio (people not working relying on those working);
- shrinking household size;
- inadequate jobs growth to meet population demand;
- out-migration to neighbouring employment centres;
- increased percentage of population on the pension; and
- increase in level of Council Rate Rebates for pensioners.

It is reasonable from this analysis to suggest that there needs to be strategies, projects and investment to change the current trajectory if Gloucester is to have a more positive economic future.



6.11.1 Growth in Agri-Business - Scenarios

Table 41 shows the spread of employment based on the 2006 census across agri-business in the Hunter, including Gloucester. 2011 census data is not available to update the status of employment in the various industries. There were some 446 people employed in agri-business with over 55% in beef, 15.5% in dairy, and 11.2% in timber and forestry. These three sectors represent 82% of agri-business employment. The report also indicates that “Timber is undergoing a major restructure in the area with the locking up of forest areas and the closure of mills in both Gloucester and Dungog.”⁸¹ It is unlikely that, without significant intervention, employment growth will occur in the agri-business sector. As forestry jobs are likely to decline, even with an unprecedented employment growth of jobs in beef and dairying of 10%, this would generate only 31 new jobs. There would need to be growth of in excess of 27% across all agri-business to secure the jobs estimated to be provided annually through the Rocky Hill Coal Project⁸². The Upper Hunter Diversification Project provides no evidence or suggestion that this is achievable.

Table 41
Residents Employed in Agri-Business (ABS 2006)

Sector	Singleton		Muswellbrook		Upper Hunter LGA		Dungog		Gloucester		Great Lakes		Total – Upper Hunter Region	
	No	%	No	%	No	%	No	%	No	%	No	%	No	%
Agribusiness														
Beef	190	23.1	166	17.7	456	26.4	211	35.2	246	55.2	160	19.6	1265	25.1
Sheep	7	0.8	11	1.2	201	11.6	4	0.7	6	1.3	0	0.0	223	4.4
Dairy	112	13.6	81	8.6	43	2.5	121	20.2	69	15.5	37	4.5	416	8.3
Other Livestock	5	0.6	6	0.6	3	0.2	4	0.7	0	0.0	6	0.7	24	0.5
Equine	58	7.0	274	29.2	490	28.3	32	5.3	8	1.8	24	2.9	886	17.6
Poultry	5	0.6	23	2.4	9	0.5	52	8.7	3	0.7	67	8.2	156	3.1
Wine	160	19.4	171	18.2	44	2.5	15	2.5	3	0.7	10	1.2	400	7.9
Fruit & Vegetables	58	7.0	6	0.6	12	0.7	13	2.2	3	0.7	18	2.2	107	2.1
Grains	20	2.4	22	2.3	71	4.1	4	0.7	0	0.0	12	1.5	129	2.6
Flowers	14	1.7	10	1.1	3	0.2	10	1.7	6	1.3	17	2.1	60	1.2
Forestry & Timber	9	1.1	3	0.3	3	0.2	39	6.5	50	11.2	124	15.2	184	3.7
Fishing & Aquaculture	0	0.0	0	0.0	3	0.2	0	0.0	4	0.9	216	26.5	219	4.3
Other Agriculture	17	2.1	31	3.3	39	2.3	19	3.2	3	0.7	21	2.6	127	2.5
Agriculture Support	74	9.0	90	9.6	93	5.4	36	6.0	23	5.2	21	2.6	317	6.3
Food Processing	95	11.5	45	4.8	259	15.0	39	6.5	22	4.9	82	10.1	526	10.4
Total Agribusiness	824	100.0	939	100.0	1729	100.0	599	100.0	446	100.0	815	100.0	5039	100.0

Source: Buchan Consulting, Upper Hunter Diversification Project, Report 1 of 3 Upper Hunter Regional economy and Industry Report, June 2011, p.37.

Gloucester Shire has a reputation for its beef cattle farming. A large proportion of agricultural land in the region is dedicated to beef cattle and around 55% of persons employed in agriculture in Gloucester were in beef cattle (246 persons). Gloucester's *Local Environment Study 2006* notes that the number of beef cattle producers in the region declined but an increase was observed in cattle numbers, sales and slaughtering in the study period (1997-2006). These observations reflect some of the consolidation that has occurred within the sector.

⁸¹ Report 1 page 38

⁸² <http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/6291.0.55.003Feb%202012>



"The *ABS National Regional Profile* indicates that there were 62,522 head of meat cattle in the region in 2006. Annual sales of beef cattle are approximately 40,000 head, which is valued at around \$20 million (or an average of \$500 per head of cattle). Consultations with the sector in Gloucester indicate that the majority of producers in the region have around 200 head of cattle, with a few larger producers with 600-700 head. The majority of beef cattle in the region were Hereford, Angus and crossbreeds. Gloucester beef has been traditionally grass fed beef. Gloucester Shire Council owns and operates Gloucester's beef cattle sale yards (Gloucester Livestock Exchange Centre) and approximately 27,000 head of beef cattle are sold through this channel each year. These sales comprise fat cattle for slaughter and store cattle for fattening or breeding. Cattle sold for export slaughter are primarily processed at Dinmore in Brisbane, Inverell and Wingham and the major export markets comprise Japan, Europe and North America. Lighter trade cattle for domestic consumption are processed in abattoirs in the Hunter Region at Scone and Singleton. Beef from Gloucester reaches markets including Sydney, the Central Coast and Newcastle."⁸³

"There are a number of major issues affecting this sector and these include: increased production costs covering all input costs and transport costs; static prices for beef (a decline in real prices to producers); costs of land in the region and impacts on potential for consolidation into large holdings; land being locked up by hobby farmers and through mining acquisitions; the potential for more intensive farming to increase yields; the minimum rural subdivision size of 100 hectares; and a planning framework protecting native vegetation in the region.

Land with river flats (low-lying alluvial land along a river) was viewed as important assets for beef cattle producers. Other issues included the operations of the Gloucester Livestock Exchange Centre and the future closure of the Wingham abattoir. A regional brand for beef cattle has been established. *Barrington Beef* is a brand of *Gloucester Gourmet Foods Co-operative Limited*, which consists of a co-operative of 26 regional producers. Gloucester Gourmet Foods Co-operative Limited was registered in 1997 and the *Barrington Beef* brand was launched soon after."⁸⁴

The Gloucester Region has a long history in beef and dairy but has been seeking to diversify into some other emerging areas. The major issues affecting commercial agriculture in the area include both local factors and broader industry wide issues:

- Competing uses for some rural lands in the region associated with the extension of mining leases.
- Recent pressure on land prices arising from purchasing of properties as lifestyle blocks and hobby farms.
- A major squeeze on producers due to farm gate prices remaining static (or with minimal growth), while the cost of all farm inputs have increased significantly.
- Pressures associated with change in the food processing sector, with closures of some processing plants or meatworks and consolidation into larger and more distant (from Gloucester) plants.

⁸³ Economic Development Strategy for Gloucester Local Government area, Report 3: Economic Development Strategy, December 2010 p. 21.

⁸⁴ Ibid p 22.



Land issues have limited the ability to consolidate into larger holdings, particularly for some larger beef and dairy producers, who wish to expand their local operations. With the squeeze on margins, some farmers have looked at more intensive farming options to increase yields and income from their existing farms.

Table 42 clearly depicts the story of job losses in agriculture, forestry and fishing from 2006 to 2011 in Australia. 25,400 jobs disappeared during this time representing a 7.2% loss across the sector and equal to the percentage loss in manufacturing over the same time. This data also indicates jobs growth in agri-business to 2016-17 of 1.7%. If this trend applied in Gloucester this would represent jobs growth of 8 jobs 2011- 2017 or less than 1.5 jobs per year.

Table 42
Australia Industry Employment

Industry	Employment Nov 2011				Employment profile (% of industry's workforce)				Projected growth to 2016-17	
	% of workforce		5 year change to Nov 2011		Outside state capital	Working part-time	Female	Aged 45 years or older	'000	%
	'000	%	'000	%						
Accommodation and Food Services	773.4	7	85.5	12.4	39	57	56	22	30.9	4.0
Administrative and Support Services	399.7	3	45.4	12.8	35	40	52	41	17.7	4.4
Agriculture, Forestry and Fishing	327.1	3	-25.4	-7.2	87	27	30	56	5.5	1.7
Arts and Recreation Services	213.4	2	35.3	19.8	34	44	47	33	7.8	3.7
Construction	1045.5	9	100.7	10.7	39	14	11	33	131.2	12.6
Education and Training	859.2	7	114.7	15.4	36	38	69	49	61.3	7.1
Electricity, Gas, Water and Waste Services	154.4	1	48.4	45.7	44	9	25	43	17.9	11.6
Financial and Insurance Services	432.1	4	30.3	7.5	20	18	53	31	18.5	4.3
Health Care and Social Assistance	1343.4	12	276.0	25.9	37	43	79	47	241.8	18.0
Information Media and Telecommunications	203.7	2	-46.8	-18.7	21	19	42	31	4.6	2.3
Manufacturing	945.6	8	-72.1	-7.1	35	14	26	41	-85.6	-9.0
Mining	239.1	2	102.9	75.5	61	3	16	34	103.7	43.4
Other Services	452.7	4	38.3	9.2	38	29	41	37	18.4	4.1
Professional, Scientific and Technical Services	865.7	8	122.3	16.5	24	22	43	36	108.2	12.5
Public Administration and Safety	738.1	6	98.4	15.4	43	17	47	45	31.2	4.2
Rental, Hiring and Real Estate Services	193.8	2	-2.6	-1.3	33	26	50	39	6.7	3.5
Retail Trade	1219.1	11	34.6	2.9	39	48	56	28	50.4	4.1
Transport, Postal and Warehousing	580.1	5	68.4	13.4	33	19	22	48	42.0	7.2
Wholesale Trade	424.7	4	15.8	3.9	28	16	33	42	17.0	4.0
Total (all industries)	11 456.5	100	1077.4	10.4	37	30	46	38	829.3	7.2

Source: Department of Education, Employment and Workplace Relations, Australian Jobs, 2012, p 13.

The potential agricultural production value of the Site can be implied by calculating the potential size of a grazing herd and imputing its value. The Site has an approximately area of 1,093 hectares. Cattle would represent the highest value grazing herd. It is estimated that the carrying capacity of suitable land is approximately 578 head of cattle on a historical basis. In 2010 there were an estimated 62,522 head in the Gloucester area, with an estimated value of approximately \$28.8 million, representing an average value of approximately \$460 per head of cattle. Based on the above estimates, the Site could support a cattle herd of approximately 578 cattle, representing a total value of \$265,880



The progressive mining and rehabilitation of the site mean that throughout the life of the Proposal, varying areas of land would be removed from agricultural production. Approximately 554ha would be removed from agricultural production in Year 3, decreasing to 218ha by Year 13 as a result of rehabilitated land being returned to agricultural production. This reduces the annual loss to an estimated 264 head of cattle and \$121,440 of economic value. Further mining patterns indicate that from Year 7/8 of the Proposal, stock losses will be reduced to 163 head of cattle. The economic loss at this point would be \$74,980.

This loss could be mitigated by:

- Providing support to other farmers to increase production to offset stock losses; and
- Enhancing capacity of the residual undisturbed land to help offset stock losses.⁸⁵

In conclusion, it is apparent that agri-business in its own right may not have the capacity to grow the required investment and employment required over time in Gloucester to attract population and service growth to the area. It is, however, an important component of any economic development strategy for the area. Further it should be recognised that agri-business and mining are not mutually exclusive. A review of **Table 44** shows that in both Singleton and Muswellbrook, LGAs dominated by coal mining, some 824 and 939 persons respectively are employed in agriculture. Moreover, the range of agricultural sectors employing locally is more diverse and in both cases support strong locally organised grower direct markets.⁸⁶ Food, produce and rural lifestyle are strong elements in the marketing of LGAs well known for their mining industries. **Figures 16** and **17** show web promotions of this agricultural sector and its opportunities in Singleton and Mudgee.



⁸⁵ Figures calculated on information supplied in the Agricultural Impact Statement prepared for the EIS, pages 17-20.

⁸⁶ Singleton Chamber of Commerce and Industry, interviews.

Figure 16
Singleton Wine and Produce Marketing Web Page

Local Regional Produce

Many of our local wineries, restaurants & coffee shops stock tasty local Mudgee region produce.

Why not try one of our fabulous local farm walks held on the third Sunday of the month and pick and taste for yourself ...

Come along to the Farmers' Markets on the 3rd Saturday of each month at St Mary's Catholic Church and you can buy direct from members of Mudgee Fine Foods group. Take a look at their extensive regional producers' list.

St John's Anglican Markets are held the first Saturday and Lawson Park



Figure 17
Mudgee Local Produce Marketing, Web Page

6.11.2 Growth in Tourism

"Tourism is important for Gloucester Shire. The key assets are based on the natural environment and a rural lifestyle. The assets include: a World Heritage Area (Barrington Tops is included in the World Heritage Listed Central Eastern Rainforest Reserves); wilderness areas and National Parks; an attractive farming/rural environment; and accessibility to the major population centres of Newcastle, the Central Coast and Sydney.

Current tourism activities are based on: adventure tourism activities, including walking and camping in National Parks, State Forests, and Barrington Tops; and some rural experiences such as farm stays and visits. There are several local operators providing services to the adventure/experience tourism market and these include: canoe and kayak hire, overnight trail rides, National Parks night walks, and self-drive 4WD trails. Fifty eight "*Farm Trails*" have been developing in the area and include organised site visits to various farms/businesses. A number of other businesses in the region receive a boost from tourism and these include cafes, restaurants, hotels, supermarkets and other retailers in the town centre. A major issue is that the tourism sector and the key attractions, accommodation, infrastructure and tourism product are under-developed relative to other areas in the Hunter Region and in other locations."⁸⁷

⁸⁷ Economic Development Strategy for Gloucester Local Government Area, Report 3: Economic Development Strategy, December 2010, p.43.



Of the 1879 residents of Gloucester employed at the time of the 2006 Census, 136 were employed directly in tourism. This represents 7.3% of the resident workforce. **Table 43** indicates that in 2006 there were an estimated 1738 jobs located in Gloucester. This suggests that 141 (or 7.5%) employed residents of Gloucester travelled outside the LGA for employment. The low ratio of jobs to population shown in **Table 43** also supports this view. It is likely that many of these jobs outside the LGA would be in the mining and tourism sectors.

Table 43
Population and Employment Ratio 2006

LGA	Jobs in LGA	Population in LGA	Ratio: Jobs/Population
Cluster 1			
Singleton	12,368	22,948	0.54
Muswellbrook	7,887	15,937	0.49
Upper Hunter	4,697	13,589	0.35
Cluster 2			
Dungog	2,037	8,403	0.24
Gloucester	1,738	4,972	0.35
Cluster 3			
Great Lakes	9,093	34,192	0.27
Total UH Region	37,820	100,041	0.38

Source: Upper Hunter Diversification Project, Report 1 of 3, p. 16.

Tables 44 and **45** also demonstrate that tourism is a significant employer in absolute and relative terms in Singleton and Muswellbrook. Singleton and Muswellbrook have not found tourism and mining to be mutually exclusive.

Table 44
Major Sectors of Employment for Employed Residents 2006

Summary Table	Singleton		Muswellbrook		Upper Hunter LGA		Dungog		Gloucester		Great Lakes		Total – Upper Hunter Region	
	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%
Agribusiness														
Agribusiness (included forestry & fishing)	824	8.0	939	14.0	1729	27.9	599	17.3	446	23.7	815	7.7	5039	13.2
Tourism														
Tourism	716	6.9	461	6.9	394	6.4	224	6.5	136	7.3	785	7.4	2717	7.1
Energy														
Mining Direct	2,177	21.1	1,151	17.1	455	7.3	82	2.4	90	4.8	80	0.8	3,955	10.4
Electricity	265	2.6	320	4.8	122	2.0	3	0.1	0	0.0	45	0.4	783	2.1
Services														
Health	359	3.5	264	3.9	260	4.2	182	5.3	152	8.1	682	6.4	1872	4.9
Aged Care	226	2.2	105	1.6	194	3.1	135	3.9	39	2.1	502	4.7	1,198	3.1
Education	519	5.0	370	5.5	372	6.0	264	7.6	117	6.2	682	6.4	2,300	6.0
Retail	1,010	9.8	680	10.1	594	9.6	324	9.4	182	9.7	1,475	13.9	4,198	11.0
All Employed Residents	10316		6723		6195		3460		1879		10619		38134	

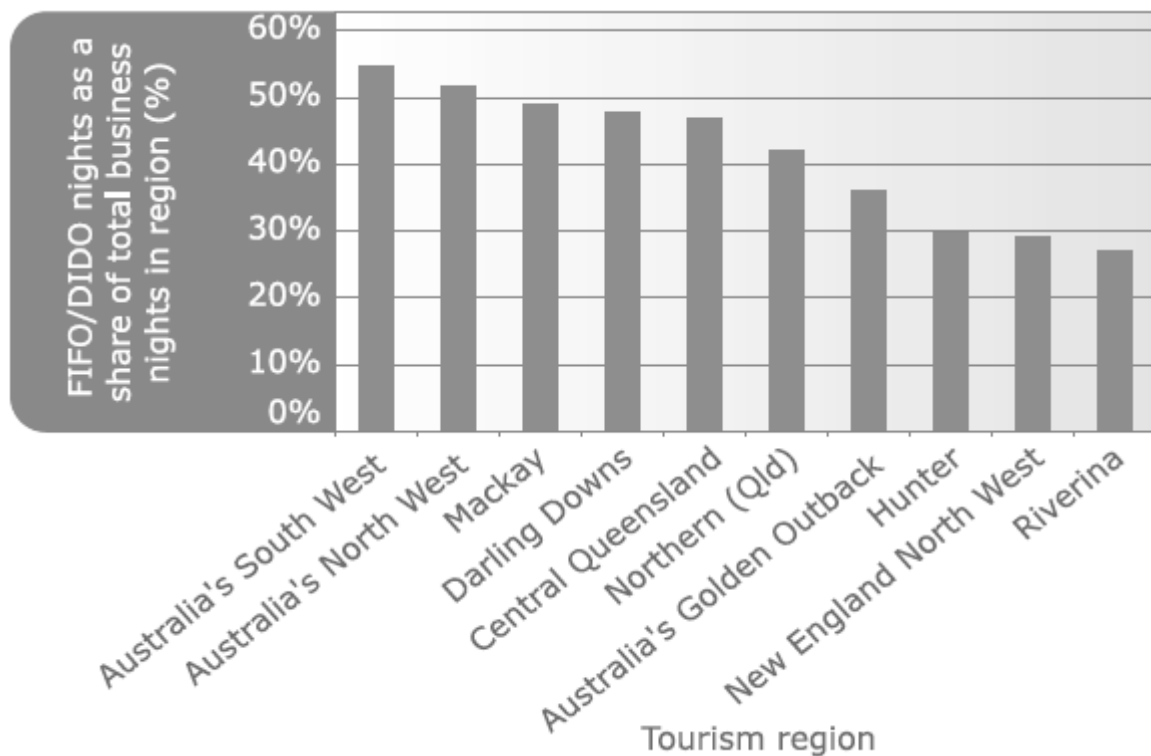
Source: Upper Hunter Economic Diversification Project, Strategies, Report 3 of 3, p.21



Table 45
Estimated Tourism Related Jobs by Sector 2006

Sector	Singleton	Muswell brook	Upper Hunter LGA	Dungog	Gloucester	Great Lakes	Total UH Region	Tourism intensity - Share of Sector (%)
Agriculture	14.9	14.4	34.6	12.3	9.4	13.6	99.2	2.8
Manufacturing	24.2	15.1	12.1	2.7	4.5	14.3	72.9	2.8
Retail	81.8	56.7	39	14.8	14.2	109.7	316.2	7.7
Accommodation	105.3	60.5	52.7	44	24.4	272.7	559.6	78.6
Food and beverage services	132.5	119.3	65.4	32.1	26.2	239.4	614.9	28.2
Transport	35	21.3	17.2	10.7	6.6	25.8	116.6	9.8
Education and training	5.4	3.9	4	2.2	1.3	6.9	23.7	1.0
Arts and recreation	6	6.4	11.9	2.1	1.2	21.6	49.2	11.3
Personal services	74.9	33.9	13.7	7.9	6.4	40.6	177.4	11.3
Total Tourism Jobs	480	331	251	129	94	745	2030	
Total Jobs in Area	12368	7887	4697	2038	1737	9093	37820	
Tourism Jobs Share (%)	3.9	4.2	5.3	6.3	5.4	8.2	5.4	
LGA Share of Regional Tourism Jobs (%)	23.6	16.3	12.3	6.3	4.6	36.7	100.0	

Source: Upper Hunter Economic Diversification Project, Strategies, Report 3 of 3, p.71



Source: Impact of the Mining Boom on Tourism, Australian Government Department of Resources Energy and Tourism, p. 2.

Figure 18
FIFO/DIDO Visitor Nights as a Proportion of Business Nights for Elected Regions 2010



On the basis of the data presented by *Destination NSW* for Gloucester, September 2011, the local tourism industry looks relatively strong. In summary the data indicates as at September 2011 on the basis of averages over 2008 to 2011 Gloucester enjoyed:

- 69,000 domestic overnight visitors,
- 190,000 domestic visitor nights, and
- \$30 million in domestic overnight visitor spend.

These figures however show a decline in domestic visitors based on a similar report from Tourism Research Australia, 2007. This report indicated that for the three year average, 2004 to 2007, Gloucester enjoyed:

- 103,000 domestic overnight visitors,
- 321,000 domestic visitor nights, and
- \$28 million in domestic overnight visitor spend.

Moreover, over that time frame the data when compared shows a shift from staying with friends and family from 23,000 nights in 2007, to 60,000 nights in 2011. This met with an apparent decline in visitor nights in camping grounds from 35,000 nights to 24,000 nights.

Table 46 is based on the 2011 Destinations NSW data and reflects the total number of domestic visitor nights as spread across accommodation types.

Table 46
Gloucester LGA, Domestic and Overnight Tourism Sept. 2011

Accommodation type	Paid/ Unpaid	% of total visitor nights	Nights '000
Friends & relatives property	Unpaid	31.7	60
Hotel, resort, motel	Paid	14.0	27
Caravan park or commercial camping ground	Paid	12.8	24
Camping near road or private property	Unpaid	12.2	23
Rented house, apartment or unit	Paid	11.5	22
Other/unidentified	N/A	17.8	34
		100	190
SOURCE: Destination NSW, September, 2011, Travel to Gloucester LGA, p.1			

Of the 190,000 visitor nights recorded, 73,000 were in paid accommodations (38.3%). Excluding Caravan Park stays, there were 49,000 paid stay nights in 46 establishments. This equates to 77 nights per bed, or a bed occupancy of 21%. This figure may be skewed due to the high number of beds in some properties and the high level of self-contained accommodation which might otherwise be long/short term lease, vacant or private family weekenders. 34% beds are in lodges and self-contained properties. These suit both tourists and are ideal for longer term construction and mine workers.



"A 2006 study indicated that there had been an increase in accommodation from 26 properties in 1997 to 65 properties in 2005 (mainly the establishment of B&Bs)."⁸⁸ Data from the Gloucester Tourism web site as shown in **Table 47** indicates that there are now 54 establishments in this market.

The analysis in 2006 indicated that tourist accommodation had a maximum capacity of 1600 in resorts, motels, bed and breakfasts and caravan parks, and there were a total of 945 camping sites in national park areas - with total capacity of 3570 persons. This indicates that there is total accommodation in the area for around 5200 persons at peak periods."⁸⁹

Data collected from the Gloucester Tourism website and presented in **Table 47** indicates a significant drop in accommodation capacity since 2006. Excluding camping and caravans, there appears to be less than 700 beds in the Gloucester LGA.

The Tourism Research Australia data from 2008 indicates that there were a total of 138 tourism businesses in Gloucester Shire and most of these were small businesses. In all, almost half (46%) were run by proprietors (with no employees) and 26% employed between 1 and 4 persons. Around half of these would be accommodation providers. There were six businesses employing more than 20 persons."⁹⁰

Table 47
Gloucester LGA, Number of Tourism Establishments and Beds Sept. 2011

Accommodation style	Number of advertised establishments	Estimated total beds
B & B	10	40
Self-contained	24	190
Camping/caravan	8	na
Farm stays	2	55
Hotel motel	4	130
Lodge	2	24
Resort	4	200
Total	54	639
Source: http://www.visitgloucester.com.au/MemberList.aspx?Global=Where to Stay&AutoSearch=True accessed August 21, 2012		

The Gloucester Tourism Sector demonstrates the following characteristics:

- a concentration in low yield markets;
- less tourism jobs than employment demand;
- a shift from paid to unpaid accommodation;
- a decline in number of establishments;
- decline in visitation;

⁸⁸ Economic Development Strategy for Gloucester Local Government area, Report 3: Economic Development Strategy, December 2010 p 42

⁸⁹ Ibid p.44

⁹⁰ Ibid p. 45



- decline in length of stay;
- small scale operations with minimal growth/employment capacity;
- lack of coordinated markets; and
- under development of product and facilities.

Issues confronting the growth of Gloucester tourism sector include:

- the range of comparative tourism experiences within a 2 hour radius of Sydney;
- the strength of the Australian dollar;
- the competition for more sophisticated providers;
- poor access and market knowledge; and
- lack of national brand product/accommodation.

Gloucester's 2010 *Economic Development Strategy* identified several tourism opportunities:

Adventure tourism: The definition covers a range of coastal and mountain activities including: fishing; bush walking; escorted tours; rock climbing; mountain biking; cycle touring; white-water rafting; horse riding; kayaking; canyoning.

Nature based tourism: Includes day walkers, and campers. This is often a self-organised low yield but growing segment of the market.

Agri Tourism: Including farm stays, working experiences.

Short Breaks: 2 hour drive of Sydney targeting get away breaks.

Wellness tourism: Includes spas and health retreats and facilities that combine wellness, exercise and nutrition.

While growing the tourism sector should be part of a longer term economic development strategy for Gloucester, it does not appear to offer significant capacity to grow investment or jobs in its own right. The capacity of tourism to grow both jobs and investment is limited by issues discussed specific to Gloucester and to wider influences affecting tourism more broadly in NSW and Australia.

The time series data from NSW tourism shown in **Table 48** demonstrates the shift in tourism in terms of "purpose" of visit both in the Hunter and NSW. Over the period 2007 to 2011, NSW domestic visitor nights dropped by 2.4%. Over this same period, Hunter domestic visitor nights grew by 19.75%. To a significant extent, the capacity of the Hunter to grow is due to the shift to, and increase in, the importance of business visitation.

Table 48 shows that the percentage of visitor nights for the purpose of business in the Hunter increased from 12% in 2007 to 22% 2011, an 83.3% increase. The same time series is not available for NSW, however business visitor nights only represent 13.7% of total nights for NSW in 2011 only slightly higher than the 10.3% for regional NSW. Data for Sydney 2007-2011 shows an 8.3% drop in business visitor nights.



Table 48
NSW Time Series Data Purpose of Visit, Visitor Nights

Destination NSW Time Series data	2007	2011	% change
Hunter total domestic visitor nights '000	5062	6062	+19.75
NSW total domestic visitor nights '000	85,597	83,561	-2.4
Purpose of visit BUSINESS % of visitor nights Hunter	12	22	+83.3
Purpose of visit BUSINESS % of visitor nights NSW	na	13.4	na
Purpose of visit BUSINESS % of visitor nights regional NSW	na	10.3	na
Purpose of visit BUSINESS % of visitor nights Sydney	24	22	-8.3
Accommodation with friend or relative % of visitor nights Hunter	51	45	-11.8
Sources: http://archive.tourism.nsw.gov.au/Sites/SiteID6/objLib12/Total-NSW-YE-Mar-12.pdf http://archive.tourism.nsw.gov.au/Sites/SiteID6/objLib92/Regional-NSW-time-series-March-2012.pdf http://archive.tourism.nsw.gov.au/Sites/SiteID6/objLib92/Sydney-time-series-March-2012.pdf			

It is very clear that the strength of the business visitor sector is protecting, bolstering and driving tourism more broadly in the Hunter. This supports the view that the mining sector in the Hunter is firmly underpinning the tourism sector ensuring occupancy and flow on expenditure.

The value of business tourism is also demonstrated in the time series accommodation data for the Hunter. Between 2007 and 2011, the percentage of visitors staying with a friend or relative as a percentage of domestic visitor nights dropped from 51% to 45% (-11.8%).

This shift represents an increase in 'paid' accommodation and is generally associated with higher yields, flow on expenditure and multiplier jobs. Mining-related business makes a significant contribution to Hunter tourism sector operators.

In conclusion, the community's aspiration to support and grow its tourism sector should be supported and explored. However, this does not mean that mining should not proceed in parallel and in sympathy with tourism. Other areas have demonstrated that this is possible, even desirable and helps absorb fluctuations in the leisure tourism market.

6.11.3 Growth in Service Industry

The service sector generally grows as a result and consequence of population growth. As communities expand from natural population growth or in-migration they demand more goods and services. To some extent this is provided for by existing businesses. As spending and population thresholds grow, benchmarks are reached for the feasibility of new or expanded services and product ranges. Demand for services and products can also be generated by increasing the income/spending pool of the community. Higher disposable incomes, even with moderate growth, can grow the service sector.

Gloucester faces a future based on the current trajectory of marginal population growth and a contracting income pool driven by an ageing population and the out-migration of working age people.

Pressure on the local service sector to remain viable and sustainable in this low growth environment is significant.



Non-mining businesses, including agriculture, retail and service sectors, face the problem of the substantial disparity between what they can afford to pay and what the same workers might be paid when working at a mine. Mine workers' salaries are up to three times those of similarly skilled workers in agriculture or local government.

Typically escape expenditure from mining communities is high as locals prefer to work in mines and not the service/retail sector making it difficult for local businesses to survive. Singleton is a community in point. The Council is currently exploring ways to capture local spend and generate local retail / service jobs. The floor space demand based on incomes in the catchment indicates that there should be considerably more retail floor space in the LGA. However, much of the mining income is spend outside the LGA in areas more well established both in term of retail offering and existing strong operations.

Underlying population growth is not such that it would drive growth in service/retail jobs if employment and population number were not increased through the stimulus of a new mine operation. Secondary industry (i.e. the provision of services to mining) may expand, however this is constrained by the proximity of larger centres (such as Singleton) and by the non-mining businesses' and services' ability to attract labour.

In conclusion, the Gloucester Service sector will likely meet significant challenges over the next decade with or without the operation of the Rocky Hill Coal Project.

6.12 STRATEGIC ECONOMIC ISSUES

6.12.1 Importance of coal in the NSW and Australian Economies

The NSW Mining Industry

NSW is a mining state producing around 40% of Australia's black coal, as well as gold, copper and other minerals. In 2010-11, coal was NSW's largest merchandise export in terms of value, worth \$11 billion. The Australian mining equipment, technology and services sector also provides significant value, with the sector's export revenue estimated at around \$3.5 billion per year.

In 2010-11, the mining industry contributed directly to the NSW Budget by paying \$1.24 billion in royalties, and \$1.5 billion in total State government revenues. Over the next four years, it is estimated that NSW Government revenue from royalties will be approximately \$8.5 billion. The sector is responsible for 17% of private investment in NSW – the highest of any industry in the State.

Mining and minerals processing employ around 90,000 people directly, mainly in rural and regional NSW. In addition, the industry generates indirect employment estimated to be in the order of a 310,000 people across the State. These jobs range across a large number of industry sectors, including construction, heavy engineering and equipment manufacturing, the provision of mine supplies and consumable items and specialised advisory, design and management services.

Mining also brings significant private investment in infrastructure such as ports, which benefits other industries and leads to the creation of further employment. Policies affecting the mining sector will have significant economy-wide impacts that will affect the people of NSW, not just



those in mining regions. The mining, transport, use and export of coal is highly important in the NSW and Australian economies. Coal production and the planned expansion of the sector are important in terms of State and national, domestic product, jobs, exports, the terms of trade, supporting businesses, energy supply and national economic security and growth. The dot points below establish and summarise this importance:

- The value of NSW coal at average market prices was \$16.15 billion in 2010-11;
- Coal represents 80% of the total value of all mining in NSW 2010-11;
- Coal is a valuable resource for the State and the 2010-11 year saw a continued upward trend in production levels to 205 million tonnes of raw coal, yielding 157 million tonnes of saleable coal;
- Total mining employment within NSW grew to approximately 39,000 people in the August quarter 2011, up from 35,500 in the previous year, however, employment levels have peaked and were in decline in the 4th quarter of 2012;
- There were approximately 21,126 people employed in coal mining in NSW in 2010-11;
- An additional 2000 jobs were created in coal mining in 2010-11 increasing the total employment in the sector by 11% from 2009-10;
- NSW mining exports were valued at \$17.4 billion in 2010-11;
- Coal was the state's major merchandise export worth 75% of the total mineral export value. In 2010 - 11, 79% of the NSW coal was exported overseas. NSW coal was exported to 18 countries in 2010 -11. Japan continued to be the major export destination receiving 50% of NSW coal. Coal exports grew by 11% in 2009 -10 to 2010 -11 year while domestic sales of coal decreased slightly;
- Black coal fired power stations represent the dominant source of electricity in NSW accounting for 91% of total generation; and
- Electricity load forecast in the state is expected to increase by 25% from 2009 -10 to 2019-20. Coal fired power will continue to be a major supplier to NSW electricity⁹¹.

The Hunter's power generation industry produces around 80% of New South Wales' electricity supply and employs approximately 2,200 people. NSW's large coal-fired power stations produce some of the cheapest electricity in Australia. It is for this reason that two of the world's largest alumina smelters have been located in the Region.

Table 49 provides a summary of coal industry statistics 2004/5 to 2010/11. The number of mines has only increased from 55 to 61 over that period, an 11% increase yet over the same period the volume of raw coal produced has increased by 31% and the volume of saleable coal by 29%. Coal mining is important both for its significant value and for its record of growth and potential for continued growth in an economy more generally characterised by slow growth or stagnation. This table also reveals that domestic sales for manufacturing purposes such as steel making have been stagnant or negative, further demonstrating the decline of manufacturing and the national reliance and need for the resources sector.

⁹¹ NSW minerals council key industries statistics 2011, pages 3-24



Table 49 also shows the growth of 40% in exports of coal over the period 2004/5 to 2010/11. It is the growth in exports that is helping generate foreign reserves and maintain the value of the Australian dollar.

Table 49
Summary of Coal Industry Statistics 2004/5 to 2008/9

Summary statistics for coal production in NSW

	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10 ^(p)	2010-11 ^(r)
Raw coal production ('000 tonnes)	156,309	161,140	170,324	177,167	181,978	188,797	204,730
Underground mines	51,907	52,232	57,241	61,316	63,069	62,804	62,012
Open cut mines	104,402	108,908	113,083	115,851	118,909	125,993	142,718
Saleable coal production ('000 tonnes)	122,063	124,611	131,334	135,149	138,456	145,369	156,867
Underground mines	43,186	42,297	46,202	48,974	51,609	50,765	50,223
Open cut mines	78,877	82,314	85,132	86,175	86,847	94,604	106,644
Number of mines¹	55	58	60	60	60	62	61
Underground mines	28	30	29	29	29	30	30
Open cut mines	27	28	31	31	31	32	31
Employment	11,290	12,658	13,392	15,387	16,914	19,109	21,126
Underground mines	5,620	6,541	6,792	7,469	8,478	8,768	9,776
Open cut mines	5,670	6,117	6,600	7,918	8,436	10,341	11,350
Saleable output per employee (tonnes)	11,680	10,240	9,970	9,430	8,410	8,130	7,750
Underground mines	8,170	6,820	6,860	6,970	6,320	5,820	5,400
Open cut mines	15,280	13,800	13,230	11,810	10,480	10,320	9,740
Exports ('000 tonnes)²	86,568	89,839	91,533	100,465	103,275	109,903	121,801
Metallurgical	18,553	17,881	20,376	25,342	21,160	28,827	25,063
Steaming	68,015	71,958	71,157	75,123	82,115	81,076	96,738
Domestic sales ('000 tonnes)	33,904	34,129	36,264	36,841	34,937	34,030	33,030
Power stations	27,786	28,503	30,439	30,764	30,599	28,537	27,660
Steel industry	5,026	4,576	4,903	4,994	3,480	4,554	4,430
Other	1,092	1,050	922	1,083	858	939	940
Mine stocks ('000 tonnes)¹	7,802	8,542	11,220	9,374	10,033	11,159	11,613

(1) As at end of June.

(2) Includes small tonnages of imported coal.

(p) Preliminary figures.

(r) Revised.

Source: Coal Services Pty Ltd (CSPL).

6.12.2 Importance to the Hunter Region

Coal mining continues to form the bedrock of the Hunter's economy, generating more than 11,000 direct jobs and around 40,000 indirect jobs, with profound flow-on benefits for the region. Approximately 72% of the coal mined in NSW comes from the Newcastle, Hunter and Northwest areas. In addition, the mining services industry plays an important role in the region, ranging from professional services, education, training and research to general engineering and manufacturing, transport, construction, OHS and employment services.

Table 50 reinforces the comparative important of coal mining in the Hunter relative to NSW as a whole. In 2011, some 5.1% of the Hunter workforce was employed in the mining industry as compared to 1.1% of the NSW workforce.



The mining sector is critically important not just in its own right but because of the platform of employment it has established across the Hunter. The mining sector is an example of where direct employment in the industry is supplemented by indirect employment in other sectors; by a factor of 1:4 it is suggested.⁹² **Table 50** supports this argument with 11.7% of the Hunter workforce employed in manufacturing as compared with 8.2% across NSW.

The impacts and importance of coal mining in the Hunter is not transient but has been reinforced by employment growth in the sector since 2001. **Table 51** shows the more than 100% jobs growth in mining in the Hunter 2001 to 2011.

Table 50
Employment by Industry (Aug 2011): %Hunter & NSW Employment

	% Hunter	% NSW
Health Care/Social Assistance	12.4	11.5
Manufacturing	11.7	8.2
Retail	10.3	10.7
Accommodation/ Food Services	8.4	7.3
Building and Construction	7.8	8.1
Professional, Scientific and Technical Services	7.1	8.5
Education and Training	7.3	7.4
Mining	5.1	1.1
Public Administration and Safety	5	5.7
Transport, Postal and Warehousing	4.8	5.6
Other Services	4.5	4.2
Administrative and Support Services	3.3	3.5
Financial and Insurance Services	2.7	4.9
Wholesale	2.7	3.9
Electricity, Gas, Water and Waste Services	1.9	1.3
Rental, Hiring and Real Estate Services	1.6	1.8
Information Media and Telecommunications	1.1	2.3
Agriculture, Forestry and Fishing	1.3	2.5
Arts and Recreation Services	1	1.7

Source: [http://www.parliament.nsw.gov.au/prod/parlment/publications.nsf/key/TheHunterRegion:AnEconomicProfile/\\$File/Newcastle+and+the+Hunter+GG+2.pdf](http://www.parliament.nsw.gov.au/prod/parlment/publications.nsf/key/TheHunterRegion:AnEconomicProfile/$File/Newcastle+and+the+Hunter+GG+2.pdf)

Table 51
Employment in Mining Hunter Region 2001-2011

2001	7,825
2011	16,354
Increase	+8,529 (109%)

Mining represents \$35 billion of gross regional product, and 9.24% of gross State product. The following Coal & Allied figures (**Figure 19**) demonstrates the scale and strength of the market reach and the contribution to local businesses the coal industry makes. It illustrates the Coal and Allied supplier chain and shows the reach of the business across the regions. Coal and Allied alone procure more than \$850m worth of goods and services from over 720 local

⁹² P Knights and M Hood, *Coal and the Commonwealth: the greatness of an Australian resource*, The University of Queensland, October 2009, p 60.



businesses to support their Hunter operations. The impact of coal mines in term of the supply chain, wages spend and reinvestment of royalties spreads widely across the valley and NSW, far beyond the immediate impact of the specific mine site or community underpinning the regional economy.



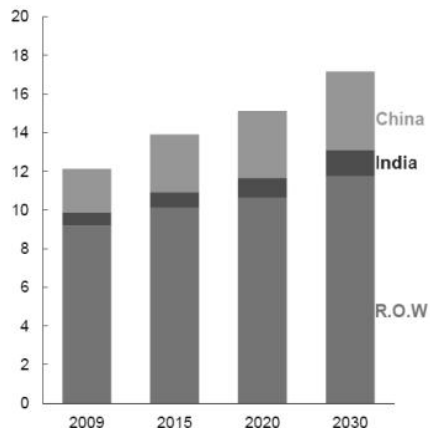
Figure 19
Coal and Allied Supplier Spending 2011



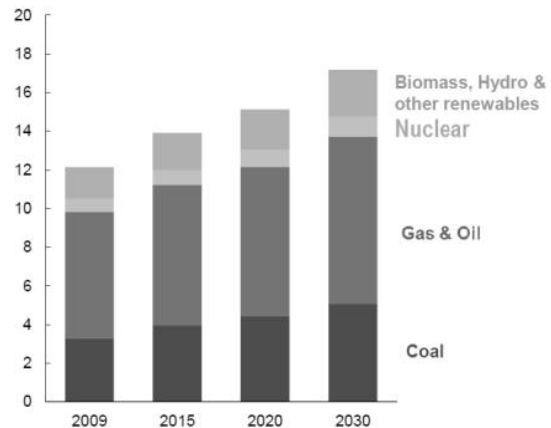
Long Term Outlook Remains Strong

Primary energy demand*
Billion tonnes oil equivalent

Total primary energy demand* by region



Total primary energy demand* by fuel mix



* Current Policies scenario assumes no new climate change related policies beyond those currently in place are implemented
Source: International Energy Agency WEO 2011

Figure 20
Coal & Allied Long Term Outlook

The long term outlook for the coal sector appears strong. **Figure 20** is an extract from Coal and Allied reporting which shows the growth in demand for energy and the share of that energy demand by fuel mix. This figure shows growth in demand by China and India as well as a moderate growth in coal's share of fuel mix. This indicates, along with the level of investment in the sector, the long-term future for coal as a fundamental base to form a large slice of the region's economy.

The strength of the coal industry, the pattern of export growth and the relative importance of coal as an export commodity through the Port of Newcastle is reflected in **Table 52**. It is on the basis of this pattern of sustained growth and absolute volume that port handling and facilities are under expansion and why government approval is being sought for the T4 terminal.



Table 52
Trade through the Port of Newcastle 2011

Trade through the Port for the year ended June 2011	
COMMODITY	TONNES
Coal	108,256,626
Alumina	1,353,487
Grains	1,329,803
Other trade (eg bulk project cargo)	79,130
Mineral Concentrates	376,176
Fuels	373,149
Woodchips	349,441
Fertilizer products	316,901
Steel Import/Export	291,273
Petroleum Coke	280,632
Plantation logs	125,231
Aluminium	120,755
Grinding Media	79,130
Total All Trades	114,575,744
<i>Newcastle Port Corporation records the amount of trade imported and exported in mass tonnes which refer to the actual weight (in kilograms) of the commodity.</i>	

Source: RDA Hunter, Hunter Prospectus, 2011, p. 52.

The jobs generated by coal mines do not just affect the host or local community. The Hunter region as a whole requires the coal mines to balance out and provide the jobs that can't necessarily be provided in an individual Local Government area. **Figure 21** shows the number of jobs needed in each LGA in the Upper Hunter Region and the jobs available. Gloucester has a workforce of 1878 people and provides 1736 jobs. In comparison Singleton has a workforce of 10,013 people but the LGA provides some 12,366 jobs. Similarly Muswellbrook has more jobs than employed residents. These LGAs provide jobs for the short falls in LGAs such as Upper Hunter LGA and Dungog LGA. The coal mines and support businesses are critical to maintain the dynamic equilibrium of employment in the Hunter region.



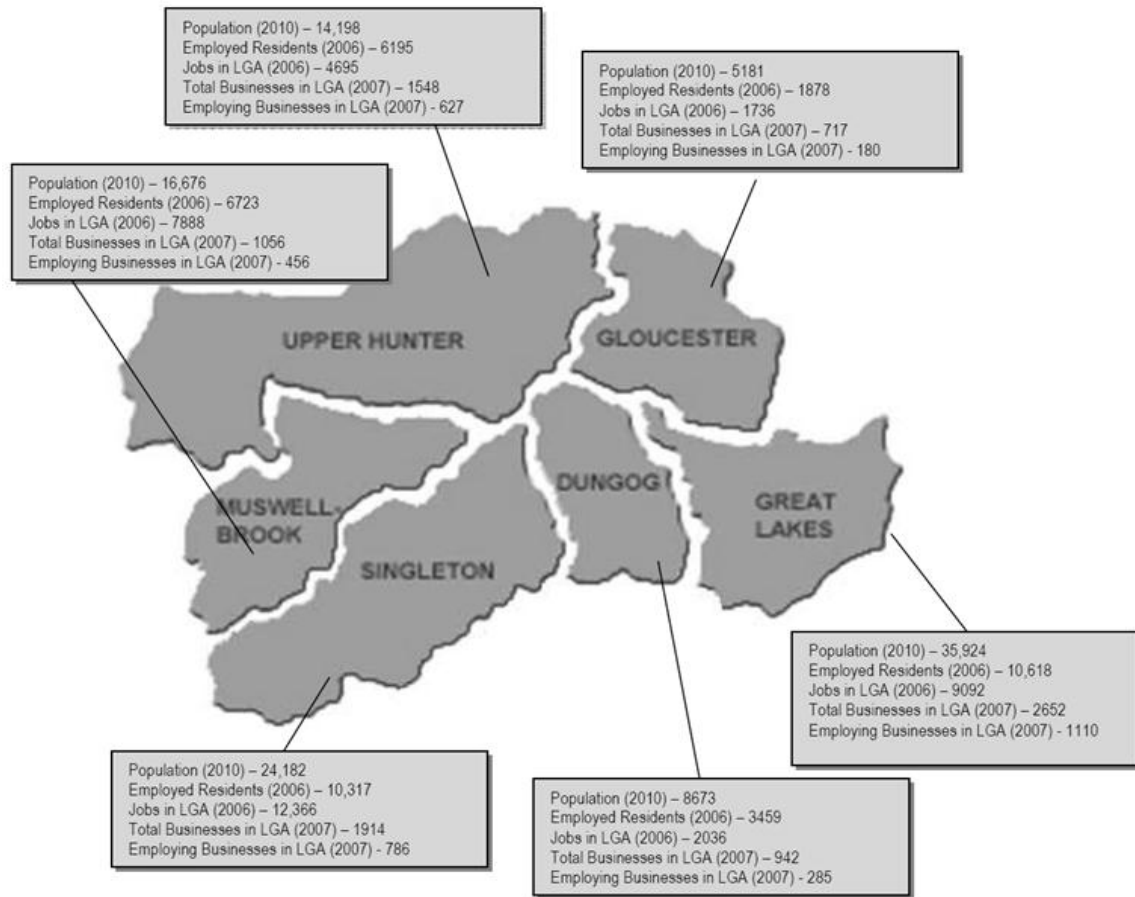


Figure 21
 Gloucester and Surrounding LGAs by Population, Employed Residents, Jobs, Total Businesses and Employing Businesses

Source: Upper Hunter Economic Diversification Project, Report 3: Strategy Report June 2011 Buchan Consulting.

Table 53 provides a snapshot of coal related infrastructure spending in the Hunter. There is in excess of \$2.5 billion worth of infrastructure in these projects alone. These projects generate direct and flow on jobs, flow on employee spending and government revenues. It is this bigger picture of the scale and nature of associated investment that needs to be considered in term of the value of the coal industry to the Hunter region.



Table 53
Hunter Valley Coal Related Infrastructure

Project	Scheduled Startup	Cap exp (A\$)	Capacity (Mt)
Minimbah Bank 3rd Road	2012	\$363m	na
Nundah Bank 3rd Road	2013	\$80m	na
Total rail		\$443m	
Kooragang Island	2012	\$227m	12
NCIG Stage 2	2013	\$900m	23
NCIG Stage 3	2014	\$1000m	13
Total port		\$2 127m	45
Total Hunter Valley		\$2 570m	

Source: Bureau of Resource and Energy Economics

6.13 MITIGATION AND /OR MAXIMISATION STRATEGIES

Mitigating and/or maximising economic impacts are discussed here in general terms and responsibility for strategies may rest with GRL, Gloucester Shire Council or other community organisations or a combination thereof. These strategies are developed into specific mitigation recommendations in the Conclusion of this SEIA.

6.13.1 Amelioration Strategies

6.13.1.1 Loss of workers to other sectors

Non-mining businesses including agriculture, retail and service sectors face the problem of substantial disparity between what they can afford to pay and what the same workers might be paid when working at a mine. Mine workers' salaries are up to three times those of similarly skilled workers in agriculture or local government. The inability of existing or new businesses to attract workers to support the mining industry is well documented across the State and the nation. While Gloucester is different from the Hunter Valley in a number of ways and it does not have the potential to expand its mining to the same magnitude, there still need to be a range of strategies developed which will attract workers to jobs outside the mines but within the local community. These might include:

- Increased education programs through schools to promote an understanding of the wider range of employment opportunities in the region and locality;
- Employment strategies by GRL to restrict employment to certain age categories to ensure the younger workers work outside the mine develop basic skills and industry knowledge⁹³;
- Marketing and promotion by local employers (e.g. Health, Neighbourhood Group, Council) and the mine for spouses and partners of mine workers looking for employment in other sectors;

⁹³ This is counter to developing skills in local young people and may be discriminatory. However options need to be further discussed with local employers.



- Centralised database of employment opportunities and workers to facilitate improved connections between business and workers;
- Making a commitment to training, upskilling and tertiary scholarships in mining and agriculture.

6.13.1.2 Decline in Agricultural production

Decline in agricultural production would occur as a result of both the disturbance within the Mine Area and the reduction in farming activity directly as well as the flow-on effects of mining on the employment of rural farm workers. Strategies are being developed across NSW to deal with this loss of agricultural production by independent farmers and the NSW government (yet to be publically released). It is not necessarily the loss of farm land that is the major issue but the loss of rural production and food supply. If adjoining and near neighbours could be provided with the resources to increase the carrying capacity of farm land this could be a strategy to help ensure that there was not a net loss in agricultural production during mine disturbance. Similarly land owned by the mine but not disturbed could be supported to increase carrying capacity and offset losses on disturbed land. The aim is to offset production/food loss and economic value not simply offset land which may or may not be productive and contribute to food and economic security. At the time of finalising this report an agreement had just been struck between GRL and the Speldon Partnership which would enable guaranteed continuation and expansion of dairying on GRL-owned property. The agreed plan is to expand the total area farmed for dairy production by increasing the land leased to the Speldon Partnership. This larger holding will also undergo pasture improvement and upgraded irrigation systems and overall upgraded management practices. The larger farm area and management improvements will increase the productivity and carrying capacity of the total farm and result in a projected increase in agricultural labour numbers, with flow-on effects expected to filter into surrounding agricultural businesses (refer to the Agricultural Impact Statement, Volume 4 Part 13 of the *Specialist Consultant Studies Compendium*).

6.13.1.3 Housing prices increases

The degree to which housing prices and rents are affected by the increase in population associated with mining will very much depend on the following.

- The responsiveness of Council to ensure land is available for housing and new buildings are approved.
- The responsiveness of owners in terms of leasing existing properties and sub-letting properties.
- The responsiveness of the holiday market to be flexible in terms of its ability to accommodate a short term rental.
- The responsiveness of Council and the community to provide innovative housing and accommodation solutions in addition to those in current supply.
- Extent of employment from within local resident population.

Increases in housing prices may not be an immediate outcome but it will be a longer term one as has been demonstrated in communities such as Singleton and Muswellbrook. The ability of



a community to constrain housing prices and ensure the affordability of local living in Gloucester will depend on the coordinated effort of Council, the real estate industry, developers and the State government. The Housing Summit in Singleton on 22nd August 2012 provided an indication of the kind of strategies of collaboration that could well be employed in Gloucester to address and ameliorate growth in housing prices. Similar strategies will also need to be applied in terms of ensuring the supply of housing. Examples include:

- Council working with property owners and agents to develop a register of accommodation;
- Council taking a lead role and having approval flexibility in enable houses to be used for share accommodation;
- Management holding meetings and working with property owners who wish to sub-let rooms to ensure screening and safety;
- Developing a data base and keeping a record of rent and sale prices with which to take to prospective developers for future housing;
- Streamlining the approval environment/process for housing;
- Ensuring connections to surrounding towns, that might provide accommodation, are improved;
- Promoting short term rental income to “Pitt Street farmers” who only irregularly use their houses;
- Establishment of innovative housing solutions and demonstration projects.

6.13.1.4 Burden on Local government

Local government will be impacted by the operation of the Rocky Hill Coal Project. Some of this impact on services and facilities such as roads, waste disposal, bridges and other infrastructure will be accommodated by the increases in rates to be paid by GRL on its land holding considered to be classified as mining lands. It is important that, from the outset, Council monitor the cost and impacts of the operation of the mine and ensure, through submissions to the NSW Government, that any increases above what is accommodated in the rate increase is provided for through the development approval process. GRL's commitment to building roads and bridges should be factored into the balance sheet. This may mean conditioning the development consent to provide new or refurbished facilities or thresholds of use that require maintenance or contribution by the mine.

6.13.2 Benefit maximisation strategies

6.13.2.1 Construction spend

There are two major elements to construction spending. The first is the spending on salaries and wages to staff engaged in the site establishment and construction phase over the initial 12 month period. The degree to which these workers live and spend money in their local community will determine the level of local economic benefit from construction workers. Workers who live permanently within the community spend the greatest percentage of their total wages within their community. GRL's ability to increase the number of construction workers who live permanently in the Gloucester community will impact on the level of local economic benefit. The next level of benefit comes from those who live within the local community on a temporary basis spending part of their wages on accommodation, food and



supplies. The lowest level of benefit comes from workers who commute on a daily basis to the construction site, spending the majority of their salaries and wages outside the locality.

Positive strategies can be developed around the following to ensure the maximum benefit for the local community.

- Development of employment skills amongst locals.
- Facilitation of accommodation within the local community to accommodate construction workers.
- Marketing and promotion of the location as a place to move for construction workers.
- Support for partners of construction workers to facilitate a move or relocation.
- Programs by the company to facilitate the progress from construction employment to long term employment, thereby increasing the percentage of those who may consider moving permanently within the area.
- Early recruitment to ensure timeframes allow workers to make necessary moves and plans.

The second impact of construction comes from the purchase of plant and equipment and materials during the construction phase. The degree to which this spending is captured within a local community again impacts on the benefit that accrues to that community. Strategies can be developed between the GRL and Council to ensure that procurement chains as much as possible seek local input. Local businesses can work with other businesses across the region to ensure relationships that develop their own ability to support and supply the mine.

6.13.2.2 Operating spend local capture

The ability of the local community to capture the benefit of the operating spend of the Rocky Hill Coal Project, both in terms of wages spent and spend on plant and equipment and materials, all depend on the ability of a local community to supply workers and goods and services. Strategies similar to those above regarding construction spend catch up will also relate to maximising the potential of the local community to benefit from the operation of the mine. Specific strategies and recommendations follow in the next section.



7. OVERVIEW, MANAGEMENT, MITIGATION AND CONTINGENCY MEASURES

7.1 OVERVIEW OF SOCIAL AND ECONOMIC IMPACTS

7.1.1 Social and Economic Impact Matrix

Table 54 provides an overview of potential impacts. Many of these impacts could have positive and negative components and these are identified in the Comment/Summary column. The level of impact prior to adoption of mitigation measures is an assessment of whether the likely positive or negative impacts will be High, Medium or Low on the local community and the mitigation column briefly summarises the mitigation strategies in Section 7.2. Residual impacts may remain after mitigation, and monitoring should occur through standard social audit processes. It is expected that with careful attention to mitigation, residual negative impacts will be negligible.

Table 54
Socio-economic Impact Assessment Matrix

Page 1 of 4

Potential Impact	Comment / Summary	Level of Impact	Mitigation
1. Sense of Place	Risk of becoming a mining town rather than a rural community. Community fears loss of current identity because of proximity of the mine to the town. The value of existing mining to the community is generally appreciated while there are also concerns about localised negative impacts. Note that other regions are able to maintain a diversified economy. (see Visibility Assessment (Lamb, 2013)).	Medium	• Maintain diversity of the local economy; • Contribute to community development and events; • Address visual impacts in mine design and operations; • Support a Human Resource and rostering policy that encourage worker contribution to the local community.
2. Health	Health impacts include impacts related to potential change of air quality; health impacts on workers, and mental health impacts associated with stress caused by changes to people's environment; concern about property values and concern about loss of rural amenity. Note that this is a community already experiencing stress related to this and other proposals (AGL CSG in particular). (see Air Quality Assessment PEL, 2013).	Medium	• Monitor air quality • Develop strong relationship with local Health Service and provide funding for health equipment. • Promote healthy lifestyle programs as a priority area to the Administrators of the Trust; • Build relationship with near neighbours and address measurable impacts from operations; • Open and clear communications with the local community through a project specific CCC and "Project Shopfront" or office in the central business area of Gloucester (either when public submissions open or upon approval).



Table 54 (Cont'd)
Socio-economic Impact Assessment Matrix

Page 2 of 4

Potential Impact	Comment / Summary	Level of Impact	Mitigation
3. Social Cohesion / social equity	Division in the community over support or opposition to the mine. This is a pre-existing condition in the community and relates to other projects as well, particularly the AGL CSG proposal. Impacts on cohesion from social inequity related to high wages paid to mine workers in a traditional low income community. Potential failure to build community between miners and other sectors; note that many farming families and former locals are currently part of the mining community.	Medium	- Continue Stakeholder Engagement and provide clear communications to the community through local media; - Develop a strong CCC with defined reporting responsibilities to the community. - Develop a "Project Shopfront" / office as a central point for easy community access to information and input. - Administrators of the Trust (Community Grants Program) to spread the benefits of the mine across the community in a manner determined by the community; - Encourage mine worker involvement in community organisations through community friendly HR policies.
4. Housing	Upward pressure on property prices and rentals causing impacts on low income earners. Saleability impacts for houses in Estates bordering the mine site.	High	- Recommend to the Administrators of the Trust that projects addressing local housing stress be a key priority area for Community Grants funding. - Initiate the development of a housing register for rentals and promote alternative leasing schemes. - Monitor sales impacts on near neighbours.
5. Social Infrastructure	Population increase impacts places in childcare, schools and health facilities – demand increased; may add to viability in some instances and may require expansion of services in others.	Medium	- Encourage Administrators of the Trust to be responsive to identified community need and call for community projects that contribute to local social infrastructure for funding through the Community Grants Program; - Target 50-75% of employees and families living within Shire or nearby localities.
6. Emergency Services	Ambulance service already stretched in terms of capacity.	Medium	Requires review with relevant government agency(ies).



Table 54 (Cont'd)
Socio-economic Impact Assessment Matrix

Page 3 of 4

Potential Impact	Comment / Summary	Level of Impact	Mitigation
7. Employment	Benefit to employment both in the mine and through the local, regional, state and national economy via multipliers. Mining already attracts workers from existing jobs in lower paid industries and this is likely to continue. Employment will attract new families to the town and enhance local diversity and deliver strong economic benefits.	High	- Communicate with local businesses through the Chamber of Commerce and monitor local employment migration. - Target 50-75% of employees and families living within the Shire or nearby localities. - Investigate provision of relocation incentives. - Run joint recruitment drives with other organisations such as NSW Health. - Plan joint training strategies with suppliers.
8. Education and Training	Positive benefits in increasing local skills, offering traineeships and scholarships and in attracting vocational training providers to the area.	High	- Honour existing commitments to scholarships and traineeships. - Work with local organisations such as The Neighbourhood Group to target vocation and pre-employment training for vulnerable groups. - Recommend to the Administrators of the Trust that training be a key priority area for the Community Grants Program. - Training/Upskilling on site.
9. Contribution to local economy	Positive benefits to the local economy through direct inputs and flow-ons and multipliers. Perceived competition with Agribusiness and tourism; but this is not borne out in comparisons with other regions. Worker competition for tourism beds if housing capacity not adequately addressed.	High	- Contribute to local organisations by involvement in organisations like the Chamber of Commerce and their events and programs. - Use local suppliers as far as possible. - Trust Administrators to prioritise social infrastructure, training and housing projects for funding through the Community Grants Program. - Investigate a "local voucher" reward system for employees. - Monitor housing vacancy rates
10. Loss of Agricultural land	Progressive loss of land for cattle production and other agribusiness.	Low	- Provide support to farmers to increase production to offset stock losses (e.g. as achieved with the purchase and extension of the Speldon Partnership's dairy); - Enhance capacity of the residual undisturbed land to help offset stock losses.



Table 54 (Cont'd)
Socio-economic Impact Assessment Matrix

Page 4 of 4

Potential Impact	Comment / Summary	Level of Impact	Mitigation
11. Government Revenue	Strong positive benefit. May be more stress on Council funded services.	High	- Document and inform community on government revenues including taxes and rates. - Council may have to adjust rates to accommodate increased pressures on local roads and waste services but taking into account upgrades undertaken by GRL.
12. Cumulative Impacts	The local employment numbers associated with the extension of the Stratford Coal mine are not known but there is potential for cumulative impacts related to population growth. These will be in the form of pressure on housing and social infrastructure (negative) and contribution to the local economy, volunteering and the attraction of new services (positive). Cumulative impacts associated with the character and amenity of Gloucester (sense of place), environmental impacts (particularly air and water) and mental health (stress about change and impacts on environment) are also possible.	Medium	- Support innovative housing strategies and initiate register of accommodation. - Support Administrators of the Trust in prioritising community infrastructure need through the Community Grants Program. - Investigate the establishment of a "Chamber of Mines" for single point of contact and for streamlining key information for communities. - Consider joint monitoring and reporting of air and water quality and health indicators. - Consider Annual joint meeting of CCCs.

7.2 MANAGEMENT, MITIGATION AND CONTINGENCY MEASURES

7.2.1 Communication and Engagement Strategies

Clear and structured communication and engagement strategies will mitigate stress in the community and develop a partnership approach between GRL and the Gloucester community and thus enhance benefits for the community from the Proposal. These recommendations should be implemented if the Proposal is approved.

10. Community Consultative Committee (CCC)

The existing Community Consultation Committee was established for GRL's exploration activities within its three ELs including EL 6523 which incorporates the Rocky Hill Coal Project site. In the absence of a specific CCC as would be required under development consent, the Exploration CCC has become a de-facto Project CCC and mechanism for information dissemination. While members are dedicated, mostly they have no clear links and reporting pathways to the community, despite this being part of their Charter. CCC minutes are posted on the Rocky Hill Coal Project website as are CCC membership and contact details. The Rocky Hill Coal Project would benefit from a project specific CCC with a clear Charter and representative structure that reflects the broader community.



The CCC is the corner stone of community engagement and should be the starting point for open communication between GRL, the community, Gloucester Shire Council and other stakeholders.

Recommendation 1 Establish a Rocky Hill Coal Project Community Consultative Committee

The CCC should be established in line with Planning NSW guidelines.

(http://www.planning.nsw.gov.au/assessingdev/pdf/ccc_guidelines_2007.pdf)

Project CCC Membership should comprise:

- An independent chairperson
- Representatives (3-5) of the local community and other stakeholders: Health Sector (Local Hospital Management), Community Sector (with links to Housing and Employment Training, e.g. the Gloucester Neighbourhood Group), Business Sector (e.g. Chamber of Commerce), Near Neighbour, Environmental Group and Indigenous representatives.
- One representative of the Gloucester Shire Council
- Two or three representatives of the company, including the person with direct responsibility for environmental management at the mine.

The new CCC should commence with a Training and Corporate Governance workshop that details the objectives of the CCC, how the CCC will be a conduit between the community and GRL, member responsibilities (both community and company representatives), reporting mechanisms and annual evaluation of CCC performance against agreed objectives.

11. An Accessible Rocky Hill Coal Project Shop Front / Office

The broader community would require easy access to information about the Rocky Hill Coal Project. While a number of methods should be utilised such as newspaper features and newsletters, the community would benefit from being able to casually select information at a time that suits them. This is a community that is generally feeling over consulted and yet there are some groups of people who feel they do not have enough information. A shop front is a passive yet ever-present communication mechanism that allows community members to decide when and how they engage with the company. It also makes a tangible contribution to the Gloucester business centre by leasing one of the existing vacant shops.

Recommendation 2 Establish a Rocky Hill Coal Project Shop Front in the centre of Gloucester

Functions to be delivered through the Shop Front could include all or some of:

- Presentation of EIS studies in multi-media formats
- Reporting on environmental monitoring
- Availability of newsletters and fact sheets
- CCC information / contact mechanism



- Community feed-back / question forms / complaints
- Recruitment information
- Training information
- Community Grants Information and Applications
- School Project packages

12. Stakeholder Engagement Plan

There are a range of stakeholders who require varying levels of contact on the Proposal. Company representatives have initiated a visiting program and meets with key stakeholders such as Council. Recommendations 1. and 2. above are the key components of the Stakeholder Engagement Plan which also includes a range of other strategies. A structured commitment to including everyone in communications according to their need reduces stress in the community and improves relationships and community building.

Recommendation 3 Formalise existing strategies in a detailed Stakeholder Engagement Plan

This Stakeholder Engagement Plan has been developed in draft form as part of this SEIA and GRL management has been actively communicating with stakeholders to date. The formalised Plan should include:

- Full list of stakeholders and contact details
- Appropriate forms of communication including methods and frequency
- Risk Analysis
- Evaluation strategies of the effectiveness of engagement

Tools that support the Stakeholder Engagement Plan (and are already in use) include:

- Newsletters
- Fact Sheets
- Media Releases
- Website (<http://www.rockyhillproject.com.au/>)

7.2.2 Community Grants Program

As identified above, GRL has committed to a Community Grants Program that is generous by industry standards. The program will allow the community to reap benefits from the mine's presence beyond employment, training and economic growth. There is an opportunity to sponsor a range of community projects that will enhance the amenity of the town, support local cultural and sporting events, attract tourism and business and provide important social infrastructure. An interim Gloucester based Committee should be established to shape the details of Recommendation 21.



Recommendation 4 Establish a Trust to administer the Funds Provided under Community Grants Program with clearly defined Community Grants criteria

The BHP Welfare Trust established on the closure of BHP steelmaking in Newcastle was a very successful model for delivering community benefits through funds supplied by a resources company. The success of the project was in the clear guidelines that were set, a respected independent Board of Trustees and the fact that the community was able to design the projects it wanted to implement and make direct submissions to the Trustees.

The criteria for the Community Grants Fund should prioritise key potential impact areas and key community concerns related to mining; namely:

- Health (health infrastructure and programs and healthy lifestyle activities such as sport)
- Housing (particularly alleviating housing stress for low income earners)
- Young people, including Indigenous youth (programs aimed at development)
- Local Amenity (maintaining character of the township)
- Community building and community events (particularly focused on business and tourism development)

The Board of Trustees could comprise the following.

- Highly respected local leader as chairperson
- Business person with recognised commercial acumen
- Community sector person with recognised expertise in community infrastructure
- Health sector person
- Mayor or appointed Councillor
- GRL representative; and
- GRL secretariat support

The role of the Community Trust would be to:

- set clear guidelines and priorities for submissions for funding;
- receive community proposals and assess them for viability and sustainability;
- allocate grants according to documented priorities and available budget; and
- receive project evaluations and acquit funds annually.

7.2.3 Employment Strategies

The employment associated with the operation of the Rocky Hill Coal Project will be of maximum benefit to the Gloucester community if a large proportion of mine employees settle in Gloucester and if employment opportunities are taken up by local people, particularly local school leavers. It is important to minimise the number of employees who travel to and from the coast, Newcastle or even further to work at the mine. Travelling to and from shifts has serious



OH&S implications and reduces the contribution employees make in terms of community participation and in dollars spent locally.

A social risk associated with targeting local employees is that existing businesses will potentially lose workers to the mining industry as they cannot compete on wages. This is a pre-existing issue for Gloucester with local businesses already reporting the movement of staff to existing local mines and mines outside the Gloucester area.

Given that employing locals has risks and benefits the following recommendations need to occur concurrently.

Recommendation 5 Set a target of 50% of employees living locally (within the LGA and surrounding area) in the first two years with a longer term target of 75%

Recommendation 6 Conduct joint recruitment operations with existing organisations to attract families to live in Gloucester

Local organisations have identified that they have difficulty attracting qualified staff. Joint recruitment programs could attract mine workers with partners who are, for example, health workers. Offering packages where two people could be employed in Gloucester increases the chances of attracting more families to the area. The local hospital is one organisation that has indicated that they would be interested in joint recruiting.

Recommendation 7 Investigate an incentive package for employees to relocate to Gloucester

Incentive packages for relocation could include:

- Financial assistance to meet the costs of relocation
- Administrative assistance in finding accommodation
- Provision of information about schools, sporting clubs and other community infrastructure

Recommendation 8 Actively promote job opportunities to local school leavers through school visits and information packages

It will be of benefit to the Rocky Hill Coal Project and to the local schools for a relationship to be built with the education community. The exodus of young people from Gloucester to other areas can be partially addressed through sustainable employment on the Proposal or on GRL's agricultural properties and support industries.

Recommendation 9 Develop an Indigenous Employment Strategy to target local Indigenous people

Local Indigenous people are an already identified "at risk" group in the local community. In partnership with the Gloucester Neighbourhood Group, GRL could develop a project that takes existing unemployed people from pre-employment through to project work and full employment on the Proposal.



Recommendation 10 Implement a preferred supplier policy that utilises local suppliers as far as possible

In the tendering process for all contracts, assign a weighting to businesses that have a presence within the Gloucester Shire.

Recommendation 11 Preferentially contract with suppliers who employ local people

In the tendering process assign a weighting (slightly less than for local businesses) to businesses from outside the Gloucester Shire who employ Gloucester residents.

Recommendation 12 Investigate partnering with other stakeholders to provide relocation incentives to suppliers prepared to establish their businesses in Gloucester and employ local people

Work with Council and the business sector (including other resources companies) to identify opportunities to attract new businesses to the Shire and incentivise them to relocate. This would be part of a broader economic development strategy for the area and there would be a number of contributors to this recommendation.

Recommendation 13 Investigate the use of a local voucher system for rewards and incentives for employees

It is of benefit to the local businesses to have new mine employees spend locally. Any rewards and incentives for mine employees should be offered in the form of local vouchers as far as possible (e.g. shopping vouchers, dinner vouchers, accommodation etc.).

Recommendation 14 Participate in the Chamber of Commerce and other business and agricultural networks to monitor flow of employees from local commerce into mining

It is difficult to stop employees from targeting jobs that provide higher wages or more career opportunities. It would be a serious infringement of the rights of individuals to attempt to restrict them in this way. Losing qualified staff to other businesses, particularly mining, is an existing issue in most places in Australia, including currently in Gloucester. However, by connecting regularly with the business and farming communities, GRL can monitor the local situation and look for opportunities to support local businesses.

Recommendation 15 Plan joint training and employment strategies to assist suppliers retain local staff

Joint recruitment strategies, shared training and joint participation in business promotion events can assist in staff retention for employers. These strategies should be explored on a case by case basis over time with suppliers to the Proposal and other Gloucester businesses.

7.2.4 Education and Training

Enhancement of education and training opportunities in Gloucester could be one of the largest social benefits associated with the Proposal. GRL has already publicly made significant education and training commitments that will occur in addition to any community grants program⁹⁴. These are to:

- Sponsor up to 3 tertiary education scholarships annually in fields such as mining, engineering, agriculture and environmental science;
- Provide trade apprenticeships for local youth at the Rocky Hill Coal Project;
- Provide competency training and certification on mining-related equipment to assist local men and women gain employment in mining or other related fields; and
- Provide local training and employment for local people through the Applicant's farming enterprises.

Recommendation 16 Implement tertiary education scholarships, trade apprenticeships and training programs as per commitments

7.2.5 Housing

Participation in local housing initiatives may mitigate the likely stress on the housing market associated with any influx of mine employees. Particular issues with near neighbours will be dealt with through voluntary acquisition and private consultations with landowners.

In order to attract employees to live in Gloucester Shire, there will have to be an availability of housing/land for both sale and rent. While growth in the housing market will be demand driven, there is also likely to be increased pressure on those already experiencing housing stress.

GRL has committed to a Community Grants Program (50 cents per tonne of coal sold)⁹⁵ and it would be appropriate to direct some of that funding towards community housing projects.

Recommendation 17 Nominate projects that address housing stress for local people as one of the priority areas for the Community Grants Program

Take expert advice from local organisations such as the Neighbourhood Group and integrate with Council initiatives to partly fund or sponsor housing projects that will alleviate housing stress for low income earners.

Recommendation 18 Initiate the development of a data base of local rentals including rooms and board to promote to employees

This recommendation may be contracted out to a local real estate agent or GRL may choose to appoint a Housing Officer to implement these recommendations.

⁹⁴ <http://www.rockyhillproject.com.au/2012/03/media-release-grl-announces-generous-community-grants-program/>

⁹⁵ <http://www.rockyhillproject.com.au/2012/03/media-release-grl-announces-generous-community-grants-program/>



Recommendation 19 Explore options for temporary and short term accommodation for employees not relocating full time to Gloucester

If employees do not live in Gloucester Shire, the next best option is that they are temporarily accommodated in the area over the days that they work. This means they will be spending some money locally and they will not be travelling long distances on The Bucketts Way every day. Some possibilities are:

- Consider the purchase of some houses in near-by estates to establish boarding-style shared accommodation;
- Long term leases of near-by B&Bs;
- Long term leases at local caravan parks;
- Boarding arrangements with local people;
- Innovative approaches to short term accommodation and approvals for leasing from local people.

7.2.6 Health

The Rocky Hill Coal Project will meet Australian Standards in terms of emissions and environmental impacts. It will also have to meet rigorous workplace standards in regards to worker safety and health. However, as health, including mental health, has been raised as a community concern and as the research has identified existing gaps in health infrastructure and equipment, it is important for GRL to apply some funding to the local health sector. GRL should also pay attention to the work of the HNEAHS study and its monitoring of health impacts and respond accordingly. It is noted that GRL has already made the following public commitment (outside the Community Grants program) to:

- Assist the provision of enhanced medical services and facilities to the local area. The details of this assistance package will be determined in consultation with local health professionals⁹⁶;

Recommendation 20 Nominate projects that address healthy lifestyles for local people as one of the priority areas for the Community Grants Program

Take expert advice from local health organisations and integrate with NSW Health initiatives to partly fund or sponsor health programs that will address community health issues. These projects may be undertaken jointly with other mines and businesses in the area.

Recommendation 21 Monitor the HNEAHS Study in the Upper Hunter Region and respond accordingly

7.2.7 Cumulative Impacts

The range of impacts, both positive and negative, identified in this report is amplified with the general growth of mining in the area. Many of the mitigation strategies identified above could be taken up by all resource companies operating in the area (Yancoal Australia (formerly Gloucester Coal) and AGL)). There would be a benefit if the resource companies share the

⁹⁶ <http://www.rockyhillproject.com.au/2012/03/media-release-grl-announces-generous-community-grants-program/>



results of their monitoring and communicating cumulative data to the community. Council has indicated that a single point of contact would be desirable. Some sections of the community feel over consulted and bombarded with resource company information and members of the existing CCC see value in occasional joint meetings. The coming together of resource companies in a similar way to businesses coming together in the Chamber of Commerce would provide multiple benefits to a range of stakeholders.

Recommendation 22 Investigate the establishment of a “Chamber of Mines” to be the main point of entry to resource companies operating in the area

The Chamber of Mines would operate like a soft network and meet regularly to share information, plan community inputs and support, and receive input from stakeholders. Functions could include the following.

- Taking an overview on the amount and type of material distributed to the community and looking for opportunities to streamline communications.
- Monitoring data related to impacts and the outcomes of mitigation strategies.
- Monitoring local social infrastructure capacity such as available school enrolments, childcare places and housing for employees.
- Facilitating an annual joint CCC meeting.
- Receiving and responding to requests for information from key stakeholders in relation to joint projects and cumulative impacts.
- Coordinate community contributions.

Recommendation 23 Consider an annual joint meeting between resource company CCCs to review cumulative impacts and monitoring, coordinate community funding priorities and improve knowledge of operations and future directions for resources companies, suppliers and Council.



8. CONCLUSION

Social Impacts and Community Concerns

Some community members have expressed their fears about the increase in mining activity on agribusiness and tourism. It is unlikely that these fears would be realised given the successful co-existence of these industry sectors in several other regions of NSW.

The more workers that the Rocky Hill Coal Project can source from the local area and/or attract to relocate to the local area, the stronger the benefits will be for the local community. By the end of the third year of operation, the target for workers living locally should be 75% of employees and/or contractors. Recent research indicates that this is the level whereby companies can strongly maintain their social licence to operate⁹⁷.

There is an existing trend, present in many communities throughout Australia, of workers migrating from lower paid industry sectors to mining jobs. This is likely to continue whether or not this mine proceeds. It will be important for the Rocky Hill Coal Project to predominantly use local suppliers, to train local people, to attract vocational education courses to the area and to contribute to general economic development initiatives and events in the local community.

Gloucester has lower levels of post school qualifications than the remainder of the State with the exception of Certificates (2006 Census). The presence of a growing resources sector in the LGA will add to the area's ability to attract training providers and courses.

Increases in population will benefit the local economy and enhance viability for some services and institutions. It may also present capacity challenges in the future for some facilities and this should be monitored and planned for early in the life of mine. Attracting families will enhance the diversity of the local population which, like many similar communities in Australia, is an ageing community.

A highly localised workforce is not without its challenges for the community. The largest challenge will be the upward pressure on housing prices both for sales and rentals and the subsequent impacts on people currently in housing stress and on low income earners. Housing needs to be a component of the Community Grants Program and Council needs to support innovative approaches to providing affordable options for local people and new workers.

A further social risk associated with the higher incomes of mining workers when compared to the low income town of Gloucester is the impact that social inequity may have on social cohesion. This risk needs to be monitored. It is important that the broader community benefit from the Rocky Hill Coal Project through the Community Grants Program and that community and family friendly Human Resource practices are implemented to encourage mine workers to participate in the community. This includes family-friendly shifts and rostering practices, and company recognition and encouragement of worker involvement in community organisations and events.

⁹⁷ Carrington and Pereira; "Assessing the social impacts of the resources boom on rural communities." In Rural Society - Vol. 21 Nbr. 1, October 2011



There is a high level of concern in the community about the increase of mining operations, including CSG exploration, in the area and the proximity of this proposed mine in particular to the Gloucester township and to some housing estates. Implementing visual impact mitigation strategies is essential to protecting the amenity of the town. Extensive works are planned and tree planting is already underway. Refer to the Visibility Assessment (Richard Lamb & Associates, 2013) accompanying the EIS.

There is also a high level of concern in the community about health impacts, including mental health impacts. There is evidence presented in the literature that people exposed to environmental change experienced negative affect that is exacerbated by a sense of powerlessness or lack of control over the unfolding change process. This is evident in talking with some community groups and individuals in Gloucester. To some extent, having certainty about the future, either via an approval or refusal for the Proposal, will address some of the current stress levels. However, there are likely to be individuals for whom the situation will remain highly stressful if the mine is approved, particularly those who are near neighbours and feel that the impact on the amenity of their property is such that they would have to relocate. Saleability of such properties compounds the stress and concern. Positive mental health impacts associated with employment opportunities and economic wellbeing are likely to be a benefit of this Proposal if approved.

More general health impacts are currently being researched in the Hunter Valley and the Hunter New England Area Health Service (HNEAHS) concludes that more investigation is required to determine the role of pollutant exposures.⁹⁸ Determining local health indicators will evolve over time and attention needs to be paid to the outcomes of further HNEAHS studies and appropriate actions taken locally. Transparent reporting processes are critical to community confidence in the Proposal.

Cumulative impacts have been identified as an issue. Adding to the overall mining footprint within the Shire could add to the change in perception of the “Gloucester brand” and sense of place. Increased population will bring benefits in terms of economic health, attraction of new businesses and critical mass for services. It will also put pressure in housing prices and rental availability and may stress the capacity of some community services, such as childcare, in the short to medium term. Joint reporting on environmental monitoring and coordination of community engagement would be of benefit to the local community and to Council.

It is recognised that GRL has made significant public commitments to providing traineeships and scholarships for local students, funding equipment for the hospital and to a Community Grants Program linked to production. These commitments will deliver significant social benefits.

GRL also currently has an Exploration CCC, a website, newsletters and factsheets, and a management team active in listening to and talking with local people. It is recommended that this community engagement is expanded through a Project CCC for operations, a “shopfront” interface and formalisation and expansion of the Stakeholder Engagement Plan. Open and transparent communications with local organisations and local people will engender a partnership approach to this proposal that will deliver sustainable outcomes for the community over the life of mine. It will also underpin the mine closure planning so that post-mine use is aligned with community aspirations.

⁹⁸ NSW Health (2010) Respiratory and cardiovascular diseases and cancer among residents in the Hunter New England Area Health Service



Economic Impacts

The Rocky Hill Coal Project ("the Proposal") will deliver significant economic benefits to the local, regional, state and national economies.

Combined construction and operating impacts economic value:

- The accumulated impacts of the Proposal, over its full economic life, including construction and operating phases include: direct expenditures in the local economy totalling \$253.66 million and for the NSW economy totalling \$1,270.4 million. The multiplier effects of these direct expenditures are estimated to generate a total impact on the local economy of \$483.8 million and on the NSW economy of \$2,705.85 million (\$2.7 billion). The value to the Australian economy is estimated at \$3,580.8 million (\$3.58 billion) when account is taken of direct and multiplier effects.

Government Revenue Impacts:

- Over the twelve month construction period, it has been estimated that the taxation revenue to the Federal government will total approximately \$19.105 million.
- Total Federal government revenues over the life of the Proposal are estimated at in excess of \$563 million.
- It is estimated that the Proposal would pay in the order of \$186 million in State royalties over its operational life.
- The mine's contribution to state payroll tax both through direct employment and flow-on or multiplied employee salaries is estimated at \$17.59 million.
- This provides a combined State government income in the order of \$204 million over the life of the mine.
- GRL estimates it will contribute almost \$3 million via the COAL21 scheme implemented by the Australian Coal Association in 2006.
- It has also made a commitment to a community grants program which would represent an additional \$7 to \$8 million contribution to the local community over 14 years and average at approximately \$500,000 per year.
- Assuming constant land values rate income to Council would potentially increase from \$34,000 annually to \$251,600 annually; over the 14 years of the mine life this would provide Council with an additional \$3.05 million in rate revenue based on constant land values.



Community Profile and Future Trajectory without projects such as the Rocky Hill Coal Project

Like many communities in Australia, Gloucester has an ageing population and an under representation of young families. Young people leave the town for post school education and work opportunities. Newcomers to the area are predominantly “tree changers” and retirees, people who make an important contribution but who are not key drivers of the economy. If the current trajectory is unchanged through significant autonomous investment and the do-nothing scenario pervades, the likely future for Gloucester includes:

- small and decreasing population growth;
- low levels of population growth generated employment;
- continued exodus of people in primary working years (25 to 55);
- an increase in the percentage of the population over 55 year of age;
- increasing dependency ratio (people not working relying on those working);
- shrinking household size;
- inadequate jobs growth to meet population demand;
- out-migration to neighbouring employment centres;
- increased percentage of population on the pension;
- increase in level of Council Rate Rebates for pensioners;

On balance, there would be a net social and economic benefit associated with the Rocky Hill Coal Project.



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