Secretary
NSW Department of Planning & Environment
GPO Box 39
Sydney NSW 2001

HTBA
HUNTER THOROUGHBRED BREEDERS ASSOCIATION

25 July 2018

DARTBROOK MODIFICATION 7 – DA 231-7-2000

The Hunter Thoroughbred Breeders Association objects to the Dartbrook Modification 7.

Hunter Thoroughbred Breeders Association

The Hunter Thoroughbred Breeders Association (HTBA) represents over 200 industry participants including Australia's leading thoroughbred breeders and a sophisticated network of suppliers of equine support services. An overview of our organisation, the Hunter's Thoroughbred Breeding Industry and its economic significance is provided in Appendix 1.

We make the following comments on Dartbrook Modification 7.

Dartbrook Modification 7

The Hunter Thoroughbred Breeders' Association (HTBA) note that the application for this modification was lodged on 27 February 2018 – 2 days before changes to the Environmental Planning and Assessment Amendment Act came into effect, including new assessments for State Significant Developments (including modifications of SSDs).

1. No Social Impact Assessment

We also note that contrary to the new NSW Social Impact Assessment Guidelines for State significant mining, petroleum production and extractive industry development, published in September 2017, the Dartbrook Modification contains no assessment whatsoever of the social impacts of this Modification.

2. Economic Analysis: Deficient. Suffers from Optimism Bias

NSW Government Guidelines for the economic assessment of mining and coal seam gas proposals (December 2015) require the net present value to be attributable to NSW:

" The project's net present value to the NSW community accounts for all direct and indirect costs and benefits. It is the total direct net benefits minus the net environmental, social and transport related costs and the net public infrastructure costs" (p 71)

This has not been done for the Dartbrook Modification. Rather the economic analysis that accompanies this proposed Modification underestimates the project costs and omits any evaluation of environmental and social costs.

The capital costs attributed to this proposed Modification are significantly different to those reported in the Proponent's JORC Reserves Statement (accompanying the Proponent's ASX release dated 27 March 2017) The current proposal assumes capital costs of $15m, significantly lower than the capital costs in the JORC Reserves Statement of $258m and considerably less than likely costs estimated by our experts (around $162m). There is no explanation proffered by the Proponent to justify this significantly lower capital cost.

The Proponent's operating costs are also questionable, very aggressive and could easily suffer from upward pressures.

No socio-economic analysis has been undertaken to indicate the impact of substantially increased truck movements (**96 truck cycles per day; equating to 192 one way truck movements per day, 11 hours a**

day, 5 days a week) – and their consequent impact on noise, dust, visual amenity, resident amenity, transport congestion, public and road safety.

No appropriate assessment has been made of the externality impacts of this modification – including air quality, noise, biodiversity, greenhouse gas emissions, ground and surface water, aboriginal and cultural heritage, visual amenity and public infrastructure (such as water supply, roads, etc)

The Dartbrook Modification uses very conservative assumptions for greenhouse gases, contrary to the approach commonly recommended by the NSW Government.

The Dartbrook Modification economic analysis needs to consider all of these issues and to be compliant with the NSW Guidelines when assessing the net present value to the NSW community in a manner that accounts for **all** direct and indirect costs and benefits.

We note that the coal price assumptions used by the Proponent are significantly below the prevailing coal price as there is **no intention on the Proponent's part to clean the coal**, as the Run of Mine (ROM) output is the product output.

We further note that the Proponent's economic analysis for this Modification contradicts the JORC findings in March 2017, which concluded that "*These results indicate that economic modelling for the Dartbrook Underground project exhibits no economic return from the base case assumptions." (*P65*).*

It is our conclusion, based on the preliminary advice we have received, that the economic analysis undertaken for Dartbrook Modification 7 is deficient, raises serious issues with cost and operating assumptions that underpin the Proponent's analysis – all of which bias the result in favour of the proposed Modification.

3. Mine Plan: Marginal. Questionable Mining Methods & Production Plan

Preliminary analysis conducted by mining experts, reveals that the Dartbrook Modification 7, has major risks associated with production rates, revenue (due to coal quality variability), costs and capital. As a stand-alone mine, it appears marginal.

As mentioned previously capital costs of the proposals in the Proponent's Environmental Assessment are understated at $15m (compared to our experts' estimates of $162m and JORC costs of $258m). Operating costs for the underground mining to surface appear aggressive and could easily suffer upward pressure.

Due to 100% ROM bypass product it will not be possible for this project to produce a Newcastle Benchmark Export Thermal Product. It should also be noted that the coal produced will be a high ash product. It is not clear whether this assumed coal price of USD$75/tonne (compared to the Newcastle Benchmark quality coal price of USD$90/t) is a realistic discount for the quality of coal to be produced at Dartbrook. It is also not clear which markets are targeted for the unwashed coal.

In the opinion of our mine expert there would need to be a stockpile located at the end of the Kayuga drift belt to ensure there is no impact from truck haulage delays on the mine production. The stockpile required would either need to be approximately 10m high (based on a 5,000 tonne stockpile, or 16m high based on a 15000 tonne stock pile. However there is no indication of, environmental assessment for, or existing approvals for, a potential stockpile at the Kayuga portal mouth to decouple the underground production from the trucking operation.

Productivity levels attributed to this proposal by the Proponent are considered to be at the highest level when benchmarked against other Australian bord and pillar operations. It is the view of our mining expert that these productivity levels are aggressive and difficult to maintain on a regular basis.

Numerous factors could negatively influence the ability to meet productivity requirements, including insufficient labour and adverse geological conditions, which would have negative or adverse impacts on:

- operating costs;
- production rates and tonnage; and
- revenue for the project.

In this Modification, the Proponent has no intention to clean the coal and accordingly has no use for the washery, which we understand has been rehabilitated by Anglo American as required by the Department of Planning & Environment. This is consistent with the absence of any assessment of environmental impacts of the washery as they relate to water, rejects emplacement, disturbances caused to rehabilitated land etc. Consequently the Department should stipulate that this rehabilitated land should not be disturbed and the option to use the washery should be entirely removed from consideration now or in the future.

4. Water Assessment: Outdated. Incomplete. Non-Compliant with AIP and Water Management Act

The water assessment accompanying this modification is seriously deficient and does not comply with the NSW Government's Aquifer Interference Policy or section 91 of the Water Management Act 2000.

Proposed activities that would specifically require approval under the Water Management Act include:

- pumping water from the Hunter Tunnel – in the opinion of our expert this would require approval as a controlled activity under section 91(2) of the Water Management Act; and
- construction of a new shaft site to be located to the west of the New England Highway – in the opinion of our expert, this constitutes and aquifer interference activity under section 91(3) of the Water Management Act.

Contrary to the AGE conclusions that monitored groundwater levels have not shown a decline related to coal seam depressurisation, our experts advise us that the standing water level does indicate differences which in turn indicate mine related impact.

It is noteworthy that the assessment undertaken by AGE indicates that the impacts of the modification may exceed the minimal impact consideration of the Aquifer Interference Policy (see Table 6.3, AGE, 2018). The associated remedial action described in the Modification are highly generalised and non-committal, indicating no meaningful assessment or consideration of these impacts within current studies and reporting.

The recent report by Herron et al (2018) highlighted the regional impact and potentially significant risks to hydrological conditions, with the Dartbrook project area and surrounding catchment located within specifically delineated zones of potential change. Further the proposed recommencement of the Dartbrook operations, which have not occurred for more than 10 years, would contribute towards the extension and movement of the existing zone of hydrological impact to the north and west.

The flood impact assessment for the Modification relies on outdated flood studies undertaken by WRM in 2011. It is concerning to note that:

- there is no detail provided regarding proposed flood protection works for the new shaft with descriptions in the EA limited to general statements;
- over the proposed extended life of mining activities (to 2027) the risk of a flood event would exceed proposed works is approximately 10%.
    - No recognition of this level of risk, potential mitigation options or required impact response has been included in the EA;
- any exceedance of the proposed "protection bund" would lead to direct inflow to the hunter tunnel via the new shaft, as well as likely failure of the protection bund via overtopping and increased inflow via the shaft.
    - Robust consideration should be given to the risk and consequence of this occurrence.
    - Impacts would include the flooding of the Hunter Tunnel and connected underground mining works.

- any new infrastructure within a floodplain can and does affect flood behaviour – including the depth and peak flows within the water course.
    - No additional assessment or information is provided in the Modification EA regarding potential impacts of any construction works within the floodplain.

5. Air Quality: Exceedances Contribute to Dangerously Dusty Conditions

It is disturbing that no-one (neither coal companies or the NSW Government) will take responsibility for the increasing dust deposition levels and ever decreasing air quality that mining is causing in the Upper Hunter.

What is worse, mining companies are admitting they will be exceeding safe air quality levels and yet their applications for modifications are still waived through with no thought or duty of care for the health and wellbeing of Upper Hunter residents and livestock, the reputation of the area as a tourist destination and as a place to live and produce clean and green products.

It is disappointing, that Dartbrook Modification 7 is yet another example of a mine modification admitting to coming close to or exceeding NSW EPA impact assessment criteria for both PM10 and PM2.5.

There is no acceptance that air quality impacts will required a combined joint effort of mining operators to reduce background air quality emissions.

Voluntary Land Acquisition and Mitigation Policy enables mining companies to view the air quality impacts of their projects in isolation and omit any cumulative impact analysis of the impacts of mining on the Upper Hunter's air quality. This policy does nothing to control emissions.

6. No Confidence in Acoustics Report

A review of the Bridges Acoustics Report by our experts reveals that this report is comparable to a brief overview and provides no confidence with respect to the operational noise that all aspects of the proposed Modification have been completed in an adequate manner, consistent with best practice guidelines and methodologies.

The noise modelling for Dartbrook Modification 7 has been undertaken with outdated software, no longer supported, maintained or distributed by the developer RTA Technology and is no longer considered best practice. It has not been calibrated to represent existing operations or local conditions. This means that the noise modelling cannot be independently verified to interrogate outcomes.

Mining companies have a preference to use this outdated software, which cannot be interrogated. We have been raising this matter for many years now. If the Department is committed to transparency and community consultation and appropriately modelling noise impacts in a manner that can be interrogated by the public, the Department and the consent authority, it should rule out the use of this outdated software.

Noise modelling demonstrates an exceedance of project noise limits.

Bridges Acoustics does not submit background noise information to verify proposed limits nor does it provide reliably referenced information with respect to the location or quantity of equipment within the noise level. Further the noise data relied upon for noise modelling at Dartbrook varies significantly from previous reports by Bridges Acoustics in the region and are inconsistent with previously completed noise impact assessments presented by Bridges Acoustics.

If the 2015 NSW EPA Draft Industrial Noise Guidelines were applied to the Bridges Acoustics Report, noise mitigation at the receiver and assessment of temperature inversion conditions (described as using stability category instead of temperature lapse rate) would no longer be compliant.

7. No Assessment of Historical Heritage. No Comprehensive Assessment of Aboriginal Heritage

A preliminary review of the Historical and Aboriginal heritage assessments reveals that the historical heritage of the area has not been assessed.

The project will result in further subsidence to land within the Mining Authority Boundary. Impacts on locally listed heritage items within the Upper Hunter Shire Council's designated subsidence zone are not considered or assessed.

Aboriginal heritage has assessed only the new proposed mine shaft area. This is potentially disingenuous in that impacts arising from subsidence are described outside this area; these have not been assessed. In accordance with best practice, the whole of the Mining Authority Boundary should have been surveyed to provide context for the assessment.

The Aboriginal heritage assessment found that the new proposed mine shaft area has low "subsurface archaeological sensitivity … due to its distance from any watercourse (2018:61). AECOM's mapping of watercourses (Figure 3) disproves this statement.

The archaeological assessment of potential is therefore flawed. Further AECOM's assessment of subsidence impacts (<20mm) differs significantly to Hansen Bailey's (<100mm). Impacts on Aboriginal heritage therefore have been incorrectly considered.

8. Visual Impacts: Misleading & Too Close for Comfort

The Dartbrook underground mine is located between the towns of Muswellbrook and Aberdeen in the Upper Hunter. The proposed Modification straddles the floodplain of the Hunter River - a picturesque landscape of irrigated farmland, rural residences and farm buildings surrounded by undulating hills of grazing land with scattered trees and woodland.

The two main north south road and rail corridors, the New England Highway and the Main Northern Railway are located at the eastern edge of the proposed Modification works.

Activities associated with this Modification proposal that would be visible to the public include:

- excavation of the shaft and construction of the ROM coal bin;
- buildings to house the coal bin;
- access road to the coal bin;
- movement of coal haul trucks – hauling ROM coal from the Kayuga Entry Shaft to the new shaft adjacent to the New England Highway (96 truck cycles per day – 192 one way (B Double) truck movements, 11 hours a day, 5 days a week;
- dust from roads used to haul ROM to the proposed coal bin and dust from the ROM coal being transported on the trucks.

Despite claiming there are no private residences in the vicinity of the new shaft site, our expert's preliminary analysis reveals there are 3 residences to the south and north west of the shaft site ranging in distance from 500m to 800m from the proposed shaft site. There are also 10 -12 residences that are less than 1km from the existing private road, 8-10 residences at the southern edge of Aberdeen that are just over 1km from the coal bin site and elevated residences in east Aberdeen which will be impacted by the visibility and frequency of truck movements.

The increased presence of dust and significantly increased truck haul movements will impact on residents, travellers and tourists to the area and highlight the frequent truck movements along the open flood plain.

The New England highway will be exposed to not only the building over the coal bin but also the 192 truck movements travelling along the existing access road every day and increased dust generated by these truck movements and the transport of ROM coal. In addition to the viewpoint on the highway opposite the intersection with the private access road, there are a number of other locations from which the facility and truck movements will be visible. They are located under 1km south of the private road

intersection and approximately 850m to the north where the highway crosses the ridge, just south of the town of Aberdeen.

This modification will also be visible from the Main Northern Railway where the Transport NSW runs 2 passenger trains per day between Sydney and Armidale.

Considering the visibility of this Modification, and its impact on surrounding residences, agricultural industries, tourists and travellers, the Proponent has manifestly failed to adequately consider the significance and frequency of the visual impacts of this proposal.

The EA is inadequate and misleading. It fails to acknowledge and address the impacts of the Modification on the significance of tourism, the Upper Hunters equine and wine critical industry clusters, motorists and train travellers, and the fact that the visual impacts will occur through the six month construction period and then for 5 years during the operation should the Modification be approved.

9. Dartbrook Mod 7 – An Open Cut Trojan Horse

It is clear from Australian Pacific Coal's literature, including the Joint Ore Reserves Committee (JORC) Reserves Statement prepared by Mining Consultancy Services (Australia) in March 2017, that AQC intend to proceed to open cut mining and that the re-commissioning of underground mining is a first step in the open cut direction.

There are many references in the JORC report that reinforce this point – including:

- "*The underground workings could form part of the envisaged open cut working in future as part of the Dartbrook complex …" (Executive Summary)*
- *"AQC's strategy has been to commence mining as soon as practically possible after conclusion of the sale process of the Dartbrook asset – this is deemed most possible with underground mining, considering established access and infrastructure on site, allowing planning and start up of open cut operations concurrently while already generating income." (p 58)*
- *"The financial and economic modelling and evaluation shows a negative NPV for the underground project as a stand alone, but for the purpose of assessing financial viability, AQC has compared this result to keeping Dartbrook in care and maintenance for the next five years while planning and evaluating open cut mining for implementation at (sic) Dartbrook progresses …" (p71)*

It is clear from AQC's independent advisors, Mining Consulting Services (Australia) that the underground project does not stack up financially as a stand-alone project.

It is time for the NSW Planning process to take a more enlightened view of mining applications and consider all information at its disposal to make pertinent assessments of mine applications before it, protect the economic diversity of the region, agricultural industries (including the equine and wine critical industry clusters) and the tourism potential of the Upper Hunter – all of which are at risk due to this project and any future open cut mining project.

10. Conclusion

The (JORC) Reserves Statement prepared by Mining Consultancy Services (Australia) stated that "Coals at Dartbrook are classed as high volatile bituminous coal and is classified as medium to high risk in terms of spontaneous combustion"; "mining operations in the Kayuga Seam are at risk of spontaneous combustion and the design and ongoing management of the mine must firstly aim to prevent conditions that support spontaneous combustion". They also confirmed that underground mining at the Dartbrook site is uneconomic and would produce a negative NPV for the underground mine as a stand alone project.

Further the assessment of experts on economics, mine and production planning, air quality, water, noise, cultural and Aboriginal heritage and visual amenity clearly indicate this this Modification presents economic analysis that is incomplete and biased in favour of the project and presents unacceptable risks to the environment and the health and well being of the community of the Upper Hunter.

Given all of the above, we submit that the Department should recommend against this Modification.

Yours sincerely

Dr Cameron Collins
President

The Hunter Valley Thoroughbred Breeding Industry

The Hunter Valley's multi-billion dollar Thoroughbred Breeding Industry is a nationally and internationally significant industry. It has evolved over nearly 200 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 some 80-90% 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 and serene, Thoroughbred champion-producing character and reputation.

The Hunter Valley's Thoroughbred Breeding Industry is Australia's premier multi-billion dollar breeding industry, representing over half of all thoroughbreds produced in Australia.

It is Australia's largest producer, supplier and exporter of premium thoroughbreds and acknowledged as one of only three international centres of thoroughbred breeding excellence in the world alongside Kentucky in the USA and Newmarket in the UK. It is an important employer of hundreds of thousands of Australians (directly and indirectly) throughout our value chain regionally, in NSW and across the nation.

It is the largest agricultural industry and employer in the Hunter region – support some 6,000 jobs in the Hunter and contributing over half a billion dollars of value added to the region every year. [1]. The industry is vertically integrated, interdependent and concentrated in a critical mass in the Upper Hunter Valley. It contributes over $5billion to the national GDP and $2.6 billion to NSW economy every year.

The industry is recognised by the NSW Government as being of state and national significance and one of two critical clusters in the Hunter Valley (equine and wine). NSW Government policies, including the Upper Hunter Strategic Land Use Plan and the Hunter Regional Plan 2036 both recognise the importance of the industry and prioritise the protection of the Equine Critical Industry Cluster to allow for expansion of the industry[2].

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.

[1] See also IER 2014 Report *Size and Scope of the NSW Racing Industry,* commissioned by the NSW Government http://www.olgr.nsw.gov.au/pdfs/racing/NSWRacingStudy_lowres.pdf

[2] See for example*, Hunter Regional Plan 2036*, p 70 Regional Priorities

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, and Dubai's Godolphin 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.

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 chose 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 over 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. It is also internationally recognized as a centre of excellence and respected as a producer of premier Australian thoroughbred and world thoroughbred champions.

The fragmentation 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.

Over the past two decades 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.

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 over 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 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. It regularly attracts some 10,00 visitors to the region. The **Thoroughbred Breeding Stallion Parades**, held in the last weekend in August also annually, attract some 5,000 – 10,000 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.

HUNTER VALLEY THOROUGHBRED BREEDING INDUSTRY ECONOMIC SIGNIFICANCE

Internationally Significant	
1 of 3	International Centres of Thoroughbred Breeding Excellence in the World – alongside Kentucky in the USA and Newmarket in the UK
Largest	Concentration of thoroughbred studs in the world outside Kentucky USA
Largest	Australian producer & supplier of premium thoroughbreds
Largest	Australian exporter of premium thoroughbreds, representing:
• 80.35%	Imports from Australia to New Zealand
• 58.65%	Imports from Australia to the Philippines
• 51.63%	Imports from Australia to Macau
• 43.54%	Imports from Australia to Malaysia
• 38.83%	Imports from Australia to Hong Kong
Nationally significant	
$5b	Contribution to national GDP annually
230,000	Jobs generated and sustained nation wide
State Significant	
$2.6b	Contribution to NSW economy annually
53,696	People employed or participating in thoroughbred breeding and racing in NSW
34,000	People directly involved in breeding, racing or training in NSW
21,837	Thoroughbred owners in NSW
134	Racing Clubs in NSW
$175m	Investment in NSW Racing infrastructure underpinned by the quality of bloodstock & racing product produced in the NSW Hunter Valley

HUNTER VALLEY THOROUGHBRED BREEDING INDUSTRY REGIONAL SIGNIFICANCE

Regionally Significant	
55% +	Of the $2.6b total value added occurs in regional NSW
Largest	Agricultural industry in the Hunter Valley:
2 times	The value of irrigated agriculture
4.5 times	The value of dairy
10 times	The value of meat and cattle
200	Stallion and Broodmare farms
Sophisticated	Network of equine support industries dependent on Hunter Valley stud farms – including farriers, fodder producers, saddlers, equine transport companies and the Southern Hemisphere's largest equine veterinary practice, Scone Equine Hospital
Significant Regional Employer	
42,586	Employees and participants in regional NSW:
• 5,745	in the Hunter
• 10,159	in Sydney
• 5,633	in Western Sydney
• 9,693	in Mid North Coast, Central Coast, Illawarra, Southern Inland and South Coast
• 11,356	throughout the rest of regional NSW
Significant Regional Investor	
$5b +	Invested in the Hunter Valley's thoroughbred breeding industry in the past 10 years (and rising)
85%	Of breeders' operational expenditure occurs within the local region.

Hunter At A Glance	
470	Breeders
5, 745	Employees and Participants*
6	Race Clubs
78	Race Meetings – including the only Saturday Stand Alone meeting in regional Australia
595	Races
3,080	Racing Club Members
100,416	Attendances
$564.6m	Value added injected in the local economy by the thoroughbred breeding & racing industry
Sydney At A Glance	
10,159	Employees and Participants
3	Race Clubs
66	Race Meetings
494	Races
7,550	Racing Club Members
291, 858	Attendances
$11.1 billion	Value added injected into the economy by the thoroughbred breeding & racing industry
Western Sydney At A Glance	
5, 633	Employees and Participants
1	Race Club
76	Race Meetings
392	Races
8,149	Racing Club Members
237, 411	Attendances
$321.9 million	Value added injected into the Western Sydney by the thoroughbred breeding & racing industry

* Participants are the lifeblood of the industry. They provide investment, time, skills and passion that underpins the horse racing industry in the State.

SOURCE: IER Pty Ltd Report 2006; IER Pty Ltd Report 2014, Marsden Jacob Associates Report 2014, Australian Stud Book.