



**MAJOR PROJECT ASSESSMENT:
Mt Arthur Coal Mine –
South Pit Extension Project**



Director-General's
Environmental Assessment Report
Section 75I of the
Environmental Planning and Assessment Act 1979

December 2007

Cover photo: View to Mount Arthur Coal Mine from South Muswellbrook

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EXECUTIVE SUMMARY

Mt Arthur Coal Pty Limited (Mt Arthur Coal), a subsidiary of BHP Billiton, operates the Mt Arthur open cut coal mine, located approximately 8 kilometres south of Muswellbrook in the Upper Hunter Valley (see Figure 1). The mine comprises 3 separate mining areas, including:

- Bayswater No.2 (extraction complete);
- Bayswater No.3; and
- Mount Arthur North.

Mt Arthur Coal is proposing to extend the existing South Pit within the Mount Arthur North mining area. The proposal – referred to as the South Pit Extension Project – involves extending the South Pit a further 2.4 kilometres to the south to extract approximately 25 million tonnes of run-of-mine (ROM) coal over a period of 21 years. Extracted coal would be processed in Mt Arthur Coal's existing coal handling and preparation facilities and then transported to market using existing rail loading and conveyor facilities.

The project would extract up to 3 million tonnes of ROM coal a year, however the total production from Mt Arthur Coal's combined operations would be maintained within the currently approved total production limit of 20 million tonnes a year.

The project has a capital investment value of \$500,000, and would provide continued employment for the 600 people employed at the Mt Arthur Coal Mine.

The proposal constitutes a 'major project' under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act), and consequently the Minister is the approval authority for the project.

The Department exhibited the Environmental Assessment of the project from 30 July 2007 to 31 August 2007, and received 11 submissions on the proposal: 7 from government authorities, 2 from special interest groups and 2 from the general public. Three of the public submissions objected to the project, because of the project's potential impacts in relation to noise and blasting, dust, spontaneous combustion, greenhouse gas, flora and fauna, water resources and traffic.

The Department has assessed the project application, EA, submissions on the project, and Mt Arthur Coal's response to submissions, in accordance with the objects of the EP&A Act and principles of ecologically sustainable development, and is satisfied that there is sufficient information available to determine the application.

This assessment has found that the project's noise, blasting, dust, spontaneous combustion, traffic and water resource impacts are unlikely to result in any significant incremental impacts in addition to those associated with the existing operations at the Mt Arthur complex. The Mount Arthur North development consent provides a comprehensive basis for mitigating, managing, offsetting and/or compensating for these impacts. Accordingly, the Department has recommended conditions that require Mt Arthur Coal to operate the South Pit Extension Project within the context of the Mount Arthur North consent, including requirements to comply with existing environmental criteria for the combined operations of Mount Arthur North and the South Pit Extension Project.

The Department has also recommended additional conditions to offset the project's impacts on flora and fauna, and requirements to prepare and implement an Energy Savings Action Plan.

Following its assessment the Department is satisfied that the project represents a logical extension to existing mining activities at Mt Arthur and believes, on balance, that the project's benefits sufficiently outweigh its costs, and that it is therefore in the public interest.

Consequently, the Department recommends that the Mt Arthur Coal South Pit Extension Project be approved, subject to conditions.

1. BACKGROUND

Mt Arthur Coal Pty Limited (Mt Arthur Coal) (also known as Hunter Valley Energy Coal Pty Limited) operates the Mt Arthur open cut coal mine, located approximately 8 kilometres south of Muswellbrook in the Upper Hunter Valley (see Figure 1). The mine comprises 3 separate mining areas, including (see Figure 2):

- Bayswater No.2 (extraction complete);
- Bayswater No.3 (operating under DA 210/93); and
- Mount Arthur North (operating under DA 144-05-2000).

The combined operations have approval to extract approximately 19 million tonnes of run-of-mine coal a year, including 3.8 million tonnes from Bayswater No. 3 and 15 million tonnes from Mount Arthur North.

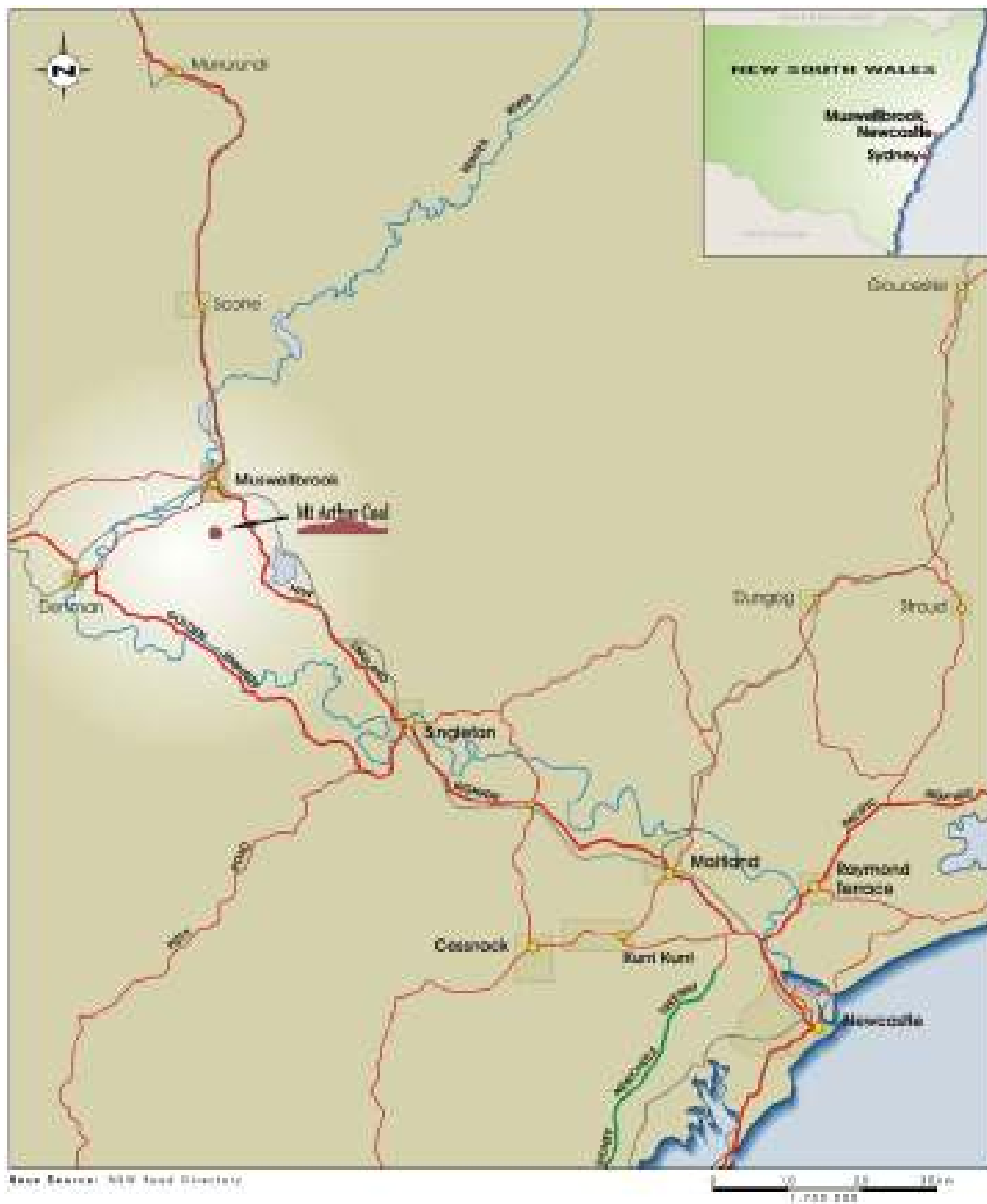


Figure 1: Regional Context



Figure 2: Mt Arthur Coal Mine and Surrounds

2. PROPOSED PROJECT

2.1 Project Description

Mt Arthur Coal is proposing to extend the existing South Pit within the Mount Arthur North mining area. The proposal – referred to as the South Pit Extension Project – involves extending the South Pit a further 2.4 kilometres to the south to extract approximately 25 million tonnes of run-of-mine (ROM) coal over a period of 21 years. Extracted coal would be processed in Mt Arthur Coal's existing coal handling and preparation facilities and then transported to market using existing rail loading and conveyor facilities.

The major components of the project are summarised in Table 1, and depicted in Figure 3. The project is described in full in Mt Arthur Coal's Environmental Assessment (EA), which is attached as Appendix F.

Table 1: Major Components of the Project

Aspect	Description
Project Summary	Extension of the Mount Arthur Coal Mine South Pit to extract a resource of 25 million tonnes of coal over 21 years.
<i>Mining and Reserves</i>	Open cut mining from a single pit proceeding from east to west, using truck and shovel mining methods with blasting to handle overburden. The project is based on a coal resource of approximately 25 million tonnes.
<i>Mine Waste Rock Management</i>	Waste rock would be deposited predominantly within the mined-out voids of the adjacent Bayswater No. 2 and Drayton (West Pit) mining areas, enabling completion of rehabilitated in these areas.
<i>Coal Washing</i>	Use of the existing Mt Arthur Coal coal handling and preparation facilities.
<i>Coarse Rejects and Tailings Management</i>	Coarse rejects and tailings would be disposed in accordance with existing arrangements for the Mt Arthur Coal Mine. Coarse reject would be placed predominantly within active overburden emplacements, and tailings would be placed within in-pit tailings disposal areas, in Bayswater No.2, Mount Arthur North and Drayton's West Pit.
<i>Mine Infrastructure</i>	Use of existing Mt Arthur Coal Mine infrastructure. The project would require relocation of an existing haul road, water pipelines and powerlines.

Aspect	Description
<i>Production</i>	Extraction of up to 3 million tonnes of ROM coal a year. Total production from Mt Arthur Coal's combined operations would be maintained within the currently approved total production limit of 20 million tonnes a year.
<i>Project Life</i>	21 years.
<i>Employment</i>	Continued employment opportunities for the 600 people employed by Mt Arthur Coal.
<i>Capital Value</i>	\$500,000
<i>Construction</i>	Not applicable – project involves a continuation of existing mining activities.
<i>Hours of Operation</i>	24 hours a day, 7 days a week.
<i>Product Coal Transport</i>	Product coal would be transported via existing rail loading (export coal) and conveyor facilities (domestic coal).
<i>Rehabilitation and Offsets</i>	The project involves disturbance to 330 hectares of land, including 53 hectares of native trees. The project disturbance area would be progressively rehabilitated. The project includes an offset strategy comprising a total of 393 hectares of treed vegetation.

2.2 Project Setting

The South Pit extension area is located in the centre of intensive mining activity, including:

- Mt Arthur Coal's:
 - Bayswater No. 2 to the north-east;
 - Bayswater No. 3 to the south and west;
 - existing Mount Arthur North operations to the north; and
- Anglo Coal's Drayton mine to the east.

The mining extension area and proposed overburden emplacement area is situated wholly within existing mining lease areas, on land owned by Mt Arthur Coal and Anglo Coal.

Other landuses in the locality include agriculture (grazing), rural-residential and Crown Land (see Figure 4).

The closest privately-owned residential property (rural-residential) is located at Antienne, approximately 2.5 kilometres north-east of the overburden emplacement area and approximately 7.5 kilometres from the mining extension area.

Other private residences are located:

- on Denman Road, approximately 7.5 kilometres north and north-west of the mining extension area, and 5.5 kilometres from the overburden emplacement areas; and
- in South Muswellbrook, approximately 8 kilometres from the mining extension area and 5.5 kilometres from the overburden emplacement areas.



Figure 3: Project Layout Plan

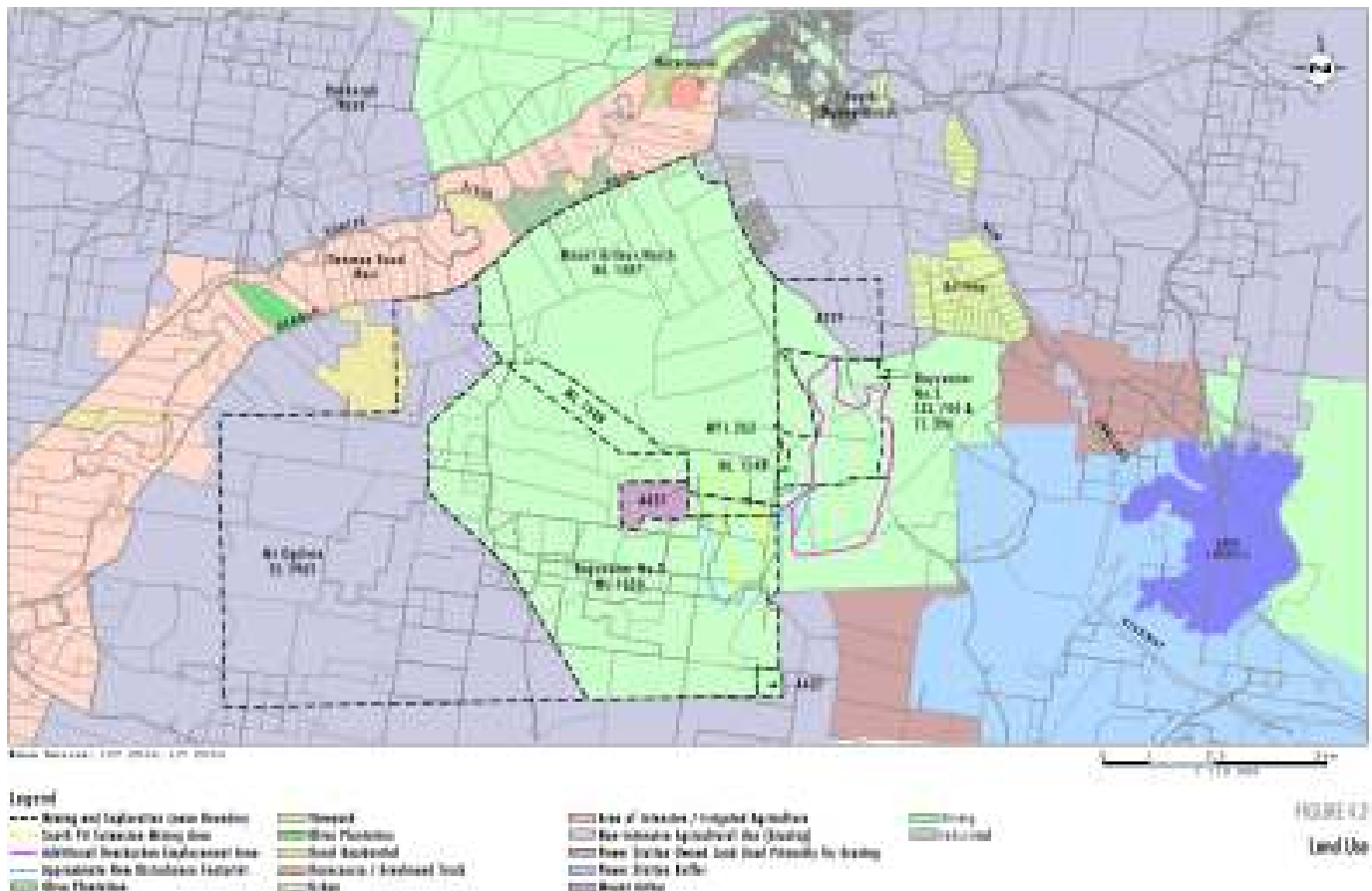


Figure 4: Land Use Plan

2.3 Project Need

The Department recognises that society is heavily reliant on coal to meet its basic energy needs (both at a domestic and international level). Coal provides around 90% of NSW's electricity needs, 75% of Australia's electricity needs and 40% of the world's electricity needs.

Access to energy remains a critical development need, particularly for the one-third of the world's population without electricity. As living standards and development in Third World countries increase, it is expected that the demand for coal will rise to satisfy increasing global energy requirements. The South Pit Extension Project would contribute to supplying this rising annual coal demand. Therefore the ultimate need for the project is driven by both domestic and international markets to meet current and future energy needs.

Consequently, the Department is satisfied that there is a demonstrable need for the project in terms of meeting society's need for adequate, reliable and affordable energy.

At the local level, the Department recognises that the proposed area of coal extraction is surrounded by existing mining operations undertaken by Mt Arthur Coal and Anglo Coal (Drayton). The project is able to be undertaken using existing mining equipment, facilities and infrastructure. In this regard, the Department acknowledges that the project represents a logical extension to existing coal mining activities at Mt Arthur.

From the State's perspective, the project would deliver a number of key benefits, including continuing employment opportunities for the 600 people employed at Mt Arthur Coal, flow-on regional economic benefits, and significant royalty and tax income.

Notwithstanding the above, the Department recognises that a balance must be met in the promotion and co-ordination of the orderly and economic use of land; the proper management and development of the State's resources; and the protection of the environment and ecologically sustainable development. The Department has considered these matters in detail in its assessment of the proposal.

3. STATUTORY CONTEXT

3.1 Major Project

The proposal is classified as a major project under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act), because it is development for the purpose of coal mining, and therefore triggers the criteria in Clause 5 of Schedule 1 of *State Environmental Planning Policy (Major Projects) 2005*.

Consequently, the Minister for Planning is the approval authority for the project.

3.2 Permissibility

The land subject to the application is zoned 1(a) (Rural “A” Zone) under the *Muswellbrook Local Environmental Plan 1985*, and mining is permissible in this zone with consent.

Consequently, the Minister can approve the project

3.3 Exhibition and Notification

Under Section 75H(3) of the EP&A Act, the Director-General is required to make the Environmental Assessment (EA) of a project publicly available for at least 30 days.

After accepting the EA for the project, the Department:

- made it publicly available from 30 July until 31 August 2007:
 - on the Department’s website, and
 - at the Department’s Information Centre and Muswellbrook Shire Council;
- notified landowners in the vicinity of the site about the exhibition period by letter;
- notified relevant State government authorities and Muswellbrook Council by letter; and
- advertised the exhibition in the Muswellbrook Chronicle.

This satisfies the requirements in Section 75H(3) of the EP&A Act.

3.4 Environmental Planning Instruments

Under Section 75I of the EP&A Act, the Director-General’s report is required to include a copy of or reference to the provisions of environmental planning instruments that substantially govern the carrying out of the project.

The Department has considered the project against the relevant provisions of several *State Environmental Planning Policies* (SEPPs) and other environmental planning instruments, and is satisfied that none of these instruments substantially govern the carrying out of this project.

Nevertheless, the Department has included a consideration of applicable SEPPs (including SEPPs 11, 33, 44, and 55) in Appendix C. It is noted that *SEPP (Mining, Petroleum Production and Extractive Industries) 2007* does not apply to the project since the project application was lodged prior to the SEPP’s commencement on 16 February 2007.

3.5 Objects of the Environmental Planning and Assessment Act 1979

The Minister is required to consider the objects of the EP&A Act when he makes decisions under the Act. These objects are detailed in Section 5 of the Act, and include:

‘The objects of this Act are:

(a) to encourage:

- (i) the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,*
- (ii) the promotion and co-ordination of the orderly and economic use and development of land,*
- (iii) the protection, provision and co-ordination of communication and utility services,*
- (iv) the provision of land for public purposes,*
- (v) the provision and co-ordination of community services and facilities, and*

- (vi) *the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and*
- (vii) *ecologically sustainable development, and*
- (viii) *the provision and maintenance of affordable housing, and*
- (b) *to promote the sharing of the responsibility for environmental planning between the different levels of government in the State, and*
- (c) *to provide increased opportunity for public involvement and participation in environmental planning and assessment.'*

The objects of most relevance to the Minister's decision on whether or not to approve this project are those under Section 5(a)(i), (ii), (vi) and (vii).

The Department is satisfied that the project encourages the proper use of resources and the promotion of orderly and economic use of the land, particularly as the subject coal resource is located in the centre of existing mining activities and is able to be undertaken using existing mining equipment, facilities and infrastructure. Mt Arthur Coal claims that the coal resource would unlikely be economically viable as a standalone operation, and if not extracted in the current project, would likely be sterilised.

Consideration of environmental protection is provided in Section 5 of this report. Following its consideration, the Department is satisfied that the project is able to be undertaken in a manner that would not result in a net loss of biodiversity values over the medium to long term, and would not impact threatened species of the locality.

With regard to ecologically sustainable development (ESD), the EP&A Act adopts the definition in the *Protection of the Environment Administration Act 1991*. Section 6(2) of that Act states that ESD '*requires the effective integration of economic and environmental considerations in decision-making processes*' and that ESD '*can be achieved through*' the implementation of the principles and programs including the precautionary principle, the principle of inter-generational equity, the principle of conservation of biological diversity and ecological integrity, and the principle of improved valuation, pricing and incentive mechanisms. In applying the precautionary principle, public decisions should be guided by careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment and an assessment of the risk-weighted consequences of various options.

The Department has considered the encouragement of ESD in its assessment of the project application. This assessment integrates all significant economic and environmental considerations and seeks to avoid any potential serious or irreversible damage to the environment, based on an assessment of risk-weighted consequences. Mt Arthur Coal has considered a number of alternatives to the proposed project (including the alternative of not proceeding) and undertaken an environmental risk analysis of the project.

3.6 Statement of Compliance

Under Section 75I of the EP&A Act, the Director-General's report is required to include a statement relating to compliance with the environmental assessment requirements with respect to the project.

The Department is satisfied that the environmental assessment requirements have been complied with.

4. ISSUES RAISED IN SUBMISSIONS

During the exhibition period, the Department received 11 submissions on the project:

- 7 from public authorities;
- 2 from special interest groups; and
- 2 from the general public.

Three of the public submissions objected to the project.

A summary of the issues raised in submissions is provided below. A full copy of the submissions is attached in Appendix E.

4.1 Public Authorities

The **Department of Primary Industries** (DPI) supports the recovery of the resource and does not object to the project. DPI noted that Mt Arthur Coal would be required to amend its rehabilitation and environmental management reporting to reflect the extension area, and that the company would need to seek DPI approval for landform designs with slopes greater than 10 degrees.

The **Department of Environment and Climate Change** (DECC) does not object to the project, and is satisfied that the impacts of the project in relation to noise, air quality, flora and fauna and Aboriginal cultural heritage are manageable. DECC recommended a number of conditions to manage these environmental impacts, which the Department has incorporated into the recommended conditions of approval.

The **Department of Water and Energy** (DWE) does not object to the project. DWE noted that Mt Arthur Coal will be required to obtain groundwater licences under the *Water Management Act 2000*, and recommended a number of matters for inclusion in a groundwater monitoring program/management plan. These matters are discussed in Section 5.1 of this report.

The **Department of Lands** (DoL) does not object to the project, but recommended that Mt Arthur Coal be required to close, purchase and obtain title to Crown roads in the project disturbance area. Mt Arthur Coal has added a commitment to this effect.

The **Mine Subsidence Board** (MSB) does not object to the project, but noted that the erection of surface improvements will require the approval of the MSB prior to development.

The **Roads and Traffic Authority** does not object to the project, but recommended that Mt Arthur Coal be required to undertake a night time road safety audit of local intersections in consultation with the RTA and Council.

Muswellbrook Shire Council does not object to the project, subject to a number of matters including:

- that Mt Arthur Coal enter into a suitable agreement with Council regarding developer contributions;
- that the Saddlers Creek conservation area be appropriately protected;
- that natural water flows in Saddlers Creek be maintained;
- that the planned bund on the northern face of the overburden emplacement area be completed within 5 years;
- that environmental management plans be prepared in consultation with government authorities;
- that the existing Mount Arthur North Community Consultative Committee applies to the extension area;
- that the commitments of the EA be included as conditions of approval.

4.2 Community and Interest Groups

The **Hunter Environment Lobby Inc.** objects to the project, for reasons including:

- that the EA is inadequate in a number of areas (including consideration of visual impacts, biodiversity impacts, environmental monitoring, feasible alternatives, the principles of ESD and cumulative impacts);
- that the project is inconsistent with the aims of the *Muswellbrook Local Environmental Plan 1985*;
- biodiversity impacts (including vegetation clearing and night lighting impacts);
- water resources impacts; and
- greenhouse gas emissions and contribution to global warming/climate change.

The **United Mineworkers' Federation of Australia** supports the project, noting that the extraction area is contained within existing mine leases and surrounded by existing mining operations.

The 2 submissions from the general public object to the project, due to its impacts related to:

- greenhouse gas emissions;
- air quality;
- noise, vibration and blasting;
- traffic;
- spontaneous combustion; and
- cumulative impacts.

4.3 Response to Submissions

Mt Arthur Coal has provided responses to the issues raised in submissions (see Appendix D), as well as a revised Statement of Commitments for the project.

The Department has considered the issues raised in submissions, and Mt Arthur Coal's responses to these issues, in its assessment of the project.

5. ASSESSMENT

5.1 Surface Water and Groundwater

Issues

The project has the potential to affect surface water and groundwater resources in a number of ways, including:

- altering the water balance for the Mount Arthur mine;
- affecting surface water flows in local and regional catchments, and water availability to downstream water users;
- affecting groundwater flows in subsurface aquifers, and water availability to local groundwater users;
- affecting water quality in downstream surface water and groundwater resources; and
- affecting flood behaviour.

Consideration

The project is located in the upper reaches of the Saddlers Creek catchment, which ultimately drains to the Hunter River. The Saddlers Creek catchment covers an area of approximately 8,720 hectares, and the proposed mining area represents approximately 2% of the catchment.

Saddlers Creek is an ephemeral creek system (ie. flows intermittently), with a total length of approximately 24 kilometres. The creek is located adjacent the south-eastern boundary of the proposed mining area, and the disturbance area has been planned to be offset at least 40 metres from the creekline (the mining area is at least 140 metres from the creek).

Water Balance

The South Pit Extension Project is proposed to be integrated into the Mt Arthur Coal's existing water management system.

The EA includes a water balance assessment which indicates that the project would result in a net increase of available water for the Mount Arthur water management system, primarily because of the increased catchment area created by the project without a significant commensurate increase in water demand. The net increase is estimated to range between 450 megalitres a year for a dry rainfall year to 865 megalitres a year for a wet rainfall year.

The Department and the DWE are satisfied that the project would not have a significant impact on water availability and water sharing in the locality, and that the proposed project water supply is able to be managed in a manner that is consistent with the open trading of water as established under the *Water Management Act 2000*.

Surface Water

The proposed mining area would remove approximately 195 hectares (or 2%) of the Saddlers Creek catchment. Water runoff from within this area would be diverted to the mine's water management system. Accordingly, the project would result in a reduction of flows in Saddlers Creek of approximately 2%.

The Department is satisfied that this flow reduction is not significant, and that the reduction would not result in any impacts to downstream surface water users or the environment.

With regard to surface water quality, monitoring undertaken for the Mt Arthur mine indicates that Saddlers Creek has variable water quality, with a neutral to slightly alkaline pH ranging from 6.9 to 8.7, and a moderate to high salinity (electrical conductivity) ranging from 760 $\mu\text{S}/\text{cm}$ to 15,500 $\mu\text{S}/\text{cm}$. Water quality in the local catchments around the site is also slightly alkaline and of high salinity, with an average pH of 8.7 and an average electrical conductivity of 2,930 $\mu\text{S}/\text{cm}$.

Given that the project would not remove a significant amount of the Saddlers Creek catchment, the Department is satisfied that the project is able to be managed in a manner which would not significantly affect local and regional water quality.

The project includes standard best practice surface water management controls, including diversion of clean water around the site and capture and treatment of dirty water runoff from disturbed areas. The existing Mt Arthur Coal complex is predicted to require discharges of treated mine water only during prolonged wet rainfall years near the end of the life of the project. Any discharges would be required to be undertaken in accordance with the Hunter River Salinity Trading Scheme. The project is not expected to change the frequency of external discharge required for Mt Arthur Coal's operations.

To ensure that surface water resources are managed appropriately for the project, the Department believes that Mt Arthur Coal should be required to review and update the existing water management plans and monitoring programs for the Mt Arthur mine to incorporate the project.

Groundwater

The EA includes a groundwater impact assessment undertaken by Australasian Groundwater and Environmental Consultants.

The assessment indicates that there are 3 key aquifer systems in the area, including:

- alluvial-colluvial sediments associated with the Hunter River, Saddlers Creek and their tributaries;
- weathered bedrock near the ground surface; and
- Permian aquifers associated with the coal measures.

Groundwater quality in the coal measures is poor, with high salinity levels ranging from 1,750 to 7,760 mg/L. pH is generally alkaline at about 8. There are no groundwater users in the vicinity of the project site, given the site location (ie. in the middle of intensive existing mining activity) and the existing poor groundwater quality.

The groundwater modelling indicates that the project would result in groundwater flows into the pit of up to about 0.3 megalitres per day, or up to 110 megalitres per year. These inflows would occur from about Year 10 of the project and continue to the end of the mine life (Year 21). Although this water make would reduce after the end of mining, the final void, together with other Mt Arthur mine voids, would act as a permanent groundwater sink.

The predicted groundwater inflows into the pit would reduce the groundwater flows from the Permian aquifers to the alluvial-colluvial aquifer of Saddlers Creek. The assessment indicates that these losses would amount to up to about 0.085 megalitres per day, or 31 megalitres per year. This represents about 8% of the groundwater flows to Saddlers Creek, and is not considered significant. Given the poor quality of the Permian aquifer groundwater, the EA concludes that this loss would result in some improvement of water quality in Saddlers Creek.

The DWE did not raise any major concerns in relation to the groundwater impact assessment or the groundwater impacts of the project, however the DWE recommends that Mt Arthur Coal be required to undertake a census of bores in the area and to compensate any loss of water to groundwater users in the unlikely event that this occur. The DWE also recommended a number of measures for inclusion in the mine's groundwater management plan and monitoring programs.

The Department is satisfied with the groundwater impact assessment provided in the EA. Based on this assessment the Department believes that, whilst the project would result in some localised impacts to groundwater resources, and contribute to the wider impacts associated with the Mt Arthur mine, the project is not likely to result in any significant regional impacts to groundwater users or the environment.

The Department believes that Mt Arthur Coal should be required to manage the groundwater impacts of the project within the context of, and in an integrated manner with, the existing Mt Arthur operations. In this regard, the Department has recommended conditions that require Mt Arthur Coal to review and update the existing water management plans and monitoring programs for the Mt Arthur mine to incorporate the project, in consultation with the DWE.

Flooding

The EA includes a flood assessment which indicates that the project would not adversely impact flood levels or behaviour in the area. The Department is satisfied with Mt Arthur Coal's assessment.

Conclusion

The Department is satisfied that Mt Arthur Coal has adequately assessed the project's potential impacts to surface water and groundwater resources.

Following its assessment, the Department is satisfied that the project can be managed such that it would not have a significant impact on water resources. The Department has recommended conditions that require Mt Arthur Coal to review and update the existing water management plans and monitoring programs for the Mt Arthur mine to incorporate the project, in consultation with the DWE and Council.

5.2 Noise

Issue

The project has the potential to generate operational, traffic and rail related noise impacts.

Consideration

The EA includes a noise impact assessment undertaken by specialist acoustics consultants Wilkinson Murray Pty Ltd in accordance with applicable guidelines including the *NSW Industrial Noise Policy (INP)*.

The assessment was undertaken with reference to sensitive receivers in the vicinity of the Mt Arthur mine, the closest of which is approximately 2.5 kilometres from the project area, and 7.5 kilometres from the actual mining area (see Section 2.2).

Construction Noise

The project essentially involves an extension of existing operations associated with the Mount Arthur North mine and would involve minimal construction activities. As such, the project would not result in any construction noise related impact.

Operational Noise

The operational noise assessment includes consideration of the project in isolation as well as the combined operations of the project and concurrent Mount Arthur North operations.

The assessment adopts the background noise levels and project specific noise criteria determined for the approved Mount Arthur North mine, which were based on the procedures under the INP. The Department is satisfied that this approach is both conservative and appropriate.

When considered in isolation, the noise assessment indicates that the South Pit Extension Project would comfortably comply with the relevant noise criteria.

When considered in combination with Mount Arthur North, the assessment indicates that the combined operations are generally consistent with the noise levels predicted in the Mount Arthur North EIS – that is, the South Pit Extension project would not make a significant contribution to

total noise levels from Mt Arthur Coal's operations. The combined noise levels are presented in the following table.

Table 2: Predicted Noise Impacts – Combined Mount Arthur North and South Pit Extension Operations (Exceedance in bold), dBA $L_{Aeq}(15 \text{ min})$

Receiver	Worst Case Combined Noise Level (all years)	Criterion	Worst Case Noise Level Predicted in MAN EIS²
Yammanie monitor	40	37	39
Sth Muswellbrook residence	36	35	33
Sth Muswellbrook monitor ¹	36	35	35
Antiene residence	35	38	38
Racecourse Rd Sth	38	35	41
Denman Rd monitor ¹	38	35	39
Denman Rd residence	36	35	37

Notes:

1 Not privately-owned land

2 Noise levels predicted in the MAN EIS have been demonstrated through ongoing mine noise monitoring to have been overly conservative. The combined noise levels shown in the above table are based on re-calibrated noise levels from MAN, hence some combined noise levels are lower than those predicted in the MAN EIS.

Notwithstanding, the combined operations of the South Pit Extension Project and the Mount Arthur North operations would result in some exceedances of the project noise criteria (up to 3dBA).

The Department's typical policy with regard to noise exceedances is as follows:

Criteria Exceedance	Impact	Management Generally Required
1-2 dBA	Minor	Noise mitigation, if possible
3-5 dBA	Moderate	Noise mitigation, inc. noise mitigation at residence
>5 dBA	Significant	Acquisition

The existing approval for the Mount Arthur North mine contains a number of noise-related conditions in accordance with this policy, including requirements on Mt Arthur Coal to:

- comprehensively monitor noise emissions;
- undertake management measures to mitigate noise levels that exceed applicable noise criteria;
- acquire (upon request) private properties where noise levels exceed applicable acquisition criteria;
- independently investigate noise complaints and undertaken applicable management measures; and
- prepare and implement a comprehensive Noise Management Plan.

The Department and DECC are satisfied that the operational noise emissions associated with the South Pit Extension Project can be managed within the context of the existing approval for the Mount Arthur North Mine. In this regard, the Department believes that Mt Arthur Coal should be required to comply with the existing noise criteria and conditions under the Mount Arthur North consent, for the combined operations of the project and Mount Arthur North.

The Department is satisfied that, with this approach, the project is unlikely to result in any significant noise related impacts over and above the existing impacts of the Mount Arthur mine.

Road and Rail Noise

The Department is satisfied that the project would not result in any significant road traffic or rail noise impacts, as it:

- would not increase the approved production rate of the Mount Arthur mine (ie. 20 million tonnes a year);
- does not involve any change to the mine's hours of operation;
- does not involve any significant road transport of materials or product; and
- is not expected to generate any significant additional employment at the mine.

Cumulative Noise

The EA includes a cumulative noise assessment which assesses the impact of the project together with nearby surrounding industrial sources (including the Bengalla and Drayton mines).

The assessment also considered rail noise impacts associated with Mt Arthur Coal's operations on the Antiene area. The assessment indicates that the cumulative noise impacts associated with the project would comply with applicable amenity criterion at all residential locations.

Conclusion

The Department and the DECC are satisfied that Mt Arthur Coal has assessed the potential noise impacts of the project in accordance with relevant DECC guidelines, and appropriately considered reasonable and feasible noise mitigation measures.

The impact assessment indicates that the project, when combined with noise emissions from Mount Arthur North, would exceed operational noise by up to 3 dB(A). However, the project's contribution to these noise levels is small, and the predicted combined noise levels are generally consistent with the worst case noise levels predicted in the Mount Arthur North EIS.

The Department is satisfied that the project's noise emissions can be managed within the context of existing noise related conditions of the Mount Arthur North consent. In this regard, the Department has recommended conditions that require Mt Arthur Coal to:

- comply with the noise criteria of the Mount Arthur North consent for the combined operation of the project and Mount Arthur North; and
- review and update the existing Mount Arthur North Noise Management Plan and monitoring program to encompass the project.

5.3 Blasting

Issue

Project blasting has the potential to impact receivers and infrastructure in the vicinity of the site.

Consideration

The EA states that, although blasting is the cause of most complaints related to the Mount Arthur Mine (30 complaints received in 2005), all blasting currently complies with applicable maximum overpressure (120 dBL) and ground vibration (10 mm/s) amenity criteria at all private residences. All blasts are also below the 5% exceedance limits of 115 dBL and 5 mm/s, respectively.

Given the existing compliance and that the South Pit Extension project is further away from the nearest residences, the project is expected to comfortably comply with the relevant blast criteria at private property.

The EA includes a commitment that the frequency of blasting would not exceed the current situation, with blasting to occur on 'up to a daily basis' [on average] within the Mt Arthur Coal operational area (although the Department notes that this commitment is not reflected in the actual Statement of Commitments). The Department notes that the existing Mount Arthur North consent does not place limits on the number of blasts per day/week, although it does require that blasting operations may only occur between 9.00am and 5.00pm, Monday to Saturday. In accordance with contemporary approvals, the Department has recommended a condition that would limit the total number of blasts per day/week.

With regard to blasting impacts on infrastructure and other structures, the EA notes that the only structure in the vicinity of the site is a Transgrid transmission line approximately 230 metres to the west of the proposed mining area. Mt Arthur Coal's existing operations are considerably closer to the transmission lines than this, and blasting operations to date have been carried out without any impact to the infrastructure. The Department is satisfied that the project is able to be managed such that it would not result in any blast related impacts to the transmission lines, and notes that Mt Arthur Coal has committed to consulting with Transgrid when blasting in proximity to the transmission lines.

Conclusion

The Department and the DECC are satisfied that the project is unlikely to result in any significant blast related impacts, and that the project blasting can generally be managed within the context of existing blast related conditions of the Mount Arthur North consent.

The Department has recommended conditions that require Mt Arthur Coal to:

- comply with the blast criteria of the Mount Arthur North consent for the combined operation of the project and Mount Arthur North;
- comply with the blast management conditions of the Mount Arthur North consent;
- review and update the existing Blast/Vibration Management Plan to encompass the project; and
- limit blast the number of blasts to 1 per day and 5 per week, for the combined Mt Arthur complex operations.

5.4 Air Quality

Issue

The project has the potential to result in dust related impacts associated with mining operations.

Consideration

The EA includes a specialist air quality impact assessment undertaken by Holmes Air Sciences Pty Ltd. The assessment includes consideration of total suspended particulates (TSP), fine particulate matter (PM₁₀), and dust deposition, with reference to relevant 24-hour, monthly and annual air quality goals.

The assessment includes consideration of the incremental increase caused by the project, and the total cumulative emissions generated by the project and existing background dust levels.

The assessment indicates that the project would comply with all applicable air quality criteria. The worst case predicted dust levels at the nearest sensitive receivers are shown in the following table.

Table 3: Predicted Air Quality Impacts

Pollutant	Averaging Period / Units	Criterion	Max. Predicted Incremental Dust Level	Max. Predicted Total Dust Level
Total suspended particulate (TSP) matter	Annual / $\mu\text{g}/\text{m}^3$	90	0.6	70
Particulate matter < 10 μm (PM ₁₀)	Annual / $\mu\text{g}/\text{m}^3$	30	0.5	28
	24 hour / $\mu\text{g}/\text{m}^3$	50	6.2	- ¹
Deposited Dust	Annual / $\text{g}/\text{m}^2/\text{month}$	2 (max. increase)	0.06	-
		4 (total)	-	3.2

Notes:

¹ Not assessed, given technical difficulties in establishing a reliable short-term PM₁₀ background level.

The DECC noted that the air quality assessment does not include potential cumulative impacts associated with proposed extensions to the nearby Bengalla and Drayton coal mines, but given the nature and location of these other mines, and the low incremental impact of the project, the DECC was satisfied that this omission would not significantly affect the conclusion of the air quality assessment.

The Department agrees, and adds that the existing Mount Arthur North consent includes procedures for managing cumulative dust impacts, including requirements to monitor cumulative emissions, independently investigate dust complaints, mitigate elevated dust levels and purchase significantly affected properties (where requested) in accordance with a Joint Acquisition Management Plan.

Conclusion

The Department and the DECC are satisfied that the project is unlikely to result in any significant dust related impacts, and that the project's dust emissions can generally be managed within the context of existing air quality related conditions of the Mount Arthur North consent.

The Department has recommended conditions that require Mt Arthur Coal to:

- comply with contemporary air quality criteria for the combined operation of the project and the existing Mount Arthur mine complex; and
- comply with the air quality management conditions of the Mount Arthur North consent.

5.5 Spontaneous Combustion

Issue

Coal seams in the area are susceptible to spontaneous combustion, which can result in odour, air quality, visual and safety impacts.

Consideration

Two groups of coal seams occur in Mount Arthur's operational area – the Greta Coal Measures in the Bayswater No. 2 area and the Wittingham Coal Measures in the Bayswater No.3 and Mount Arthur North area. The Greta Coal Measures have historically been susceptible to spontaneous combustion.

The project provides for the rehabilitation of spontaneous combustion affected areas in Bayswater No.2 and the Drayton West Pit, through capping with overburden.

The target coal seams in the South Pit Extension area belong to the Wittingham group, which has a much lower risk of spontaneous combustion. Mt Arthur Coal proposes to manage the risk of spontaneous combustion associated with the project in accordance with existing procedures under its Spontaneous Combustion Management Plan. These management measures include regular monitoring of at risk areas, separate handling and emplacement of at risk overburden material, control works in areas of outbreak and reporting of incidents to DPI and DECC in accordance with existing statutory requirements.

Conclusion

The Department, the DPI and the DECC are satisfied that the spontaneous combustion risk associated with the project is manageable. Further, the Department acknowledges that the project provides for the remediation of spontaneous combustion affected areas in the Bayswater No.2 and Drayton West Pit mines.

The Department has recommended a condition that would require Mt Arthur Coal to manage the project in accordance with the existing spontaneous combustion conditions of the Mount Arthur North consent.

5.6 Greenhouse Gas Emissions

Issue

The project would generate direct and indirect greenhouse gas (GHG) emissions that would contribute to global warming and climate change.

Consideration

The EA includes a detailed Greenhouse Gas and Energy Assessment, undertaken by SEE Sustainability Consulting Pty Ltd. This assessment was undertaken in accordance with applicable GHG guidelines, including:

- the World Business Council for Sustainable Development and World Resource Institute's *Greenhouse Gas Protocol 2004* (GHG Protocol); and
- the Australian Greenhouse Office's *Factors and Methods Workbook, December 2005* (AGO Workbook).

The assessment calculates direct and indirect GHG emissions associated with the project, including 'Scope 1' emissions (ie. direct GHG emissions from sources controlled by Mt Arthur Coal), 'Scope 2' emissions (ie. indirect emissions associated with the import of electricity) and 'Scope 3' emissions (ie. other indirect emissions, such as those associated with the downstream combustion of the coal).

The calculated GHG emissions associated with the project are presented in the following table.

Table 4: Project Direct and Indirect GHG Emissions

Scope	GHG source(s)	Annual average GHG emissions (tonnes carbon dioxide equivalent, TCO ₂ e)	Total project GHG emissions (TCO ₂ e)
Scope 1	Methane, diesel, spontaneous combustion, explosives, slow oxidation	39,895	837,789
Scope 2	Upstream electricity	5,170	108,575
Scope 3	Downstream electricity, diesel	5,650	118,646
	Downstream coal combustion	2,311,768	48,547,130
Total (exc. downstream coal combustion)		50,715	1,065,010
Total (inc. downstream coal combustion)		2,362,483	49,612,140

The assessment indicates that 98% of the total GHG emissions generated as a consequence of the project are those associated with the downstream burning of the product coal at power stations – ie. Scope 3 indirect emissions. Of the 2% residual GHG emissions, the various GHG sources make the following (approximate) contribution:

- methane (50%);
- diesel use (31%);
- electricity (13%);
- spontaneous combustion (6%);
- explosive use (0.8%); and
- slow oxidation (0.2%).

The total GHG emissions arising as a consequence of the project (ie. including coal combustion) represents approximately 0.006% of annual global GHG emissions.

Two of the public submissions objected wholly or in part to the project on global warming/ climate change grounds.

The Department acknowledges these concerns, and the impacts posed by global warming/climate change, but does not believe that the threat posed by global warming/climate change should necessarily preclude the approval of the project.

Rather, the consideration of the project application with regard to GHG impacts should be balanced with consideration to:

- the project's contribution to global warming/climate change;
- whether refusing the project application would reduce global GHG emissions;
- the need for the project;
- the benefits of the project, including job creation and its contribution to the NSW economy;
- the objects of the EP&A Act, including the encouragement of ESD; and
- available GHG impact mitigation measures.

The project's contribution to global warming/climate change is discussed above. Following this consideration, the Department is satisfied that the project's contribution to global GHG emissions, even when assessed on a full life cycle basis (ie. including downstream GHG emissions), would be very small.

It must be noted that if the project was not allowed to proceed, the resultant gap in the coal supply would be almost certainly filled by another coal resource either in NSW, Australia or overseas. In other words, removing the GHG emissions from the project would not likely result in any decrease in global CO₂ emissions. This point illustrates the reality that the key response to the issue of global warming/climate change needs to be made at a policy or strategic planning level, outside and above the NSW project assessment process.

The need for the project is discussed in Section 2.3. Based on its consideration, the Department is satisfied that there is a clear need for the development of new coal deposits, for at least the foreseeable future, to meet society's basis energy needs.

The benefits of the project are summarised in Section 7. Following its consideration, the Department is satisfied that the project would have considerable socio-economic benefits, and that it represents a logical extension to Mt Arthur Coal's existing mining operations.

The objects of the EP&A Act are outlined in Section 3.5, and these objects have informed the Department's assessment of the project. With regard to the principles of ESD, the Department acknowledges that global warming/climate change presents a clear threat of serious or irreversible environmental damage, as well as a threat to intergenerational equity and a threat to the conservation of biological diversity. However, it must also be acknowledged that the downstream energy and other socio-economic benefits generated by the project would also benefit future generations, particularly through the shoring up of national and international energy needs.

With regard to GHG impact mitigation measures, the Department acknowledges Mt Arthur Coal's commitment in the EA to developing energy conservation and GHG management plans (but notes that these commitments are not reflected in the actual Statement of Commitments for the project). The Department believes that Mt Arthur Coal should be required to prepare and implement a comprehensive Energy Savings Action Plan for the project, and seek to continually improve its energy efficiency.

The Department does not believe it is reasonable to apply other requirements on Mt Arthur Coal through the NSW planning system to significantly reduce GHG emissions, including Scope 3 emissions associated with the downstream burning of the product coal. Any such impost – for example a CO₂ levy on product coal – would unfairly penalise Mt Arthur Coal and its ability to compete in the energy industry. The Department believes that such an ad hoc approach to the issue of global warming/climate change is not in the public interest. The Department is satisfied that much more effective measures have been, and are continuing to be, planned and implemented at the State, national and international levels to combat global warming/climate change.

Conclusion

The Department has weighed the GHG impacts of the project against a range of matters, including its contribution to global GHG emissions, the need for the project and its benefits, its consistency with the objects of the EP&A Act, and the GHG impact mitigation measures available. On balance, the Department is satisfied that the project's potential GHG impacts should not preclude approval of the project.

However, the Department believes that Mt Arthur Coal should be required to mitigate, manage or offset direct and indirect GHG emissions by:

- developing and implementing a comprehensive Energy Savings Action Plan, which includes quantified energy efficiency targets and actions; and
- monitoring and continually improving energy efficiency.

5.7 Flora and Fauna

Issues

The project would disturb a total of 330 hectares of land not previously disturbed by mining, including 53 hectares of native treed vegetation, with the balance comprising derived grassland.

Consideration

The EA includes a detailed flora and fauna assessment undertaken by Umwelt Pty Ltd. The assessment indicates that the project would require the clearing of:

- 48 hectares of Central Hunter Ironbark – Spotted Grey-Gum Box Forest;
- 4.5 hectares of Central Hunter Bullock Forest Regeneration;
- 0.3 hectares of Hunter Floodplain Red Gum Woodland Complex; and
- 280 hectares of derived grassland (pasture).

No threatened flora species, endangered populations or endangered ecological communities (EECs) were identified within the project area, however the Central Hunter Ironbark – Spotted Grey-Gum Box Forest and Hunter Floodplain Red Gum Woodland Complex communities are considered regionally significant.

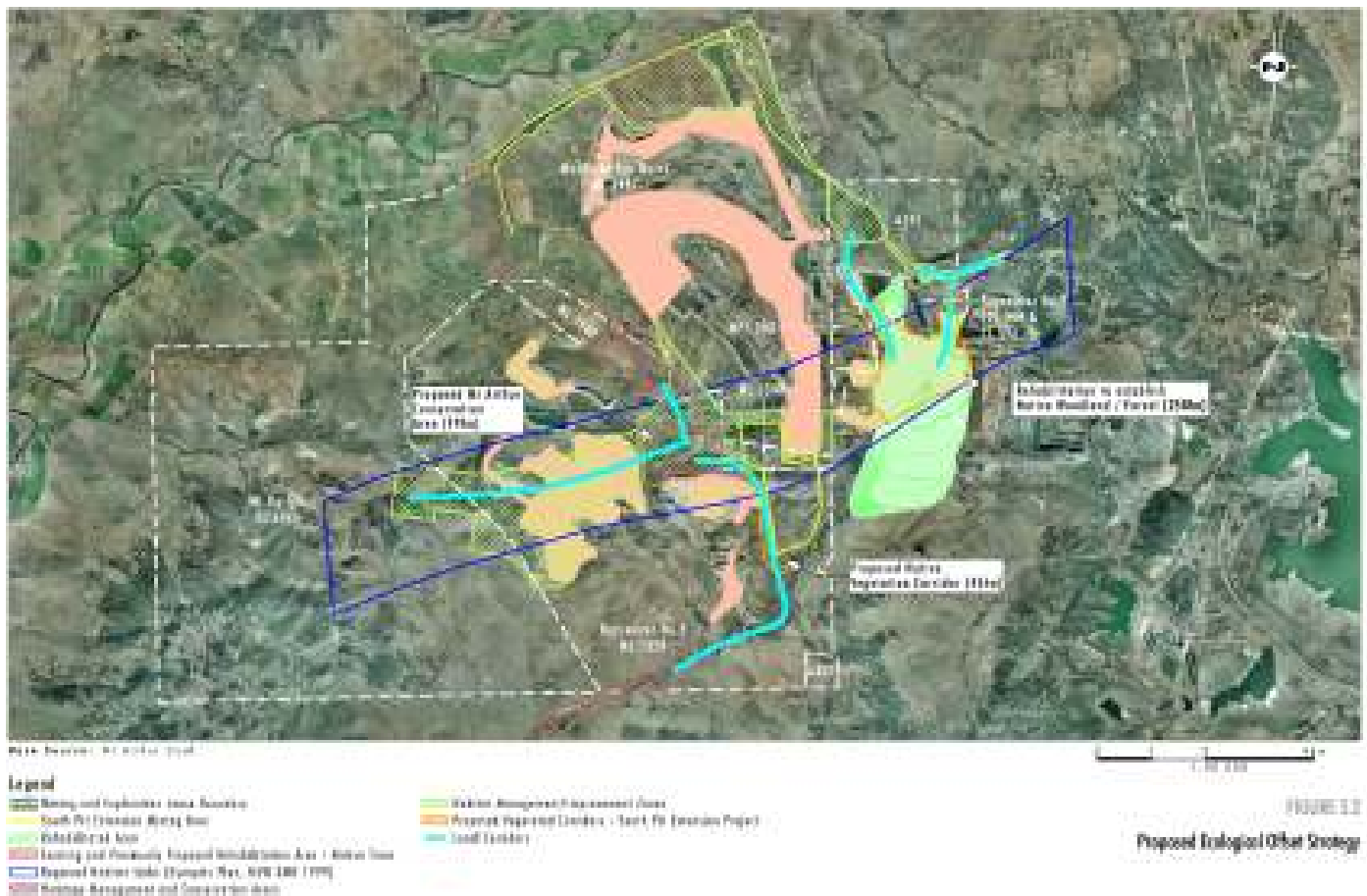
Four threatened fauna species, including the squirrel glider and three bats (eastern bentwing-bat, large footed myotis and the eastern cave bat) were identified on the site. In addition, 7 listed migratory species were identified on the site.

Mt Arthur Coal has undertaken tests of ecological significance for each of the identified threatened fauna species, as well as for a number of additional threatened species that, although not identified in the surveys, have the potential to occur within the project area. The tests of significance conclude that the project would not have a significant impact on any of the listed threatened species.

The DECC and the Department are satisfied with this conclusion.

Mt Arthur Coal has negotiated an ecological offset strategy with the DECC to compensate for the impacts of the project on flora and fauna. The offset strategy is shown on Figure 5, and comprises:

- 98 hectares of regionally significant existing vegetation to be protected and enhanced;
- 45 hectares of degraded land to be replanted as a corridor between vegetated habitats of Mount Arthur and Saddlers Creek; and
- 250 hectares of woodland to be established in rehabilitation works for the project.



The proposed 98 hectare area of existing vegetation to be conserved is already required in the Mount Arthur North consent to be conserved for its Aboriginal archaeology values in accordance with a Voluntary Conservation Agreement (VCA). However, as the area contains regionally significant vegetation the DECC and the Department are satisfied with this area being included as part of the ecological offset strategy. The offset strategy proposes to include specific measures in the VCA to protect and enhance the ecological values of this area.

Conclusion

The Department and the DECC are satisfied that the proposed offset strategy would adequately compensate for the flora and fauna impacts of the project, and that the project should be able to achieve a net gain in biodiversity values in the area over the medium to long term.

The Department has recommended conditions that would require Mt Arthur Coal to:

- implement the proposed offset strategy;
- include specific provisions in the offset strategy to enhance and conserve significant plant communities, including Central Hunter Ironbark – Spotted Grey-Gum Box Forest and Hunter Floodplain Red Gum Woodland Complex;
- provide for the long term conservation of the offset area;
- lodge a substantial conservation bond for the offset area.

5.8 Aboriginal Heritage**Issue**

The project would affect a number of identified Aboriginal sites.

Consideration

The EA includes a specialist Aboriginal cultural heritage assessment, undertaken by Umwelt Pty Ltd in consultation with local Aboriginal groups. The assessment draws on previous archaeological assessments for the Bayswater No.3 and Mount Arthur North projects.

The surveys have identified a total of 23 Aboriginal 'sites' within the South Pit Extension area, with these sites identified and defined according to archaeological terrain units. Areas within these 'sites' in which artefacts have been located have been referred to as site 'loci'. A total of 66 loci have been identified within the 23 sites.

The project would impact a total of 30 loci in 6 sites. Five of the 6 sites have been assessed as having low to moderate archeological significance, while the sixth site has been assessed as having moderate to high archeological significance.

The assessment evaluates several options for managing the sites that would be impacted by the project, including site conservation, site destruction without salvage, site destruction with salvage (surface collection) and site destruction with salvage (with sub-surface investigation). The assessment concludes that site destruction with salvage (with surface collection) is the preferred management option, given the nature and archaeological significance of the sites.

The Aboriginal groups and the DECC are generally satisfied with this management approach, however at least one of the groups raised concerns about how the collected artefacts would be stored and managed.

The Department notes that the existing approval for the Mount Arthur North mine includes requirements on Mt Arthur Coal to manage Aboriginal cultural heritage issues in accordance with an Archaeology and Cultural Management Plan, prepared and implemented in consultation with (limited) Aboriginal groups and the DECC. The Department is satisfied that the Aboriginal cultural heritage issues associated with the project, including the best way to store and manage collected artifacts, can be managed within the context of this management plan, as extended to include the project and consultation with all relevant Aboriginal groups.

Conclusion

The Department is satisfied that the project is unlikely to result in a significant impact to Aboriginal heritage. The Department has recommended conditions that would require Mt Arthur Coal to extend the existing Archaeology and Cultural Management Plan to encompass the project, and to prepare and implement this plan in consultation with the DECC and all applicable Aboriginal groups.

5.9 Visual Amenity**Issue**

The project has the potential to impact on the visual amenity of the locality.

Consideration and Conclusion

The proposed overburden emplacement area would be:

- visible from South Muswellbrook residences to the north, at a distance of at least 5 kilometres;
- partially visible (filtered by vegetation) from Antiene residences and the New England Highway to the north-east, at a distance of at about 4 kilometres;
- visible from Roxburgh Road to the north-west, at a distance of at least 12.5 kilometres; and
- visually prominent from Thomas Mitchell Drive, approximately 500 metres to the north (nb. most traffic on this road is of a mining or industrial nature).

To mitigate the project's visual impacts to key sensitive areas to the north, Mt Arthur Coal has committed to completing and rehabilitating the northern faces of the emplacement areas as quickly as possible (within the first 5 years of operations). The completed northern faces would then provide a visual screen to continued emplacement activities.

Given the distance to sensitive receivers, intervening vegetation, and the management measures proposed, the Department is satisfied that the project would not result in a significant visual impact to surrounding landusers.

5.10 Other Issues

Issue	Consideration
<i>Non-Indigenous Heritage</i>	There are no historic heritage sites in the vicinity of the project area.
<i>Traffic and Transport</i>	The project would not involve any change to employee numbers or currently approved production levels. As such, the project is not expected to result in any significant road or rail traffic impacts. The RTA has recommended that Mt Arthur Coal be required to undertake a night time road safety audit of local intersections in consultation with the RTA and Council. The Department notes that Mt Arthur Coal has added such a commitment to its Statement of Commitments for the project.
<i>Site Contamination</i>	Localised areas of hydrocarbon contamination have been identified in the former Bayswater No. 2 infrastructure area, which is proposed to be filled as part of the overburden emplacement area. The Department is satisfied that the land will be suitable for the proposed overburden emplacement, subject to remediation of these localised contamination sources.
<i>Rehabilitation</i>	The project would result in a net reduction in the number of final voids in the locality, with the proposed in-filling of voids in the Bayswater No. 2 and Drayton West Pits. The final void for the South Pit Extension itself would be merged with the southern Mount Arthur North void. The DPI and the Department are satisfied that the project rehabilitation can and should be undertaken within the context of the entire Mount Arthur complex.
<i>Socio-economics</i>	The project does not involve any change to employee numbers or currently approved production levels, and as such is not expected to place any significant additional demands on community infrastructure. Mt Arthur Coal has already made significant contributions to community infrastructure as part of the Mount Arthur North development approval. Nevertheless, as agreed with Council, Mt Arthur Coal has committed to entering into an agreement with Council in accordance with Council's Community Enhancement Program, on the basis that contributions have already been paid under the Mount Arthur North approval.

6. RECOMMENDED CONDITIONS

The Department has prepared recommended conditions of approval for the project (see Appendix B), and summarised these conditions in Appendix A. These conditions are required to:

- prevent, minimise, and/or offset adverse impacts of the project;
- set standards and performance measures for acceptable environmental performance;

- ensure regular monitoring and reporting; and
- provide for the ongoing environmental management of the project.

Mt Arthur Coal has reviewed and accepts the recommended conditions. The Department believes the conditions reflect current best practice for the regulation of coal mines in NSW.

7. CONCLUSION

The Department has assessed the project application, EA, submissions on the project and Mt Arthur Coal's response to submissions, in accordance with the objects of the EP&A Act and principles of ecologically sustainable development, and is satisfied that there is sufficient information available to determine the application.

This assessment has found that the project's noise, blasting, dust, spontaneous combustion, traffic and water resource impacts are unlikely to result in any significant incremental impacts in addition to those associated with the existing operations at the Mt Arthur complex.

The Mount Arthur North development consent provides a comprehensive basis for mitigating, managing, offsetting and/or compensating for these impacts. Accordingly, the Department has recommended conditions that require Mt Arthur Coal to operate the South Pit Extension Project within the context of the Mount Arthur North consent, including requirements to comply with existing environmental criteria for the combined operations of Mount Arthur North and the South Pit Extension Project.

The Department acknowledges that the project would require the clearing of 53 hectares of native treed vegetation of some conservation significance. To offset this impact, the Department has recommended conditions that would require Mt Arthur Coal to establish and/or conserve at least 393 hectares of native treed vegetation. The Department and the DECC are satisfied that this offset strategy should ensure that the project represents a net gain in ecological values in the area over the medium to long term.

The Department also acknowledges that the project has a number of benefits, including that it:

- utilises existing facilities and equipment associated with the Mount Arthur mine;
- is located within an area of intensive existing coal mining activities, in a location that is relatively removed from incompatible land uses; and
- would provide continuing employment opportunities for the 600 people employed at Mt Arthur Coal; and
- would generate other socio-economic benefits, including flow-on regional economic benefits, and significant royalty and tax income.

Accordingly, the Department believes that the project represents a logical extension to Mt Arthur Coal's existing mining operations, and that the site is suitable for the project.

On balance, the Department believes that the project's benefits would sufficiently outweigh its residual costs, and that it is therefore in the public interest and should be approved, subject to conditions.

8. RECOMMENDATION

It is RECOMMENDED that the Minister:

- consider the findings and recommendations of this report;
- approve the project application, subject to conditions, under section 75J of the *Environmental Planning and Assessment Act 1979*; and
- sign the attached project approval (see Appendix B).

David Kitto
Director, MDA

Chris Wilson
Executive Director, MPA

Sam Haddad
Director-General

APPENDIX A - SUMMARY OF CONDITIONS OF APPROVAL

Aspect	Condition	Requirement
Schedule 2: Administrative Conditions		
<i>Minimising Harm</i>	1	Obligation to minimise harm to the environment
<i>Terms of Approval</i>	3	Requirement to carry out project in accordance with the conditions of consent for the Mount Arthur North mine
<i>Limits on Approval</i>	6	Approval for mining restricted to until the Mount Arthur North consent lapses
	7	Restriction on coal production to 3 million tonnes a year, and 20 million tonnes a year for the Mt Arthur mine complex
<i>Environmental Management Plans</i>	8	Requirement to update all EMPs for the Mount Arthur North mine to encompass the project.
Schedule 3: Specific Environmental Conditions		
<i>Air Quality</i>	1	Requirement to comply with contemporary air quality criteria for the whole Mt Arthur mine complex
<i>Blasting</i>	2	Restriction on blasting frequency
<i>Site Contamination</i>	3	Requirement to remediate identified site contamination
<i>Rehabilitation and</i>	4-5	Requirements to implement the offset strategy and to progressively rehabilitate the site
	6	Requirement to provide for long term security for the offset areas
<i>Landscape Management</i>	7	Requirement for Conservation Bond
<i>Visual Impact</i>	8-9	Requirement to minimise visual impacts, and the complete the northern faces of the overburden emplacement areas within 5 years
<i>Greenhouse Gas</i>	10	Energy Saving Action Plan

APPENDIX B – CONDITIONS OF APPROVAL

APPENDIX C – CONSIDERATION OF ENVIRONMENTAL PLANNING INSTRUMENTS

1 State Environmental Planning Policy (SEPP) No.11 – Traffic Generating Development

The project is affected by the provisions of SEPP 11, as an 'extractive industry or mining' (Schedule 1(m)). As such, in accordance with clause 7 of the SEPP the application was referred to the RTA, which subsequently confirmed that it does not object to the project (see Section 4 of assessment report).

2 SEPP No.33 – Hazardous and Offensive Development

The Department is satisfied that the project is not potentially hazardous or offensive, and that the proposal is generally consistent with the aims, objectives, and requirements of SEPP 33.

3 SEPP No.44 – Koala Habitat Protection

The EA states that, despite targeted searches, no koalas or koala scats were identified within the project disturbance area, and the area does not provide core Koala habitat. The Department is satisfied that the project is unlikely to significantly affect koala habitat, and that the project is generally consistent with the aims, objectives, and requirements of SEPP 44.

4 SEPP No.55 – Remediation of Land

The EA notes that localised areas of hydrocarbon contamination have been identified in the former Bayswater No. 2 infrastructure area. The Department is satisfied that the land will be suitable for the proposed overburden emplacement in this area, subject to the remediation of these localised contamination sources.

APPENDIX D – MT ARTHUR COAL’S RESPONSE TO SUBMISSIONS

APPENDIX E – SUBMISSIONS

APPENDIX F – ENVIRONMENTAL ASSESSMENT
