

Community Consultation Material



Appendix 4

ANVIL HILL PROJECT

Centennial Hunter Pty Limited, a wholly owned subsidiary of Centennial Coal Company Limited, proposes to establish an open cut coal operation west of Muswellbrook and approximately 10 km north of the township of Denman. The proposal, known as the Anvil Hill Project, is based on a significant undeveloped coal reserve that has the potential to provide coal to both domestic and export markets. The general area proposed for the mine is shown in the map below.



This information sheet has been developed to provide stakeholders with an overview of the project proposal and the process that the Company is embarking upon, as part of making a development application for the project.

> Who is Centennial Coal?

Centennial Coal Company Limited (Centennial) is an Australian company, established in 1989 and listed on the Australian Stock Exchange in 1994. Predominantly an energy coal producer, Centennial operates twelve coal mines in NSW.

The Company supplies coal both within Australia and overseas. More than 70% of the company's sales are to the domestic market, mostly to NSW State Government-owned electricity power generators. Centennial fuels almost 40% of the State's coal-fired electricity production.



Centennial Coal

> What is the proposal?

Centennial Hunter Pty Limited, a subsidiary of Centennial, is proposing to develop an open cut coal mine operation approximately 10 km north of Denman in the Wybong area.

Test drilling and geological survey work have confirmed a shallow coal reserve of some 150 million tonnes of coal, suitable for producing thermal (or steaming) coal for the export and domestic markets.

Centennial Hunter intends to apply for a 21 year approval to build the project and mine up to 10.5 million tonnes per year. Subject to the mine gaining relevant government approvals, Centennial Hunter has contracted to commence supplying Macquarie Generation approximately 2.5 million tonnes per year of thermal coal for its Bayswater and Liddell power stations for an initial 12 years.

At this early stage the conceptual mine plan has been developed in consultation with Department of Primary Industries and includes:

- Open cut mining including progressive rehabilitation within a number of pits over the life of the mine.
- Using hydraulic excavators and trucks as the main mining method.
- A designated area for infrastructure, which will include a washery, coal handling facilities and stockpiles, maintenance facilities, offices, bathhouse, and parking.
- A new rail loop with overhead coal loading bin to enable all coal product to be transported to market by rail using the Muswellbrook – Ulan railway line, located south east of the infrastructure area.
- Vehicle access to the site via Wybong Road.

Details of the plan will be presented to all stakeholders including the community, and feedback sought.

> Who are the stakeholders?

The stakeholders for the Anvil Hill project include neighbours, local residents and the broader community, government agencies, Muswellbrook Shire Council and investors. The views of all stakeholders are an important consideration in proposing a development that maximises efficient recovery of a state significant resource whilst balancing this with social and environmental issues.

> What is the approvals process?

The importance of the coal resource to NSW makes the Anvil Hill Project a 'state significant' development which requires the approval of the NSW Minister for Infrastructure, Planning and Natural Resources. The Minister will make his decision based on advice and recommendations from all relevant government agencies, and after considering stakeholder submissions during the approvals process.

Local stakeholders will have an opportunity to have their views considered during the ongoing community consultation program which is scheduled to commence in early 2005. This will contribute to the social impact assessment and form an important contribution to the preparation of the EIS.

The following flow chart provides a summary of the process Centennial will follow in seeking approval for the proposed development.



As you can see from the chart, Centennial is at the beginning of this approvals process and is currently undertaking preliminary project planning and preparing background information in relation to the project.

Following the commencement of the community consultation program, the next step in the process will be a Planning Focus Meeting with relevant government agencies, which is likely to be held in March 2005.

The EIS is being undertaken by Umwelt (Australia) Pty Limited – environmental consultants – and will include a comprehensive assessment of the environmental and social impacts associated with the project. Consequently, a range of specialist studies will be undertaken as part of the EIS including flora and fauna, noise and vibration, air quality, heritage, visual amenity, water management and transport.



> How is the community involved?

Centennial places a strong emphasis on community and environmental issues and is committed to sound community consultation and environmental management. Consultation with the community and other stakeholders as part of the preparation of an EIS is an important part of the project planning process. For this reason, independent social impact assessment specialist, Coakes Consulting, has been engaged to build on previous consultation work undertaken with the local community in the Wybong area.

The ongoing community consultation process will be undertaken to ensure that the community is well informed about the Company's plans and that all stakeholders' views are considered in the preparation of the EIS for the project.



*We look
forward to
your input*

> Further information

If you would like further information on the proposal or would like to make a time to meet with someone to discuss the proposal in more detail, please contact Jacqueline Stokes, Coakes Consulting on 0417 454 727 or Roland Lee, Project Manager for the Anvil Hill Project on 6543 2800.



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Community *comment*

Community issues associated with the Anvil Hill Mine Project

Centennial Hunter Pty Limited, a subsidiary of Centennial Coal Company Limited, is proposing to develop an open cut coal mine approximately 10km north of Denman in the Wybong area, NSW.

As part of the approval process and preparation of an Environmental Impact Statement (EIS) for the project, stakeholder input is being obtained as part of a formal Social Impact Assessment and Community Consultation Program. An information sheet outlining the project (Community Information Sheet No.1 — January 2005) was distributed as part of the first phase of the program.

The Social Impact Assessment and Community Consultation Program commenced in February 2005, with a phase of consultation with local residents and landholders located in proximity to the proposed development, in the Wybong area.

This information sheet provides feedback on the consultation process to date and provides a summary of the issues raised. These issues were raised through two consultation mechanisms:

- **Personal Interviews**

Interviews were undertaken with 105 local residents/landholders residing in proximity to the proposed development. These interviews included a short questionnaire and qualitative discussion in relation to the proposal. These issues are discussed in the first part of this information sheet.

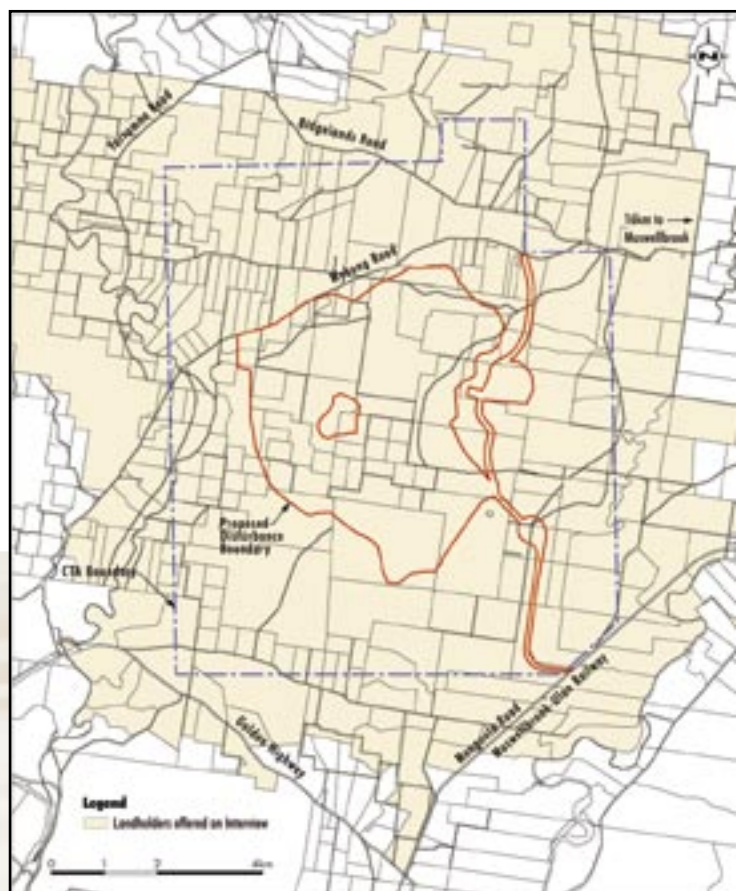
- **Community Group Presentations**

Presentations have been given to the Water Users Group, the Wybong Hall Committee, the Muswellbrook Rotary Club, the Lions Club of Muswellbrook, and the Denman Rotary Club.

- **Random Community Survey**

of 400 households in the Shire of Muswellbrook. Key survey findings are discussed in the second part of the information sheet.

Geographic extent of landholders invited for interview



> Personal Interviews

In relation to the personal interviews, residents/landholders were contacted by telephone and asked if they would like to participate in the process. If in agreement, an appointment time was made. A total of 105 personal interviews were undertaken.

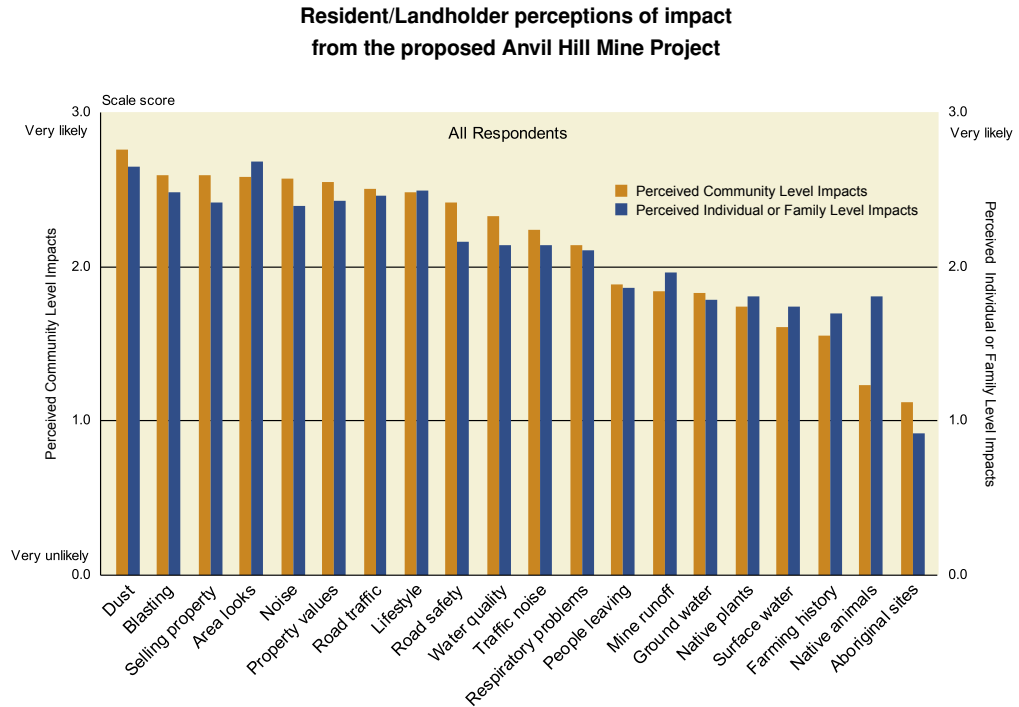
As part of the interview process, participants were asked a number of questions about their issues in relation to the proposal in both quantitative (a short questionnaire) and qualitative form (through informal discussion). A total of 77 quantitative surveys were completed.

The findings from the interviews provide a summary of the type of issues and their perceived importance to the community. Specifically, residents were asked how likely they thought changes from the proposed mine would directly affect themselves, their family and their property (Perceived Individual or Family Level Impacts) or how many people they thought would be directly affected by each of the perceived potential changes from the proposed mine (Community Level Impacts).

The following sections provide a summary of the issues identified during the consultation process. To assist in explanation, information obtained from the short survey has been supplemented with community responses provided during the personal interviews. Perceptions of individual and family level impacts have been distinguished where relevant. All those interviewed resided in general proximity to the proposed mine development.



As indicated in the graph, there was some similarity regarding the issues participants expressed as individual or family level impacts and those perceived as impacting the broader community. Issues such as dust, blasting, visual amenity, lifestyle impacts and property value and relocation featured prominently in the analysis.



Issue Themes

The key issues emerging from the consultation are summarised below:

- Perceived Impact on Physical Environment
 - Visual Aesthetics
 - Dust
 - Water Quality
 - Noise
 - Blasting
 - Flora and Fauna
 - Cultural Heritage
- Perceived Social Impacts
 - Lifestyle Changes
 - Sense of Community
 - Uncertainty
 - Relocation
 - Property Value and Acquisition
 - Road Traffic and Safety
 - Community Engagement and Information Provision



PERCEIVED IMPACT ON THE PHYSICAL ENVIRONMENT

Several issues were raised that related to perceived impact on the physical environment. One of the significant components of this theme was impact of these issues on the physical and emotional well-being of participants interviewed.

Visual Aesthetics

Visual impacts associated with the proposed mine development were raised by several participants. Residents spoke of the natural beauty of the region and the almost 'iconic' nature of Anvil Hill:

"To us, it's (Anvil Hill) comparable to Ayers Rock"

"anything that destroys the natural habitat is not good"

"it spoils it, wrecks it, ruins it"

Dust

Dust was also raised as a key issue by participants, with comments raised regarding the impact that dust in the area may have on health and current respiratory problems:

"if they are creating all the dust there is no way I can stay here"

"I've got nothing against mines but, fair dinkum, they ruin the air quality"

"I think coal dust doesn't do you a lot of good"

There were also concerns surrounding the impact on other industry sectors, such as the farming and horses:

"we can't have the horses breathing dust"

There was also a recognition by residents that there is a cumulative dust impact due to the presence of mining in the region and other industry. This recognition contributed to concern that there would be difficulty in determining the dust background levels in relation to the current mine proposal:

"it'll (the mine) contribute to an already dusty area"

"the whole of Muswellbrook's in dust now, let alone when the mine goes ahead"

Some participants commented on the frequent dust storms in the area;

"I regularly drive through a dust storm near an existing open cut mine and everyone complains and nothing is done about it"



Water Quality

In relation to water quality, contamination of rain water tanks from dust was raised by a number of residents:

“we’re comfortable with our water now, but we’ve become worried about the effects on it”

“we have dust now in our water tanks”

“the well gets discoloured, sometimes orange”

Other residents were more concerned about general water quality issues in the area and the cumulative impact of mining on local river systems:

“look at the river, it is absolutely lifeless once you get to where the mines are, go further up the valley and see the fresh green streams”

Noise

There were also concerns raised regarding the impact of noise. Specific issues related to the possibility of increased noise at night:

“it’s very quiet here at night — there’s no background noise — we’ll hear ‘em every time they reverse”

Some residents remarked how noise carried in the area due to temperature inversions and the unique geography of the area. As several residents remarked:

“impact will be high because it is a valley”

“prevailing wind will mean it will carry across the property

“in this quiet valley you can hear everything ... they are going to have a lot of trouble with noise”

More specifically, traffic noise was also perceived as a problem

“particularly at night, from rail and shift workers’ cars”

Additionally, there was concern over the cumulative impact of noise from multiple sources and whether this would distort the background level and the impact on local business, for instance:

“we’ll lose value on our cattle when we yard them because of stress from noise”



Blasting

The perceived impact of blasting was also raised as a key impact, with a general negative sentiment expressed among residents interviewed. In particular, concerns regarding omitted odours and the impact of blasting on surrounding man-made structures, such as houses and dams was frequently raised:

“It will be a problem if the dams crack up when they start blasting”

“I would say that it would crack my house”

“it will have an impact because of the fault lines”

“it will impact because we anticipate road closure disruptions”

Impacts on Flora and Fauna

Several issues were raised regarding the potential impact on flora and fauna and associated impacts on properties. For example, residents frequently commented on the impacts of kangaroos on their property. There was the perception that the approval of the mine would result in an increase in the kangaroo population on private properties.

“the place is over run by them all ready” (kangaroos)

“the mines don’t look after them (kangaroos) and Parks and Wildlife don’t control the numbers — they go onto neighbouring properties and eat the crops. The people using fauna as a reason to stop the mines don’t have land”

Some residents raised concerns over the impact that the proposed mine may have on other native flora and fauna:

“there are big bird and marsupial populations on our properties”

“they will be walking an environmental tightrope”

In addition, there were concerns over the spreading of ‘tiger pear’, in the area, and there was a perception that this issue would not be addressed thoroughly.

Cultural Heritage

There was mixed sentiment among those interviewed regarding the possible impacts on Aboriginal artefacts in the area. There was a tendency for residents to be unaware of the existence of artefacts in the area, and concern was expressed regarding the possible threat of disturbance due to proposed mining activities.

PERCEIVED SOCIAL IMPACTS

Lifestyle Changes

The impact on lifestyle and the potential for lifestyle change was a key issue, as illustrated by the following quotes:

“we won’t be able to sit outside and enjoy our property”

“don’t want to come home from working in a mine to sit out on the verandah at night to watch it working”

Sense of Community

It was evident that a strong sense of community exists in the Wybong area and concerns were raised as to how this would be affected by the proposed mine development.

“How are my kids going to adapt to being in town?”

“it’s a split up of the whole family community. These people have known nothing but farming. It’s a close knit community out here”

“I haven’t moved in 37 years”

“this mine will take a lot of people from the community”

“we’re going to lose neighbours who look out for us”

“we’ll lose a lot of our friends”

Uncertainty

A further lifestyle issue related to uncertainty. Some residents expressed agitation, confusion and fatigue over not knowing for years how the proposal would affect the community and themselves personally. Some residents referred to having to defer farm maintenance and investment decisions as a result. As residents outlined:

“it annoys me the that they have the power to stuff up your life for so long”

“the sooner we get an answer the happier people will be and they can settle down”

“your life’s in limbo the whole time”

“are we going to be in the area of affectation? ... six years in limbo”

“we don’t want to move and if it doesn’t go ahead and we’ve sold, we’ve uprooted ourselves for nothing”

“it’s really unsettling”



Some residents also felt that the proposal would significantly alter their personal life plans:

“we’ll have to shift — you can’t live next door to a coal mine. My family’s been here for 50 years”

“my whole retirement plan has been put through the shredder”

“we moved here to get away from the mines — if we knew mines were coming we wouldn’t have come here”

“we don’t want our kids growing up next to a mine”

Relocation

Other residents were concerned about the personal costs of potential relocation and the ability to replicate lifestyle in the area elsewhere:

“purchase of property doesn’t take into account the cost of relocation”

“there’s nowhere else in the area you can afford to by”

“there’s a supply shortage and Sydney people have pushed prices to artificial levels”

“I don’t know if I’ll be able to find another place to suit what I am doing”

“where do we go to live? ... How can we afford land near town?”

“the children don’t want to leave the land”



Property Value and Acquisition

The impact on property value and a residents' ability to sell their property was seen to be a critical issue for those interviewed. There was a perceived concern that it would be difficult to sell properties in the future with a mine established in the area.

"This does concern me — if the mine doesn't buy me out who else is going to?"

"I don't want to sell but I don't want to stay and find out later that it's devalued and dust affected"

Specifically, it was perceived that properties on the outskirts would be likely to have a reduced property value and thus would be difficult to sell.

"it depends on whether you are in the mine area or not"

"depends on where you are — sitting on the fringe is not good ... if the mine doesn't buy you — no one else will"

"if you get left on the edge then you would be most affected"

There was also a sense of powerlessness and belief that the company held 'all the cards' in relation to the potential for property acquisition:

"there's only one buyer around here"

"the only one who wants to buy is the mine"

"If it goes ahead and they don't buy me out you'd have trouble selling to anyone else"

"A property up the road was about to sell but the buyer pulled out when they heard about the mine"



Increased Road Traffic and Road Safety

There were specific concerns raised by those interviewed regarding the increase of construction traffic, and subsequent increases in noise. The issue of potential local road changes was also raised by some residents. Additional road traffic, associated with a mine workforce, was perceived as a pervasive community issue and was seen to have a further impact on road safety. It was suggested that roads in the area were not able to support traffic increases, and there were concerns outlined over the already high rate of accidents in the region.

Community Engagement and Information Provision

It was evident in speaking with residents that several community groups have an active interest in the proposed mine development. These groups have expressed a desire for comprehensive and meaningful information to be communicated on the proposal.

Additionally, at a local landholder level, there was interest in obtaining specific information in relation to potential impacts on private properties. As one resident outlined:

“That’s the main thing — to be kept in touch and not be left in the dark”

Many landholders were appreciative of the ability to have their individual issues heard and recorded.

There was also a general sense of weariness among many residents due to the history of the project in the community. Given the presence of other mining projects, there was a sense that the project was ‘a done deal’, and that the development would go ahead despite community concerns.



Level of Concern

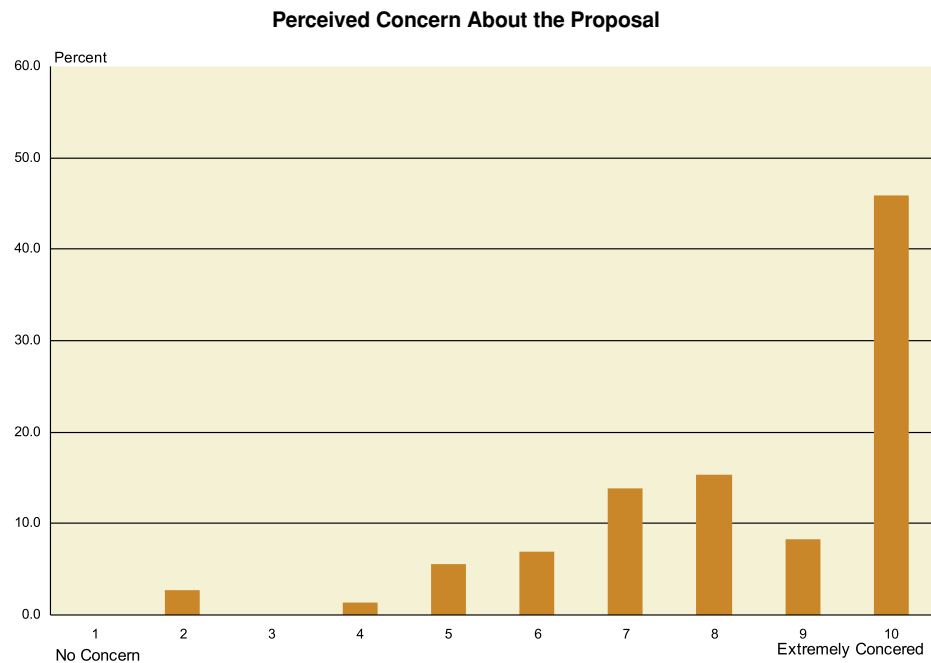
In relation to level of concern, concern among residents in relation to the proposal appeared relatively high, with almost 50% of those interviewed expressing extreme concern in relation to the project. The following qualitative responses summarise this sentiment:

“it (mining) buggers everything up”

“it takes one of the few areas around Muswellbrook not affected by mining and turns it upside down”

“the mining has been good for the town, but it’s ruined the place”

“We’re not opposed to the mine — but we don’t want to live next to it”



> Random Telephone Survey

To obtain the views of the wider community, a random telephone survey was undertaken of 400 households in the Shire of Muswellbrook in April 2005. The survey examined community attitudes towards the proposal, and was based on a structured questionnaire that identified:

- a. Community knowledge and awareness of the proposal.
- b. Community beliefs about the potential benefits and disadvantages of the proposal.
- c. Level of community support for the proposal.

The following dot points and figures summarise the key findings of the survey:

Survey Demographics

- Age range of 15 to 88 years, with mean age of 49 years.
- 40% male, 60% female.
- 49% had been resident at their current address for less than 10 years, with 31% resident at their current address for less than 5 years.
- 78% of those surveyed were resident in Muswellbrook, and a further 8% resident in Denman.
- 73% lived in a household where no other household member currently worked in the coal industry.
- 12% currently worked in the coal industry, with a further 9% having worked in the coal industry in the past.



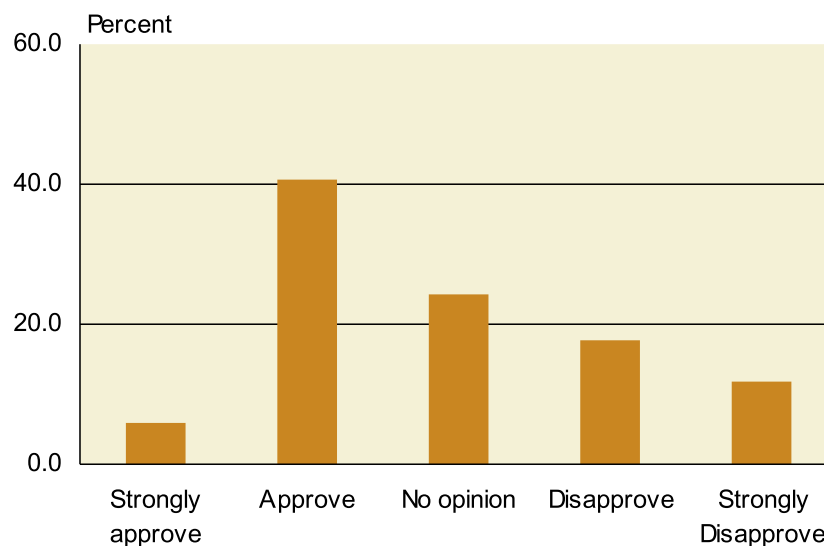
Awareness and Knowledge of the Anvil Hill Mine Proposal

- 47% of survey respondents had heard of the Anvil Hill coal mine proposal.
- 67% of respondents in Denman and Wybong Area were aware of the proposal, with 43% aware in Muswellbrook.
- Knowledge of the proposal in the wider community was limited, with residents in the Denman area (30%) perceived their knowledge on the proposal to be greater than those in Muswellbrook (19%). Specifically;
 - 69% had no knowledge of where the proposed mine was located;
 - 21% indicated that they did not know anything about the type of coal operation;
 - 20% believed that the mine would be an open cut coal mine;
 - 79% of respondents indicated that they did not know how the coal from the mine would be used i.e. domestic and/or export markets.
- 57% of those surveyed indicated that they had average or below average knowledge of coal operations and mining generally.

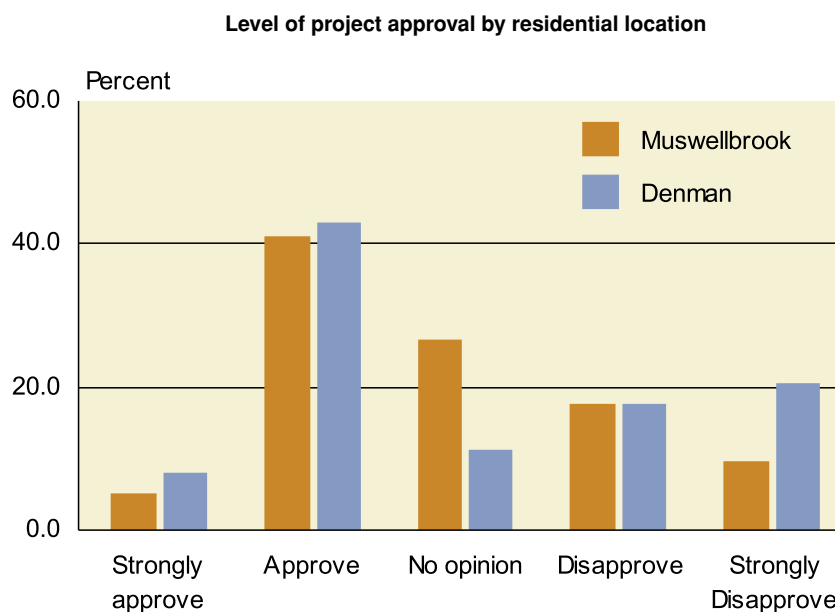
Acceptance of the Proposal — Disadvantages and Benefits

- 46% of respondents indicated they either strongly approved or approved of the mine proposal, 24% expressed no opinion and 29% disapproved or strongly disapproved.

Level of approval of the project



- Attitudes of residents surveyed in the Denman area have a tendency to be more polarised than the attitudes of Muswellbrook residents.



- The most frequently reported disadvantages associated with the proposal included:
 - Increase in dust from mining operations (77%).
 - Increase in noise from the mine (52%).
 - Increase in respiratory conditions (51%).
 - Mine run-off to creeks/rivers (37%).
 - Blasting (36%).
- The most frequently reported benefits of the proposal included:
 - Employment (75%).
 - Support for the local economy, including local businesses (43%).
 - Additional provision of community infrastructure and services (16%).
- Among those who disapproved of the project, 49% believed the proposal would provide benefits in relation to employment.
- Residents in proximity to the proposed mine development were more likely to report changes in 'how the area looks' and a change in 'lifestyle' as important impacts.

Community Engagement and Information Provision

- Most of those surveyed preferred mechanisms for providing information about the proposal to the wider Muswellbrook Shire community such as:
 - Local newspaper.
 - Letterbox drop of information.
 - Local radio.
- 18% of the wider community indicated an interest in being provided with additional information about the proposal, with the two main topic areas being:
 - Information about the commencement of construction and/or mining.
 - Workforce composition — whether local or external people would be employed in the construction and operation of the mine.

> Conclusion

In conclusion, the consultation process to date has provided insight into the issues of importance and relevance to residents and landholders in the Wybong community and the broader Muswellbrook Shire community.

Analysis of interview data has indicated that there is a very strong sense of community within the area and positive regard for farming, cultural history, and the natural beauty of the region. This is reflected in the perceived impact of the proposal on lifestyle, raised at both an individual, family and community level.

Potential impacts associated with the proposed mine development of concern to community residents also included dust, noise, traffic, blasting and impact on property values and residents' ability to sell their properties. These issues contribute to a general negative sentiment held by the community regarding the proposed development.

Umwelt, the environmental consultants on the project, are continuing the detailed studies required as part of the Environmental Impact Statement. Further feedback will be progressively provided to the community, on the outcomes of these studies. Community feedback will also be sought on the study outcomes and proposed community and environment management procedures to address the issues, prior to completion and lodgement of the Environmental Impact Statement. The community will also be kept informed of the project's progress through the company's regular newsletter.





Feedback

We have enclosed a fax feedback form with this information sheet to obtain any comments or feedback you may have on the information presented. If you have additional comments or feel we have omitted any issues, please note your issue on the form provided and fax to Coakes Consulting on 02 4862 3936.

Thank You

Our thanks go to all those people who gave up their time to meet with us. We also take the opportunity to thank those who participated in the telephone survey.

*We look
forward to
your input*

> Further information

If you would like further information on the proposal in the meantime, please don't hesitate to contact:



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Environmental Studies *overview*

Introduction

Centennial Hunter Pty Limited (Centennial), a subsidiary of Centennial Coal Company Limited, proposes to establish an open cut coal operation approximately 10 km north of Denman and 20 km west of Muswellbrook in the Wybong area, NSW.

Since February 2005, Centennial has undertaken extensive consultation with over 150 stakeholders including personal interviews with local residents living in close proximity to the site, Council, government agencies, and presentations to community organisations with an interest in the proposal. A random telephone survey of 400 households across the Shire of Muswellbrook was also undertaken.

Key environmental and social issues have been identified through the consultation process. Environmental issues raised include air quality, noise and blasting, visual amenity, water quantity and quality and ecology. Social issues included lifestyle changes through uncertainty and relocation, sense of community and place, property value and acquisition, road and traffic safety, impacts on community service provision and the need for involvement and information. These issues were summarised in Community Information Sheet (No. 2) which was distributed in July 2005.

This information sheet (No. 3) summarises the key findings of the environmental studies that have been undertaken to date as part of the Environmental Assessment, being prepared by Umwelt (Australia) Pty Limited (Umwelt), including the Socio-Economic Assessment being undertaken by Coakes Consulting.



Key Features of the Anvil Hill Project Proposal

Conceptual plans for the Anvil Hill Project were initially included in Community Information Sheet No.1, distributed in January 2005 (copies of this information sheet are available from the Anvil Hill Project Office). Since that time, the Project design has been refined taking into account a range of factors, including the outcomes of the environmental studies and issues raised by stakeholders during the consultation program. Changes to the Project design include the alteration of the proposed mining area to exclude Big Flat Creek and a further area of vegetation around Anvil Hill.

The Project is proposed to extract up to 10.5 million tonnes per annum (Mtpa) of coal suitable for both domestic and export markets. Approval will be sought for a 21 year project life, concurrent with the duration of a mining lease to be sought for the operation. If the Project is approved, Centennial plans to begin commercial production by early 2008. It is anticipated that the Project will provide ongoing employment for up to 240 people, when in full production.

The Project comprises the design, construction, and operation of:

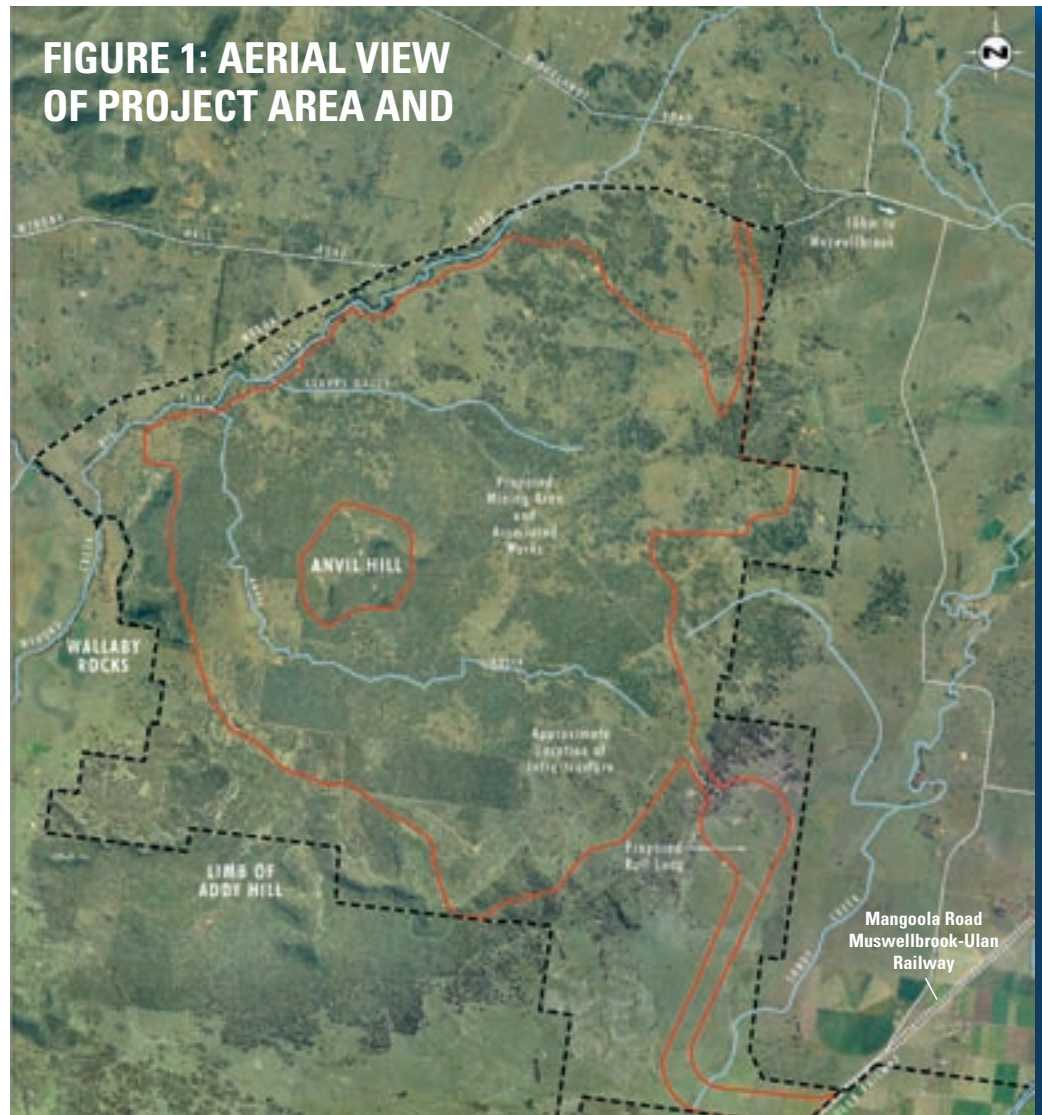
- An open cut coal mine
- Coal handling and crushing facilities, a coal preparation plant (washery) and stockpile areas
- Water management, supply and distribution infrastructure
- Handling and placement of overburden (rock)
- Mine access road including a new intersection on Wybong Road, internal access roads and haul roads
- Infrastructure including offices, staff amenities, workshop, conveyors, and ancillary services
- A rail spur, rail loop and rail loading infrastructure for the transport of all product coal.

Key features of the proposed layout are shown in Figure 1, opposite.

To achieve consistent coal quality, it is proposed to operate four pits concurrently for most of the mine life. The proposed truck and shovel mining method will provide for a flexible and efficient operation in which environmental impacts will be minimised. Rehabilitation will be undertaken progressively throughout the life of the mine and will be scheduled to commence as soon as possible after mining, to minimise the disturbed area at any time.

ANVIL HILL PROJECT

**FIGURE 1: AERIAL VIEW
OF PROJECT AREA AND**



Legend

- Proposed Disturbance Area
- Project Area
- Roads
- Creeks



The Project Approval Process

The following flow chart provides a summary of the process being followed by Centennial in seeking approval for the Anvil Hill Project:



As part of finalisation of the EA, further consultation with the community is being undertaken to provide feedback on the outcomes of technical studies and to seek input on proposed management strategies. This includes meetings with residents/landholders and key stakeholder groups.

Information and feedback collected during the consultation program will also be reported in the Socio-Economic Assessment, as part of the Environmental Assessment. This section will outline the likely social and economic impacts and benefits of the Project on the community and will discuss the issues raised by residents during the consultation phase.

This will not be the only opportunity for further input, as community members will have an opportunity to provide comments on the proposal once the final Environmental Assessment has been submitted to government and is publicly exhibited (*refer to process chart*).



Environmental Studies

The following sections outline the key findings of the technical studies undertaken to define the potential impacts of the proposed Anvil Hill Project. Also provided are the key management commitments designed to minimise such impacts.

Environmental impacts have been modelled for stages in the conceptual mine plan at indicative Project years of 2, 5, 10, 15 and 20.

AIR QUALITY

The potential for air quality impacts was raised as a key issue during the consultation process, particularly in relation to dust deposition (dust that settles onto the ground) and dust concentration (dust suspended in the air). A detailed air quality assessment has been undertaken by air quality specialists (Holmes Air Sciences) to assess potential air quality impacts.

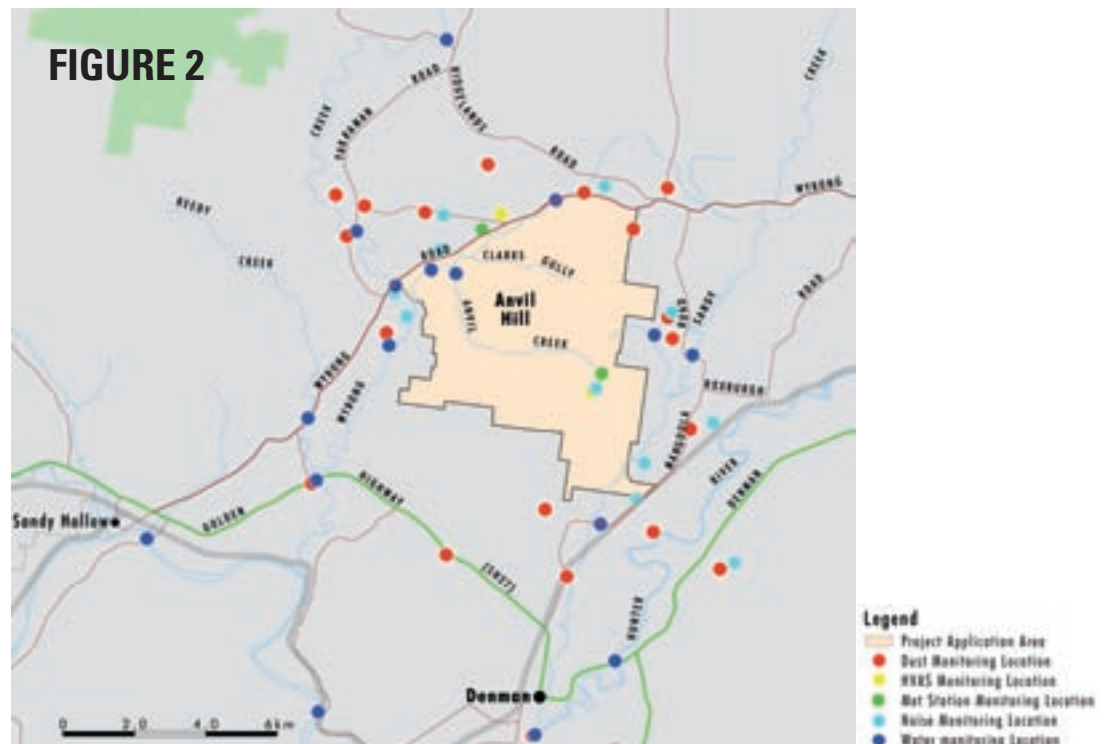
The main focus of this assessment is on the potential effects of dust emissions. In relation to dust emissions, fine dust particles have the greatest potential to affect human health as they have more potential to be inhaled into the respiratory system (measured in dust concentration levels). Larger dust particles can cause nuisance effects by depositing on surfaces. The air quality assessment considers both the fine particles (less than 10 thousandths of a millimetre) referred to as PM10 and the total suspended particulates (TSP).

The assessment is based on a conventional approach following the procedures outlined by the NSW Department of Environment and Conservation (DEC).

DEC specifies the air quality criteria for deciding which properties are likely to experience adverse air quality impacts. These criteria relate to both total airborne dust and the dust generated by the Project. In other words, consideration of background levels (dust from all other sources) is made when assessing impacts.

With this in mind, a dust monitoring network was established early in the Project to measure existing dust levels (background levels) within the local area. This includes both dust deposition and dust concentrations as TSP and PM10. Dust deposition has been monitored since 2002 using 20 dust deposition gauges located in the area surrounding the Project, and dust concentration has been monitored since 2004 using two PM10 and one TSP gauge (see Figure 2).





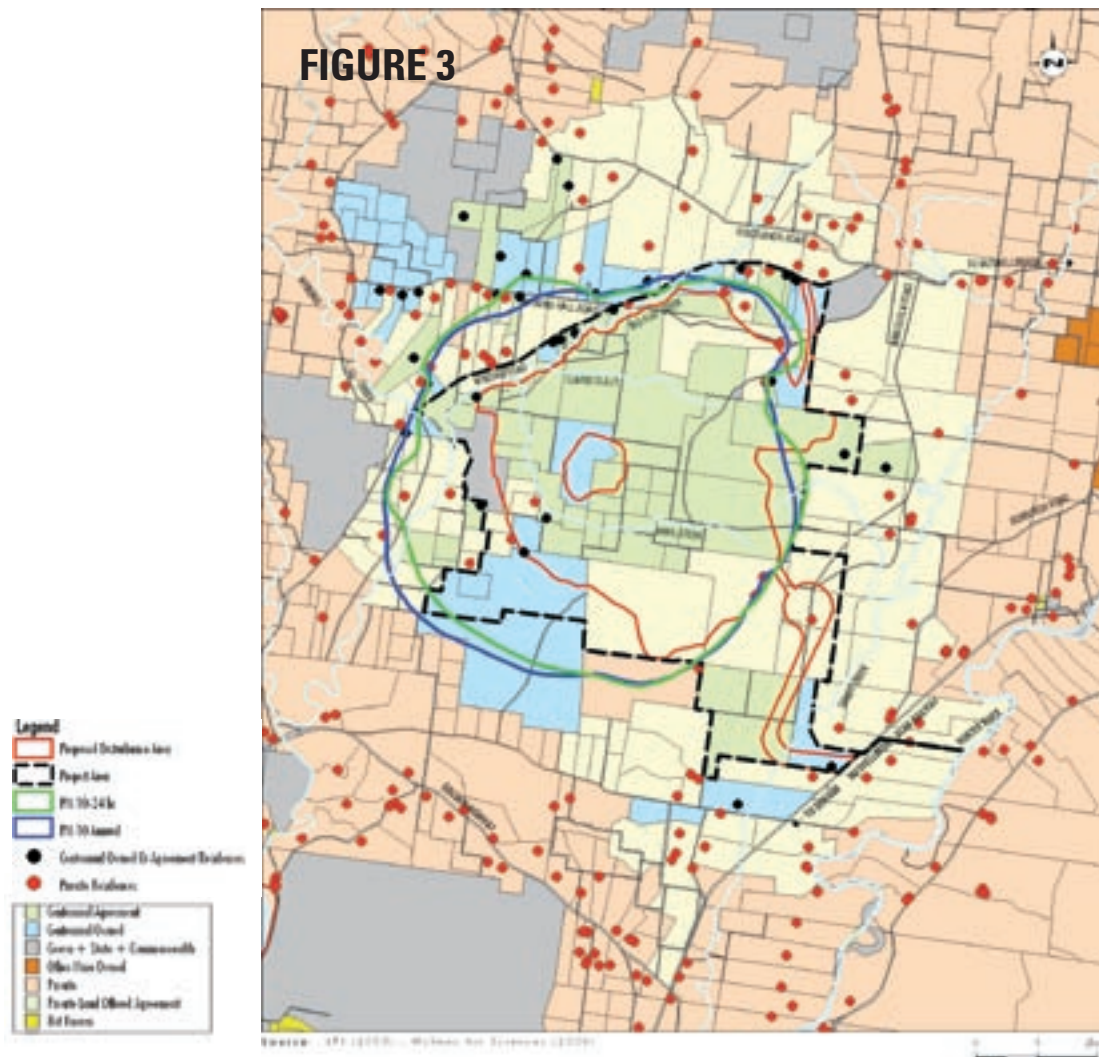
In addition, two weather stations have been collecting meteorological data in the vicinity of the Project area since 2002. These stations measure wind speed, wind direction, rainfall, temperature, humidity, and atmospheric stability.

A computer-based dispersion model has been used to predict dust concentration and dust deposition levels due to the potential dust generating activities associated with the mine. The dispersion modelling accounts for the local meteorology and terrain information and uses dust emission estimates to predict the air quality impacts for the five representative mine stages over the planned life of the mine. The stages were selected to cover a range of mine production levels and active pit locations.

The calculated emissions take account of proposed air pollution controls and mitigation strategies including passive controls such as those built into the mine plan (stockpile size and alignment, length of haul roads etc) and active controls which include the intensity of watering and extent of rehabilitation. These mitigation strategies are further outlined below.

Key Findings

- The existing dust deposition and dust concentration levels measured in the area surrounding the Project are considered typical of a rural area remote from industrial emission sources. Air quality in the area is largely determined by emissions from natural sources, road traffic and residential and agricultural activities. From time to time particulate matter levels would be expected to be affected by smoke from bushfires and dust from regional dust storms.
- Based on assessment to date, worst-case dust predictions are shown on Figure 3. The contours shown on Figure 3 correspond to the relevant DEC criteria for maximum 24-hour average PM10 and annual average PM10. Centennial is offering each of the private landholders predicted to be affected, to purchase their properties or to negotiate another appropriate outcome.



- Cumulative effects of dust emissions from the nearest existing and approved mining operations located approximately 12 km east of the Project area will make a very minor contribution to predicted total dust levels in the area surrounding the Project.

Key Management Commitments

Centennial is committed to implementing all feasible measures to reduce the extent of dust impact on the local community. For this reason, the following key management commitments have been incorporated into the Project:

- Use of water carts on active haul roads and unsealed working areas.
- Use of water sprays on coal handling transfer locations and on coal stockpiles.
- Only the minimum area necessary for the mining process will be disturbed at any time. Reshaping and rehabilitation of mining and overburden emplacement areas will be undertaken as soon as practicable as mining progresses.
- Drills will be fitted with dust suppressant measures.
- Appropriate blast design to minimise dust emissions.
- Cover crops will be established on any topsoil stockpiles that are not planned to be used in less than six months.



- Continued monitoring of meteorological conditions and consideration of weather data in the timing of blasts to minimise the impacts of blast generated dust.

Centennial is also committed to continuing the current monitoring program and reviewing results regularly over the life of the operation to verify that predicted levels are not exceeded and dust controls are effective.

There will be ongoing liaison with the local community regarding relevant mitigation strategies, such as installation of filters on rainwater tanks. As noted above, Centennial is offering an agreement with landholders that are predicted to experience dust levels above the relevant DEC criteria at some stage during the life of the mine, subject to Project approval.

NOISE AND BLASTING

Potential noise and blasting effects from the proposed Anvil Hill Project were raised as key issues during the consultation process, and a detailed noise and blasting assessment was undertaken by independent specialists (Wilkinson Murray). This study assessed the potential noise and vibration impacts associated with all aspects of the proposal, including construction, mining and rehabilitation activities, blasting, and transportation activities.

The assessment has been conducted in accordance with the government's required standards, including DEC's Industrial Noise Policy and Environmental Criteria for Road Traffic Noise (ECRTN). Operational noise assessment involves comparison of predicted noise levels from the Project against existing background noise levels.

The existing background noise levels around the Project have been monitored on several occasions, both by means of unattended noise logging and by attended measurements. These were undertaken during a range of seasons from 2002 to late 2004.

Operational noise levels at residences were calculated using a computer model endorsed by DEC for environmental noise assessment. The model takes account of noise attenuation due to geometric spreading, atmospheric absorption, shielding and the ground conditions and vegetation. It also predicts noise levels under various meteorological conditions, defined by a combination of temperature gradient, wind speed and wind direction.

An important atmospheric factor that influences noise impacts is temperature inversion. This results from variations in temperature occurring in layers in the atmosphere that can increase noise impacts. The Industrial Noise Policy includes a methodology for estimating the effect of inversions, however the noise modelling for the Anvil Hill Project has considered existing temperature inversion conditions. As a result, the calculated noise levels are higher than would have been predicted using standard Industrial Noise Policy methods, more closely representing expected actual conditions.

Noise levels have been calculated under a total of 41 meteorological conditions for 10 operational scenarios (day and night for the five mine stages) at all residences up to 8 km from the Project area. For indicative Project Years 2, 5, 10, 15 and 20 a typical "worst-case" scenario was modelled, with equipment operating in locations that were likely to generate the highest noise levels at nearby residences. Where equipment could be operating in more than one position around the Project, noise levels have been calculated at a range of possible positions, and the highest noise level used as the worst-case.



- Off-site rail transportation is not expected to increase existing rail noise levels above the relevant criteria.
- All private residences with potential blast impacts above the relevant vibration and overpressure limits are located within the area affected by dust and noise impacts.

Key Management Commitments

The noise and blast modelling have been refined through a series of changes to enable consideration of the feasibility and effect of a range of potential control measures. As a result, Centennial has committed to incorporation of the following key controls as part of the Project:

- The coal preparation plant and associated infrastructure will be located in positions on the site with natural topographic shielding, with these locations being specifically chosen to reduce noise and visibility impacts to adjacent residences.
- The coal preparation plant and crushers will be clad to reduce noise and shielding will be installed on conveyors.
- The rail loop will be located to use natural topography for shielding as much as possible. In addition, a noise barrier will be constructed on parts of the track that are exposed to nearby residences.
- At night, haul trucks will be restricted to operating below the maximum elevation of the overburden emplacement areas where possible.
- Blasts will be designed to meet the relevant criteria for protection of the 500 kV transmission line and also to minimise impacts on the rockshelters and on Anvil Rock.

In addition to the regular noise and blast monitoring to assess compliance, Centennial has committed to the use of a real-time noise monitoring system to assist with managing operational noise performance and determine further noise controls, as necessary.

As noted above, Centennial is offering to reach agreement with landholders that are predicted to experience noise levels above 40 dBA at some stage during the life of the mine, subject to project approval.

SURFACE AND GROUNDWATER

The potential impacts on both water quality and quantity within surrounding catchments and groundwater were also raised as key issues during the consultation process. Mackie Environmental Research is completing a detailed groundwater assessment and Umwelt is completing a comprehensive surface water assessment.

The Anvil Hill Project is located within the catchments of Anvil Creek, Clarks Gully, Big Flat Creek and Sandy Creek. Both Anvil Creek and Clarks Gully flow into Big Flat Creek. Big Flat Creek flows into Wybong Creek which is a tributary of the Goulburn River. The Goulburn River joins the Hunter River approximately 4.8 kilometres downstream from Denman. Sandy Creek drains to the Hunter River at Denman.

A surface water monitoring program has been in place since February 2002 which includes sampling sixteen monitoring locations on a monthly basis or after extended periods of rain. These monitoring locations are situated upstream, downstream and within the Anvil Hill Project Area and include sites on Wybong Creek, Big Flat Creek, Anvil Creek, Sandy Creek, the Goulburn River and the Hunter River. Samples are analysed for a range of parameters including pH, Electrical Conductivity (EC) and Total Suspended Solids (TSS). Further analyses (including salts, heavy metals, nutrients, anions and cations) are undertaken after significant rain events.

Spot water table heights were taken in June 2003 and regular groundwater monitoring of approximately 53 bores has been undertaken on a bi-monthly basis since October 2004. These bores are routinely analysed for a range of quality parameters including pH and Electrical Conductivity (EC), and further analyses (including salts, heavy metals, anions and cations) have been undertaken from a selection of bores to characterise the groundwater resource in the area. In addition, data loggers which record water table level every eight hours have been installed at ten sites.

Key Findings

- The monitoring results showed the variability of water quality in the local creeks. Big Flat Creek, for example, just north of the proposed mining area, has high salinity. Wybong Creek generally has much lower salinity levels both upstream and downstream of the Project area. Sandy Creek has the highest sediment concentrations.
- Groundwater is generally saline in the area with the shallow alluvial areas next to Big Flat Creek exhibiting the highest salinity.
- The Project will disturb less than 3% of the Wybong Creek catchment, and 1% of the Sandy Creek catchment at any stage of mining.
- The Project is unlikely to adversely impact channel stability or instream habitat of Big Flat Creek, Wybong Creek, or Sandy Creek.
- The vertical extent of flooding will not be significantly increased as a result of the Project in any reach of Big Flat Creek or Wybong Creek, and there will be no adverse impact on flooding in Sandy Creek.
- With the proposed sediment and erosion control measures in place, the Project will not adversely impact on sediment levels in Big Flat Creek or downstream drainage systems. The Project will not increase total salt loads in the Big Flat Creek system.
- Water demand over the life of the Project will vary between approximately 1ML and 4ML per day mainly for coal processing and dust suppression. This water will be collected from a variety of sources including the Hunter River, surface runoff from within disturbance areas and groundwater inflow into mining areas.
- Groundwater will seep into mining areas over the life of the mine. Due to the geology and existing groundwater regime, inflow rates will be low and manageable with appropriate controls.
- Groundwater seepage into mining areas is not predicted to impact on the yield of groundwater bores within the local area and groundwater quality will not be adversely affected by the proposed mining activities.



Key Management Commitments

Centennial acknowledges the importance of protection of local water resources and has committed to the following key measures to minimise groundwater and surface water impacts from the Project:

- Surface water controls have been designed to ensure that clean runoff is separated from runoff within disturbed mining and infrastructure areas. Sediment and erosion controls have been designed to ensure any runoff from disturbed areas is appropriately managed and treated.
- The Conceptual Mine Plan has been modified to avoid any diversion of Big Flat Creek.
- The drainage lines to be constructed as part of the final landform where Anvil Creek now exists will be designed and constructed to provide a stable vegetated channel with a natural appearance that blends in with any adjoining riparian areas. Native trees and shrubs will be planted along the drainage alignment to enhance the long term stability of the drainage system and to provide suitable habitat for native fauna.
- A comprehensive water monitoring program will be put in place to monitor the surrounding groundwater and surface water quality over the life of the operation.
- If monitoring indicates it is required, a barrier cut off wall within the alluvium associated with Big Flat Creek will be constructed to limit groundwater seepage into the mine.
- Final voids have been designed to intercept leachate from overburden emplacement areas and minimise discharge of saline groundwater. These will be sized to ensure they do not overflow.

Centennial is also committed to contributing to broader catchment management with the objective of improving water quality in the local area. In this regard, Centennial plans to investigate tree planting and other land management activities in association with Landcare, Greening Australia, the local community and other relevant stakeholders, in order to address specific existing issues such as dryland salinity on Big Flat Creek.

VISUAL ASSESSMENT

A visual assessment has been undertaken to determine the impact of the Project on the visual amenity of the local area. This was an issue raised during the consultation process.

The visual assessment was undertaken at numerous vantage points around the Project which are considered representative of the major visual catchments within the local area. The assessment used terrain analysis and site inspections to assess the visibility of the proposed Project from surrounding residences and other vantage points in the local area.



Key Findings

Potential views to the Project are highly variable, however, in general terms, the visual assessment is characterised as follows:

- Residences to the north of the Proposed Disturbance Area may have views into the active mine workings and overburden emplacement areas. The prominence of these features within the visual catchment of these residences is moderate and will decrease over the proposed 21 year life of the Project.
- Residences to the west of the Proposed Disturbance Area may have limited views of the active mining, overburden emplacement and surface infrastructure areas. These features will have low prominence within the visual catchment of these residences.
- Residences to the south and south-east along Mangoola and Denman Roads may have views of the site infrastructure area and rail load out facilities. The active mining and overburden emplacement areas will form a background element.
- Residences to the east along the northern extent of Roxburgh Road will have limited views into the Proposed Disturbance Area. From this area the active mining, overburden emplacement and surface infrastructure areas will form minor background elements in the landscape.

Key Management Commitments

In order to minimise the potential visual impacts of the Project, Centennial has committed to the following landscape management measures:

- Site infrastructure will be located in the less visually prominent sites within the Proposed Disturbance Area. This includes locating the coal preparation plant and site facilities within a naturally forming valley largely screened by surrounding topography.
- Only the minimum area necessary for mining will be disturbed at any time. Reshaping and rehabilitation of mining and overburden emplacement areas will be undertaken as soon as practicable after mining.
- Appropriate colourings on all buildings and infrastructure will be selected in order to reduce the prominence of these features within the landscape.
- Vegetative screening will be established along key Project area boundaries in order to screen views into prominent areas of the Project.
- Appropriate lighting will be located and used both to provide a safe workplace and reduce potential impacts from night lighting.

Centennial is committed to continuing to liaise with relevant stakeholders to determine any further feasible landscape management measures. These may include specific landscape controls for private residences with prominent views of the mining operation, or supplementary tree planting at locations surrounding the site.

TRAFFIC AND ROAD SAFETY

Specific concerns were raised by community stakeholders regarding the potential increase of traffic. The issue of potential local road changes was also raised by some residents. Additional road traffic, associated with a mine workforce, was perceived as a pervasive community issue and was seen to have a further impact on road safety.

A detailed traffic study was undertaken to assess the potential impacts of construction and operational road traffic on the local road network.

Key Findings

- With proposed road improvements in place, traffic generated by the Project will not have an adverse impact on the integrity of the existing road network or on road safety in the local area.

Key Management Commitments

Based on the traffic studies and consultation with relevant stakeholders, including Muswellbrook Council, Centennial has committed to the following traffic management measures:

- A number of road improvements will be completed along the section of Wybong Road between Bengalla Link Road and the mine access road in order to ensure the safe and efficient movement of traffic within the local area.
- Project related traffic, including employee movements, will be required to use the extension of the Bengalla Link Road to Wybong Road to minimise any impacts on Mangoola and Roxburgh Roads.
- A number of road improvements will be implemented, including the intersection of the proposed mine access road and Wybong Road.

There will be ongoing consultation with local residents and Council regarding roads and traffic management.

FLORA AND FAUNA

During the consultation process, clearing land for development of the Project and its impact on native flora and fauna was raised as a key issue. A comprehensive ecological assessment was undertaken by Umwelt over two years and throughout all seasons to assess the impact of the Project on native flora and fauna.

The ecological assessment included extensive field work to identify the major vegetation communities and flora and fauna species. The Study Area comprised 4140 hectares and included the Project Area and adjacent land that was considered to have potential to be managed for conservation as an offset for ecological impacts from the Project. Over a period of three years, 157 person-days of fieldwork were completed in this area.

Travis Peake (2006) has recently completed a study on behalf of the Hunter-Central Rivers Catchment Management Authority (HCRCMA), referred to as the Hunter Remnant Vegetation Project. That Study Area covered 315,000 hectares stretching from Scone in the north to Denman in the south-west and Branxton in the south-east, and included the Anvil Hill Project Area.

Peake (2006) found that approximately 65% of all remnant vegetation on the Hunter Valley floor occurs within a few remnants that are over 100 hectares, with the largest, at Myambat Military Area near Denman, being approximately 2250 hectares. The second-largest remnant mapped was in an area referred to as the Wybong Uplands which covers 2067 hectares and includes vegetation within the Anvil Hill Project Area.

Key Findings

- The Anvil Hill Project Study Area comprises nine woodland vegetation communities, five riparian and floodplain vegetation communities, three shrubland vegetation communities and one grassland community. Of these, two vegetation communities (Ironbark Woodland Complex and Slaty Box Woodland) cover most of the Study Area. Most other vegetation communities occur in specific landscape positions, such as floodplains, rocky ridges or steep, sheltered slopes, which are small, restricted locations. Approximately 1304 hectares of treed vegetation communities will be directly impacted by the Project. Analysis of historical aerial photographs has demonstrated that the majority of this area has been cleared at some time since the 1930s. Approximately 42% of the Proposed Disturbance Area is unnatural grassland that was derived by previous clearing of woodland.
- Six threatened flora species were recorded within the Study Area. Based on assessment without mitigation measures, two species may be significantly impacted by the Project. One threatened plant, narrow goodenia (*Goodenia macbarronii*), was recorded in the Proposed Disturbance Area, while five were recorded in the Potential Offset Area.
- Eighteen threatened fauna species were recorded within the study area which included two parrots, one owl, five woodland birds, two arboreal mammals, one terrestrial mammal and seven micro-bats. Four listed migratory bird species were also recorded. Of these, 13 species were recorded in the Proposed Disturbance Area, while 16 species occurred in the Potential Offset Area. Several threatened woodland bird species are widespread across the Study Area, while signs of the koala (*Phascolarctos cinereus*) were found only in the south-east of the Potential Offset Area. Based on assessment without mitigating measures, fourteen of these threatened fauna species are likely to be significantly impacted by the Project.
- Two threatened flora populations and one endangered ecological community (EEC) were found within the study area, of which none are likely to be significantly impacted by the Project. The EEC Weeping Myall Woodland and the endangered population of *Acacia pendula* were recorded in the Potential Offset Area, while the endangered population of *Cymbidium canaliculatum* occurs in low numbers across the Study Area.

Key Management Commitments

In response to the identified likely and potential ecological impacts of the Project, detailed impact mitigation strategies have been developed to minimise the overall impact of the Project on threatened species, endangered populations, endangered ecological communities, and threatened fauna habitats. Such strategies will include:



- Approximately 1904 hectares of ecological offset areas outside the Proposed Disturbance Area will be established and maintained. This will protect and conserve 16 vegetation communities, 5 threatened flora species, 16 threatened fauna species, two endangered flora populations and one endangered ecological community.
- A detailed corridor strategy incorporating revegetation will be developed to increase the functioning of existing corridors, both within the Study Area and in connections to nearby areas.
- Nest boxes will be installed and habitat features such as hollow logs, fallen timber and boulders will be salvaged or replaced.
- Specific habitat resources will be planted within existing vegetation to increase the quality of habitat.
- Aquatic habitat will be created and expanded.
- All Centennial controlled land will be effectively managed, including weed management, pest animal management and bushfire management.
- Only the minimum area necessary for mining will be disturbed at any time. Reshaping and rehabilitation of mining and overburden emplacement areas will be undertaken as soon as practicable after mining.

In addition to the above project specific commitments, Centennial is committed to working with relevant local stakeholders to contribute to local land management initiatives, including replanting and revegetation projects, dryland salinity management and riparian zone management.

HISTORIC HERITAGE

A historic heritage study was undertaken to identify and assess European heritage within the study area and to assess the potential impacts of the Project on these items.

Key Findings:

- No items of State or National Heritage significance have been identified within the area potentially affected by the Project. Items of local historical significance have been identified both within and in close proximity to the Proposed Disturbance Area.

Key Management Commitments

Centennial has committed to the following strategies to address historic heritage issues:

- The history of the area will be further documented in consultation with local landholders and full recording of a range of heritage items identified within the Proposed Disturbance Area.
- Blasting impacts on heritage structures will be monitored, and the blast design will be refined as necessary, to reduce impacts. Any items of local heritage value will be fully recorded for archival purposes prior to any significant impacts.

ABORIGINAL ARCHAEOLOGY

A detailed Aboriginal Archaeology study was undertaken to identify and assess the nature and significance of Aboriginal cultural heritage within an area of approximately 3460 hectares that included both the Proposed Disturbance Area and adjacent land with potential for conservation as offsets to potential cultural heritage impacts (Potential Offset Areas). The study was undertaken with involvement of 16 Aboriginal groups.

Key Findings:

- A total of 173 Aboriginal heritage sites were recorded during the survey, including those in the Proposed Disturbance Area and the Potential Offset Areas. These sites consisted of 88 artefact scatters, 69 isolated finds and 16 rock shelters on rocky plateaus. The majority of these sites were found within 30 metres of a watercourse.
- There are 74 Aboriginal heritage sites (32 isolated finds and 42 artefact scatters) that will be impacted by the Project. In relation to archaeological values, these include 69 sites assessed as having low research potential, three sites with low to moderate research potential, one site with moderate research potential and one site with high research potential.

Key Management Commitments

Centennial has conducted extensive consultation with the representatives of the Aboriginal community and DEC regarding cultural heritage management for this project. As a result, the following key commitments have been adopted for the Project:

- Aboriginal cultural heritage offset areas will be established both inside and outside the Proposed Disturbance Area, to conserve and manage 99 sites, including the majority of sites of high scientific significance such as the rock shelters.
- Surface collection of artefacts and sub-surface investigation of selected sites within the Proposed Disturbance Area will be undertaken in consultation with the relevant Aboriginal community representatives.
- The rail loop location has been modified to ensure that it does not impact on the known boundary of an artefact scatter of moderate research potential and high Aboriginal heritage value.

Ongoing liaison will be conducted with the local Aboriginal community and DEC to refine the approach to cultural heritage management for the Project.



GREENHOUSE ASSESSMENT

Potential greenhouse gas emissions from the Anvil Hill Project was raised as a key issue during the consultation process, and a detailed greenhouse gas and energy assessment has been undertaken.

This included an assessment of the energy and greenhouse gas emissions from the Project in accordance with NSW government assessment guidelines and identification of relevant management controls that can be utilised to minimise energy use and greenhouse gas emissions.

Key Findings:

- The average annual greenhouse emissions for the Project are estimated at 167,574 tonnes CO₂ equivalent (TCO₂e). The greenhouse index of 0.03 TCO₂e per tonne of saleable coal is less than the Australian open cut black coal mining industry average of 0.05 TCO₂e/tonne. (AGSO, 2000)
- Greenhouse emissions for the Project are dominated by energy use with diesel at 39% and electricity at 36% of the total. Emissions from methane make up 23% of the total and explosive use at 2% makes up the remainder of the inventory.
- The estimated energy usage for the Project is dominated by diesel usage with the remainder consisting of electrical energy. This is due to the reliance on diesel powered mining equipment, with no plan to use a dragline or electric shovels. The energy index of 0.23 GJ per tonne of saleable coal is less than the Australian open cut black coal mining industry average of 0.29 GJ/tonne. (AGSO, 2000)

Key Management Commitments

Centennial has committed to assessing the viability of the following key measures to improve energy efficiency and reduce greenhouse emissions from the Anvil Hill Project:

- Energy management systems.
- Energy efficiency in the mining fleet, stationary equipment, mining processes and coal preparation.
- The use of some proportion of biodiesel in the mining fleet.
- Electric boosted solar hot water.
- Small scale planting for carbon sequestration.

Where feasible, Centennial will continue to assess and implement energy and greenhouse management initiatives during the project design, operation and decommissioning.

Social Issues

The following sections outline the key findings of the Socio-Economic Assessment and consultation process undertaken to identify and respond to the potential social impacts of the proposed Anvil Hill Project. Also provided are the key management commitments designed to minimise such impacts.

PROPERTY VALUE AND ACQUISITION

The impact on property value and residents' ability to sell their properties was a critical issue for those interviewed.

Key Findings:

- There was a perceived concern that it would be difficult to sell properties in the future with a mine in the area.
- Specifically, it was perceived that properties on the outskirts of the Project Area would be likely to have a reduced property value and thus would be difficult to sell.
- Perceived sense of powerlessness and belief that the company held 'all the cards' in relation to the potential for property acquisition.

Key Management Commitments

In response to the perceived impacts associated with property value and acquisition, the following strategies have been proposed by Centennial.

- An offer to all landholders within the Assessment Lease Area for purchase at market value. This offer has been in place for some years to address the concern of not being able to sell due to a proposed mine in the area.
- An offer to all landholders whose property may be impacted upon beyond relevant noise and dust criteria, at some stage during the process, to purchase their property should project approval be received. This offer includes a contribution towards independent legal advice.

SENSE OF COMMUNITY AND PLACE

It was evident, through consultation with local resident and landholders, that a strong sense of community exists in the Wybong area and concerns were raised as to how this would be affected by the proposed mine development.

Key Findings:

- The potential for disruption to the community through relocation was raised frequently by local landholders and residents.
- Little differentiation was found between perceived individual and community level impacts associated with the Project. In other words, there was little difference in the types of impacts identified as affecting individuals and the community broadly.
- Relatively small resident population in the Wybong area, that is, 537 persons/158 families (ABS, 2001).



- Higher proportion of couples with children (52.5%) in the Wybong area, than the State average.
- Relatively high home ownership (38.4%) or property purchase (24.3%) when compared to the State.

Key Management Commitments

To address the issue of sense of community and place, Centennial has committed to work with the local Wybong community on important community projects.

- The history of the area will be documented in consultation with local landholders.
- An upfront contribution to the value of \$500,000 will be directed towards the Denman and Wybong communities.

LIFESTYLE CHANGES THROUGH UNCERTAINTY AND RELOCATION

The impact on lifestyle and the potential for lifestyle change was a key issue raised by stakeholders.

Key Findings

- Residents expressed agitation, confusion and fatigue over not knowing for years how the proposal would affect the community and themselves personally.
- Residents perceived that the proposal would significantly alter their personal life plans.
- Concerns about the personal costs of potential relocation and the ability to replicate their current lifestyle elsewhere were also raised.

Key Management Commitments

- An offer to all landholders within the Assessment Lease Area for purchase at market value. This offer has been for some years to address the concern of not being able to sell due to a proposed mine in the area.
- An offer to all landholders whose property may be impacted upon beyond relevant noise and dust criteria, at some stage during the process, to purchase their property should project approval be received. This offer includes a contribution towards independent legal advice.



POPULATION IMPACTS ON COMMUNITY SERVICE PROVISION

One of the key social impact areas associated with large scale development projects involves the impact of the Project's workforce (construction and operation) on the population in the region. In order to assess population changes associated with the Project, the social assessment program involved a detailed review of service provision within the Muswellbrook Shire. This information has been used as a baseline from which population impacts can be predicted.

Key Findings

- The Project is predicted to result in the influx of a peak construction workforce of 200 employees and up to 240 employees during operations.
- Of the operational workforce, it is predicted that approximately 109 are likely to reside in the Muswellbrook Shire, with other employees distributed throughout the Hunter Valley in other townships, for example Scone and Singleton.
- An influx of 109 new employees equates to a family size impact of approximately 381 new community members across different age group categories.
- Cumulative population impacts associated with the development of additional projects in the Shire (for example the approved Mt Pleasant Open cut mine development) could potentially result in a population influx of additional community members. However, this may be more easily absorbed if out-migration of residents is experienced due to the closure of the Dartbrook mine.
- The education sector appears able to absorb any changes in population in the 5 to 17 year old age group.
- Health services are generally already at capacity, and thus impacts may be experienced in this sector.
- Accommodation of the construction workforce (peak of 200 workers) and the operational workforce (peak of 240 workers) will be supplied in the various accommodation facilities within the Shire, absorbed through the existing rental market and proposed accommodation and housing developments that are planned within the area.
- Given that additional developments may occur concurrently in the area, within the scheduled timeframe of the Anvil Hill Project, services within the Shire of Muswellbrook (e.g. health, education) may be stretched by the cumulative population impacts associated with these projects.
- Flow-on effects from both the construction and operational phases of the Project are likely to increase economic activity in a range of sectors. Such sectors include: wholesale and retail trade, accommodation, cafes, restaurants, rail and road transport, agricultural and mining machinery manufacturing and maintenance, fabricated metal products, electricity supply, other property services, community services, and scientific research.
- The development is consistent with the Shire's strategic plan which identifies the need to facilitate economic development and to ensure the establishment of complementary business ventures within the Local Government Area.



- Further education and training is required to increase the employability of local residents in line with development potential. The region is currently experiencing a skills shortage, and attraction and retention of employees is a key issue. The Shire is also promoting tourism development and through various forums is encouraging industry engagement to facilitate new community opportunities and enhancement initiatives.

Key Management Commitments

Strategies developed to address population impacts and subsequent effects on service provision and to enhance the positive impacts of the proposal at a general community level, are detailed below:

- A strategy will be developed, with community input, to provide opportunities for the community to benefit from the mine project.
- Centennial will contribute 1 cent per tonne of saleable product to support community projects.
- An upfront contribution to the value of \$500,000 will be directed towards the Denman and Wybong communities.
- A Wybong Uplands Management Strategy will be developed and implemented to target land management in the Wybong area, beyond the Proposed Disturbance Area for the Anvil Hill Project. An annual contribution of \$100,000 over five years will be allocated to programs such as salinity management, riparian zone repair, demonstration farming and education.
- An education and training program will be developed, aimed at addressing multiple methods of increasing local employment, such as sponsorship of TAFE courses, apprenticeships and traineeships. The program will also focus on increasing opportunities for education and training amongst Indigenous members of the community. This will involve a contribution of approximately \$200,000 each year for three years.



COMMUNITY ENGAGEMENT AND INFORMATION PROVISION

Key Findings:

Concerns were raised by stakeholders regarding the need to be informed about the Project, the potential impacts and proposed mitigation measures. As such, a detailed consultation process has been conducted, as outlined in previous information sheets.

Key Management Commitments

- Commitment to an ongoing community consultation and contributions program (see above) should the Project be approved, specifically:
 - information relating to the commencement of construction and/or mining
 - involvement of local/external contractors
 - ongoing provision of project information to all relevant stakeholders



*We look
forward to
your input*

> Further information

If you would like to obtain further information on any of the environmental studies outlined in this information sheet, or on the proposal generally, please don't hesitate to contact:

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ANVIL HILL PROJECT NEWSLETTER

July 2003

Project Office

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52 Bridge St Muswellbrook 2333**

The phone number at the office is **6543 2800**. With the help of Telstra's call forwarding service, this number will connect through to Project Manager, Roland Lee, even if the office is unattended.

Alternatively, you can contact Roland on his mobile phone, number 0438 434 064 or by e-mail at roland.lee@centennialcoal.com.au

We hope that these arrangements make it easy to contact Roland and our project team.

Progress with Coal Exploration

Drilling recommenced as planned in February, managed by our Senior Geologist, Michael Creech. The work continues to confirm our understanding of the coal resource in the area of open-cut mine potential to the south of Wybong Road.

We are completing a full review of the mining plans previously developed by Powercoal and will then assess the alternatives available to Centennial. We expect to make some decisions in this regard in the near future.

Further information is being prepared to be provided to Muswellbrook Shire Council for its assessment of our application for taking a bulk sample. We expect this will be on public exhibition in the coming month.

Environmental Monitoring – Weather Stations

HLA-Envirosciences set up weather stations at two locations in the Wybong area in early 2002. One is situated close to Wybong Road between Yarraman and Wybong PO Roads and the other is along Coolabah Road. The stations continuously measure temperature, rainfall, relative humidity, wind speed and wind direction. Sensors are mounted on 10

metre towers, in accordance with Australian Standards. The stations automatically record the information which is down-loaded to a computer monthly. This information is useful in characterising any localised climatic conditions and can be used in, for example, computer models for predicting dust and noise impacts. For the time being, they are simply building our knowledge of background environmental conditions. Copies of reports from the weather stations are being provided to Anvil Hill Community Consultative Committee members.

Anvil Hill Community Consultative Committee

The Anvil Hill Community Consultative Committee met on 15 April and 19 May 2003. The next meeting is scheduled for 21 July 2003 at 5:30pm at Denman RSL Club. Anyone interested in attending would be welcome. If you would like any further information, please contact a committee member. Current committee members are: The Hon. Milton Morris AO (Chairman), David Agnew (Department of Mineral Resources), Gail Collins (Minewatch), Joan Hogan, Christine Phelps (Anvil Hill Project Watch Association), Ray Reynolds, Councillor Sue Smoothy (Muswellbrook Shire Council) and Roland Lee (Centennial Coal Company).

Centennial Coal's Environmental Policy

Centennial Coal Company Limited recently reviewed and updated its Environmental Policy, which applies to all its operating minesites and projects. The Policy is shown overleaf. You will see from the statement of Objective, Centennial Coal recognises its environmental responsibilities and seeks to conduct its business so that it is compatible with the expectations of its shareholders, the government and the community.

The strategies set out by Centennial Coal are intended to flow through to the planning and management of all our operations and projects, including Anvil Hill. In particular, we will take community input into account as we follow our aim to continually improve our performance.

Shop 4 Colonial Arcade, 52 Bridge St Muswellbrook NSW 2333



Centennial Coal

Environmental Policy

Values and Commitment

Centennial Coal **values** its role in sustainable development and will manage the environmental aspects of its activities to consider economic and social benefits.

We are **committed** to our operations and to continual improvement in environmental management and performance.

Objective

Centennial Coal's **objective** is to conduct its business in an efficient and environmentally responsible manner, that is compatible with the expectations of our shareholders, government and the community.

Strategy

We will **achieve** our environmental goals by:

- Ongoing implementation of an Environmental Management System that integrates environmental management into our business and the way we work
- Complying with all statutory requirements as a minimum
- Recognising our stakeholders and maintaining an effective working relationship with them
- Ensuring that all employees and contractors are aware of their environmental responsibilities and receive the necessary training
- Measuring, auditing and reporting our environmental performance and implementing improvement actions where needed
- Using resources efficiently and minimising waste

This Policy is endorsed by the Company's Board of Directors and therefore is a strong commitment to the Company achieving its environmental goals.

R G Cameron
Managing Director
February 2003



ANVIL HILL PROJECT NEWSLETTER

December 2003

Project Update

Exploration

2003 has been a constructive year for the Anvil Hill Project. The in-fill drilling program, which commenced in February, was completed in September. Many of the latest drillholes were located between previous drill sites. Coal samples were extracted from all drillholes, measured and analysed. Immediately after drilling, the location of the coal seams was also mapped by lowering analysing equipment down each hole. The work has confirmed our previous estimate of a shallow coal resource of some 180 million tonnes suitable for producing thermal (or steaming) coal. It has encouraged Centennial to continue to investigate and plan for the project and to seek markets for the coal.

As many people are already aware, Exploration Licence 5552 covering the Anvil Hill Project area was re-issued to Powercoal for a period ending in January 2004. Powercoal was acquired by Centennial Coal Company in August 2002. Exploration and investigative work has continued under the Centennial banner and the Company will be seeking authority to continue its activities in the area.

Anvil Hill Community Consultative Committee

The Anvil Hill Community Consultative Committee has continued to meet approximately every 2 months. Centennial appreciates the regular attendance of committee members, which assists with developing good two-way communication and

we look forward to continuing to work with the community.

Since the last Newsletter, we have welcomed Mr Geoff Oldman to the Committee. Geoff is proprietor of Norlana Vineyard and represents the local wine industry on our committee.

The next Committee meeting is scheduled for 5:30 pm on Wednesday 4 February 2004 at the Denman RSL Club. Members of the public are welcome to attend. If you wish to confirm the meeting date and venue closer to the time please contact a committee member or Roland Lee on 6543 2800.

Environmental Monitoring

Monitoring of weather conditions, dust deposition and surface water quality continued during 2003. Background noise surveys were also carried out.

Dust deposition is recorded as grams (of dust) per square metre per month and is based on collection of dust, which has settled. Most people will be familiar with dust deposition gauges, which consist of a funnel and jar in a metal container. Another measure of air quality is the amount of dust suspended in a quantity of air (recorded in micrograms per cubic metre). To further investigate air quality adjacent to the project, Centennial plans to install High Volume Air Samplers. These instruments consist of an electrically driven pump, which draws a measured quantity of air across a filter. The collected residue can be analysed.

The instruments can be set up to measure all the matter in the air (total suspended particulates or TSP) but can also be set up to



monitor only the finer particles. In this case, we intend to monitor both TSP and PM10, which are particles less than 10 microns (a micron is one thousandth of a millimetre).

The data from various monitoring programs is being made available to Anvil Hill Consultative Committee members. At this stage, of course, the results are simply indicating the environmental conditions as they exist with current land use. However, this information is important in providing a basis for proper assessment of any proposed changes, such as mining.

Future Focus

While exploration and baseline environmental monitoring have continued in 2003, the project team has been working towards gaining Company approval for the next phase of developing the project. A decision to move forward with preparing an EIS for a mine has not yet been finalised. It is hoped that conditions will be right for such a decision early in 2004.

Meanwhile, Umwelt environmental consultants have been appointed to commence preparatory work for an Environmental Impact Statement (EIS) for the proposed mine. Initial work includes review of existing reports and monitoring data. Umwelt staff have commenced site visits so that detailed field work can be planned for 2004. If access to properties is needed, landholders will be contacted individually to request suitable access and discuss their requirements.

Consultation with the community and other stakeholders during preparation of an EIS is an important part of the process. If the project proceeds, Centennial and Umwelt will work together to ensure this can be professionally planned and implemented, and builds on

previous consultation work undertaken with the community.

Conceptual design of an open cut mine and support facilities will be subject to ongoing review during this review process. Factors considered include the updated geological information, environmental, market and economic conditions.

Extraction of a bulk sample for trial burning has not proceeded in 2003, pending further discussions with potential customers regarding coal sales.

Seasons Greetings

We take this opportunity to sincerely thank all members of the community who have assisted us during the year. Special mention goes to owners of properties and residents where we have been exploring and carrying out environmental monitoring. With your help we are working to gain a better picture of the coal resource and the surrounding environment, which will allow the project to be properly assessed.

We would also like to offer our best wishes to all readers and their families for a safe and enjoyable festive season.

Contact Details

Project Manager:	Roland Lee
Phone:	6543 2800
Mobile Phone:	0438 434 064



ANVIL HILL PROJECT NEWSLETTER

June 2004

Project Update

Exploration

No further exploration fieldwork has been carried out so far in 2004. However, technical and commercial review of the project has continued and various development options are being studied. These all envisage open cut mining, coal handling and processing facilities at the site and transport of coal to market by rail.

Further exploration by drilling and surface investigation is being planned for the second half of 2004. At Anvil Hill, we operate under Centennial Coal Company's "Code of Environmental Practice for Exploration Activities".

The Code sets out guidelines, which provide a basis for responsible environmental management in all aspects of field exploration, from planning through to site restoration.

Avoiding harm to the environment is one of Centennial's major objectives.

Work carried out by, or on behalf of the Company, will be completed in a responsible manner, to a high environmental standard and to cause the least possible impact upon the environment, landholders and their property.

Centennial has adopted the Code of Conduct for Landholders and Mineral Explorers which is endorsed by the NSW Farmers' Association and NSW Minerals Council. This Code recognises the rights of landowners, the importance of environmental and specific property issues and sets out the basis for compensation.

Anvil Hill Community Liaison Committee

The Anvil Hill Community Liaison Committee met with the Minister for Mineral Resources, the Hon Kerry Hickey on 27 April 2004. The agenda items raised and discussed with the Minister were:

- Limbo effect on landholders during EL period (please see comments on Land Purchase later in this Newsletter);
- The biodiversity values of the Anvil Hill locale (please see comments on flora & fauna survey work later in this Newsletter); and
- The objectives of the Mineral Resources Portfolio.

A Community Liaison Committee meeting was held on 9 June. We were pleased to welcome Councillors Jennifer Lecky and John Douglas at the committee meeting. Centennial takes this opportunity to express our thanks to former Councillor Sue Smoothy, for her participation in the committee during the previous 12 months.

The next Committee meeting is scheduled for 5:30pm on 11 August 2004 at the Denman RSL Club. Members of the community are welcome to attend. If you wish to confirm the meeting date and venue closer to the time, please contact a committee member or Roland Lee on 6543 2800.

Environmental Monitoring

Monitoring of weather conditions, dust deposition and surface water quality have all continued since the last Newsletter.

The high volume air samplers noted in the December 2003 Newsletter are about to be

installed at two locations: one on a property on Wybong PO Road, to the north west of the project area and the other on a property along Coolabah Road to the south east of the proposed mine.

Umwelt Environmental Consultants carried out a two-week flora and fauna survey in March-April. The team leader on the survey was Umwelt ecologist Alison Riley, who has carried out numerous such surveys in the Hunter region.

Our thanks go to all landowners who assisted us in allowing access on their properties to carry out this work.

Umwelt staff are still analysing the results. However, the survey generally confirms our previous understanding of the range of plant and animal species present in the area. Over 400 plant species and over 100 animal species were recorded, including several on threatened species listings.

At least one further flora and fauna survey will be undertaken to build upon our current knowledge of the biodiversity values of the area. This information will be used in detailed consideration of environmental aspects during the planning of the project and will be reported on in the EIS if approval is sought.

Land Purchases

During the last 12 months, Centennial has been approached by several landholders regarding the sale of their properties. Some people have expressed concerns about difficulties with selling while the area is being assessed for potential coal mining.

In these circumstances, Centennial Coal has been prepared to discuss the possibility of the Company purchasing property within the area of the Exploration Licence, even though approval for a mine has not yet been sought. Four properties have been purchased in the last few months: one within the proposed mining area and three in the adjacent area.

Some landholders have also raised the question of confidentiality. Centennial respects the need to maintain confidentiality over all its dealings with individual landholders and community members.

Future Focus

A decision to move forward with preparing an EIS and lodging a formal application for the mining proposal has not yet been finalised. The project team continues to work through the many technical, commercial and marketing issues that need to be resolved before the Company can make such a decision.

However, work that is continuing includes:

- Further drilling and investigation of the coal resource as noted in the Exploration section of the Project Update;
- Umwelt Environmental Consultants continuing with preparatory work for an EIS; and
- Incorporation of the results of these studies into the concept project design.

The Company continues to be available to discuss property purchase if approached by any landholders within the area of EL5552.

No agreement with potential coal customers has been reached with regard to extraction of a bulk sample for trial burning. However, this may still be a necessary step in evaluating the coal resource.

Contact Details

If you wish to discuss any aspect of the Anvil Hill Project, please contact Centennial's Project Manager, Roland Lee.

Phone: 6543 2800
Mobile Phone: 0438 434 064



ANVIL HILL PROJECT NEWSLETTER

December 2004

Project Update

Assessment Lease

Centennial has been granted an Assessment Lease (AL9) over most of the area previously held under its Exploration Licence (EL5552).

The work which the Company will carry out under AL9 will be similar to that undertaken since 1999 under EL5552. A condition with regard to land purchase within the area has been included as part of the Assessment Lease requirements to be met by the Company (see below under Land Purchases).

Exploration

Exploration drilling has continued in the northern area of the coal resource delineated for open cut mining.

The method being used is "slim core drilling", which recovers a cylindrical sample of material about 65 millimetres in diameter. This program is set to continue in 2005.

Meanwhile, during November-December a further series of resistivity surveys has been carried out. This program is intended to provide more information about structures in the ground by recording and analysing the signal of electrical impulses passing through the ground.

Also planned for 2005 is a short program of large diameter core drilling, to gain additional samples for further coal quality testing. A previous "large diameter" drilling program was conducted by Powercoal at Anvil Hill.

Contract to Supply Coal

During October, Centennial Coal Company Limited announced execution of a contract between its wholly owned subsidiary Centennial Hunter Pty Limited and Macquarie Generation, the operator of the Bayswater and Liddell Power Stations near Muswellbrook.

Under this contract, supply is scheduled to commence in early 2008, subject to the project gaining all relevant statutory approvals. The contract contemplates the supply of approximately 2.5 million tonnes of coal per

year for 12 years, totalling some 30 million tonnes. The coal is to be delivered by rail.

The extraction of a bulk sample in advance of the development of the mine is not now required. The development application which had been lodged with Muswellbrook Shire Council for the bulk sample project has been withdrawn.

With this contract in place, Centennial is now moving forward with a program to complete an Environmental Impact Statement for the Project during 2005.

Environmental Monitoring

Monitoring of weather conditions and dust deposition has continued since the last Newsletter. The welcome rain has provided opportunities to gain further surface water samples.

The purpose of our monitoring programs is to establish the current or "background" environment and weather conditions existing in the area. This information is then used as the basis for predicting the likely impacts of the project and to set appropriate operating standards in the planning of the project.

Dust monitoring was discussed at the Anvil Hill Community Liaison Committee meeting on 10 November and it is an opportune time to provide a brief update on this subject.

Centennial has 20 dust deposition gauges in operation. A "gauge" comprises a glass jar with a funnel. Using the sample collected over a month and knowing the size of the funnel, HLA Envirosciences staff derive dust deposition rates for each gauge. The result of the dust deposition monitoring is measured in "grams per square metre per month". The individual components of the dust are analysed, initially by removing soluble solids (such as cobwebs, pollen, bird droppings) to determine insoluble solids (which can also include some organic material).

This material is then heated to remove remaining carbon and organic material to produce what is referred to as the ash content, which is the final material which can be considered mineral-based dust.

However, heavy contamination can still result in a high dust reading which is why the laboratory technicians describe the sample condition when received. This can then be correlated with wind speed and direction data from the onsite weather station to confirm the source.

The results we have obtained over the last 3 years have been interesting. Out of the 20 gauges, the majority have results of less than 1.5 g/m²/month with a normal range of between 0.5 g/m²/month to 2 g/m²/month. This is typical of a rural environment with some variability caused by seasonal affects such as Spring and dry windy conditions found in Summer months. There have been some high readings recorded, which appear to result from localised dust sources such as ploughing or traffic on dirt roads.

The high volume air samplers noted in previous Newsletters have now been installed. One is located on one of Centennial's properties to the north west of the project area, the other close to the Coolabah Road Weather Station. These units measure the concentration of very fine dust particles suspended in the air. Samples are programmed to be taken at varying times and on varying days of the week. The data being gathered will further assist our understanding of the existing air quality of the area.

Umwelt (Australia) Pty Limited Environmental Consultants continued with further ecological surveys of the project area during October - November 2004. Over the next six months, Umwelt is scheduled to carry out a total of 6 weeks of ecological surveys. The aim of these surveys is to gather detailed information about the ecological value and presence of species in the project area and its surrounds.

With a proper understanding of the species and ecological communities, project planning will ensure these aspects are fully considered and opportunities for enhancement explored. The studies and the outcomes of this work will form an important part of the Environmental Impact Statement.

Land Purchases

Centennial has continued in its willingness to discuss the purchase of property within the area of the Exploration Licence / Assessment Lease, even though approval for a mine will not be sought for some time. To date, seven properties have been purchased: three within the proposed mine project area and four in the adjacent area. Contracts have been exchanged for purchase of a further 3 properties and agreements have been reached with several other landholders, which allow for purchase if the mine proceeds.

The newly granted Assessment Lease (AL9) includes a condition with regard to land purchase at independently assessed rural market value. Centennial's policy on land purchase in the area, which has been in place for

some time, has already been applying criteria very similar to those included in the AL9 condition. The Company welcomes the State Government's initiative in formalising this process in the terms of the Assessment Lease.

A more detailed description of this land purchase condition will be circulated to landholders within the area of AL9. In the meantime, if any landholder wishes to discuss property purchase by the Company, please contact Roland Lee on 6543 2800. Such discussions are treated with the utmost confidentiality by Centennial.

Future Focus

Our focus is now firmly directed at completing the necessary environmental and engineering studies associated with producing an Environmental Impact Statement (EIS) in 2005. Community Consultation is an important facet of the work to be undertaken during this period. Our timetable is to lodge a Mining Lease Application and Development Application, seeking approval to develop the mine and facilities to commence deliveries of coal to customers in 2008.

Other work planned to commence early in 2005 includes:

- Community consultation:
 - providing information on the Project Development Plan;
 - seeking feedback and input on the issues from the community
- Further drilling and investigation of the coal resource;
- Formal liaison with government agencies, including a Planning Focus Meeting;
- Consultation with other stakeholders in the project
- Incorporation of the results of environmental studies in finalising the project design.

Season's Greetings

Centennial Coal Company and the consultants working on the Anvil Hill Project wish all readers a safe and happy Festive Season.

We also take this opportunity to thank landholders and the community for the cooperation we have received during 2004 in moving forward with our exploration and assessment of the project.

Contact Details

While the Muswellbrook office will be unattended during the Christmas – New Year period, if at any time you wish to discuss any aspect of the Anvil Hill Project, please contact Centennial's Project Manager, Roland Lee.

Phone: 6543 2800 **Mobile Phone:** 0438 434 064



ANVIL HILL PROJECT NEWSLETTER

August 2005

Exploration

Slim core drilling has continued as the method to sample the coal resource within the area proposed for open cut mining. This phase of drilling is planned to be completed during August – September. Recent work has confirmed our previous understanding of the extent and quality of the coal resource at Anvil Hill.

In May, the slim core drill rig was used to drill a number of shallow holes near the junction of Big Flat Creek and Anvil Creek, on the south side of Wybong Road between the Wybong Creek Bridge and the 500kV powerline crossing. This work has provided a better understanding of the underlying sediments in this area.

During February a different drill rig was used to drill four “large diameter” (300 millimetre) holes. This allowed some larger coal samples to be extracted for use in washability testing, to provide better information for washery design.

Project Team

In January, John Brunton joined the Centennial Coal team as Anvil Hill Project Geologist. John is well experienced in coal geology, having worked for other mining companies and with the NSW Department of Mineral Resources. John and his family live in Muswellbrook.

In June, Sue Clark joined the team as Environmental Specialist. Sue has had many years experience as an environmental scientist associated with the coal industry in NSW.

Roland Lee continues in the position of Project Manager.

With the expanding team, more office space is needed and we have moved to a new office

location in Muswellbrook. The new office address is noted under **Contact Details** below.

Our phone and fax numbers have remained the same and are also included under **Contact Details**.

Project Approvals Process

As noted in our December Newsletter, a contract to supply Macquarie Generation has been secured, subject to government approvals being gained for development of the project. To this end, we are moving forward with the environmental assessment for the proposed mine and infrastructure. An initial step has been to present a conceptual plan for the project to the relevant government agencies, Muswellbrook Shire Council and the community.

Recently the NSW government announced changes to the Environment Planning & Assessment Act for the approvals process for significant projects, including new coal mines. A Development Application will still need to be lodged for assessment. However, whereas in the past an Environmental Impact Statement (EIS) has been required to accompany the application, under the new legislation we understand this will be replaced by a document referred to as an Environmental Assessment (EA).

We have undertaken an intensive phase of community consultation and we take this opportunity to thank all those people who have participated in meeting to discuss the project. The consultation has included meeting with individuals and families as well as with groups such as Wybong Water Users Association and Minewatch. A random telephone survey within Muswellbrook Shire was also conducted to gather information from the wider community.

The consultation work during this phase was carried out primarily by staff from Coakes

Consulting. With their assistance a Community Information Sheet which summarises the information provided by stakeholders during the above consultation is available. If you have not received a copy and would like one, please contact us.

Meanwhile, environmental studies continue. In the field, further flora and fauna surveys have been undertaken, archaeological surveys involving aboriginal group representatives proceeded in May, further water test bores (piezometers) have been established within and around the proposed project area. Weather, air and water quality background monitoring all are continuing.

Any work undertaken on private property is subject to us reaching agreement for access with the landholder concerned. These agreements can be verbal or written and are discussed at the time, including any special conditions of access the landholder may wish to include. We thank all landholders who are assisting the Project with access for our exploration and environmental studies and monitoring.

Community Liaison Committee

The Anvil Hill Project Community Liaison Committee has continued to meet regularly. The next meeting is scheduled for 5:30pm on Wednesday 19 October 2005 at the Denman Anglican Parish Hall in Palace St Denman. The meeting will be advertised in local papers and all interested people are welcome to attend. At these meetings, Centennial and our consultants provide an update on the project and there is opportunity for questions and comments. The Committee is chaired by the Hon Milton Morris AO, who can be contacted by phone on 4932 4222.

Land Purchases

Centennial has a Land Acquisition Strategy which applies to properties within the area of Assessment Lease 9. A copy of that information has recently been mailed to all relevant landholders.

To date, thirteen properties have been purchased by the Company: six within the proposed mine project "footprint" area and seven in the adjacent area. Agreements have been reached with several other landholders, which allow for purchase if the mine proceeds. Negotiations continue with a number of other land owners.

If any landholder wishes to discuss property purchase by the Company, please contact our Project Manager Roland Lee on 6543 2800. Such individual discussions are treated with the utmost confidentiality by Centennial.

Future Focus

Our focus continues on completing the necessary environmental and engineering studies, so that a Mining Lease Application and Development Application can be lodged, seeking approval to develop the mine and facilities, targetting first deliveries of coal to customers in 2008.

In the coming months, the Company's activities are planned to include:

- Finalising the current phase of drilling and investigation of the coal resource;
- Review of the conceptual project plan, following initial feedback from regulators, community members and other stakeholders
- Continuing community consultation, including feedback on stakeholder input and further updates on the project
- Continuing preparedness to discuss land purchase with property owners on a confidential basis.

Contact Details

As noted above we have moved office and the new office and postal address is:

**Shop 14 Campbells Corner Building
Brook Street
Muswellbrook NSW 2333**

Note that the office faces out onto Brook Street.

If you have any queries about the project, please contact us at the Project office.

Phone: **6543 2800**.

Fax: **6543 4077**



ANVIL HILL PROJECT NEWSLETTER

January 2006

Anvil Hill Project staff take this opportunity to thank all those members of the community who have assisted us with their time, cooperation and access to properties during 2005. We look forward to being further involved with the community during 2006.

Exploration

With the 2005 program of drilling completed in August last year, the geological team is currently incorporating the data generated into the geological model of the deposit. This will provide more detail on the resource for mine planning and economic assessment.

Project Approvals Process

Recently the NSW government announced changes to the Environment Planning & Assessment Act for the approvals process for significant projects, including new coal mines. The new "Part 3A" of the Act will regulate assessment of the Anvil Hill Project. Under this new process, the intent to lodge an Environmental Assessment (EA), formerly referred to as an EIS, has to be signalled by a project application being lodged with the Department of Planning. Centennial Coal lodged a project application for the Anvil Hill open cut coal mine on the 16th January, 2006. This project application will be advertised and subsequently the Department of Planning will confirm its requirements for the EA. These requirements will be considered in the completion of current detailed technical studies, prior to further consultation with stakeholders and completion of the EA. Centennial is aiming for the EA to be completed for the public exhibition and assessment process early in the second half of 2006.

Under the new legislation, the assessment process includes:

- Preliminary Project Planning
- Commencement of Community Involvement program
- Conceptual Mine planning and design
- Planning Focus Meeting
- Lodgement of Project Application (PA) – publicly advertised- **WE ARE HERE**
- Environmental Assessment (EA) requirements formalised
- EA draft completed

- EA draft submitted to Department of Planning for review of adequacy
- Public Exhibition of EA, stakeholder submissions received
- Assessment of application, EA and stakeholder submissions
- Approval or refusal of the application by the Minister for Planning
- If the development is approved, requirements to be met for grant of Mining Lease

Stakeholder Consultation

Community consultation continued with a further 19 households taking part in personal interviews in December. These interviews were carried out by staff from Coakes Consulting and Sue Clark – Centennial's Environmental Specialist for Anvil Hill Project. The outcomes from all consultation will be considered in preparation of the EA and the Social Impact Assessment.

Environmental Studies

During November and December, further field surveys were undertaken for both ecology and archaeology. These surveys includes detailed investigations within the project area and potential offset areas. The archaeological surveys involved aboriginal group representatives. Weather, air, surface and ground water quality background monitoring are all continuing. As of 1 February 2006, the environmental monitoring for these parameters will be undertaken by Carbon Based Environment.

Access Agreements

Any work undertaken on private property is subject to us reaching agreement for access with the landholder concerned. These agreements can be verbal or written and are discussed with each landholder, including any special conditions of access the landholder may wish to include. We thank all landholders who are assisting the Project with access for our exploration and environmental studies and monitoring.

Community Liaison Committee

The Anvil Hill Project Community Liaison Committee has continued to meet regularly. The next meeting is scheduled for 5:15pm on Wednesday 8th February 2006 at the Denman Anglican Parish Hall in Palace St

Denman. The meeting will be advertised in local papers and all interested people are welcome to attend. At these meetings, Centennial and our consultants provide an update on the project and there is opportunity for questions and comments. At the February meeting, Centennial and its consultants will provide an update on Background Monitoring. The Committee is chaired by the Hon Milton Morris AO, who can be contacted by phone on 4932 4222.

At the 19th October 2005 meeting, Centennial provided an outline of its sustainability strategy and activities undertaken to date, including:

- Developing sustainability initiatives with outcomes that will provide benefits beyond the life of the project;
- Rehabilitation of an old gravel pit;
- Seed collection;
- Forest Red Gum direct seeding trial; and
- Forest Red Gum propagation at the State Forest nursery in Muswellbrook.

The 7th December 2005 meeting included an update on the progress of the ecological studies, presented by Umwelt (Australia) Pty Limited's specialist ecologist, Travis Peake. The survey strategy was developed in consultation with the relevant government agencies. These surveys have included the proposed mining area and surrounding land that is being considered for potential conservation to offset impacts from the Anvil Hill project.

Key results noted included:

- 484 flora species and 162 fauna species had been identified in the 17 vegetation communities in and around the project area;
- To date, there have been 12 threatened fauna species recorded in the proposed disturbance area and 17 threatened fauna species recorded in the potential offsets area. Further investigation and consideration of management outcomes will focus on the long term conservation of these species.

Land Purchases

Centennial continues with its Land Acquisition Strategy. To date, sixteen properties have been purchased by the Company, eight within the proposed mine project "footprint" area and eight in the adjacent area. Agreements have been reached with several other landholders, which allow for purchase if the mine proceeds. Negotiations continue with a number of other land owners.

If any landholder wishes to discuss property purchase, please contact our Project Manager Roland Lee on 6543 2800. Such individual discussions are treated with the utmost confidentiality by Centennial.

Future Focus

Our focus continues on completing the necessary environmental and engineering studies, so that applications can be made to the government, seeking approval to develop the mine and facilities, targeting first deliveries of coal to customers in 2008.

In the coming months, Centennial's activities are planned to include:

- Upgrading of geological and coal quality databases incorporating recent drilling and analysis results;
- Review of the conceptual project plan, following initial feedback from regulators, community members and other stakeholders;
- Continuing community consultation, including feedback on stakeholder input, study outputs, development of strategies and further updates on the project;
- Continuing environmental assessments; and
- Continuing preparedness to discuss land purchase with property owners on a confidential basis.

Contact Details

Please feel free to contact the project team at any time. Our office and postal address is:

Shop 14 Campbells Corner Building
Brook Street
Muswellbrook NSW 2333

(Note that the office faces out onto Brook Street.)

Phone: 6543 2800.
Fax: 6543 4077

Website

Centennial Coal maintains a website www.centennialcoal.com.au with information on the Company and its operations. Information updates on the Anvil Hill Project can be found on this website by following the links to - Mining Operations – Anvil Hill.



ANVIL HILL PROJECT NEWSLETTER

March 2006

Exploration & Mine Planning

Our geologists John Brunton and Alison Moore continue to compile the data from exploration and coal analysis and are using it to improve on our modelling of the coal deposit. This work to date has not raised any geological reasons to change our Conceptual Mine Plan

We have recently announced that Thiess Pty Limited has been appointed to work with the Centennial team on more detailed mine planning. If the project gains approval, it is Centennial's intention to work with a mining contractor in developing and operating the mine. Discussions with Thiess on this role are ongoing.

Stakeholder Consultation

Stakeholder consultation continues in March with a review of local service providers, such as medical, education and accommodation providers. These interviews were undertaken to build on understanding the potential effects of the Anvil Hill project on the demand for local services and infrastructure.

Community organisations have also been consulted to identify priority areas of community need. This information has allowed us to understand the community's views on how the Anvil Hill project could potentially contribute to the local community.

If the project is approved, we aim to work in collaboration with the community on a program that reflects the assessment of need. These interviews are being carried out by staff from Coakes Consulting and Sue Clark – Centennial's Environment and Community Specialist for Anvil Hill Project. The outcomes from all consultation will be considered in preparation of the Environmental Assessment (EA), including the Social Impact Assessment.

Environmental Studies

Background monitoring continued. In February a group called Carbon Based Environmental was appointed to continue the weather, dust, and surface water monitoring. Some new people will be involved in carrying out the fieldwork. Please feel free to contact Sue Clark at our office if you would like any more information on this change.

Umwelt staff continued with Aboriginal and European Heritage field studies during March.

Access Agreements

Any work undertaken on private property is subject to us reaching agreement for access with the landholder concerned. These agreements can be verbal or written and are discussed with each landholder, including any special conditions of access the landholder may wish to include. We thank all landholders who are assisting the Project with access for our exploration and environmental studies and monitoring.

Community Consultative Committee

The Anvil Hill Project Community Consultative Committee has continued to meet regularly. The next meeting is scheduled for 5:15pm on Wednesday 5th April 2006 at the Denman Anglican Parish Hall in Palace St Denman. The meeting will be advertised in local papers and all interested people are welcome to attend. At these meetings Centennial and its consultants provide an update on the project. There is opportunity for questions and comments from the public gallery. At the April meeting an update on the proposed staged mine plan and background noise monitoring will be provided.

The Committee is chaired by the Hon Milton Morris AO, who can be contacted by phone on 4932 4222.

At the January meeting Centennial provided an outline of the new Part 3a planning process and background monitoring results for ground and surface water, air quality and meteorology. A summary of these presentations follows.

Planning Approval Process

- New Part 3a (Major Projects) planning approvals process came into force in August 2005
- Anvil Hill project application under Part 3a can be viewed at;
www.planning.nsw.gov.au/asp/register/asp

Part 3a Planning Approval Process	Centennial's Target Time Frame
Project Application submitted to Department of Planning (DOP)	Lodged January 2006
DOP notifies Centennial of requirements for environmental assessment (EA)	March/April 2006
Draft EA completed and submitted to DOP for initial	Mid 2006

review in consultation with other agencies	
EA placed on public exhibition for at least 30 days	Third quarter 2006
DOP provides Centennial with summary of submissions	Third quarter 2006
Opportunity for Independent Hearing and Assessment Panel (IHAP)	Third quarter 2006
DOP assessment and determination	Late 2006/early 2007

Background Environmental Monitoring

Surface Water

- monitoring undertaken since Feb 2002 at 16 locations, monthly and after significant rain
- Locations are upstream, downstream and within Anvil Hill Project area.
- Average results for each waterway are:

Location	pH	Conductivity (EC) $\mu\text{S}/\text{cm}$	Total suspended solids range mg/L
Wybong Ck	7-8	1000-3000	11-13
Big Flat Ck	7.8	11500	75
Sandy Ck	7.8	2400	188
Goulburn R	8.2	1100-1200	5-10
Hunter R	8	450-550	20-140

pH readings show the water to be neutral to slightly alkaline. Conductivity results range from low salinity in the Hunter River, slightly saline in the Goulburn River, slight to moderately saline in Sandy Creek and Wybong Creek and highly saline in Big Flat Creek.

Ground Water

- Monitoring undertaken since October 2004
- 35 bores sampled bi-monthly for level, pH, EC -10 bores for level 8 hourly – selected bores monitored for salts and metals
- Salinity quite varied from $<1500\mu\text{S}/\text{cm}$ to $>45000\mu\text{S}/\text{cm}$

Air Quality

- Monitoring undertaken since March 2002
- 20 dust fallout gauges (total insoluble solids) and 3 high volume air samplers (HVAS) measuring total suspended particulates (TSP) and particulates less than 10 microns (PM10). (A micron is one thousandth of a millimetre)
- All results were consistent with a rural environment

Meteorology

- 2 meteorological stations monitored – Wybong Rd and Coolabah Rd
- Rainfall consistent with Bureau of Meteorology data at 561mm in 2003 and 633mm in 2004

- Winds predominantly ESE in Summer and Autumn, W and WNW in Winter, W and WNW and ESE in Spring

Land Purchases & Management by Centennial

Centennial continues with purchasing land in the vicinity of the Anvil Hill Project. Being responsible for over 1,000 hectares at this point in time, we have retained Mr Neil Nelson to assist us with managing our properties in a sustainable manner.

Future Focus

Our focus continues on completing the necessary environmental and engineering studies, so that we can continue in the government's assessment process.

Centennial's target is to develop the mine and facilities to achieve first deliveries of coal to customers in 2008.

In the coming months, our activities are planned to include:

- Continue studies on geology and coal quality
- Developing detailed mine and site plans, including consideration of all feedback on issues to date
- Continuing community consultation, including feedback on stakeholder input, technical study outcomes, development of strategies and further updates on the project;
- Finalising environmental assessment; and
- Continuing preparedness to discuss land purchase with property owners on a confidential basis. Please contact Roland Lee at our office if you wish to discuss the sale of your property.

Contact Details

Please feel free to contact the project team at any time. Our office and postal address is:

Shop 14 Campbells Corner Building
Brook Street
Muswellbrook NSW 2333

(Note that the office faces out onto Brook Street.)

Phone: 6543 2800.

Fax: 6543 4077

Website

Centennial Coal maintains a website www.centennialcoal.com.au with information on the Company and its operations. Information updates on the Anvil Hill Project can be found on this website by following the links to - Mining Operations – Anvil Hill.