Mining and Energy Division

Review of Environmental Assessment

Mt Arthur Mining Complex

Modification 1– Extension of Mining

09-0062 (Mod 1)

Submission

Construction Forestry Mining and Energy

Union (Mining and Energy Division)

Northern District Branch

May 2013

On 7 February 2012, Hunter Valley Energy Coal Pty Ltd (HVEC) applied to the Minister, Department of Planning seeking approval to continue open cut mining operations at the Mt Arthur Coal Mine for an additional operational life of four years. This Project is sought under Section 75W of the EP&A Act, 1979.

The Director General made the Environmental Assessment publicly available on the 24 April 2013 at the DP & I Information Centre Sydney, Muswellbrook Shire Council and Nature Conservation Council.

The Union is pleased to take the opportunity to comment on the Mt Arthur Mine Modification Project and related activities Environmental Assessment.

The Mining and Energy Division is a Division of the CFMEU under the Federal Workplace Relations Act 1996, with over 120,000 members, one of the largest in Australia. The Division covers several industries including the coal industry, coal ports, metalliferous mining industries, electrical power generation, oil and gas and the Nation's small coking industry.

The Northern District Branch of the CFMEU Mining and Energy Division, being the branch that on behalf of the organisation which is making the submission is the principal Union representing coal miners in the Northern District Coalfields of New South Wales. The Mt Arthur facility is located approximately 5 kilometres south-west of Muswellbrook and is wholly within the State's Northern District Coalfields.

The Union is familiar with the Mt Arthur facility site and has engaged the services of an Environmental Consultant with extensive experience in local government and environmental assessments on coal mining related projects.

After reviewing all the material and taking advice, the Union supports this application to continue mining operations at Mt Arthur as proposed.

Project Overview

The Modification includes the following key components:

- A four year continuation of the open cut mine life from 2022 to 2026 at the currently approved maximum rate of 32 Mtpa;
- An increase in open cut disturbance areas;
- Use of conveyor corridor for overburden emplacement;
- Duplication of the existing rail loop;
- An increase in the maximum number of train movements per day from 24 to 38;
- The relocation of the load point for the overland conveyor which delivers coal to Macquarie Generation's Bayswater Power Station;
- The relocation and upgrade of the explosives storage, magazine and associated facilities; and
- The construction of additional offices, a control room and a small extension to the ROM coal stockpile footprint.

Consultation

HVEC has consulted extensively with key stakeholders in relation to the Modification including:

- State government authorities;
- Local government authorities;
- Federal government authorities;
- Infrastructure owners, service providers and other resource companies;
- Local community and affected landowners;
- The Hunter Thoroughbred Breeders Association;
- Aboriginal community representatives; and
- Mt Arthur Coal employees and contractors.

According to the proponent they are an active community participant. Current community engagement and consultation initiatives include:

- The Mt Arthur Coal Community Consultative Committee;
- The BHP Billiton website and Mt Arthur Coal Community Response Line;
- The Community Matters Newsletter;
- Sponsorships and community investment;

- The BHP Billiton Matched Giving Program – which matches donations made by employees to charitable and not-for-profit organisations;
- The Sustainable Communities Project; and
- Public reporting.

During the preparation of the modification EA, information sheets regarding the Modification were distributed to the location community in February and October, 2012. The information sheets were also made available on the BHP Billiton website. HVEC employees and representative have also undertaken face-to-face meetings with numerous potentially affected landholders regarding the Project.

Key issues discussed with landholders included:

- The increased traffic impact and additional rail movements, including the trains idling/waiting at night-time;
- The potential cumulative air quality, noise and blasting impact and mitigation measures;
- The impact of blast fumes and the frequency of blast inspections on landholder properties;
- The need for increased communication and community engagement between mining companies and landholders in the region;
- The water quality, access and the need for equitable water licence distribution among landholders and mining companies;
- The standard of rehabilitation and the number of final voids for the modification;
- Interaction and cumulative impacts of the Modification with surrounding Drayton, Bengalla and Mangoola Coal Mines;
- Noticeable dust levels, presence of black dust and cumulative impacts from surrounding mines;
- The potential for future Mt Arthur Coal Mine approvals, plans and development of the Mt Arthur Coal underground mine;
- Opportunities for landholder properties to be purchased by HVEC changes to the zone of acquisition and mitigation agreements; and
- Opportunity for the local community to comment and make submissions on the Modification and EA document.

Infrastructure Upgrades and Modifications

Mt Arthur Rail Loop Duplication – High Capacity Option

HVEC proposes a high capacity optional duplication of the existing rail loop as part of the Modification, with the need for the duplication determined by ship loading requirements at the Port of Newcastle, and constraints on the Main Northern Railway.

If constructed, the rail loop duplication would consist of approximately 5 km of new track, immediately adjacent to the existing rail loop. In addition, the loading facility, (approved under the Mt Arthur Consolidation Project) being constructed in a different location to that described in the Consolidation Project EA.

Relocation of Load Point for Existing Overland Conveyor to Bayswater Power Station

In order to facilitate the continuation of supply of coal to Macquarie Generation's Bayswater Power Station, HVEC will construct a new load point for the overland conveyor to the south. The need for this infrastructure would be determined through consultation with Macquarie Generation and in consideration of other relevant contractual and coal market considerations.

ROM coal would be delivered to the new load point via trucks using existing internal site haul roads.

Relocation of Explosives Magazines and Facilities

The existing explosives magazine and facilities would require relocation as part of the Modification. Explosives that would be required would include initiating products and detonators, Ammonium Nitrate Fuel Oil (ANFO) and emulsion explosives.

ANFO would continue to be the main explosive used at the Mt Arthur Coal Mine.

As part of this relocation, access to the relocated explosives magazine and facilities would be provided from Edderton Road via an existing access track which allows access to the summit of Mount Arthur for emergency services and legitimate users. The portion of this track between Edderton Road and the new explosives magazine and facilities would be upgraded as part of the Modification. This access would provide for approximately 60 employees that work at the

explosives facility and approximately 5 000 heavy vehicle deliveries per annum would access the explosives magazine.

HVEC currently has approval for the realignment of Edderton Road via PA 09-0062. This realignment is scheduled to occur in approximately 2019. A new access to the explosives magazine and facilities would be constructed within existing/approved or Modification disturbance areas as part of the Modification once this realignment is established.

CHPP Control Room and Office Facilities

Additional office facilities and a control room would be constructed adjacent to the CHPP as part of the Modification. Construction on this infrastructure would be undertaken as part of the CHPP upgrades approved as part of the Consolidation Project.

Mine Infrastructure Area Stockpile Expansion

The existing approved mine infrastructure area would be extended to the west as part of the Modification within existing disturbance areas.

Administration Building

An additional administration building would be required for the Modification. This building would be constructed adjacent to the main administration building.

Groundwater

A Groundwater Impact Assessment for the Modification was undertaken by Australasian Groundwater & Environmental Consultants Pty Ltd.

Verification against the latest available transient groundwater level data determined that the 2009 model parameters were adequate for predication of the Modification using numerical modelling.

Potential groundwater impacts associated with the Modification include:

- Extension of the zone of depressurisation/drawdown to the west;
- Groundwater inflows to the open pits;
- Minor changes in leakage rates from the alluvial systems;
- Minor loss of groundwater yield at existing bore locations; and
- Change in groundwater quality.

Regional Groundwater Level Drawdown

The progression of open cut mining resulting from the Modification would contribute to the development of a localised groundwater sink within the immediate area of mining activities.

The incremental increase of contours in water table drawdown associated with the Modification was developed from reconciliation of the drawdown predicted by the numerical model for years 2022 and 2026 to simulate the additional years of the Modification.

The incremental increase in water table drawdown associated with the Modification is located entirely within HVEC owned land and extends partially into the Hunter River alluvium.

The numerical model also shows that while the cumulative drawdown at year 2026 extends into the Hunter River alluvium, it does not extend under the Hunter River.

Groundwater Inflows to the Open Pit

The Modification is not expected to result in an increase in the maximum total average pit inflow. The numerical model predicted a maximum average pit inflow for the Modification period of approximately 2.5 ML/day in 2026. Comparatively, the maximum total average pit inflow predicted by the updated model for the approved operations is approximately 2.6 ML/day in 2016.

Leakage of Groundwater from Alluvium

The impacts on the Hunter River Alluvium were assessed to be minor, and the numerical modelling shows that the Modification is likely to result in an increase in the maximum flux from the Hunter River alluvium of approximately 0.03 ML/day. The maximum flux from the Hunter River alluvium for the Modification period is predicted to be approximately 0.72 ML/day in 2026 while that predicted by the updated model for the approved operations of approximately 0.69 ML/day.

The model also predicts that the Modification would not result in an increase in flux from Saddlers Creek alluvium. The maximum flux from the alluvium predicted for the Modification period is approximately 0.01 ML/day, equal to the maximum flux predicted by the updated model for the approved operations.

Impact on Groundwater Users

A sear of the NOW database identified 50 registered bores within a 5km radius of Mt Arthur Coal Mine mining leases. The numerical modelling predicted that three of these bores would experience additional drawdown greater than 2 m as a result of the Modification; however, these bores are located on HVEC owned land.

There are currently no high priority groundwater dependent ecosystems identified within the Water Sharing Plan in the Hunter Unregulated and Alluvial Water Sources in the vicinity of Mt Arthur Coal Mine. No groundwater dependent vegetation comprising groundwater dependent ecosystems occurs within the Modification area or immediate surrounds.

Groundwater Quality

The numerical model predicts the Modification would result in an ongoing localised groundwater sink in the Permian coal measures. Due to this ongoing sink there is not expected to be significant migration or deterioration in groundwater quality of the mine lease resulting from the Modification.

As the Modification includes the placement of overburden in an upper section of Saddlers Creek Alluvium, potential groundwater quality impacts to Saddlers Creek Alluvium were considered. The mapping of soil within this area includes depositional sediments associated with the creek flow, however, due to limited size and poor texture and structural characteristics, these alluvial are not commonly associated with agricultural land.

Groundwater Recovery

Numerical modelling of the post-mining recovery of groundwater levels shows that the groundwater system would recover over time with substantial recovery predicted after 30 years.

The model also showed the final void water levels would recover to a level well below the Hunter River elevation and the final void spill level.

Surface Water

A Surface Water Assessment for the Modification was undertaken by Gilbert & Associates Pty Ltd.

Potential impacts on local and regional surface water resources associated with the Modification include:

- Changes to flows in local creeks due to extension of the open cut and overburden emplacements and subsequent capture and use of drainage from mine area catchments;
- Potential for export of contaminants in mine area runoff and accidental spills from containment storages causing degradation of local and regional watercourses; and
- Short-term increases in salinity during periods of licensed discharge under the HRSTS.

Salt Balance

It is estimated that for the period of the Modification, an average 235 ML per annum controlled release to the Hunter River under the HRSTS would occur. Based on a median TDS of 754 milligrams per litre, this represents an average salt discharge of 177 tonnes per annum. It is noted that discharges would occur during periods of high or flood flow and would therefore not affect the salt content in the river during low flows.

Flow Regime in Local Creeks

The Modification would result in changes to flows in local creeks due to the progression of open cut mining and associated subsequent capture and re-use of drainage from operational catchment areas.

The catchment areas of Quarry Creek, Fairford Creek and Ramrod Creek for the maximum extent of the Modification would be slightly less than those for the maximum extent of the currently approved operations.

The decrease in catchment area and corresponding decrease in average flow rates are unlikely to have a material effect on riparian flows for licensed extraction from Ramrod Creek.

The catchment areas for Whites Creek, the unnamed creeks and Saddlers Creek for the maximum extent of the Modification would be greater than those for the maximum extent of the currently approved operations. The increase in catchment area for Whites Creek and the unnamed creeks are expected to result from progressive rehabilitation of overburden emplacements. The increase in catchment area for Saddlers Creek is a result of redesign of overburden emplacements.

The maximum decrease in Hunter River catchment resulting from the Modification is approximately 0.6km^2. This represents less than a 0.02 precent reduction in the catchment area reporting to the Hunter River at the Mt Arthur Coal Mine and a corresponding reduction of less than 0.02 per cent in average flow rates in the Hunter River at the Mt Arthur Coal Mine.

Post-Mining Surface Water Impacts

Final voids would remain in the Northern Open Cut, McDonalds Pit and Belmont Pit. The Saddlers pit, which would remain as a void under the existing/approved operations, would be backfilled as part of the Modification.

The total catchment reporting to the final void of the Mt Arthur Coal Mine is estimated to be approximately 14.2 km^2. The Modification would result in a reduction in catchment area to the final landform of approximately 10 per cent compared to the currently approved operations.

Flora and Fauna

An Ecological Assessment was prepared for the Modification by Hunter Eco.

Potential impacts of the Modification on flora and fauna include:

Direct Impacts

Vegetation Clearance

The Modification would require the removal of 228.9 ha of native vegetation.

Vegetation Community		Area (ha)*
Grassland		
1	Derived Native Grassland (no HRVP equivalent)	136.8
2	Derived Native Grassland, with Cooba Wattle Regrowth (no HRVP equivalent)	1.0
3	Derived Native Grassland, derived from Box-Gum Woodland[1, 2] (no HRVP equivalent)	35.2
Woodland		
4a	Central Hunter Box – Ironbark Woodland[1, 2, 3] (MU10)	23.0
4b	Central Hunter Box – Ironbark Woodland Wybong Slaty Box Variant (MU10)	17.9
4c	Central Hunter Box – Ironbark Grassy Woodland (MU10)	0
5	Upper Hunter Hills Box – Ironbark – Red Gum Woodland (MU9)	3.4
6	Blakely's Red Gum Woodland[1, 2] (no HRVP equivalent)	0.2
7	Western Hunter Narrabeen Footslopes Ironbark - Cypress Pine Woodland (MU8)	0
Forest		
8	Hunter Lowlands Red Gum Forest[4] (MU24)	1.7
9	Central Hunter Ironbark – Spotted Gum – Grey Box Forest[3] (MU27)	7.1
10	Central Hunter Bulloak Forest Regeneration (MU34)	0
11	Upper Hunter Hills Sheltered Moist Forest (MU29)	0
Acacia Shrubland		
12	Weeping Myall Woodland[5] (MU19)	0.1
Reeds and Rushes		
13	*Typha* Dominated Drainage Line (no HRVP equivalent)	2.5
14	Dominated by Sharp Rush (no HRVP equivalent)	0.1
Other Map Units		
15	Plantation (MU36)	5.8
16	Cleared land (no HRVP equivalent)	25.1
	Total	259.9

This comprises mostly derived grasslands (173 ha) and woodland (44.5 ha). The total land clearance is slightly larger than (259.9 ha) as it includes some introduced or cleared map units.

Regionally Significant Vegetation

Six of the vegetation communities identified in the Modification area represent five TEC's listed under the TSC Act and one TEC listed under the EPBC Act. The Modification would require the removal of approximately 90.3 ha of TEC's.

No regionally significant vegetation corridors are located within the Modification area and none would be impacted by the Modification.

Clearance of Fauna Habitat

The Modification is not likely to significantly increase the fragmentation of habitats above that already approved, due to the already highly fragmented nature of the landscape. The Modification is also unlikely to lead to an increase in edge habitat due to the already fragmented landscape.

The Modification would involve the removal of a drainage line that leads into Saddlers Creek. The drainage line that leads to Saddlers Creek would be removed for the proposed Overburden Emplacement Extension area.

Two drains would be constructed around the perimeter of the proposed Overburden Emplacement Extension area to divert rainwater runoff from Saddlers Creek to minimise the chances of contamination from the proposed Overburden Emplacement Extension that may negatively impact flora and fauna species. Diversion drains would also be established to direct uncontaminated surface water away from the mine area, and into existing creeks, rivers or other forms of drainage.

Indirect Impacts

Various indirect impacts on flora and fauna species have been identified and are as follows:

- Weeds and pests;
- Runoff water quality
- Noise
- Artificial lighting;
- Dust; and
- Infection of native plants by Phytophthora cinnamomi

No aquatic threatened species have been recorded within the Modification area during the current surveys. Aquatic habitat features within the Modification area are limited to small ephemeral aquatic species.

A Biodiversity and Rehabilitation Plan have been developed to facilitate the management of biodiversity at the existing approved Mt Arthur Coal Mine.

Offset Area

A modification to the existing Offset area is proposed as part of the Modification. Two additional Offset areas would be required to account for additional clearance. This would include:

- Expanding the existing Saddlers Creek Conservation area by 131 ha; and
- Expanding the existing Middle Deep Creek Offset area by 410ha.

Additional Saddlers Creek Conservation Area

Key benefits of the proposed additional Saddlers Creek Conservation area are:

- Presence of the endangered population Acacia pendula in the Hunter catchment and the EEC Hunter Valley Weeping Myall Woodland of the Sydney Basin Bioregion EEC.
- Presence of the Hunter Lowland Redgum Forest in the Sydney Basin and NSW North Coast Bioregion EEC.
- Presence of the White Box Yellow Box Blakely's Red Gum Woodland EEC listed under the TSC Act and White Box – Yellow Box Blakely's Red Gum Grassy Woodland and Derived Native Grassland CEEC listed under the EPBC Act.

Additional Middle Deep Creek Offset Area

The Middle Deep Creek Offset area is located 70 km north of the Mt Arthur Coal Mine.

Key benefits of the proposed additional Middle Deep Creek Offset area are:

- Presence of the White Box Yellow Box Blakely's Red Gum Woodland EEC listed under the TSC Act and White Box – Yellow Box Blakely's Red Gum Grassy Woodland and Derived Native Grassland CEEC listed under the EPBC Act.
- Twelve Tiger Orchid plants were recorded being part of the NSW listed endangered population Cymbidium canaliculatum population in the Hunter Catchment.
- Present of a number of threatened woodland birds
- Presence of Squirrel Glider and Grey-headed Flying-fox.
- Potential habitat for threatened Swift Parrot, Regent Honey Eater, Little Eagle, Scarlet Robin, Flame Robin, Brush tailed Phascogale, Spotted Quoll, Yellow-bellied Glider.
- A large number of trees with habitat hollows.

Aboriginal and Non Indigenous Cultural Heritage

An Aboriginal and Non-Indigenous Cultural Heritage Assessment were prepared for the Modification by RPS Australia, with 41 Aboriginal stakeholders registering an interest to be consulted.

Previous archaeological investigations identified 27 Aboriginal heritage sites within the Modification area and immediate surrounds. These included artefact scatters, a potential archaeological deposit and a grinding groove site.

The field survey undertaken for the Modification identified an additional 28 new sites.

The Project would result in direct disturbance of all known Aboriginal heritage sites within the Modification area. The sites are located within or partially within the footprint of the proposed open cut extension, overburden emplacement and rail loop duplication and would therefore be subject to direct disturbance by the Modification.

The Modification would also result in the direct disturbance of the grinding groove site (37-2-0111). The grinding groove site is located within the approved open cut disturbance area however mining was not proposed for that portion in the Consolidation Project EA. The extension of the open cut for the Modification would result in disturbance to this site.

Artefacts within the Modification disturbance areas would be salvaged for safekeeping in accordance with the stakeholder's wishes. An attempt would be made to salvage and relocate a sandstone block, which hosts a grinding groove site, to the Mount Arthur Conservation area, or other location determined in consultation with the registered Aboriginal stakeholders.

Air Quality

An Air Quality and Greenhouse Gas Assessment for the Modification were undertaken by PAE Holmes.

Comprehensive air quality modelling was undertaken for the Modification to allow comparison with the Consolidation Project EA.

The modelling predictions show that annual and maximum 24-hour particulate matter less than 10 micrometres in size PM_{10} average concentrations are marginally lower at the majority of the residences compared to the Consolidation Project EA.

In particular when comparing the modelling predictions of the Modification to the Consolidation Project EA, eight residences are below the 24-hour average PM_{10} criterion of 50 micrograms per cubic metre. This is in part a result of continued efforts by Mt Arthur Coal Mine to implement controls to reduce dust emissions since 2009.

No privately owned residences are anticipated to be impacted by dust levels exceeding the annual average PM_{10} criterion that are not already within HVEC's or other mining companies zone of acquisition.

The impacts of the Modification were assessed cumulatively with other nearby mines:

- Bengalla Coal Mine;
- Drayton Coal Mine (including proposed Drayton South Project);
- Mangoola Coal Mine; and
- Mount Pleasant Coal Project.

Three receivers are predicted to cumulatively exceed annual average PM_{10} criteria. All of these receivers are currently within existing zone of acquisition.

The cumulate 24-hour average PM_{10} concentrations are heavily influenced by the prevailing wind speed and direction on a given day. HVEC implements a proactive management system incorporating real-time monitoring which allows the implementation of additional dust management controls as dust levels increase.

Noise and Blasting

A Noise and Blasting Assessment for the Modification was undertaken by Wilkinson Murray.

Detailed noise modelling was undertaken for the Modification. Noise impacts of the Modification were compared to the Consolidation Project EA and Project-specific noise criteria. Changed in noise predicted exceedances relative to the Consolidation Project EA include:

- One new marginal noise management zone exceedance (less than or equal to 5 dBA above the criteria;
- Two residences in the existing noise management zone are now in the noise affectation zone (greater than 5 dBA) above the criteria; and
- One resident currently within the existing noise affectation zone moves into the noise management zone.

HVEC would review the existing Noise Management Plan for the site to incorporate the following additional practical management measures:

- Procurement of noise attenuated vehicles for critical haul routes;

- Modified alignment of haul routes for day and night scenarios, including placement of overburden in less noise sensitive locations during the night time; and
- Use of bulldozers on overburden emplacements in less noise sensitive locations during the night time.

Similar to the air quality assessment, Modification noise was also assessed cumulatively with other nearby mines.

Cumulative impacts resulting from the concurrent operation of the Modification and nearby coal mining developments listed were assessed against the INP amenity criteria.

No exceedance of the recommended acceptable amenity criterion (40 dBA) was predicted during the night time period.

Rail Noise

The maximum coal production rate, and therefore the average number of rail movements, would remain the same for the Modification. However, due to congestion on the Main Northern Railway and reduced cargo assembly times at the Port of Newcastle, additional short-term train movements are required to reduce delays in ship loading at the Port of Newcastle. An increase in maximum daily train movements from 24 to 38 per day is required for the Modification.

It is predicted that the increase in train movements would result in a negligible (0.4 dBA) increase in noise along the Main Northern Railway

Visual

A Landscape and Visual Impact Assessment for the Modification was prepared by Urbis.

The assessment considered the existing landforms of nearby mining operations as they relate to visual sensitivity and visual impact.

The assessment of cumulative visual impacts has also considered the combined effects of the Modification with the effects of the proposed Drayton South Coal Project.

The proposed Drayton South Coal Project is located immediately south and adjacent to the Mt Arthur Coal Mining and Coal Lease boundary. The Drayton South Coal Project EA indicates the following potential visual impacts:

- The operational areas of the Drayton South Coal Project have been designed to remain behind existing topography in order to conceal locations to the south.
- A visual bund would be constructed to screen views to the operation areas. Receivers located to the south of Drayton South Coal Project including residences within Jerry's Plains, parts of Coolmore Stud and motorists on the Golden Highway would experience views of the visual bund during construction. During this time the visual impacts for these areas would be high, reducing to moderate then low for the remainder of the Drayton South Coal Project.
- Since the dominant sources of light are located at the existing Drayton Mine, mobile equipment operating within the Drayton South Coal Project area would not significantly increase the overall diffuse light effect. Lighting impacts within the Drayton South Coal Project area would predominantly be caused by lights fitted to mobile equipment operating outside of active mining areas, and in most cases would be limited as a result of existing topography and vegetation.

Based on review of the above, no significant cumulative visual impacts are anticipated to arise from the coincident development of the Modification and the proposed Drayton South Coal Project, should it be approved.

The nature of night-lighting for the Modification is expected to be of a similar intensity when compared to the existing night lighting at the Mt Arthur Coal Mine, although there is the potential for fixed and mobile lights to be visible from a wider area.

Road Transport

The Modification would not change the currently approved operational or construction workforce, the key potential change to the local road network would be associated with the proposed new site access to the relocated explosives magazine and facilities to be located off Edderton Road.

GTA Consultants Pty Ltd assessed the potential impact of the Modification on the safety and efficiency of local roads. The assessment also considered cumulative road movements

associated with nearby approved mining operations (Mt Pleasant Coal Mine and Mangoola Coal Mine) and background traffic movement increases in time.

The assessment concluded that with the proposed mitigation measures from the Consolidation Project EA in place, the Levels of Service of key intersections or roadways would not change due to the Modification.

Economic and Project Justification

The Project will assist Australia in continuing to meet the international and local demand for metallurgical and thermal coal, during which time it is expected that there will continue to be a strong demand for coal. It will also support Australia in maintaining its reputation as a consistent and reliable supplier of metallurgical and thermal coal to its existing and expanding markets.

The Modification is expected to make a substantial contribution to the regional economy for the four years associated with the extension of approval to 2026, including:

- $2 691 million in annual direct and indirect regional output or business turnover;
- $1 654 million in annual direct and indirect regional value added;
- $326 million in annual direct and indirect household income; and
- $2 715 direct and indirect jobs.

The Modification provides for the continuation and extension of open cut mining operations at Mt Arthur Coal Mine.

At full development the workforce would be in the order of approximately 2 600 fulltime equivalent employees during peak production. An additional construction workforce of up to approximately 240 people would also be required.

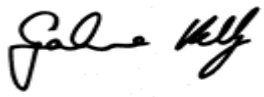
It has been demonstrated that the Project will serve the essential purpose of providing metallurgical and thermal coal for current and future generations and will generate significant economic and social benefits in the process. The Project's social and environmental costs have been avoided or minimised as far as practicable by implementing all reasonable and feasible management and mitigation measures. As a consequence, the socio-economic benefits of the

Project will far outweigh its social and environmental costs. Therefore, it is considered the Project is in the public interest.

In Summation

Based on the assessment of potential environmental impacts which has been multi-disciplinary and involved consultation with the DP&I and other relevant stakeholders, the Mt Arthur Coal Mine Modification is anticipated to pose negligible additional environmental impacts beyond those already approved under the Consolidation Project.

The Union considers this Project is consistent with currently approved Development Consent objectives of the EP&A Act, and therefore supports the proponent's application.



Grahame Kelly
DISTRICT SECRETARY