

MT ARTHUR COAL OPEN CUT MODIFICATION
SUMMARY MODIFICATION DESCRIPTION AND JUSTIFICATION



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1 INTRODUCTION

1.1 PURPOSE AND STRUCTURE OF THIS DOCUMENT

Hunter Valley Energy Coal (HVEC) is a wholly-owned subsidiary of BHP Billiton and owns and operates the Mt Arthur Coal complex. HVEC seeks to modify the existing Project Approval (PA 09_0062) for the extension of open cut coal mining at the Mt Arthur Coal complex

This document has been prepared to provide the Department of Planning and Infrastructure with a summary description of the Mt Arthur Coal Open Cut Modification (herein referred to as the modification), an overview of the environmental studies that are proposed to support an environmental assessment (EA) and to initiate the preparation of the Director-General's Requirements (DGRs) under Section 75W of the New South Wales (NSW) *Environmental Planning and Assessment Act 1979* (EP&A Act).

The remainder of this document is structured as follows:

Section 1	Introduction – provides a background to the Mt Arthur Coal complex and an overview of the proposed modification activities.
Section 2	Modification Description and Justification – provides a clear and concise description of the modification, indicates the types of activities that would be undertaken and includes a justification for the modification.
Section 3	Planning Considerations – describes the applicable statutory planning instruments and strategic planning documents.
Section 4	Preliminary Environmental Assessment – identifies the level and scope of environment impact assessment to be undertaken..
Section 5	Stakeholder Consultation – outlines consultation (with the community, local councils and Government agencies) already undertaken, and proposed to be carried out, for the modification.
Section 6	References – lists documents cited.

1.2 BACKGROUND

The Mt Arthur Coal complex is located south west of Muswellbrook in the Upper Hunter Valley of NSW (Figure 1).

In 2009, HVEC lodged an application under Part 3A of the EP&A Act to extend open cut operations and consolidate existing approvals for open cut mining operations and surface infrastructure. This application was subsequently approved by the Minister for Planning on 24 September 2010 (PA 09_0062). The open cut is approved with a mining rate of up to 32 million tonnes per annum (mtpa).

In addition, underground mining with a rate of up to 8mtpa was approved via PA 06_0091 on 2 December 2008.

It should be noted that although the open cut and underground are approved to rates of 32 and 8mtpa, respectively, the total site extraction rate is capped at 36mtpa by PA 09_0062.

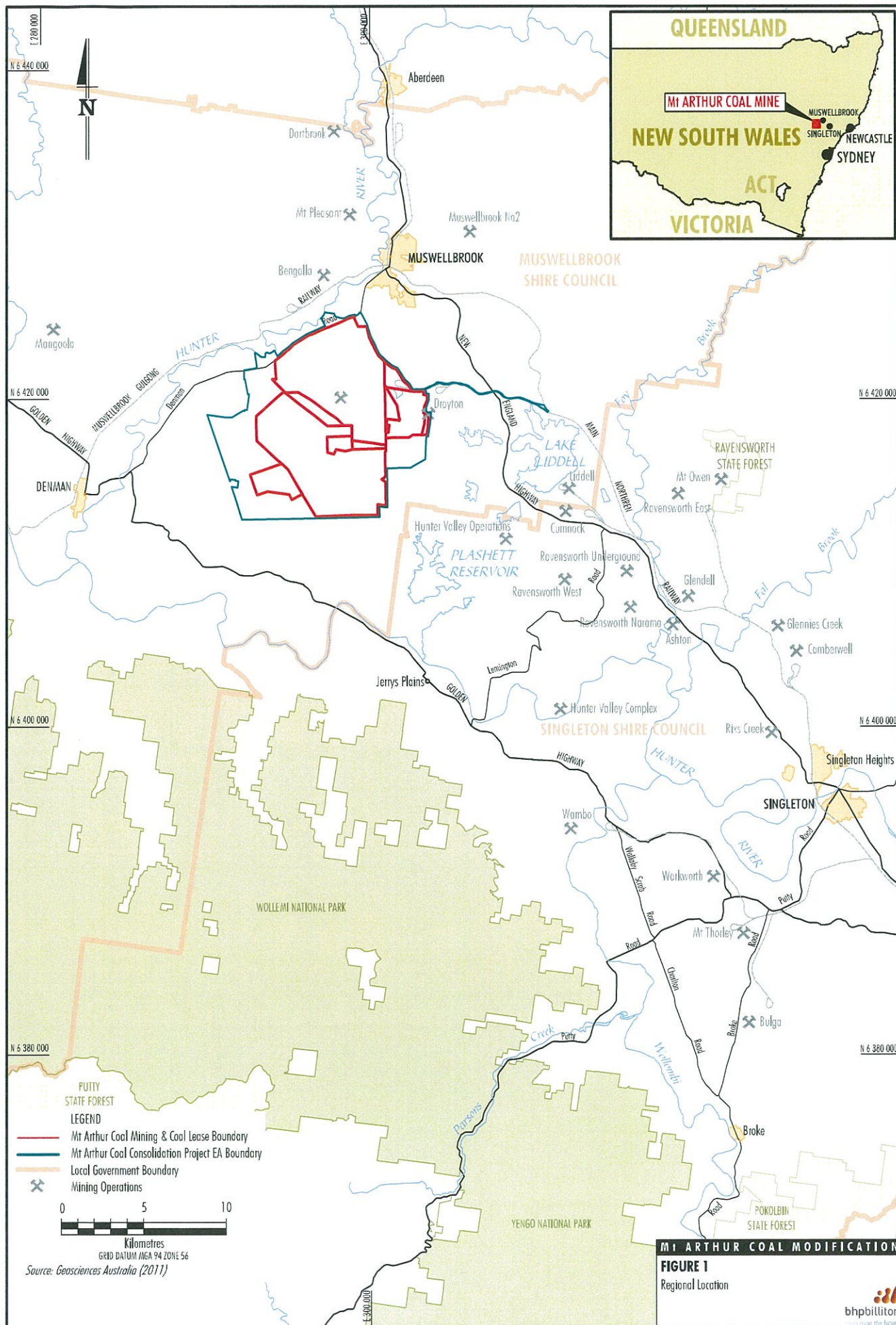
1.3 MODIFICATION OVERVIEW

The modification is a proposed continuation of open cut mining operations at the Mt Arthur Coal complex for an additional operational life of approximately four years.

HVEC is seeking approval from the NSW Minister for Planning and Infrastructure for a modification under Section 75W of the EP&A Act.

In summary, the modification includes:

- a four-year continuation of the open cut mine life from 2022 to 2026 at the currently approved maximum rate of 32mtpa;
- increase in open cut disturbance areas of approximately 400 hectares (ha);
- use of the existing conveyor corridor for overburden emplacement;
- duplication of the existing rail loop;
- increase in the maximum number of train movements per day from 12 to 19;



- relocation of the load point for the overland conveyor which delivers coal to Macquarie Generation's Bayswater Power Station;
- relocation and upgrade of the explosives storage, magazine and associated facilities; and
- construction of additional offices and a control room and a small extension to the run-of-mine (ROM) coal stockpile footprint.

Additional details of each of the main modification components are provided in Section 2.

1.4 LOCATION AND MINING TENEMENTS

The current mining leases (ML) held by HVEC include ML 1358, ML 1593, ML 1655, ML 1487 and ML 1548 (Figure 2). In addition, HVEC also holds Coal Lease (CL) 396, Consolidated CL 774 and Mining Purpose Lease 263.

The existing mining tenements exist wholly within land owned by HVEC and its entities. HVEC also owns large land holdings in the vicinity of the Mt Arthur Coal complex. The modification disturbance areas would be within these existing mining tenements and within land wholly-owned by HVEC.

The Mt Arthur Coal complex is within the Muswellbrook Shire Local Government Area (LGA).

2 SUMMARY MODIFICATION DESCRIPTION AND JUSTIFICATION

2.1 PROPONENT

The proponent for the modification project is Hunter Valley Energy Coal Pty Ltd (ABN: 39062894464), a wholly-owned subsidiary of BHP Billiton. The registered office of BHP Billiton is:

BHP Billiton
Rialto Towers
Level 29, 525 Collins Street
MELBOURNE VIC 3000

Further information on the proponent and its coal mining operations can be found at:

http://www.bhpbilliton.com/home/aboutus/regulatory/Pages/default.aspx#010_EnergyCoal

2.2 SUMMARY MODIFICATION DESCRIPTION

The modification is a proposed continuation of open cut mining operations at the Mt Arthur Coal complex for an additional operational life of approximately four years.

An indicative general arrangement for the modification is shown in Figure 2.

Table 1 provides a summary comparison of activities associated with the existing Mt Arthur Coal complex and the modification.

Additional details of each of the main components of the modification are discussed below.

Mining Operations

Conventional open pit mining methods involving drill and blast, truck and shovel extraction with on-site processing would continue to be used for the modification.

The continuation of mining for another four years would include an extension to the west and south-west of some 400 metres (m) (Figure 2). The additional disturbance associated with the extension of the open cut is approximately 350 hectares.

Additional coal as a result of the modification would total approximately 128 million tonnes.

Overburden Management

The existing mine landforms include a conveyor corridor which contains the existing overland conveyor from the Mt Arthur Coal ROM pad to Macquarie Generation's Bayswater Power Station.

As part of the modification, the existing conveyor load point would be relocated to the south and the portion of the existing conveyor within the conveyor corridor would be decommissioned and removed, allowing overburden material to be placed in this corridor.

Overburden emplacement in the conveyor corridor would reduce haulage distances associated with overburden transport and emplacement, thereby potentially reducing fuel consumption and consequent air quality, noise and greenhouse gas emissions.

In addition, overburden emplacement in the conveyor corridor would result in a final landform that is better integrated with the surrounding mine landforms.

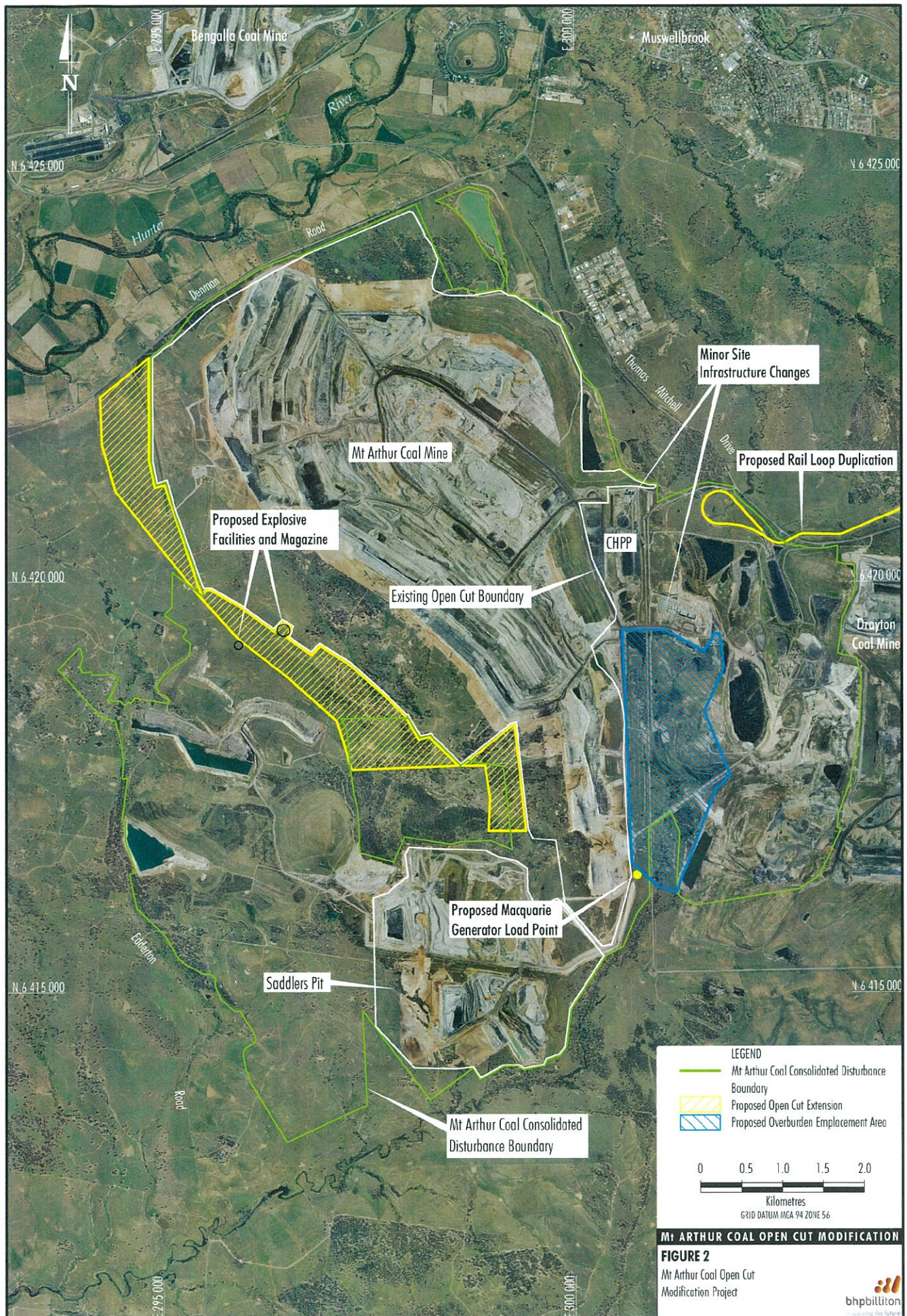


Table 1
Summary Comparison of Approved and Modified Mt Arthur Coal Open Cut

Development Component	Approved Mt Arthur Coal Open Cut ¹	Modified Mt Arthur Coal Open Cut
Life-of-Mine	Approval for open cut mining to 2022.	Extension of life-of-mine to 2026.
Annual ROM Coal Production Rate (Open Cut)	Up to 32mtpa.	No change.
Coal Processing Rate	Upgrade of CHPP to facilitate processing of up to 36mtpa (including underground coal).	No change.
Mining Areas	Open cut mining areas including Mt Arthur North Pit, South Pit, Saddlers Pit and Belmont Pit.	No change.
Disturbance Areas	Total Mt Arthur Coal Disturbance area of approximately 6,400 ha.	Increase of total disturbance areas of approximately 400 ha (open cut and overburden emplacement areas).
Overburden Emplacement	- Development of Mt Arthur North overburden emplacement height to an average of Relative Level (RL) 360 m (maximum height of RL 375 m Australian Height Datum [AHD]). - Development of Bayswater No 3 (Saddlers Pit) overburden emplacement height up to RL 250 m AHD - Development of Drayton sub-lease emplacement area up to RL 290 m AHD (part of South Pit extension). - Development of an out-of-pit overburden emplacement area up to RL 360 m AHD.	- Increase in in-pit emplacement in-line with increase in open cut footprint. - Use of existing conveyor corridor for overburden emplacement, including integration with existing Drayton sub-lease emplacement area to a height of RL 360 m AHD. - No other changes to out-of-pit emplacements.
Coarse Rejects and Tailings Management	- Deposition of tailings in the tailings emplacement area at Bayswater No 2. Approval to dispose tailings in Drayton sub-lease void will be maintained. The tailings emplacement area will be extended (up to RL 280 m AHD). - Co-disposal of coarse reject within overburden emplacement areas.	Additional tailings and coarse rejects disposed of in existing/approved emplacement areas.
Product Coal Transport	- Transport of up to 27mtpa product coal via rail. - Construction and commissioning of an additional loading facility. - Maximum of 12 rail movements per day - Use of the existing overland conveyor to Macquarie Generation's Bayswater Power Station, as required.	- Increase in maximum rail movements from 12 to 19 movements per day. - Duplication of the existing Mt Arthur Coal Mine rail loop. - Relocation of load point for the overland conveyor which supplies coal to Macquarie Generation's Bayswater Power Station. - No change to maximum total product coal transportation rate of 27mtpa.

Table 1 (Continued)
Summary Comparison of Approved and Modified Mt Arthur Coal Open Cut

Development Component	Approved Mt Arthur Coal Open Cut ¹	Modified Mt Arthur Coal Open Cut
Employment	- Total workforce of approximately 2,600 full-time equivalents employees during peak production. - A workforce of approximately 240 full-time equivalent employees during peak construction phases.	No change.
Hours of Operation	- All coal operations and associated activities will continue to be undertaken 24 hours per day, seven days a week. - Construction onsite may be on a 24 hour, seven day roster consistent with operational requirements. - Construction hours for the proposed Edderton Road realignment are 7:00 am to 5:00 pm Monday to Saturday (except in the case of an emergency).	No change.
Coal Handling Infrastructure Changes/Upgrades	Development of infrastructure such as workshop and bathhouse, additional ROM coal hoppers and the extension of ROM and product coal stockpiles.	- Minor changes to layout, including a minor ROM coal stockpile extension and additional facilities (control room and offices). - No change to CHPP throughput rate.
Explosives Storage Facilities	Fully banded onsite explosives magazine for the storage of detonators and other materials.	Relocation and upgrade of explosives storage facility and magazine, including office facilities and associated amenities.

¹ Mt Arthur Coal Consolidation Project Approval 09_0062

Overburden material associated with the modification would also continue to be backfilled within the open cut mine.

Other overburden emplacement areas approved in accordance with PA 09_0062 would remain unchanged for the project.

Tailings Management

Additional tailings associated with the modification would continue to be deposited in either the tailings emplacement area at Bayswater No 2 or the tailings storage facility to be constructed in the Drayton sub-lease area.

Rail Movements

The existing maximum total product coal transportation rate of 27mtpa would remain unchanged for the modification.

Due to congestion on the Main Northern Railway and reduced cargo assembly times at the Port of Newcastle, additional train movements are required to meet loading times and reduce delays in loading at the Port of Newcastle. As part of the modification, HVEC seeks an increase in maximum daily rail movements from 12 to 19 trains per day (i.e. an increase from 24 to 38 pass-bys).

Rail Loading and Unloading

The requirement for an increase in maximum rail movements at the Mt Arthur Coal complex means that the existing rail loading infrastructure requires augmentation in order to receive and dispatch the required trains.

This would be achieved by a duplication of the existing rail loop (Figure 2).

The duplication of the rail loop would allow railway traffic waiting to be loaded to queue adjacent to mining operations, potentially reducing noise exposure at residential areas such as Antienne.

Life of Mine

The mining life would be extended to allow for an additional four years of mining (to 2026).

The recovery of an additional 128 million tonnes of ROM coal associated with the four-year mine life extension would result in the continued payment of developer contributions to the Muswellbrook Shire Council, as well as Royalty payments to the State and other tax payments.

The extension of the mine life would also continue to provide substantial economic benefits to the local community, generate employment opportunities and support local development through Mt Arthur Coal's extensive community development program.

Other Infrastructure

The explosives storage facility and magazine would be relocated to the west of the open cut as part of the modification. The facility will be upgraded and will include offices and associated amenities.

The location for the facility has been chosen following a review of all environmental aspects, including consideration of potential off-site hazard implications. The benefits of the new location include the close proximity to drill and blast operating areas which would result in a reduction in explosives transport distances on-site. The relocated explosives facility and magazine would not increase potential hazards off-site.

The modification would also include minor infrastructure upgrades including an administration building, CHPP offices and control room, and a small extension to the ROM coal stockpile footprint.

2.3 MODIFICATION JUSTIFICATION OVERVIEW

The modification is a continuation of open cut mining within existing mining tenements and coal seams approved at the Mt Arthur Coal complex.

The modification is a logical continuation of open cut mining operations to the west and south-west, which modification would take mining activities further away from the town of Muswellbrook.

The modification would facilitate the continued employment of up to 2,600 employees for an additional four years. It would also result in the continued payment of developer contributions to the Muswellbrook Shire Council, as well as Royalty payments to the State and other tax payments. In addition, HVEC is an active community participant in the local and regional community through its community development program and this would continue to at least 2026 under the modification.

Consistent with advice from the Australian Rail Track Corporation (ARTC), HVEC requires additional train movements to facilitate the export of the currently approved 27mtpa of product coal. This is because of increased congestion of the Main Northern Railway and because of reduced cargo build times at the Port of Newcastle.

The duplication of the rail loop would allow railway traffic waiting to be loaded to queue adjacent to mining operations, potentially reducing noise exposure at residential areas such as Antienne.

Overburden emplacement in the conveyor corridor would reduce haulage distances associated with overburden transport and emplacement, thereby reducing fuel consumption and consequent air quality, noise and greenhouse gas emissions.

In addition, overburden emplacement in the conveyor corridor would result in a final landform that is better integrated with the surrounding mine landforms.

The relocated explosives storage facility and magazine would result in reduced explosives transport distances on-site and would not increase potential off-site hazards.

Full justification of the modification on social and economic grounds, including consideration of the principles of Ecologically Sustainable Development, will be included in the EA.

3 PLANNING CONSIDERATIONS

3.1 APPLICABILITY OF SECTION 75W OF ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979

The Mt Arthur Coal Consolidation Project Approval was approved under Part 3A of the EP&A Act by the Minister for Planning on 24 September 2010 (PA 09_0062) and therefore constitutes a “transitional Part 3A project” pursuant to the transitional provisions in Schedule 6A of the EP&A Act.

Clause 3 of Schedule 6A provides that Part 3A of the EP&A Act continues to apply to and in respect of “transitional Part 3A projects” following its repeal. That is, Part 3A of the EP&A Act continues to apply to the consolidation project approval, notwithstanding its repeal.¹

¹ Part 3A of the EP&A Act (as in force immediately before its repeal) continues to apply the Mt Arthur Coal Consolidation Project Approval. The description and quotations of relevant references to clauses of Part 3A in this document are as if Part 3A of the EP&A Act is still in force.

Approval for modification would be sought as a modification to the consolidation open cut project approval (PA 09_0062) under Section 75W of the EP&A Act. Section 75W of the EP&A Act relevantly provides:

75W modification of Minister's approval

(1) *In this section:*

Minister's approval means an approval to carry out a project under this Part, and includes an approval of a concept plan.

modification of approval means changing the terms of a Minister's approval, including:

- (a) *revoking or varying a condition of the approval or imposing an additional condition of the approval, and*
- (b) *changing the terms of any determination made by the Minister under Division 3 in connection with the approval.*

(2) *The proponent may request the Minister to modify the Minister's approval for a project. The Minister's approval for a modification is not required if the project as modified will be consistent with the existing approval under this Part.*

(3) *The request for the Minister's approval is to be lodged with the Director-General. The Director-General may notify the proponent of environmental assessment requirements with respect to the proposed modification that the proponent must comply with before the matter will be considered by the Minister.*

(4) *The Minister may modify the approval (with or without conditions) or disapprove of the modification.*

3.2 PLANNING PROVISIONS

State Environmental Planning Policies

The following State Environmental Planning Policies (SEPPs) may be potentially relevant to the modification:

- *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 (Mining SEPP);*
- *State Environmental Planning Policy No. 33 (Hazardous and Offensive Development) (SEPP 33);*
- *State Environmental Planning Policy No. 44 - Koala Habitat Protection; and*
- *State Environmental Planning Policy No. 55 (Remediation of Land).*

Relevant provisions and objectives of the above SEPPs and other relevant planning instruments would be considered in the preparation of the EA.

Local Environmental Plans

The Mt Arthur Coal complex is within the Muswellbrook LGA.

The Mt Arthur Coal complex is located within lands covered by the *Muswellbrook Local Environmental Plan 2009* (Muswellbrook LEP). The Muswellbrook LEP would also be considered in the preparation of the EA.

4 KEY ENVIRONMENTAL ASSESSMENT CONSIDERATIONS

The following key environmental considerations would be assessed as part of the EA for the modification:

- Surface water – review of site water balance, potential off-site surface water impacts, review of management measures and review of final void water level/quality.
- Groundwater – review of previous hydrogeological modelling results in view of the proposed increased open cut extent, review of pit groundwater inflows and review of management measures.
- Noise and air quality – quantitative modelling of potential impacts, consideration of cumulative impacts and review of management measures.
- Aboriginal cultural heritage – assessment of Aboriginal cultural heritage within areas not previously surveyed and consultation with Aboriginal stakeholders.
- Visual – review of findings of previous assessments in view of proposed modified landforms.
- Flora and fauna – compilation of results of previous extensive survey results and findings and assessment of potential impacts.
- Agricultural assessment – review of agricultural land capability of additional disturbance areas and potential post-mining land use.

Assessment of the key potential environmental issues and the other potential impacts identified above would include consideration of:

- existing environment using sufficient baseline data;
- potential impacts of all stages of the modification including any cumulative impacts;
- measures that could be implemented to avoid, mitigate, rehabilitate/remediate, monitor and/or offset the potential impacts of the project; and
- contingency plans and/or adaptive management for managing any potentially significant residual risks to the environment.

All assessments of potential impacts would consider all applicable policies, guidelines and plans included in contemporary DGRs for major mining projects. Therefore, these policies, guidelines and plans have not been repeated within this document.

5 STAKEHOLDER CONSULTATION

5.1 CONSULTATION UNDERTAKEN TO DATE

HVEC presented the key components of and justification for the modification to the Department of Planning and Infrastructure (DP&I) during an initial briefing on 30 November 2011. The key environmental issues, proposed assessment methodologies and assessment pathway were discussed at this briefing.

5.2 STAKEHOLDER ENGAGEMENT STRATEGY

A Stakeholder Engagement Action Plan has been developed for the modification. Key objectives of this plan are to:

- inform government, and private and public stakeholders about the progress and nature of the modification;
- recognise and respond to local interest or concerns regarding the modification; and
- continue the ongoing dialogue between Mt Arthur Coal and stakeholders that has occurred over the life of the mine.

The program includes the use of a variety of consultation mechanisms which in summary include:

- public exhibition of key documents (e.g. Summary modification Description and Justification and the EA);
- continued consultation with the local community via the Mt Arthur Coal CCC;
- provision of project information on the BHP Billiton website;
- meetings with the general community including Aboriginal groups, directly affected landowners and neighbouring developments (e.g. Macquarie Generation and nearby horse studs);
- meetings with relevant government agencies including local council meetings; and
- community newsletters and media activities.

The consultation would include, but not necessarily be limited to, the following government agencies and authorities:

- DP&I;
- Environment Protection Authority;
- Office of Environment and Heritage;
- NSW Office of Water;
- Division of Resources and Energy (within Department of Trade and Investment, Regional Infrastructure and Services);
- Muswellbrook Shire Council; and
- Commonwealth Department of Sustainability, Environment, Water, Population and Communities.

Consultation with the Aboriginal community would be conducted in consideration of the requirements of the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (Department of Environment, Climate Change and Water, 2010).

The issues raised and outcomes of the consultation program would be reported in the EA.

6 REFERENCES

Department of Environment, Climate Change and Water (2010) *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010*.