HTBA SUBMISSION
MT ARTHUR COAL MINE – MODIFICATION 2
PATHWAY 2030
ENVIRONMENTAL IMPACT ASSESSMENT

NOVEMBER 2023

INTRODUCTION & EXECUTIVE SUMMARY

The HTBA represents Australia's multi-billion dollar thoroughbred breeding industry centered and concentrated in the Hunter Valley consisting of over 200 thoroughbred breeding operations and support industries. It is Australia's largest concentration of thoroughbred breeding operations (2nd largest in the world) and largest producers, suppliers and exporters of premium thoroughbreds.

Our industry contributes some $5 billion, $2.6 billion and over $0.5 billion per annum to national, state and regional economies. We are a significant national, state and local employer and have been recognised by the NSW Government as a state significant industry. A summary of the economic significance of our industry is appended to this submission.

Our industry has been mapped as an Equine Critical Industry Cluster and promised heightened protection by the NSW Government, as well as having been protected from coal seam gas mining.

As a key stakeholder, the HTBA appreciates the opportunity of commenting on the Mt Arthur Coal Mine (Modification 2) – Pathway to 2030. We note that the primary purpose of this modification request is to enable the Hunter Valley Energy Company (HVEC) to plan for an orderly transition out of coal mining through an extension to its current approval by four (4) additional years (from 30 June 2026 to 30 June 2030). Accordingly, we note HVEC's general acknowledgment that the modification will extend mining impacts for four more years to allow for an orderly transition.

The HTBA's key environmental considerations and recommendations on this modification proposal relate to air quality, surface and ground water, noise and blasting, visual and landscape impacts, and rehabilitation plans for the site. This submission provides detailed commentary and recommendations on these points in the following sections, particularly Section 3. On all points, the HTBA encourages HVEC to make every effort to avoid, mitigate and minimise environmental impacts associated with this modification and to work proactively with the community on these and its plans for the future.

The HTBA notes that HVEC currently has approval for underground mining at the site and no current intention to commence underground mining. The HTBA recommends that the approval for the Mt Arthur Underground Project [1] be rescinded and the Government assures our industry and the community that no future mining licence for this site will be issued. In our view, this request should be uncontroversial given the nature of this modification request, the development of post mining land use plans for the site, and the NSW Government's policies on net zero emissions.

The HTBA is conscious of the history of mining at Mt Arthur, the impact its closure will have on the local and regional community and economy, the precedence it will set for all following mining transitions, and the legacy it will leave for the future. As the largest agricultural industry in the region with some 200 years of history, the HTBA stands ready to play its part in this important transition process so that together as one community and region we can grow, diversify and remain resilient.

1. THE PROJECT

1.1 DESCRIPTION

The Mt Arthur Open Cut Coal Mining operation, is owned and operated by Hunter Valley Energy Coal Pty Ltd (HVEC) a wholly owned subsidiary of BHP.

The Mt Arthur Coal Mine Modification 2 (Pathway to 2030) includes the following changes to the current approval due to lapse on 30 June 2026:

- four-year extension of mining activities to 30 June 2030;
- reducing 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;
- reducing the cumulative open cut and underground ROM coal handling rate from 36 Mtpa to 29 Mtpa;
- reducing maximum total (open cut and underground) coal rail transportation from 27 Mtpa of product coal to 20 Mtpa;
- reducing train movements from 30 to 20 per day;
- extending the approved disturbance area in the north-west corner of the operation by 25 hectares predominantly to allow for access and ancillary infrastructure;
- an overall reduction of 387 hectares in approved disturbance, as some previously approved disturbance areas are no longer intended to be disturbed; and
- revised final landform and final void configuration, including an overall reduction in the approved height of the northern overburden emplacement areas and the final landform (to reflect the current actual height).

The modification will extend mining impacts for four more years to allow for orderly transition, with a proposed net decrease in approved disturbance of 387 ha, and the lowering of key landforms (northern overburden emplacement areas) by approximately 20m relative to the currently approved final heights.

We note that the Mt Arthur Underground Project was approved in 2008 (MP 06_0091), that underground mining has not commenced and that HVEC has no current intention to commence underground mining[2].

The Mt Arthur Underground Project approval is due to lapse on 31 December 2030. The HTBA respectfully requests that once this approval lapses, this and any other remnant exploration or mining licences are surrendered or rescinded, and that the NSW Government gives the community certainty and solid undertakings that it will not issue any future exploration or mining licences (open cut or underground) on this site.

The closure of the Mt Arthur Open Cut Coal Mine will be the first and the most important transition away from coal in the Hunter Valley. How it is conducted will set the benchmark for the future – both in terms of transitioning out, engagement and certainty for the community and its long-term legacy.

1.2 LOCATION

The Mt Arthur Open Cut Coal Mining operation, is located some 5 kilometers (km) south-west of Muswellbrook, within the Muswellbrook Local Government Area (LGA) in the Upper Hunter Valley.

The land on which Mt Arthur Coal is located incorporates the regional landmark of Mt Arthur which is surrounded by moderately undulating foothills of cleared, open grazing paddocks with limited tree cover. The valley is defined by two forested mountain ranges; to the north the Barrington Tops National Park and to the south by the Wollemi National Park.

Between these ranges the Hunter River roams through areas of alluvial floodplain and undulating hills and ridges, with the forested mountain ranges forming prominent and attractive backdrops to the valley. Located near the centre of the valley, Mt Arthur forms a prominent landmark due to its height and distinctive peak shaped landform.

The scenic landscape to the south of the mine site, in particular around the Darley Woodlands stud farm, the Coolmore Australia stud farm and the Hollydene Vineyard and Winery, is highly sensitive to the visual impacts of the mine activities in the valley.

These historic stud properties were established in the 1800s and have a long history associated with thoroughbred breeding and racing. The presentation and operation of these stud farms is commensurate with their standing as the premier thoroughbred breeding and racing operations in both Australia and the world and as central players, the "epi centre" of the Hunter's Equine Industry Cluster.

1.3 JUSTIFICATION FOR THE PROJECT

We note that BHP undertook an extensive review of the Mt Arthur Coal Mine including:

- considering offers received through a Divestment Review;
- mine life planning;
- resource quality; and
- financial performance.

BHP advises that, despite the recent strengthening of coal prices, the Mt Arthur Open Cut Coal Mine has been economically challenged for a number of years due to the complexity of the site, its steep monocline, its declining value post 2030 as mining approaches the monocline which deepens pits, increases mine waste rock versus coal, increases haulage requirements and increases costs beyond 2030.[3]

It is therefore BHP's conclusion that Mt Arthur Coal's commercial viability is limited beyond 2030.

We note that BHP considered commencing the closure of the Mt Arthur Open Cut Coal Mine at the end of the current approved mine life, 30 June 2026, but this timing would not allow sufficient time to plan for closure.

BHP's request for a modification to extend mining to 2030 would provide the necessary time to properly plan and prepare for an equitable transition and mine closure for the workforce and nearby community, mindful of the associated socio-economic impacts.

The primary purpose for this Modification (Modification 2) therefore is to provide an additional four years to effectively plan for and execute BHP's transition out of coal mining in the Hunter.

As the largest mine in NSW it will set the benchmark for the orderly transition of all future mine closures. The manner in which the closure of Mt Arthur Coal mine is executed, the rehabilitation of the site and the engagement with the local community will leave a lasting legacy for the future sustainability, diversity, resilience and growth of the region.

2. NSW GOVERNMENT POLICIES & LEGISLATION,

2.1 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979 ("EP&A ACT")

The objects of the EP&A Act (as outlined in section 1.3) are to:

a) promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources,

b) facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,

c) promote the orderly and economic use and development of land,

d) promote the delivery and maintenance of affordable housing,

e) protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,

f) promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),

g) promote good design and amenity of the built environment,

h) promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,

i) promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,

j) provide increased opportunity for community participation in environmental planning and assessment.

As with all mining proposals, the HTBA emphasises the need to ensure objects (a), (b), (c) (e), (f), and (j) are achieved.

2.2 STATE ENVIRONMENTAL PLANNING POLICY (MINING, PETROLEUM PRODUCTION AND EXTRACTIVE INDUSTRIES) 2007 ("MINING SEPP")

The aims of Mining SEPP as outlined in section 2 of the policy are (emphasis added):

a) to provide for the proper management and development of mineral, petroleum and extractive material resources for the purpose of promoting the social and economic welfare of the State, and

b) to facilitate the orderly and economic use and development of land containing mineral, petroleum and extractive material resources, and

(b1)to promote the development of significant mineral resources, and

c) to establish appropriate planning controls to encourage ecologically sustainable development through the environmental assessment, and sustainable management, of development of mineral, petroleum and extractive material resources, and

d) to establish a gateway assessment process for certain mining and petroleum (oil and gas) development:

(i) to recognise the importance of agricultural resources, and

(ii) to ensure protection of strategic agricultural land and water resources, and

(iii) to ensure a balanced use of land by potentially competing industries, and

(iv) to provide for the sustainable growth of mining, petroleum and agricultural industries.

In the current environment and with respect to this proposal, the HTBA places particular emphasis on the achievement of 2(c) above.

2.3 HUNTER REGIONAL PLAN 2041

The Hunter Regional Plan 2041 (HRP 2041), its predecessor Hunter 2036 and the Strategic Regional Land Use Plan for the Upper Hunter, recognised:

- The importance of the Equine Industry Cluster (ECIC) as a key economic pillar of the Upper Hunter's regional economy;
- The importance of protecting and growing the ECIC;
- The need to support a net zero emissions economy;
- The need to transition away from coal and the need to reduce risks associated with these shocks to improve communities ability to withstand, recover and adapt to changes and become more resilient.

The HRP 2041 and its predecessors listed above, recognised that productive agricultural land natural resources are the foundations of the Hunter region's economy.

For the past 200 years the Hunter's thoroughbred breeding industry has held an important part in the history of the development of the region, its sustainable growth, its resilience and its future. It has a role to play in the transition away from mining and is ready to participate constructively in the transitioning out of the first, and largest, coal mine in the NSW Hunter Valley.

In this respect we note the strategies and actions in the HRP 2041[4] relating to the:

- importance of early involvement of communities and stakeholders in the rehabilitation and closure of the mine (in this case the Mt Arthur Open Cut Coal Mine);
- need to prevent voids in the design process;
- benefits of adaptive rehabilitation;
- the importance of retaining natural looking landforms, protecting scenic values; and
- ensuring, through community involvement, end-of-mine outcomes align with community values.

The three abovementioned Regional Plans recognised the Hunter's landscapes as an important resource of the region, its rural communities and its role in sustaining some of NSW's most mature, diverse and successful rural industries. These landscape provide security (food and fibre), support economic diversity and resilience and contribute to a local identity and sense of place – the Horse Capital of Australia, as one example. It is for this reason HRP 2041 (and others) called for protection of the ECIC and support for it to grow and prosper.

Key strategies (9.2, 9.3 & 9.4)[5] of the HRP 2041 call for:

- the protection of important agricultural lands, rural industries (such as for equine and viticulture);
- the need to promote the diversification and innovation of agricultural activities;

- supporting activities to value add and provide additional income streams for farmers;
- maintain lot sizes that allow for adequate setbacks and buffers;
- measures to protect the environmental and scenic values of critical industry cluster land;
- retaining and strengthening the local character, reputation and brand;
- enabling a diversity of equine and wine related experiences and opportunities (*the development of the Scone Equine Precinct being one example*)
- facilitating future adaptation or expansion within the industry;
- planning proposals near critical industry clusters to demonstrate that are compatible with equine and viticulture activities; and
    - complement scenic values, visual amenity and local character; and
    - provide suitable separation distances for sensitive uses; and
    - consider existing and likely future agricultural and rural uses of adjoining lands and the cumulative impacts of similar proposals in the locality.

The Hunter Valley is well position to be a world class location for sustainable, nature based cultural tourism (wine and equine) and a world class Equine Precinct. To date there have been many policies and policy statements attesting to the need for the protection of the ECIC, its development and growth but very few actions to achieve these policies.

This modification proposal presents the opportunity to act on policies and strategies to protect and grow key agricultural industries such as equine and wine and related investments for growth and tourism expansion.

The orderly transitioning out element of this proposal is a key reason for the request of a 4 year extension to the mining licence. It is from the community's perspective, a critical element of the proposal and a key consideration of the social licence to operate for a further 4 years.

It will be important for all players and stakeholders, including government, the local workforce and the community, to take this opportunity to build a sustainable, resilient economic platform for the future and to act on the strategies listed above as part of this modification.

It is an opportunity that should not be wasted.

2.4 TRANSITION POLICIES AND GUIDES

In addition to the Regional Plans (listed above) recognizing the need to transition away from mining to a net zero emission economy, the NSW Mining, Exploration and Geoscience (MEG) has recognised that [6]:

- post mining land use presents a significant opportunity for mining-reliant communities to support economic diversification and future productivity;
- post mining land use is an ongoing process that occurs across all stages of the project lifecycle, following recent reforms to the mine rehabilitation framework.

Included in the Government's vision for post mining land use is the need to:

- address community concerns about coal mining by strengthening the regulatory requirements for mine rehabilitation and closure planning;
- facilitating the benefits of coal mining land once mining has ended;
- supporting the diversification of coal-reliant regional economies to phase out thermal coal mining, including developing and implementing location-specific plans to diversify the regional economies that are heavily dependent on coal mining.

For communities, this policy is intended to foster greater certainty regarding rehabilitation and closure, facilitate regional economic benefits, and retain and generate local employment.

As mentioned in the previous section, MEG also recognises that post mining land use represents a significant opportunity to harness the existing infrastructure, workforce, and transport links from mines approaching closure, to continue economic activity and foster diversification and resilience post mining.

There are significant opportunities to be gained by stakeholders working together (Government, HVEC; HTBA, community). Early engagement will be key to:

- securing and maximising the future employment of the local workforce;
- developing and growing iconic, rural and tourism based industries; and
- achieving a diversified and resilient regional economy.

2.5 EQUINE CIC

The Upper Hunter's ECIC has been mapped, legislated and recognised by the NSW Government as nationally and state significant.

It is internationally recognised and is one of three centres of thoroughbred breeding excellence in the world (alongside Kentucky in the USA and Newmarket in the UK).

It is the largest agricultural industry in the Upper Hunter and is home to the second largest concentration of studs in the world (second only to Kentucky in the USA). It is Australia's largest producer, supplier and exporter of premium thoroughbreds.

The ECIC is vertically integrated comprising stud farms, broodmare farms and a sophisticated network of equine support industries – including the Scone Equine Hospital, which is the largest in the Southern Hemisphere and a centre of excellence in its own right.

The Hunter Valley is recognised domestically and internationally as Australia's Horse Capital producing champion equine athletes, which are the envy of the world – including the world's champion racehorse Winx, the horse that stopped a nation.

The importance of the Hunter's ECIC, its central players (Coolmore and Godolphin) and its vulnerability to threats of mining is well documented, including in six previous Planning Assessment Commission and Gateway Panel reports.

Given the importance of the Hunter's ECIC, and the critical importance of Godolphin and Coolmore as its epi-centre, the presence of other studs and the Holydene winery in the near vicinity, and the good neighbor relationship established between the HTBA and its members with HVEC over the past decade, it is important that through this EIS process the impacts of this proposal to the ECIC are thoroughly assessed and that HVEC commits to continue to work with the HTBA and thoroughbred studs to address any issues that may arise that could impact their operations from this modification should it be approved.

3. COMMENTS & RECOMMENDATIONS

3.1 AIR QUALITY

The increasingly parlous state of the Upper Hunter's air quality is well known and has been the subject of significant community concern and media attention over many years. It is a serious concern for the Upper Hunter community, the medical profession, agricultural and tourism related businesses in the Upper Hunter.

Coal mining linked air pollution, exceedances and spikes in PM10 and PM2.5 and the air quality cumulative impacts of coal mining are of critical concern to the health and wellbeing of the Upper Hunter community.

HVEC operates the largest open cut coal mine in NSW and the southern hemisphere. In the past, there have been air quality, dust deposition exceedances, including from mismanaged blasting events (2014).

As noted by Todoroski Air Sciences in respect to this modification [7] "average PM_{10} concentrations are below the relevant criterion of 25 µg/m^3, with the exception of Muswellbrook in 2018 and all stations in 2019. The maximum 24-hour average PM_{10} concentrations recorded at these stations exceeded the relevant criterion of 50 µg/m^3 on at least one occasion per annum for the majority of the review period." Table 4.2 shows that "PM_{10} concentrations are highest in the 2018, 2019 and 2020 periods".[8]

It is accepted by HVEC that the proposed extension will result in existing air quality impacts of the Mt Arthur Open Cut Coal Mine continuing for an additional four years along with continued greenhouse gas emissions and climate change impacts.

As the operator of the largest open cut coal mine in the Hunter Valley, and given HVEC's commitment to the community, it will be important that HVEC applies its best endeavours and takes every possible opportunity to ensure that mine related air quality impacts related to this modification proposal are avoided or minimised and that HVEC works proactively with the community to improve the overall air quality of the Upper Hunter.

We note the EPA is conducting further investigations into air quality safeguard mechanisms, climate change and greenhouse gas emissions as they relate to the NSW Government's requirements, including declining emissions targets to achieve net zero by 2030 and any other requirements being prepared to be applied to this modification.

The HTBA reserves the right to provide additional comments following the EPA's requirements and assessment.

3.2 SURFACE AND GROUND WATER

The Mt Arthur Open Cut Coal Mine is located wholly within the Hunter River catchment.

Water is the lifeblood of the Hunter's thoroughbred breeding industry. Risks or threats to the Hunter's water systems, which are the lifeblood of our industry and a critical water source for the Upper Hunter community, are critical concerns for HTBA members.

We note that potential surface water impacts of the modification include [9]:

- changes to flows in local creeks due to the proposed minor expansion of the open cut pit and subsequent capture and use of drainage from mine area catchments;
- potential for export of contaminants (principally sediments and soluble salts) in mine area runoff and accidental spills from contaminant storages (principally sediments,

soluble salts, oils and greases), causing degradation of local and regional watercourses; and
- short-term increases in salinity in the Hunter River during periods of licensed controlled release under the HRSTS.

We note that a final void water balance model was developed for the final void to predict the long-term behaviour of the final void water body. This modelling predicted that the final water level would be more than 130 m below the spill level at the Northern final void, and 24 m below the spill level at the McDonalds final void respectively. The salinity of void waters would slowly increase with time, as a result of ongoing slow migration of saline groundwater and flushing of residual salts from the overburden[10].

Impacts on downstream users and salinity impacts on the Hunter River, both individually and cumulatively, have been and continue to be of concern to the HTBA. We trust that HVEC will take every opportunity and apply every effort to avoid or minimise impacts on the Hunter River and those who rely on it.

We note HVEC's updated site water balance model:

- found that the majority (but not all) of the Mt Arthur Coal Mine water demand was able to be sourced from site catchment runoff; and
- the Modification would result in less reliance on extraction from the Hunter River when compared to that required for the currently approved operations

We note DPE – Water's concerns regarding:

- geotechnical stability of the final landform; and
- the need for HVEC to incorporate relevant advisories and guidelines into their groundwater assessment of this proposal - including Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development (IESC) (2023) Draft National Minimum Groundwater Monitoring Guidelines, Information guidelines for proponents preparing coal seam gas and large coal mining development proposals (IESC, 2018), the NSW Aquifer Interference Policy (NSW Government, 2012) and other relevant groundwater guidelines.

The HTBA shares DPE – Water's concerns regarding the proximity of the Northern Open Cut Void position in relation to the Hunter River alluvium, and the potential future risk to surrounding water resources this represents. Should void water rise to above the surrounding groundwater levels, flow directions will be reversed leading to the release of highly saline and likely acidic water to the environment.

With respect to Groundwater, we note[11] [12]:

- Mod 2 groundwater take would be in the order of up to 86.3 ML/year (average 16.3 ML/year);
- over the duration of Mod 2 mining, the predicted average incidental take of water from the Hunter Regulated River Alluvial Water Source, the Jerrys Management Zone of the Jerrys Water Source, and the Muswellbrook Water Source, is considered by HVEC and their consultants SRL as negligible;
- inflows for Mod 2 are predicted to peak in 2028 and 2029 to approximately 547.2ML/yr;
- no incremental drawdown impacts are predicted for the alluvium or regolith as a result of Mod 2;
- groundwater quality would be managed and outwards seepage to the surrounding groundwater environment (including the alluvium and regolith) would be constrained; and

- the Northern Open Cut Void and McDonald's Voids would remain as groundwater hydraulic sinks in perpetuity.

Final voids (both in terms of numbers and salinity levels) will be a lasting legacy of mining in the Upper Hunter. We call upon the Government and HVEC to apply every effort to fill in voids, avoid or minimise any impacts to surrounding and downstream landholders; and remediate their long term impacts (including by filling them in where possible) to minimise or avoid inter-generational legacy this would impose.

3.3 NOISE & BLASTING

We understand that given the location of the Modification Area (i.e. small extension to the north-west of the Mt Arthur Coal Mine), HVEC's Noise and Blasting Assessment has focused on the potential noise and blasting impacts at private residences to the north and north-west of the Mt Arthur Coal Mine during the period of proposed extended operations (FY2027 to FY2030).

It is noted and accepted that the Mt Arthur Open Cut Coal Mine Mod 2 proposal will result in existing environmental impacts of the Mt Arthur Open Cut Coal Mine (including noise and blasting) continuing for an additional four years. It is curious therefore that the noise and blasting assessment was limited to the modification area alone – given the potential broader and ongoing noise impacts on the surrounding community and receivers for an additional four years.

We understand HVEC's review of blast compliance monitoring results from FY2016 to FY2022 indicated compliance with the relevant blast criteria, with the exception of four blast overpressure exceedances and one exceedance of ground vibration criteria for public infrastructure. HVEC states that "overall, blast events did not exceed the 5% allowable exceedance limits for both ground vibration and airblast overpressure during FY2016 to FY2022".[13]

The HTBA recalls the mismanaged HVEC blasting event in 2014, resulting in orange dust plume and gas emissions and smells covering large areas and the lasting impact that has had on the community, our industry, investors, potential clients and tourists to the area at that time.

We note that HVEC's consultants, RWDI Australia Pty Ltd, specializing in assessments in the built environment, found that operational noise generated by the Modification 2:

- would generally comply with the operational noise criteria during the day and evening assessment periods;
- exceedances of the MP 09_0062 noise levels are predicted for a small number of receivers to the north-west of the MAC.

We appreciate that the nominated blasting criteria is based on minimising damage to structures and does not take into account human comfort.

We note that the Muswellbrook Council has queried whether blasting within the Modification Area would trigger closures along Edderton Road and HVEC's initial response that no changes are anticipated to existing blasting practices; the blasting control area would be extended as part of the Modification; and no additional road closures would be required.

As the operator of the largest open cut coal mine in the Hunter Valley, and given HVEC's standing in and commitment to the community, it will be important that HVEC applies its best endeavours and takes every possible opportunity to ensure that mine related noise and

blasting impacts related to this modification are avoided or minimised and that HVEC works proactively with the community in this regard.

3.4 VISUAL IMPACTS

Landscape of the Area

The scenic quality and agricultural productivity of the Upper Hunter River Valley, including the area between Jerrys Plains and Denman, renders this area as one of the most valuable landscapes in NSW. It has a unique combination of very deep and fertile soils, abundance of clean water, varied topography from river flats to steeply undulating hills and a mild climate. These scenic qualities are framed by the close proximity of the Wollemi National Park at one end and the Barrington Tops at the other.

The area has a long and rich cultural history relating to pastoral land uses and thoroughbred breeding, dating back to the early 1800s. Pastoral land uses and thoroughbred breeding have worked in concert for some 200 years in this part of the Hunter Valley.

The rare combination of scenic qualities, high value agricultural productivity and cultural heritage, has attracted the world's leading thoroughbred studs to establish operations in the Hunter Valley. The studs' locations on the Hunter River reflect internationally best practice attributes necessary for successful operations of thoroughbred breeding businesses: the presence of alluvial soils, ample water, clean air, undulating topography combined with a scenic setting – in this case the Hunter River valley and the backdrop of the forested ranges of the Wollemi National Park and Barrington Tops.

The visual quality of the landscape both in and around the studs, is of paramount importance to the industry's business model, particularly the presence of highly productive land with good soils and ample water; the physical appearance of the properties; and the surrounding well-ordered landscape fostering a clean, green, serene operating environment.

For world-leading thoroughbred studs this landscape presentation demonstrates the high quality of the operations; reflects the highest standard of agronomic practices necessary to achieve peak property productivity and bloodstock performance and enables clients to see the bloodstock in the best possible conditions.

Visual Impact Assessment

As HVEC's Modification Report acknowledges[14], the topography in the vicinity of the Mt Arthur Coal mine is gently undulating to hilly, dominated by Mount Arthur and Mount Ogilvie.

We note that the Mod 2 Landscape and Visual Impact Assessment was prepared on the basis that the Modification would result in lower landform heights leading to no increase in visual impact compared to the currently approved Mt Arthur Coal Mine – but a continuation of current impacts due to mining for an additional four years.

HVEC states it has assessed the potential visual impacts by evaluating the visual magnitude of changes associated with the Modification in the context of the visual sensitivity of relevant surrounding land use areas (i.e. those areas in which the Mt Arthur Coal Mine may be visible). We note HVEC's Mod 2 EIS assesses visual impacts from six viewpoints, once each from:

- Roxburgh Road (VP1);
- Racecourse Road (VP2);
- South Muswellbrook (VP3);

- Denman Road (VP4);
- Roxburgh Vineyard (VP5); and
- Golden Highway (VP6).

Given the sensitivity of thoroughbred operations to the visual impacts of mining (direct and indirect; static and dynamic) it is important to our industry that a condition of consent for this modification includes HVEC working closely with all potentially affected studs to identify the visual impacts from relevant viewpoints on their properties and ensure that visual impact mitigation strategies and plans are adopted in order to:

- avoid/minimise any additional visual (direct/indirect; static and dynamic) exposure to Mt Athur mining operations resulting from an additional four years of operation;
- apply world's best practice approaches to mitigate visual impacts through the use of leading edge technologies and early, constructive, and open communication between mining companies and the studs;
- ensure HVEC minimises views from the stud properties within the Primary View Zone to active overburden faces on the out of pit emplacement areas of the Project to ensure the extent of any primary view is less than 2.5%.

3.5 FINAL LANDFORM – REHABILITATION & VOIDS

We note HVEC's Mod 2 EIS presents a revised conceptual final landform(compared to the current approval) that:

- reduces the number of voids from three to two;
- changes the location and shape of the Northern Open Cut Void;
- reduces the height of the northern emplacement areas by approximately 20 m AHD;
- decreases the net disturbance by approximately 387 ha (via the Impact Minimisation Area); and
- reconfigures post-mining land use areas (location of woodland corridors).

The environmentally sensitive rehabilitation of the productivity of the land, and the historic and scenic values of the landscape within which HVEC operates the Mt Arthur coal mine, is an overarching condition of consent and underpins its social licence to operate.

How this is achieved is of upmost importance to the community, our industry and our environment. It will be a marker by which BHP, HVEC and the NSW Government will be judged well into the future by many generations. It will be BHP's legacy.

Given this, it is important to our industry that a condition of consent for this modification includes HVEC working closely with HTBA and potentially affected studs to ensure rehabilitation uses international best practice adaptive management and the latest technology to shape the overburden so that the rehabilitated lands:

- are geomorphologically designed to be similar to the natural undulating landform of the surrounding landscape and are geologically stable;
- retain the shape as close to natural as possible, and align with existing natural landforms in the area, including but not limited to:
    - restoring and replicating as many of the original landform characteristics (shape, scope , contour and context) as possible;

- maintaining as much of the current vista as possible by incorporating stronger valley features to enable depth of view to be maintained;
- using micro relief to create a natural looking and stable landform;
- establishing visual and ecological planting patterns of native trees to achieve landscape patterns that complement the existing spatial distribution of tree and grass cover in a grazing landscape;
- committing to ensuring the success of rehabilitation to maturity, which will continue after mining is complete.

We note that this modification intends to reduce the number of final voids from 3 to 2 with the Belmont Void being backfilled and rehabilitated as part of the final land form. The backfilling of the Bellmont Void demonstrates that where there is a will, there is a way.

The size the Northern Open Cut Void, its proximity to the Hunter alluviums and the fact that the Northern Open Cut Void and McDonald's Voids will remain as groundwater hydraulic sinks in perpetuity is a significant concern to our industry and community. We are very uncomfortable with the proximity of this void to the Hunter alluvium and the potential for void water discharge into the Alluvium in the future.

We call upon the Government to apply the precautionary principle to reduce the size of the Northern Open Cut Void and extend its proximity away from the Hunter alluvium.

A highly saline void in perpetuity is unacceptable to the community and an unacceptable legacy to leave future generations.

As the first and largest mine to transition, Mt Arthur will be paving the way and setting the benchmark for all who follow. The benchmark should be high, reflect community values and aspirations, set world's best practice, apply innovation and ingenuity to remediate this site fully and leave a positive legacy for future generations.

We call on the Government and HVEC to fill in voids, to avoid/ minimise any impacts to surrounding and downstream landholders; and remediate their long term impacts (including by filling them in where possible) to minimise or avoid the inter-generational legacy this would impose.

3.6 POST CLOSURE COAL PROCESSING

We note that the Resources Regulator and Muswellbrook Shire Council raised questions regarding the processing and offsite transportation of stockpiled coal as part of rehabilitation of the site (post 2030) and that HVEC have inserted a note to the proposed changes to conditions of consent to this effect (Attachment 1).

The HTBA would appreciate clarification on this matter.

HUNTER THOROUGHBRED BREEDING ASSOCIATION (HTBA)

The HTBA represents Australia's multi-billion dollar thoroughbred breeding industry centered and concentrated in the Hunter Valley consisting of over 200 thoroughbred breeding operations and support industries.

HUNTER THOROUGHBRED BREEDING INDUSTRY

The Hunter is home to Australia's largest concentration of thoroughbred breeding operations (2nd largest in the world) and largest producer, supplier and exporter of premium thoroughbreds. The industry contributes some $5 billion, $2.6 billion and over $0.5 billion per annum to national, state and regional economies.

The Hunter Thoroughbred Breeding industry provides sustainable employment to over 5,000 people in the Hunter and supports a sophisticated network of equine support industries, including the Scone Equine Hospital, the largest in the Southern Hemisphere and a Centre of Equine Veterinary Excellence in its own right as well as farriers, dentists, feed producers, horse transport providers, etc

The Thoroughbred Breeding industry has a proud history in the Upper Hunter starting from the late 1800's and spanning nearly 200 years.

At the centre of the industry are Coolmore and Godolphin - Australia's and the world's largest thoroughbred breeding studs. They are the global and Australian market leaders. As previous PACs have found, they are "pivotal" "central actors" the "epi-centre" of the Hunter's Equine Critical Industry Cluster (ECIC).

The industry is vertically integrated into the NSW Racing Industry and provides employment and business opportunities to over 200,000 people across its national network – upstream and down from fodder and saddlery through to racing, accommodation, fashion, tourism and hospitality.

It is a significant national, state and local employer and has been recognised by the NSW Government as a state significant industry. The industry has been mapped as an Equine Critical Industry Cluster, protected against coal seam gas development and promised heightened protection from coal mining.

The Hunter's Thoroughbred Breeding Industry is one of 3 Centres of Thoroughbred Breeding Excellence in the world, alongside Kentucky in the USA and Newmarket in the UK. It is the only thoroughbred breeding industry of such significant size, importance and global reputation that is not protected from incompatible development (such as mining) with buffers, protection zones or preservation orders.

The Hunter's internationally renowned thoroughbred breeding industry has taken many decades to build. International breeding and racing experts and investors alike consider the Hunter Valley "a rare international gem" that has all the attributes (environmental, topographical, scenic and reputational) to continue to grow and take advantage of investment and further growth potential as our breeding and racing markets, and those throughout Asia, expand.

The Hunter's thoroughbred breeding industry has been an important pillar of the regional economy for the past 200 years; is resilient and sustainable; and has a critical role to play in

the future development of the region, particularly as it transitions away from coal mining to a zero emissions future.

COOLMORE AND GODOLPHIN – "CENTRAL PLAYERS"; THE INDUSTRY'S "EPICENTRE"

Coolmore and Godolphin are Australia's market leaders in breeding and racing. They are major players in the stallion market in Australia and that of the Hunter Valley stallion market.

They are as dominant in the sales ring as they are on the racecourse. The progeny of their stallions are highly successful, highly valuable and coveted by domestic and international breeding and racing interests.

The industry is founded on the strength of its premium stallions. The stallion farms in the Hunter Valley are inextricably linked to over 150 broodmare operations clustered in the Hunter Valley and the sophisticated network of equine support industries. These operations would not be in the Hunter Valley if it were not for the stallion stud farms, such as Coolmore and Godolphin.

The Hunter Valley's breeding industry underpins NSW's racing industry (and indeed the racing industry across Australia, particularly the Eastern seaboard) and the significant revenue, investment and tourism that NSW breeding and racing attracts.

Coolmore and Godolphin operate in a highly scenic landscape, including the Hunter River (which traverses both their properties), highly productive alluvial floodplains, foothills and close to the Wollemi National Park.

The area has significant cultural values – both Aboriginal and non-Aboriginal and important agricultural values with mapped Equine and Viticulture Critical Industry Clusters and Biophysical Strategic Agricultural Lands.

Against this backdrop Coolmore's and Godolphin's landscape presentation is immaculate, tranquil and deceptively bucolic. It is intensely managed, with the highest attention paid to every detail – from the presentation of their stud farms to the care of and commitment to their valuable bloodstock – all key components of their business models (to breed elite athletes), client expectations and investment attractiveness to current and future clients.

The landscape in which all the Upper Hunter's Equine Industry Cluster studs operate reflects their position as Australia's Horse Capital and Australia's reputation as one of only three Centres of Thoroughbred Breeding Excellence in the world.

---

[1] MP 06_0091, approved in 2008 and due to lapse on 31 December 2031
[2] BHP Mt Arthur Coal Mine Modification 2 – Modification Report, p 6
[3] BHP Mt Arthur Coal Mine Modification 2 – Modification Report, p 15
[4] Hunter Regional Plan, 2041, p 24
[5] Hunter Regional Plan, 2041, p 24
[6] Department of Regional NSW, Mining, Exploration and Geoscience, Practical Guide to Post Mining Land Use, January 2023
[7] BHP Mt Arthur Coal Mine Modification 2, Appendix B, Todoroski Air Sciences, Mt Arthur Mod 2, p16
[8] BHP Mt Arthur Coal Mine Modification 2, Appendix B, Todoroski Air Sciences, Mt Arthur Mod 2, p17
[9] BHP Mt Arthur Coal Mine Modification 2, Modification Report p, 116, and Appendix G
[10] BHP Mt Arthur Coal Mine Modification 2, Modification Report p, 117, and Appendix G
[11] BHP Mt Arthur Coal Mine Modification 2, Appendix H, Groundwater Assessment, SRL, 27 September 2023, p 126
[12] BHP Mt Arthur Coal Mine Modification 2 – Modification Report, p 121 - 122
[13] BHP Mt Arthur Coal Mine Modification 2 – Modification Report, p 63
[14] BHP Mt Arthur Coal Mine Modification 2 – Modification Report, p 59