

Enquiries
Please ask for Theresa Folpp
Direct 02 6549 3700
Our reference 23/843

17 November 2023

Tegan Cole
Senior Environmental Assessment Officer
Department of Planning and Environment

Dear Ms Cole

Mount Arthur Coal Mine (MP 09_0062) – Muswellbrook Shire Council comments on Modification 2 Modification Report

Reference is made to ‘*Mount Arthur Coal Mine Modification 2 Modification Report*’ (2023) and associated appendices (Modification Report), and request to provide comment via the Major Projects Portal.

Modification 2 (MOD2) includes the following changes to the approved Mount Arthur Coal Mine (MAC):

- Four-year extension of mining activities to 30 June 2030;
- Reduction in the approved open cut mining rate from 32 million tonnes per annum (Mtpa) of run-of-mine (ROM) coal to a maximum of 25 Mtpa ROM coal (similar to current actual ROM coal production);
- Reduction in maximum total (open cut and underground) rail transportation from 27 Mtpa of product coal to 20 Mtpa, and a reduction in train movements from 30 to 20 movements per day;
- Minor extension (25 hectare) of the approved disturbance area in the north-west corner of the operation, predominantly to allow for access and ancillary infrastructure;
- An overall reduction (387 hectare) in approved disturbance, with some previously approved disturbance areas no longer intended to be disturbed;
- Revised final landform and final void configuration, including an overall reduction in the approved height of the northern overburden emplacement areas (from an average of approximately 360 AHD to an average of approximately 340 m AHD) (to reflect the current actual height);
- Reduction in number of final voids from three to two, comprising the Northern Open Cut Void and McDonalds Void. Belmont Void would be filled;
- Change in location and shape of the Northern Open Cut Void;
- Continuation of a total workforce of approximately 2,200 full-time equivalent positions.

Council’s submission has two parts. The first Part contains comments directed to the planning authority that will assess and determine this application, and to Department of Planning and Environment (DPE), to consider cumulative impacts. The second Part provides comments specific to the Project.

Part 1 – Cumulative Impact Assessment

Site Transition and job diversification

1. The Hunter Regional Plan 2041, Objective 1, recognises that power station and coal mine sites can facilitate the diversification of job opportunities in the Hunter during operation and following closure. There are discussions occurring between State government agencies and councils on how to make this occur in practice. MOD2 creates a level of urgency to identifying appropriate mechanisms to manage site rehabilitation requirements more flexibly.

From an environmental and planning perspective, the requirement to remove all on-site infrastructure i.e., buildings, roads, utilities, and to rehabilitate large, levelled areas of the site, would result in:

- Loss of resources and assets;
- Waste generation if the demolished infrastructure is sent to landfill;
- Energy and resource consumption i.e., demolition and construction of new infrastructure requires additional energy, materials and resources; and
- Community and social impact i.e., removal of infrastructure may lead to uncertainty among the local community and stakeholders about the future use and development of the site.

Council requests that the State Government takes the lead in being a “Transition and Diversification Authority” with funding from the mining lease holders to manage the risks associated with deferral of site rehabilitation. The State Government currently holds rehabilitation bond for mine sites. The rehabilitation costs for areas encompassing infrastructure, such as buildings, carparks, roads, and utilities could be calculated, and the funds required to cover these rehabilitation costs be transferred to the State Government and removed from the site rehabilitation bond held. The NSW State Government could then use the funds, and any interest earned, for:

- a) annual maintenance;
- b) as an economic incentive to attract businesses to the site; and
- c) site rehabilitation if no new users can be attracted to the site.

These areas could then be relinquished from the mining leases without requiring the infrastructure to be removed. It would be important that an arrangement be put in place requiring subsequent landowners to commit to site rehabilitation if a development or re-use of the site is not commenced within a specified period (the State Gov could ask the incoming purchaser to provide a bond to cover the costs).

Mining Voids and Highwalls

2. Multiple final voids and highwalls have been granted approval to remain within the Muswellbrook Shire Local Government Area (LGA). Voids and highwalls are not a naturally occurring element in the landscape, so planning to retain them is planning to create an irreversible and permanent negative change to the environment. It is incongruous to have a mining void and highwall located adjacent to an extensive overburden emplacement area, rather than use the overburden to fill the void. The feasibility of backfilling a void is often discounted on economic and environmental grounds. This issue raises questions about the true valuation given to the impacts on the environment.

Air Quality Monitoring

3. Council's considers that the 24-hour averaging period for air pollution monitoring has the unintended consequence of obscuring issues of elevated dust levels at night and early morning, particularly when a surface temperature inversion is present. A 12-hour average would better show air quality impacts on the community. Council requests that the NSW Government review their policy on allowing 12-hr averaging rather than 24-hour averaging.

Part 2 – Mount Arthur Project Impacts

Planning Agreement

4. Muswellbrook Shire Council currently has an Voluntary Planning Agreement (VPA) with Hunter Valley Energy Coal (HVEC) that was entered into in 2011. The current VPA applies primarily to the predicted operational impacts of the Mount Arthur Mine and does not include provisions for the foreseeable adverse socio-economic consequences of closure.

The intent of MOD2 is to allow BHP time to prepare for closure, as stated in the Modification Report 'In 2022, BHP announced the Mt Arthur Coal Pathway to Closure' (Modification Report, Exec Summary).

The mine approval will not require further modification to enter the closure phase in the future. As a result, this is Council's only opportunity to amend the VPA to negotiate compensation for the foreseeable socio-economic consequences of the closure of the mine.

Council met with BHP on 02 November 2023 to commence discussions on renegotiation of the Planning Agreement noting that Council wishes to finalise the negotiations before determination of the modification. Proposed changes are shown in **red text**, with comments where relevant, below. Dollar amounts have been adjusted to present day values, considering CPI increases since 2011, where relevant.

Existing Voluntary Planning Agreement (2011)			Proposed Updated VPA
Funding Area	Current Contribution	Notes / Funding Time Frame	
Thomas Mitchell Drive Upgrade	\$3,000,000 Plus \$4,060,000 capital	The total contribution of \$7,060,000 will be payable in yearly instalments to match execution of the works. The \$4,060,000 capital will be repayable to the Proponent by Council from contributions from other projects/developments, in accordance with the terms of the planning agreement.	No change proposed.
Thomas Mitchell Drive 'Periodic Capital Works'			<ul style="list-style-type: none"> • Costs and timing of reseal and rehabilitation as per a Work Plan to be developed to support the TMD Contributions Plan, to reflect actual cost and timing. • The Work Plan will outline HVEC's total cost for executing work outlined in the TMD Contributions Plan, including any necessary work post-2030 as outlined in the TMD Contributions Plan. • Proportions per the Thomas Mitchell Drive Contributions Plan. • Costs of updates to the TMD Contributions Plan and associated Work Plan to be funded using proportions outlined in TMD Contributions Plan.
Thomas Mitchell Drive Maintenance- Council Road Maintenance Costs	\$120,000 per annum (max)	Contributions to start at Year 2 of the completion of the Thomas Mitchell Drive upgrade works (contributions to be staged if the upgrade works are staged).	<p>\$160,703 per annum.</p> <p>Council to confirm rate.</p> <p>Funding consistent with contemporary VPA's in the Shire. This contribution will be made for the recurrent road maintenance to used at Council's discretion for that purpose.</p>
Mt Arthur Coal Community Fund	\$500,000 per annum	Contributions to start on commencement of construction. With CPI adjustments since 2011 the rate is now \$740,399.00 per annum.	<p>\$7.5M total or \$1.875M per annum (over the four additional years). HVEC will provide incentives for employees to live locally.</p>

Existing Voluntary Planning Agreement (2011)			Proposed Updated VPA
Funding Area	Current Contribution	Notes / Funding Time Frame	
Provision for Socio-Economic Impacts of Closure	-		<p>\$25M payment in five equal instalments commencing 2025 plus additional social commitments (in addition to the recommendations made in the Social Impact Assessment for the Modification), including:</p> <ul style="list-style-type: none"> • Maintain existing investment in community activity; • Identify specific community investment opportunities related to mental health services in the Upper Hunter Region; • Include local targets as part of decommissioning and rehabilitation procurement; • Provide opportunities for local indigenous procurement; • Continue support for local business chambers and seek community investment in local business development programs; • Continue working with all levels of government, local business and other stakeholders to identify commercial and social development needs and opportunities; • Collaborate with local councils, First Nations Peoples, and other key local stakeholders to identify opportunities for recreational, sporting and other community assets; • Continue to pursue commercial site redevelopment opportunities that leverage the local skills base, contribute to regional economic diversification and create local jobs; and • Enhancement of public access to environmental areas on the site, and improvement of degraded land and waterways to facilitate better access to water bodies and conservation areas, incorporating initiatives such as the development of footpaths.
Council Environmental Assessment	\$20,000 per annum	Contributions to start on commencement of construction.	\$29,591 per annum.

Mt Arthur Coal Community Fund

In the four years between 2026 and 2030, Council would receive approximately \$2 million if the current VPA was unchanged. The NSW State Government is projected to receive economic benefits totalling \$1.033 billion during the same period (including economic benefits to NSW workers).

BHP's direct contribution to the Muswellbrook community is unclear. As stated in the recommendations for the SIA, *'to reduce uncertainty...MAC should...establish and maintain a baseline about MAC's contribution to the Muswellbrook and Upper Hunter communities. This could include.... the number of businesses supplying to MAC, the total spend with local suppliers and contribution to community groups'*.

The Muswellbrook community currently experiences negative consequences from the Project, from impacts on road infrastructure, compromised air and noise quality, loss of heritage, increased traffic congestion, impacts from blasting (road closures and complaints) and fluctuations in housing availability and affordability.

As stated in the SIA:

- *'The Modification would lead to a continuation of amenity impacts, including impacts of noise, dust, blasting and light emissions. Together, these represent approximately 90% of all complaints. The nearby landholders interviewed spoke about all these impacts....some talked about lack of sleep and how their whole life had been affected';*
- *'Some respondents spoke about the negative social and economic effects of living in a town that is largely dependant on mining. These issues included shortage of housing, particularly rental housing for people who were not earning mining wages, the economic and social divide between mine workers and others, and the presence of transient workers in the community....One respondent gave the example of one of their employees who had recently separated from a partner and was unable to find new housing on the open rental market, and had to rely on personal contacts to find somewhere to live (INT22). Other respondents talked about the increased incidences of couch surfing (i.e. seeking temporary, informal accommodation with friends or family) (INT2)'*.

For these reasons Council does not consider that the current contribution required by the VPA is adequate.

Provision for Socio-Economic Impacts of Closure

The current VPA applies primarily to the predicted operational impacts of the Mount Arthur Mine as outlined in the following documents:

- The Environmental Assessment titled Mt Arthur Coal Consolidation Project Environmental Assessment (6 volumes), prepared by Hansen Bailey and dated November 2009, including the Response to Submissions dated February 2010; and
- The Environmental Assessment titled Mt Arthur Coal Open Cut Modification – Environmental Assessment (2 volumes), prepared by Resource Strategies Pty Ltd and dated April 2013, including the Response to Submissions dated September 2013.

The VPA does not include provisions for the foreseeable adverse socio-economic consequences of closure.

In 2020, in response to the impending closure of the Liddell Power Station, Council commissioned a report titled '*Identifying measures of success for a global best-practice thermal coal mine and thermal coal-fired power station closure*' (UniSA, 2020) to inform itself against the potential consequences of thermal coal-fired power station and thermal coal mine closure. Subsequently, AGL engaged a consultant to consider the socio-economic impacts to inform proportionate and evidence-based actions and financial contributions that could support the community through the Liddell closure. Following the development of a socio-economic impact assessment (SEIA), a Planning Agreement was developed between Council and AGL.

The AGL SEIA indicated that there would be a \$32.3 million economic loss to the Muswellbrook community over 12 years and various social issues, including impacts to way of life, community/decision making systems, culture, accessibility, health and wellbeing, surroundings and livelihoods. This impact was offset through a \$3.35M contribution (or 10% of the total economic loss) paid to Council over three years to spend on projects to limit impacts.

Coal mining is an integral part of the Muswellbrook community and has been for decades. The transition from a prior dependency on farmland to a current reliance on mining has had a profound impact on the community's economic foundations and livelihoods. The mine closure necessitates a thoughtful approach to ensure the well-being and resilience of the community after mining operations cease.

Council is concerned to ensure the community is appropriately and reasonably supported as mine closures occur. Council wishes to ensure there is a mechanism by which a proponent will make a monetary contribution to the Council to support the community to adapt to the impacts of closure, for example:

- Managing the closure process;
- Reskilling and redeploying the labour force;
- Redeveloping the local economy;
- Maintaining social cohesion; and
- Coordinating change.

The revised Planning Agreement is the appropriate mechanism to do this.

While the NSW State Government's Royalties for Rejuvenation Fund is aimed at providing support and funds for coal mining communities to diversify their economies, Council itself is not a direct beneficiary of these funds and the amounts being offered are far from sufficient to meet the community's needs.

Edderton Road Realignment Deed

5. In addition to the VPA, Council and HVEC entered into the "Edderton Road Realignment Deed" in 2018 to allow the current approved mine to progress by mining through Edderton Road. The agreement foreshadowed reconstruction of Edderton Rd along the original alignment following mine closure. MOD2 requires changes to be made to this Deed. Council and HVEC have commenced discussions on the changes required to the Deed but currently there is no clear timeframe for these negotiations to be completed.

Appropriate conditions of consent will be required, similar to the conditions applying to the Mangoola mine (SSD 8642).

Council notes that the former Edderton Road corridor (Lot 1 DP 1272416) is in the ownership of Muswellbrook Shire Council and that the MOD2 impacts this Lot. At this stage Council hasn't provided owners consent to the lodgement of MOD2 although the modification represents a material change to the final outcome for this parcel.

Changes to site rehabilitation approach

6. Modifications made to the site, and infrastructure constructed to support the mining operation, provides an opportunity for new business and community use of the site when mining ceases. However, as stated in Section 2.2.3 of the Modification Report *“all infrastructure will be removed from the site unless a documented post-mining use that would make use of that infrastructure has been identified and agreed with relevant stakeholders”*.

From an environmental and planning perspective, the requirement to remove all on-site infrastructure i.e. buildings, roads, utilities, and to rehabilitate large levelled areas of the site, would result in:

- Loss of resources and assets;
- Waste generation if the demolished infrastructure is sent to landfill;
- Energy and resource consumption i.e., construction of new infrastructure requires additional energy, materials and resources; and
- Community and social impact i.e., removal of infrastructure may lead to uncertainty among the local community and stakeholders about the future use and development of the site.

Council requests that BHP consider offering a portion of the site rehabilitation bond (for the areas encompassing infrastructure, such as buildings, car parks, roads, and utilities) to the NSW State Government, who can use the funds and any interest earned for:

- a) annual maintenance;
- b) as an economic incentive to attract businesses to the site; and
- c) site rehabilitation if no new users can be attracted to the site.

These areas could then be relinquished from the mining leases before infrastructure is removed.

If this approach is taken by the NSW State Government, the requirement to rehabilitate the site should not be extinguished with any sale of the land and / or change of use but should transfer to the new owner or development proponent.

Mine Closure

7. Council supports the recommendations provided in the Social Impact Assessment for the Modification.
8. Council is concerned about how the management of socio-economic impacts of closure will occur, and whether management will be controlled via a condition/s of development consent.

In most cases, SSD consents primarily focus on the operational impacts of a mine and touch upon in a limited way, the socio-economic impacts of closure as:

- I. a rehabilitation objective or as part of the Rehabilitation Management Plan (in some cases such as Maxwell Underground for example, there is a requirement to prepare a Social Impact Management Plan); and
- II. a condition of consent requiring commencement of mine closure planning within 5 years of final coal extraction (e.g., Mangoola Mine approval SSD 8642).

Council is of the opinion that managing the socio-economic impact from the closure of the Mt Arthur Mine should not be confined to a rehabilitation plan. A condition of consent is requested requiring the preparation of a Socio-Economic Mine Closure Plan. At a minimum, this should:

- I. Be prepared by a suitably qualified person;
 - II. Be prepared in consultation with relevant stakeholders (including Council);
 - III. Outline measures to:
 - a. Actively manage site closure to minimise adverse impacts for workers, firms and the community;
 - b. Assist workers to secure new jobs and to maximise their future career options;
 - c. Maintain the long-term sustainability of the Upper Hunter economy;
 - d. Maintain and improve social cohesion and community spirit throughout the change process; and
 - e. Maintain collaborative and inclusive governance dedicated to promoting community cohesion through the transformation process.
 - IV. Consider the report *'Identifying measures of success for a global best-practice thermal coal mine and thermal coal-fires power station closure'* (UniSA, 2020), specifically the objectives, targets, indicators and measures outlined in Appendix A; and
 - V. Include a tabulated description of objectives, targets, indicators and measures similar to those presented Appendix A of UniSA (2020).
9. The closure planning process should also include a requirement for the Mt Arthur Mine proponents to approach the DPE to commence a Place Strategy process for the site, as identified in the Hunter Regional Plan.

Rehabilitation

10. As stated in Section 3.10.3 of the Modification Report, key aspects of the modification include:
- A reduction in the number of voids from three to two, comprising McDonalds Void and Northern Open Cut Void;
 - A change in location and shape of the Northern Open Cut Void;
 - A reduction in height of the northern emplacement areas by approximately 20 m AHD;
 - A decrease in net disturbance by approximately 387 ha (via the Impact Minimisation Area); and
 - A reconfiguration of post-mining land use areas (location of woodland corridors).

Council supports these changes.

11. Council requests the following features be shown on the Final Landform figure:

- a. The location of the re-established Whites Creek;
- b. The location of outer faces of the waste rock emplacement areas with the proposed geomorphic design applied; and
- c. The location of the 33ha area proposed for Class II agricultural capability land.

12. Section 3.10.3 of the Modification Report states that:

‘As mine planning, coal resource geology and geotechnical studies are regularly being reviewed and refined as part of the operation, the actual final landform at the Mt Arthur Coal Mine may be different to what is presented conceptually on Figure 3-4’.

Clarification on this comment is required as it is understood that the Final Landform presented in Modification Report will be used in the development consent, and that a Proponent must rehabilitate the site in accordance with those plans.

13. Section 3.10 of the Modification Report states that:

‘An RMP and Rehabilitation Strategy (BHP, 2023a) is in place for the approved Mt Arthur Coal Mine, which satisfies condition 44 of Schedule 3 MP 09_0062’.

Council Staff provided comments on the current Rehabilitation Strategy in April 2023 and have yet to receive a response. Key comments are reproduced below and must be addressed as part of MOD2:

- a. Confirmation is required on whether the bund adjacent to Denman Road will be removed, it is the preference of Staff that the visual bund be removed post mining.
- b. Staff request that an area within CL229 is planted with Native Woodland (see yellow polygon in figure below) to combine with the corridors proposed under the existing approved Maxwell Underground mine - see Figure 11 from SSD 9526 (Maxwell Underground Mine).
- c. Preference is to include a figure showing the neighbouring Malabar Coal final landform and vegetation to demonstrate vegetation connectivity and wildlife corridors.
- d. Any new final landforms should be designed to include the following principles:
 - i. When viewed from Muswellbrook and key State-owned roads (including Designated Tourist Routes), any new emplacement landforms will have micro-relief and principles of GeoFLuv applied.
 - ii. Emplacement landforms across the site designed to look less “engineered” (i.e., incorporation of micro- relief to avoid simple blocky forms).
 - iii. Surface water drainage will incorporate micro-relief to increase drainage stability and avoid major engineered drop structures.
 - iv. Shaping in areas near road infrastructure that may enable more intensive employment land uses in the future when mining ceases.

- e. The final voids (and associated drainage network) should be shaped to reflect a less engineered profile that is more consistent with the surrounding natural environment and at less risk of erosion.



14. There is a lack of comprehensive documentation regarding the long-term management of voids and highwalls on the site, and there is an absence of specific conditions for their sustained management. To rectify this, a new condition of development that explicitly addresses, at a minimum, the following points, is requested:

- i. Implementation of safety measures to restrict public access including signage, fencing and other barriers;
- ii. Strategies for managing groundwater levels and preventing water quality degradation in and around the final void areas;
- iii. Protocols for ongoing engagement with local communities and stakeholders to address concerns, provide information, and gather feedback on void management practices;
- iv. Monitoring and reporting protocols to track key indicators such as water level, water quality and stability;
- v. Protocols for responding to emergencies or unexpected events, ensuring the safety of the surrounding community and environment;

- vi. Mechanisms, such as bonding or financial assurance, to cover the cost of long-term void management, including maintenance, monitoring, and potential rehabilitation efforts;
- vii. Incorporation of adaptive management principles to respond to changing conditions, emerging technologies, and new scientific understanding over time; and
- viii. Long-term responsibilities, such as ongoing monitoring and maintenance, that may extend beyond the life of the mine.

Air Quality

15. Mount Arthur has the largest approved Run of Mine extraction rate in the Shire and current approved compliance limits are not in accordance with the *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales* (NSW EPA, 2022) (Approved Methods), potentially due to the age of the approval, see Table 1.

Staff expect that DPE will update the PM₁₀ annual average and PM_{2.5} annual and 24-hour criteria, consistent with the Approved Methods and other mines in the shire.

Table 1 – Mining Industry Limits per Development Consent (PM₁₀ and PM_{2.5})

Site*	Distance to town (km)	ROM (Mtpa)	PM ₁₀		PM _{2.5}	
			Annual	24-hour	Annual	24-hour
Mount Arthur	8	36	30 ^{ac}	50 ^{ac}	No limit	No limit
Bengalla	6	15	25 ^{ac}	50 ^b	8 ^{ac}	25 ^b
Mount Pleasant (DA)	4	10.5	25 ^a	50 ^b	8 ^a	25 ^b
Mount Pleasant (SSD)	4	21	25 ^{ac}	50 ^b	8 ^{ac}	25 ^b
Mangoola Cont	17	13.5	25 ^{ac}	50 ^b	8 ^{ac}	25 ^b

*Dartbrook Underground, Maxwell Underground and Muswellbrook Coal not included.

^a Total impact (i.e. Incremental increase in concentrations due to the development plus background concentrations due to other sources).

^b Incremental impact (i.e. incremental increase in concentrations due to the development on its own).

^c Excludes extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents or any other activity agreed by the Planning Secretary

16. Being located just 5km from the township of Muswellbrook, Mt Arthur Mine should have an EPL condition like the Mount Pleasant Mine approval.
17. The 2010 NSW Health report shows that Muswellbrook residents reported higher levels of cardio-vascular and respiratory diseases, emergencies and deaths than the State average. Council requests that the Proponent contribute funding toward:
- i. Updates to the 2010 NSW Health report; and
 - ii. The installation of an EPA monitored ceilometer in Muswellbrook to obtain more real time information on PM₁₀ and PM_{2.5} levels in the air column at the same level as where dwellings are constructed.

Offsets

18. The Modification is proposing to amend condition 36 of MP 09_0062 so that:

'Any area of the offset strategy in Table 9 may be substituted with an alternative offset area subject to demonstration of equivalent biodiversity outcomes and to the satisfaction of the Secretary'.

Council supports this change, especially in relation to the Thomas Mitchell Drive On-Site Conservation Area. This area has been identified by Council as a suitable site for expansion of the adjacent industrial area. As can be seen from the Figure 3-4, Council is restricted from zoning further land to expand the industrial area due to surrounding offsets.

19. Condition 39 of MP 09_0062 states the following:

'The Proponent shall make suitable arrangements to provide appropriate long term security for the

...

(b) re-established woodland in the Rehabilitation Area at least 2 years prior to the completion of open cut mining activities associated with the Project.

The Proponent is proposing that the timeframe for the completion of security arrangements be extended until *'2 years prior to 'cessation of rehabilitation activities'*.

Council assumes that all areas shown in the Final Landform (Figure 3-4) will be put under a Conservation Agreement. Staff support these areas being put under conservation agreement.

Council appreciates the opportunity to comment and would be pleased to provide additional information if requested. Should you need to discuss the above, please contact Theresa Folpp, Development Compliance Officer on 02 6549 3700 or email council@muswellbrook.nsw.gov.au.

Yours faithfully



Sharon Pope
Director Environment and Planning