

Appendix - F

Centennial Coal

Social Impact Assessment

Springvale Mine Modification

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Executive Summary

It is determined that the modification to Springvale Mine's current consent will have no adverse social impact. The scope of the modification will not result in any change to the physical environment in and around the pit top and therefore will not adversely impact on the existing land use, its physical characteristics or on the day to day life of nearby residents.

Community consultation undertaken in March 2013 identified that noise emissions from mobile plant reverse alarms and a telephone ringing were issues of concern regarding the Springvale pit top. In the course of the assessment, noise predictions indicate that noise levels associated with the operation of the modification are predicted to exceed the PSNLs by up to 6 dBA at the nearest affected residential receivers (identified as S1 and S2) under calm and adverse meteorological conditions during the night-time period. Predicted exceedences are due to existing Springvale pit top activities and the noise levels are consistent with the existing Springvale noise contribution measured during the operator attended noise surveys conducted by SLR.

Since there are no changes proposed to the surface infrastructure at the Springvale pit top, no noise level increases are associated with the modification.

It is determined that the potential noise impacts have been adequately addressed through the proposed implementation of mitigation and management controls as described in the noise impact assessment. SLR (2013) has identified the following to reduce existing noise emissions:

- Installation of noise attenuating mufflers on the stockpile dozer.
- Installation of "quacker" reverse alarms on the stockpile dozer during the daytime and use of a flashing light warning signal during the night-time to replace the existing reverse beeper.
- Restricted (gear box limited) the stockpile dozer to second gear (low speed) while reversing to reduce track slap.
- Regular (weekly) inspection of conveyor idlers and prompt replacement of damaged or highly worn idlers during maintenance.
- Cladding the southern wall of the ROM conveyor drive building (within 12 months of approval).

In addition to the above, it is recommended that the following best practice noise management measures should be considered:

- Preparation of a formal noise management plan including noise monitoring program.
- Continued noise monitoring on site and within the community.
- For equipment with enclosures (ie compressor rooms, conveyor drives) ensure door and seals are well maintained and kept closed when not in use.
- Keep plant and equipment well maintained, regular inspection and maintenance of equipment to ensure it is good working order and operating at the lowest feasible noise level.

- Equipment not to be operated until it is maintained or repaired.
- Regularly train workers (ie toolbox talks) to use equipment in ways to minimise noise.
- Operate mobile plant in a quiet, efficient manner.
- Switching off vehicles and plant when not in use.
- Incorporate clear signage at the site including relevant contact numbers for community enquiries.
- Prompt response to any community issues of concern.

Following the implementation of the noise mitigation and management measures, Centennial will conduct a review to quantify the effectiveness of the noise reduction program within six months of the date of approval. Any additional noise mitigation measures required as a result of that review will be investigated.

It is determined that these mitigation strategies are adequate and will address potential adverse impacts on residential amenity. There is no evidence to suggest that the proposed modification should not proceed due to adverse social impacts.

1. Introduction

1.1 Overview of Methodology

James Marshall and Co has been commissioned by Centennial Coal to undertake a Social Impact Assessment (SIA) of the proposed Springvale Mine Modification Project (Project). A SIA is a systematic, staged approach of enquiry that identifies who may be affected by the project and how they are affected. It takes into account the scope of the development and how the development will impact on the needs, issues, values and aspirations of the surrounding community stakeholders. Therefore the purpose of the SIA is to:

- Assess the social impacts of the project including any impacts on local infrastructure and services.
- Assist in establishing the full facts about the development, to support a well-informed decision about the appropriateness of the development proposal.
- Recommend mitigation measures to minimise adverse impacts and maximise benefits of the project.
- Assess the impacts of the development on future generations.
- Inform the community and facilitate participation by the community in the planning and development assessment process.
- Facilitate the consideration of alternative development proposals.
- Enhance existing data to inform the planning and development assessment process.

The approach for this Social Impact Assessment references the 'Techniques for Effective Social Impact Assessment: A Practical Guide (Office of Social Policy, NSW Government Social Policy Directorate)'; Section 79(c) Environmental Protection and Assessment Act and recognised industry approaches for undertaking such work. The core steps are:

1. Profiling: This involves understanding the scale and scope of the project, parameters of the Social Impact Assessment and identifying the stakeholders (determined by the areas of affectation).
2. Scoping: This involves identifying the likely impacts arising from the development and includes consultation and feedback from identified stakeholders. Consultation is undertaken in a range of ways and may include informal consultation, stakeholder engagement, surveys etc.
3. Assessment: This section explores the likely impacts that will arise. The scope of the assessment is determined by the likely impacts and as a guide may include (but not be limited to):
 - Changes to the population and characteristics of the area.
 - The community structure, its character or beliefs.
 - The health and safety of those living and working in the vicinity of the development.
 - An assessment of safety as it relates to crime, anti-social and nuisance behaviour.
 - Social cohesion, in particular the quality of life of those living in the vicinity of the development.
 - Cost of living, including housing affordability.
 - Accessibility.

- Sense of place and community.
 - The impact on existing services.
4. Management: All impacts should be identified and those that are identified as having an adverse or detrimental affect need to be managed and mitigated where possible. It is not always possible to manage all adverse impacts however identification of these impacts and how they can be managed must be taken into account. Similarly, impacts that are identified as being positive need to also be identified and capitalised upon where possible and appropriate. This allows for an assessment as to whether the proposal meets net community benefit criteria.
 5. Monitoring: Strategies to monitor identified impacts may need to be identified to ensure that management strategies are adhered to and those cumulative impacts are identified, monitored and taken into account with further development.

1.2 Project Overview

The Springvale Mine pit top is located approximately 15 km north-west of the city of Lithgow and is accessed off the Castlereagh Highway at Lidsdale. Springvale Mine is located within the Lithgow City Council Local Government Area (LGA). The underground longwall mine is situated directly below a sandstone plateau of undulating unpopulated bushland which is part of the Newnes State Forest.

Springvale Mine is bordered by Angus Place Colliery (Centennial Coal Pty Ltd) to the north, the abandoned Lithgow State Mine to the south, and the Wolgan Valley and Newnes State Forest to the east. Collectively, existing land uses in the vicinity of the colliery include residential land, pastoral farming, open cut and underground coal mining, power generation and commercial forestry.

Springvale Coal is seeking approval to modify its approved mining operations to:

1. Allow extraction from its current production limit of 3.4 million tonnes per annum (Mtpa) up to 4.5 Mtpa from the existing operations at Springvale Mine. Production increase in 2013 will arise due to the absence of the longwall changeover period between LW415 and LW416; a longwall changeover could typically last six weeks. In 2014 an additional continuous miner will be operated to help facilitate continued production. The Project will continue to use existing surface and underground facilities. The increase in production will be predominantly achieved through the installation and operation of new generation mining equipment and the implementation of other operational practices to achieve greater availability of the equipment.
2. Increase in the total employment on site from 280 to 310 to facilitate the operation of an additional continuous miner.

The proposed modification does not require any other changes to the existing mine operation to achieve this increase in production and does not require any change to the approved project area. Table 1 summarise the changes proposed for the Springvale Mine Modification.

Table 1: Springvale Mine Summary of Proposed Modification

Aspect	Existing Operation	Proposed Modification
Production	Springvale Mine is approved to produce up to 3.4 Mtpa of ROM coal.	It is proposed to produce up to 4.5 Mtpa of ROM coal.
Mine Life	Development Consent DA 11/92 limited to 21 years from granting of Coal Lease (ML1326), expiry 28 September 2014.	No change
Hours of Operation	The mine currently operates 24 hours per day, 7 days per week.	No change
Employment	Springvale Mine currently employs 280 personnel.	It is proposed to operating the mine with 310 personnel
ROM Stockpile	Current stockpile capacity at the pit top is 85,000 t	No change
Coal Preparation	Coal is crushed at the on-site screening and crusher plant	No change
Land Preparation	As Springvale Mine is an established underground mine, minimal land preparation occurs. Minor land preparation is occasionally required for exploration purposes and the installation of support infrastructure.	No change
Product Coal Transport	Coal is transferred on to overland conveyors and transported to either Mount Piper or Wallerawang power stations, or to the Springvale Coal Services Site for washing and export.	No change
Waste Management	Coarse reject material from the CPP at the Springvale Coal Services site is transported via truck to the Huon REA and 'A Pit' REA, also at the site. Fine coal reject from the coal preparation plant is fed to the Co-disposal REA via slurry pipes.	No change
Surface Water Management	The surface water management system at Springvale Mine relies on the separation of clean and dirty water and the treatment of dirty water prior to discharge through LDP001. Current water management occurs in accordance with the site water management plan.	No change
Rehabilitation	Given that Springvale Mine is as an underground coal mine, rehabilitation is currently limited to small areas in the Newnes State Forest following the cessation of exploration activities, or when surface infrastructure is decommissioned.	No change

2. Community Profile.

2.1 Overview

Springvale Mine is located in the Lithgow Local Government Area (LGA). The Lithgow LGA is a relatively large geographical area of 4,551 sq km, located about 140 kilometres west of the Sydney CBD and within the eastern part of the Central West Region. The LGA is made up of one large urban centre called Lithgow, two townships called Portland and Wallerawang and numerous villages, hamlets and rural localities of varying proximity to Lithgow.

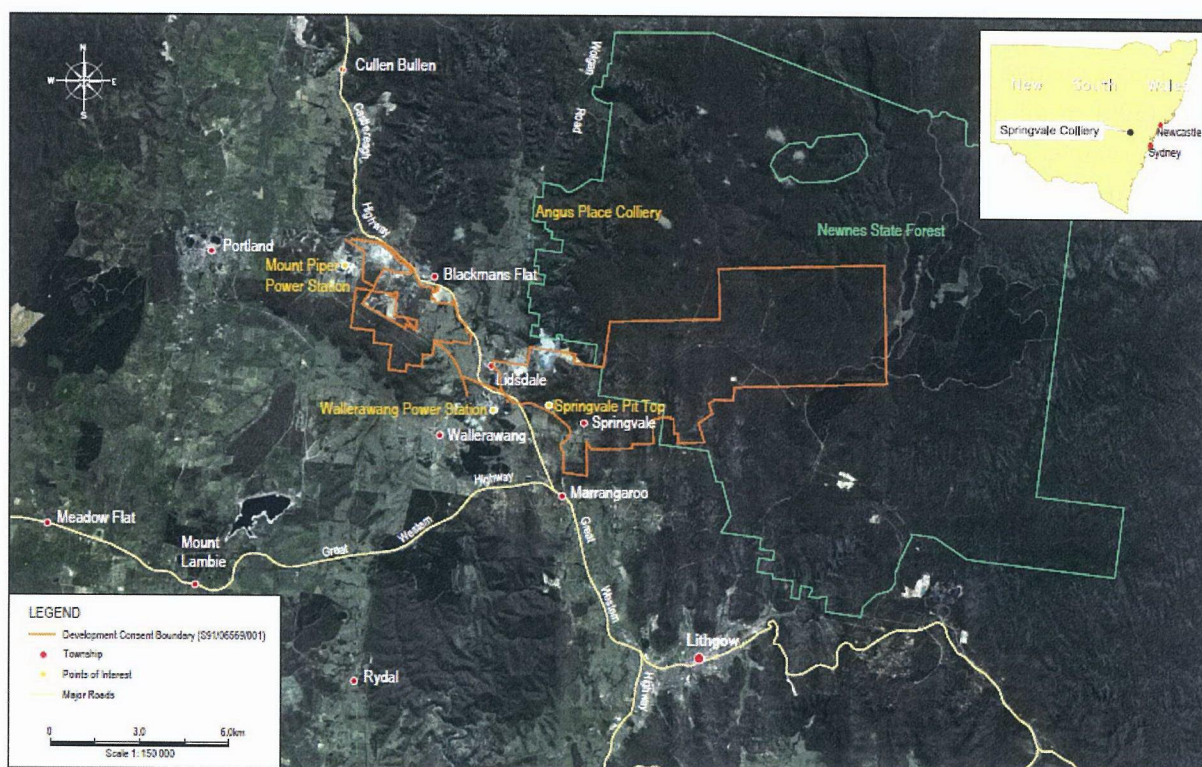


Figure 1: Springvale Mine Regional Context

The vision for the LGA was developed in collaboration with the community and adopted by Council in 2006. It sets a vision for the next 10 to 20 years for the Local Government Area. The overarching vision statement is:

A centre of Regional excellence that:

- *Encourages community growth and development.*
- *Contributes to the efficient and effective management of the environment, community and economy for present and future generations.*

According to the most recent Australian Bureau of Statistics (ABS) Census (2011), the Lithgow LGA population on Census night was 20,161 which represent a 2.04% increase in population since 2006. The majority of the population live in Lithgow urban area (11,143 people), Wallerawang (1,855 people) and Portland (1,829 people). The remainder of the population (approximately 26%) live across the smaller villages, hamlets and rural localities across the LGA.

The LGA's population has undergone slight fluctuations since 1996. There was a small decrease in population recorded between the 1996 and 2001 census period and a slight increase in population between the 2001 and 2011 census period. The fluctuating population would be attributed to a number of factors which include:

- the changing employment characteristics of the area meaning that there is constant in/out migration, in particular families with young children;
- a trend for younger people (18 – 24 years of age) to move out of the area to seek lifestyle, education and/or employment opportunities;
- in-migration of mature age people seeking a rural lifestyle (tree change).

The major change in Lithgow's population has occurred in rural areas. Between 1996 – 2009 over 55% (699) of all dwelling approvals has occurred within rural areas, increasing the population in these areas by approximately 1,678 persons. The trend towards rural living is usually from people moving from outside of the LGA, seeking alternative lifestyle choices or securing land to be used as a place to visit (there are a large number of land holders who are not resident of the area). As with most regional area in NSW and Australia, Lithgow's population is ageing; however is increasing at a higher rate than NSW and Australia. As illustrated in Table 2 the median age of the LGA is now 42 years and is much higher in some rural areas. The out migration of young people will exacerbate this trend.

The population are also earning a higher income and there is an increase in the amount paid for housing loans and rent. This trend will align with available employment opportunities and wage earnings. The key industry of employment is mining which offers a high wage when compared with other sectors. Retail, manufacturing, power generation, public safety all remain strong employment sectors and there is an emerging growth in scientific and technical services, administration and health and social services. Table 2 summarises population characteristics of the LGA between 2001 and 2011.

Table 2: Time Series Data (2001 – 2011) – Lithgow LGA

Selected Medians	2001	2006	2011
Population	19,332	19,756	20,161
Median age of persons	37	40	42
Median Total personal Income (\$ weekly)	\$295	\$356	\$455
Median total family income (\$ weekly)	\$822	\$1,027	\$1,190
Median total household income (\$ weekly)	\$642	\$751	\$894
Median mortgage repayment (\$ monthly)	\$750	\$1,083	\$1,452
Median Rent (\$ weekly)	\$110	\$135	\$170
Average household size	2.5	2.4	2.3

Source: ABS Census

The following are summary characteristics of residents and workers living in the Lithgow LGA:

- There are fewer young people living in the LGA.
- Lithgow has a population which is aging at a relatively faster rate than the NSW average.
- Marginal population growth to 2017 is forecast for Lithgow, after which the population is forecast to decline.
- The largest employer in Lithgow LGA is mining, followed by retail trade, accommodation and food services, public administration and safety, health care and social assistance.
- The majority of workers in Lithgow (84.9% or 5,820 persons) live and work within the LGA.

- 15.1% of total workers live outside the LGA and travel into Lithgow for work, with the majority travelling from the Blue Mountains.
- 24.5% of the resident workforce leaves Lithgow LGA to work, mostly to the Blue Mountains followed by Bathurst.
- Those who travel to the Blue Mountains mainly work in health care, accommodation and food services, retail trade and public administration and safety. Most of those working residents who travel to Bathurst work in manufacturing, agriculture, and education and training.
- Only a very small proportion of working residents travel to Sydney and Penrith.
- The majority of working residents in Lithgow LGA work in mining, manufacturing, retail trade, accommodation and food services, public administration and safety, health care and social assistance.
- Those working residents that leave Lithgow LGA to work mainly work in manufacturing, construction, wholesale trade, transport, postal and warehousing, information media and telecommunications, professional, scientific and technical services, administrative and support services, education and training, arts and recreation services (based on more than 25% of working residents leaving the LGA by industry type).

2.2 Economic Profile

Lithgow has a long history with mining and power generation and today the economic base of Lithgow is still recognised as being the energy and resources sector. These sectors are major employers and subsequently make a significant contribution to the overall economy including retail and accommodation via direct and indirect employment opportunities occurring.

Table3: Industry of Employment (Lithgow LGA) 2001 - 2011

Industry of Employment	Persons Employed		
	2001	2006	2011
Agriculture, forestry and fishing	277	262	207
Mining	682	773	987
Manufacturing	626	623	549
Electricity, gas, water and waste services	384	388	345
Construction	450	458	468
Wholesale trade	207	149	154
Retail trade	795	864	797
Accommodation and food services	685	649	674
Transport, postal and warehousing	473	409	465
Information media and telecommunications	73	58	51
Financial and insurance services	132	142	134
Rental, hiring and real estate services	80	86	80
Professional, scientific and technical services	201	222	257
Administrative and support services	190	239	274
Public administration and safety	535	615	690
Education and training	435	461	491

Table 3 cont...

Health care and social assistance	618	748	884
Arts and recreation services	76	76	79
Other services	251	264	295
Not adequately stated	190	145	161

The mining and energy sectors also present some challenges brought about by fluctuations in coal prices. However, the importance of the coal mining industry to the regional economy is abundantly clear in Lithgow City Council's Economic Development Strategy (EDS) 2010-2014. This is substantiated by the following material included in the EDS;

- "In 2006, the mining sector employed 10% of the total Lithgow resident_workforce second only to the Retail sector at 11.2%".
- "The largest employer in Lithgow Local Government Area is mining".
- "only the mining sector had a greater percentage contribution to gross regional product (27%) than its share of employment (12%).

Gross Regional Product data analysis taken from the Lithgow Jobs Summit 2008 report highlights the following key indicators:

- In 2006-07 the gross regional product for Lithgow Local Government Area was estimated to be approximately \$723.8 million.
- The manufacturing sector contributed 7% of value added while health, utilities and the retail sector each contributed 6%.
- Of these, only the mining sector had a greater percentage contribution to gross regional product (27%) than its share of employment (12%).
- The retail sector's high share of employment.

The sustainability of the mining sector and its related employment is clearly vital to the broader economic wellbeing of the area.

2.3 Emerging Industry Sectors - Tourism

According to the Lithgow Economic and Development Strategy "tourism is becoming of increasing importance for economic growth and has caused governments and industry to engage in aggressive and intense promotional activities in order to develop and increase the effectiveness and quality of the sector". Lithgow LGA is a place endowed with significant natural and cultural resources that can capture the interests of visitors and therefore increased tourism investment. To achieve this, Lithgow will change its identity from a mining town to capitalise on the following assets:

- A diverse physical geography ranging from flat to gently undulating pastoral landscapes to rugged natural bushland dominated by sandstone cliffs and pagodas, majestic valleys and rare woodland forests, wetlands and ecological communities.
- A strong rail and road heritage associated with the crossing of the Blue Mountains.
- A strong and diverse built heritage within all three town centres, rural villages and hamlets.
- Places of Aboriginal Heritage and Significance.

- Access to a significant National Park and State Nature Reserves network boasting six major Parks including:
 - Blue Mountains National Park;
 - Gardens of Stone National Park;
 - Wollemi National Park;
 - Turon National Park;
 - Capertee National Park;
 - Marrangaroo National Park;
 - Evans Crown Nature Reserve; and
 - access to a large and significant State Forest Estate.

This sector will be targeted for growth and via the business community could lead to a potential re-branding of the LGA via moving away from being identified as a mining town to promoting the LGA as an area rich in significant natural features.

2.4 Lithgow Land Use Strategy

The Lithgow Land Use Strategy (LUS) has been prepared to inform the development of its new Local Environment Plan (LEP). The LUS sets out the future directions of how land will be managed across the LGA and takes into account past planning strengths and challenges.

Land use conflict; increase residential living in rural areas (dispersed settlement); protection of the environment / scenic values and supporting strategies that assist in the diversification of the LGA's economy (eg tourism) are all key components of the LUS which will have some potential impact on Centennials operations. The principles of the LUS represent a shift towards consolidating residential settlement and away from Lithgow's industrial traditions to creating a more diverse economy via land use planning principles, policies and strategies such as marketing. Table 4 summarises some of these key changes.

Table 4: Lithgow Land Use Strategy and Potential Areas of Impact for Centennial Coal.

Activities	Reason for Potential Impact
There is an increased number of people living in rural areas	• Usually in migration characterised by people from areas outside of the LGA. • Landholders in rural areas not always resident of the LGA. • Emergence of different values and connections to Lithgow – ie not share the areas mining history. • Small lifestyle farms meaning that land holders will actively protect water and other resources if they feel they are being threatened. • Fear in loss of land value.

Table 4 cont ...

Addressing land use conflict, especially between industrial uses and residential land uses.	• Number of examples across the LGA with Blackmans Flat most severely affected. • Land use conflict has been allowed to happen due to past land use policies and is now seen as a cumulative impact and therefore could potentially inhibit future proposals. • Community will speak out against proposals that impact on their way of life / amenity.
Protection of sensitive environmental areas.	• Centennial has a number of activities within identified sensitive environmental areas (eg Newnes Plateau; Capertee Valley, Garden of Stone National Park). • There is an increasing move to protect these areas by a range of stakeholders which are not limited to NGO's (eg Colong; BMCS) but also include land holders who have moved into the area (eg the rural Glen Alice / Glen Davis have experienced large population increases since 2001).
Support and protection of other industries such as tourism.	• There is a move to recognise and pursue other industry sectors that are not related to mining and power generation to broaden and stabilise the economic profile of the LGA. Tourism is one such sector. • Therefore moves to retain and protect key 'gateways' and scenic landscapes for visitors / travellers will become a priority.

3. Consultation

There have been numerous consultations over the past few years focussing on mining and coal seam gas exploration. There have been a number of drivers which brought about these consultations which include strategic land management; land use planning; industry lead dialogue and project specific notifications. Consultation brought about by external parties has often been responding to adverse impacts while industry lead consultation has been promoting benefits or in defence of the mining industry. A summary of some key consultation that has been undertaken are listed below.

3.1 NSW Government's Coal and Gas Strategy: Lithgow Regional Forum 25 February 2011

The former NSW Government presented a number of regional forums at the beginning of 2011 to discuss and explore the NSW Coal and Gas Strategy. A summary of relevant and key themes raised by speakers are listed below. It is important to note the outcomes of these consultations as they have informed the current Strategic Regional Land Use Strategy.

3.1.1 Issues relating to Coal Mining.

Key points raised in this discussion include:

- Coal mining can affect landowners and environmental issues in the area may have resulted from coal burning.

- In relation to mining there should generally be better controls around impacts on the environment.
- There should be buffer zones where mining does not occur that provide clean zones for better lifestyle. We need to protect the ecology and biodiversity of an area.
- Mining can be very divisive in local and regional communities.
- We can't just look at the anti mining concerns – the Strategy needs to look at a set of balanced outcomes.
- The benefits of mining cannot be underestimated.

3.1.2 Social and Community Concerns

Key points raised in this discussion include:

- Given the Sydney Basin is almost exhausted for housing, the western areas (eg including in and around Lithgow) provides an opportunity to house people – mining may compromise that opportunity.
- There is a need to take into account the needs of future generations in terms of health, housing, ageing population etc., and provide suitable environments for them to live.
- The issues for balance and certainty for communities is an important issue that needs to be addressed.
- There is a reluctance of industry to embrace the protection of other values.
- Serious consideration needs to be given to the assumptions and values that we place on the growth of energy demand and its importance in terms of jobs.
- In 20 years time we may be talking about shortages of food – The question of what are our long term goals and priorities for the use of our land should be an important consideration in the development of a Coal and Gas Strategy.
- Concern that mining could adversely affect local and regional tourism. We need to model costs/benefits/value associated with good lifestyle areas, tourism and ecological aspects.
- People are concerned about the health impacts and want to ensure they have a positive quality of life, health, food water and social connectivity to the community.
- We need to make sure all the values of different land uses, lifestyle opportunities, health benefits, food security etc are recognised.
- Don't forget disastrous effects and families on jobs – it was not long ago that there were protests about job losses in Lithgow due to mine closures.
- Legislation needs to change so that property owners know they are likely to be affected before the license is issued.
- There needs to be a better contribution towards the needs of communities cost of infrastructure needs to be met and contributed to.
- Need baseline data before we go forward to gauge cumulative impacts.
- Communities have been calling for independent studies for a long time.
- Local communities are being devastated by mining (churches, fire services, schools etc are losing people).
- If there is so much value for the state, will there be consideration to covering the community against the costs of these major developments?
- Social impact assessment should be undertaken to gauge impacts

3.2 Centennial Coal Community Information Sessions

Early 2012 Centennial undertook consultations and information sessions for a range of projects (Coal Services Upgrade, Springvale Mine and Angus Place Colliery developments). Issues raised by the community in relation to the wider regional developments include:

- General visual impacts, particularly from open cut mining.
- Intensification of mining activities.
- The recognition of impacts from sources other than Centennial such as other mining operations and the two power stations.

Further consultation was undertaken by Airly Mine late in 2012 in relation to its new project. The outcome of this consultation saw a range of feedback, with some in the Capertee community supporting the concept while land holders in Glen Davis and Glen Alice being very cautious and expressing concerns regarding the impact on surface features as well as surface / ground water impacts. The community also engaged the Environmental Defenders Office to present information regarding land holder rights.

Community information sessions for Springvale Mine and Angus Place Mine Extension Projects and Lidsdale Siding Upgrade have been undertaken in March 2013. In relation to Springvale Mine concerns raised were:

- Noise from train line.
- Reverse alarm on dozer.
- Phone ringing.

These issues relate to the Pit Top activities at Springvale Mine.

Issues that were raised regarding mining activities in Newnes Plateau were:

- Ecology.
- Structural geology of Newnes Plateau.
- Maintaining the 'environmental architecture'.

3.3 Springvale Mine Employee Profile

The SIA also needs to consider the stakeholder groups who receive a direct or indirect economic benefit from the mines operation. This includes the workforce, contractors, retailers and social and community services. The economic assessment completed by Aigis Group (for Western Coal Services: 2013: pp 20 - 24) identifies that the net present value of both Angus Place and Springvale Mine employees' salaries (based on an average annual salary of \$150,000) is around \$34 million per annum; meaning that the 'pay packet effect' of these incomes on the local economy is significant.

Mine related employment results in a positive community benefit. The pay packet effect (referred to above) relates to the direct spending from employees resulting in direct and indirect employment opportunities to occur across a number of non-energy and resources sectors including retail and accommodation. The benefit from mine related employment is not restricted to spending. Employees and their families participate in a range of work, education, social and recreational activities across the local community and region.

A recent employee survey undertaken at Springvale Mine found that there are demonstrated flow-on effects within the community where the employee lived.

- Nearly 76% of Springvale Mine employees live in the Lithgow Local Government Area with nearly 80% living in the major townships of Lithgow, Wallerawang and Portland.
- 70% of those surveyed have been employed in the industry for over 10 years.
- 47% have worked in the industry for two or more generations.
- 88% own their own home.
- On average, each employee surveyed spends 33.0% of their weekly income in their local residential community.
- The majority of mine employees partners work and most participate in some regular weekly sport or social activities.
- For their children, the majority attend local schools and participate in sporting activities, again in their local community.

Therefore Springvale Mine employees and their families are not transient, have become established in their local communities and are active in building strong networks across the community. This is a positive social impact associated with mine related employment.

3.4 Key Themes Emerging from Consultation

Information gathered from the community profile and feedback from consultation has identified a number of points which are relevant to the social impacts relating to mining. These are summarised below.

- Mining and power generation are a significant feature of the LGA as are agriculture and national parks.
- Mining and power generation is a major contributor to the economy and progress in these sectors is considered essential.
- Mining and power have been a significant source of employment via both direct and indirect employment. Many towns and villages emerged as a result of the local mining industry and local businesses articulate the benefit they receive from 'the mines'.
- There is a strong connection to mining in areas such as Lithgow, Wallerawang and Portland however this connection is not shared across the entire LGA. There has been an increasing population in rural areas and the connection that many of these landholders have to the LGA is the unspoilt natural assets.
- Despite the connection to power and mining, residents do not want to be adversely impacted upon by industry when they are not at work. It would therefore be a risk to assume that a strong connection to mining and power generation means that it is acceptable to expand without considering social impacts.
- Social amenity is an important factor to quality of life of residents. Potential noise, dust and visual impacts arising from industry may have adverse effects on social amenity.
- Identified benefits arising from mining such as construction of additional infrastructure, maintenance of existing, and creation of additional jobs etc does not always outweigh the impact on community amenity even if the industry (eg mine) operates within approved limits. Key message statements need to consider this.

4. Characteristics of the Project Area

4.1 Local Characteristics

The characteristics of the Project area and surrounds include the locality of Lidsdale, rural land and isolated rural residents, transport infrastructure and the Newnes State Forest. Figure 2 shows the Springvale Mine Pit Top Layout.



The town of Wallerawang is located to the south west of the Project and is the closest retail and commercial centre, however Lithgow remains the main centre meeting higher order retail, commercial and professional service needs. A summary of the key services found in Wallerawang that would meet the day to day needs of residents are:

- Community facilities: Council library and depot; medical and community health centres; recreational facilities including PJ Hall Memorial Park, Lake Wallace, playing fields and a skate park; police, fire services; the Country Women's Association; churches; primary school; bowling club.
- Retail and commercial facilities /services: Supermarket; post office (with a pharmacy prescription service (drop in (am) and pick up (pm))); agency for the Commonwealth Bank; newsagent; bakery; butcher; service stations; hotels; takeaway store; hairdresser.
- Lidsdale facilities: Rural Fire Service; petrol station; tennis courts; Ted Hughes Memorial Park; church.



Main Street Wallerawang



Industrial backdrop, Wallerawang.



Mine related infrastructure is visible throughout the area.

4.2 Springvale Mine Site Characteristics

Underground mining operations are undertaken wholly within the Newnes State Forest, away from private landholdings and residences. Newnes State Forest is located on Newnes Plateau and contains Pine Plantation of Radiator Pine, Natural Forest and Sandstone Escarpments. The area has high environmental value and is characterised by significant environmental features such as pagodas; cliff lines; swamps, creeks, deep valleys, flora and fauna.

Public access is permitted in the Newnes State Forest and the activities include motorcycle riding; four wheel driving; bushwalking; mountain bike riding; canyoning; photography; bird watching and other such recreational and adventure activities. The area is very popular with visitors on weekends and attracts a large number of domestic visitors from Sydney. Visitor and tourist participation is an important outcome for Forests NSW and is facilitated via the provision of infrastructure (roads, picnic areas, camp grounds, viewing platforms etc), commercial licenses to tourism operators and the development of cultural heritage strategies (Forests NSW Annual Report 2010 – 2011; Ecologically Sustainable Forest Management Plan 2008).

Additional to public use, there are a number of lease holdings throughout the Newnes State Forest area which are primarily for designated mine lease areas, surface infrastructure sites held by mining companies, telecommunications etc. These lease holdings are all managed by Forests NSW. The stakeholder groups which utilise the area are broadly categorised as individuals and groups who:

- access Newnes State Forest for recreation including mountain biking, 4WD etc. that have a higher impact on the environment;
- access Newnes State Forest for recreation including bushwalking, bird watching etc. that have a low impact on the environment;
- aim to preserve the environmental value of the area from threats to sensitive surface features, ecosystems etc via opposing activities such as mining and restricting public access to certain areas.

Springvale Mine's pit top activities are located adjacent to the Castlereagh Highway near Lidsdale. The area is characterised by pastoral lands and dispersed large lot rural residential. Coal is

transported from the underground workings to the pit top where it is transported via private haul road to the Springvale Coal Services facility at Blackmans Flat for transportation to either domestic or export markets.

5. Scoping of Potential Social Impacts

5.1 Social Impact Risk Assessment - Determining Factors

Considering the limited scope of the Project the potential impacts requiring investigation are identified in the following areas:

- Adverse impacts to the social amenity of the area. Types of impacts potentially include noise, dust, visual impacts that may adversely affect resident's lifestyle in and around the pit top. As there are no changes to the pit-top attention will be on the potential for traffic impacts due to increased personnel and the existing pit-top operations.
- Risk of mine closure and subsequent loss of jobs having an impact across the local area and broader region if the mine has to cease operation.

An assessment of each of these components will determine the extent of social impact, if any. A review of other specialist reports will be included in this assessment. The potential for adverse impacts on the social amenity means the 'intrinsic value' that residents have of the area in which they live; and identifying if these values be adversely impacted on. These intrinsic values relate primarily to the rural amenity of the nearby residences and if there will be a change to the surrounding land use.

It should be noted that as there are no changes to any operations being undertaken in the Newnes State Forest, the scope of this SIA has not included an analysis of this area.

Table 5: Risk of Mine Closure

Areas of Potential Impact / Concern: Risk of Mine Closure		SIA Response	
Cause	Potential Outcome	Management / Control	Comment
Inadequate Environmental Assessment	Mine closure and loss of jobs	Environmental Assessment.	Impact If the modification is not approved there is a risk the mine will need to cease operations to ensure production limits remain within compliance limit. This could risk the employment of existing workforce. The creation of 30 new jobs will have a positive impact on the financial and social economy of the area via pay packet effect and participation in social and recreational activities. The creation of 30 new jobs will not create additional demands on infrastructure and services.

Table 6: Traffic

Areas of Potential Impact / Concern: Traffic		SIA Response	
Cause	Potential Outcome	Management / Control	Comment
Increased traffic	Adverse impact on rural amenity.	Traffic Impact Assessment (TIA). Capacity of road network.	The TIA (ARC 2013) state: Operational The modification will generate an additional 7 vehicle trips per hour at the Pit Top prior to and following each of the day, afternoon and night mining shifts. These trips would all access the Pit Top via the intersection of Castlereagh Highway & the Springvale Mine Access Road. The intersection would continue to operate at a good level of service through September 2014, with low average delays and significant spare capacity during Springvale Mine shift peak periods and across the day. “ “Given the negligible impact of the modification, no mitigation measures with regards to traffic generation are required.” Parking All parking for Pit Top staff will continue to be provided on-site in existing parking areas, which enough capacity to accommodate the additional Project staff parking demands even during peak shift overlap periods. ARC concludes that the Modification is supportable from an access and traffic perspective.

Table 7: Noise

Areas of Potential Impact / Concern: Noise		SIA Response	
Cause	Potential Outcome	Management / Control	Comment
Traffic and Pit Top activity.	Nil change to Pit Top activities proposed.	Noise Impact Assessment (NIA). Existing controls and ongoing monitoring.	The NIA (SLR: 2013) states: There is an operational noise level exceedence of up to 6 dBA at locations R1 and R2 during the night-time period. It is determined that the potential noise impacts have been adequately addressed through the proposed implementation of mitigation and management controls as described in the noise impact assessment. These include: • Installation of noise attenuating mufflers on the stockpile dozer. • Installation of “quacker” reverse alarms on the stockpile dozer during the daytime and use of a flashing light warning signal during the night-time to replace the existing reverse beeper. • Restricted (gear box limited) the stockpile dozer to second gear (low speed) while reversing to reduce track slap. • Regular (weekly) inspection of conveyor idlers and prompt replacement of damaged or highly worn idlers during maintenance. • Cladding the southern wall of the ROM conveyor drive building (within 12 months of approval). Ongoing monitoring will also be undertaken and strategies will be implemented as required to ensure that noise goals are achieved.

5.2 Comment on Social Impacts

In determining the extent of social impact; the physical environment, land use characteristics and communities values have been considered against the findings from the various specialist reports. It is determined that the modification to Springvale Mine's current consent will have no adverse social impact. The scope of the modification will not result in any change to the physical environment in and around the pit top and therefore will not adversely impact on the existing land use, its physical characteristics or on the day to day life of nearby residents.

The increase in traffic is minimal and concentrated around shift changeover periods where there is an existing increase in traffic flow for a relatively short period of time. This time period will not increase and the additional 7 vehicles per hour will not result in an adverse impact on residential amenity.

Thirty additional employees will add to the areas financial and social economy via direct spending and participation in a range of social and community activities. It is likely that the additional thirty employees could be sourced from recent redundancies in the sector. Regardless, the increase in staff numbers is noted as a positive impact of the modification and will not result in the need for additional community services or infrastructure.

The adverse impact identified in this assessment relates to the existing noise exceedence associated with the operation of the modification are predicted to exceed the project specific noise levels (PSNLs) by up to 6 dBA at the nearest affected residential receivers (Refer Figure 3; identified as S1 and S2) under calm and adverse meteorological conditions during the night-time period. Predicted exceedences are due to existing Springvale pit top activities and the noise levels are consistent with the existing Springvale noise contribution measured during the operator attended noise surveys conducted by SLR.

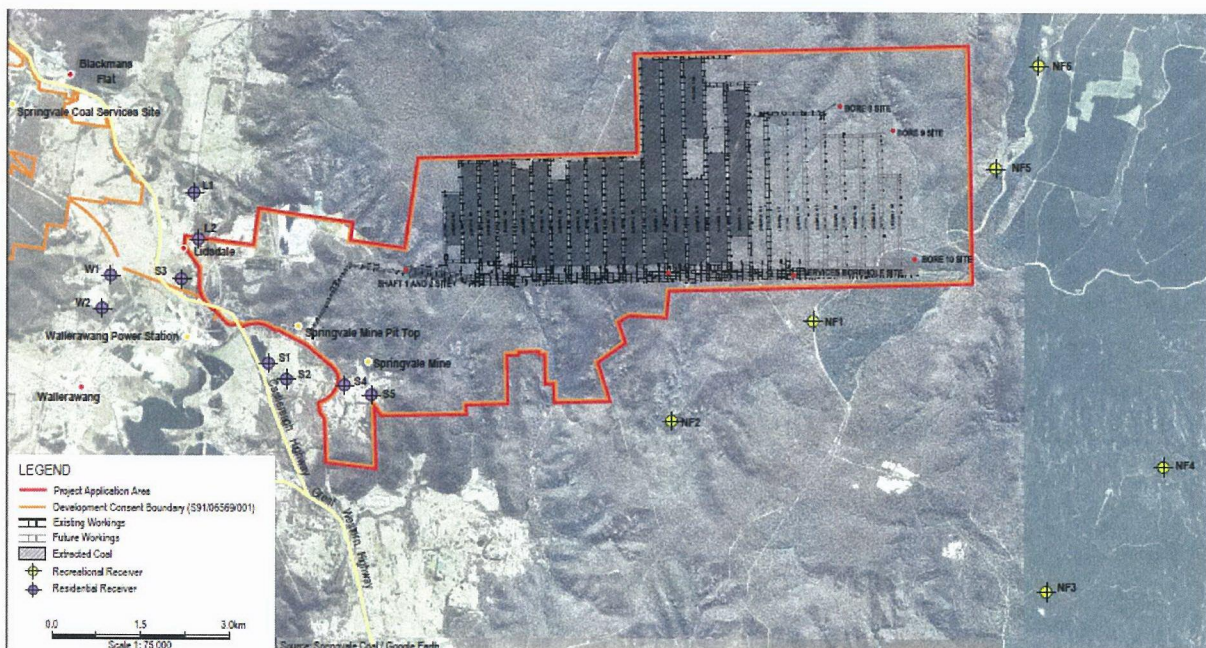


Figure 3: Sensitive Receptor Locations

Since there are no changes proposed to the surface infrastructure at the Springvale pit top, there are no noise level increases associated with this modification.

It is determined that the mitigation strategies identified in the NIA (SLR 2013) are adequate as they will aim to achieve PSNL goals and address potential adverse impacts on social amenity in the area.

6. CONCLUSION

Springvale Coal is seeking approval to modify its approved mining operations to:

1. Allow extraction from its current production limit of 3.4 million tonnes per annum (Mtpa) up to 4.5 Mtpa from the existing operations at Springvale Mine. Production increase in 2013 will arise due to the absence of the longwall changeover period between LW415 and LW416; a longwall changeover could typically last six weeks. In 2014 an additional continuous miner will be operated to help facilitate continued production. The Project will continue to use existing surface and underground facilities. The increase in production will be predominantly achieved through the installation and operation of new generation mining equipment and the implementation of other operational practices to achieve greater availability of the equipment.
2. Increase in the total employment on site from 280 to 310 to facilitate the operation of an additional continuous miner.

The proposed modification does not require any other changes to the existing mine operation to achieve this increase in production and does not require any change to the approved project area.

The potential noise impacts have been adequately addressed through the proposed implementation of mitigation and management controls as described in the NIA.

It is determined that the modification to Springvale Mine's current consent will have no adverse social impact. The scope of the modification will not result in any change to the physical environment in and around the pit top and therefore will not adversely impact on the existing land use, its physical characteristics or on the day to day life of nearby residents.

There is no evidence to suggest that the proposed modification should not proceed due to adverse social impacts.