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31 May 2013

HUNTER THOROUGHBRED BREEDERS ASSOCIATION – SUBMISSION ON MT ARTHUR MODIFICATION

The Hunter Thoroughbred Breeders Association (HTBA) appreciates the opportunity to comment on the BHP Billiton's Environmental Assessment (EA) for Mt Arthur Modification.

The HTBA represents over 150 thoroughbred breeders and equine suppliers. Our multi-billion dollar industry is one of the largest employers in the Hunter Valley. The Hunter Valley Breeders represent the largest concentration of stud farms in the world outside of Kentucky in the USA. We are Australia's largest producer, supplier and exporter of premium thoroughbreds. The Hunter Valley is also one of only three international centres of thoroughbred breeding excellence in the world. A brief overview of the history and operations of our industry is appended to this letter.

Comments relating to the Mt Arthur Modification

The proposed Modification to BHP Billiton's Mt Arthur mine includes:

- a four year extension of the open cut mine life from 2022 to 2026 at the currently approved rate of 32 Mtpa;
- an increase in open cut disturbance areas (of approximately 260 ha);
- use of the conveyor corridor for overburden emplacement;
- duplication of the existing rail loop;
- an increase in the maximum number of train movements per day from 24 to 38 (an increase of nearly 60%)
- the relocation of the load point for the overland conveyor which delivers coal to Macquarie Generation's Bayswater Power Station;
- the relocation and upgrade of the explosives storage, magazine and associated facilities; and
- the construction of additional offices, a control room and a small extension to the ROM coal stockpile footprint.

What is BHP's long term plan for the mine? This is not a small modification. The scale of the proposed development is inconsistent with a short-term (4 year) development and points to longer term development plans for the mine. BHP Billiton's Mt Arthur operation is the largest mine in the Hunter Valley. The HTBA notes that this is another in a series of extensions, expansions or consolidations to the Mt Arthur mine in the Hunter Valley over the past decade.

Inadequate Time to Respond

The HTBA notes that the community on this occasion, as in the past, has been given only one month to consider and respond to thousands of pages of highly technical reports, which have taken consultants many months to prepare. This is grossly unfair and reinforces the perception that the planning and approvals processes are unfairly weighted in favour of mining companies.

The HTBA considers this totally inadequate and inconsistent with the spirit of this Government's planning policies, which purportedly seek to empower and enable communities to respond to mining applications, which will affect their future.

Given the short time for communities to comment the HTBA seriously questions whether Departments and the Government are receiving the fullest information upon which to make appropriate and considered decisions.

The HTBA strongly recommends that a period of at least 8 weeks (depending on the complexity of the proposal) should be afforded communities to assess, engage their own advisers, and respond appropriately to Government.

Lack of genuine stakeholder consultation

The HTBA is not convinced that BHP Billiton has seriously, genuinely and openly consulted the community on this Modification. Apart from one letter one month prior to the lodgement of this Modification EA, the HTBA has no record of engagement with BHP Billiton on this specific proposal. This in our view does not constitute “extensive consultation with key stakeholders in relation to the Modification”.

Limit Mining Modifications - Cease the Mining Creep

The Mt Arthur Modification represents the fourth alteration to the Mt Arthur operation in a period of 5 years. Other alterations have included:

- January 2008 – approval of an extension to the existing South Pit open cut coal mine
- December 2008 – approval of the construction and operation of an underground coal mine
- September 2009 – approval of run-of-mine production to a maximum of 36 million tonnes per annum (consolidating mining operations on the site)
- February 2012 – lodgement of the Mt Arthur open cut Modification further extending the duration and scope of mining operations.

Taken in isolation the company can argue that these alterations, modifications and extensions are relatively small changes to the company’s overall mining operations. Taken together they represent a significant change to the company’s mining operations, the duration of mining in the area and the impact on local communities. Taken together they also present higher risks and impacts on surrounding landholders and significant agricultural industries.

The HTBA considers that communities and critical industries deserve to know both the full extent of mining operations and the total duration of mining that may affect them. The effective result of the number of mining modifications throughout the Hunter Valley is that mining is compounding its impact on regional communities, creeping closer and closer to towns and agricultural operations and extending well beyond their original operational dates. Constant modifications mean that the cumulative impacts (including regional, health, environmental, air quality, transport, safety, social and industry impacts) are rarely assessed or considered. As a consequence communities and critical industries like our own find it very difficult to plan for the future and make long term investment decisions. Importantly communities and Governments are not in a position to make long term assessments and plans for the future of our regions.

The HTBA is strongly of the view that there must be a limit to mining modifications. We are of the view that mining companies must have early visibility of the size, structure and duration of their operations and should be required to make all of that public early in their mining life. If mining companies do not have that visibility and require modifications or extensions every few years then there is a very serious problem with the exploration, mining and planning systems in NSW.



The community, other landholders and critical industries deserve “certainty about how a region can be expected to change over time”. We deserve to know “the cumulative impacts are being taken into account, effects on regional tourism and how close coal mining will come to our towns and the effect that proximity will have.” These are reasonable, rational concepts. All of which were articulated by the Coalition in its Strategic Regional Land Use election policy.

All industries and communities in the Hunter Valley communities deserve certainty. The HTBA calls on the NSW Government to impose a limit to modifications so that regional communities, critical industries and the NSW Government can plan for the future with certainty.

The HTBA strongly requests that these matters are brought to Ministers attention and that we receive both an acknowledgement and a response.

The HTBA has a number of specific concerns relating to BHP Billiton’s Mt Arthur Modification. These include:

1. **the lack of appropriate engagement with key stakeholders.** The HTBA notes that the Mt Arthur Modification states that the HTBA was consulted “extensively” as part of this process. It is our view that one letter one month prior to the lodgement of the Mt Arthur Modification Environmental Assessment (EA) does not constitute appropriate stakeholder engagement nor does it represent an example of best practice community engagement expected from one of the largest mining operators in Australia and the operator of the largest coal mine in the Hunter Valley.
2. **inadequate economic and socio-economic analysis.** A preliminary review of the Mt Arthur Modification Economic Assessment reveals that the assumed coal price is higher than the long run prices assumed by reputable organisations. Furthermore the analysis skates over the impact of this Modification on farm productivity and land values. The socio-economic analysis ignores the impacts on industries like our own and does not provide any details on the properties affected, associated land values and how these were estimated.
3. **inaccurate surface and ground water analysis.** Our preliminary analysis reveals serious omissions, oversights and inadequacies in both surface and ground water analysis conducted as part of the proposed Modification EA.
 - Inconsistencies in recorded data and the exclusion of available data does not provide us with confidence in the modelling used by the Proponent. It does not provide a strong justification for assessing the potential risks and impacts of this proposed Modification. The lack of meaningful assessment of salinity, no meaningful assessment of the potential water management under conditions when the system is more stressed (prolonged/critical wet or drought conditions), inadequate assessment of post mining conditions, no discussion on the sensitivity of estimated final void water levels, no discussion of the impact of the void and significant discrepancies in final void water levels gives us little confidence that surface water risks have been properly modelled or assessed.
 - We also have serious reservations and concerns about the ground water assessment particularly with respect to impacts on the alluvial aquifer, the Hunter River floodplain, the interconnectivity between surface and groundwater and the potential for mining to extend beyond the 150 metre buffer zone from the Hunter River and the consequent hydraulic impacts.
4. **inadequate visual amenity assessment** is a further concern particularly given the importance of visual amenity to our industry and neighbouring landholders;
5. **inadequate agricultural impact assessment** provides only a description of surrounding mining projects and does not attempt with any seriousness to assess the risks and impacts of this Modification on surrounding landholders and our industry;



6. no assessment of the cumulative impacts on air quality in the Hunter Valley;
7. no assessment of the cumulative impacts on human health as a result of this Modification and other mining operations, modifications, extension and plans for new mines in the area;
8. inadequate assessment of the road safety impacts of this Modification proposal;
9. continuing community concerns regarding noise, blasting and vibration

Given the serious oversights associated with this Modification EA, including the economic and socio-economic costs of the projects, the nature of water related issues associated with this proposed Modification, visual amenity and the over impacts on the community, the **HTBA is strongly of the view that an independent assessment process is required and we call for this matter to be referred to a Planning Assessment Commission so that these concerns can be properly investigated and assessed.**

The HTBA also suggests the Government give serious consideration to **instituting independent evaluation of mining proposals** (commissioned by the Government and paid for by the proponents). Such reviews should be independently peer reviewed so that all involved can be satisfied of the rigour, independence and integrity of the information provided to decision makers. This would enable the production of independent environmental, economic and social assessments, restore credibility in the system, benefit the NSW Government, NSW taxpayers and affected communities and landholders, and better inform the decision making process. The HTBA would welcome the opportunity of working with the NSW Government to develop such a proposal.

Thank you for the opportunity of commenting on the Mt Arthur Modification Environmental Assessment. Please direct any queries you may have to our Director of Policy and Public Affairs, Hellen Georgopoulos.

Yours sincerely



Dr Cameron Collins
President



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1. Lack of Genuine Stakeholder Consultation

The HTBA notes that the Mt Arthur Modification Director General's Requirements (DGRs) clearly require the company to consult with special interest groups including but not limited to the Hunter Thoroughbred Breeders Association.

The HTBA further notes that the Mt Arthur Modification EA states that HVEC has consulted with the HTBA. Specifically the EA states:

"HVEC provided the Hunter Thoroughbred Breeders Association with a letter and information sheet regarding the Modification in November 2012.

A meeting was held with a representative of the Hunter Thoroughbred Breeders Association in December 2012 to discuss the Modification progress and specialist study results."

The HTBA has no record of a meeting in December 2012 to discuss the Modification and specialist study results. Furthermore the HTBA considers that a letter and a fact sheet one month prior to the finalisation of the Modification EA does not constitute genuine stakeholder engagement. The HTBA has not been afforded the opportunity to engage in a two way dialogue with the company on this Modification.

The HTBA is disappointed that BHP, which is one of Australia's largest coal producers, operating the largest coal mine in the Hunter, has not made a serious effort to directly consult organisations such as ours whose members have much at stake with respect to the expansion of coal mining in the Hunter Valley. BHP Billiton should be setting a best practice example on community consultation. We consider BHP Billiton's efforts to directly consult our organisation seriously inadequate.

2. Inadequate Economic and Socio-Economic Analysis

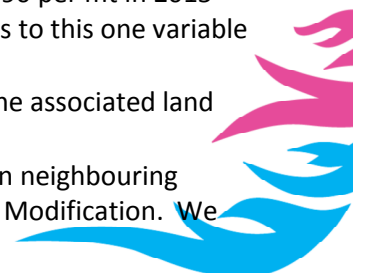
The proposed Modification Project's economic and socio-economic analysis are required so that the NSW Government can make a judgement on overall public benefits weighing up the pros and cons of each mine development application.

The HTBA has, for some time, been concerned about the independence and accuracy of reports submitted to Governments on behalf of mining proponents. The recent report by the Australia Institute and Economists at Large further reinforces our concerns that mining projects overstate the benefits, understate the costs and ignore impacts on the environment, community health and other industries in the vicinity of the development.

The Mt Arthur Modification proposal is another example of this and does not set an example of best practice disclosure and transparency.

The economic modelling underpinning the net economic benefit to the state is not only inadequate it is misleading. For example:

- The assumed coal price is high – BHP Billiton's assumed thermal coal price of \$97/ metric tonne is well above projections by authoritative organisations which forecasts that coal prices of \$85 to \$90 per metric tonne to be more realistic. The World Bank (a recognised authority on commodity prices) forecast recently that the price of Australian thermal coal would fall to around \$90 per mt in 2015 and then continue to fall (in real dollars) to around \$80 per mt by 2025. Changes to this one variable materially affect the overall net benefits of this project.
- The economic assessment does not provide any details of properties affected, the associated land values and how these were estimated.
- Further the economic analysis assumes that farm productivity and land values on neighbouring properties "not located in the acquisition zone" are unaffected by the proposed Modification. We disagree with this assumption.



- The inclusion of changes in land values and farm productivity from all neighbouring properties and properties visually affected by the mine, would further reduce the net present value outcomes for this Modification Project.

The HTBA seriously questions the accuracy of the net economic benefits of this proposed modification. We are not only disappointed that BHP Billiton has not engaged us directly on this proposed modification, we are seriously concerned that the public benefits in this case are being overstated and the public costs (costs to our community and industry) are understated or ignored.

3. Inaccurate Surface and Groundwater Analysis

A preliminary review of the surface and ground water analysis accompanying the proposed Modification reveal serious omissions, oversights and inadequacies. These include:

For Surface Water:

- inadequate assessment in the surface water modelling of the range of conditions under which the project may be required to manage water – neither prolonged/critical wet nor drought conditions have been meaningfully assessed or reported;
- no apparent mine salt balance or meaningful assessment of salinity in general has been undertaken;
- discussions on salinity limited to “a calculated salt budget” based on simulated average values and seemingly arbitrary and non-representative assumptions with respect to possible range of conditions likely to be experienced on site over the period of the latest modified mining plan.
- Salinity on site is highly variable and the selection of 754mg/L to represent the outcomes of a “detailed assessment of the potential impacts on the quality and quantity of existing surface and groundwater resources” requires justification. No discussion is provided as to why this specific value adopted could be considered appropriate or meaningful;
- very basic assessment of the potential impacts and risk to surface water associated with the mine water balance;
- no meaningful understanding of the range of likely or potential water storage or salinity conditions to be experienced on site over the next 15 years;
- no meaningful assessment of mine water management under conditions when the system is more stressed and the potential impacts would likely have the highest risk and or greatest impact;
- no depiction of the cumulative probability of the more critical events occurring between now and the end of the (latest) proposed mine operations;
- no provision of a clear and comprehensive assessment of all potential conditions;
- the mine water management system describes the “CHPP Dirty Water Dam” as spilling to the “Environmental Dam” from which mine water is discharged on site. Yet no information provided on the likelihood of this spill nor any impacts associated with subsequent discharge into the Hunter River;
- no reporting of long-term open void salinity has been undertaken – discussion in the Modification EA is limited to “the salinity of void waters would slowly increase with time ...”
- inadequate assessment of the potential impacts of post-mining conditions such as the likely hyper saline water that would accumulate within the final voids of the mine over time;
- no discussion on the effects of declining water quality within an open void and the potential legacy issued adopted by the State;
- no discussion regarding the sensitivity of the estimated likelihood void spill to underlying model assumptions;
- no discussion of the impact of the void on the long-term suitability of water for downstream users and the environment;
- significant and unexplained differences in final void water level results between the modelling completed by groundwater consultants (between RL 45m and 59m) compared with the level referenced in modelling undertaken by surface water consultants (RL 20m). These differences



undermine the degree of confidence one could have on the modelling assumptions as well as the report results;

- no meaningful assessment of the potential impacts to adjacent water users or dependent ecosystems of the proposed Modification.

For Groundwater

- inadequate assessment to confidently predict impacts on aquifers and floodplains. A key concern here is the potential impact of mining on the alluvial aquifer associated with the floodplain of the Hunter River. The modelling shows that the Modification proposal will impact on the Hunter River Alluvium with reversal of groundwater gradients to the Open Cut Pit. This is a serious concern – not only for the impacts on the Hunter River Alluvium but also because the modelling has in some cases been based on inadequate data and we have little confidence on the accuracy of the predictions of these impacts;
- deficient modelling – the EA Modification modelling calibration is based on data obtained from five local groundwater bores but neglects available data from a further four bores without explanation or justification. The exclusion of a significant amount of available data from the calibration process gives rise to further concerns in, and confidence with, the models used by the Proponent for predictive purposes;
- omission of important information – the Modification EA describes a significant fault extending across the alluvium for which field studies have been undertaken to characterise the fault, yet the fault has not been included in the model or location plan;
- inadequate assessment of the impacts of the proposed Modification on the Hunter River Alluvium – to properly assess these impacts an “exploded” or “telescoped” groundwater model is required that focuses on the Hunter River Alluvium, the regolith and sub-cropping Permian formations. This has not been done.
- Minimal modelling of groundwater impacts and little consideration given to potential changes in salinity in the Permian or alluvium;
- unsatisfactory and exceedingly vague discussion of potential water quality impacts within the EA;
- inaccurate conclusion that there is no connection between the Permian and alluvium. This is inconsistent with recorded water quality data, which shows improvements in water quality within the base of the alluvium and the Permian sub-crop. These improvements in water quality indicate that there is in fact a hydraulic connection between the Permian and alluvium.
- unjustified conclusion that there is a hydraulic divide between the Hunter River Alluvium and the mining project;

The HTBA is seriously concerned that inconsistencies in recorded data and the exclusion of available data does not provide confidence in the modelling used by the Proponent and does not provide a strong justification for assessing the potential risks and impacts of this proposed Modification.

Furthermore reporting used in this Modification proposal implies that at some stage it is expected that the mine will extend beyond the 150 metre buffer zone from the Hunter River. The Modification proposal also provides no detail regarding a plausible solution to avoid this or any management or mitigation strategies. The extension of the mine into this buffer would alter the hydraulic impacts and lack of any discussion provides further uncertainty that these impacts are fully understood. No decision should be made until the proponent has addressed all of the deficiencies associated with this Modification proposal and assured the community and the Government that mining will not occur on the alluvium and that all risks to water quality and quantity will be avoided, minimised and compensated.

4. Inadequate Visual Amenity Assessment

Visual amenity is a key element that underpins the thoroughbred breeding industry’s business model. As an industry that breeds elite athletes and whose image, business and investment attractiveness is based on a clean, green image reliant on clean water sources, clean air, an undulating topography and fertile lands any threats to this image, directly threatens our reputation and future viability.



Mt Arthur is a regional landmark in the Hunter Valley. Jerrys Plains and Denman are the gateways to the Upper Hunter where wine and thoroughbred breeding industries are highly scenic and attract many investors and tourists. The Golden highway is one route taken by many investors and tourists to the area.

The Hunter River in this area also has highly scenic values due to the combination of rich alluvial river floodplains surrounded by undulating hills and ridges, which are set against a backdrop of the forested ranges which form part of the Wollemi National Park and other Wilderness Areas.

The Mt Arthur mine can easily be seen from certain view points on the Golden Highway and from studs operating in the area.

As noted earlier, the HTBA is not satisfied that BHP Billiton has consulted fully on this Modification proposal. The HTBA is not convinced that BHP's visual impact assessment has complied with the DGR's to comprehensively:

- undertake the detailed assessment of changing landforms during the various stages of the project;
- assess the potential impacts of the project on private landholders in the surrounding area as well as from publicly accessible (eg Golden Highway) and private land view points;
- describe the measures that would be implemented to minimise the visual impact of the proposal.

There is no mention of:

- the need to create rehabilitated landforms which blend with the surrounding landforms;
- preparation of detailed rehabilitation plans to clearly indicate the areas and forms of proposed vegetation planting;
- locations for proposed foreground vegetation planting.

We note that the conditions of approval for the Mt Arthur Consolidation Project required Mt Arthur Coal to "minimise views from the Woodlands Property within the Primary View Zone to active overburden faces on the out of pit emplacement area of that Project to ensure the extent of any primary view is less than 2.5%". Based on preliminary advice we are not convinced that this commitment has been properly considered with respect to the Mt Arthur Modification proposal. Furthermore we are concerned that the impact of the Mt Arthur Modification will result in a impact that exceeds the 2.5% primary view level.

Importantly there is no commitment by HVEC to ongoing consultation with stakeholders surrounding the site to address any visual impact concerns raised during the life of the mine.

Visual amenity is critical to the operation of the Hunter Valley's multi-billion dollar thoroughbred breeding industry. Yet the Mt Arthur Modification EA pays little attention to the impacts of the proposed Modification on our industry. There is no serious analysis of the cumulative visual impacts of the Mt Arthur Modification alongside other proposals for new and extending mines – including the proposal for Drayton South, which if it proceeds will result in visible contiguous open cut mining operations from Jerrys Plains to Mt Arthur.

5. Inadequate Agricultural Impact Statement

The completion of an Agricultural Impact Statement was a key Coalition election promise which is now part of the Strategic Regional Land Use Policy and an essential consideration at both the exploration licence and development application stages. The requirement of an Agricultural Impact Statement (AIS) ensures a targeted assessment of the potential impacts of mining and coal seam gas on valuable agricultural and water resources.



The primary purpose of an AIS is to determine “ *the significance of agricultural resources – including land and water – and associated businesses in the project area and surrounding locality; and the potential impact of the project on agricultural land, water and businesses at a local and regional level.*”

Despite this finding and the requirements of the AIS, our reading of the Mt Arthur Modification EA suggests that no serious analysis or consideration has been given to the impact of this proposal on Australia’s premier thoroughbred breeding industry.

The AIS attached to the Mt Arthur Modification EA merely describes surrounding properties, landforms, agricultural operations and environmental features. It describes other mining operations and proposed expansions in the area (eg Bengalla, Drayton South, Mangoola and Mount Pleasant, but does not seriously analyse the cumulative mining impacts of all of these projects on the area and affected landholders and industries. The AIS misleadingly suggests that mining can coexist with other landholdings and agricultural operations – all of which have been purchased and are now owned by HVEC. No reasonable independent investor would choose to invest in an agricultural industry located in such close proximity to a coal mine.

It is disappointing that the largest mining operator in the Hunter Valley has not complied with nor set a best practice benchmark in assessing the very real agricultural impacts associated with this Modification proposal.

6. Air Quality

Air Quality is a significant issue for the Hunter Valley thoroughbred breeding industry and the Hunter Valley community. The HTBA is very concerned at recent reports¹ of over 200 air quality breaches of national and international air pollution standards in the Hunter during 2012.

While there may be some debate about the accounting practices used to determine a small number of these results, the fact remains that these breaches are too high and real-time assessments (not averages over a 6 day period) are needed so that air quality breaches are significantly reduced and every effort is taken to protect Hunter Valley communities and industries from the deleterious effects of air pollution. A genuine assessment of the cumulative impacts of open cut coal mining on air quality and health is long overdue. This issue warrants independent assessment and strict enforcement of serious penalties. Air quality and its impact on the health of our communities warrants serious action.

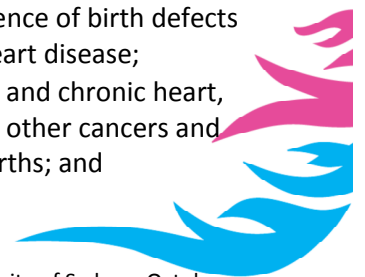
7. Human Health

In October 2012 the University of Sydney recently published research into 10 countries on the effects of coal mining on communities. This research analysed 50 peer reviewed research papers from 10 countries². It:

- found a critical lack of local studies investigating the effects of coal mining on Australian communities;
- identified problems in children and infants in coal mining communities including impaired growth and neurological development, high blood levels of heavy metals, higher prevalence of birth defects and a greater chance of low birth weight – a risk factor for future obesity and heart disease;
- revealed that adults were shown to have higher rates of death from lung cancer and chronic heart, respiratory and kidney diseases. They also had increased chances of developing other cancers and hypertension. Some studies also showed higher rates of miscarriages and stillbirths; and

¹ 200 air quality breaches in the Hunter, Newcastle Herald, 4 January 2013

² Health and Social Harms of Coal Mining in Local Communities, Spotlight on the Hunter Region, University of Sydney, October 2012



- found that studies conducted in regions in the US, the UK, Canada, Turkey, Israel and Asia indicated serious health impacts for communities living near coal mines and coal combusting power stations

More recently the Australian Medical Association, Asthma Australia and Doctors for the Environment have added their voices to express concerns about community health risks associated with mining activities.

These types of long-term, chronic health issues further increase the liability that would be borne by the State associated with the range of environmental, agricultural, social and economic impacts that would continue to accumulate long after mining operations (and any responsibility/input from the Company) had ceased.

The Hunter Valley has more than 30 mostly open cut coal mines and six active coal-fired power stations. The communities in the Hunter Valley are literally canaries in the coal mine. Many federal and state members of Parliament have publicly recognised that the Hunter Valley is at a tipping point. The dearth of cumulative impact assessments on the effects of coal mining operations to the health of the Hunter Valley communities is a serious problem.

The HTBA notes with serious concern the critical lack of studies into the effects of coal mining on Australian communities. We agree with the University of Sydney's international research findings that there is a pressing need for Australia to re-evaluate whether the overall health and social costs of Australia's reliance on a coal economy will ultimately outweigh its economic benefits. The Hon George Souris has publicly stated that *"It may be that the Upper Hunter Valley has reached saturation point with mining. The cumulative impact of dust fallout alone has reached a point where it may dictate the need for a pause on any new mining."*³

The NSW Government has a duty of care to its communities that needs to be acted upon. The Mt Arthur Modification EA fails to address and account for the cumulative health and social impacts of this proposal on the Hunter Valley community.

Given the amount of mining that is occurring or planned to occur in the vicinity of the Mt Arthur Modification proposal HTBA strongly recommends that this Modification EA properly addresses, and is independently peer reviewed (by credible independent experts not associated with coal companies) the cumulative health impacts of mining in the Hunter Valley or failing that the NSW commissions an independent cumulative health report (funded by the proponent) into the social and health impacts of coal mining and power generating operations in the Hunter Valley. This cumulative impact assessment should be done prior to any further decisions are taken on the Mt Arthur Modification proposal so that decision makers are fully and properly informed of the health impacts of this proposal for additional and extended mining on the Hunter Valley community.

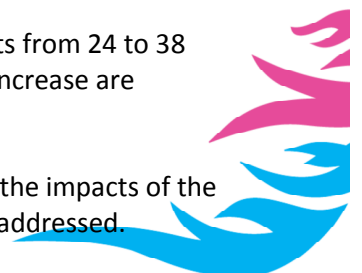
8. Transport and Road Safety

Safety on our roads is a primary concern for our industry and our community. Injuries, threats to or loss of life as a result of congestion or poor road construction is a very serious matter and concern to our industry and local communities.

We note that this Modification proposes an increase in the maximum rail movements from 24 to 38 movements per day – an increase of some 60%. The implications of this significant increase are concerning.

Furthermore our preliminary review of the Mt Arthur Modification EA suggests that the impacts of the Project on key intersections (particularly Edderton Road) have not been adequately addressed.

³ *Mine impacts should be determined first, Lets think more before we act, writes George Souris, Newcastle Herald, April 8 2010.*
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9. Noise, Blasting and Vibration

In addition to air quality, water and visual risks associated with this project, light, noise, blasting and vibration will have significant impacts on adjacent landholders, thoroughbred breeding studs, their employees and productivity, and to the reputation of the industry as a whole.

We note the comments in the Environmental Assessment Report on the Mt Arthur Consolidation Project that the assessment found that the Project would have a number of adverse environmental impacts, including significant dust and/or noise impacts on 21 privately-owned properties (owned by 16 separate landowners). We appreciate that since the Consolidation Project was approved BHP has purchased a number of residences that were affected by noise and blasting. However it should be noted that blast plumes affect the entire community. They can be seen for miles. The potential health implications are a growing concern for the nearby communities and towns.

If we have interpreted the tables correctly, there have been some 370 community complaints in the past decade associated with noise and blasting from the Mt Arthur mine alone – the majority over 280 complaints relating to blasting complaints.

This is a serious issue for the Hunter Valley communities. It reinforces community concerns and the need for cumulative impact assessments.

We are aware that over the past 10 years there have been many incidences where blast monitors at Mt Arthur have failed to capture blast events, failed to collect PM10 dust monitoring and dust gauges have not complied with appropriate Australian standards. Figure 2.2 in the Noise and Blasting Assessment clearly illustrates the growing level of community complaints over the past decade associated with noise and blasting.

Serious penalties should be imposed to discourage events such as the above. Penalties should be imposed breach by breach and be commensurate with the breach.

Noise, blasting and dust remains a serious issue for our industry, our reputation and our community. Given we have not been adequately consulted on this Modification, we are concerned about the nature, extent, frequency and fall out associated with this and other mining activities in the area. Cumulative noise and air quality assessments are vital if we are to seriously comprehend the cumulative impact of mining activities on the health of our communities. This is a serious shortcoming that needs to be urgently addressed.

Conclusion

Given the serious and significant oversights associated with this EA Modification, including the costs of the projects, the nature of water related issues associated with this proposed Modification, visual amenity and the over impacts on the community, **the HTBA is strongly of the view that an independent assessment process is required and we call for this matter to be referred to a PAC.**



Appendix 1

The Hunter Valley's Thoroughbred Breeding Industry

The Hunter Valley's multi-billion dollar Thoroughbred Breeding Industry is a nationally and internationally significant industry. It has evolved over 150 years and has gained critical mass and international prominence over the last thirty years. It is the heartland of Australia's national Thoroughbred Breeding Industry and is one of three international Centres of Excellence (alongside Kentucky in the USA and Newmarket in the UK).

The Hunter Valley's rich history of breeding Thoroughbred Champions has attracted significant domestic and international investment and a concentration of Thoroughbred Breeding support industries making the Hunter Valley the envy of our domestic and international competitors.

The Hunter Valley holds the second largest concentration of horse studs in the world, outside Kentucky in the USA. It produces approximately half of all Thoroughbred horses born annually in Australia and represents nearly 70% of all Australian Thoroughbred horse exports. It is a world recognised and major national and international source of Group 1 winners (the equine equivalent of Olympic Gold Medal winners).

Our industry is based on access to clean water, clean air and topography that blends rich valley pastures for lactating mares and their foals and more testing, rugged terrain for the development of young thoroughbred lungs and limbs. Clean air and water supplies are critical to our industry and our clean, green, Thoroughbred champion-producing character and reputation.

The major Thoroughbred Breeding players in the Hunter Valley have invested billions of dollars in establishing world-leading properties, breeding and bloodstock. They have attracted a sophisticated network of thoroughbred support industries which would not be located in the Hunter Valley but for the existence of our world-class Thoroughbred Breeding Industry.

Our industry underpins the business operations of regional thoroughbred breeding related industries. Approximately 85% of capital expenditure by the Thoroughbred Breeding Industry is spent within the Hunter Valley region. The largest equine hospital in the Southern Hemisphere, the Scone Equine Hospital, provides world class veterinary services and research and provides veterinary care for 90% of the stud farms in the area. It is located in Scone because of the critical mass of Thoroughbred breeding operations in the region.

The Hunter Valley's Thoroughbred Breeding Industry generates and supports thousands of jobs in the region and hundreds of thousands of jobs across the nation. It has been acknowledged that the horse racing and breeding industry is one of the largest employers in Australia, supporting over 200,000 direct and indirect employees, participants and volunteers.

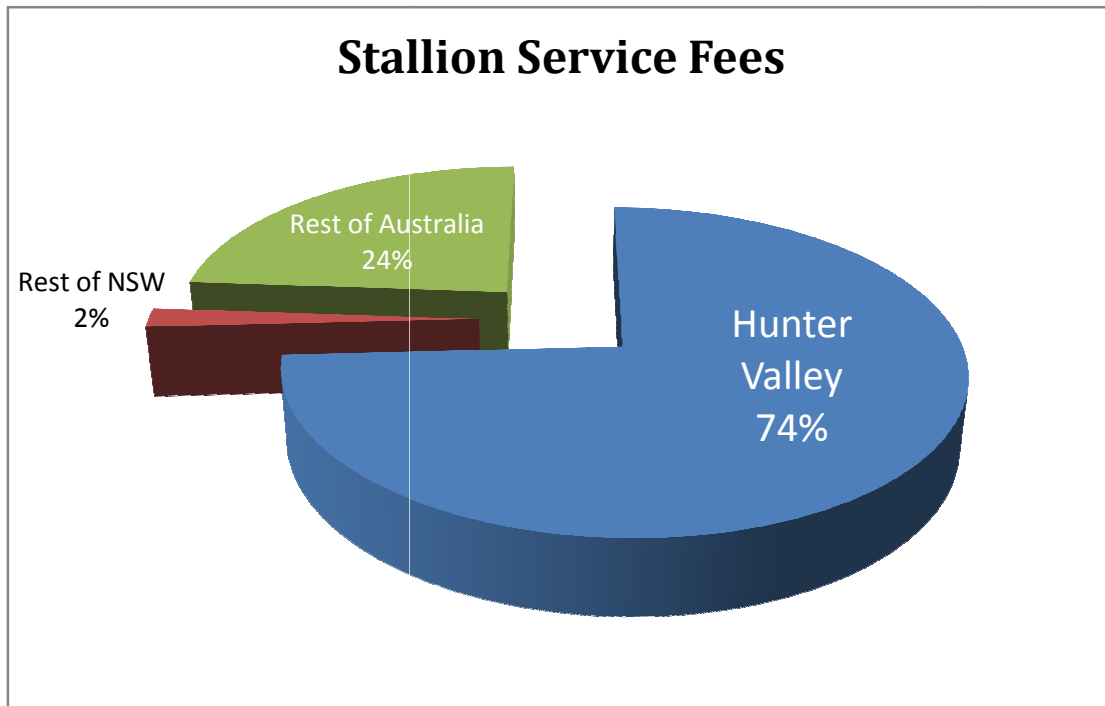
Thoroughbred Investments in the Hunter Valley

Major investments in world-class Thoroughbred Breeding have been made in the Hunter Valley by significant international and domestic investors.

The largest Australian-owned thoroughbred breeder, Arrowfield, the Irish conglomerate, Coolmore, Dubai's Darley stud farms, the Australian owned Vinery stud, the Japanese Yoshida and Northern Farm, the Malaysian Kia Ora stud are just a few examples of major Australian and international investors locating their Thoroughbred Breeding operations in the Upper Hunter Valley because it is a Centre of



Excellence with a critical mass of Thoroughbred Breeding operations, world-leading support services and a unique environment.



Source: Stud Book, 2013

The major international operators have multi-regional operations. Their Hunter Valley businesses are a key element of their international breeding operations. They have invested many billions of dollars in establishing their properties, operations, bloodstock and supporting infrastructure. Should the operating environment significantly alter, these major international investors could choose to relocate their operations (especially their stallions) to any one of their other major international regional centers. Any dislocation would not only affect international investors but would flow through to Australian investments in the area as prime Thoroughbred Breeding stock and broodmare farms respond to any depletion in the stud farms.

The Australian Industry – Structure and Economic Significance

Overall the Hunter Valley's major stud farms support some 100 broodmare farms and a sophisticated network of support industries – including veterinarians, farriers, horse transport companies, veterinary laboratories, feed merchants, lucerne growers, horse breakers, agronomists, irrigation specialists, saddlers, catering and hospitality industries. It also supports equine auction houses such as Magic Millions and Inglis. The Hunter Valley Thoroughbred Breeding Industry is interconnected and inextricably linked to the NSW Racing Industry (insert cross ownership stat). It is also internationally recognised as a centre of excellence and respected as a producer of premier Australian thoroughbred and world thoroughbred champions. It is ironic therefore that at a time when the NSW Government is seeking to emulate the economic and reputational benefits derived by the Melbourne Spring and Cup carnivals it is jeopardizing the world class thoroughbred breeding centre of excellence which is the feeder industry upon which the NSW racing industry is based.

IER Pty Ltd in its report "Economic Impact of Australian Racing" produced in August 2007 assessed the Thoroughbred Breeding and Racing Industry's economic contribution in 2006 at:

- \$5 billion in value added to the national economy (with regional economies generating more than \$2.2 billion);
- over \$1.1 billion in state and federal taxes;
- over \$1.1 billion invested annually by breeders, owners and trainers.



Further this report highlighted that:

- more than 4,700 thoroughbred trainers play a vital role in the preparation of more than 40,000 race horses each year
- more than 78,000 thoroughbred owners, 5,000 trainers and over 1,100 jockeys also play a pivotal role in the production, training and racing of Australia's thoroughbred horses.

The Hunter Valley is highly valued and internationally recognised for its ability to produce Group 1 winners (the equivalent of Olympic gold medal winners).

The dislocation of the Hunter Valley's major investors would have devastating effects upon the entire value chain, the reputation of the Hunter Valley as a national and international breeding centre of excellence and the fabric the Hunter Valley's regional economy.

Export Markets

Australia's major export markets are Hong Kong, South Africa, Singapore, Malaysia and New Zealand. Australian thoroughbred horses from the Hunter Valley also comprise a significant proportion of Australia's exports to other markets such as the Philippines, Thailand, the USA, UK, Ireland and Japan. In the 2008/2009 financial year, the number of thoroughbred exports sired or bred in the Hunter Valley represented 67% of total Australian thoroughbred exports. In dollar terms the percentage of exports sourced from the Hunter Valley would be significantly higher (perhaps as high as 80% or 90% of the total value of Australian thoroughbred exports) reflecting the fact that the Hunter Valley produces the majority of premium quality thoroughbred horses.

Australia is a respected and major supplier of Thoroughbred horses to Asia and is well positioned to respond to increasing interest from China.

Over the past decade there has been a significant increase in the number of Australian thoroughbred horses exported to Hong Kong, Singapore and Malaysia. China is set to become a major international player. China's growing interest in horse racing and breeding is driving strong growth in the demand for imported horses – making China an important potential market for Australia. The Hunter Valley is well placed to service China's growing interest in horse breeding and racing. The potential to service the growing Chinese market will result in significant benefits for Australian thoroughbred breeders, the economy and jobs – particularly in the Hunter Valley.

The increasing quantity of thoroughbred horses being exported reflects the demand for, and reputation of, Australian race winning thoroughbreds.

Importance of the Hunter Valley Thoroughbred Breeding Industry

In May 2010, the independent Planning Assessment Commission (PAC) reported its expert findings on the Bickham Coal Project in the Hunter Valley. In its report, the PAC concluded that:

"The thoroughbred industry in the Upper Hunter Valley is a very significant contributor to the regional, state and national economies and a major source of employment. The structure of the industry makes it particularly vulnerable to threats based on image ... The available evidence supports the view that open-cut coal mining and a viable international-scale thoroughbred breeding enterprise are incompatible land uses."



The PAC recognised that:

- the industry in the Hunter Valley is based on the international reputation that the Hunter Valley has acquired for producing premium quality stock;
- the industry's production capacity is based on key environmental attributes including clean air, clean water and green rolling hills;
- the high net worth individuals in whose hands the top breeding stallions are concentrated are potentially very mobile and should they decide to move, they could move offshore;
- the extent of this potential mobility could see 60% of the premier stallion strength move overseas with a consequent impact on 80% of the broodmare farms and the supply industries.

Australian Centre of National and International Significance

The Upper Hunter is referred to as the "Horse Capital of Australia". It has the second largest concentration of horse studs in the world, outside Kentucky USA.

The Upper Hunter Valley horse studs produce around half of all thoroughbred horses born annually in Australia and are nationally and internationally acknowledged for breeding quality horses and one of the three major thoroughbred nurseries in the world (along with Bluegrass in Kentucky USA and Newmarket in the UK).

The majority of yearlings sold at the major Australian sales (such as Magic Millions and Inglis) were produced in the Hunter Valley. The prices paid for premier yearlings from the Hunter Valley reinforce the Valley's reputation for breeding high quality thoroughbred horses of international standing. The Hunter's stallion stud farms support some 100 broodmare farms and a network of support industries throughout the Hunter Valley.

This concentration of Thoroughbred Breeding operations in the Hunter Valley has attracted other state-of-the-art equine operations **which would not be located in the Hunter but for the existence of its world class Thoroughbred Breeding Industry.**

The Scone Equine Hospital, is the largest equine hospital in the Southern Hemisphere. It employs over 100 staff, including 30 qualified veterinarians, 5 Specialists and some 70 support staff. The Scone Equine Hospital operates a 24-hour surgical and intensive care facility. It is a major employer of professional staff in rural NSW and the surgical and intensive care facilities are major referral centers for local, state and interstate veterinarians.

The Scone Equine Hospital's research outcomes deliver world-first advancements in equine care with major domestic and international benefits. In addition the Scone Equine Hospital provides training for up to 40 veterinary students and annually and plays an active role in the training of 60 veterinary nurses each year at the local TAFE.

Scone's Equine Hospital provides primary veterinary care for the thoroughbred breeding industries in the area. Its business almost entirely (90%) dependent on the thoroughbred breeding industry. The Scone Equine Hospital's fate is therefore inextricably tied to the fate and future of the Hunter's Thoroughbred Breeding industry. The Hospital's future \$8-10 million investment to develop a state of the art equine hospital is on hold given the level of uncertainty resulting from this and other mining projects in the Upper Hunter.



Scone has a world-class equine research, training and education centre, the **Hunter Valley Equine Research Centre** which was founded in 1999 to foster and support equine research in Australia, including developing effective diagnosis and prevention technologies for all horse diseases.

The Scone Cup is the richest Country Cup meeting in Australia and is held as part of the **Scone and Upper Hunter Horse Festival** held each Autumn. In 2012 it attracted some 10,000 visitors to the region. The **Thoroughbred Breeding Stallion Parades**, held in the last weekend in August annually, attract some 5,000 visitors, clients and investors to the area. These events are an important part of the economic, cultural and social fabric of the Hunter. They attract significant tourism to the region and reinforce the Hunter as the Horse Capital of Australia.

Australian Stock Horse Society is headquartered in Scone. Established in 1971, it is the largest of more than 70 horse breeding associations in Australia – with more than 66 branches. Some 10,000 individual members and over 165,000 nationally and internationally registered horses. The Society's purpose is to preserve the bloodlines of the Australian Stock Horse and promote the breed domestically and internationally.

