

APPENDIX 9

Socio-economic Assessment

Austar Coal Mine

Austar Coal Mine Project – Stage 3 Socio-Economic Assessment

September 2008



Austar Coal Mine Project – Stage 3 Socio-Economic Assessment

Prepared by
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on behalf of
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1.0 Introduction

Umwelt (Australia) Pty Limited (Umwelt) was commissioned by Austar Coal Mine Pty Limited (Austar) to conduct an environmental assessment (EA) for the Stage 3 Part 3A Major Projects Development Application (DA) for operations at the Austar Coal Mine (Austar) near Cessnock, New South Wales. This socio-economic assessment addresses the ongoing operations at Austar and the proposed Stage 3 extension to mining. The assessment examines the socio-economic framework and projected benefits that the proposal has for the Cessnock Local Government Area (LGA), the region and the local areas.

Austar is the last coal mine in the Cessnock LGA, an area established and once dominated by underground coal mining. The high quality coal remaining in the mining area is a valuable community resource. The continuation and extension of Austar operations will provide considerable socio-economic benefits to the Cessnock LGA, New South Wales and Australia.

From approximately 2011 on, Austar proposes to extend its existing underground mining operations to include Stage 3 of operations using Longwall Top Coal Caving Technology (LTCC). The project will continue to utilise existing approved infrastructure to provide production efficiency and energy efficiency with minimal new construction for the Project. Construction of the new surface infrastructure facilities near Kitchener will service and provide ventilation for the proposed Stage 3 development.

The surface infrastructure facilities will be constructed on land that is owned by Austar. The northern portion of the proposed Stage 3 underground mining area extends underneath the Werakata State Conservation Area and sections of Crown land.

The Port of Newcastle is also located approximately 40 kilometres to the east of the Project and is accessed by the South Maitland Railway Line, a spur of the Main North Railway Line, providing a rail link to the area, particularly for the transport of coal. The Surface Infrastructure Site will be accessed from Quorrobolong Road.

Consideration of the socio-economic framework of the proposed Stage 3 development has included community and stakeholder consultation along with existing and projected Cessnock City Council LGA planning objectives in the Lower Hunter Valley.

1.1 Assessment Framework

1.1.1 Project Context

As stated, the socio-economic context of the Project within the Cessnock LGA forms the framework of this assessment. Assessment of the Project has considered the following key influences and attributes:

- the project is an extension of an existing mining operation with approximately 87% of the proposed Stage 3 underground mining area being located within Austar's existing Consolidated Mining Lease 2 (CML2). The remaining 15% of the proposed Stage 3 area abuts the eastern boundary of CML2 and would be sterilised from future extraction if not mined as part of Stage 3;
- villages and properties (including population, micro-economy and infrastructure) are located in close proximity to the new Surface Infrastructure Site and above the proposed mining operations;

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- the proposed development (ongoing Austar operations) in the broader Cessnock social and economic planning context; and
 - projected contribution of the proposed Stage 3 extension to the local, regional, state and national economies.

1.1.2 Consultation

Austar has consulted with the community since recommencing mining in 2005. The Community Consultation has taken the form of:

- establishment of a Community Consultative Committee;
- arrangement of public information sessions;
- distribution of communication material (including Information Sheets);
- comprehensive community interview program;
- establishment of a dedicated website for the Project; and
- inclusion of community feedback into mine establishment and planning.

The community engagement conducted for the proposed Stage 3 extension builds on information and discussion with local residents that has occurred through Stage 1 and Stage 2 mining operations.

2.0 Description of Social-Economic Environment

2.1.1 Project Area

The Project is located at the southern margin of the Greta Coal Seam and is largely within the Cony Creek and Sandy Creek catchment areas. The Greta Coal Seam settlements of Heddon Greta, Stanford Merthyr, Pelaw Main, Weston, Abermain, Neath, Cessnock, and Bellbird are all located on or near the Seam, with Kurri Kurri located at its north end.

Land use in the vicinity of the proposed Stage 3 underground mining area is described as primarily rural lands (with dispersed rural settings), residential and NSW State Forest (now Werakata State Conservation Area) (Cessnock, 2004a). The area includes the villages of Ellalong, Millfield, Kitchener, Aberdare, Pelton, Paxton and Bellbird. A detailed description of the surrounding landscape and land use (the Quorrobolong Valley) is outlined in **Table 2.1**.

The closest residence to the proposed Surface Infrastructure Site is approximately 600 metres to the south. The village of Kitchener is approximately one kilometre north of the site.

Table 2.1 – Landscape and Land Use in Proximity to the Proposed Stage 3 Mining Area (Quorrobolong Valley)

Project Land Areas	Project Area Features
North of Nash Lane/West of Quorrobolong Road	A series of blocks on partly forested steeper land, on the margins of the Werakata State Conservation Area. Austar owns several of these blocks, near to the proposed Surface Infrastructure Site. Two owners in this area are currently proposing small scale tourist development, comprising cabins for weekend visitors.
Between Nash Lane/Sandy Creek Road/West of Quorrobolong Road	This area is dominated by elongated allotments (running north south), with east west property boundaries aligned with the channel of Quorrobolong Creek. The properties are gently sloping and most have access to natural water supplies from pools along Quorrobolong Creek and its tributaries. There are also multiple large dams which augment water supply for cattle. One property in this area has poultry sheds and produced chickens and turkeys for the poultry meat market until recently.
Between Coney Creek Lane/Sandy Creek Road/East of Quorrobolong Road	A series of relatively large and wholly cleared properties (except along the creek lines) with extensive creek flats and undulating country. A number of these properties have been purchased by relatively new residents in the area over the last five years, who have built spacious new homes. These owners tend to maintain another home in a metropolitan area and are not as yet permanent residents, although they may become so on retirement. Homes in elevated rural positions have extensive views of the Watagan Mountains to the east and south, and towards the Broken Back Range to the north. Most of these owners continue to use the properties for small scale cattle grazing. Some have also embarked on land rehabilitation/revegetation projects. These properties largely have access to water supplies in Sandy Creek or to large farm dams.
South of Sandy Creek Road/West of Quorrobolong Road junction	Allotments tend to be elongated and aligned east west. Some have access to the tributaries of Quorrobolong Creek. Some of these properties overlie former underground mine workings, but none are located over the proposed Stage 3 area.
South of Sandy Creek Road/East of Quorrobolong Road	A series of relatively small allotments, some of which have been subdivided and the earlier rural character is being replaced by smaller scale; more densely settled rural residential development. Most of these blocks retain locally indigenous vegetation. This vegetation is generally valued by property owners. These allotments are not above the Stage 3 proposed Stage 3 area.
North of Coney Creek Lane/East of Quorrobolong Road	A series of moderately large blocks on steeper, relatively well vegetated country. These allotments afford extensive views towards the Watagan Ranges in the south. Property owners in this area tend to be owner occupiers who do not depend on primary production from the property for their income.

Mining has been a part of the land use and landscape context of the Austar Mine Complex for close to 100 years. Many families now living in the villages to the north of the Broken Back Range have long standing direct associations with the mining industry.

As noted in **Table 2.1**, the Quorrobolong valley community has less experience of living with mining, for three main reasons:

- the land use tradition of the Quorrobolong valley is rural;

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- the population of the Quorrobolong valley has increased and many newer residents have arrived from Sydney or parts of the lower Hunter, seeking a rural lifestyle; and
 - mining has relatively recently moved into this area with former mining being undertaken to the west of the proposed Stage 3 project. The existing mine obtained development consent from the NSW Minister for Planning in 1996.

In addition to these community considerations, Austar is utilising Longwall Top Coal Caving (LTCC) technology that is relatively new to Australia. Since mining recommenced in 2005, Austar has provided information to the community about the process of LTCC mining on an ongoing basis. Modifications to the existing consent (Stages 1 and 2) have also facilitated the introduction of LTCC in existing mining operations.

2.1.2 Project Area Community

Quorrobolong valley comprises a community of people who own small rural holdings and who distinguish themselves from people in the villages north of the Broken Back Range, and from people living in the Wallis Creek valley, around Brunkerville and Mulbring. Rural landholders whose properties overlie the proposed Stage 3 mine area include:

- farmers who have owned grazing or other types of agricultural properties in the area for many years;
- recent arrivals who have built large houses on grazing properties but who do not necessarily live permanently at this residence. These landholders may engage in small scale farming activity; and
- relatively recent arrivals who live permanently on rural properties (primarily a mix of bushland and cleared land) but work elsewhere. They do not rely on their rural property for income.

2.1.3 Project Area History

The area of the proposed Stage 3 extension was historically used for mining, forestry and agricultural purposes. Before the twentieth century, as early as the 1820s, there had been minor agricultural settlement and timber cutting, in parts of the rural west of Cessnock City Council. There were flour mills processing locally produced wheat at Millfield in the 1840s. In the past, the country along Cony Creek, Sandy Creek and Quorrobolong Creek, which is considered to be generally well-watered, has also been largely cleared and used for cattle grazing, poultry production and a range of other horticultural activities.

Despite all of this, it was the commencement of mining of the Greta Seam near Greta in 1892 that was the principal driving force behind the expanded settlement of the area. Prior to this, only Cessnock had existed as a township, with the other surrounding village settlements evolving after commencement of underground mining in the Southern part of the Greta Seam Coalfield.

Underground coal mining commenced in the mines surrounding Austar Mine Complex in the early parts of the twentieth century. Some of the local mines dating to this period include:

- Abermain Colliery 1903 – note this was followed by subdivision for the village of Abermain in 1905;
- Bellbird Colliery 1911 (Bellbird village was declared in 1910), lease continues as part of Austar;

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- Aberdare South Colliery 1913. The village of Aberdare had been laid out in 1906;
 - Aberdare Central Colliery 1914 (adjacent to Kitchener);
 - Pelton Colliery 1916, lease continues as Austar;
 - Kalingo colliery 1921, lease continues as Austar;
 - Stanford Main No. 2 Colliery 1922;
 - Ayrfield No. 1 1923;
 - Ayrfield No. 2 1924;
 - Elrington 1925.

It was in fact the vast mining of the Aberdare (East and Central), Bellbird, Ellalong, Kalingo, Pelton and Southland Collieries that was the major contributing factor to shaping the character of the developed landscape, as well as one of the key factors in building the structure and cohesion of local communities since that time.

When the Greta Seam mines were at their peak, all of the collieries combined employed a total of approximately 10,500 staff and were producing 5.48 million tonnes of low ash, high quality coal. This widespread mining in the Greta Seam came to a halt in the mid 1960s, with deep coal mining not commencing until the late 1970s.

The villages of Bellbird, Ellalong and Kitchener are all joined in the sense that they share a similar history of mining employment, adventures and adversity and can all relate to the hardships associated when the mines closed during the mid twentieth century. Some important events that shaped the formation of this unity, some of which can still be recalled by older residents, were:

- the September 1923 explosion in Bellbird Colliery which killed 21 miners and sparked the establishment of Mines Rescue Stations in NSW;
- the July 1943 incident at Aberdare Central Colliery, Kitchener, where 91 horses became trapped underground by a serious fire. During this particular incident, some of the mine workers were badly burnt whilst rescuing most of the horses before the sealing of the pit to extinguish the fire; and
- the June 1949 disaster at Aberdare Central Colliery, when floodwaters from surface creeks caved into the pit, trapping 11 miners and 62 horses when pit props and steel rails and water pipes were twisted underground.

Some older residents also recall how miners in the Cessnock (Greta Seam) coal fields always had a yellow skin colouration due to high amounts of sulphur in the coal and because of the sulphuric acid content of the mine water. They also attributed this sulphuric acid content of the mine water to the rapid corrosion of metal fittings and materials.

At Kitchener, several large houses were constructed for mine staff which still stand today, providing a distinct streetscape along Quorrobolong Road. These large houses were built opposite the Aberdare Central pit top (for the manager and under-manager) in 1927.

The mining operations, infrastructure, social and economic importance of Austar operations are long established in the Cessnock LGA.

The establishment of the South Maitland Coalfield generated extensive land settlement between 1903 and 1923 and established coal mining as the driving force behind the economies of many LGAs in the Lower Hunter Valley. The mines were then linked to what later became the South Maitland Railway.

The urban development layout, transport routes, and the industrial landscape were established as a direct result of the mining industry from this period (Cessnock, 2004a).

2.1.4 Project Area Demography

The Cessnock LGA demography has been defined by Cessnock City Council according to Precincts as defined by the Australia Bureau of Statistics data in the *Census for Housing and Population* in 1991, 1996, 2001 and 2006. Cessnock LGA has a total area of 1,950 square kilometres (Cessnock Shire Council 2006-2007 Annual Report). The proposed Stage 3 development is predominantly in the Rural East Precinct and Rural West Precinct of Cessnock LGA:

- Rural East Precinct includes Abernethy, Brunkerville, Elrington, Kitchener, Mount Vincent, Mulbring, Pelton and Quorrobolong.
- Rural West Precinct includes Ellalong, Paxton and Millfield. However, this precinct also extends into the remote and rugged parts of the City, south of Wollombi.
- A summary of the demographic data of these Precincts between 1991 and 2006 as sourced from ABS (2007) is provided in **Table 2.2**.

Table 2.2 – Summary of Demographic Changes 1991 to 2006

Demographic	Rural East		Rural West		Cessnock LGA		NSW Average	
	1991	2006	1991	2006	1991	2006	1991	2006
Population								
Total population ¹	1,920	2,352	2,736	3,329	43,859	46,019	n/a	n/a
Age								
% aged 17 and below ¹	30.2	27.3	30.5	25.7	29.4	26.2	26.5	24.0
% aged 18 to 65 ¹	60.8	62.1	61.4	62.9	58.7	60.8	61.7	62.2
% aged 65 and above ¹	9.5	10.5	8.0	11.3	11.8	13.5	11.9	13.8
Accommodation								
Occupied private dwellings ¹	612	816	911	1,312	15,017	17,231	n/a	n/a
Total dwellings ¹	677	895	1,297	1,714	16,331	19,112	n/a	n/a
% renting ¹	7.6	9.2	8.4	9.5	15.4	19.7	24.7	25.7
% purchasing ¹	22.9	37.8	17.7	28.9	22.6	30.1	22.5	27.3
% owned ¹	53.5	41.2	37.0	30.6	48.2	34.6	38.0	30.1

Table 2.2 – Summary of Demographic Changes 1991 to 2006 (cont)

Demographic	Rural East		Rural West		Cessnock LGA		NSW Average	
	1991	2006	1991	2006	1991	2006	1991	2006
Employment								
% unemployed ¹	12.8	4.2	17.3	8.8	13.6	8.5	11.2	5.9
Work force participation rate ¹	59.0	61.0	59.3	55.0	56.1	54.5	60.7	59.0
Income								
Weekly household income less than \$350 ¹	n/a	10.4	n/a	16.6	n/a	18.1	n/a	14.9
Education								
%age aged 15 years and over with no qualification ¹	61.1	47.3	62.3	49.6	65.6	54.1	58.8	45.6
%age left school before Year 12 or equivalent ¹	n/a	63.5	n/a	61.9	n/a	68.1	n/a	46.4
%age attending pre-school ¹	2.1	2.2	1.3	1.7	1.5	1.9	1.7	1.8
%age attending primary school ¹	11.5	10.5	11.1	9.0	9.6	10.8	9.4	8.5
%age attending secondary school ¹	7.4	7.4	5.6	6.5	6.9	6.4	7.1	6.8
Transport								
% of households with no vehicle ¹	3.2	3.3	6.5	3.5	13.0	8.4	11.2	15.0

¹ Data Source: Cessnock City Council 2008

The following information was taken from the Australian Bureau of Statistics from the 2006 census data regarding the Cessnock local government area:

Population

- In the year 2006 the population of the Cessnock local government area was 46,109 (with predictions indicating that the population will almost double in the next 25 years or so according to the Cessnock Shire Council 2006-2007 Annual Report). 22, 859 of these people were male and 23,347 were female;
- The population trend over time can be seen in **Table 2.2**

Age structure

- Nearly 40% of people were within the 25-54 age bracket, with the second most predominant age bracket being the 5-14 years at a little over 14% (as shown in **Table 2.2**).
- Median age of all people in the LGA was 37.

Indigenous People

- 3.5% of the people in the LGA were Indigenous, which was slightly above average compared to that of Australia as a whole.

Family Structure

- Nearly 50% of people over the age of 15 were married, 31.4% had never been married and 12.8% were divorced.
- 43.2% of total families in the region are coupled families with children, 36.1% are coupled families without children, 19.4% are one parent families (which is nearly 4% higher than the Australian average).

Home Ownership Status

- Almost 40% of people owned their houses (greater than the Australian average), 33.4% were in the process of being purchased and close to 22% of people rented their place of dwelling (less than the Australian average).

Employment

- Of the people in the Cessnock LGA that were employed, the top three occupations were: technicians or trades workers accounting for nearly 20% of the workforce, 14.6% are labourers, 13.3% were machinery operators and drivers making it a predominantly blue collar society.
- The greatest industry of employment was coal mining at 6.6% (compared to the State average of 0.7 % (Cessnock, 2008)), which was compared to the second highest which were cafes, restaurants and takeaway at 3.9%.
- The unemployment rate was 8.6% which was significantly higher than the Australian rate of 5.2%.

Income

- The median individual weekly income was \$358 which was more than \$100 less than the Australian average.
- The median household income was \$786 which was also significantly less than the Australian average.

Education

- Nearly 40% of people over the age of 15 have a year 10 or equivalent education.
- Over 20% of people had attained a year 12 or equivalent education.
- Slightly less than 10% only had a year 8 (or equivalent) or below education.

Urban Development

- Villages that are adjacent to the proposed Stage 3 extension area including Quorrobolong, Ellalong and Millfield all recorded a growth rate of more than 10% between 1991 and 1996.

2.1.5 Projected Urban Expansion

Prior to the recently proposed Local Environment Plan (LEP) 2008 amendments, the majority of medium density development in the LGA has been characterised by ad hoc infill development in older residential areas.

Areas to the north and west of the proposed Stage 3 extension are being considered as part of new urban development strategies in the Lower Hunter Regional Strategy (LHRS) (DoP, 2006).

The Cessnock LGA is identified as a major growth centre in the LHRS and has a projected capacity for 21,700 new dwellings over the next 25 years.

The exact locations of expansion areas will be defined through Cessnock local planning process which will incorporate the *Cessnock Social and Community Plan 2004 (Cessnock, 2004a)*, the *Cessnock Strategic Plan: Our People, Our Place, Our Future (Cessnock, 2004b)* and the *Cessnock Management Plan 2007 and Social Planning and Community Development Access Policy (Cessnock, 2004c)*.

In addition to the LHRS, the City Wide Settlement Strategy (CWSS) (Cessnock, 2004e) predicts greater demand than supply for residential and rural lifestyle lots around the Project Area. Limited residential growth around the periphery of the Project is suggested. The CWSS predicts a growth rate of 1.2 per cent per annum throughout the LGA until 2011, which is an overall population increase of 6250.

A projected 900 additional residents will be located in the Congewai Creek Catchment, of which the Project is also a part. The projected population increase would result in demand for an additional 360 dwellings in this period with the vast majority being in Rural 1(a) and Village 2(b) zoned areas.

The CWSS also identifies new urban areas proximate to the Project Area including Bellbird North, Bellbird Heights, Millfield-Paxton (Sanctuary Village) and Kitchener. These areas are expected to be developed between 2006 and 2061 (Cessnock, 2004e).

3.0 Cessnock Socio-Economic Planning

Cessnock City Council has established a number of socio-economic planning objectives and strategic plans for the area and the Lower Hunter Valley. An assessment of the Project against specific and applicable planning documents is outlined as follows:

Cessnock City Council 2007-2010 Management Plan

The *Cessnock City Council 2007-2010 Management Plan (Cessnock, 2007)* outlines five goals and identifies specific strategic actions to implement these Plans. The Plan also outlines a management framework and budget for Council activities in relation to community, environmental, social and cultural requirements.

An analysis of the Project against these objectives is outlined in **Table 3.1**.

Table 3.1 – Cessnock City Council 2007-2010 Management Plan

Management Plan Goal	Consistency with the Project
<i>1) To promote and provide quality services and facilities which address the needs of the community</i>	Implementation of the Project would result in the continued operation of a significant employer in the LGA. The Project would also create substantial economic flow on effects that would benefit the local community.
<i>2) To protect, enhance and promote our natural, developed and cultural environment</i>	Austar environmental management methodology follows the objectives of ecologically sustainable development. Any potential environmental impacts would be managed or mitigated as outlined in the EA. Rehabilitation measures are also integral to the Project.
<i>3) To actively foster the creation of employment and sustainable development opportunities acceptable to community and environmental standards</i>	The Project will provide continued employment for 200 people and up to 75 new positions when fully operational. Any potential environmental or social impacts posed by the Project would be managed in accordance with the measures outlined in the EA.
<i>4) To be a professionally managed and customer focused organisation which provides leadership throughout partnerships with the community</i>	Austar has an ongoing Community Consultation Program (established in January 2007) that integrates Cessnock City Council, the community and stakeholders.
<i>5) To identify needs, share information and provide opportunities for active participation and community consultation</i>	Austar has an ongoing Community Consultation Program (established in January 2007) that integrates Cessnock City Council, the community and stakeholders.

The Project is consistent with the five goals outlined in the management plan.

Cessnock Social and Community Plan November 2004 to November 2009

The *Local Government (General) Regulation 1999* requires all councils in NSW to develop a social and community plan. The *Cessnock Social and Community Plan November 2004 to November 2009* (Cessnock, 2004a) has been prepared in response to this requirement. The plan identifies community needs and proposes actions and strategies for their implementation.

While mining in the Stage 3 area is not expected to commence until 2012, an assessment of the Project against the outlined objectives is detailed in **Table 3.2**.

The updated *Social Planning and Community Development Access Policy* (Cessnock, 2004d) sets objectives for the implementation of the *Cessnock Social and Community Plan November 2004 to November 2009* (Cessnock, 2004a) (refer to **Table 3.2**).

Table 3.2 – Cessnock Social and Community Plan November 2004 to November 2009

Objective	Consistency with the Project
<i>Overall Objective</i>	
<i>The development of a range of community services and facilities that meet, and are responsive to, changes in the needs of people living and working in the City of Cessnock.</i>	Austar will continue to be a significant employer within the Cessnock LGA. The Project would also have substantial flow-on effects for the local and regional community.
<i>Objectives (Social Planning)</i>	
<i>Identification of the community services and facilities needed by people throughout the City of Cessnock and promotion of action to meet these needs.</i>	Extensive community consultation was undertaken for the Project to identify community issues, needs and values associated with the Project Area. Ongoing consultation has ensured that community considerations for the Project are identified throughout project planning.
<i>Objectives (Community Development)</i>	
<i>Assistance to local organisations, committees and groups to develop those services, activities and programmes relevant to identified needs and which are appropriately provided at the local level.</i>	Austar is committed to actively supporting the Cessnock community.

The Project is consistent with the objectives of the Plan.

Cessnock City Wide Settlement Strategy (CWSS)

The Cessnock City Wide Settlement Strategy (CWSS) describes settlement in the vicinity of the Austar Mine, predominantly within the 'Congewai Creek Catchment' as including rural lands (with dispersed rural dwellings) and the villages of Ellalong, Millfield and Paxton and Millfield.

During the preparation of the CWSS the community identified a range of rural and village lifestyle values which they wished to protect. These values include:

- village atmospheres and landscapes, with local general stores, surrounding green belts, agricultural or forested land and limited rural residential development;
- that they believe villages should not coalesce and should have distinct edges (however limited expansion of villages was supported);
- farming atmosphere should be to be maintained, with agricultural lots from 2 hectares to 40 hectares;
- rural and village lifestyles should be quite distinct from the vineyards district landscape elsewhere in Cessnock LGA;
- no industrial development (although land should be set aside for employment growth, types of employment uses should be limited); and
- heritage character should be maintained.

The CWSS predicted that there would be a greater demand than supply would be able to provide for residential or rural lifestyle lots in this catchment in future. The CWSS suggested the strengthening of the roles of the existing villages (e.g. Ellalong) by allowing some limited

residential growth around the periphery. Opportunities for rural lifestyle lots on already fragmented lands on the margins of existing villages were also recognised.

4.0 Potential Demands on Community Infrastructure

4.1.1 Community Infrastructure and Services

The proposed development is an extension of the existing Austar mining operations and will effectively involve a relocation of workers from the Ellalong Drift and Pit Top off Middle Road, Paxton to the proposed Surface Infrastructure Site. Consequently the proposed development is unlikely to result in an increased demand for infrastructure and services in the region.

The proposed development will require the extension of water, sewerage, electricity and telecommunications to the proposed infrastructure site. These works will be funded by the project and are not expected to place an increased demand on community resources.

The development traffic using Quorrobolong Road to access the proposed Surface Infrastructure Site will be predominantly passenger vehicles transporting workers to and from the site with only a small number of heavy vehicles per day required for deliveries. As a result the proposed development is not expected to have a significant adverse impact on the structural capacity of the road pavements or significantly increase the need for expenditure on the maintenance of the roads.

The traffic assessment undertaken by GHD (2008) for the proposed development indicated that the intersection of Wollombi Road and West Avenue in Cessnock has an existing traffic problem that could be improved through some intersection works. Austar has undertaken to make a contribution to these works.

4.1.2 Cumulative Impacts

Development of the proposed Surface Infrastructure site will increase traffic on Quorrobolong Road. This will impact on local residents as it will increase the traffic pressure into areas where there was previously little vehicular movement. Residents have indicated that this may increase the likelihood of traffic related incidents. This aspect has been addressed as part of the Traffic Study undertaken for the project by GHD (2008).

As the mine is not intending to increase production above 3 million tonnes of coal per year, there are unlikely to be significant cumulative consequences for the Cessnock LGA. Usually the cumulative issues associated with mining would be inclusive of dust, vibration, noise and subsidence, however, for this development other than the method used for coal extraction, nothing else has really changed in the processing methods or the amount of coal being processed.

5.0 Project Economic Contributions

The Austar Coal Mine is the sole remaining coal mine within the Cessnock LGA and has a long and productive history as part of the Cessnock community. Over the past 90 years the mine has, contributed significantly to the prosperity, employment and security of the local and surrounding areas. Austar currently employs approximately 200 people from the following LGAs:

- Cessnock/Singleton – 50%
- Lake Macquarie – 28%
- Newcastle – 9%
- Maitland – 13%

During Stage 3 Austar will continue to provide employment for 200 people with employment rising to approximately 275 people at full production of 3 Mtpa. The Stage 3 coal resource (based on 2007 coal prices) has an estimated export value of approximately \$5.6 billion. Approximately 16 million tonnes of this coal is accessible due to the use LTCC mining equipment and would not be accessible if conventional longwall mining equipment was used. It is estimated that based on 2007 coal prices, this additional 16 million tonnes of coal is worth approximately \$2.1 billion in export earnings.

At a production levels of approximately 1.6 Mtpa of product coal, Austar Coal Mine generates approximately \$200 million per year in revenue with this expected to increase to approximately \$400 million per year (based on 2007 coal prices) at full production of 3 Mtpa.

A significant component of this revenue is expended in the local, regional and state economies. This expenditure includes approximately:

- \$31.5 million per year in wages and salaries with this expected to increase to approximately \$46 million per year (2007 prices) at full production;
- \$6.3 million per year in contractors and consultants with this expected to increase to approximately \$11.6 million per year (2007 prices) at full production;
- \$17.3 million per year in repairs and maintenance with this expected to increase to approximately \$32.4 million per year (2007 prices) at full production;
- \$15 million per year in electricity and consumables with this expected to increase to approximately \$28.1 million per year (2007 prices) at full production;
- \$3.8 million per year in plant hire with this expected to increase to approximately \$7.1 million per year (2007 prices) at full production; and
- \$8 million per year in Local and State government charges and royalties with this expected to increase to in excess of \$15 million per year at full production.

Approval to mine Stage 3 will also enable the continued utilisation and therefore benefit from significant existing infrastructure that has been established at Austar Mine Complex over the 90 year life of the mine. This infrastructure has an estimated replacement value of approximately \$800 million and includes:

- Ellalong Drift and Pit Top, associated underground and above coal conveyance infrastructure and roadways;

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- the overland conveyor system to Pelton CHPP;
 - air ventilation infrastructure;
 - coal handling, preparation, stockpiling at Pelton CHPP and associated rail loading infrastructure;
 - Austar water management and dewatering infrastructure;
 - reject emplacement areas at Pelton CHPP and Aberdare Extended; and
 - Austar Branch Line.

Access to Stage 3 will also provide for the continued utilisation of South Maitland Railway which is currently used solely to haul coal from Austar Coal Mine coal. This infrastructure is also of significant value and represents a significant investment that current and future generations will benefit from, if Stage 3 is approved.

The potential social and economic impacts and benefits of the proposed development have been considered throughout the environmental assessment process. This has included ongoing discussion with government agencies and the community since the mine was purchased by Austar in 2005. This consultation process has included briefings, meetings, one on one discussion with land holders, the provision of information material in the form of flyers and website material. This consultation process in conjunction with risk identification and assessment has been used to understand the potential socio-economic impacts of the proposed development.

Consultation with land holders, community and government agency representatives will be ongoing throughout the life of the mine and will include liaison with and through the Community Consultative Committee. Consultation will also occur through the ongoing development of Subsidence Management Plans and Property Subsidence Management Plans that will be developed in consultation with land holders and relevant government agencies. These Plans will detail environmental control and mitigation measures to be implemented on a property by property basis.

As set out above, the continuation and extension of the Austar Mine Complex into the proposed Stage 3 mining area will provide considerable social and economic benefits for the Cessnock area, the State of New South Wales and Australia.

6.0 References

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